REVITALIZING OTTOMAN EQUINE HERITAGE: TRANSFORMATION OF 19TH CENTURY HORSE BREEDING PRACTICES AND THEIR IMPACTS ON THE OTTOMAN EMPIRE

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ABSTRACT

REVITALIZING OTTOMAN EQUINE HERITAGE: TRANSFORMATION OF 19TH CENTURY HORSE BREEDING PRACTICES AND THEIR IMPACTS ON THE OTTOMAN EMPIRE

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This dissertation investigates the historical significance of horses in various contexts, such as economic, social, scientific, and military domains, and their influence on human-animal relations. The thesis of this study posits that the interaction between humans and horses shows a biopolitical shift that occurred during the 16th-19th centuries in Europe, with the Ottoman Empire adapting to these changes. The study highlights the impact of humans on this interaction and their attempts to regulate it through modern state apparatus and veterinary science. To further elaborate on this thesis, it examines the evolving attitudes towards horses, breeding, and horse care in the European context and the biopolitical approach that emerged as a result. This approach involved the use of modern state apparatus, scientific practices, and veterinary medicine to manage horse populations and their role in society. Subsequently, the study explores the Ottoman Empire's approach to horse management and adaptation to the changing European attitudes toward horses. The Ottoman Empire faced a "horse problem" and utilized similar methods to the European model, such as state stud farms, veterinary

schools, and statistics. By examining the impact of horses on human-animal relations and the biopolitical approach to managing them, this study provides a comprehensive understanding of the historical significance of horses in various contexts. Additionally, it sheds light on the ways in which human attitudes and practices towards animals can shape the biopolitical landscape and have far-reaching consequences. Ultimately, the study contributes to the broader discourse on animal agency and its relation to human history.

Keywords: Horses, Animal History, Biopolitics, Ottoman Horses.

ÖZ

OSMANLI ATÇILIK MİRASININ YENİDEN CANLANDIRILMASI: 19. YÜZYIL AT YETİŞTİRİCİLİĞİ UYGULAMALARININ DÖNÜŞÜMÜ VE BUNLARIN OSMANLI İMPARATORLUĞU ÜZERİNDEKİ ETKİLERİ

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Bu tez, atların ekonomik, sosyal, bilimsel ve askeri alanlar gibi çeşitli bağlamlardaki tarihsel önemini ve insan-hayvan ilişkileri üzerindeki etkisini araştırmaktadır. Bu çalışmanın tezi, insanlar ve atlar arasındaki etkileşimin 16.-19. yüzyıllarda Avrupa'da meydana gelen biyopolitik bir değişimi gösterdiğini ve Osmanlı İmparatorluğu'nun da bu değişimlere uyum sağladığını ileri sürmektedir. Çalışmanın teorik çerçevesi, insanların bu etkileşim üzerindeki etkisini ve bunu modern devlet aygıtları ve veterinerlik bilimi aracılığıyla düzenleme girişimlerini vurgulamaktadır. Bu tezi daha da detaylandırmak için çalışma, Avrupa bağlamında atlara, yetiştiriciliğe ve at bakımına yönelik gelişen tutumları ve bunun sonucunda ortaya çıkan biyopolitik yaklaşımı incelemektedir. Bu yaklaşım, at nüfusunu ve atların toplumdaki rolünü yönetmek için modern devlet aygıtlarının, bilimsel uygulamaların ve veterinerlik tıbbının kullanılmasını içermektedir. Daha sonra çalışma, Osmanlı İmparatorluğu'nun at yönetimine yaklaşımını ve Avrupa'nın atlara yönelik değişen tutumlarına nasıl uyum sağladığını incelemektedir. Osmanlı İmparatorluğu bir "at sorunu" ile karşı karşıya kalmış ve bu sorunu çözmek için

devlet haraları, veteriner okulları ve istatistikler gibi Avrupa modeline benzer yöntemler kullanmıştır. Atların insan-hayvan ilişkileri üzerindeki etkisini ve onları yönetmeye yönelik biyopolitik yaklaşımı inceleyen bu çalışma, atların çeşitli bağlamlardaki tarihsel öneminin kapsamlı bir şekilde anlaşılmasını sağlamaktadır. Ayrıca, insanların hayvanlara yönelik tutum ve uygulamalarının biyopolitik düzenlemeyi nasıl şekillendirebileceğine ve geniş kapsamlı sonuçlara nasıl yol açabileceğine ışık tutmaktadır. Nihayetinde bu çalışma, hayvan failliği ve bunun insanlık tarihiyle ilişkisi üzerine daha geniş bir söyleme katkıda bulunmaktadır.

Anahtar Kelimeler: Atlar, Hayvan Tarihi, Biyopolitika, Osmanlı Atları.

For Mithra and Feiwell

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LIST OF ABBREVIATIONS

A.} MKT.MHM.	Saderet, Mühimme Kalemi Evrakı
A.} MKT.MVL.	Sadaret, Meclis-i Vala Evrakı
A.} MKT.UM.	Sadaret, Umum Vilayat Evrakı
ABD	Amerika Birleşik Devletleri
BEO	Bab-ı Ali Evrak Odası
BOA	Başbakanlık Osmanlı Arşivi
C.DH.	Cevdet, Dahiliye
C.HR.	Cevdet, Hariciye
DH. HMŞ.	Dahiliye, Hukuk Müşavirliği
DH.MB.HPS. M.	Dahiliye, Müteferrik
DH.MKT.	Dahiliye, Mektubi Kalemi
DH. ŞFR.	Dahiliye, Şifre Kalemi
H.	Hicri (Hijri)
HR.MKT.	Hariciye Nezareti, Mektubi Kalemi
HR.SFR.3.	Hariciye Nezareti, Londra Sefareti
HR.SYS.	Hariciye Nezareti, Siyasi
HR.TH.	Hariciye Nezareti, Tahrirat
İ..HR.	İrade, Hariciye
İ.MMS.	İrade, Meclis-i Mahsus
İ.MVL.	İrade, Meclis-i Vala
M.	Miladi (The Gregorian Calendar)
M.V.	Meclis-i Vükela Mazbataları
MB.İ.	Mabeyn-i Hümayun Evrakı İradeleri
nr.	Numara (Number)
PLK. P.	Plan-Proje-Kroki, Plan-Projeler

R.	Rumi
s.	Sayfa (Page)
TŞRBNM.	Bosna Müfettişliği Evrakı
USA	United States
Y.A.HUS.	Yıldız, Hususi Maruzat
Y.EE.	Yıldız, Esas Evrakı
Y.MTV.	Yıldız, Mütevenni Maruzat
Y.PRK.ASK.	Yıldız, Askeri Maruzat
Y.PRK.BŞK.	Yıldız, Başkitabet Dairesi Maruzatı
Y.PRK.EŞA.	Yıldız, Elçilik, Şehbenderlik ve Ateşemiliterlik
Y.PRK.HH.	Yıldız, Hazine-i Hassa
Y.PRK.OMZ.	Yıldız, Orman, Maadin ve Ziraat Nezareti Maruzatı

CHAPTER 1

INTRODUCTION

Over the past few decades, animal studies have gained significant attention from researchers. These studies have explored a wide range of animals, from domesticated species like sheep, cattle, bees, and silkworms, to wild animals such as wolves, rats, and exotic creatures. The findings of these studies have revealed that human history is deeply intertwined with the natural environment and the relationships between humans and animals. However, the inclusion of animals as subjects in historiography is a relatively new development. Even when animals have been discussed in historical studies, they have been viewed as objects and materials within agriculture, the economy, and the military, with a notable absence in most historical archives and studies.[1] In recent years, historiography has shifted to become more inclusive of animals, as demonstrated by Shaw.[2] This has paved the way for the discussion of animal agency in historical studies, with a focus on animal personalities and behavior in ethology. Nonetheless, there is a risk of anthropomorphism in both disciplines, and debates continue over whether animals possess moral agency and if attributing morality to animals constitutes anthropomorphism.[3] In this dissertation, the aim is to contribute to the literature on animal histories by studying Ottoman horses and their place in the various structures of Ottoman life. Specifically, the study examines the biopolitical

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[1] Albert G. Way, William Thomas Okie, Reinaldo Funes-Monzote, Susan Nance, Gabriel N. Rosenberg, Joshua Specht, and Sandra Swart, "Roundtable: Animal History in a Time of Crisis," *Agricultural History* 94, no. 3 (2020): 446.

[2] David Gary Shaw, "A Way with Animals," *History and Theory* 52, no. 4 (2013): 4-5.

[3] Grace Clement, "Animals and Moral Agency: The Recent Debate and Its Implications," *Journal of Animal Ethics* 3, no. 1 (2013): 1–14.

approach towards Ottoman horses in the second half of the 19th century. Through this research, the hope is to gain a better understanding of the historical significance of animals and their agency, while also contributing to the ongoing discourse on animal studies.

The relationship between humans and horses has been complex and multifaceted throughout history. While horses have played a significant role in human society, humans have also shaped and influenced horses through various practices and institutions. The biopolitical structures of the emerging modern state have played a significant role in this relationship, promoting the lives of horses through the development of institutions and practices aimed at managing their bodies and improving their health and performance.

In addition to promoting the welfare of horses, modern establishments have been developed to improve their lives. Horse racing, for example, is a popular sport that has generated significant interest and investment in the breeding, training, and care of horses. Equestrian sports, such as show jumping and dressage, have also developed modern techniques and equipment to ensure the safety and well-being of horses. Furthermore, modern transportation systems have been developed to ensure the safe and comfortable transport of horses. While the relationship between humans and horses has been complex throughout history, with horses being used as tools for labor, war, and sport, there has been a growing recognition of the importance of their welfare and well-being. This has led to the development of modern establishments and regulations to ensure their proper treatment and care.

Horses played a crucial role in various aspects of life, including the economy, technology, politics, and warfare. Therefore, they should not be overlooked in historical writing. Instead of viewing them as passive objects, their contributions to history through their needs, labor, care, and integration into daily life should be recognized. Doing so could provide a more comprehensive understanding of the past. To this end, this dissertation explores human-animal relationships from two perspectives. Firstly, it seeks to provide a broad overview of how interactions between humans and animals shaped the lives of both parties. Secondly, it investigates how these interactions and perceptions were influenced

by daily life, historical changes, and philosophical beliefs. This exploration is focused on the interactions between horses and humans, drawing from both primary and secondary sources. Furthermore, this study analyzes the changes in the perception of the horse body and its control, and the increasing influence of horses in various spheres of life during the 19th century. By examining these factors, a deeper understanding of the human-animal relationship and its impact on history can be gained.

Animals that worked and lived side by side with humans and even animals that lived in the wilderness affected human lives socially, economically, ecologically, politically, militarily, and philosophically. This was not just through their labor and actions but also by their physical limits, the capabilities of their bodies, and their impact on the structures of the human world through their labor and presence in these structures. In human-centered viewpoints, in some religions and literary works, if the human is the main actor, animals are the representative of the other. They are the most recognizable element of nature for people because they can move, respond, and act independently. In most cases, animals became a way how humans defined themselves through binary oppositions, differences, and similarities. Moreover, horses were prime movers in a world that depended on animal power. They formed a part of technologies and wars, and they constituted the subject of science. Together with other animals, horses had a role in creating the human identity, and their presence in human life had cultural implications. Horses were not only used for certain tasks but also had social significance. For example, fine horses were a suitable royal gift, and they were functional in creating an identity.

The sole fact that horses were used in various areas of life makes the horse an essential factor in history. Horses and other animals have a shaping role in many constructions, such as roads, railways, and canals; the way they were built had to take the animals, the power of many vehicles, into account. Their presence and labor in agriculture, economy, and technology shaped inns, farms, and manors; they made transporting heavy materials, goods, and people on land possible. Their presence and uses also shaped war tactics. People had to make their decisions by considering their animals' physical and behavioral characteristics, and allocate

time, labor, and resources for their care. This suggests that animals have a complex agency in history that is only obvious if we take them out of these diverse structures; as animals, whether wild or domesticated, have been embedded into human life since the beginning of history, but they were taken for granted, making them unseen in historical records in comparison to ordinary people. The philosophical and religious understanding of human superiority further makes their effect on history invisible and disregarded. Accordingly, an understanding of a multi-layered historical agency, which includes many segments of people, the subaltern, the animals, and the environment without their obvious actions and rationality, but through their actual effect on shaping history, even just with their presence, can open pathways in history writing.

The agency of animals has been a topic of increasing interest among researchers in recent years. Horses have played a significant role in human history, from transportation to war. The control over horses did not mean that these animals were passive creatures that had no effect on human deeds or on their own lives. People could subordinate horses only to the extent these animals were willing to accept their control. Horses could resist and fear, causing accidents. Moreover, humans could shape the bodies of horses and train them only to the extent of the limitations and capabilities of the animals and their bodies. As a result, animal agency may be approached from the context of human-animal interactions in which both animals and humans influence and shape the actions of one another in a constant and dynamic manner. These actions did not have to be rational and conscious but had to have an influence on historical events and transformations. Acknowledging the agency of animals, particularly horses, can provide a deeper understanding of the historical events and transformations that have shaped human societies. By recognizing the dynamic and reciprocal nature of human-animal interactions, historians can develop a more nuanced understanding of the past.

In this regard, horses played a significant role in various spheres of human life, including production, military, and transportation. The importance of horses in these areas prompted humans to attempt to shape them physically, genetically, and socially to better suit their needs. Therefore, since the domestication of horses, they were trained to act in a certain way or carry out tasks, and their bodies have

been transformed in accordance with human wishes. The horse was selectively bred for thousands of years and was modified according to human needs by traditional written and oral knowledge. However, the development of scientific rationality and the modern state, and the increasing need for horse labor, turned the control and modification of the horse body into a more systematic and unilateral shape. The first signs of this change started in the 16th century and this systematical approach consolidated toward the 19th century. The increasing control over animals was first reflected in the systemization of the control in horseback riding, culminating in the form of dressage, in other words, the "*haute école*" from the 16th century onwards, to find harmony, elegance, cooperation, and control in riding, all at the same time. In the Foucauldian understanding of biopolitics, this can be correlated to disciplinary power directed toward individual bodies. The modern scientific betterment of horse breeds culminated in the 19th century, when the control over the horse body became more mechanical and effective while retaining an understanding of elegance. The aim was not solely to create better and different types of horses for the various jobs they were expected to do, but the beauty and elegance of the breed were also considered essential and were closely related to the emphasis on identity. The emphasis on elegance and identity in horse breeds became essential, reflecting the growing control humans had over the animal.

In the long run, the betterment of horse breeds, that is, changing the bodies of horses with human interference, became more systematic and precise as a response to a new scientific understanding that included rationality, technology, and medicine. In other words, the selection of stud horses and broodmares, which was based on traditional knowledge or was carried out haphazardly, started to become a scientific phenomenon directed toward the population of horses rather than individual horses owned by a segment of people. Moreover, breeding horses have been incorporated into the capitalist economy, and many were exported and imported annually. There was a very close connection between the efforts to improve horse breeds and the horse trade. Whenever horse breeding improved, the horse trade supported it. As the demand for horses rose with technological improvements in transportation, agriculture and the military, the improvement of horses and their trade became essential in Europe and the USA in the 19th century.

As the Ottoman Empire could not be indifferent to these developments and their effects, its attitude toward its horse population in general was altered in line with modern developments, but with its historically shaped variables.

Throughout the history of the Ottoman Empire, horses played a crucial role not only in military affairs but also in various other aspects of life, including transportation, trade, and social activities. As a result, the Ottoman state invested significant efforts in improving the horse population and quality to meet the diverse needs of its society. Although the primary objective of these initiatives was to provide a sufficient pool of above-average horses for the military, the far-reaching impact of such projects extended beyond the military domain.

Indeed, the availability of quality horses positively affected many other areas of Ottoman life. For instance, improved transportation networks facilitated using horses led to enhanced trade and commerce, as goods could be transported more efficiently and at a lower cost. Additionally, horses were central to social and cultural life, where they were used in traditional sports and leisure activities.

Therefore, the Ottoman Empire's investment in horse breeding and husbandry had multifaceted benefits. It not only improved the military's capacity but also had far-reaching consequences that impacted the broader society. As a result, horses became an integral part of Ottoman culture and played an essential role in shaping the empire's history.

The establishment of modern stud farms can be viewed as a continuation of previous efforts and traditions, rather than a completely new phenomenon. The difference lies in the use of scientific knowledge in horse breeding, such as selective breeding, and the integration of new state apparatus and bureaucracy. However, horses were still seen as living beings and tools to be improved and maintained, and improving horse breeding was not a new concept. Biopolitics also played a role in the systemization of horse breeding, which became directly linked to modern state apparatus and contemporary warfare and lifestyles after the 18th century.

Studying horses presents several challenges and limitations, particularly when examining Ottoman archival sources. Suraiya Faroqhi notes that locating information about animals in tax registers from the 15th and 16th centuries is a

daunting task due to the ease with which animals could be concealed from tax collectors. As such, only animals that could not be concealed are recorded, leaving significant gaps in the historical record.[4] Other potential sources of information include *Mühimme defterleri* (Chancery registers), *Vilayet Ahkam defterleri* (Provincial Administrative registers), *terekeler* (post-mortem inventories), T*emettuat defterleri* (revenue registers), palace menagerie, and *Kadı sicilleri* (kadı registers), each with its unique challenges and opportunities.[5] Besides being taken for granted, locating information on animals remains arduous and requires rigorous work in the Ottoman Empire. For example, despite the ubiquitous use of horses in transportation, little is known about this topic due to the scarcity of sources.[6] Adding to the problem, most records contain only practical information such as the number or value of animals, or at most, their breed and color, leaving out their individual histories. Kathryn Elizabeth Renton highlights the fact that "animals do not leave their own written traces" and, despite the significant impact horses had on various aspects of life, archival information is limited because horses are not usually used as a categorization subject when cataloguing archives.[7] These concerns about animal histories have parallels with subaltern histories.

As animal agency is a relatively new phenomenon, archival and published primary sources and the bulk of the secondary sources do not explicitly point to the actions and significance of the horse in history. This required rereading these sources from a new perspective and discerning the unseen animal hitherto defined only by their material side and numbers, by the concerns and needs of the state, and by their improvement and breeding from the human point of view. Selected documents from the *Başbakanlık Osmanlı Arşivi* (Ottoman Archives of the Prime

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[4] Suraiya Faroqhi, "Introduction," in Animals and People in the Ottoman Empire, ed. Suraiya Faroqhi (Istanbul: Eren, 2010), 15-16.

[5] Suraiya Faroqhi, "Introduction," 17-20.

[6] Suraiya Faroqhi, "Horses Owned by Ottoman Officials and Notables: Means of Transportation but Also Sources of Pride and Joy," in Animals and People in the Ottoman Empire, ed. Suraiya Faroqhi (Istanbul: Eren, 2010), 294.

[7] Kathryn Elizabeth Renton, "A Social and Environmental History of the Horse in Spain and Spanish America, 1492-1600" (PhD diss., University of California, 2018), 5.

Ministry) were used to understand the Ottoman Empire's attitude toward the new developments in horse breeding and the place of horses in Ottoman history. The travelogues were helpful to grasp how horses were included in daily life, and some of them could even give ideas on some individual horses themselves. The primary published sources from the Ottoman Empire were also helpful in understanding many topics discussed in this dissertation ranging from viewpoints about scientific horse breeding to animal abuse. The secondary sources and PhD dissertations, on the other hand, allowed seeing the horse in a broader context. Some European attitudes toward horses were exemplified through a review of selected sources in the appendices. This part was added to put the Ottoman example in context but was not included in the chapters to prevent deviating from the subject. For example, Fleming's book included all animals from which I could gain information about horse epizootics in the 19th-century Europe.[8] This showed that the problem of horse diseases was not peculiar to the Ottoman Empire at the time.

Some of the secondary sources I used either did not explicitly focus on horses or took them for granted focusing on their material function. However, they offered important data that could be viewed from a different perspective. Likewise, many of the primary sources treat the horses as tools or materials, and some of them do not explicitly focus on horses.

Besides these sources, there are valuable studies on the horses and other animals of Europe, the USA, and the Ottoman Empire. For example, Ann Norton Greene's book about horses' role in industrializing the USA offered many ideas that could be used in studying Ottoman horses.[9] Some of the points she made were also discussed by late Ottoman scholars such as İhsan Abidin and Ahmed Cevad. Likewise, McShane and Tarr's study was a very important contribution for the literature, and their argument that horses were seen as "living machines" in the 19th

[8] Fleming, George. *Animal Plagues: Their History, Nature, and Prevention, Vol. 2, From A.D. 1800-1844.* London: Baillière, Tindall, and Cox, 1882.

[9] Ann Norton Greene, *Horses at Work: Harnessing Power in Industrial America*, (Cambridge, Massachusetts; London, England: Harvard University Press, 2008).

century could be validated by many primary published sources.[10] However, I changed this term to "biological machine," because it reflected and presented the biopolitical turn better, and because I have realized that in the 19th century, the biological functions and their perseverance, maintenance, and fostering of the body were seen as more important than the actual life of the animals. Although Alan Mikhail's study did not focus on horses in Egypt, comparing his findings with the findings in the USA helped understanding a transformation of human-animal relations and the effect of animals on people. The memoirs of Sophia Lane Poole and the pamphlet of Isabel Burton could offer many insights about the place of animals in transportation when animal populations were shrinking in the 19th-century Egypt. Moreover, edited books such as *The Horse as Cultural Icon: The Real and the Symbolic Horse in the Early Modern World,*[11] *At Kitabı,*[12] and *Animals and People in the Ottoman Empire* contained information about horses in various subjects.[13] Horses were first and foremost used in wars, and they shaped the conditions of war with their qualities, presence and absence. In this respect, *The Armies of Europe Illustrated* offers up-to-date information about the place of the horse in different European countries, including the Ottoman Empire, in 1890.[14] Fatih Yeşil and Ömer Gezer's article about rapid-fire artillery gave important data about the importance of horses in new artillery technologies.[15] Moreover, their study revealed that the problem of supplying enough horses existed before the end of Crimean War in 1856, which is sometimes pointed out as the date when the horse supply problem started in the Ottoman Empire.

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[10] Clay McShane, and Joel A. Tarr, *The Horse in the City: Living Machines in the Nineteenth Century*, (Baltimore: The Johns Hopkins University Press, 2007).

[11] Peter Edwards, Karl A.E. Enenkel, and Elspeth Graham, eds., *The Horse as Cultural Icon: The Real and the Symbolic Horse in the Early Modern World,* (Leiden; Boston: Brill, 2012).

[12] Emine Gürsoy Naskali, ed., *At Kitabı*, (İstanbul: Kitabevi, 2017).

[13] Suraiya Faroqhi, ed., *Animals and People in the Ottoman Empire,* (İstanbul: Eren, 2010).

[14] Fedor Von Köppen, *The Armies of Europe Illustrated,* trans. Count Gleichen, (London: William Clowes & Sons, 1890).

[15] Fatih Yeşil and Ömer Gezer, "Osmanlı İmparatorluğu'nda "Sürat" Topçuluğu II (1773-1807): Taktik, Talim, Muharebe Performansı ve Nizâm-ı Cedid," *Osmanlı Araştırmaları* 53, (2019): 231-286.

The discussions on early veterinary works before the emergence of modern veterinary science are mostly restricted to early Islamic veterinary studies called *baytarname*. It was because they were primarily discussed in the Ottoman context, even though they can be a valuable source for animal studies. By focusing on them, I hoped to put them in a much larger context by including them in this dissertation which aimed to make connections between different studies and geographies. As *baytarnames* took upon the ancient veterinary studies and developed them and contained religious and cultural elements, they had a considerable contribution to understanding the horse body and the treatment of its diseases as well as the place of the horse in the geographies where they were used. Furthermore, these studies on horses demonstrated the difference between traditional and biopolitical approaches to horses.

The term biopolitics which is based on Foucault's ideas that could be found in volume one of *The History of Sexuality*,[16] and his lecture *Society Must Be Defended,*[17] and later developed by scholars like Giorgio Agamben and Thomas Lemke is used to understand new approaches of the state to animals. It is observed that the sovereign power over biological life and its control was not only restricted to humans but also reflected on how the modern state and science handled animals that had a close relationship to human life. The examples of a rise of biopolitical approach to horses, which included a systematical analysis, control, and modification of the horse population could also be observed in the Ottoman Empire, regardless of their success or failure. Most of the discussion about the biopolitics on horses is based mostly on archival and primary published sources and their evaluation. These sources showed that the Ottoman Empire had a "horse problem", an insufficient number of horses for the needs of the military and other areas from agriculture to modern transportation such as horse trams, and a supposed deterioration of Ottoman horse breeds. Whether the Ottoman horses

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[16] Michel Foucault, *The History of Sexuality: Volume I: An Introduction*, (New York: Pantheon Books, 1978).

[17] Michel Foucault, ""Society Must Be Defended," Lecture at the Collège de France, March 17, 1976," in *Biopolitics: A Reader*, ed. Timothy Campbell and Adam Sitze, (Durham and London: Duke University Press, 2013).

really deteriorated or seemed small and weak in comparison to the increasing demand for work and European horse breeds that had been systematically improved with the aid of new control mechanisms from the 17th century on, is open to discussion. On the other hand, the fact that the Ottoman state tried to develop its horse breeds with the methods and control mechanisms that were common to the era reflected a similar mentality with other states in Europe and the USA working for the same purpose. This bureaucratic mechanism included state stud farms, stallion depots, remount stations, an administration of state farms, horse breeder societies, veterinary and zootechnical schools, information gathering tools such as inspectorships, statistics, and records of birth, death, physical characteristics and breed. This stemmed from a relationship between state and knowledge mechanisms.

The second chapter gives a general framework of the relationship between horses and humans. First, the uses of horses in different aspects of human life and history and the effects of their presence in those aspects are investigated. Second, the impact of humans on horses is examined and discussed through developments, changes in perceptions, biopolitics, and viewpoints toward animals in the 19th century. Animal agency and transformation in human-animal relationships in the 19th and early 20th centuries are discussed based on these sections that present horse-human interactions.

The third chapter studies the subjects mentioned above in more detail. It focuses on these two sides of the animal-human relationship in the Ottoman Empire. The first section of the chapter focuses on the uses and limitations of Ottoman horses, which demonstrates the role of their presence in the military, transportation, agriculture, social life, and commerce. Different breeds of horses, their strengths, and their limitations are discussed. Moreover, the ideas of some Ottoman writers about horse care and trade are given a place concerning these strengths and limitations. In the second part of the third chapter, the Ottoman efforts are presented in biopolitics. These efforts included those for modern horse-breeding, implementing rational methods through new establishments and bureaucratic apparatus, and adopting modern scientific veterinary science.

Overall, the second chapter delves into the subject of animal agency, specifically the impact of horses on human history and the reciprocal relationship between human actions and animal life during a transformative period characterized by rationalism, mechanical innovation, and technological changes. It highlights the importance of horse breeding as a systematic and scientific occupation on the state level, with failure to adapt potentially causing issues for the state due to the rising demand for horses. The chapter also touches on the declining number and quality of Ottoman horse populations from the 18th century, which was not addressed until the 19th century as part of the Ottoman state's modernization endeavors. The third chapter will build upon these concepts and place Ottoman horse breeding projects within the global context presented in the previous chapter, evaluating the Ottoman horse's role in various aspects such as military, transportation, agriculture, races and expositions, and horse trade.

Appendix C is comprised of selected works from the 19th and early 20th centuries and their analysis. They exemplify the attitudes toward horses in different European countries, the United States, and the colonized India. Through these texts, the impact of the horse's presence in history, animal agency, and biopolitics on horses are investigated. The uses, breeding, improvement, care, training, and diseases of horses, their role in social life, veterinary science, and the horse trade are discussed through comparisons with the Ottoman Empire.

In conclusion, this dissertation examines the complex relationship between horses and humans. The first two chapters offer a broad overview of the impact of horses on human history and vice versa, while the third chapter focuses specifically on the Ottoman Empire and its efforts to regulate and improve horse breeding and care. The inclusion of Appendix C adds a valuable comparative perspective, allowing readers to gain insight into how attitudes and practices surrounding horses varied across different regions and cultures. Overall, this dissertation sheds light on the intricate and evolving interactions between humans and animals, underscoring the importance of understanding and respecting the agency and welfare of non-human beings in our shared world.

CHAPTER 2

THE INTERACTION BETWEEN HUMAN AND ANIMAL AGENCIES

Horses have been a part of history since their domestication thousands of years ago. In various cultures and geographies, people tried to find methods to use them for their best advantage. On the other hand, horses required humans to act and devise methods, from cultivating food for animals to inventing technologies and methods to subdue them and overcome their resistance. As horses were incorporated into human structures, their presence and characteristics shaped these structures and became a part of them. The first section of the chapter discusses the role of the horse in history, how horses and humans shaped and affected each other, and how transformations of mentality and technology could affect this relationship. The effect of horses is discussed through their uses in three sections. The impact of humans is examined through a change of mentality discourse and biopolitics. The third section deals with the animal agency upon these discussions.

Animals acted in many ways, ranging from working beside humans to attacking them. This caused humans to act and respond in a certain way. The same was true for the animals. As humans killed or domesticated animals, trained or encaged them, this caused animals to act or respond and evolve into different kinds of animals. An example of this is the difference between wolves and dogs. Another example is while zebras could not be domesticated, horses were. Therefore, instead of regarding animal-human interactions from a hierarchical point of view, rendering animals' passive objects, one can see a circular interaction in which both parties affect each other according to the characteristics of their species:

The intricate and evolving relationship between horses and humans is a fascinating subject that sheds light on the history and development of human societies. As this dissertation highlights, horses have played a crucial role in human history, and their presence and characteristics have shaped various human

structures. Meanwhile, humans' impact on horses and the evolution of the species have also been significant. In the following section, the interactions between horses and humans as subjects and objects of history will be discussed.

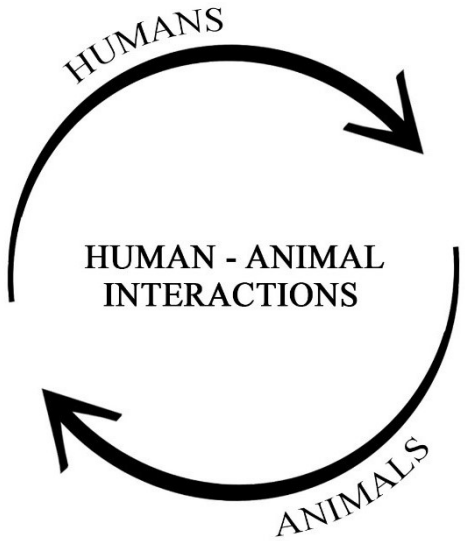

Figure 1: A Non-hierarchical Model of Human-Animal Interactions

2.1. The Impact of the Horse on Humans

The relationship between the horse and the human was formed together for thousands of years, and it affected humans as much as horses.[18] Horses' natural characteristics had an influence on humans. Aside from their labor, horses had many other ways that affected human life. The fact that owning showy and attractive horses brought prestige to the people is linked to the physical attributes and behavior of horses. In other words, the characteristics and behavior of horses influenced humans as these natural attributes turned them into symbols of power, courage, nobility, and wealth. The cult of the horse in literature, arts, and the value that is given to them by almost all peoples around the world are also linked to these

[18] Unlike zebras, for example, horses were not overly spooky, and they were milder, therefore they were willing to cooperate and even accompany people. A closer look at zebras may show how the natural characteristics of the horse and its long history of relationship and interaction with humans can influence their use and place in human history. For more information see: Appendix B. Taming Zebras.

characteristics; their willingness to conform to human wishes, physical appearance, strength, and speed.

In the following three subsections I will show the multifaceted role of horses in human societies throughout history. The horse has been much more than just a mode of transportation or a domesticated animal for labor. As a technology and means for production, consumption, and transformation, horses have been integral to agriculture, transportation, and trade. In many cultures, the horse has also been a symbol of cultural identity and prestige, serving as a cultural icon and means for aesthetics, prestige, and religion. Furthermore, the horse has been a war machine, carrying soldiers into battle and influencing the outcome of wars. Its role in war has also made it a subject of scientific study, leading to advances in veterinary science and medicine. These different roles of the horse show the diverse ways in which it has impacted human history and culture, making it an important subject of study and appreciation.

2.1.1. The Horse as a Technology and a Means for Production, Consumption, and Transformation

Although it may sound odd to call a living being like the horse a technology in the contemporary world, horses, oxen, donkeys, camels, and mules were a part of many technologies and the main power source for them. These included plows, carts, wagons and carriages, riding-saddles, pack-saddles, bits, harnesses, mills that use animal power, and war strategies to name a few. Regardless of the location, whether wild or domesticated, animals were in the core of peoples' lives, so much taken for granted that they are sometimes not found easily in historical documents, or at least the existing records are only a beginning.

As one of the prime movers, horses had importance in a technological sense. Suraiya Faroqhi says that animals were the main source of energy in the Ottoman Empire, and gives the example of Istanbul, where people grounded their flour with mills that were driven by horses.[19] In the 16th century, when there was

[19] Faroqhi, "Introduction," 11.

not enough water for the water mills to operate in the summers, and when the ships were not able to approach the port in the winters, there would be a shortage of bread in Istanbul, and bakers would have to use horse mills in such cases.[20] The grains which were ground through horse mills and the bread were also carried to the districts and villages by horses.[21]

Similarly, horses were indispensable for the transportation of food and other needed supplies, and cart horses and pack horses were used and hired widely in Medieval England.[22] According to John Langdon, in the late 11th century England, 70 percent of the power was provided by animals while the rest of it was supplied by mills and human labor.[23] Horses could pull equal loads 50 percent faster than oxen, [24] even though oxen were still used more than horses.

The importance of the horse in England did not stop in the Medieval Era. In the mid-18th century, many roads in England were only suitable to travel on horseback, and pack horses were more common for the transportation of goods than wagons for the same reason.[25] Evans states that even though in the middle of the 18th century, the English road system was theoretically complete, and some early pioneering works on roads improved them, the actual roads were less than satisfactory. Most of the roads were not suitable for wheeled transport and pack-horses were the only way to transport items, and they could only go in a line in these narrow roads, many of which too narrow even for horses. It was not the best way to transport items as horses could pull heavier loads than they could carry on

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[20] Güler Yarcı, "Osmanlı Deniz Nakliyatında 'At Gemileri'," in *At Kitabı*, ed. Emine Gürsoy Naskali (İstanbul: Kitabevi, 2017), 48.

[21] Nevzat Erkan, "18. Yüzyıl Mahkeme Kayıtlarında Binek ve Nakliye Aracı Olarak Kullanılan Atlar," in *At Kitabı*, ed. Emine Gürsoy Naskali (İstanbul: Kitabevi, 2017), 133.

[22] John Clark, "Introduction: Horses and Horsemen in Medieval London," in *The Medieval Horse and His Equipment*, ed. John Clark (Woodbridge, The Boydell Press, 2004), 9-11.

[23] John Langdon, *Horses, Oxen and Technological Innovation: The Use of Draught Animals in English Farming from 1066 to 1500*, (Cambridge: Cambridge University Press, 1986), 20.

[24] Langdon, *Horses, Oxen and Technological Innovation,* 21.

[25] Philip S. Bagwell, *The Transport Revolution 1770-1985* (London: Routledge, 1988), 23.

their backs.[26] The most important reason for this was the ignorance of constructing durable roads during the 18th century when the main purpose was to protect the roads from vehicles.[27] However, towards the end of the 18th century, traveling started to become easier and more comfortable for the passengers, with the regular and fast mail coaches and "coaches with springs" which carried passengers along many of the routes.[28]

Horses and roads were inseparable; just knowing about the roads was not enough, the traveler had to know where to find post-horses and the prices for hiring them. A book that showed post roads published in 1783 included fees for hiring horses and chaises (a four-wheeled carriage) along with the distances between post stages.[29] A few decades later, another book about the roads in England and Wales also included places where one could find post-horses and the prices for renting them along with the measurements and the destinations of the roads. Quite reasonably, it was noted that while two pairs of horses cost double, a single horse was half of the price of a double horse.[30] In the 19th century, turnpike trusts improved the roads in Britain and led to the increase of vehicles and transportation with more comfort and speed.[31] In this regard, the number and use of stagecoaches increased tremendously, and people traveled 15-fold more in the 1830s than 40 years earlier.[32]

Until the complete elimination of the horse from the technological systems, it carried out some vital elements of life, and it was incorporated into and developed through different technological apparatus such as mills, plows,

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[26] Francis T. Evans, "Roads, Railways, and Canals: Technical Choices in 19th-Century Britain," *Technology and Culture* 22, no.1, (January 1981): 2-3.

[27] Evans, "Roads, Railways, and Canals: Technical Choices in 19th-Century Britain," 3.

[28] Evans, "Roads, Railways, and Canals: Technical Choices in 19th-Century Britain," 4.

[29] M. J. Armstrong, *An Actual Survey of the Great Post-Roads Between London and Edinburgh* (London: Charing Cross, 1783), 4-5.

[30] Lieutenant-Colonel Daniel Paterson, *A New and Accurate Description of All the Direct and Principal Cross Roads in England and Wales* (London: Cox, Son, and Baylis, 1811), IX, 67.

[31] Bagwell, *The Transport Revolution 1770-1985,* 29.

[32] Bagwell, *The Transport Revolution 1770-1985,* 31.

harnesses, improved carriages and roads. In the 18th and the 19th century, horses were still one of the main power sources in many areas of the world. The fact that they were taken for granted did not mean that they were unimportant; they retained their importance throughout the 19th century and the first half of the 20th century. Thus, they played an important part in history during that period as well.

Most often, the Transport Revolution, or in a broader manner, the Industrial Revolution evokes the vision of railways, the "iron horse", machines, steam engines, mechanization of everyday life, mechanization of time, clocks that show not the local but a country-wide time, and life in a mechanic order, surrounding both the urban and rural realm. According to this stereotype, the horse, as the prime mover, lost its dominance instantly with the modern technologies signified by the Industrial Revolution, as if the use of horses and machines were separated strictly and suddenly. However, the transition from horsepower to mechanical power was not so rigid; on the contrary, the transition itself would not be possible without the use of horsepower in some cases. Moreover, horses and other animals were still needed for various tasks, such as transporting goods, baggage, and people to railways and ports, traveling on rough terrains, and plowing the land.

Horses not only remained to be an indispensable part of life in the said era, but they could play a significant role in industrialization as well. The books of Ann Norton Greene as well as Clay McShane and Joel A. Tarr strikingly demonstrate the role of the horse in the industrialization of the USA in the 19th century.[33] 19th-century industrial urban life was so dependent on horses that never before humans had exploited horsepower to that extent,[34] and it was the only way to manage modern urban life. Norton says that there were 4.3 million horses and mules in the United States, and that this number had risen sixfold by 1910: to 27.5

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[33] Ann Norton Greene, *Horses at Work: Harnessing Power in Industrial America* (Cambridge, Massachusetts; London, England: Harvard University Press, 2008). Clay McShane and Joel A. Tarr, The Horse in the City: Living Machines in the Nineteenth Century (Baltimore: The Johns Hopkins University Press, 2007).

[34] Clay McShane and Joel A. Tarr, *The Horse in the City: Living Machines in the Nineteenth Century* (Baltimore: The Johns Hopkins University Press, 2007), 1.

million. This was almost twice as high as the human population growth.[35] Horses were still instrumental in England as well. According to Bagwell, after the success of the Liverpool and Manchester Railways, people thought that earlier means of transport have completely lost their uses. However, it was soon understood that if the roads were not parallel to the railroads, they were still busy, what is more, the railway opened new opportunities, especially for the transportation of passengers and goods that arrive or leave the station, even though it harmed stagecoaches.[36] Bagwell adds that people used to walk a distance to get to the coaches for travel, but as they became more accustomed to speed, they no longer wanted to walk and used short-stage coaches to travel to the railway. Besides, coaches were still used during a railway journey because the railways were not built everywhere yet.[37] Similarly, İhsan Abidin says in 1917 that although at the onset of the emergence of steam power and electricity people thought that horses were no longer going to be instrumental, the statistics have proven otherwise: There was an increase in the use of horses in many countries like France, Germany, and Bulgaria.[38] In this regard, Ann Norton goes as far as saying that the 19th century was "much more the age of horse power than the age of steam power," and that it was the horses, rather than steam-powered engines, which shaped environmental and cultural values that were related to the attitude of energy use in the twentieth-century, which reflected in the relationship between automobiles and people, and the language used for energy and movement.[39]

While the importance and use of the horse increased or at least retained its position in the eighteenth and nineteenth centuries in some cases, this period was also a turning point of the drastic shift in human-animal relations throughout

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[35] Ann Norton Greene, *Horses at Work: Harnessing Power in Industrial America* (Cambridge, Massachusetts; London, England: Harvard University Press, 2008), 41.

[36] Bagwell, *The Transport Revolution 1770-1985,* 126.

[37] Bagwell, *The Transport Revolution 1770-1985,* 126-127.

[38] İhsan Abidin, *Osmanlı Atları* (Matbaa-ı Âmire, 1917), د.

[39] Greene, *Horses at Work*, 9.

the globe. Egypt was a part of these shifting relations albeit in a different form. In contrast to the newly built, industrializing American cities, where the horses had to do a massive amount of labor in a mechanical way, in Egypt, the animal labor shifted to human labor because of environmental changes. These were drought and famine, which demonstrate the transformative power of natural factors in history.

In both cases people from different backgrounds, worldviews, religions, and histories were building modern cities with an idea of "civilization" in their minds, which also affected the attitudes toward animals. In this regard, as an example, Alan Mikhail not only helps us understand how Egypt was situated in the changing atmosphere starting from the 18th century on in the context of environmental history but also how a change in animal-human relations can impact the structure of society, tradition, bureaucracy and military technologies. Alan Mikhail goes as far as saying that the crucial reduction of livestock animals in Egypt between 1780 to 1820 was at least equally as important as Napoleon's invasion of Egypt or the rise of the power of Mehmet Ali.[40]

Thus, the reduction of working animal populations because of famines and droughts caused a prioritization of human labor in rural lands in Egypt, and with Mehmet Ali's coming to power, the construction of canals, roads, parks, zoos, and other structures, the once intermingled animal-human lives started to become apart and distant. Until that time, animals were the main motors of the rural economy since the domestication of animals, and it is only natural to assume drastic consequences of this abrupt change in the human-animal relations because the use of animal power was a part of the technologies that persisted for thousands of years.

The reasons for this transformation from animal to human power seem to be the devastating and lethal diseases, scarcities of food, harsh weather, as well as insufficient Nile floods, which had dire consequences on domestic animals and caused the human labor to become more prominent in Egypt.[41] At the beginning of the 1800s, even though camels, donkeys, and horses carried the building materials,

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[40] Alan Mikhail, *The Animal in Ottoman Egypt* (Oxford; New York: Oxford University Press, 2014), 39.

[41] Mikhail, *The Animal in Ottoman Egypt,* 42.

humans replaced animals as the labor force in canal work and construction projects in Egypt, which reflected in a new understanding of wealth: Before the famine and drought between 1780-1810, work animals were the most valuable property one could have in Egypt and the main indicator of wealth, however, the sharp decrease in their numbers caused the land to be seen as the main source of wealth in the countryside.[42]

As seen in this example, the presence and absence of animals affected history which was in part molded with and through animals: Because human labor became dominant instead of animal labor in Egypt, human relations were affected. Instead of using force on animals, this time, the object of forced labor became the labor of humans. They built the roads and canals, without using animals as the main power source.



Figure 2: This photograph from 1896 shows people carrying sacks of water from the ship, while a donkey brings another sack to the port.[43]

However, animals were still used when their strength could not be matched; they pulled and lifted heavy materials and transported items to the

[42] Mikhail, *The Animal in Ottoman Egypt,* 58-59, 91.

[43] Underwood & Underwood Publishers, The American University of Cairo. "Water-carriers at the Nile, Bulak, Egypt." Rare Books and Special Collections Digital Library. Accessed May 14, 2022. https://digitalcollections.aucegypt.edu/digital/collection/p15795coll8/id/64/rec/100

market.[44] Later, before the coming of railroads in 1851, Egypt dwelled on improving roads, widening and cleaning them to provide an easier journey for the people, animals, and carts.[45]



Figure 3: This photograph from 1870-1875 shows a caravan of camels, a few donkey riders, and a carriage pulled by a horse.[46]

It should be remembered that these endeavors like improving roads with new techniques were also present in other parts of the world at the time. Moreover, as it was mentioned before, the transformation of technology was not rigid and abrupt: there were at least quite several donkeys and mules still used extensively at the ports of Egypt in the 19th century for carrying goods and people. 19th-century photographs of Egypt also show many donkeys pulling carts, and being ridden, as

[44] Mikhail, *The Animal in Ottoman Egypt,* 41.

[45] Mikhail, *The Animal in Ottoman Egypt,* 59.

[46] General Research Division, The New York Public Library. "Le Caire passage du Kasr-en-Nil [Qasr al-Nil]." New York Public Library Digital Collections. Accessed May 14, 2022. https://digitalcollections.nypl.org/items/510d47d9-4b94-a3d9-e040-e00a18064a99

well as camels. In Figure 2, we can see that while human workers carried sacks of water, a donkey descending the stairs carried a sack to the port. In Figure 3, a square in Cairo seems to be filled with different animals used for transportation of goods and people. Figure 4 shows two men riding two mules with two boys accompanying them near Suez. These photographs, which are dated after 1870, show that animals were still a part of Egyptian social and economic life in the second half of the 19th century.



Figure 4: This photograph from 1870 - 1875 shows two men riding mules.[47]

The need for animals for transportation must be certainly more prominent too, as the traffic in the ports increased. According to the testimony of Isabel Burton, a member of the Society of Prevention of Cruelty to Animals, in Cairo, she observed "daily and hourly, mules flogged along drawing heavy loads, with broad stripes of flesh cut off their breasts, where the leather breastplate goes by which

[47] General Research Division, The New York Public Library. "Sues [Suez] dep. Kom-el-Kolzum." New York Public Library Digital Collections. Accessed May 14, 2022. https://digitalcollections.nypl.org/items/510d47d9-4a6c-a3d9-e040-e00a18064a99

they draw, for they have no collars; and many were also lame."[48] This shows that although ill-treated, mules were extensively used in Cairo. Right after the mules, she continues with the "beautiful thoroughbred, sensitive donkeys" of Cairo. After she writes in detail how these creatures were abused in agonizing ways, making them wounded and lame, she protests that people who treat them like this were so shortsighted that they did not know that the animals would work better if they were treated and fed better.[49] On the other hand, she says that in Alexandria the donkeys were in a better condition, "because the crowds of English daily landing, mostly turn with disgust from the donkey full of sores, and take the nice-looking, brisk, well-fed ones."[50] Contradictorily, she says in the following pages that in Alexandria and Suez, English passengers that come and go with "steamers" treat donkeys so cruelly that even "the donkey-boys" are disgusted with them, and that also other English-speaking passengers such as Australians and Americans treat donkeys badly, to the extent of maiming them for life after using them for only a couple of hours.[51] She also says that she learned from the residents that when the English troops have passed their area, the soldiers also used the local donkeys and when a soldier was not pleased with a donkey, he would cut off its tail, ear or even its throat with his sword.[52] Even though this could be an exaggeration, such stories showed that the local people thought of the English as cruel to animals, as much as the English thought of them in a similar way. After seeing this picture, with a "civilizing project" in her mind, Isabel Burton asks how they are going to "begin to reform the Arab," when their own people are doing worse than them.[53]

Regardless of the colonial mindset that these were written in and whether the animals were tortured to that extent or not, then, it is safe to say that even in the

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[48] Isabel Burton, *Prevention of Cruelty, and Anti-Vivisection* (London and Belfast: William Mullan and Son, 1879), 8.

[49] Burton, *Prevention of Cruelty, and Anti-Vivisection,* 8-9.

[50] Burton, *Prevention of Cruelty, and Anti-Vivisection,* 10.

[51] Burton, *Prevention of Cruelty, and Anti-Vivisection,* 15-16.

[52] Burton, *Prevention of Cruelty, and Anti-Vivisection,* 16.

[53] Burton, *Prevention of Cruelty, and Anti-Vivisection,* 16.

late 19th-century Alexandria and Cairo, donkeys and mules were used extensively for transportation. Even the new technology of steam-powered ships needed donkeys to transport the goods and people they were carrying, so they were still a part of the technological system. Therefore, we can infer that even though the working animals were not used in construction and agriculture as much as before, they were at least still used for transportation in Egypt even after the decline of the number of animals. Sophia Lane Poole, who visited Egypt in 1842, says that in Alexandria the cries of the camel drivers in the street are heard everywhere and "at every moment," and in front of her hotel, among other "beasts of burden," she saw "long trains of camels laden with water skins, or with bales of merchandise."[54] She also mentions that four horses were drawing the boat during her voyage through the *Mahmoudiyah* canal to the Nile, and because of that they were going rapidly.[55] She saw many fine buffaloes in the shallow water of the Nile; however, a few months later also witnessed the dire effects of the epizootic of the cattle and saw many cows and buffaloes lying dead in the river, which affected "the few who possessed cattle."[56] Poole says that the safest and the most convenient way to travel in the streets of Cairo is to ride donkeys, because they can find their way through the loaded camels in comparison to horses. She observed that ladies only rode donkeys whereas gentlemen rode horses more than donkeys, and sometimes had to turn back because of the camels.[57] This depicts busy streets with many animals, even though animals suffered from epizootics, they were still actively present in the daily lives of the people.

The shift from animal power to industrial power is a global transformation that has had enormous social, economic, and political consequences. While environmental factors may have contributed to this change, they are not the only cause, and the transformation was already underway before their impact. If Egypt

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[54] Sophia Lane Poole, *The Englishwoman in Egypt: Letters from Cairo,* vol. 1, (London: Charles Knight and Co., 1844), 19-20.

[55] Poole, *The Englishwoman in Egypt: Letters from Cairo,* 1:45.

[56] Poole, *The Englishwoman in Egypt: Letters from Cairo,* 1:57, 114-115.

[57] Poole, *The Englishwoman in Egypt: Letters from Cairo,* 1:116.

were the only example of a drastic change in human-animal relations, its environmental disasters would be the main causes; however, the fact that it was a global transformation of a change from animal power to industrial power, these environmental factors, more likely than not, contributed to the pathway. It sped and facilitated a trajectory which was already there, and which started to unfold inconspicuously towards this enormous shift of technology of power with all its social, economic and political consequences. Stating that these environmental factors in Egypt are rather facilitating effects on this transformation is by no means disregarding their importance. Although the environmental disasters in Egypt may have facilitated the shift from animal power to industrial power, this transformation was already in motion globally. Nevertheless, the impact of these environmental factors cannot be disregarded, as they played a role in the formation of new social and economic structures in Egypt, as evidenced by Mikhail's work.[58]

Meanwhile in America, contrary to the case in modernizing Egypt, horses were extensively used in building cities and roads, as well as in many other errands, and they were regarded as similar to machines, perhaps not only because of the industrial age, but also with the help of a religious understanding that humans have no moral obligation for the "irrational" animals, and Cartesian understanding of seeing animals as sort of machines, devoid of any ability to feel pain or emotion. As more need arose for horsepower, the USA imported and produced a growing number of draft horses, which were the representations of strength. In contrast, in Egypt, where animals were no longer used as much as before because of environmental disasters, they started to be regarded as unreliable and weak.[59] However, as seen in Burton's account, at least donkeys and mules could be used as machines, whether they were seen as a machine or not; most of them may have had to live with insufficient food, water, and with bad treatment and an expectation of too much labor.

The transformation from animal labor to human labor in Egypt does not affirm the story of a typical shift from an animal-based energy system to a steam-

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[58] Mikhail, *The Animal in Ottoman Egypt,* 51, 54.

[59] Mikhail, *The Animal in Ottoman Egypt,* 61.

based energy system. This transformation started before the advent of the railway, through the formation of land-based elites and the compulsion of the usage of human labor caused by environmental factors like drought and diseases. In the United States where there were no such problems, this transformation was carried out with the aid of animals. This resulted in producing and importing great numbers of horses, including draft horses like French-based Percherons.[60] In the industrializing USA, capitalist trade of such animals and building infrastructure in quicker and easier ways were possible because of this large use of horse power.

The railways also needed transportation via animals, and in some cases resulted in the increase of horse populations. According to Greene, for a time it was thought that the railroads would cause a decrease in horse populations, but on the contrary, with the introduction of locomotives, the number of horses grew more rapidly than before.[61] The first wooden rails were used for the transportation of coalpits at the beginning of the 17th century in Britain and were pulled by horses.[62] Horses were used as the driving power on the cast-iron railways introduced in the 1760s, and although inferior to the capacity of canal transport, this enabled horses to pull more weight than on roads.[63] After a few decades of competition between steam power and canals, in 1850s, the steam-powered railway could carry more weight; however, the use of the horse on the roads continued.[64] It was calculated that horses could pull more weight on smooth and hard roads than on soft and old roads, and on macadam roads horses could pull two tons, while on old roads they could only pull a ton.[65] Canals saved even more horsepower,[66] as horses could pull

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[60] Alwin Howard Sanders and Wayne Dinsmore, *A History of the Percheron Horse,* (Chicago: Breeder's Gazette Print, 1917), 387. As will be seen, the Ottoman Empire lacked and had many problems in battles because of the lack of a sufficient number of light-draft horses.

[61] Greene, *Horses at Work*, 71.

[62] Bagwell, *The Transport Revolution 1770-1985,* 77.

[63] Evans, "Roads, Railways, and Canals: Technical Choices in 19th-Century Britain," 8.

[64] Evans, "Roads, Railways, and Canals: Technical Choices in 19th-Century Britain," 21.

[65] Evans, "Roads, Railways, and Canals: Technical Choices in 19th-Century Britain," 6.

[66] Evans, "Roads, Railways, and Canals: Technical Choices in 19th-Century Britain," 7.

the boats easier on the side banks. To make use of the horse better, people had to devise methods.

Greene states that the first trains were pulled by horses, and the word "railroad" was used to make a distinction from other types of roads such as dirt, plank, or macadam roads, and horses were used in railroads until around 1839 since locomotives were neither sufficiently reliable nor strong.[67] She continues that horses remained essential even after the innovation of the railroads because just as they helped the construction of roads and canals, they were also used in constructing the railroads by carrying materials, pulling vehicles, making roadbeds, and transporting workers.[68] On the other hand, in the Ottoman Empire, especially in suitable geographies, camels were used at least for the transportation of goods to construction sites. According to Ufuk Gülsoy, during the construction of the railroad to Hijaz, in areas where there was limited water as well as problems with weather, especially after Ma'an and in Hijaz, camels were used to transport water and provisions.[69] However, horses were also used in carrying construction materials, as will be seen in Chapter 3. Faroqhi says that because transportation by water was limited to certain regions in the Ottoman Empire, construction projects of the empire relied on land transport, therefore the labor of the horses and camels was used the most.[70]

The use of horses and other animals in transportation and construction had significant economic implications, with animals often being seen as commodities rather than living beings. Work horses were expensive to care for and feed, and they were expected to work not only to cover their own expenses but to bring profit. This caused them to be seen as commodities and tools, which also opened the way for abuse or even death. McClay and Tarr argue that in the 19th century, work animals were seen as machines, commodities that are to be bought and sold; they were seen almost only from an economic point of view, and their nature as living

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[67] Greene, *Horses at Work*, 75.

[68] Greene, *Horses at Work*, 75.

[69] Ufuk Gülsoy, *Kutsal Proje: Ortadoğu'da Osmanlı Demiryolları,* (İstanbul: Timaş, 2010), 134.

[70] Faroqhi, "Introduction," 36.

beings was usually disregarded.[71] This can explain why a slightly lame horse could be shot by its owner immediately in the USA, although it also indicated that horses were numerous in that country. Another reason for this was even horses' dead bodies "carried considerable economic value, generating income for tanners and renderers, among others."[72] Moreover, caring for a horse that could not work would mean a lot of expenditure without any benefit in return. When prices dropped and business was not profitable, owners worked their horses to death to earn from their carcasses.[73]

Horse skins could have some value in the Ottoman Empire as well. For example, in the *On Horseback Through Asia*, there was a skinny and lame horse for sale, but one of the spectators suggested the horse to be killed for its skin instead to make leather of it.[74]

The presence of the horse in the economy was not limited to the work they were carrying out; their existence created many jobs and a web of economic relations. It was because horses were not only producers, but they were also consumers; they consumed food like hay, barley and oats and used manufactured goods like saddles, harnesses and shoes which created jobs. McShane and Tarr give a striking picture of how diverse jobs were created at the periphery of the horse: While millions of farmers produced hay and oats in their lands for the animals that live in urban areas, many other workers transported and sold these products. Besides agricultural products, horses required manufactured items such as saddles, harnesses, blankets and shoes. Their care created blacksmiths for shoeing, veterinarians for their health, and daily caretakers such as stable hands.[75] Therefore, not just horse owners relied on these animals for their living; many other

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[71] McShane and Tarr, *The Horse in the City*, 18.

[72] McShane and Tarr, *The Horse in the City*, 18.

[73] Joel A. Tarr, Clay McShane, "The Horse as an Urban Technology," *Journal of Urban Technology* 15, no.1 (2008): 13.

[74] Captain Fred Burnaby, *On Horseback Through Asia Minor,* vol. 2, (London: Sampson Low, Marston, Searle, & Rivington, 1877), 293.

[75] McShane and Tarr, *The Horse in the City*, 18.

people from different occupations depended on them for their livelihood as well. The fact that horses demanded work to be able to be useful was not surprising for Greene, according to her, using a type of technology meant accepting its demands, and when horses made many demands on people daily as living machines, it had to be carried out.[76] Therefore, horses demanded work for the continuation of their efficient servitude, and it created jobs, which in turn created economic and social structures. Horses also influenced city infrastructure. McShane and Tarr state that "[T]he reliance upon horses for transportation of people and goods required cities to build new infrastructure around their needs, especially wide streets paved with stone blocks and street rails."[77]

Horses were the source of many jobs in the Ottoman Empire as well. They needed hay and fodder, and providing these was a matter of life and death for the animals, and because of their use, for their caretakers. In *Istabl-ı Âmire,* that is, Ottoman court stables and Imperial Stud Farm Mihaliç (*Çiftlikât-ı Hümâyun*) near Bursa,[78] there was a specific job of providing and storing the food for the animals and the horses required many other services which created jobs.[79] Uzunçarşılı describes the structure of *Istabl-ı Âmire* through its indispensable components, from the Master of the Horse (*Mirahur*) to grooms (*at oğlanları*), horse trainers (*serahur*), blacksmiths (*nalbant*), and other artisans.[80] Under the same organization a large number of artisans worked to manufacture saddlery.[81]

So far, from these examples from different regions in the world, it is evident that animals, including horses, were an important part of production and consumption. Although technologies have been changing over time, they were

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[76] Greene, *Horses at Work*, 7.

[77] McShane and Tarr, *The Horse in the City*, 18.

[78] The *Çiftlikat-ı Hümâyun* in Mihaliç was later turned into Karacabey Stud Farm.

[79] Ahmet Uzun, *İktisâdi ve Malî Yönleriyle Istabl-ı Âmire (1500-1900)* (Ankara: Türk Tarih Kurumu Yayınları, 2020).

[80] İsmail Hakkı Uzunçarşılı, *Osmanlı Devletinin Saray Teşkilatı*, 4th ed. (1945; repr., Ankara, Türk Tarih Kurumu, 2014), 471-479.

[81] Emine Dingeç, Osmanlı Sarayında At (İstanbul, Atatürk Kültür Merkezi Başkanlığı, 2020), 57-58.

incorporated in the new technological system. Until they lost their position as prime movers altogether, from the 19th century to the early 20th century, they were still indispensable for maintaining daily life and their presence in this daily life mattered.

Horses were also crucial as people made comparisons between horses and the power and mechanism of steam engines to make the latter more understandable. As engineering became a fashionable and crucial profession in the 19th and early 20th centuries, there was a slow but prominent change in the way people saw their environment. Animals and even humans started to be seen as biological machines. Often, as the horse was the prime mover until that time and was continuing to be so, its body, power, and characteristic behaviors were used as a reference to the new developments, which was a way to cope with constant changes and make them understandable. There were many attempts to compare horses, mules, oxen, and humans, and to compare them with steam engines in terms of economy, usefulness, power, and effectiveness. Greene says that people who lived in the nineteenth century compared and analyzed animal bodies as if they were mechanical machine parts, and they used machine analogies to describe them.[82] Comparison between human work with machine work was common among engineers in the 19th century, and human and machine capabilities of labor were respectively measured and calculated for efficiency and costs in engineering manuals of that period.[83] A manual by Nystrom compared "the work of man to that of mules and horses performing different tasks" and calculated them in foot-pounds;[84] while another manual by Trautwine discussed "steam engine work in horsepower, work of horses

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[82] Greene, *Horses at Work*, 16.

[83] Geoffrey W. Clark, "Machine-shop Engineering Roots of Taylorism: The Efficiency of Machine-tools and Machinists, 1865 – 1884," in *Scientific Management: Frederick Winslow Taylor's Gift to the World?*, eds. J.C. Spender, Hugo J. Kijne (Boston, Dordrecht, London, Kluwer Academic Publishers, 1996), 49.

[84] Foot-pound was defined as "a mass or weight of one pound lifted vertically against or in opposition to the force of gravity", and the horsepower involved time: "The horsepower used by English and American engineers is the amount of energy which can do 550 foot-pounds of work per second or 33,000 foot-pounds per minute". 550 foot-pounds were the power of a typical draft horse. However, this was "the standard English horsepower", according to another measurement, the average horse worked "at the rate of 435.8 foot-pounds per second". Whatever the standard was, horses were used as a basis for calculation in engineering.

in foot-pounds and then the "performance" of a "laborer" in foot-pounds in various simple tasks".[85] An article from 1875 used the term "human machine" in its title and content, comparing humans with steam machines, and humans with horses:

> *The human machine then is greatly superior, so far as effectiveness is concerned, to the steam engine. But it is more costly. Indeed, according to the estimate of the work of a man given above, it would be necessary to have eight men to obtain one horse power.*[86]

In the *A Text Book of the Physics of Agriculture* (1907), the horse is examined as if it was a form of engine and is grouped in the same category as steam and oil engines:

> *The horse, the steam engine and the oil engine each derives its power from the chemical action of the fuel consumed or food eaten and may therefore be called chemical engines; the windmill and the water wheel got their power by arresting the motion of wind or water, actuated by the force of gravity, and these may be called gravitation engines.*[87]

In this sense, the horse is defined as a "motor" and the organs and biological functions of the horse are described as if they are parts of a machine:

> *The essential elements which constitute the horse a machine for developing power are (1) a system of rigid levers united by ligaments and capsules at the joints which are automatically lubricated by a synovial fluid; (2) a system of muscles, each one of which is a motor, corresponding in function to the piston and cylinder of a steam engine; (3) a fuel supplying and waste removing system, consisting of the digestive, excretory and respiratory organs; (4) a co-ordinating and regulating mechanism, consisting of the nervous system, which throws the different motors or muscles into and out of action at the times needful to secure the results ; (5) a protecting and insulating*

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[85] Cited in: Clark, "Machine-shop Engineering Roots of Taylorism: The Efficiency of Machine-tools and Machinists," 49-50.

[86] Quoted in: Clark, "Machine-shop Engineering Roots of Taylorism: The Efficiency of Machine-tools and Machinists," 51-52.

[87] F.H. (Franklin Hiram) King, *A Text Book of the Physics of Agriculture,* (Madison, Wisconsin: Author, 1907), 486.

system, consisting of the skin and hair, which keeps all of the working parts free from dust and reduces the waste of heat. [88]

Human muscle strength is also measured as a "motor". Also, the "rate at which a horse can generate energy", sustainable use of the horse to pull steadily and continuously for 10 hours a day, 2,5 miles per hour, "Horse Power Required to Haul Loads on a Wagon", and "Horse Power Required to Plow" was calculated and measured by considering various elements such as the weight of the horse, the deepness a plow can dig, the speed of the horse, the "direction of the line of draft" and the use of equipment.[89]

The comparisons made between machines and horsepower, and human muscle power had been derived from practical reasons as much as the transformation of understandings about the utility of the body as a biopolitical subject. In an article published in 1926, which presented the results of experiments on the power of draft horses, it was explained that "the unit of horse power" was first used by James Watt, who found it necessary to show the capacity of engine power in terms of equine power, because the work that engines would carry out had previously been done mostly by horses, and that it was only natural to compare the work of engines and horses.[90]

On the other hand, just as animals were likened to machines more and more, machines were also being likened to animals, to increase their presentability, utility and safety in the eyes of people, because of the familiarity of the animals. Here, we see another aspect of interconnectedness, and another example of mentality that includes the two ends of the spectrum: Animals as machines, and machines as animals. This was the signifier of a transformation from animal power to machine power, making the boundaries between animals and machines blurred in the meantime. Definition of the power of the motor force by horsepower is an example of this metaphor. In this regard, the study of Imes Chiu is very enlightening.

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[88] King, *A Text Book of the Physics of Agriculture,* 487.

[89] King, *A Text Book of the Physics of Agriculture,* 487-502.

[90] E.V. Collins and A. B. Caine, "Testing Draft Horses," *Bulletin* 20, no.240 (October 1926): 195.

> *[A]utomobile manufacturers and early developers propitiously leveraged the concepts, practices, and even the reputation of the horse in order to facilitate the diffusion of the motorcar. Asserting a likeness with the sentient horse (motorcars as being sane, responsive to the will of the driver, instantly obedient, as sensitive and spirited as thoroughbred horses) did not require a change of work routines and infrastructure. Motor power simply replaced muscle power, while systems and structures of the horse tradition largely remained. Despite their significantly different operational controls … and their lack of equine "intelligence," motorcars came to pose as horse carriages through the public articulations of editorial cartoons, magazine articles, and advertisements.*[91]

According to Imes Chiu, the first automobiles had a hideous reputation, and they were condemned as "killing machines" by the public.[92] They were for joy-driving for the rich and their chauffeurs, not for public transportation. Accidents were very common; drivers were reckless and caused many deaths and injuries, while their "death mask", a headgear with googles, concealed the face of the driver and made him or her unidentifiable, and eased their escape. The accidents involved spooked horses causing accidents and children's deaths.[93] These accidents were so lamented that many illustrations were made in newspapers and journals about them, and these events gave inspiration to poems such as "Edgar Allan Poe's 'Valley of Unrest' and Alfred Tennyson's 'Charge of the Light Brigade'".[94] These accidents and reckless driving made these new machines so unpopular with a reputation of unsafety that most people preferred horses at the onset of the invention of the automobile, in the beginning of the twentieth century-USA. It was because "[h]orses had long been perceived as a 'friend of man' in work and leisure. Automobiles, on the other hand, frightened horses and pedestrians, many people were maimed or killed because of reckless driving and malfunctioning motors."[95]

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[91] Imes Chiu, *The Evolution from Horse to Automobile: A Comparative International Study* (Amherst; New York: Cambria Press, 2008), 250.

[92] Chiu, *The Evolution from Horse to Automobile: A Comparative International Study*, 72.

[93] Chiu, *The Evolution from Horse to Automobile: A Comparative International Study*, 60-70.

[94] Chiu, *The Evolution from Horse to Automobile: A Comparative International Study*, 71.

[95] Chiu, *The Evolution from Horse to Automobile: A Comparative International Study*, 78.

However, later automobile companies used horses' reputation to make their products common and reliable. The automobiles were likened to horses, going as far as defining them "sane" and "responsive to the driver's will", they were purposefully manufactured resembling horse carriages, to take them from the periphery to the center of the society.[96]

To conclude this part, together with other animals, horses had been incorporated into technological structures from transportation to production mechanisms and affected the constitution and development of these tools and vehicles which were so vital to early societies, for their consumption, production, and construction, with their presence, bodies, behavioral and physical characteristics, and their labor. These silent agents of history, these "dumb" workers facilitated and sometimes made possible technological developments by carrying heavy materials which would otherwise require enormous human power and time and did all kinds of work both in the cities and in the country. Disregarding this mass of labor for thousands of years, their presence, thus their agency in history would simplify human history into small margins and ignore outside effects that constituted human agency.

It is also seen in this part that the technological transformation that occurred from the 18th through the early 20th century included animal/horsepower on an unprecedented scale and that the outcome of the triumph of machines over "biological machines" should not lead to the mistake that animals lost their power suddenly and that their labor was no longer necessary. As the tremendous increase in the numbers of workhorses in the 19th century showed, their labor was needed in this transformation. Moreover, some correlation can be made between seeing animals as machines and the increasing biopolitical approach to improve the efficiency and productivity of their bodies. On the other hand, people understood machines and engines through horses and their bodies, such as defining the power of the engine as horsepower, and the reaction to the force in the engine or machine as submissiveness, because the effect of these animals had been imprinted in the

[96] Chiu, *The Evolution from Horse to Automobile: A Comparative International Study*, 81-103.

human mind and psyche. This correlation made between machines and animals had also affected the latter, however, it is a subject of another part of this dissertation.

2.1.2. The Horse as a Cultural Icon and a Means for Aesthetics, Prestige, and Religion

Animals have become symbols of many traits in different civilizations. They were worshipped as gods, they became the manifestations of spirits, they represented basic concepts such as good, evil, nobility, cowardice, courage, sneakiness, grandeur, and many other traits that they symbolized in human minds. Cultural forms and the relationship patterns seen amongst people manifested in the body of the animal, which solidified and strengthened these forms and patterns. In this respect, horses had a special place in this symbolism.

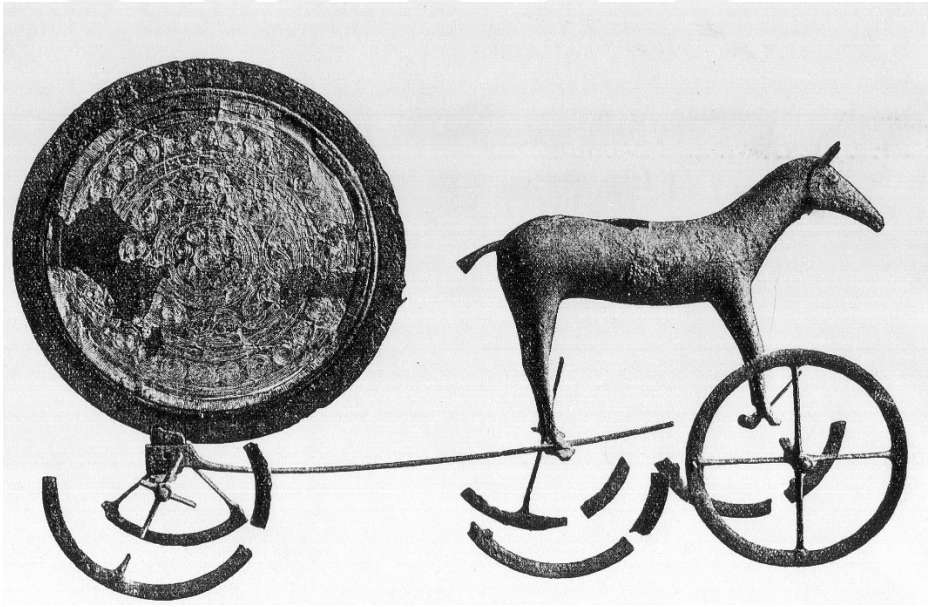

Figure 5: The Trundholm Sun Chariot.[97]

Jarrett and Powell note the parallels between the early Indo-European myths and the myths in the Indian subcontinent. The sun cult, which was a Bronze Age myth was one of them. In this Nordic myth, the revolving of the sun was

[97] Marten Kuilman, *DOC44 - The Trundholm 'sun' chariot (Seeland)*, November 3, 2015, Flickr. Accessed: December 26, 2021, https://www.flickr.com/photos/quadralectics/22556305770/in/photostream/

symbolized by a chariot carrying the sun pulled by a horse (Figure 5). The authors say that the symbol was also interpreted as the transition from death to the afterlife. The latter myth could be seen in the various excavations of burial sites, from Eurasian steppes (dated back to 5000 B.C.) to China, England, the Ural Mountains and Siberia.[98] In sum, archeological evidence shows how the presence of the horse in human daily life created and affected spiritual understandings and myths in different cultures and regions.

Roux says that the horse was the friend and the sacrificial animal for the Tengri, the God of the Heavens and they were also important in other rituals among ancient Turkish people. He thinks that these examples demonstrate a link between the horse and the Heavens among other indications of this correlation.[99] In Turkish mythology, the twin horses *Akboz-at* (White-grizzle horse) and *Gökboz-at* (Sky-grizzle horse) were believed to be circling around the Polaris and they are the horses of the characters in fairy tales.[100] While some of the fairy-tale horses were based on the former, *Gökboz-at* is depicted as a winged horse with supernatural powers and abilities, according to Bahattin Uslu. Bahaeddin Ögel says that these two stallions were the two stars that were circling Polaris. The horses were pulling four stars, which was a four-wheeled carriage, and the small star between the horses and the carriage was the shaft. These horses were continuously being chased by seven wolves, which were the stars of the Ursa major.[101] The *Gökboz-at* could metamorphose into different shapes such as into a bull or a human and interact with the world in this form.[102]

Riding a fast horse was likened to flying in many cultures since it was the fastest transportation on land. This could be another reason horses were often correlated with the heavens and the link between the sky and the horse might have

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[98] Jarrett A. Lobell and Eric A. Powell, "The Story of the Horse," *Archaeology* 68, no. 4 (2015): 30.

[99] Jean-Paul Roux, *Eski Türk Mitolojisi* (Ankara: Bilgesu, 2011), 35.

[100] Bahattin Uslu, *Türk Mitolojisi* (Kamer Yayınları, 2016), 169.

[101] Bahaeddin Ögel, *Türk Mitolojisi II* (Ankara: Türk Tarih Kurumu Yayınları, 1995), 171.

[102] Ögel, *Türk Mitolojisi II*, 537.

its foundations in the practical use of the horse. As seen in the Chinese examples, the horse did not have to be depicted with wings to represent its "flying", yet it could still be associated with the wind and the sky. While the Pegasus is a widely known example, Anderson says that "the winged horse, like other mixed monsters, had been known in the East long before the Greek artists adopted it early in the seventh century B.C.".[103]

From the study of A.B. Alptekin and M. Alptekin, it is seen that in Turkish fairytales, jokes, legends, and traditional stories horses are narrated as supernatural beings and they are an indispensable element that accompanies the characters and heroes.[104] Hayri Başbuğ also says that the horse had an important effect in many aspects of cultural life and traditions in Turkish and Kurdish tribes, including magical rituals, funeral ceremonies, epics, stories and myths, which contained horses that could run in supernatural speed, horses that were born out of the wind, caves or water, and horses that could fly and horses that could talk, warn their riders and give advice.[105] The identity of fairytale characters was closely associated with their horses; for example, the horse of the fairy-tale character *Keloğlan* was bald just like his master.[106]

The impact of the horse on the human psyche continued through the Middle Ages and beyond. Catherine Jones says that "in religious myth and magical folk-tale", horses have been symbols of speed, power, courage, loyalty, beauty and nobility. She adds that "[h]orses, often white ones, had mystical associations with gods and heroes in both Europe and Asia, and traces of ancient horse symbolism survive in the medieval literature and the folklore of many countries."[107] Thus, the cult of the horse is apparent in literary works, veterinary works like *baytarnames*,

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[103] J. K. Anderson, *Ancient Greek Horsemanship* (Berkeley and Los Angeles, University of California Press, 1961), 35.

[104] Ali Berat Alptekin, Mehmet Alptekin, "Türk Halk Anlatılarında At," in *At Kitabı*, ed. Emine Gürsoy Naskali (İstanbul: Kitabevi, 2017).

[105] Hayri Başbuğ, *Aşiretlerimizde At Kültürü* (İstanbul: Türk Dünyası Araştırmaları Vakfı, 1986), 49-62.

[106] Ögel, *Türk Mitolojisi II*, 79.

[107] Catherine Johns, *Horses: History, Myth, Art* (Harvard University Press, 2006), 24.

religious texts, paintings, miniatures, historical legends in almost all cultures which were in close contact with these animals. The horse cult can still be seen in the contemporary world, through movie industry, literary and arts.

Horses are present in many literary works from the novels of Charles Dickens to A Thousand and One Nights. According to Dorré, there are many books written in the 19th century that reflected the cult of the horse.[108] The horse is also encountered in modern Turkish literature in books like *İnce Memed* (Yaşar Kemal, 1955)*, Hilal Görününce* (Sevinç Çokum, 1984)*, Kuşlar Yasına Gider* (Hasan Ali Topbaş, 2016)*,* and *Yılkı Atı* (Abbas Sayar, 1970).[109] All these works did not only entail horses; the roles and the presentation of the horses were a reflection of the cultural understandings and technological transformations.

The influence of horses in the arts was not limited to the literary genre. The illustrated book of Catherine Johns includes a wide variety of works of art ranging from pottery and reliefs to paintings from all over the world from ancient history to the 19th century and shows strikingly how these animals had an impact on different civilizations and the human psyche.[110] From mythological expressions to realist illustrations, horses apparently evoked imagination and were frequently used in the symbolism of certain aspects of human life. In the Ottoman Empire, these artworks ranged from miniatures to the paintings in the 19th century. Tülay Artan stresses the symbolic meaning of horses such as grandeur and prestige that they give their riders through her study on miniatures and paintings, and she says that sometimes these works of art used horses to represent the power and control of the monarch.[111] As for later representations, the gallery in the *Dolmabahçe* Court has many paintings that contain horses, in which the horses were painted in

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[108] Gina M. Dorré, *Victorian Fiction and the Cult of the Horse* (Aldershot, England; Burlington, VT: Ashgate, 2006).

[109] Efnan Dervişoğlu, "Dorukısrak'ın Hiç Bitmeyen Koşusu: Yılkı Atı," in *At Kitabı*, ed. Emine Gürsoy Naskali (İstanbul: Kitabevi, 2017), 462-465.

[110] Catherine Johns, *Horses: History, Myth, Art* (Harvard University Press, 2006).

[111] Tülay Artan, "Ahmed I and 'Tuhfet'ül-mülûk ve's-selâtîn': A Period Manuscript on Horses, Horsemanship and Hunting," in *Animals and People in the Ottoman Empire*, ed. Suraiya Faroqhi (Istanbul: Eren, 2010), 235, 236.

a way that showed elegance, strength, and grandeur. The elegant and richly decorated saddles and bridles, horse blankets and covers in the Ottoman court can also be regarded as artworks that stress authority, wealth and power.

We can see that horses were a means of prestige and a component of identity. For example, in Victorian Fiction and the Cult of the Horse, Dorré says that horses traditionally signified "social power, entitlement, and distinction" in Britain, and in the nineteenth century these animals continued to reflect "the ideals and prerogatives of the social elite, which were largely patriarchal and masculinist, necessarily classist, and ultimately crucial in constructing a notion of British national identity"[112].

Horses were a symbol of prestige and nobility for the Circassian people as well. The best of the horses was bred by royal or aristocratic families and each of these noble families had their own horse breed which was branded and called by the same family names.[113] The fact that the families gave their horse breeds their names is a clear indication that these people regarded these animals as a part of their identity. These family brands, a privilege of aristocratic families, also indicated ownership; by using these brands it would be easier to know who owned the horse, which continued even after the migration of the Circassian people to Ottoman lands.[114] Mahmud Şemsi Seydi says that early Turkish tribes also used to name themselves with the names of their horses.[115] Similarly, Bedouins used the horse lineages along with the name of their tribes, which was called *marabat*.[116] Although they didn't directly name the horse lineages with their family names, they still used their tribe's name alongside this lineage name.

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[112] Dorré, *Victorian Fiction and the Cult of the Horse*, 10.

[113] Abdullah Temizkan and Didem Çatalkılıç, "Atını Yitiren Toplum: Uzunyayla Çerkeslerinin Atçılık ve Binicilik Kültürü Üzerine," *Millî Folklor* 31, no.123 (Güz 2019): 195.

[114] Temizkan and Çatalkılıç, "Atını Yitiren Toplum: Uzunyayla Çerkeslerinin Atçılık ve Binicilik Kültürü Üzerine," 198.

[115] Doktor Mahmud Şemsi Seydi, *Atlarımızın Islah ve Teksiri* (İstanbul: Hamîd Matbaası, 1927), 7.

[116] Seda Tan, "Osmanlı Devleti'nde At Yetiştiriciliği (1842-1918)" (PhD diss., Akdeniz Üniversitesi, 2015), 187.

Renton states that in 16th century Spain the horse was not just connected to nobility in symbolic terms; they were associated legally to social status.[117] She points out the fact that the shortage of horses after the Reconquest caused great concern not only for the political and military aspects but also because it was closely linked to the social life of the nobility.[118] Beyond its uses, the horse symbolized wealth, power, nobility and leadership.[119] Renton's study shows that this symbolic value of the horse was also carried to the New World. She states that the symbolic use of horses in the New World reflected that horse breeders were also the governing officials; and these two roles were entwined. Thus, horse breeding was not just a commercial practice, it was also a political and social activity with its economic benefits restricted to a certain segment of society.[120]

The horse also aroused interest of the indigenous people of America. According to Renton, the Spanish used the awe of the indigenous people about horses strategically. They sometimes used the traditions of their homeland to strengthen these feelings on their enemy, like games on horseback "skirmishes" or "*juego de cañas*" to show the skills of the riders, and to emphasize wealth and social status.[121] This is somewhat like the Ottomans playing *cirit* in front of a foreign traveler. In different periods and different geographies these animals were a means to impress others, and it was a result of their physical and behavioral qualities.

Likewise, horses gave prestige to their owners in the Ottoman Empire. Suraiya Faroqhi stresses the role of horses as a sign of prestige: "Notables and

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[117] Renton, "A Social and Environmental History of the Horse in Spain and Spanish America, 1492-1600," 21-22.

[118] Renton, "A Social and Environmental History of the Horse in Spain and Spanish America, 1492-1600," 26.

[119] Renton, "A Social and Environmental History of the Horse in Spain and Spanish America, 1492-1600," 28.

[120] Renton, "A Social and Environmental History of the Horse in Spain and Spanish America, 1492-1600," 48.

[121] Renton, "A Social and Environmental History of the Horse in Spain and Spanish America, 1492-1600," 40.

magnates rode horses, and that activity was a sign of their high status: some of them evidently were proud of their well-supplied stables."[122] Lending horses to guests or consuls was therefore a sign of kindness. An example of this is the horse sent for Helmuth Von Moltke by *Serasker* Mehmet Hüsrev Pasha for their meetings during the Ramadan. He rode a white Turkish stallion adorned with reins embroidered with silver thread and with a blanket made of tiger pelt. He says jokingly that when passing in front of the watchmen, they saluted either himself, the "giaour" (*gâvur*), or the horse of the *Serasker*.[123] Just as the rowboats, giving prestigious horses with fine saddlery for riding was a way of showing sincerity and friendship.

Parade horses were carefully selected from presentable, good-looking, tall horses for similar reasons. Their function was to show the grandeur of the state, the sultan or the king. That is, their use was related to the horse's use as a means of prestige. In fact, in the "*Animals and People in the Ottoman Empire*", many authors point to the fact that the horse was seen as a means and symbol of prestige. Michel Tuchscherer says that in Egypt, riding a horse was a sign of high status and prestige, exclusive only to male Ottoman governing elite, who came from outside of the country. Non-Muslims, Christian foreigners (except consuls), all the women, people who were born in Egypt, even wealthy merchants were not allowed to ride a horse. He says that even in the eighteenth century, the agha of the janissaries was responsible for the implementation of these prohibitions.[124] Tuchscherer adds that horses were a symbol of military and political power, and they brought an immense prestige to those who own them; the more horses one could afford to have, the more prestige they got.[125] This shows that the horse was crucial in forming an

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[122] Faroqhi, "Introduction," 18.

[123] Feldmareşal Helmuth Von Moltke, *Moltke'nin Türkiye Mektupları*, trans. Hayrullah Örs (İstanbul: Remzi Kitabevi, 2015), 38.

[124] Michel Tuchscherer, "Some Reflections on the Place of the Camel in the Economy and Society of Ottoman Egypt," in Animals and People in the Ottoman Empire, ed. Suraiya Faroqhi (Istanbul: Eren, 2010), 178.

[125] Tuchscherer, "Some Reflections on the Place of the Camel in the Economy and Society of Ottoman Egypt," 178.

identity in Egypt as well. Owning and riding a horse was used as a means of defining one's status in society and gave some attributions to one's identity.

Colette Establet, in her study about the estate inventories of deceased Damascenes, found out that owning horses was expensive and prestigious. She says that the *reaya* who could afford to own these animals, which was a luxury, were usually wealthy merchants and prominent families, and ornaments and silver on the saddlery showed their wealth. In contrast, military men who owned horses were usually more modest, and ornamented saddlery did not show special wealth; they claimed that they kept these animals because they needed them for warfare. On the other hand, she adds that even the military men who had civilian duties and were not expected to go to battle, owned horses; similarly, those who could hardly afford these expensive animals owned them to gain prestige and honor among people.[126] Establet says that owning horses was expensive not because of the high price of the animals but because the fodder they ate was quite expensive.[127] This brings to the mind the point made in the previous section that horses were not only producers but also consumers that created jobs. In terms of prestige and honor, Establet says that even owning packhorses and mules was a significant feat; however, owning a noble charger horse certainly gave its owner immense prestige.[128]

It is also interesting to note that in general, the price of a camel was worth "as much as two oxen, three cows, ten donkeys or twenty sheep".[129] This shows that even though camels were large and useful animals they were worth less than a fine horse. While buying a camel which worths two oxen is not impossible for a peasant according to this equation, an Arabian horse of the finest breed could cost

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[126] Colette Establet, "Live Animals Owned by Dead Damascenes: Evidence from around 1700," in Animals and People in the Ottoman Empire, ed. Suraiya Faroqhi (Istanbul: Eren, 2010), 200.

[127] Establet, "Live Animals Owned by Dead Damascenes: Evidence from around 1700," 197.

[128] Establet, "Live Animals Owned by Dead Damascenes: Evidence from around 1700," 194.

[129] Tuchscherer, "Some Reflections on the Place of the Camel in the Economy and Society of Ottoman Egypt," 182.

as much as 1000-1500 liras.[130] It is possible that this prestige factor played a role in the difference of price between these two types of animals.

We can see the signs of the horse cult in hunting activities as well. According to Elisabetta Borromeo, hunting was the "major activity" of the warriors both in Muslim and Christian countries when there was no war because it was considered as a way of training for war. This practice, which was present in the early Middle Ages, transformed into a privilege of the elite over time, until the nineteenth and twentieth centuries.[131] Hunting required horses, even when it took place on foot, horses were always present. Borromeo, in her study about Bordier's travel writings says that the Ottoman sultan went hunting with his master of horse (*mirahur*) of the court stables, two relay horses and numerous servants, each having their own duty, all on horseback.[132] Horses were so embedded in this exclusive and prestigious activity that not only did they give prestige to their riders, but also their position as an elite animal was strengthened.

Mehmet Yavuz Erler says that animals had symbolized many traits in various cultures; as an example, he states that the lion symbolized bravery, the gazelle represented beauty and the horse was the manifestation of faithfulness.[133] These manifestations were also present in Islamic veterinary works called *baytarnames,* as will be seen. Owning or riding a horse gave prestige, because the horse had an exalted position among other animals with its usefulness, various symbolism and meanings attached to it and its beauty, and because of the identification of its "master" with this animal, which possessed such attributes. They were also hard to afford, so owning horses signified wealth and power.

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[130] BOA, Y.MTV., 80/76, (H.12.01.1311 – M.26.07.1893).

[131] Elisabetta Borromeo, "The Ottomans and Hunting, according to Julien Bordier's Travelogue (1604-1612)," in *Animals and People in the Ottoman Empire*, ed. Suraiya Faroqhi (Istanbul: Eren, 2010), 219.

[132] Borromeo, "The Ottomans and Hunting, according to Julien Bordier's Travelogue (1604-1612)," 223-224.

[133] Mehmet Yavuz Erler, "Animals During Disasters," in *Animals and People in the Ottoman Empire*, ed. Suraiya Faroqhi (Istanbul: Eren, 2010), 334.

Therefore, horses were a symbol of prestige, power and nobility in cultural terms. The better the lineage of a horse was, nobler it was and brought more prestige to its owner. This made these animals great gifts among elites. This given value to animals can also be linked to biopolitics, since breeding such "noble" horses required control over the horses' bodies to create more purified and perfect versions of them.

Suraiya Faroqhi says that the fact that sometimes Ottoman sultans sent horses as gifts with valuable ornaments and saddles to the Habsburg court shows that royal gifts disregarded the prohibition of giving horses to non-Muslims due to their instrumentality in wars.[134] There are numerous records in the archives about sending horses in the 19th century, even stud horses, and broodmares as gifts to many European countries, as well as receiving them. These included a horse given to the Sultan from England,[135] and another horse that the Prince of Wales wanted to send to the Sultan, described as a magnificent horse in the French version of the text.[136] Likewise, the Ottomans sent horses as gifts to England. For example, a telegraph informed that Muzaffer Bey was bringing horses with him when coming to London.[137] In another case, five *Mısrî* (Egyptian Arabian) and Turkmen horses were sent to England as gifts.[138] The exchange of gift horses included countries like Austria, Germany, France, Italy, and Japan. In one of the documents about such gifts, there is information about the horses because the Austrian Emperor wanted them to be checked before their departure to the Ottoman Empire. These were a pair of grey carriage horses that looked completely identical. They originated in Andalusia and were of the improved horses in Kladrub Stud Farm in Austria. They were tall, their withers were high; with "rope measure," they were

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[134] Faroqhi, "Horses Owned by Ottoman Officials and Notables: Means of Transportation but Also Sources of Pride and Joy," 294.

[135] BOA, Y.A.HUS., 526/70, (H.10.01.1327 – M.01.02.1909).

[136] BOA, Y.PRK.BŞK., 35/75, (M.02.04.1894).

[137] BOA, HR.SFR.3., 129/9, (M.04.09.1867). BOA, HR.SFR.3., 129/41, (M.09.09.1867).

[138] BOA, C.HR., 176/8785, (H.26.02.1208 – M.03.10.1793).

1.75 meters high. They had reached nine-years-old of age. Their backs and croups were well-proportioned, hooves were solid and dry, foreheads were broad, eyes were large and beautiful, noses were small as the characteristics of the breed, manes and tails were soft "like silk," and the tails were long down to the ground. Their paces were a high and lofty but swift Spanish walk. They were trained in the best possible way; therefore, they did not pull on the bit.[139]

Giving fine horses as gifts was a gesture to higher ranked officials as well, and as a foreign advisor, Moltke also received many horse gifts, and he also rejected some of them, when he knew that the horses were taken from the people.[140]

The cult of the horse is also seen in early horse medicine books and books about breeding and training horses called in different names such as *baytarnâme, Kitabü'l Hayl* and *feresnâme* in the Ottoman Empire and in the Islamic world. This can be seen in different categories. Firstly, the horse was a religious cult in the Ottoman Empire. The first sections of these works include religious texts about the horse and the importance of this animal for the religion, since they are included in some Quranic verses, and hadiths which were the traditional stories about the Islamic prophet; and because horses were seen as an important part of the holy wars. Secondly, the cult of the horse appears in its aesthetic understanding. The physical appearance of this animal was given the utmost importance and long detailed descriptions about how a beautiful horse can be distinguished from the not-so-good-looking ones can be seen in such texts. Thirdly, the cult of the horse shows itself in the understanding of good character and nobility with some correlation with masculinity. These works show what kind of character a horse should have, and along with its superior physical attributes, a horse possessing this character was considered noble.[141] Likewise, a noble horse was specified as a purebred horse, while a crossbred horse was considered as rebellious and with a

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[139] BOA, Y.PRK.EŞA., 52/103, (No date, 19th century to early 20th century).

[140] Moltke, *Moltke'nin Türkiye Mektupları*, 199, 221, 296, 310.

[141] For example: Ali Yiğit, "'İlm-i Fürusiyet' İsimli Baytarnamenin Veteriner Hekimliği Tarihi, At Yetiştiriciliği ve Hastalıkları Açısından İncelenmesi" (PhD diss., Selçuk Üniversitesi, 2011), 26.

bad lineage.[142] In most *baytarnames*, twelve characteristics of the horse were pointed out, and these were divided into four groups, which were respectively associated with the characteristics of women, camels, cattle, and mules; the first three represented wanted characteristics while the mules represented the unwanted ones.[143] This correlation must be based on the anonymous *baytarname* which was attributed to Aristoteles. According to this work, the mane of a good horse should be like the hair of a woman, which is long and soft, its height and eyelashes should be long, like a camel's; its wrists should be thick and short, like a water buffalo's; and its ears should be long, and its tail should be like a whip, like a mule's.[144] It is notable that women were used as a means of characterization together with animals; this attitude not only reflected the perception of the woman as a subordinated subject in a patriarchal attitude, but it also showed the generalized identifications for her. In this case, horses, camels, cattle, mules, and women, as subordinated subjects of the world of men, were correlated and defined in relation to each other. The view on the gender of the horse was also a reflection of the gender identities among people. In *İlm-i Fürusiyyet*, some characteristics were described as desirable in a female horse, but the same attributes were undesirable in a male horse or vice versa was specified.[145] In this sense, the correlation that Dorré shows between the horse cult and masculinity can also be seen in these works. On the other hand, mares were well-liked by the Arabians, and a *baytarname* in Arabic gave some examples of hadiths that valued mares in high esteem.[146]

Finally, the natural physical attributes of a horse, such as the shape and the size of its body parts, such as the width of its chest, nostrils, the condition of its

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[142] Yiğit, "İlm-i Fürusiyet," 26.

[143] Abdullah Özen, "Millî Kütüphanedeki Yazma Baytarnameler Üzerinde Tarihsel İncelemeler," PhD diss., (Ankara Üniversitesi, 1999), 28, 29, 33, 38.

[144] Nur Melik Peker, "Aristo'ya Atfedilen Anonimleşmiş Baytarnâme (İnceleme, Metin ve Dizin)" Master's thesis, (İstanbul 29 Mayıs Üniversitesi, 2019), 5-6.

[145] Yiğit, "İlm-i Fürusiyet," 27.

[146] Özen, "Millî Kütüphanedeki Yazma Baytarnameler," 63.

hooves, fetlocks, legs, were important not only for the appearance of the horse, but also for its health and capability for long rides and hardships. A horse that is healthy and physically capable along with its other traditionally desired qualities not only had practical benefits, but also enhanced the prestige and honor of its owner or rider. The combination of these points constituted the cult of the horse not only in the works of horses but throughout the Ottoman Empire. In early Islamic veterinary books, the cult of the horse is connected to religion, aesthetics, character and nobility, health, and identity.

Affiliation of horses with religion is apparent in many *baytarnames,* which shows the close relationship between horses and culture. In some cases, religion is used as proof of the worth of horses. For example, in *İlm-i Fürusiyet*, it was mentioned that the God said that all the horses were valuable, but the Egyptian horses were the noblest amongst them.[147] Here, religion was used to prove that a certain breed was more valuable than others. Tülay Artan also says that religious elements are quite frequent in these works about horses.[148] She says that in her study of *Tuhfet'ül-mülûk ve's-selâtîn*, besides other information, there is a very religious tone regarding the role of the horse and its rider in the Quran and the fight against the "infidels", which was further stressed with the verses from the Quran, hadiths and early Islamic literature.[149] This religious tone is also very parallel to other works. Abdullah Özen inspected 13 *baytarnames* which are found in the National Library of Turkey and presented that they bear striking similarities in many cases. Of these, nine of them are translations into Ottoman Turkish, three of them Persian translations, and one of them is in Arabic. Most of these works are solely or primarily about horses, although a few of them also mention mules and donkeys; and the Arabic *baytarname* contains the mule, donkey, zebra, camel, and the elephant. Almost all the *baytarnames* he studied pointed out the importance of

[147] Yiğit, "İlm-i Fürusiyet," 48.

[148] Artan, "Ahmed I and Tuhfet'ül-mülûk ve's-selâtîn," 239.

[149] Artan, "Ahmed I and Tuhfet'ül-mülûk ve's-selâtîn," 246-255.

the horse in the first part, supported and explained through religion, by various verses of the Quran, hadiths, and stories.

Another example is *Tuhfetü'l-fârisîn fî-ahvâli huyûli'l-mücâhidîn*, which was a translation of early original books into Ottoman Turkish by Tayyârzâde Atâ, and it is highly possible that it was based on *Kitâbül-hayl ve'l-baytara* by Hizâm.[150] In accordance with the traditional organization of *baytarnames,* the book starts with the importance of the horse and its religious status, its good and bad marks, and praised characteristics.[151] In this first part, the horse was defined through religious stories and hadiths; for example, it was said that the horse was created from the wind, and God made it so that it could fly without wings, that it was a treasure given by God to Abraham and Ishmael, and it was a good deed and charity to feed and water a horse properly and on time.[152] In another *baytarname,* it was asserted that preparing, riding, and loving a horse is the command of God and that horses were important for the Holy War (*cihad*).[153] In the first nine pages of *Hâza Kitab-ı Baytarname*, prayers, stories, and information about humans, horses, and animals were given, and scientific and religious ideas were merged.[154]

Similarly, Özen and Yerlikaya's study of a *baytarname* which dated back to the 14th century shows striking examples of religious affiliation of horses as well as examples of emotional and cultural bonds with them. In this *baytarname,* written by Al-Mujahid Ali, fifth sultan of the Rasulid dynasty in Yemen, a poet, a writer and most importantly in this case, a veterinarian (*baytar)*[155], it is seen that the importance and inner value of horses were attempted to be proven by religious

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[150] Muhittin Eliaçık, "Tayyarzâde Ahmed Atâ'nın Bir Baytarnâme Tercümesi," *Mavi Atlas* 1, no.1 (Güz 2013): 12.

[151] Eliaçık, "Tayyarzâde Ahmed Atâ'nın Bir Baytarnâme Tercümesi," 13.

[152] Eliaçık, "Tayyarzâde Ahmed Atâ'nın Bir Baytarnâme Tercümesi," 16.

[153] Özen, "Millî Kütüphanedeki Yazma Baytarnameler," 41.

[154] Nihal Erk and Ferruh Dinçer, "XV inci ya da XVI ncı Yüzyıla Ait Olduğu Sanılan Bir Baytarname -İncelemesi," *Ankara Üniversitesi Veteriner Fakültesi Dergisi* 14, no. 02 (Ocak 1967): 119.

[155] Abdullah Özen and Halis Yerlikaya, "At Sevgisi: İslam Uygarlığı Çağı Kaynaklarından Çarpıcı Bir Örnek." *Eurosian Journal of Veterinary Sciences* 20, no.4, (2004): 29.

narratives and texts. This text also provides important clues about the relationship between horse and human during this era, which should be compared with other *baytarnames* from different geographical regions. Al-Mujahid Ali uses religion as proof for the high value of horses. For example, he claims that God has made the horse so honorable that they came just after the humans in honor.[156] According to religion, horses were regarded as second in value since they were considered part of the rider's identity. In effect, religious ideas were used to prove their point, but the horse's status was the driving force behind such ideas.

Apart from the examples that he gives from religious texts to prove these animals' value and importance in his veterinary work, Al-Mujahid Ali also shows his emotional bonds to horses through poems, especially the poem he wrote for his two deceased beloved horses.[157] Many other *baytarnames* such as *Hâza Baytarnâme-i Melik Kâbus*, *Kitâb-ı Makbûl Der Hâl-i Huyûl*, *İlm-i Furûsiyyet*, and *Kitâb-ı Baytarnâme Fi Marifeti'l-Hiyel Ala Asnafihe* and the like contained folkloric elements, such as poems, stories, and information about famous horses.[158] This is another example of the fact that the cult of the horse was not only limited to the admiration of its strength, beauty and character, but people also formed emotional bonds with them, wrote poems and built tombs for their deceased horses, and transferred tales about famous horses which were a part of the identity of some famous people.

The horse cult was not limited to *baytarnames*, which contained much praise for horses. The breed of the horses and physical characteristics were traditionally meaningful, and the horse cult could be seen in daily life. An encounter of Helmuth Von Moltke with an Arab tribal sheikh presents this mentality. This sheikh admired the purebred Arabian foal that Moltke bought from Mosul and his comments about the foal shows much of the horse cult. He said that he would know the pedigree of the horse just by looking at the animal, and that it

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[156] Özen and Yerlikaya, "At Sevgisi," 30.

[157] Özen and Yerlikaya, "At Sevgisi," 31.

[158] Özen, "Millî Kütüphanedeki Yazma Baytarnameler," 29, 38, 42, 108. Yiğit, "İlm-i Fürusiyet," 23-24.

was from *Tarafi* branch of the *Küheylan* lineage. He made a religious affiliation with the animal by saying that this horse would shake its head like a dervish on Thursdays, a sacred day for Muslims. Then he praised the animal by saying that it would never stop by a stream to drink water without permission, even in most hot weather. He also said that if its rider falls, it will wait for him and would not go away. These comments showed how dependable and loyal a noble horse of this breed was seen by tradition. He also showed an "auspicious" mark on the horse and pointed at the white markings on its three legs; this was regarded as the most beautiful mark, while one or two white legs were thought to be beautiful too, no one would buy a horse with four white legs since it was "ugly".[159] This anecdote is important because it is in line with the tradition in *baytarnames*, in terms of religious attributes of horse breeds and auspicious marks on horses.

The subject of perceptions of animals in other religions such as Hinduism, Buddhism, and Jainism[160] is also important and can give a much more comprehensive viewpoint on animal-human relationships. However, they are not within the scope of this study. In Judaism, because all creatures are acknowledged as good as creations of God, there were moral obligations for animals.[161] As for Christianity, animals were regarded as inferior to humans; however, they had no inherent or moral value. On the other hand, some Christian saints were known to advocate kindness and gentle treatment of animals.[162] For Islam, horses were seen as a means for achieving religious victories in wars, and the animals had rights. Although they were regarded as inferior to humans, charity to animals as a religious act was acknowledged, as in Judaism, animals had moral rights in Islam. The theme of war is also linked to horses in Judaism and Christianity. Therefore, animals were embedded in these religions symbolically. Horses represented power and courage;

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[159] Moltke, *Moltke'nin Türkiye Mektupları*, 230.

[160] Louis Caruana SJ, "Different religions, different animal ethics?," *Animal Frontiers* 10, no.1 (January 2020): 8-9, https://doi.org/10.1093/af/vfz047

[161] Caruana, "Different religions, different animal ethics?," 9.

[162] Caruana, "Different religions, different animal ethics?," 10.

they were a means for battle in the Old Testament and Jewish scriptures as in the Quran.[163] Therefore, among other things, horses were a symbol of war.

In sum, the cult of the horse was caused by the impressions of horses on people. Their physical characteristics as well as behavior, companionship and uses were effective in the creation of this cult because they fascinated many people. They were seen together with hero, warrior and monarch depictions, and angel motifs in statues, paintings, miniatures and literary. They were affiliated with religion and sacralized in early Islamic veterinary works. Riding a horse brought immense prestige and signified a higher status among people, and it became part of the rider's identity.

2.1.3. The Horse as a War Machine and a Means for Triumph, Defeat, and Science

The presence of the horse affected the human world also in terms of warfare and science. Because horses were an indispensable part of warfare, the improvement of the tools used to control them, and the knowledge to care for them would mean having an upper hand in this sense. Thus, their presence in the human world was a key to the pathway of these developments.

Horses, which were first domesticated in the Western Eurasian steppes approximately 6000 years ago according to an archeological and genetic research,[164] have been commonly used in warfare in Near East and Egypt by the middle of 2000 BCE.[165] Since then, they were instrumental in wars and indispensable for chariots and then for the cavalry. However, the use of horses in warfare was not limited to this area, as Ann Hyland demonstrates throughout her

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[163] For example: *The Written Law - Tanakh: Ketuvim, The Writings:* Book of Iyov (Job) 39:19-25, accessed: December 30, 2021, https://www.jewishvirtuallibrary.org/iyov-job-chapter-39 *Holy Bible: New Living Translation*, Job 39:19-25. p.322.
The Clear Quran: A Thematic Translation, trans. Dr. Mustafa Khattab, (2015), The Galloping 'Horses' (Al-'Âdiyât) 100:1-5.

[164] Vera Warmuth, Anders Eriksson, et al., "Reconstructing the Origin and Spread of Horse Domestication in the Eurasian Steppe," *PNAS* 109, no.21 (2012): 8202, 8205.

[165] Lobell and Powell, "The Story of the Horse," 31.

book, the horse was an important factor in warfare in ancient civilizations worldwide, and that "the most powerful military peoples" used the horse extensively and accumulated knowledge about these animals.[166] Lobell and Powell say that "The rise of true cavalry was the determining force behind many of the major events that influenced European history".[167] According to László Rásonyi, the great movement of the people during the Migration Period would not be possible without the domestication of the horse.[168] These examples are but a glimpse of the tremendous impact of the presence of the horse in warfare.

The aim of controlling the horse more effectively necessitated the innovation of new methods and tools from the Eurasian steppes to ancient Greece. For instance, around the fifth and fourth centuries BCE., new types of bits were developed as riding horses started to become more common than driving them, and harsher bits that could inflict pain in the mouth of the horse were sometimes used to control the horse better.[169] However, riders used smooth bits as well, and while using severe bits was not universal, it was becoming more widespread.[170] Moreover, cart animals, mostly mules, were managed mostly without bits in the classical era.[171] The invention and usage of harsher bits were partly connected to the development of horse breeds into larger, more powerful ones than before, which made horses more difficult to control in battles in the seventh-century BCE.; on the other hand, this development took place rather slowly: About a thousand years.[172] On the other hand, Xenophon cautioned "against the use of whips, spurs

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[166] Ann Hyland, *The Horse in the Ancient World* (Sutton Publishing, 2003), 18-20.

[167] Lobell and Powell, "The Story of the Horse," 31.

[168] László Rásonyi, *Tarihte Türklük* (Ankara: Türk Kültürünü Araştırma Enstitüsü Yayınları, 1988), 51.

[169] Anderson, *Ancient Greek Horsemanship*, 64.

[170] Anderson, *Ancient Greek Horsemanship*, 72-73.

[171] Anderson, *Ancient Greek Horsemanship*, 66.

[172] Anderson, *Ancient Greek Horsemanship*, 77. With the biopolitical turn, the horses' bodies could be modified much more rapidly; it only took about a few generations of horses with scientific breeding.

and severe bits."[173] Therefore, there was also a tradition of kind treatment of horses. These traditions, the accumulation of knowledge about horses and the tools of control were accompanied by the accumulation of knowledge about breeding, caring for them and treating their diseases.

While the light cavalry was prominent in Asia Minor, European countries depended on heavy cavalry. According to Robinson, the use of heavy cavalry was at its peak between 1000 and 1300 CE. Although there were fluctuations and changes in the use of the cavalry from the 14th century on, it was still important in the 17th century, but mostly "abandoned heavy armour and lances, relying on swords and pistols." [174] While the proportion of the cavalry in comparison to the entire army decreased significantly from 17th century to 20th century onwards, the size of the cavalry increased tremendously in British army.[175] Thus, the expansion of armies caused more need for cavalry horses. Robinson says that horses needed for transport were even higher in number than those needed for the cavalry, because larger armies demanded more transportation for supplies.[176] This made strong cart horses, pack horses and draft horses even more necessary and necessitated consistent breeding and improvement of horses. Wars, especially continuous and long wars, also increased the demand for horses and sometimes depleted the supply of horses. This could explain the decrease of the horse population in the Ottoman Empire together with its inability to have a persistent and coherent approach to its horse breeding programs. Even though it was regarded as a political move by the Ottoman authorities, it was reported that Austria-Hungary had implemented a ban on the export of horses in 1876, on the basis of a concern for horse supplies and breeding in the country as a result of the export of 60.000 horses' previous year,

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[173] Anderson, *Ancient Greek Horsemanship*, 117.

[174] Gavin Robinson, "The Military Value of Horses and the Social Value of the Horse in Early Modern England," in *The Horse as Cultural Icon: The Real and the Symbolic Horse in the Early Modern World,* eds. Peter Edwards, Karl A.E. Enenkel, and Elspeth Graham (Leiden; Boston: Brill, 2012), 352-355.

[175] Robinson, "The Military Value of Horses," 357.

[176] Robinson, "The Military Value of Horses," 357.

rendering it impossible for the Ottomans to buy horses from there.[177] It was very likely that Austria-Hungary indeed had such a concern as it was seen in many other European countries and the Ottoman Empire to ban the export of horses when a decrease on the number of good horses became apparent.

Sometimes the demand for horses rose because of wars. For example, following the increasing demand in Britain in the 17th century, first voluntary, and then forced contribution of horses for the cavalry was appealed with a parliamentary ordinance. The contributors could gain high-esteem and demonstrate their wealth and social status by giving away valuable horses.[178]

Even after the mechanization and improvements on steam power, horses continued to be instrumental in wars. In the First World War, millions of horses were mobilized for the armies worldwide. İhsan Abidin states that the invention of steam power and electricity caused an increase in the number of animals, and a change in their qualities. The number of animals in almost every army increased. While Russian army had 830.087 animal power in 1890, the number had risen almost to two million animals in 1910.[179] In contrast, İhsan Abidin's observations show that while the Ottoman army used horsepower almost completely for its mobilization in the past, the decrease of horses and mules forced the army to use cattle power. However, this time the cattle were devastated by epizootics, and donkeys, which were too weak for the job, had to be used for this purpose. He says that the need for horsepower in wars were felt not only by the Ottoman Empire, but also by France, Britain, Belgium and Italy, some of whom exported horses to the United States in times of peace. Therefore, these entente powers had to import horses in World War I to meet their needs.[180] An insufficient number of horses would be a sign of weakness.

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[177] Tolga Akay, *Osmanlı Ordusunda At (1856-1908)* (İstanbul, İdeal Kültür Yayıncılık, 2021), 89.

[178] Robinson, "The Military Value of Horses," 359, 361.

[179] İhsan Abidin, *Osmanlı Atları*, خ.

[180] İhsan Abidin, *Osmanlı Atları,* خ, ط.

In Europe, towards the end of the 19th century, horses were used in different types of cavalries, field artillery, horse artillery, and sometimes mountain artillery, although this last type also used mules. "The Armies of Europe Illustrated" which was translated in 1890 from German to English, described these different armies in detail according to contemporary information, an up-to-date version of the original work. The active duty of horses besides transporting supplies was in cavalry and artillery. As far as the horses are concerned, the general framework of the use of horses in the armies of different states is depicted in the book.

The cavalry of the British army was divided into three branches according to the size and weight of the riders: Heavy, medium and light.[181] The author asserts that (or more accurately the translator, since he rewrote the chapter about the British army himself) the British are born horsemen and they do not need to train their horses thoroughly, while in almost every foreign army, including German and French armies, the horses are trained "to a degree that is unheard of in the English arm," so the riders need little skill on horseback.[182] On the other hand, according to Dawson, the British did not have a cavalry school comparable to that of the French, and the British cavalry had to mount on quickly trained horses; the soldiers did not have much training and had a riding style that made it difficult to control their horses. These were some of the reasons why the British had problems with campaigns during the nineteenth century.[183] This shows the importance of discipline of the war horses and their riders in modern warfare.

Heavy and large horses with large riders were chosen for the heavy section of the cavalry whereas light cavalry consisted of lighter horses and riders. According to Anthony Dawson, in Europe, the heights of horses and men were

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[181] Fedor Von Köppen, *The Armies of Europe Illustrated,* trans. Count Gleichen, (London: William Clowes & Sons, 1890), 5.

[182] Köppen, *The Armies of Europe Illustrated,* 5.

[183] Anthony Dawson, *Real War Horses: The Experiences of the British Cavalry, 1814-1914* (UK**:** Pen and Sword Military, 2016), 51-55.

measured carefully to divide them; however, in Britain, measurement was only in theory as the training was the same for the horses and riders in both branches, contrary to European cavalry.[184]

The British also used reserves, volunteers and militia besides its regular army like some other contemporary states. The Yeomanry was a form of cavalry militia or volunteers, and they had to find their own horses. The Volunteers also had mounted units and artillery which used horses. In 1890, mounted infantry was seen as one of the most effective units of an army.[185]

Horses were also instrumental in artillery divisions. Field artillery used horses to pull these heavy war machines, and the horse artillery, which is usually included in the field artillery in many countries, used horses for gun carriages and the soldiers were also mounted on horses. Artillery which was stationary for defense was the only type that did not use active horsepower, yet it could benefit from horsepower for the transportation of ammunition.

Fedor Von Köppen describes the use of the cavalry as such:

> *The main point in a Cavalry fight is the shock, i.e., the moment when they come into contact with the enemy. This must be the result of gradually quickening the pace till at the supreme moment an irresistible mass is hurled with crushing force on the ranks of the enemy. The best powers of man and horse must therefore be reserved for this moment, and it is a fact that the turning-point of an action has often been decided by the mere impetus of the charge, and without any use whatever of cold steel.*[186]

This shows that the horse's speed and mass, together with the rider's control, was the deciding factor of the effectiveness of a cavalry charge, which shows the importance of the horse's presence as an agent of history. How many battles were lost or won by the effective use of horses?

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[184] Dawson, *Real War Horses,* 18-19.

[185] Köppen, *The Armies of Europe Illustrated,* 17-18.

[186] Köppen, *The Armies of Europe Illustrated,* 26.

Among the German cavalry, Köppen praises the Prussian cavalry to have the best record, since the time of the Frederick the Great.[187] At the onset of the 1806 campaign of Napoleon, Prussian cavalry had a big reputation especially after its success in Seven Years' War and Napoleon warned his soldiers about the Prussian cavalry.[188] Even though the Prussian cavalry could not be successful and was in decline, according to Hofschröer, they did have some successful battles, especially in 1815. Clearly, in 1890, the Prussian cavalry retained its reputation.

The movements, turns and the techniques of the Prussian cavalry were meticulous and precise. It became refined and changed for the better or worse with regulations from the eighteenth to nineteenth century.[189] The order of the cavalry squadrons, their precise moves and drills necessitated not only the discipline of the cavalrymen but also the discipline of horses. Otherwise, the squadron would be in chaos. The horses had to be trained just like soldiers, and they were expected to behave against their nature; to be courageous, ignoring their natural flight instincts. Therefore, in a battle where the cavalry was involved, the horses had a role and needed to be disciplined. Fedor Von Köppen describes Prussian horses as "powerful, fast, and capable of considerable endurance, so that they are particularly suited to military service". According to him, these qualities of the horses, and the fact that the Prussian soldiers are excellent grooms, combined with discipline and tactical training, made German cavalry among the best in the world.[190]

The different sections of the cavalry had different effects on the battlefield, and some of it was psychological. The heavy Cuirassiers shocked the enemy in the battlefield on their big horses, Uhlans (Lancers) charged with their lances, Hussars used their swords and Dragoons had the necessary mobility.[191] The

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[187] Köppen, *The Armies of Europe Illustrated,* 26.

[188] Peter Hofschröer and Bryan Fosten, *Prussian Cavalry of the Napoleonic Wars (I): 1792-1807,* (London: Osprey Publishing, 1985), 3.

[189] Hofschröer and Fosten, *Prussian Cavalry (I): 1792-1807*. Peter Hofschröer, Bryan Fosten, *Prussian Cavalry of the Napoleonic Wars (II):1807-1815,* (London: Osprey Publishing, 1986).

[190] Köppen, *The Armies of Europe Illustrated,* 27

[191] Köppen, *The Armies of Europe Illustrated,* 30.

Dragoons, which were designed as infantry mounted on horses to provide more mobility to infantry, turned into simply cavalry. Field artillery of the Germans also had a Horse Artillery branch, both types used horses, and all the soldiers of the horse artillery were mounted on horses. [192] Other countries including Austria-Hungary, Italy, France, Russia, Portugal, and the Ottoman Empire similarly made effective use of horses in cavalry, artillery, and the transportation of provisions and equipment.[193] Therefore, horses were still an important part of the armies in the 19th century.

This instrumentality in warfare was one of the reasons why horse medicine and health were regarded with utmost importance, which contributed to veterinary science and a better understanding of the animal body even before the 19th century. In other words, horses' presence in everyday life and their utility in wars caused much literature and tradition in horse medicine. In the previous section, the mythical and religious elements of *baytarnames* were discussed. In this part, the scientific side of this genre will be discussed. These works are not the only type of veterinary science in the world prior to the development of modern veterinary science. For example, there were farriers and horse-doctors in Europe. However, *baytarnames* continued a tradition from antiquity and developed it. They are focused on this part to put them in a broader context.

There were different types of written works about horses as a tradition in the Islamic world. *Baytarnames* were works for the diagnosis of horse diseases and their treatments, and works that were called *Kitâbu'l-fürûsiyye*, *hayl-nâme* or *feres-nâme* were about riding, archery, and swordsmanship.[194] However, in many instances, these subjects were treated together. Artan makes a distinction between *baytarah (baytarname)* and *furûsiyya (feresiyye)*: While the first one was concerned with hippiatry and horse health and cures, the latter focused on hippology and equestrianism; that is training, using and caring for horses.[195] She

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[192] Köppen, *The Armies of Europe Illustrated*, 30.

[193] Köppen, *The Armies of Europe Illustrated*, 38-76.

[194] Eliaçık, "Tayyarzâde Ahmed Atâ'nın Bir Baytarnâme Tercümesi," 10.

[195] Artan, "Ahmed I and Tuhfet'ül-mülûk ve's-selâtîn," 241.

says that even though these subjects were covered in one book in "*Tuhfet'ül-mülûk ve's-selâtîn*", it was clear that a distinction was made because they were divided into three parts in the book.[196] As it is very common for the *baytarnames* to have this kind of a structure, it is safe to regard many works of *baytarnames* in this manner, that is a single book divided into the different aspects of horse studies; namely hippiatry, hippology and equestrianism. These works also had a multinational character: The translated works into Arabic were originally from different languages such as Greek, Persian, Sanskrit, and Syriac, and the authors of the original works were also from different backgrounds, although Arabic was the scientific language at the time.[197]

It is recorded that various ancient texts that contain animal medical science were translated into Arabic from 2nd to 8th centuries, and later, original works about animal medicine with the help of Greek and Byzantine texts on the subject began to emerge in the Islamic world, which contributed to the development of the veterinary science.[198] The start of original works generally dated to the 9th century when *Kitâbül-hayl ve'l-baytara* was written by Hizâm.

Thus, *baytarnames* and other works about horses and riding consisted of some original works and different translations of them with some additions and reductions. The most notable original works in the 9th century were *Kitâbül-hayl ve'l-baytara, Kitâbu'l-furûsiyye ve'l-baytara* and *Kitâbu ma'rifeti'r-remy bi'n-nüşşâbi ve âlâti'1-harb* by İbn Ahî Hizâm el-Huttelî, and *Kitabu'l-hayl ve sıfâtuhâ ve elvânuhâ* by Ahmed bin Muhammed bin Ebu Kutayre. In the 13th and 14th centuries, *Muhtasaru Kitâbi'l-baytara* by Ahmed bin el-Hasan bin el-Ahnef; *Kitâbu'l-fürûsiyye ve mu'âleceti'l-hayl* by Emir Bedrüddin bin Bektut; *Kitabu'l-baytar* by es-Sâhib Tacuddin Ebu Abdullah Muhammed; and *Kamilü's-sınâ'ateyni'l-baytara ve'zzartaka* by İbni el-Munzir el-Baytar were important. Some of the works in the 16th century were *Gazâ-nâme ve Baytarnâme* by Ali bin

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[196] Artan, "Ahmed I and Tuhfet'ül-mülûk ve's-selâtîn," 241.

[197] Özen, "Millî Kütüphanedeki Yazma Baytarnameler," 3-5.

[198] Yiğit, "İlm-i Fürusiyet," 3-4.

Ömer; and *Tabâbet-i Beşeriyye ve baytariyye* by Nidâî Mehmed Çelebi Ankaravî.[199]

Before the establishment of a modern veterinary school in Istanbul in 1842, veterinary practices in the Ottoman Empire were solely based on these traditional books and oral traditions. The Ottomans adopted and rewrote the works of early Arabic translations about horses, originally from the works of Greco-Roman, Persian and Indian medicine on the subject.[200] The other written works were based on original works starting from the 9th century on, which were also translated into Ottoman Turkish with omissions and additions by the translators. As for oral knowledge, they were based on experiences, traditions and apprenticeship. For example, in *İlm-i Fürusiyet*, it was remarked that a rider should compensate for his lack of knowledge through discussions with learned people, other riders, and horse owners, and should know the reasons for his shortfalls and faults.[201] This shows that knowledge was orally transmitted, while there were also written sources. Similarly, Dinçer et al. says that until the onset of scientific veterinary practices in the Ottoman Empire in 1842, animal care and treatment were carried out by artisans who were educated by oral tradition from family relations and mentor system and *baytarnames*. [202] Although both written and oral culture offered rational remedies, they also contained religious, unscientific, irrational, and magical elements which differentiated them from the newly established modern veterinary science.

The Ottomans started to translate literature about horse ailments, horse classification and training in the 15th century.[203] However, especially starting from

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[199] Eliaçık, "Tayyarzâde Ahmed Atâ'nın Bir Baytarnâme Tercümesi," 10-11.

[200] Artan, "Ahmed I and Tuhfet'ül-mülûk ve's-selâtîn," 241-244, 265.

[201] Yiğit, "İlm-i Fürusiyet," 26.

[202] Ferruh Dinçer et al., "Osmanlı Döneminde Veteriner Hekimliği Alanında Te'lif, Tercüme ve Yayın Faaliyetleri," in *Osmanlı Dünyasında Bilim ve Eğitim: Milletlerarası Kongresi Tebliğleri, İstanbul 12-15 Nisan 1999*, ed. Hidayet Yavuz Nuhoğlu (Istanbul: İslam Tarih, Sanat ve Kültür Araştırma Merkezi, 2001), 378.

[203] Artan, "Ahmed I and Tuhfet'ül-mülûk ve's-selâtîn," 238.

the 17th century, the most important parts of these books were omitted and only parts about the treatment of animal diseases were translated into Turkish and sometimes these translations completely diverted from the original texts.[204] Moreover, the original texts were not specified in many instances, and they were referred to as a book written in Arabic or Persian, and these same sources were used in different translations that deceptively seem like different works.[205] According to Artan, when these translations are partial, usually it indicated that there was more interest in the aspects of horses as an element of war and chivalry and local traditions than in horse ailments and cures.[206] The fact that the original works were not explicitly specified may also be seen as an indication and reflection of a strong oral tradition in the field. Another reason the translators reduced the original works as they see fit, is because they said that the works had too many details and the translators added their knowledge and experience to the texts. This shows that when they were focused on treatments, the translation of these works was for practical purposes. Tülay Artan remarks that these works were used until the 19th century.[207] For example, Ahmed Bey, the accountant of the *Dersaadet* Imperial Army, translated a *baytarname* that he found when he was in Arabia. His work was distributed in artillery and *Asakir-i Şahane* corps in 1852. Sending a copy of this work to the Sultan, permission was asked to reward Ahmed Bey.[208]

Typically, *baytarnames* began with religious elements, and the importance of the horse for the Islam was stressed with religious texts.[209] This connects this subject to the cult of the horse, which was seen in the previous section. However, in this chapter's context, the horse rider was responsible for

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[204] Erk and Dinçer, "XV inci ya da XVI ncı Yüzyıla Ait Olduğu Sanılan Bir Baytarname İncelemesi," 117.

[205] Erk and Dinçer, "XV inci ya da XVI ncı Yüzyıla Ait Olduğu Sanılan Bir Baytarname İncelemesi," 117.

[206] Artan, "Ahmed I and Tuhfet'ül-mülûk ve's-selâtîn," 239.

[207] Artan, "Ahmed I and Tuhfet'ül-mülûk ve's-selâtîn," 265.

[208] BOA, MB.İ. 9/97, (H. 27.01.1269 – M.10.11.1852).

[209] For example: Yiğit, "İlm-i Fürusiyet," 21-24.

knowing about the horse training, breeding and caring, according to such works. He was to know the temperaments of the horses, bones, joints, cures of horse diseases, the times to feed and to water them, and the traditionally wanted or unwanted features of the animal, and interestingly wanted or unwanted characteristics of the horse according to its gender,[210] which is indicative of the analogy between human-human and animal-human relationships.

Even though *baytarnames* included many clues about how horse culture reflected and strengthened the existing cultural norms, they were works written for practical purposes such as choosing a healthy and capable horse, training and caring for these animals correctly and treating their diseases. It can be seen in the studies and transcriptions of *baytarnames* that treatment of diseases is analyzed in detail as scientifically as possible and the physical attributes of a healthy horse through experience and tradition are meticulously written. For example, *Haza Kitab-ı Baytarname* contained information about the physical appearance of the horse, teeth and the determination of age, wanted and unwanted characteristics, coat colors, riding, exercising, racing, shoeing, grooming, and stable hygiene.[211] Another *baytarname* contained information about knowing the age of the horse through their teeth, stable maintenance, shoeing, horses that shy (i.e., spook), correcting horses that do not let being ridden, teaching foals, and breeding horses.[212] However, the largest part was for horse diseases and their treatments.[213]

However, religious and irrational practices also exist in these works. These elements were regarded as scientific as the treatment methods proven by experience in the book. For example, in Yiğit's study, it is seen that there are recounts of Indian scholars which classified horse characteristics according to their coat colors, and attributed mystical and spiritual effects to horses that possessed a

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[210] Yiğit, "İlm-i Fürusiyet," 27.

[211] Erk and Dinçer, "XV inci ya da XVI ncı Yüzyıla Ait Olduğu Sanılan Bir Baytarname İncelemesi," 121-122, 132-133.

[212] Eliaçık, "Tayyarzâde Ahmed Atâ'nın Bir Baytarnâme Tercümesi," 17.

[213] Eliaçık, "Tayyarzâde Ahmed Atâ'nın Bir Baytarnâme Tercümesi," 17-19.

certain color. A white horse is said to look magnificent in battle and even without its rider would bring victory, and it was vaguely added that it would bring goodness to the angels and to the deceased. Moreover, certain kinds of horse markings on its coat could bring victory at wars and benefit in work while horses with certain markings and certain coat colors would not be recommended to be owned.[214] Similarly, in an early example of a *baytarname* written in old Anatolian Turkish, one of the remedies proposed for horses was to recite some verses from the Quran.[215] Other remedies included blood-letting and the combinations of ingredients like herbs, seeds, vinegar, eggs, "eyes of a crab", and urine.[216] The *baytarname* which was attributed to Aristoteles and became anonymized had a similar outline of other works. It started first with the beauty and good qualities of horses, good and bad qualities of horses according to their features and colors, understanding their ages, horse diseases and cures, and points to take into consideration when buying horses.[217] In the *baytarname* attributed to Aristoteles, the horse colors indicated some characteristics of horses, for example the talents of a horse.[218] In *İlm-i furusiyet*, for a certain disease, the urine of a male child mixed with herbal materials was proposed as a remedy for the horse to drink.[219]

However, these works also contained important contributions to the development of veterinary science. For example, in *İlm-i Furusiyet*, meticulous descriptions of the causes of diseases, multiple methods of treatments, and detailed explanations of the physical attributes of a horse including their marks and colors were given, and this work had been written with a scientific concern. Rather than asserting that such traditional knowledge is true and undebatable, the author seems

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[214] Yiğit, "İlm-i Fürusiyet," 47-48.

[215] Tuncay Böler "At Hastalıklarına Dair Küçük Bir Eser: Hāẕā Kitāb-ı Esb," *TÜRÜK Uluslararası Dil Edebiyat ve Halk Bilimi Araştırmaları Dergisi* 6, no.15 (Aralık 2018): 79.

[216] Böler "Hāẕā Kitāb-ı Esb," 75-91.

[217] Peker, "Aristo'ya Atfedilen Anonimleşmiş Baytarnâme," 5.

[218] Peker, "Aristo'ya Atfedilen Anonimleşmiş Baytarnâme," 6-7.

[219] Yiğit, "İlm-i Fürusiyet," 109.

to aim to present all the available knowledge that he thinks is worthy of notice. *Haza Kitab-ı Baytarname* is another example of such a work. This *baytarname* was a translation of a work written in Persian, and the copy examined by Erk and Dinçer shows that it contained many rational treatment methods and diagnoses as well as some elements of traditionally practiced but irrational treatments, such as the use of human and animal excretion and urine, and talismans. Treatments mostly included herbal remedies, blood-letting, pomades, ointments, and surgical procedures, based on humoral teachings.[220] On the other hand, this translation, dated in the 15th or 16th century, was found to be more rational and successful than other *baytarnames* of this era.[221] In the first nine pages of the book, prayers, stories, and information about humans, horses, and animals were given, and scientific and religious ideas were merged.[222] The rest of the book contained information about the symptoms and treatment of horse diseases grouped according to the region of the body. Likewise, while most of the *baytarnames* Özen presented contained mostly rational treatments, and some of these treatments were like contemporary treatments, they also contained superstitious beliefs, religious and magical treatments, and irrational methods and materials.[223]

In the *baytarnames*, some evidence of the use of humoral theory can be seen, which showed that there was a rational approach besides religious and irrational treatments.[224] As an example of rational methods, a study found out that in a *baytarname* cauterization was used in 26 different illnesses and was not recommended for 6 illnesses. These methods were found to be scientific and

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[220] Erk and Dinçer, "XV inci ya da XVI ncı Yüzyıla Ait Olduğu Sanılan Bir Baytarname İncelemesi," 117-139.

[221] Erk and Dinçer, "XV inci ya da XVI ncı Yüzyıla Ait Olduğu Sanılan Bir Baytarname İncelemesi," 133-134.

[222] Erk and Dinçer, "XV inci ya da XVI ncı Yüzyıla Ait Olduğu Sanılan Bir Baytarname İncelemesi," 119.

[223] Özen, "Millî Kütüphanedeki Yazma Baytarnameler," 20, 22, 25, 36.

[224] Ali Yiğit, Serdar İzmirli, and Aşkın Yaşar, " 'Haza Kitâbu Baytarnâme' ve 'Tercüme-i Baytarnâme'de Tıp ve Veteriner Hekimliği Alanında Ortak Uygulamalar Üzerine Bir Değerlendirme," *Mersin Üniversitesi Tıp Fakültesi Lokman Hekim Tıp Tarihi ve Folklorik Tıp Dergisi* 3, no.1 (April 2013): 13

applicable in modern veterinary science.[225] Similarly, *Kitab az-Zardaka* has been found to have a unique contribution to veterinary science, as this 15th-century manuscript included anatomical pictures and information and was proposed to be the first of its kind in this respect in veterinary history.[226] Moreover, some of the treatments suggested for animals were also suggested for humans in *Haza Kitabu Baytarname* by Hizam and in an anonymous translation of a *baytarname* named *Tercüme-i Baytarname,* and some comparisons were made between humans and animals, which presented how early veterinary science and medicine were interrelated.[227] According to Özen, the early works of veterinary science included more rational elements than the ones in later periods.[228] Besides, *baytarname* texts do not only concern the history of veterinary science; they are also important in terms of philology.[229]

It should be noted that books for the treatment of horses were also used and written in different parts of the world, and some parallelisms can be found in the behavioral problems of horses. For example, in a nineteenth century[230] book, some methods for subduing stubborn and aggressive horses were offered, just like in "*Tuhfet'ül-mülûk ve's-selâtîn*". In this book after discussing horse treatments for 114 pages, a small section in the end was dedicated for "Method of Taming Wild Horses" with subtitles "Powell's System of Approaching the Colt", "To Prevent a

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[225] Ali Yiğit and Aşkın Yaşar, "On Beşinci Yüzyıla Ait Bir Baytarnamede At Hekimliğinde Koterizasyon," *Lokman Hekim Journal* 3, no.3 (December 2013): 34-36.

[226] Ferruh Dinçer, "Old Veterinary Manuscripts in Turkey and A Study on the 15th Century Manuscript," *Ankara Üniversitesi Veteriner Fakültesi Dergisi* 21 no. 1-2, (January 1974): 7.

[227] Yiğit, İzmirli, and Yaşar, "Haza Kitâbu Baytarnâme ve Tercüme-i Baytarnâme," 10-13.

[228] Yiğit, İzmirli, and Yaşar, "Haza Kitâbu Baytarnâme ve Tercüme-i Baytarnâme," 13. Abdullah Özen, "Millî Kütüphanedeki Yazma Baytarnameler Üzerinde Tarihsel İncelemeler," PhD diss., (Ankara Üniversitesi, 1999).

[229] Böler "Hāẕā Kitāb-ı Esb," 75.

[230] WM. H. Worthington, *Worthington's Horse Doctor, or Horseman's Companion, Containing the Causes, Symptoms, And Most Approved Remedies for the Various Diseases to Which the Horse is Liable in the North, East, South and West, A Guide to Shoeing and Directions for Keeping the Foot Sound* (Cincinnati: Published by the Author, 1858), 119-120.

Horse from Frightening", and lastly, "To Subdue or Drive Vicious Horses".[231] "Worthington's Horse Doctor" is an example of self-help veterinary books in the nineteenth-century USA. It contains many diseases and illnesses of horses and the remedies used for them at the time. It was apparently written for horse owners who would have to cure their horses on their own. It was written plainly and openly. Its simple language suggests that it was written for common people. In the Ottoman manuscript, a chapter "on the stubborn/resistant horse" and another chapter "On the aggressive horse" was also devoted.[232] It would be interesting to compare the methods of subduing such horses, even though here the time frames are different. However, it shows that this was a common problem that the horses would not submit to their riders or drivers, which showed their agency, and in different time frames and very different geographies people dealt with the same issue. The agency and utility of horses caused people to devise methods to overcome their resistance.

Also, as oral culture about horses were important in the Ottoman Empire and Islamic world, it was also an important part in Europe; it even caused problems for veterinary surgeons who were educated in modern institutions, as people preferred horse-doctors educated in traditional methods and through experience.[233] It is interesting to see that the influence of oral culture in horse care is similar to what Greene says about the nineteenth-century Americans: "Although … [they] knew little in scientific terms about equine locomotion, physiology, and behavior, they had an enormous body of knowledge about how to use horses. Traditional horse culture was chiefly an oral culture."[234] She adds that with the increase of horse use and horse ownership became more widespread among people, this transmission of oral traditions suffered, however, there was also an increase of

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[231] WM. H. Worthington, *Worthington's Horse Doctor,* 115-120.

[232] Artan, "Ahmed I and Tuhfet'ül-mülûk ve's-selâtîn," 261.

[233] Clement Stephenson, *Veterinary Topics of the Day: A Paper Read Before the North of England Veterinary Medical Association, November 26th, 1880,* (Newcastle-upon-Tyne: J. M. Carr, Steam Printing Works, 1880).

[234] Greene, *Horses at Work*, 22.

written sources about horses which supplemented oral culture.[235] According to Greene, the rise of industrial capitalism went hand in hand with professionalism. Professionalism was acquired through formal education, and it required systematic and scientific knowledge. In parallel, whereas knowledge about horses used to be acquired through experience and apprenticeship, it began to be understood through technical and scientific knowledge –with no need for physical contact with horses.[236] Modern veterinary school of the Ottoman Empire can be seen in this light: the Ottomans could not resist these developments and had to adapt.

As was mentioned before, while *baytarnames* contained scientific elements, they were mingled with religious, mystical and irrational elements. The rise of modern veterinary science discarded all these elements, which reduced the mystical element of the horse. Eventually, with the advent of industrial age and rational understanding -even though the cult of the horse was retained in certain aspects- they transitioned from being mystical, admirable and noble animals that aid its rider in many ways, to an animal which was likened to a machine in books that compares machine parts and animal body parts.[237] While the body of the horse was more accurately understood with the advent of science and rationality, the objective and alienated look toward it facilitated the transformation of the horse into a living machine. This is not to say that the horses now worked harder or in harsher conditions; on the contrary, animal rights movements were emerging in the nineteenth century. The horse had always been a worker or, in a more pessimistic understanding, a slave, but it retained a mystical element, such as nobility, religious significance and warriorship that gave it an inner value and recognition in the human understanding. This transformation turned the horse into a beautiful and useful animal at best, capable of feeling pain, but without any spiritual significance.

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[235] Greene, *Horses at Work*, 23.

[236] Greene, *Horses at Work*, 212.

[237] "Most writing about horse motion analyzed it in terms of simple mechanics, seeing the equine body as a combination of levers (bones) put in motion by pulleys (muscles). A horse's legs were hinged levers swinging back and forth. A horse's long neck and heavy head functioned as a weighted lever whose momentum could help the animal increase speed or augment pulling." Greene, *Horses at Work*, 16.

However, with the decline of the need for its power, the view on horses started to shift from "a living machine" toward "a sport horse" and then to "a pet" until today. This transformation of the view of the horse can be seen as a grand wave. Although not in a uniform way, in pagan religions, horses have even more mystical and divine elements in essence. Early Turkic legends, its sacrificial value, the myths about supernatural horses like unicorns or the Pegasus are an example of that. In the Middle Ages through the Industrial age, the importance of the horse was more about warfare for the religion and as an indication for nobility and heroism. In the Industrial age, their utility and capabilities were more important than their spiritual and social value.

This transformation, on the other hand, was smooth, as was argued before. Even after the establishment of the veterinary school in Istanbul in the Ottoman Empire as late as 1842, the *baytarnames* continued to play an important role in treating the horses, since there were not enough veterinarians graduated from that school yet and people preferred the treatment methods that they were most familiar with. Moreover, this school's graduates served mostly for the state, as they were part of the military, they could not help civilian people sufficiently.[238] As reforms were usually pioneered by the needs of the military in the Ottoman Empire, this was no exception. Initiatives that brought novelties in horse/animal care and veterinary science started because of military needs, and the fact that the horse retained its significance as a prime mover. However, great waves of epidemics were so detrimental to the animal population that the need for a civilian veterinary school was recognized by Mehmed Ali Bey, who was from the military and who also published a journal.[239] The civilian veterinary school was finally established in 1892 and was named *Halkalı Ziraat ve Baytar Mektebi.*[240] The word *baytar* was still used for the modern scientific school, however, there was a distinction between the graduates of this school and traditionally educated *baytars*.

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[238] Necmi Odabaşı, "Mihaliç Çiftlikât-ı Hümâyûnu Ve İdaresi" (PhD diss., Uludağ Üniversitesi, 2014), 122.

[239] Odabaşı, "Mihaliç Çiftlikât-ı Hümâyûnu Ve İdaresi," 122.

[240] Odabaşı, "Mihaliç Çiftlikât-ı Hümâyûnu Ve İdaresi," 123.

It is seen that translations of books both before and after the advent of modern veterinary science in the Ottoman Empire constituted an important part of the sources about the subject. First, as we have seen before, *baytarnames* were mostly translated works with additions and omissions by the translators. It was often remarked in these texts that the readers can add to these translations if they see anything is missing.[241] This understanding is reflected in different versions of translations of books from the 17th century onwards, with omissions and additions, including traditional knowledge and beliefs, stories about animals, poems and proverbs.[242] The early books' influence persisted, and they were printed and sold even after the establishment of modern schools both in the army and among common people.[243]

This significance of the horse in the military in the nineteenth-century Ottoman Empire is demonstrated by the efforts to publish books that contain modern scientific knowledge. With the establishment of a school of modern veterinary science in the Ottoman Empire, at first, the original books, then translations of these books were used; after the second half of the 19th century original works started to appear.[244] Thus, as the first *baytarnames* were derived from the translations into Ottoman Turkish, the first modern works were also translations. It is seen that 17 books were translated, and 10 original books were written in the 19th-century Ottoman Empire as works of modern veterinary science. In the first two decades of the 20th century, there were 8 translated books and 52 original books written about the subject. As for articles of veterinary science there were 353 articles published in total, out of which 71 were translations.[245] This shows us that although the transition from *baytarnames* to modern scientific works

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[241] Dinçer et al., "Osmanlı Döneminde Veteriner Hekimliği," 380-381.

[242] Dinçer et al., "Osmanlı Döneminde Veteriner Hekimliği," 380-381.

[243] Dinçer et al., "Osmanlı Döneminde Veteriner Hekimliği," 382.

[244] Dinçer et al., "Osmanlı Döneminde Veteriner Hekimliği," 378.

[245] Dinçer et al., "Osmanlı Döneminde Veteriner Hekimliği," 390-398.

started slowly in the 19th century, it strengthened at the onset of the 20th century, judging from the numbers of original works.

2.2. The Impact of Humans on Horses

In the first part of this chapter, we have seen that animals impacted many areas of the human world and various structures through their presence and labor that contributed to social, political, economic, and military life. This reminds of Michael Mann's statement that "[f]our sources of social power – ideological, economic, military, and political- fundamentally determine the structure of societies."[246] Animals were not out of these structures, their presence and mundane actions in different eras of human history made them an effective part of these four sources of social power.

Humans have also changed and transformed animal life in significant ways. This part of the chapter aims to find insights on the effects of humans on horses, their control over them, the reflection of control mechanisms of human societies on horses as well as the cases where horses and humans were regarded as a unity together. This can be seen through haute école, the high school of horses, and the endeavor to breed different kinds of better horses, suitable for different purposes.

Haute École, which is also known as classical dressage as of today, and "airs above the ground" which were the advanced and difficult movements of *haute école* such as *levade*, *courbette* and *capriole*, required the mental and physical discipline of both the rider and the horse. The artistic and grand movements of the horse and the complete harmony between the horse and the rider in these difficult and dangerous movements strengthened the identity of the latter through the complete submission, courage and grandeur of the horse. It also aimed to bring forward the utmost capability and power of the horse's body through discipline and training. This form of riding required specific horses with certain composure and

[246] Micheal Mann, *The Sources of Social Power: Volume II, The Rise of Classes and Nation-states 1760-1914,* (New York, Camnbridge University Press, 1993), 1.

physical prowess to do these movements, so it was closely related to selective breeding too. It is also notable that this form of riding horses in the manège, which was inspired by Greek horsemanship practices, appeared in the Renaissance period, prior to Descartes, who had an important contribution to a change in human-animal relations. This was no coincidence; it reflected the underlying transformation that was happening before Descartes.

Elizabeth Tobey investigates "*Gli ordini di cavalcare*" or "The Rules of Riding" written by Federico Grisone, who was one of the first and most influential horse masters in the riding school. This book, which was published in Naples in 1550, was the first of its kind to be a printed manual for haute école and it influenced many horse-manuals dated from the 16th to the 17th century, even though it was criticized for its descriptions of harsh punishments.[247] According to Tobey, by 1550, this form of riding and the manège was not confined to Naples but had spread to the courts of England, France, Flanders and Spain. As a result, Italian riding masters were receiving invitations by various European courts to teach these skills.[248] Elaine Walker says that starting from 1550, there were "at least twenty different manuals … circulating across Europe" which was about the art of riding. However, while these manuals were mostly translations and derivative works based upon other books, the manuals of Newcastle were original.[249] The manuals of Newcastle also showed his attitude toward horses and their identity. He believed in the intelligence and cognitive abilities of his horses through his personal experiences, and he defied the ideas of Descartes, his contemporary, which argued that horses are unintelligent and driven solely by instinct. He thought that not everyone can see and understand horses the way horseman can do.[250] According

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[247] Elizabeth M. Tobey, "The Legacy of Federico Grisone," in *The Horse as Cultural Icon: The Real and the Symbolic Horse in the Early Modern World,* eds. Peter Edwards, Karl A.E. Enenkel, and Elspeth Graham (Leiden; Boston: Brill, 2012), 143, 149.

[248] Tobey, "The Legacy of Federico Grisone," 147.

[249] Elaine Walker, "'The Author of Their Skill': Human and Equine Understanding in the Duke of Newcastle's 'New Method'," in *The Horse as Cultural Icon: The Real and the Symbolic Horse in the Early Modern World,* eds. Peter Edwards, Karl A.E. Enenkel, and Elspeth Graham (Leiden; Boston: Brill, 2012), 331.

[250] Walker, "Newcastle's New Method," 331, 337-338, 348.

to Newcastle, the interaction with horses gives man the opportunity to experience a relationship that gives him power and responsibility, which is similar to the relationship between God and man.[251] He based his understanding of training horses, rewarding and punishing them according to their behavior on this religious affiliation. However, he advocated good treatment of horses and the use of punishment sparingly, arguing that violence does not bring good results.[252]

Through the study of Elspeth Graham, we can see the relationship between nobility and the art of horsemanship in the 17th century. Particularly haute école, which was described as the highest form of control and harmony in riding was a skill that was seen fit for nobility. In the article, it is also seen that the horse was a means for showing identity, namely masculinity, nobility, and an ability to dominate, control and rule. Graham shows that the ideals of *haute école* or dressage and its connection to nobility were reflected in the riding manuals written by Newcastle. According to Graham, Newcastle's affiliation with horses and horse training was also a way for him to retain his aristocratic identity and social status after his defeat at Marston Moor in the Civil War and his exile to France until he returned to England in the Restoration.[253] She also demonstrates connections between Newcastle's approach to horses and horse training, with the baroque form because training horses in this manner involved "science, discipline, balance, movement and tension". Graham stresses the fact that the illustrations in "A General System of Horsemanship" showed "how nature and passion are grounded by discipline" and that they both signified the aspiration to rise to heaven (with airborne movements) and the physicality of the ground.[254] This training and discipline of horses in the haute école, which first appeared in the 16th century, and

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[251] Walker, "Newcastle's New Method," 332.

[252] Walker, "Newcastle's New Method," 333-334.

[253] Elspeth Graham, "The Duke of Newcastle's 'Love […] for Good Horses': An Exploration of Meanings," in *The Horse as Cultural Icon: The Real and the Symbolic Horse in the Early Modern World,* eds. Peter Edwards, Karl A.E. Enenkel, and Elspeth Graham (Leiden; Boston: Brill, 2012), 43-44, 48, 50.

[254] Graham, "The Duke of Newcastle," 57, 61-62.

aimed to bring forth the true potential, beauty and submission of the horse and the control, balance and moral stance of the rider, can also be assessed as an early form of biopolitics and disciplinary power by training of the body and bringing forth its best qualities and capabilities. Although the emergence of the art of dressage had other motives, it seems plausible that these riding schools were a threshold of the evolution and development of biopolitics on horses.

Since the betterment of horse breeds is a modification of animal bodies with human efforts, it can be regarded as a part of biopolitics directed towards animals. In this respect, the Haute école is regarded as the disciplinary side of biopolitics. Therefore, a distinction can be made between medical control over animals (betterment of horse breeds, disease control, castration, confining horses in stalls, which are a part of biopolitics) and practical control over animals (discipline, dressage, horse training and subjugation). However, it should be remembered that these two points are connected and work together to make use of these animals. As will be seen in the following sections, human actions, transformation of ideas, technological, economical and medical structures affected horses profoundly.

2.2.1. The Horse as a Biological Machine

Earlier in this chapter, correlations were made between animals and machines, and the way the perceptions towards horses and other animals influenced the perceptions about machines were discussed. While the presence of the horse in human life was influential in shaping these perceptions, horses were also affected by this perception that diminished them to a machine, which made them susceptible to abuse and suffering.

This reduction of the horse to a simple tool is usually attributed to the ideas of Descartes. Gina M. Dorré says that with the enlightenment, animals were subjected to the notion that they lack a soul and therefore are a kind of machine: “The philosophical separation of mind and body during the enlightenment subjected the flesh to physical laws. Deducing that animals lacked souls, rationalist thought consigned them to the status of machines, fit for use in production and

profit."[255] On the other hand, she says that the ideas of Charles Darwin represented a contradiction of the Victorian culture. His "On the Origin of Species" questioned "man's dominant position" on other creatures and "the logic of creation". Dorré says that even though these ideas asserted that humans were animals too, they were still on the top of the ladder.[256] However, this affinity that was constructed between humans and animals also affected the rise of an understanding of compassion and kindness toward animals in Victorian era, which was linked to the desire to show that humans were superior to animals, that they are not beasts but moral beings.[257] This is reflected in Prevention of Cruelty organizations.

On the other hand, the ideas of Descartes that deprived animals of intelligence, emotions and a soul can also be seen as a culmination of a trajectory of ideas from Aristoteles to Genesis as Derrida reminds us. In other words, the ideas of Descartes followed by other thinkers were a beginning in themselves, but not the source.

From Derrida's speech "The Animal That Therefore I Am," it can be understood that a certain understanding, definition, and labeling of the "animal" -which is a word created or given, and referenced as a singularity (i.e., an animal) of a multitude of different beings of many classifications (i.e. deer, hedgehogs, tigers) but not forming or possessing an individuality- is embedded in language, history, religion and how human beings see and define themselves, their environment, and non-humans. In this respect, he talks about a presumptive scenario that he makes clear has no hidden or symbolic meaning, but plainly a scenario with a real cat, a real human being, and a simple but real encounter: The shame, fear, and absurdity felt by a human -as humans are defined with non-nakedness (in relation to the story of Genesis) and the animals with nakedness with no consciousness of it- unexpectedly caught naked in the bathroom or the bedroom under the gaze of a small domestic cat, under the gaze of another being, a gaze

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[255] Dorré, *Victorian Fiction and the Cult of the Horse*, 7.

[256] Dorré, *Victorian Fiction and the Cult of the Horse*, 7.

[257] Dorré, *Victorian Fiction and the Cult of the Horse*, 8.

which is "uninterpretable, unreadable, undecidable, abyssal and secret." [258] In relation to this, according to Derrida, many thinkers and philosophers, from Descartes to the present era, including Kant, Heidegger, Lacan, and Levinas, have interpreted and addressed animals but they have never been looked at by an animal or they have never noticed their gaze and this *response* has never taken place in their discourses:

> *They neither wanted nor had the capacity to draw any systematic consequence from the fact that an animal could, facing them, look at them, clothed or naked, and in a word, without a word, address them. They have taken no account of the fact that what they call ''animal'' could look at them, and address them from down there, from a wholly other origin.* [259]

Animals, which is a label itself given by humans, by beings that define themselves as humans, are seen as machines, beings that are deprived of reason because they are deprived of the language of humans, which is seen as a differentiative characteristic of the latter. Such understanding, which resonates through seeing animals without being seen by them, was taken further back from Descartes to Aristoteles, and to the story of Genesis, where Adam, and not Eve, only the man and not the woman was given authority over animals, and the authority over naming them.[260] Thus, men did not only gain authority on animals, but also on women, according to this perception.

The language used for animals also indicates how we perceive them and where we put them in our minds. For example, they are usually referred to as *it* or *that*, as if they are things, machines that have no real and intrinsic personality because they cannot speak like a human. On the other hand, as in today, earlier texts written by those who had animals in their daily lives did refer to them by their gender, as he or she, and some valued studs even earned to be referred to as *who*. Numerous examples point to the fact that many people knew that animals could

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[258] Jacques Derrida, *The Animal That Therefore I Am*, ed. Marie-Louise Mallet, trans. David Wills (New York: Fordham University Press, 2008), 12.

[259] Derrida, *The Animal That Therefore I Am*, 13-14.

[260] Derrida, *The Animal That Therefore I Am*, 17.

feel pain and react in emotional ways such as excitement, fear, and courage in their daily lives, while Cartesian thought rejected all these faculties of the animal. This strengthens the idea that because animals were present in daily life, working and relating to people in mundane tasks, they were treated as a kind of hybrid biological machine; tools to use, improve, and maintain. They were sometimes used to the detriment of the animal to seek out profits, yet they were also recognized as living beings that *can* react in certain ways in different situations.

Another point of view is not to focus on the ideas of Descartes, but the fact that the intelligence, emotions and the souls of the animals were being discussed in the Renaissance, which implied that it was now open to debate. According to Benjamin Arbel, animals were excluded from the protection of Christian morals, and they did not have intelligence nor an immortal soul in Christian dogma. However, during the renaissance, discussions about animal intelligence and respect for them such as Plutarch's *Moralia* began to emerge and even though these thoughts did not reflect the main trend of western thought, these discussions solidified in such a way that it continued to the present day.[261] Moreover, while Descartes argued that animals are in fact a kind of machine with no thought and feelings, and that they lacked the ability to feel pain and to suffer, the less known philosophers in the 17th century, Anne Finch, Lady Conway and Margaret Newcastle argued that animals had feelings and a mind of their own and should be respected, but these philosophers were ignored.[262] The former was an indicative of the triumph of ever-expanding use and consumption of animals in various areas of the human world, while the latter was indicative of the struggles of the proponents of animal rights and vegetarians, who started to raise their voices more with the 19th century onwards.

While prior to renaissance, Christianity, with some exceptions, denied animal intelligence and emotions, benevolence for animals was seen as a necessity

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[261] Benjamin Arbel, "The Attitude of Muslims to Animals: Renaissance Perceptions and Beyond," in Animals and People in the Ottoman Empire, ed. Suraiya Faroqhi (İstanbul: Eren, 2010), 59-62.

[262] Josephine Donovan, "Interspecies Dialogue and Animal Ethics: The Feminist Care Perspective," in *The Oxford Handbook of Animal Studies*, Ed. Linda Kalof, (Oxford University Press, 2017), 209-210. Gary L. Francione and Anna E. Charlton, "Animal Rights," in *The Oxford Handbook of Animal Studies*, ed. Linda Kalof, (Oxford University Press, 2017), 27.

for Muslims in early modern era, and these ideas may have transferred to Europe, transformed and returned in the 19th century through western supremacy. On the other hand, it must be noted that although benevolence may be more common among Muslims in that era, the human supremacy was still undoubted. In his article, Benjamin Arbel presents a striking difference between the European traveler accounts of early modern era and 19th-century accounts about the Muslim attitude towards animals. He gives examples from a traveler in the thirteenth century, Ricoldo da Montecroce, and from many travelers starting from late fifteenth century such as Josse van Ghistele, Meshulam Volterra, Luigi Bassano, Ogier Ghiselin de Busbecq and others who recorded how the Muslim people from different lands from Egypt to Istanbul treated animals such as cats, dogs, horses and donkeys with compassion and respect, gave them shelter and food, punished those who torment them, which were contrary to the practices in these travelers' countries according to their testimonies.[263] However, starting from the 19th century, the image of this benevolent attitude changed, and accounts of cruelty started to emerge. Benjamin Arbel says that it could be caused by the colonial attitude of the Europeans or a real change of the attitude of Muslims towards animals.[264]

Cartesian ideas reflected the changing perceptions of animals as things through rationalism and utilitarianism. This effect can be seen in the ideas of Immanuel Kant, Thomas Aquinas, and John Locke.[265] The idea that animals had no moral value and that they were things for human use transformed in the nineteenth century, however, they were continued to be regarded as inferior, and their interests were not as important as human interests, and they could be used as human resources.[266] There were only a few examples of laws for the protection of animals in the western world prior the nineteenth century, and it was after that

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[263] Arbel, "The Attitude of Muslims to Animals, 63-71.

[264] Arbel, "The Attitude of Muslims to Animals, 74.

[265] Francione and Anna E. Charlton, "Animal Rights," in *The Oxford Handbook of Animal Studies*, ed. Linda Kalof, (Oxford University Press, 2017), 27.

[266] Francione and Charlton, "Animal Rights," 29.

when animal rights started to emerge in its full sense, which signified a shift in thinking concerning animal interests.[267] Yet, animals were still seen as property by the state which can be bought and sold, even though their rights were recognized partially, they still had no intrinsic value.[268]

There were also practical and economic concerns that caused the horses to be seen as machines: The expenses of horses were high, and people tried to make the most use of them and they were practically a part of the tools besides the fact that they were alive. When combined with philosophical and religious understandings that championed human supremacy and intrinsic value over animals, these concerns made it easier for people to regard animals as machines, and it was more convenient for them to see them as machines with no moral obligation. Thus, from the discussions so far, language, religion, renaissance ideas, practical needs and economic concerns played a part in turning the horse into a biological machine.

However, the status of the horse was even more complicated because of its special place in human social life and constituting identity, in short, the horse cult. Like the Islamic texts about horses, these animals were also exalted in the Bible, and this was used by advocates of kind treatment of animals. For example, Cuneo mentions about a part in the riding manual *Pferdt-Schatz* where it was asserted that "the horse was one of the God's favorite creatures" because the horse was continuously chosen "to serve and to glorify Him" in the Bible. It was also a gift for the man to use it in the same way, that is to serve and glorify him. Since it was such a gift, man had the responsibility to treat the animal kindly and generously, otherwise, it would be defying God and committing a serious sin.[269]

Just like *baytarnames* placed the horse just a step below the *man* as a most honorable being after the *man*, 17th century horsemanship manuals printed in

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[267] Francione and Charlton, "Animal Rights," 38.

[268] Francione and Charlton, "Animal Rights," 39.

[269] Pia F. Cuneo, "Visual Aids: Equestrian Iconography and the Training of Horse, Rider and Reader," in *The Horse as Cultural Icon: The Real and the Symbolic Horse in the Early Modern World,* eds. Peter Edwards, Karl A.E. Enenkel, and Elspeth Graham (Leiden; Boston: Brill, 2012), 81.

Britain placed the horse just below the *man*. Peter Edwards gives examples from Nicholas Morgan and Baret Michael who wrote horse manuals and believed in God-given right of the humans to exploit the world and its resources, placing the horse in a more exalted position among other animals and suggesting that God created the horse as only a little inferior to man.[270] Moreover, horses were seen as only second in intelligence after man, among other animals according to some authors such as Gervase Markham, Thomas de Grey and John Hildrop. There were only a few people who thought otherwise, until the ideas of René Descartes became influential, which asserted that animals lacked intelligence and feeling and were like machines that operated with instincts.[271] He maintains that whereas people, in general, used horses only for their function, the upper classes used horses not only for their physical labor but also for their performance of exhibiting power and an exalted image.[272]

Whereas horses were mostly seen as machines after the influence of Cartesian thinking, there were also people who were against this attitude towards the animals. H. C. Merwin was one of them. In his book about horses, he reserved the first chapter to "the ethics of horse-keeping". In this part, it is seen that he believed that horses could respond and connect to people emotionally.[273] However, for some people, horses were just machines devoid of any character, intelligence, or ability to suffer:

> *There are men to whom a horse is only an animate machine: they will ride and drive him, hire grooms and draw cheques for his sustenance and keeping, but all without a single thought of*

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[270] Peter Edwards, "Image and Reality: Upper Class Perceptions of the Horse in Early Modern England," in *The Horse as Cultural Icon: The Real and the Symbolic Horse in the Early Modern World,* eds. Peter Edwards, Karl A.E. Enenkel, and Elspeth Graham (Leiden; Boston: Brill, 2012), 281.

[271] Edwards, "Image and Reality," 284-285.

[272] Edwards, "Image and Reality," 282.

[273] H. C. (Henry Childs) Merwin, *Road, Track, and Stable: Chapters About Horses and Their Treatment,* (Boston: Little Brown, and Company, 1892), 1.

> *the animal as having a character, a mind, a career of his own; as being susceptible to pain or pleasure.*[274]

As the text goes on, it is seen that it was rather common for the people to treat their horses, whether hired or owned, as if they were machines. He says that most people do not look at the condition of the horses they hire or the horses of the cab they summon, and that they should look at them to select the fit ones which would make the weary cab horses unprofitable.[275] Moreover, according to his descriptions, the fate of the lame horse or a horse that was getting old and losing its old condition was not bright either. He also mentions the practice of docking the horses' tails, which he described as a mutilation, and as inartistic and barbarous, and will become obsolete eventually, just as cropping horses' ears did, which was practiced until 1840. He links the revival of tail-docking at the time, which made horses susceptible to flies and mosquitos to the influence of the "Anglomaniacs".[276]

Through examples, he tries to convince the reader that horses can feel sadness, joy and pain, that they have intelligence, they need assurance, not the whip or spurs when they are nervous, that they can be timid in character especially in unfamiliar surroundings, and they can be social and affectionate if treated nicely. Such treatment would also make them docile and more willing to work.[277]

Similarly, in 1858, John Stewart made some remarks about some drivers and called for a humane treatment of horses:

> *It is only necessary to observe farther, that, in addition to sobriety and skill in their employment, all those who work the horses should be humane. Every stableman should feel for a feeble horse, and spare him; but in those who drive, kindness is of more importance. I have known horses purposely driven to death, or so overtasked, that debility, and other consequences of severe labor, gave the driver an excuse for*

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[274] Merwin, *Road, Track, and Stable*, 1-2.

[275] Merwin, *Road, Track, and Stable*, 4.

[276] Merwin, *Road, Track, and Stable*, 19-22.

[277] Merwin, *Road, Track, and Stable*, 8-13.

> *demanding exchange. These things have been done, sometimes because the horse was too slow, too fast, or too feeble; sometimes merely because he was awkward to manage, or did not please the eye of the driver. Such things could never happen in the hands of an humane man.*[278]

Stewart says that even though the tail of the horse protects it from blood-sucking flies and other insects, and the lack of it caused extreme torment, the tails of horses of Britain are docked, that is, amputated. According to him, this was done because the tail was thought to conceal "the horse's quarters", make the horse look a little shorter, heat the horse during work, and to make the back stronger as the blood that the tail received was thought to go to the back if it is amputated, whose truth he rejected. He reminded that lockjaw and death were not rare occurrences during the operation.[279] Stewart firmly objected to docking.

Another violent fashion that he talked about was the operation called nicking or pricking to make the horse's tail more elevated. This was done by two or three incisions "on the lower surface of the tail; the muscles by which it is depressed are divided, and a portion of them excised. The wounds are kept open for several days, and the tail is kept in elevation by means of pulleys and a weight." He added that no respectable veterinarian would do it. He suggested for those who want their horses' tails more elevated, to tie the tails in the stalls to a pulley on the top, and let it stay in that condition for a few hours every day.[280] The way the procedure is carried out was described as barbarous by A. B. Allen, who added notes to the book, as it was the American edition. He says that it was practiced in America in a "much more simple, effectual, and less painful" way, and suggested the tail to be docked first, and if it does not elevate the tail, only then this procedure may be done.[281] It is interesting that while he thought the procedure in Britain as

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[278] John Stewart, *The Stable Book; Being a Treatise on the Management of Horses, In Relation to Stabling, Grooming, Feeding, Watering and Working, Construction of Stables, Ventilation, Stable Appendages, Management of the Feet,* (New York: A. O. Moore, Agricultural Book Publisher, 1858), 81.

[279] Stewart, *The Stable Book,* 106-107.

[280] Stewart, *The Stable Book,* 107-108.

[281] Stewart, *The Stable Book,* 109.

"barbarous", he suggested an equally cruel one, which had no purpose but to please the eye of the horse's owner. Another procedure of this sort mentioned by Stewart was cropping the ears of horses. He says that it was almost as common as docking but this operation is completely abandoned.[282] Such methods of manipulation and mutilation can be regarded as a desire to improve and modify the horse body according to human wishes.

In sum, while some people regarded horses as machines, some as living beings capable of suffering and thought they should be treated humanely. This viewpoint of seeing horses as a kind of machine or tool can also be regarded as a form of control and manipulation toward animals. With the emergence of steam power and mechanical designs it became possible for people to think of animals in such terms. Just as machines, horse species could be improved through human intervention, innovation of new techniques and state apparatus.

2.2.2. Biopolitics and the Betterment of Horse Breeds

For most of the 19th century, horses remained at the top of the prime movers' ladder in terms of speed, efficiency and economy. However, now seen as biological machines, they had to be reformed and improved. To accomplish that, the state started to rely on scientific methods with a positivist mindset, and a contemporary understanding of rationality. The betterment of horse breeds was not new; people had been doing it for centuries. What was new was how people handled it and how they perceived it.

Before making a connection between horses and biopolitics, an overview of the latter should be discussed to clarify the correlations. As Lemke states, the term biopolitics encompasses contradictory meanings, and there is no consensus over its meaning, yet it has a significance to understand our present time.[283] Lemke says that biopolitics refers to "a politics that deals with life" however, there are two

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[282] Stewart, *The Stable Book,* 112.

[283] Thomas Lemke, *Biopolitics: An Advanced Introduction,* trans. Eric Frederick Trump, (New York; London: New York University Press, 2011), xi.

factions of understandings of biopolitics: Naturalist and politicist. One of them takes "life as the basis of politics" and the other objectifies life in the face of politics, sees life as the object of politics. The first one has either an ecological standing as it tries to make a connection between politics and the "preservation and protection of the natural environment" or a productive enhancement, development of natural environment and resources. The second one focuses on a politics emerged from the medical and scientific developments "and biotechnological applications"[284] According to Lemke, there is a problem in both conceptualizations: Both depend on one stable pole, either life or politics. "Either biology accounts for politics, or politics regulates biology".[285] However, in his view, neither life nor politics are isolated, they are historically connected; moreover, their borders are not clear cut but unstable and blurred.[286] Lemke, instead of these two understandings of biopolitics proposes "a relational and historical notion of biopolitics based on the conceptualization of Foucault.[287] This dissertation is also based on Foucault's conceptualization of biopolitics as his approach is historical and can be insightful for animal histories.

Foucault says that at the onset of the 17th century, the relations between life and politics began to change. Classical understanding of sovereignty was based on its power over life and death: It was a right to "*take* life or *let* live".[288] This right of death turned into the protection and maintenance of life "to administer, optimize, and multiply it, subjecting it to precise controls and comprehensive regulations".[289] In other words, "the ancient right to take life or let live was replaced by a power to foster life or disallow it to the point of death".[290] According to Foucault, this power

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[284] Lemke, *Biopolitics: An Advanced Introduction*, 2-3.

[285] Lemke, *Biopolitics: An Advanced Introduction*, 3.

[286] Lemke, *Biopolitics: An Advanced Introduction*, 4.

[287] Lemke, *Biopolitics: An Advanced Introduction*, 5.

[288] Michel Foucault, *The History of Sexuality: Volume I: An Introduction*, trans., Robert Hurley, (New York: Pantheon Books, 1978), 136.

[289] Foucault, *The History of Sexuality,* 1:137.

[290] Foucault, *The History of Sexuality,* 1:138.

over life manifested in two forms starting in the 17th century. The first manifestation was the body as a machine, its utility, and usefulness. This was also related to discipline, regulation and control. The second one was about the mechanical and biological parts of life, that is, births, mortality, health, life expectancy and prolongevity. This second form was related to science and regulatory actions; in other words, a "series of interventions and regulatory controls: a bio-politics of the population".[291]

In fact, Foucault says that life and history has always been in relation through imminent threats of death, especially epidemics and famines. However, in his opinion, economic developments, new agricultural techniques and the emergence of different fields of knowledge concerned with life in the eighteenth century created a degree of relief about these threats in the western world, even though it could not prevent it altogether. The difference did not lie in the relation between history and life, but in the fact that these developments signified the new role of knowledge and power to assume control and regulation of life. In other words, the novelty lay in the fact that the "biological existence was reflected in political existence", and that politically, life was not confined to fatality and death but now included in the power of politics and in the control of knowledge. Power and knowledge took a grip on the body with the promise of life rather than the threat of death.[292]

As it was indicated before, Foucault states that this transformation began in the seventeenth and eighteenth centuries, and this regulatory and disciplinary power focused on individual bodies. The individual bodies were tried to be used productively with minimum cost. However, according to him, in the second half of the eighteenth century, a new technology of power began to emerge, which was not disciplinary in essence but it did not exclude it either; integrating it and modifying it to an extent. The difference between the disciplinary power and the biopower that Foucault describes lies in the fact that the former focused on the

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[291] Foucault, *The History of Sexuality,* 1:139.

[292] Foucault, *The History of Sexuality,* 1:142-143.

multiplicity of bodies, which could be seen in their individual forms and could be controlled, trained and punished via technologies of surveillance and discipline. On the other hand, biopower was exercised on the "global mass" that these individual bodies constituted, a mass that was affected by variables such as birth, death, sickness, and production. Thus, it focused on the life and the potential of the body instead of mechanistic capabilities of it.[293] However, he notes that biopolitics is not simply concerned with society; it is occupied with the population encompassing individual bodies, a population with multiplicity. In other words, the population and individual bodies are linked in biopolitics. It means that after the end of the eighteenth century, both disciplinary and regulatory technologies were used.[294]

Selective breeding, establishment of modern state stud farms which focused on improving horse breeds on an unprecedented scale with the application of scientific methods, modern veterinary science, new approaches to animal health and care, and prevention of diseases, together with a preoccupation with hygiene and scientific construction of stables to provide utmost comfort, health, and productivity for horses can be regarded as a reflection of biopolitical thought. The preoccupation with increasing horse numbers and improving breeds to modify the horse body through generations in a systematic way, making statistics, recording details of each breeding horse were also related to this. The systematic control of horses through state permissions for breeding or forcing castration for stallions which were diagnosed as unfit to breed through state apparatus was seen in both Europe and the Ottoman Empire. Similarly, remount depots bought young horses for the army and trained warhorses out of them. Overall, starting from the 17th century and becoming more refined in the 19th century, there was an attempt for transformation and modification of animal bodies for maximizing their labor in accordance with the transformation of the understanding of life and politics, discipline, power and knowledge.

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[293] Michel Foucault, ""Society Must Be Defended," Lecture at the Collège de France, March 17, 1976," in *Biopolitics: A Reader,* eds. Timothy Campbell, Adam Sitze (Durham and London: Duke University Press, 2013), 63-64.

[294] Foucault, "Society Must Be Defended," 70, 72-73.

This subject will be further investigated through examples for Ottoman horses in Chapter 3 and in other areas of the world in Appendix C through different texts from the 19th and early 20th centuries.

2.2.3. Promoting the Horse Life

The legitimization of biopolitics, the control over the body by the state and science, relied on fostering life, and it also had repercussions on the lives of horses. These were not only in terms of increasing the number and quality of horse breeds. Although fostering, multiplying and protecting life was to increase productivity, it also had some positive effects on animals, while also increasing control over the body of the horse. Therefore, seeing animals as biological machines did not always have dire consequences; the aim of improving the productivity of the animal necessitated better conditions of working, better fitted tools such as harnesses or saddles, better healthcare and feeding, and more comfortable and sterile stables according to scientific standards. Such conditions were dictated by veterinary science; there were also agricultural experiments to measure the horse body's capabilities.

The experiments made by Collins and Caine on draft horses to see how much they could pull in different conditions of weather, soil, equipment, feeding, and degrees of speed, distance and velocity in 1926 are an example of such endeavors. It was carried out through the Agricultural Experiment Station under the Iowa State College of Agriculture and Mechanic Arts. This station was neither the first one nor the only one of its kind: Experiment stations were first established in Germany in the middle of the 19th century to promote scientific agriculture, and in 1876, the first experiment station in the U.S.A. was founded,[295] followed by many others in subsequent years. Besides these stations, John Stewart mentions experiments in the 19th century, especially to measure the drawing capabilities of

[295] H. C. Knoblauch, E. M. Law, W. P. Meyer, et al., *State Agricultural Experiment Stations: A History of Research Policy and Procedure* (Washington: United States Department of Agriculture, 1962), 14.

horses in varying degrees of speed, weight, pace and duration.[296] It was asserted in the report of the experiments of Collins and Caine that plowing required “more power than any other ... farming operation” and that the power needed to pull a plow probably varied “more than that of any other farm implement”.[297] “[T]he type of soil, physical condition of the soil, crops grown, depth of plowing and amount of moisture present” as well as “the condition and adjustment of the plow” were the factors for the necessity of power for pulling, the deciding factor being the depth of the plow.[298] This shows that the stronger the horse, the deeper a plow can be adjusted, and the use of draft horses pulling heavy iron plows capable of digging deeper than traditional plows increased productivity. Other tests to "determine the drafts of loads" were made in Chicago, this time in the city streets. These were proved to require less work than that of the teams of horses in farmland, however, the streets of Chicago were well paved and level.[299] In muddy and uneven streets, the horses would have to put more effort. In line with the draft horse experiments, pulling contests were arranged in fairs and horse shows to secure data; these were found to be beneficial due to their competitive nature, drawing attraction, a way to show and promote horsemanship skills, and educational features.[300] These pulling contests demonstrated that: [301]

1. Training the horses increases the animals' output of pulling power.

2. The same teams of horses were tested when they were thin, and when they were heavier and fatter; and the results showed that when they were heavier and in better shape, they could pull heavier loads.

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[296] Stewart, *The Stable Book,* 353-355.

[297] Collins and Caine, “Testing Draft Horses,” 208.

[298] Collins and Caine, “Testing Draft Horses,” 208-209.

[299] Collins and Caine, “Testing Draft Horses,” 209-212.

[300] Collins and Caine, “Testing Draft Horses,” 212.

[301] Collins and Caine, “Testing Draft Horses,” 215-217.

3. Ill-fitting collars and harnesses handicapped horses in various ways, prevented their breathing and caused sore shoulders and neck, which reduced their performance.

4. Good driving skills and good understanding between the driver and the horses also affected the performance of pulling.

During these tests, while the horses' power was evaluated as if they were machines, their care and well-being were also considered: When their shoulders became sore, they were rested, and their weight and condition were carefully inspected. Although this was done to test their performances in perfect condition and the horses were rented from farmers, which gave the experimenters more responsibility, the emotions of the horses were considered, at least in one instance. Collins and Caine mention a team of horses that they work with, which "had always been fed an excessive amount of hay and seemed to fret and worry if an abnormally large amount had not allowed them each day".[302] The productivity and efficiency of horses and good care of them were correlated.

Another way of increasing productivity and the health of horses was the improvement of stable conditions. According to F.H. King, the temperature of animals should be controlled because it was seen as important for the animal's health and productivity. For this reason, the automatic control of the temperature of the animal's body, its relation to the amount of food it receives, the construction of stables, and the types of walls for the control of temperature were addressed. Also lighting in living quarters and stables, and methods of ventilation against moisture, dust, micro-organisms, carbon dioxide, and ammonia were discussed thoroughly.[303]

This understanding had its roots in the second half of the 18th century and was gaining more importance in the 19th century. John Stewart was a veterinary

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[302] Collins and Caine, "Testing Draft Horses," 218.

[303] King, *A Text Book of the Physics of Agriculture,* 343-365.

surgeon, and a professor of veterinary medicine at the Andersonian University in Glasgow. In 1858, he pointed out the importance of various aspects of the construction and maintenance of stables, such as ventilation, light, type of walls, bedding, moisture, and these were addressed most meticulously. Modern stables were described as spacious, well-aired, dry and comfortable, while Stewart complains that the majority of the stables were built too small, dark, close or open and with little regard to the comfort and health of the horses and some of these were like dungeons".[304] The situation of stables, in terms of the direction of the wind, moisture, size, arrangement of the stalls, walls, doors, windows, the roof, the floor, drains for the urine, different kinds of partitions between horses, hayracks, and mangers are described in detail, while pointing out the faults of traditional types of stables. For example, he states that most stables had too few, too small or badly situated windows, and farm stables had generally no windows at all; and the horses were kept in the dark, because it was thought that horses do not require light, thrive best and fatten better in the dark. He stressed the importance of the light in stables for the well-being and health of horses as well as hygiene, as dark stables could not be cleaned and horses could not be groomed properly, and when they became sick or lame it would not be seen until they were put out to work.[305]

Stewart thought of ventilation to be of utmost importance for the health of horses: Prior to 1788, when the work of a veterinary surgeon named James Clark was published, it was believed that hot stables were necessary for the health of horses and no fresh air was allowed in the stables. However, this foul atmosphere was seen as the cause of many diseases from blindness to glanders. Although there were many stables well-ventilated now, there were still many ill-ventilated stables. First, the architects were blamed, next, the owners of the horses for they did not make the necessary changes. Some of them opposed ventilation because they confounded hotness or warmth with foulness, some were indifferent because they

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[304] John Stewart, *The Stable Book; Being a Treatise on the Management of Horses, In Relation to Stabling, Grooming, Feeding, Watering and Working, Construction of Stables, Ventilation, Stable Appendages, Management of the Feet,* (New York: A. O. Moore, Agricultural Book Publisher, 1858), 13.

[305] Stewart, *The Stable Book,* 14-42.

did not want to spend money for it as it could be expensive to construct windows, and some did not know how it was supposed to be done.[306]

He suggests good bedding for the horses, so that they can lie on it comfortably, which was seen as of equal importance to food for working horses. This bedding, usually made of straw and saw dust as it is the practice today, would also help prevent diseases and create a more hygienic living space. However, he says that most stablemen do not provide horses with such comfortable and clean bedding, which they should change frequently, and some people do not use it at all, letting the horses lie on stones.[307] Overall, he shows a grim picture of working horses such as boat horses, coach horses, cab horses: they were kept in foul and dark stables without much space, air, clean bedding if there is any bedding, and sometimes with harsh treatment and abuse. However, the scientific standard to keep horses was to provide them with a more comfortable life, so that they become healthier and more productive. As was seen before, some people also had ethical considerations when proposing such conditions for living.

2.3. Animal Agency and Transformation

Agency in history was traditionally confined to famous, influential humans. However, so many discussions have been made since the nineteenth century to this day. If historical agency means the ability to alter the course of history, where can we put animals in this context? If the subaltern can have so much impact in history and we cannot see them easily in historical documents, could animals be influential in shaping history as well? Until this section, it was seen that they do affect human life profoundly in a historical sense. However, this section aims to investigate this issue further by referring to the current literature.

So far in this dissertation, it has been argued that animals, including horses, influenced the human world profoundly, that they were a part of technological, scientific, social, military and political structures and shaped and

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[306] Stewart, *The Stable Book,* 42-45.

[307] Stewart, *The Stable Book,* 131-132.

were shaped by these structures in many areas of the world. This refers to the agency of animals, which were capable of influencing events by the unintended consequences of their actions as well as their presence and absence, which changed the way how people responded to different situations, such as use of labor or battle tactics.

Proponents of including animal agency into history-writing are in general opposed to a strict, limited understanding of rational agency. For example, Amanda Rees quotes from Walter Johnson that "agency/agenthood is still tied far too tightly to the idea of a rational, liberal, individual self, and one that is 'free, white and twenty-one!"[308] David Gary Shaw also has doubts about the classical understanding of rational agency: He says that "perhaps we should abandon notions of agency that start with or assume the specialness of reason, of the individual, of the human."[309] Likewise, Jason J. Hribal argues that "A different perspective, one from below, can be achieved if we attempt to gain a better understanding of the nexus between agency, class, and the history of other animals."[310]

The problem of animal agency in history writing is not limited to the question of whether animals had agency or not, but also how they were perceived by people. Jason J. Hribal gives an account of how cows, dogs, horses, donkeys, mules and many other animals that humans have an interaction within their daily lives showed resistance and compliance, and their resistance and compliance were regarded by humans as an intended behavior of the animals, in other words, people who interacted with their animals thought they had agency.[311] Amanda Rees supports this view as well and says that "Whether or not animals have agency here may not matter – the key point is that the belief that they are capable of both intent

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[308] Amanda Rees, "Animal Agents? Historiography, Theory and the History of Science in the Anthropocene," *BJHS*: Themes 2 (2017): 2-3, https://doi.org/10.1017/bjt.2017.11.

[309] David Gary Shaw, "The Torturer's Horse: Agency and Animals in History," *History and Theory* 52, no.4 (December 2013): 151.

[310] Jason C. Hribal, "Animals, Agency, and Class: Writing the History of Animals from Below," *Human Ecology Review* 14, no. 1, (2007): 103.

[311] Hribal, "Animals, Agency, and Class," 103.

and reciprocity itself inflects the shape of human experiences and activities. In that sense, if not any other, animals are capable of inspiring action."[312] Therefore, even if the intended actions of animals have not been significant enough, when their implications on human actions are so grand, they should be regarded as an agency. In other words, animals don't have to have the power to create a visible social or economic change to be considered as an agency in history through their conscious actions; they can still be an active transformative power that affects history in subtle ways. Their inclinations and attitudes toward an event, behavior, technological apparatus, a certain way of working or their health status, and happiness and resistance can affect the daily lives of people and the structure of these daily lives must adapt to animal behavior. Accordingly, animals have a micro and a macro agency. They affect people's lives individually, and their general characteristics, attitudes and nature shape the overall structure of society because they worked and were present in many aspects and areas of life. As the definition of historical agency here does not require consciousness to have an effect on the historical events, and as animals in history unconsciously contribute to historical events through the roles they play in these events, an attribution of agency to animals seems plausible.

On the other hand, Amanda Rees mentions a question some scholars have: whether a history writing that includes animals can go beyond human perceptions of them.[313] This brings the subject of understanding of animal point of view. The same way Foucault had doubts of the possibility of understanding the point of the mad person that faced analyzing, enlightened rationality, without succumbing into that very same rationality,[314] understanding the animal point of view in their own history can be tricky. Even though it is hard and challenging to see the point of view of the animal, studying it can bring out new perspectives and can break

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[312] Rees, "Animal Agents?," 5.

[313] Rees, "Animal Agents?," 5.

[314] "The language of psychiatry, which is a *monologue of reason* about *madness,* has been established only on the basis of such a silence. I have not tried to write the history of that language, but rather the archaeology of that silence." Michel Foucault, *Madness and Civilization: A History of Insanity in the Age of Reason*, trans. Richard Howard (New York: Vintage Books, 1965), x-xi.

deterministic, normalized and dogmatic beliefs that we may not be aware of yet. In this respect, an interdisciplinary study may enable us to understand whether we can understand animal perceptions in history or not. Studies in animal psychology can help us understand in what ways animals may react to specific situations and actions and those reactions may be compared to historical situations that animals face; even though it would differ from animal to animal, we could still have a general idea about them. There are increasing studies about animal personalities which show the possibility of such interdisciplinary studies in the future.

For example, in a review study, it is seen that some personality types are similar between humans and other animals.[315] Likewise, Lesley Evans Ogden says that there are many studies about individual personality types seen in a variety of animals such as elk, sea anemones, limpets, fish, birds, rodents, ungulates, spiders, water striders, and lizards, and that new species of animals are being found to have personalities which indicates that individual personality types may exist in the whole animal kingdom.[316] She states that until the last decade, animal personality in the wild was mostly ignored by scientists, sometimes with the fear of anthropomorphism. However, much research has showed that entire behavioral types exist in individual animals among salamanders, a bird species called great tits (*Parus major*), fish called sticklebacks, and lizards including Sleepy lizards and many others.[317]

According to Cavigelli, just like animals help scientists to understand the relationship between physiological mechanisms that underlie diseases like arthritis, diabetes, anxiety disorders and depression, animals can also be used to understand the relationship between personality and health.[318] She adds that there are many studies that have shown individual differences in animals, and they were compared

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[315] Samuel D. Gosling, Oliver P. John, "Personality Dimensions in Nonhuman Animals: A Cross-Species Review," *Current Directions in Psychological Science* 8, no. 3 (June1999): 69-75.

[316] Lesley Evans Ogden, "Do Animals Have Personality? The Importance of Individual Differences," *BioScience* 62, no. 6, (June 2012): 533.

[317] Ogden, "Do Animals Have Personality?," 534-536.

[318] Sonia A. Cavigelli, "Animal Personality and Health," *Behaviour* 142, no. 9/10 (2005): 1224.

to personality traits of humans, including shyness and boldness, novelty-seeking, extraversion and introversion, and coping styles.[319]

In a table, she presents the different personality traits of individual rats observed in various studies[320], which indicates that even rats have individual personality traits, let alone animals like horses, dogs, cows, cats and camels. Cavigelli says that human personality researchers define personality as "a set of inter-related traits that are stable within an individual across time and across situations." She says that there is quite a lot of research that shows animals have stable personality traits across time and situations, just like humans.[321] Cavigelli believes that further research about the individual differences across animal species can help us understand human personality traits better.[322] This means that not only animals have personality traits and behavioral responses, but also, they can help scientists to understand human traits and responses. These studies show that animal agency in history is not absent but ignored mostly. Therefore, interdisciplinary studies may illuminate a different aspect of history which includes animal agency.

People can only shape an animal's body and its living conditions to the extent the animal allows it, or the animal may become unmanageable, dangerous, unproductive or sick. Not only in its physical terms, but also in its psychological terms, in other words, its personality. They can be beaten, forced to pull a vehicle, treated nicely, and still they can resist all of that and do not perform as expected. Animals, even in a subordinate position, can affect the decisions and actions of humans. One example of that is the failed attempt of using camels in the USA because they resisted subordination.[323]

Therefore, even though there are limitations to look at history from below, this time from the animal point of view, treating them as simple objects that are

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[319] Cavigelli, "Animal Personality and Health," 1224.

[320] Cavigelli, "Animal Personality and Health," 1225.

[321] Cavigelli, "Animal Personality and Health," 1226.

[322] Cavigelli, "Animal Personality and Health," 1228.

[323] Hribal, "Animals, Agency, and Class," 105.

completely comprised by passivity and no action, cannot give us the full picture of a history that was shaped not only by humans but also by nameless and forgotten animals. Moreover, animals were present in people's lives in history, and they still are, they are just incorporated into human civilization so strongly that their existence is taken for granted and their significance is underrepresented.

The fact that the concept of animal rights was new in the nineteenth century does not indicate that ordinary people saw no agency or personality in their animals in their daily life. McShane and Tarr state that while urban horse owners treated their animals as machines, they were also aware of the differences in the traits and behaviors of these animals, and even if they did not define it this way, they recognized that horses possessed gender, emotions, and intellect.[324]

Animals do not leave documented evidence just like subaltern masses; they were voiced only by archeological evidence, the writings of the elites and court records, and the details mostly concern the humans and are usually written in practical and materialistic ways. Therefore, studies on the subaltern and on the animals may help each other to gain more perspective in both areas. There is also a question of whether animals and animal laborers can be included in the subaltern. According to Alan Mikhail, it is not impossible, because animals are embedded in everyday life in such a way that; they lived in such proximity and were such an inseparable part of the human world that they can be found in manuscripts and historical sources easily, they are everywhere in the historical sources.[325] On the other hand, as was pointed out before, these sources can hardly show us the point of the view of the animal, but only their effect and inclusion in human affairs.

Animal agency can also be studied through the effects of the presence and effect of animals in human history. Even though a sharp distinction between humans and animals is recognized in most cultures, human existence cannot be separated from the effects of nature and other animals. However, the effects of this presence are taken for granted and disregarded; yet when the impact of animals on human life is taken out of history, it becomes strikingly visible; becoming one of

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[324] McShane and Tarr, *The Horse in the City*, 7.

[325] Mikhail, *The Animal in Ottoman Egypt,* 12-14.

the variables that constitute human history. Even the disregard of the importance of animals is a sign of how human perception of animals and human identity are shaped. The everyday presence of animals in human life helped the formation of human identity through the binary opposition between animals and humans as humanity was defined through non-animality until the discussions after "*On the Origins of Species*" by Charles Darwin.

Human-animal relations do not occur in a stable way, but they adapt to great changes in history. In the last few centuries, human-animal relationships have changed just like human-human relationships. Before the 19th century, breeding was seen as coincidental, a practice not calculated with a positivist set of values: "Most obviously, the new and lucrative urban freight and street railway market, both of which demanded larger horses, changed breeding practices. Before the 1830s, American farmers had raised urban horses in each city's hinterland with little attention to the idea of breed. Often farmers set aside those animals unable to work, such as lame and blind, for breeding purposes."[326] It will be seen in Chapter 3 that Ottoman people had a similar approach and the state tried to prevent such an approach to horse breeding. Similarly, it is seen that the Hungarian stud farm Mezohegyes allowed horses to breed naturally until 1835.[327] Traditional horse breeding practices started to be replaced by modern positivist and rationalist methods and a biopolitical approach by the modern state starting from the 18th century and consolidating in the 19th century. This time, lame horses were seen as only consuming, unproductive, and not good enough to reproduce; now the best horses were used for breeding. New technologies, new styles of carts, new styles of roads and new means of transportation demanded large and strong horses. Positivism and rationalism turned breeding into a kind of science. It meant that stallions and mares were carefully selected to create better breeds.

The growing number of animals in the streets also started to raise concern among people with the emergence of modern urbanization. In this case, the views

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[326] McShane and Tarr, *The Horse in the City*, 9-10.

[327] Spencer Borden, *What Horse for the Cavalry?* (Fall River, Massachusetts: J. H. Franklin Company, 1912), 70-74.

on mad people and "the other" in urban areas and animals were similar in some ways. Foucault talks about a newly arisen fear of sickness and disease, "a mysterious disease that spread…from the houses of confinement and would soon threaten the cities" in the middle of the 18th century.[328] Now "the other", "the mad" was not only a threat against morality, order and reason but also against the physical body. Animals, especially dogs in the streets, and excessive numbers of horses in the cities can be added to this categorization of the other and the mad. The fact that animals were seen as cognitively inferior to humans strengthened this similarity.

Leslie Irvine says that urbanization turned animals into a new social problem because they "had no place in the clean, efficient, safe, modern cities". According to her, while until the 1920s American cities were full of animals, including horses and mules which played important roles in economy and transportation; chickens, hogs and dairy cows that people kept wherever they could find for milk, eggs and meat as well as dogs and cats; and most dairies kept their cows in the city borders.[329] In the twentieth century, mules and horses were replaced by cars and trucks, livestock were confined in less-dense areas away from the city center, stray cats and dogs or "free-roaming pets" were put into the shelters, and "brutal methods" of killing animals were objected, yet not the act of killing itself until the 21st century.[330] It can be seen that this change of attitude towards animals was connected to the transformation of ideas and lifestyles.

This brings the question of whether the transition of the understanding of madness is so different from the transition of perceiving animals or not. Both madness and animals are seen as irrational. They both used to be included in totality but now are differentiated, segregated, and confined. Zoos, animal shelters, prisons and asylums are similar in this respect. A necessity of killing the dogs on the streets arose in different geographies whether in Egypt, Istanbul, Paris or in the USA, so

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[328] Foucault, *Madness and Civilization,* 202-203.

[329] Leslie Irvine, "Animal Sheltering," in *The Oxford Handbook of Animal Studies,* ed. Linda Kalof (New York: Oxford University Press, 2017), 100.

[330] Irvine, "Animal Sheltering," 100-101, 103.

that the modern look of the city would not be disturbed. The mad and the drunken, and the outcast were to be confined as well for the same reason. However, there was a difference. Some of the irrational or "dumb" animals were expected to work; they were laborers. Before the turn of the 19th century and in rural areas even until the middle of the 20th century, they were still an important motor power of life. From irrigation to canals, to agriculture, transportation, communication, or as a means of prestige, they had many uses. Mad people were similarly forced to work in confinement as forced laborers.[331] But madness was regarded as against the nature of humanity whereas the irrationality of the animal was seen as natural. Even so, animals were entrusted to do many works by themselves, sometimes without supervision like pulling plows or mills.

According to Leslie Irvine, dogs and cats were not regarded solely as companions before the nineteenth century; although people still felt affection toward them and had close companionship, animals were first instrumental in economic terms, working in various ways, like keeping watch, hunting and herding other animals. She says that they lived usually outdoors freely and bred freely, so anyone could acquire a dog or cat easily.[332] It was the same with horses. Being instrumental did not mean that people did not have any affection toward them, and they were also relatively free in pastures where they could breed freely. However, this freedom to breed became increasingly restricted with the development of biopolitics on animals.

Domesticated animals' attitudes and the state of their bodies, such as their reproduction and genetic development, as well as their health and longevity, were dependent on human behavior and actions, whereas their labor made humans dependent on them until the full mechanization replaced the labor of animals. However, even after the transformation from animal power to industrial power, animals were still needed for their production such as milk, meat, leather and in medical and cosmetic experiments; they were incorporated into capitalist and

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[331] Foucault, *Madness and Civilization,* 57-58.

[332] Irvine, "Animal Sheltering," 100.

industrial structures. Starting from the early nineteenth century, the increasing recognition of the ability of the animals to suffer and to give emotional responses has led to animal rights movements, making them side by side with anti-slavery movements[333] and the animals continued to affect and be affected by humans and some of the animals' labor slowly turned from physical to psychological, and sporting activities. However, Donaldson and Kymlicka say that every aspect of domesticated animals' lives is controlled by the modern state. This strict control encompasses "their physical confinement and transportation, their sex and reproduction, their ownership and sale, their diet and health, their killing", and this control for the use of animals, which could also inflict harm on them, was not for the interests of animals, but for the human benefit.[334]

Thus, mechanization did not mean animal labor was no longer needed; it transformed into another shape, along with the relationship patterns in accordance with methods of control and supremacy. An example of this is the mechanized milking of cows.[335] Thus, there is a similarity between human and animal workers as they were all subjected to the tools of control of the modern state and the capitalist corporations and were also under the influence of biopolitics.

According to Foucault, a history that shows another form of madness different than the sovereign understanding of non-madness, different from the established truth has not been written yet. He suggests that such a history should be written from the "zero point" where madness was not differentiated and did not create a division from rationality.[336] Animal – human relationships can also be studied from this zero-point, where animals and humans co-existed in urban and rural areas without much of a division of living spaces. It can even be traced back

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[333] Hribal, "Animals, Agency, and Class," 106-109.

[334] Sue Donaldson, Will Kymlicka, "Animals in Political Theory," in *The Oxford Handbook of Animal Studies,* ed. Linda Kalof (New York: Oxford University Press, 2017), 43-44.

[335] Rees, "Animal Agents?," 8. In this instance, it seems that cows not only were made to adapt to the new circumstances of milking but they were also subjected to similar control mechanisms that human laborers face. They were supervised and their performances were examined individually.

[336] Foucault, *Madness and Civilization,* ix.

to a point where animals were divinized and sacralized in animist religions before being regarded as inferiors. Rationalism changed many things about the world that was perceived, and this includes perceptions about animals. Yet, it may be just one of the turning points, not the only one of the transformations in the perceptions about animals. Foucault describes the zero-point as an uncomfortable region since it requires questioning "terminal truths", the beliefs that we recognize as truths because of our perceptions of the world which are historically shaped.[337] Seeing the animals from the zero-point and questioning our terminal truths about them can equally be an uncomfortable region.

Moreover, there is a difference about how the breeds of animals were "improved" before the age of reason and after the shift towards biopolitics. Increasing need for horses in urban life, cavalry, artillery, transportation, agriculture and racing required systematic breeding through state stud farms, remount depots, and stallion stations as well as the development of scientific knowledge about animals through veterinary schools from 18th century towards the 20th century. Although royal families and nobility were known for encouraging horse-breeding, from the 18th century on, there has been a change of attitude: this important endeavor became the responsibility of the modern state with all its bureaucratic structures with the guidance of rationality and science, and the nobility or royalty could support horse-breeding through these new structures. Refusing to adapt, clinging to old ways of horse-breeding or lack of good planning could have devastating results as in the case of the Ottoman Empire because new technologies required more and more horses with specific physical properties for each type of job, and only the new methods of horse breeding were capable of coping with these increasing demands. Overall, this issue of animal agency and transformation that have been discussed in this part is closely related to the subjects covered in the next chapter.

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[337] Foucault, *Madness and Civilization,* ix.

CHAPTER 3

HORSES OF THE OTTOMAN EMPIRE

In the second chapter, the subject of animal agency has been discussed through the impact of horses on human history through their presence in three main categories and the human impact on animal life in a transformative period imprinted with rationalism, mechanical innovation, technological changes in transportation and agriculture, developments in warfare, and the rise of the modern state. It was argued that horse breeding was becoming a more systematic and scientific occupation on the state level during this era, and failure to adapt to these changes could give the state a hard time because of the rising demand for horses. Starting in the 18th century, Ottoman horse populations were decreasing in number and quality, but the problem was not properly addressed since it was not obvious then. In the 19th century, the problem started to become troublesome, and the Ottoman state, in line with its modernization endeavors, tried to adapt to changes in horse-breeding. The third chapter will talk about how Ottoman horse breeding projects fit into the global picture shown in the second chapter and into the changing needs of the time. It will also evaluate the place of the Ottoman horse in different aspects, namely, military, transportation, agriculture, races and expositions, and horse trade.

3.1. Horse Population and Quality in the Empire

When a simple search is done in the Ottoman archives with the word "*feres*", which is one of the words used for the horse in Ottoman Turkish, it is seen that the subject of the betterment of horse breeds is one of the most common subjects regarding horses, and that there is a struggle to make efficient efforts about it. This showed that horses drew the attention of the state when a problem arose.

Apart from usual criminal problems such as horse thievery, the improvement of horse breeds and increasing the number of horses seem to be the center of focus regarding horses in the state archives.

As seen in the previous chapter, horses and other animals were everywhere in the daily lives of people, and when they failed to meet their needs, it is not surprising that problems would arise with the usual operation of affairs. The increasing need for horsepower in the 19th century and early 20th century drew further attention to this matter, while Ottoman authorities took this issue mostly from a military point of view, though these animals had been contributing to many aspects of life. In this first section of the chapter, an overview of these uses and the condition of the horses of the empire will be given, which will make it easier to understand the motives and the urgent need for the betterment of horse breeds and increasing the horse population in the empire, which will be covered in the next section.

3.1.1. Uses and Problems of Horses

In this section, the focus is on the Ottoman Empire's use of horses and the challenges they faced. Primarily, horses were utilized for military purposes, despite the decline in the usefulness of cavalry during battles in the late 19th and early 20th centuries. Horses were required for activities like scouting, pursuing defeated armies, and ensuring victory. The absence of horses would have allowed the enemy to regroup and continue attacking. Phillips noted that the cavalry played a crucial role in World War I, as well as in raids, offensives, and pursuits. However, the revival of cavalry had been witnessed decades before the war.[338] In fact, "[t]he cavalry revival ... was a continent-wide phenomenon" at the 19th century, and horses were seen as efficient as they could meet the firepower with "mobility, pace, and cohesion".[339] Moreover, new artillery technologies required strong and

[338] Gervase Phillips, "'Who Shall Say That the Days of Cavalry Are Over?' The Revival of the Mounted Arm in Europe, 1853-1914" *War in History* 18, no. 1 (2011): 6.

[339] Gervase Phillips, "'Who Shall Say That the Days of Cavalry Are Over?' The Revival of the Mounted Arm in Europe, 1853-1914" *War in History* 18, no. 1 (2011): 8-9.

numerous horses, and the effective use of the artillery could be the deciding factor in a battle. Horses were also needed for transporting necessary equipment and provisions for the army. Singleton says that "[i]n France and Flanders, as on all other fronts, horses and mules were required for two basic purposes. Some animals were needed to pull guns and wagons and carry packages, while others were supposed to wait patiently for the artillery and infantry to breach the enemy positions and then dash through and cut off their escape."[340] Horses were also needed for travel and transportation. According to Singleton, horse transport was essential for the lines of communication and supply trains.[341] Strong and numerous horses meant fast and effective transportation in places where there are not a lot of canals and rivers deep enough for the ships to pass through, where railroads were limited or nonexistent and in rough terrains. Although ox carts were common, they were slow compared to transportation by horses, in an era where time started to become increasingly important, especially in industrializing countries. Moreover, old style ox wagons (*kağnı*) damaged new roads,[342] and in places where roads were limited horses and mules were necessary. Moreover, horses could be instrumental in agriculture. They were used in transportation of goods to the market. On the other hand, the lack of numerous, stronger and larger draft horses in the Ottoman Empire prevented farmers to utilize effective agricultural innovations such as iron plows, which increased production and sped up the process of plowing a land and decreased the number of people needed for a piece of land. Ottoman agriculture was regarded as primitive by some contemporary observers because farmers used primitive plows.[343] For example, Civani says that even though most of the agriculture was done haphazardly with primitive and archaic tools in the Ottoman

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[340] John Singleton, "Britain's Military Use of Horses 1914-1918," *Past & Present*, no. 139 (1993): 190.

[341] Singleton, "Britain's Military Use of Horses 1914-1918," 190.

[342] Cabir Duysak, "19. Yüzyılda Osmanlı Devleti Karayolları," in *Osmanlı'da Ulaşım: Kara – Deniz –Demiryolu*, eds. Vahdettin Engin, Ahmet Uçar, Osman Doğan, (İstanbul, Çamlıca Basım Yayın, 2012), 46.

[343] Murat Baskıcı, "Osmanlı Tarımında Makineleşme: 1870-1914," *Ankara Üniversitesi Siyasal Bilgiler Fakültesi Dergisi* 58, no.1 (2003): 50.

Empire, it fed 75 percent of the population. The lack of heavy draft horses (aside from imported light-draft horses for breeding purposes and for use in the military and smaller local types of draft horses) in the possession of farmers can be regarded as one of the reasons why they had to use plows that could not dig deep enough. According to Baskıcı, even though modern machines and techniques had a beneficial effect on agricultural productivity, most of the Anatolian agriculture remained traditional even in 1914 and beyond.[344] Some native large landowners and foreign landowners used modern machines, and in Konya machines that are pulled by horses were preferred, however, primitive methods were common.[345] Especially the British plows were too heavy for native horses, therefore, German and American plows, which were lighter, were seen as more suitable for Ottoman horses, and the need for the amelioration of horse breeds in the Ottoman Empire was stressed as a result.[346] On the other hand, even though draft horses helped production be faster and more effective, they required more feeding, which would be too expensive for the typical Ottoman subject to care for, which was a vicious circle. Whether authorities were concerned about this or not, this lack must have affected the empire agriculturally. Fourthly, horses could compete in races and expositions, which brought prestige to the empire. Although races and expositions are usually taken in the light of encouraging the breeders, sending selected Arabian horses to the Paris exposition in 1900 shows that it was also a matter of prestige. Moreover, it was common for European countries and the USA to show the quality of their horses through competitions and exhibitions.

As will be seen in the following pages, local horse breeds have been effective in the rough terrain of the Ottoman Empire and have had spectacular endurance to harsh conditions, long rides, and lack of proper feeding; they were also agile and warm blooded, which made them fine horses according to some

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[344] Baskıcı, "Osmanlı Tarımında Makineleşme: 1870-1914," 33.

[345] Baskıcı, "Osmanlı Tarımında Makineleşme: 1870-1914," 34-36, 44.

[346] Baskıcı, "Osmanlı Tarımında Makineleşme: 1870-1914," 36, 46.

contemporary observers in the 19th and 20th centuries.[347] Local breeds were facing a decline in numbers and size, causing their desired traits to fade over time. These breeds were originally created to cater to the needs of the local populations, but their changing characteristics were becoming problematic. As horses were considered elite animals, their breeding was closely monitored by authorities as a part of biopolitics. Efforts to improve the breeds continued to exert political influence on their physical characteristics, further emphasizing the connection between political decisions and animal bodies.

When the words "military" and "horse" are used together, the first thing that comes to mind is usually the cavalry. Although the Ottoman cavalry had some hardships, it should be remembered that they were not peculiar to the Ottomans; some of its problems also existed in other countries, and people were trying to find solutions to these problems. Far from disappearing, cavalry was still an active unit of war, although its uses were different now, because of its vulnerability in front of artillery fire. The cavalry was useful in scouting, chasing the enemy, and providing safety in construction projects and trade convoys. There were also still cavalry-against-cavalry battles. Therefore, the Ottomans tried to improve their saddle horse breeds and increase their numbers.

In an official document sent by *Serasker* Rıza, we can see that there was an urgent need for 2,500 horses for the second and third artillery corps, and especially for the rapid-fire artillery troops in 1906.[348] According to this document, 1500 of these horses were to be bought from Hungary for harness, and 500 of them were in urgent need. Although the breeds of the horses were not specified in the document, it is possible that these were of the Nonius breed, a light draft horse breed created with improvement projects, capable of pulling heavy wagons and suitable for riding; they were well-liked by the Ottomans, who tried to crossbreed them with the local horses. Other 1,000 horses were to be bought from Russia as saddle horses. It was specified that these horses should be chosen from the ones that were being produced in Russia by crossbreeding Circassian horses with local

[347] For example, Doktor Mahmut Şemsi Seydi, *Atlarımızın Islah ve Teksiri*, 11.

[348] BOA, Y. MTV., 00283/00031, 1, (H.05.12.1323 - M.31.01.1906).

breeds. While they could be bought for the cavalry, these horses could also be bought for the artillery soldiers to ride, especially for the rapid-fire artillery units, because Circassian cross-breeds were sometimes used in the artillery. It is notable that the Ottomans also tried to crossbreed Circassian horses called *Uzunyayla* with Ottoman local horses, and in Russia these horses were used for the same purpose. Another point in this document is that a veterinarian (*baytar*) was going to be sent to each of these countries, and these veterinarians were going to inspect the horses before the purchase, and make sure that the animals were healthy and suitable for the purpose. The fact that instead of sending just an experienced rider or officer, these veterinarians from cavalry regiments were sent for the selection and inspection shows the importance given to veterinary medicine at that time. Lastly, it is worthy of note that the shortcoming of the number of horses was seen in the document as a shortcoming of military equipment, which makes these living beings a sort of equipment, in other words, a biological machine or a tool.

The need to import horses for military use had been there for at least half a century. What was the reason for the Ottomans acquiring horses from abroad? The shrinking of the horse population, or the rising demand for horses, in the empire was a factor. However, there was also the problem of the horses' capabilities. According to most documents, aside from fine Arabian purebreds, the general horse population in the empire was thought to be in decline. Therefore, the problem with them was not only the decrease in their numbers but also the decrease in their size, height, and conformation. These light horses, which were already not suitable to pull heavy artillery wagons, had to go through the harsh conditions of being artillery horses, putting them at a great disadvantage to heavier horse breeds. The strain on their bodies would result in lameness, extreme fatigue, hardships, and perhaps more cruelty in battle conditions on the part of the animal, while it caused loss of time and speed, insufficient transportation of supplies and war machines, more casualties of horses, whether by death or lameness, and more horses to be harnessed for an artillery carriage, which caused great problems on the part of the humans since especially rapid-fire artillery and horse artillery required horses. The decline of size and height in these resolute but light horse breeds not only put the horses at a disadvantage in pulling artillery wagons, but they were also no longer

able to fulfill the expectations of the soldiers as cavalry horses, although cavalry regiments required horses that were smaller in size (easier to get on and off) and lighter to make them fast, lively, and agile for difficult maneuvers. It was the reason the Ottomans tried to improve local horse breeds, and, in this case, had to import 2,500 saddle and harness horses from Russia and Hungary.

On the other hand, the problem that this document from 1906 demonstrated was not new, and it was the continuation of a long-standing crisis of horse population in the empire. The Ottoman cavalry, once a formidable and effective part of the Ottoman army, was seen by the Habsburgs as the reason for Ottoman success in wars,[349] could not compete against the new military tactics, formations, and technologies such as horse artillery and rapid-fire artillery, which were a lighter and more effective form of artillery. The Ottoman–Russian War in 1768–1774 made it obvious to the Ottomans that the new kind of light and mobile artillery that could be pulled by horses and that could be fired more rapidly and continuously gave a great advantage in battles.[350]

It can be understood from Yeşil and Gezer's article that rapid-fire artillery was a key element in the wars in the 18th and 19th centuries; they were so important that their effective use could determine the fate of a war. These artillery units were pulled by four strong light-draft horses, ammunition carriages required six horses, and both needed spare horses; which obliged Ottomans to import horses for this purpose.[351] Just like how horses gave the upper hand in wars with cavalry units for centuries, now they served in pulling the most advanced technology of war at the time. This means many horses were needed on the field for the artillery units. One of the reasons why the Ottomans wanted to breed horses and improve the species was to provide enough power to pull these heavy machines of war.

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[349] Fatih Yeşil and Ömer Gezer, "Osmanlı İmparatorluğu'nda "Sürat" Topçuluğu II (1773-1807): Taktik, Talim, Muharebe Performansı ve Nizâm-ı Cedid," *Osmanlı Araştırmaları* 53, (2019): 234.

[350] Yeşil and Gezer, "Osmanlı İmparatorluğu'nda "Sürat" Topçuluğu II," 241, 262.

[351] For more information about the significance of the horse power in new battle tactics and for rapid artillery and horse artillery see: Yeşil and Gezer, "Osmanlı İmparatorluğu'nda "Sürat" Topçuluğu II," 231-285.

On the other hand, Seda Tan argues that after the Crimean War (1853–1856), the Ottoman state bought many horses from its allies, namely Britain, France, and Italy, and this undermined the local horse-breeders, and discouraged them, while they have always been eager to sell horses to the army, according to her sources. She also sees this war as a turning point in the decline of horse breeding, and she states that horses were sufficient prior to it.[352] However, the research of Yeşil and Gezer shows that there was a problem of horse supply long before the Crimean War and that the people were reluctant or unwilling to sell their horses to the army in times of need.[353] This shows us that the decrease in size and quality of Ottoman horses in general cannot be linked to the breeders' response to the army's lack of need for horses for some years because they had bought from the allied powers. It is more likely that historical documents that try to explain this decrease are misleading and blur the real causes. Rather than the Crimean War, the turning point seems to be the change of technology and military techniques. It is more likely that after the Crimean War, this situation started to become unbearable and the problem became clear; therefore, it was reflected in the sources, while the horse pool of the empire had been depleting since the 18th century because of these technological changes. The state was unaware of the consequences that these changes would have on the horse population, and it did not breed suitable heavier horses for this purpose outside its Balkan territories. It should be noted that a strong, native, but light horse would be no match to the pulling power of a light-draft horse that is larger, heavier, and more robust.

In the mountainous and difficult terrain of the Ottoman Empire, more horses were needed to pull artillery. In one instance, Moltke says that ten strong horses were harnessed for each artillery gun.[354] An example of how much artillery horses cost the army can be seen before the battle of Nizip. In one of the armies, in Malatya, the number of artillery horses increased to 3,000. Each animal was bought for around 1,000 *kuruş*, and all of them amounted to approximately 3 million *kuruş*.

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[352] Tan, "Osmanlı Devleti'nde At Yetiştiriciliği (1842-1918)," 15-16.

[353] Yeşil and Gezer, "Osmanlı İmparatorluğu'nda "Sürat" Topçuluğu II," 263.

[354] Moltke, *Moltke'nin Türkiye Mektupları*, 248.

There were also the costs of feeding, care, and harnesses. Moltke says that one fifth or one sixth of these horses would be sufficient during peace.[355] horses, which meant that there were many horses in one place.

Instead of evaluating “the horse problem” in the Ottoman Empire in the context of "decline," a more comprehensive viewpoint can be adopted. Since the use of horses in the military and technology changed starting in the 18th century, it was more of a problem adapting and improving the horse population to the needs of the era, and the Ottoman state did not do so. The dissolution of the *tımar* system was pointed out as one of the reasons for this "decline." However, this organization had already become useless because it belonged to a previous era where the light cavalry was a particularly important asset. Its dissolution was more of a symptom of the need for a change in cavalry and the type of horsepower than the reason for a decline in the horse population. Using light cavalry in battles like they were used in previous centuries caused high casualties among horses, especially in front of the artillery fire. When the cavalry charged the fast-firing artillery, it was a disaster. Light cavalry, on the other hand, was useful for protecting or helping the artillery. Strong and heavy horses were preferred for the artillery, but traditionally Ottoman horses were raised as light horses. The local “unimproved” horses that the Ottoman peasant or tribe members raised could not meet the needs of the Ottoman army in the new circumstances. While the native light Ottoman horses could work with little food, feeding them little did not help the situation, which made them lighter and smaller. However, heavy horses required lots of feeding and care to improve their bodies. Without an improvement in agriculture, the Ottoman people would not be able to feed a heavy horse population adequately, even if they managed to improve their horse breeds to be larger and stronger; and without the proper food, the horses would not be large or strong. So, if the number of horses and their quality went down, it was because people did not adapt to new situations quickly or keep up with new scientific developments in zootechnics. It was not because people stopped using the "old ways" of breeding animals. Even if people could produce

[355] Moltke, *Moltke’nin Türkiye Mektupları*, 314.

horses, the demand would be too high. Long and devastating wars, requiring horses to do jobs that are not suitable for their bodies (i.e., using light horses for artillery), and poor use and coordination of horses in cavalry also caused the number of horses to shrink. Moltke saw that the cavalry was "useless" and miserable in the skirmishes before the battle of Nizip. Once he knew this, he decided not to use them in his operation at midnight.[356] With changing technology, the new and the old were intermingled in the 19th century. Just like steamboats and horse-boats were used at the same time, rifles and swords were also used at the same time, and they were both useful too. It didn't mean that the horses were useless, or that the cavalry did not have an instrumental role in battles, but that the Ottoman cavalry was neither well-trained nor followed contemporary battle formations. A battle with such cavalry was doomed to have many horse casualties. A few decades after Moltke's travel, Burnaby observed that even though the Ottoman military authorities provided the latest technology of firearms to the cavalry, the swords of the cavalrymen were not well-manufactured, and they had no hilt-guard to protect the hand. He said that it would be hard for the Ottoman cavalry to win a battle against a dragoon (mounted infantry and medium cavalry) with these swords.[357]

Such problems noted by travelers were also related to horse care and handling the horses well, and the Ottoman state tried to solve this issue through instruction. This military instruction issued by the inspectorship of transportation (*nakliye müfettiş-i umumiliği*) about horse care shows that while some military personnel and commanders knew how to properly handle and care for horses, others caused unnecessary horse deaths because of erroneous practices.[358] According to this instruction, even though saddle and wagon horses are not well-trained and in good condition, they are subjected to harsh war conditions that they are not able to handle. "They die for the country like the soldiers," but most of

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[356] Moltke, *Moltke'nin Türkiye Mektupları*, 345, 350, 352.

[357] Captain Fred Burnaby, *On Horseback Through Asia Minor,* vol. 1, (London: Sampson Low, Marston, Searle, & Rivington, 1877), 78.

[358] Nakliye Müfettiş-i Umumiliği, *Hayvanatın Bakımları Hakkında Talimatname* (İstanbul, Matbaa-i Askeriye, 1333).

these deaths are caused by their wrong care, misuse, and overwork.[359] It is inspected that whereas in some army corps there are not many horse deaths, other corps with the same conditions lose too many horses. This was not related to the breed of horses, but directly related to the mistakes of the corps commanders.[360]

One of the mistakes that was pointed out was the fact that even during the long pauses, the waggoners and horsemen do not dismount their horses, and this practice gave the horses no chance to rest. It was instructed that in each pause, they should dismount their horses, and if they must continue to march right away, they should lead the horses, walking beside them. However, the commanders abstained from such measures.[361] Another mistake was to ride the horses while they were also pulling wagons; this was too hard on horses and made them weaker and worse day by day.[362] Therefore, riders and waggoners had to get off their horses as much as possible so that the horses could rest.[363]

Other instructions were about protective measures. The shoes of horses were to be checked consistently, as most lameness and injury were caused by those.[364] Protecting the legs of the brushing[365] horses and providing hoof care were seen as other ways of protecting the horses' health.[366]

While it was stressed that the horses should be used and cared for properly, knowing how to feed them ensured that they remained serviceable.[367] It was noted that, as a rule of the military, horses were always given a smaller portion of food in the morning, as they are restless in the mornings; and were given a larger

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[359] Nakliye Müfettiş-i Umumiliği, *Hayvanatın Bakımları Hakkında Talimatname*, 3.

[360] Nakliye Müfettiş-i Umumiliği, *Hayvanatın Bakımları Hakkında Talimatname,* 3.

[361] Nakliye Müfettiş-i Umumiliği, *Hayvanatın Bakımları Hakkında Talimatname*, 4.

[362] Nakliye Müfettiş-i Umumiliği, *Hayvanatın Bakımları Hakkında Talimatname*, 4.

[363] Nakliye Müfettiş-i Umumiliği, *Hayvanatın Bakımları Hakkında Talimatname*, 4.

[364] Nakliye Müfettiş-i Umumiliği, *Hayvanatın Bakımları Hakkında Talimatname*, 5.

[365] A gait problem in which the horse's hoof contacts or hits the other leg.

[366] Nakliye Müfettiş-i Umumiliği, *Hayvanatın Bakımları Hakkında Talimatname*, 6-8.

[367] Nakliye Müfettiş-i Umumiliği, *Hayvanatın Bakımları Hakkında Talimatname*, 8.

amount during long breaks or in the evening. However, they were to be given food as much as possible and at every opportunity to keep the horses fit.[368] In the instructions, it was remarked that "A good soldier" can always find some food for his horse, like a piece of bread or a few beets. "One who loves his animal" would not water the horse only three times a day, but on every occasion; this was much better than watering the horse only once a day.[369]

According to the inspectorship, there were other causes for the loss of horses. Many horses that were transported via trains got a cold and the "illness of fly-ash". Most of the horses that became sick this way were the ones who exercised little, and those who were not used to exercise enough and were fed little in the depot.[370] Because the horses which were sent to depots for the use of farmers were not exercised enough to be used in battle, they were only to be walked and be used in light work, however they should not be inactive for days. If newly arrived horses were fatigued, ridden or harnessed, fifty percent of them would become unemployable in a few days.[371] Furthermore, the inspectorship offered solutions to prevent the waggoners from overworking and fatiguing the horses, to position and manage the horses in different vehicles, to preserve their power and weight, and points out the mistakes made in relation to these issues.[372]

Therefore, it can be assessed that while the breeds of Ottoman horses could be disadvantageous in terms of power, they could still be useful and endurant as long as they were used carefully and cared for better. On the other hand, using them harshly caused unnecessary horse deaths. Until the horses ceased to be instrumental in military and agriculture, this old problem persisted. As late as 1927, Doktor Mahmut Şemsi Seydi[373] was talking about the same problems:

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[368] Nakliye Müfettiş-i Umumiliği, *Hayvanatın Bakımları Hakkında Talimatname*, 8.

[369] Nakliye Müfettiş-i Umumiliği, *Hayvanatın Bakımları Hakkında Talimatname*, 9.

[370] Nakliye Müfettiş-i Umumiliği, *Hayvanatın Bakımları Hakkında Talimatname*, 11.

[371] Nakliye Müfettiş-i Umumiliği, *Hayvanatın Bakımları Hakkında Talimatname*, 11-12.

[372] Nakliye Müfettiş-i Umumiliği, *Hayvanatın Bakımları Hakkında Talimatname*, 12-19.

[373] Mahmud Şemsi Seydi was the former expert in the horse department of *Karacabey* Studfarm, had graduated from a Bavarian college of agriculture and Faculty of Veterinary Medicine of Munich

Our country must supply the army's need for horses domestically because, in a war, we will be isolated. When we face the obligation to procure the horses we need and incur losses from abroad again, as we do now, it will not be possible then. The situation of our cavalry and artillery will become arduous. We should meet the need of our artillery and cavalry for horses with our local animals, by raising them adequately, because again, in the case of a war, the gunners will try to compensate for their losses by taking the large horses in the cavalries. Yet, because cavalry horses are not essentially suitable to pull cannons, these horses will be ruined in no time. However, the cavalry will be compelled to procure local horses to replenish its missing horses. Then, because of the height differences between horses, it will not be possible to reach any harmony in cavalry marching. Consequently, regardless of how the issue is scrutinized, it is impossible not to understand and concede the fact that there is an obligation to meet, especially the need of our army for horses, with our local animals. Today, in Sivas province, horses that are 1.60 meters in height are produced. This province should be taken into serious consideration for raising artillery horses, and first of all, we should try to raise the heights of our local horses to this extent through selection, by feeding their foals with generous and strong nourishment, and with exercises that serve this purpose, and then, if the necessity arises to import studs from abroad, it should be determined and assessed which horse breed is the best one for the heavy artillery in the world, especially by considering the experiences in the First World War. There have been very good experiences in artillery with the Rottaler horse breed of the Germans, which is raised in Lower Bavaria. These experiments should be done on the stud farm that will be established in Sivas province and in Karacabey Stud Farm! The goal of the betterment of the horse breeds and the improvement of the production of horses in a country is to raise the horses that agriculture, industry, and commerce demand, by paying attention primarily to the needs of the army, especially in our country. If we don't work in this direction, horse breeding will never be a profitable enterprise, and in the end, like every enterprise that does not have a profit, it will dissolve.[374]

University, and obtained a diploma in veterinary science. This expert who represented the modern scientific understanding of horse breeding also gave some insights about horses and their relationship to agriculture in 1927.

[374] Doktor Mahmut Şemsi Seydi, *Atlarımızın Islah ve Teksiri*, 27-28.

According to Seydi's testimony, the First World War proved the importance of strong and numerous horses. He was eager to correct this problem with well-raised, improved native horses:

> *The war also taught us that a native horse raised to be big, deep-bodied, and strong served the army well. If we work adequately within the fundamentals of the discipline of Hippology (horse raising), we can meet all the needs of the army in our country, except for the artillery, with our local horses. As for our well-raised light horses, it will always be possible to use them in our cavalry.*[375]

However, before the aim of improving native horses for the military could be achieved, in a few decades, the active use of the horse in the military declined and ended.

Besides active warfare, horses had other uses. Although horses were not the only means of transportation in the Ottoman Empire, they were used in post-stage (*menzil*) organization, postal services, and fire services. They were also used in short-distance transportation of goods and people in the countryside and in the city as carthorses, packhorses, and for omnibuses.

The post-stage system, called *menzil,* was used in the Ottoman until the establishment and implementation of a modern postal service in 1840, and horses were an important part of this organization. Each *menzil* functioned as an inn for the messengers or couriers who stopped by, rested and accommodated there, and changed their horses.[376] It was a vital part of such travel because the journeys would be long and full of hardship for both the riders and the horses. On the roads, there were inns and caravanserais where the merchants and other passengers could accommodate, but they could not use the *menzils,* where only official couriers and messengers could rest and change their horses. However, roads used by the ordinary people were the same as the official correspondence routes, but the places

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[375] Doktor Mahmut Şemsi Seydi, *Atlarımızın Islah ve Teksiri*, 33.

[376] Mehmet Zeki Pakalın, *Osmanlı Tarih Deyimleri ve Terimleri Sözlüğü, Cilt 2,* (İstanbul: Milli Eğitim Basımevi, 1971), 479.

they accommodated on their journeys were different.[377] The places where the army was accommodated during the campaigns and had their horses fed and rested were also called *menzils*. In fact, before campaigns, provisions and supplies for soldiers and horses were arranged in these resting spots beforehand.[378] However, these *menzils* were different than the others, and they were situated in the open fields. Cemal Çetin says that because *menzil*s encompassed numerous people and animals, they were usually situated outside villages, towns or cities, in fields where water was available; he gave this definition for the military post stages (*askerî menzil*) later in his essay.[379] As for those traveling for the affairs of the state and traveling foreign ambassadors, centers of the *kaza*s were usually where they were accommodated and were provided their needs, in the rented houses of the people.[380] Moltke, because he was traveling as both a foreign military officer and for the affairs of the Ottoman State, was given accommodation and fresh horses in such places; the fact that prominent people usually gave him horses as gifts showed that they recognized his status as supported by higher officials in the Ottoman Empire, as it was custom to give mandatory gifts in certain situations.[381]

As horses were necessary for this organization, stables, depots or barns that contain hay, barley and straw for the animals were indispensable parts of the *menzilhâne*s.[382] Besides their obvious use for correspondence, horses were also used for heat. In winters, the heat of the animals was used to provide warmth in the rooms: for this purpose, some of the rooms were built right next to the walls of the stables.[383]

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[377] Yusuf Halaçoğlu, *Osmanlılarda Ulaşım ve Haberleşme (Menziller)*, (Ankara: PTT Genel Müdürlüğü, 2002), 42.

[378] Halaçoğlu, *Osmanlılarda Ulaşım ve Haberleşme*, 17-18.

[379] Cemal Çetin, "İşlevleri ve Özellikleri Bakımdan Konya Menzilleri (XVII.-XVIII. Yüzyıllar)," *Selçuk Üniversitesi Türkiyat Araştırmaları Dergisi* no.21 (December 2007): 319.

[380] Çetin, "Konya Menzilleri," 297-298.

[381] Dingeç, *Osmanlı Sarayında At*, 249.

[382] Yaşar Baş, "XVIII-XIX. Yüzyılın İlk Yarısında Gebze Menzilhanesi," *Turkish Studies* 8, no.5 (Spring 2013): 105.

[383] Baş, "Gebze Menzilhanesi," 105.

The condition and the length of the roads could determine the health of the post-horses, and sometimes when these conditions and distance exceeded the tolerable limits that horses could endure, it could have fatal consequences for them. Such a case was seen in 1729-1730, on the route between Konya and Karapınar; the damage caused by the flooding of Beyşehir Lake on the road necessitated using side roads and this lengthening of the distance resulted in the death of numerous horses.[384] Likewise, 18 hours of traveling, especially in the winter between Ilgın and Konya was quite trying for both the horses and the drivers, and many died in 1690 as reported by the *kadı* of Ilgın.[385]

The number of horses kept in *menzilhânes* was limited by their capacity, and that usually did not exceed 20 horses; however, when more horses were needed, they were rented from the people in the district by the postmasters (*menzilci*).[386] In the early modern era, the Ottoman state used either state animals in different places, or the animals of the people through rent or tax exemption for its transport needs. Animals like horses and camels were mostly rented from nomadic tribes, and when they were not available due to their constant movement, the animals of the villagers were used.[387] The pressing need for rented animals, especially during wars and animal epizootics, and the decrease in camels, cattle, and horses, caused the prices to rise in the 18th century and at the beginning of the 19th century.[388] The increasing demand for horses in this period may be another factor in this rise.

With some exceptions, the Ottoman roads were usually muddy, narrow, one-way and unsuitable for carts. These conditions necessitated the use of horses,

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[384] Çetin, "Konya Menzilleri," 314.

[385] Çetin, "Konya Menzilleri," 314.

[386] İzzet Sak, Cemal Çetin, "XVII. ve XVIII. Yüzyıllarda Osmanlı Devleti'nde Menziller ve Fonksiyonları: Akşehir Menzilleri Örneği," *Selçuk Üniversitesi Türkiyat Araştırmaları Dergisi* no.16 (December 2004): 210.

[387] Ümit Ekin, "Klasik Dönemde Osmanlı İmparatorluğu'nda Karayolu Ulaşımını ve Nakliyatı Etkileyen Faktörler (1500-1800)," *Belleten* 81, no. 291 (Ağustos 2017): 405.

[388] Ekin, "Klasik Dönemde Osmanlı İmparatorluğu'nda Karayolu," 410.

mules, and camels more than the carts and wagons, which were also the traditional way of transporting items.[389] However, the condition of the roads was not peculiar to the Ottomans until new road systems, such as those made by turnpike trusts that started to be constructed in Europe. In early modern Europe, the roads were also muddy and were mostly just paths than roads, but after the 18th century, they started to be improved.[390] For example, at the start of the 19th century, Dr. William Wittman mentions bad, heavy, and muddy roads more than once after he left the Ottoman territories, which caused delays and broke the wheels of the carriage, while some roads were in good condition.[391] After the 18th century, most of the Ottoman roads were still in bad shape. It seems that the condition of Ottoman roads was better around 1550 than it was two hundred years later, according to Suraiya Faroqhi.[392]

Before 1840, an organization akin to a postal system for ordinary subjects of the Ottoman Empire did not exist;[393] people could only use traveling merchants for these occasions.[394] The fact that correspondence technologies were limited to official state affairs led people to find ways to use the *menzil* system for their own affairs, even though it was illegal to do so. Even merchants found ways to bribe couriers to use *menzil* horses to transport their goods, and many times causing these animals which are not suited to carry loads to perish or die.[395] Some people used *menzil* horses illegally for their private correspondence[396] and sometimes unofficial

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[389] Ekin, "Klasik Dönemde Osmanlı İmparatorluğu'nda Karayolu," 387-389.

[390] Ekin, "Klasik Dönemde Osmanlı İmparatorluğu'nda Karayolu," 393.

[391] William Wittman, *Travels in Turkey, Asia-Minor, Syria and Across the Desert into Egypt During the Years 1799, 1800, 1801, in Company with the Turkish Army, and the British Military Mission: To which are Annexed, Observations on the Plague and on the Diseases Prevalent in Turkey, and A Meteorological Journal* (London: T. Gillet, 1803), 477, 488, 489, 492, 495-496.

[392] Suraiya Faroqhi, "Camels, Wagons, and the Ottoman State in the Sixteenth and Seventeenth Centuries," *International Journal of Middle East Studies* 14, no. 4 (1982): 536.

[393] Halaçoğlu, *Osmanlılarda Ulaşım ve Haberleşme*, 6.

[394] Halaçoğlu, *Osmanlılarda Ulaşım ve Haberleşme*, 17.

[395] Halaçoğlu, *Osmanlılarda Ulaşım ve Haberleşme*, 194-195.

[396] Halaçoğlu, *Osmanlılarda Ulaşım ve Haberleşme*, 44.

couriers raced with *menzil* horses amongst themselves to deliver a message first in order to get a prize.[397] Even though the state tried to prevent such acts, it was unsuccessful to take full control until the abolition of the system. Koh Choon Hwee also talks about these illegal uses of post-horses. By tracing them from the end of the 17th century to the early 19th century, she argues that these activities that delayed imperial communications reflected a "shadow economy."[398] She says that the use of the post-horses by the officials for their personal affairs was seen as one of the reasons for the horse shortage in the post stations.[399] There were attempts to combat the problem of "missing horses," first in a limited sense, then with more sophistication by horse-rationing; however, implementing it was challenging.[400] She argues that it is highly possible that these personal affairs were usually related to the commercial interests of these officials, and this "shadow economy" was maintained in various ways by unrelated individuals or groups of individuals, including "imposter couriers" and "organized gangs". These activities, caused by high market demand for horses and their services, sometimes resulted in the death of the animals because of burdening them excessively.[401]

The accounts of Moltke are in line with the points about the *menzil* system above. He used post-stages (*menzil*), which were sometimes hut-like buildings, inns, caravanserais, or simply villages or towns where local governors (*müsellim*) provided a place to stay and fresh horses. He describes the travel through post-stages in the Ottoman Empire as quick but hard because the roads and bridges were bad.[402] It certainly affected horses too because bad roads were uncomfortable for the horse, and it necessitated greater effort. His travel guides were postriders

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[397] Halaçoğlu, *Osmanlılarda Ulaşım ve Haberleşme*, 195.

[398] Choon Hwee Koh, "The Mystery of the Missing Horses: How to Uncover an Ottoman Shadow Economy," *Comparative Studies in Society and History*, (2022): 2. doi:10.1017/S0010417522000202.

[399] Koh, "The Mystery of the Missing Horses," 3.

[400] Koh, "The Mystery of the Missing Horses," 7, 11.

[401] Koh, "The Mystery of the Missing Horses," 16-18.

[402] Moltke, *Moltke'nin Türkiye Mektupları*, 24.

(*tatar)*, and his descriptions hints about the endurant characteristics of Ottoman horse breeds. He says that the postriders only take a rest in the evening, no matter how early they got on the road. Although he says that "many times, horses travel for twelve or even fourteen hours without any food."[403] It is seen in later letters that they sometimes had to travel as much as eighteen hours and in extreme cases for days.

Sometimes, all the horses of the post-stages would be taken, and the official travelers had to stop over and wait for their fresh horses, or for the horses that the *müsellim* provides, or they rested their own horses and continued to travel afterwards.[404] Heinrich Barth noted that the postal services did not possess many horses.[405] This was not surprising as the *menzilhânes* kept a limited number of horses. The post-buildings were not the only places the horses were kept; the post-masters often kept many horses in their own stables, and if the need arose, the horses of the people in the district could also be rented.[406]

Moltke took part in the Sultan Mahmut II's trip to Bulgaria and Rumelia in May 1837, and he gives information about how such a trip was made. Even though this was a trip with a small committee, the lavishness surprised him. Even though this was a "small" team in Ottoman standards, the whole travel entourage of the Sultan used 800 horses, collected from different districts, because of the plentitude of the servants of the Sultan.[407] Another example of Ottomans using too many horses in official travels, is seen in Moltke's travel to Danube. He says that in his country, they would ride a post carriage and arrive in a few days, however, they travelled with 40-50 horses here, including packhorses and spare horses.[408]

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[403] Moltke, *Moltke'nin Türkiye Mektupları*, 29.

[404] Moltke, *Moltke'nin Türkiye Mektupları*, 190, 197, 358.

[405] Heinrich Barth, *Heinrich Barth Seyahatnamesi: Trabzon'dan Üsküdar'a Yolculuk, 1858*, trans. Selma Türkis Noyan (İstanbul, Kitap Yayınevi, 2017), 180.

[406] Çetin, "Konya Menzilleri," 314-315.

[407] Moltke, *Moltke'nin Türkiye Mektupları*, 129.

[408] Moltke, *Moltke'nin Türkiye Mektupları*, 151.

The modern postal service was built upon this system of correspondence. The first attempts to establish a regular postal service that could also be used by the subjects started after the *hatt-ı hümâyûn* of Mahmut II in 1832: even though the system was not explicitly referred to as postal service, the expectations of the Sultan from this organization indicated that it was the modern postal service.[409] The aim was to make trials in short distances and if they were successful, the whole *menzil* system would be turned into this modern system. The first trial was in 1834 between Üsküdar – İzmit with 5 post-stations, and to make it possible for the coaches to travel, the roads between these two places were mended. People could use these coaches for shipping and sending letters, although they did not send any letters, and this project was terminated in 1840 because the condition of roads worsened to the extent that no coach could travel.[410] The second trial was between İstanbul and Edirne and was implemented soon after the first one as it was found to be very efficient.[411] With the establishment of the Ministry of Post, although the organization expanded and was now available for public use, the *menzilhânes* and *tatars* were still used and the posts were usually transferred on horseback.[412] For example, in 1859, 14 *kirahâne*s (or rented *menzilhâne*s) in the province of Şam (Damascus) were rented through a Dutch auction and were required to keep the necessary number of horses and *tatars*. In these auctions, the state set forth some conditions about the fees for the transportation of various loads and giving horses to the post *tatars* and drivers, and for the transportation of taxes without any charges,[413] to be paid later by the state.

Even though post ferries were also used in correspondence in the 19th century, horses and land transportation were still necessary. On 27 March 1855, it was stated that when the conveyance of the correspondence does not coincide with

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[409] *Geçmişten Günümüze Posta* (Ankara: PTT Genel Müdürlüğü, 2007), 143-144.

[410] *Geçmişten Günümüze Posta*, 145.

[411] *Geçmişten Günümüze Posta*, 145.

[412] *Geçmişten Günümüze Posta*, 171.

[413] BOA, A.} MKT.MVL., 117/78, (H.18.02.1276 – M.16.09.1859).

the departure of the post ferries that come from Crimea, they were sent through the roads between İstanbul, Belgrad, Varna, and Bükreş to France through land transport. For this reason, it was demanded that enough horses and *tatars* should be situated on these roads.[414] Likewise, there was an increasing number of mails passing through the districts of Pravista and Yenice in 1852, and the post-horses were not sufficient and extra horses were needed because of this heavy traffic.[415]

Another official use of animals in transportation in the pre-modern era was for road construction. Roads were usually constructed using stones brought by wagons or by ships from the nearest stone quarry.[416] As for pre-modern uses of horses, there were also auxiliary troops called *Yaya Müsellem Taycı* corps, which provided supply services for the Ottoman Empire after the establishment of the Janissary corps.[417] As Halime Doğru says, *müsellems* were mounted soldiers that were required to have a horse. These mounted soldiers served in construction and mining activities as well as transportation and maintenance of cannons in times of campaigns, while other *müsellems* were engaged in breeding good quality horses and other animals for riding and for carrying loads, for special services and the court.[418]

As Ottoman urban life started to be affected by modern developments, more types of official uses of horses came forth. For example, in the late 19th century, the Ottoman state imported Hungarian horses for the use of fire services. In documents that showed the need for new equipment, horses were also included as necessary components. For instance, it was noted in 1892 that fire brigades, besides their needs for water pumps (tulumba) and other tools, needed horses. Forty

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[414] BOA, HR.MKT., 93/68, (H.08.07.1271 – M.27.03.1855).

[415] BOA, A.} MKT.UM. 116/64, (H.25.02.1269 – M.08.12.1852).

[416] Mehmet Taştemir, "Klasik Devirde Osmanlı'da Kara Ulaşımı ve Yollar," in *Osmanlı'da Ulaşım: Kara – Deniz – Demiryolu*, eds. Vahdettin Engin, Ahmet Uçar, Osman Doğan, (Istanbul, Çamlıca Basım Yayın, 2012), 17.

[417] Halime Doğru, *Osmanlı İmparatorluğunda Yaya-Müsellem-Taycı Teşkilatı: XV. ve XVI. Yüzyılda Sultanönü Sancağı*, (İstanbul: Eren, 1990), XV.

[418] Doğru, *Osmanlı İmparatorluğunda Yaya-Müsellem-Taycı Teşkilatı*, 12-13, 126-127.

horses were bought from Hungary, but six more horses were needed. Meanwhile, *Dersaadet Tramvay Şirketi* (Tramway Company) had also bought horses from Hungary, but some of these horses were five years old, contrary to the contract. As these horses were healthy and their age was not a problem for the fire services, they would be bought to procure the six missing horses.[419]



Figure 6: "The tool wagon of a Fire Brigade." [420]

In 1895, eight horses were purchased from Hungary for the use of the 4th troop of Fire Brigades, and they were going to be sent through the Rumelia Railway. A confirmation was asked if these horses were going to be imported without taxes, as it was done before because they were to be used for public

[419] BOA, Y.PRK.ASK., 87/45, (H. 23.05.1310 – M.13.12.1892).

[420] Anonymous, "[The ready and alert position of the tool wagon of a Fire Brigade unit stationed at the Imperial Yıldız Sarayı (palace)]," [between 1880 and 1893], Photograph, Washington D.C., Library of Congress, Prints and Photographs Division, Abdul-Hamid II Collection, https://www.loc.gov/pictures/resource/cph.3b28047/

service.[421] On July 18, 1898, among the lacking implements for fire brigades, animals (horses) and carriages were also mentioned; these latter types of equipment and animals were going to be provided by the Ministry of Navy (*Bahriye Nezareti*).[422]

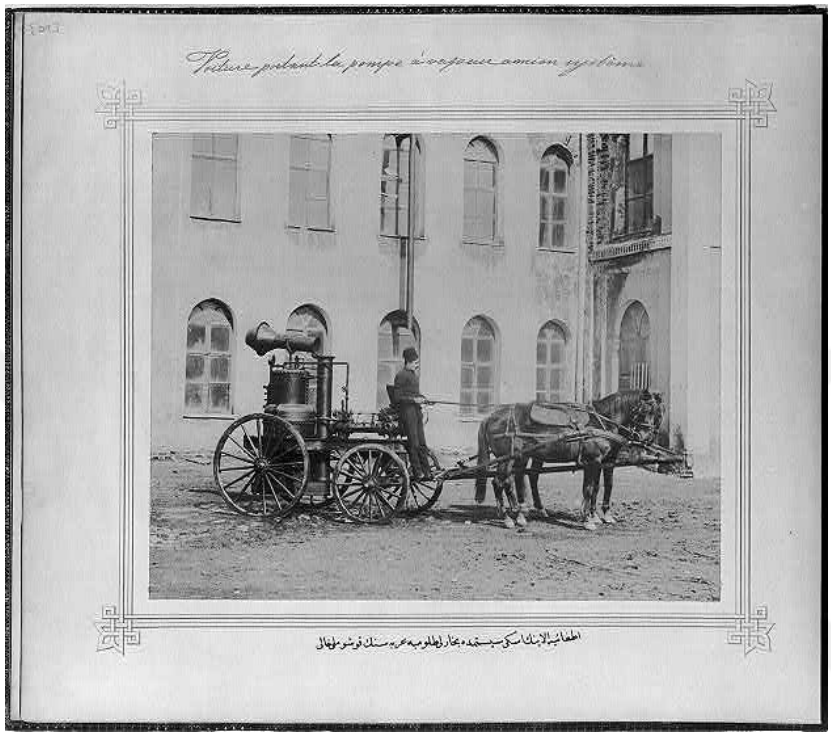

Figure 7: Firefighters from the photo archive of Abdülhamid II. [423]

Later in 1898, it was reported that 47 Hungarian horses for the fire services were being transferred through the train from Edirne.[424] In 1907, it was remarked that the 3rd troop of Fire Brigades in the center had considerable difficulties because of the deficiency of tools, implements, and riding and harness animals. For this reason, this missing equipment and animals were going to be

[421] BOA, BEO, 667/49963, (H. 15.02.1313 – M.7.08.1895).

[422] BOA, M.V., 95/68, (H. 28.02.1316 – M.18.07.1898).

[423] Anonymous, "[The ready and alert position of the old-fashioned steam fire engine of the Fire Brigade]," [between 1880 and 1893], Photograph, Washington D.C., Library of Congress, Prints and Photographs Division, Abdul-Hamid II Collection, https://www.loc.gov/pictures/resource/cph.3b28046/

[424] BOA, Y.PRK.ASK., 145/122, (H. 08.06.1316 – M.24.10.1898).

procured as soon as possible.[425] Another document in 1908 mentions twenty pairs of Hungarian horses ordered and prepared for the use of fire services through two companies in Yanya and Budapeşte.[426]

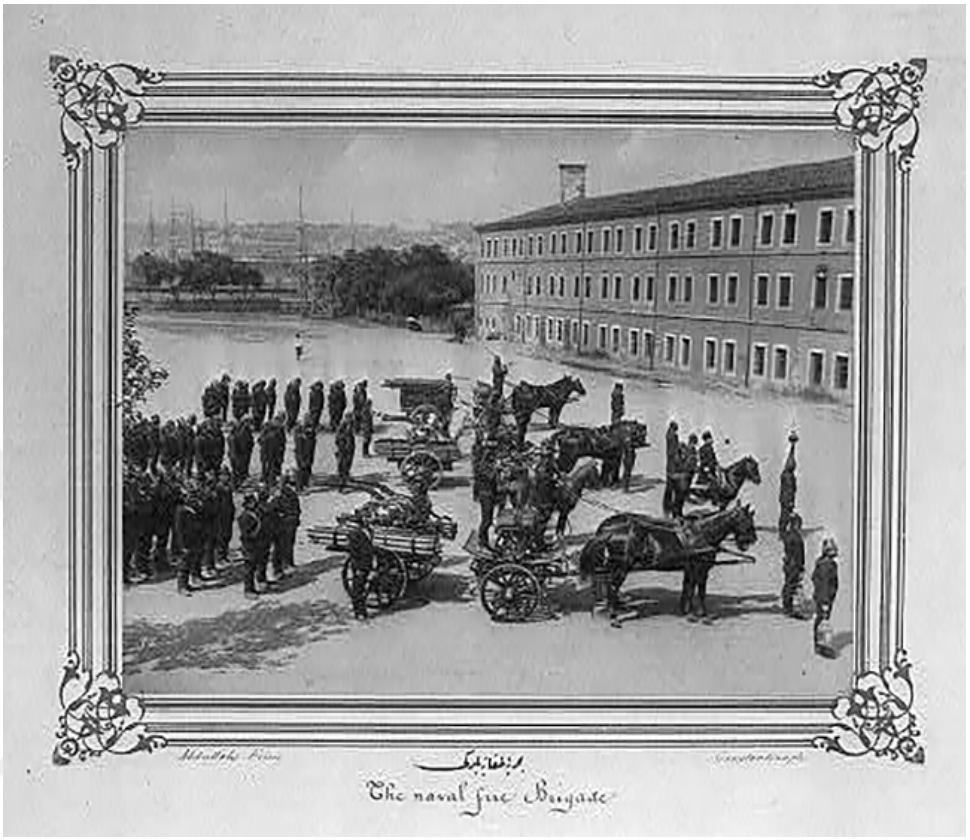

Figure 8: Naval Fire Brigade. [427]

These examples show that horses were used in fire services, at least to some extent. Their absence caused difficulties. Moreover, horses were seen as parts of the equipment. Notably, Hungarian horses were preferred for this job; and unwanted Hungarian horses bought for the Tramway Company were procured for the fire brigades. This indicates the need for heavier horses; although they may be

[425] BOA, BEO, 3113/233439, (H. 20.06.1325 – M.31.07.1907).

[426] BOA, BEO, 3428/257091, (H.10.10.1326 – M.05.11.1908).

[427] Anonymous, [The Naval Fire Brigade],” [between 1880 and 1893], Photograph, Washington D.C., Library of Congress, Prints and Photographs Division, Abdul-Hamid II Collection, https://www.loc.gov/pictures/resource/cph.3b28614/

from the Nonius breed, this is not certain as no information about the breed of horses is given.

Figure 6 shows a tool wagon powered by four horses, carrying a few fire fighters. This shows a modern approach and a faster alternative to fight fires, as the fire brigades of Istanbul were mostly on foot.[428] In Figure 7, a steam-powered water-pump carriage (*buharlı tulumba arabası)* pulled by two horses can be seen. Horses must be necessary to transport this heavy machine as fast as possible during an emergency. Figure 8 demonstrates a naval fire brigade, and the light, two-wheeled carriages with two horses suggest that there was a concern with speed.

The Ottoman state was aware of the importance of the roads in trade amongst other reasons for providing easier transportation.[429] Even though it was not possible to maintain good roads all around the empire, there were attempts to mend roads and bridges. These reparations were also necessary for the *tatars* of postal services to carry out their duties more effectively.[430] From Cabir Duysak's study we can see that the Ottoman State tried to repair existing roads and construct new ones in the 19th century. These endeavors were the result of the complaints of the people that they could not transport their goods to their destination in time because of the bad condition of the roads.[431] Keeping good roads was a common concern not only in the Ottoman Empire, but also in Europe, since it facilitated trade among other things. In addition to repairing and construction of roads, the Ottoman Empire wanted to prevent damage to them. The state tried to ban the ox-carts which notoriously damaged roads to be replaced by lighter, two wheeled carriages, but this attempt caused much discontent and resistance.[432] Before a full implementation of the ban could be achieved, the First World War broke out.

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[428] See: Cem Doğan, *İtfâiyye-i Hümâyûn: Osmanlı İstanbulu'nda Yangın, Modernleşme ve Kent Toplumu (1871-1921)* (İstanbul: Libra, 2019).

[429] Odabaşı, "Mihaliç Çiftlikât-ı Hümâyûnu Ve İdaresi," 18.

[430] BOA, A.} MKT.UM., 205/49. (H.03.12.1271 - 17.08.1855).

[431] Duysak, "19. Yüzyılda Osmanlı Devleti Karayolları," 39-40.

[432] Duysak, "19. Yüzyılda Osmanlı Devleti Karayolları," 46.

A well-constructed road was important for state correspondence and trade and because easy transportation of horses and supplies was crucial for the state's horse breeding facilities. For example, roads were constructed between Bursa and Mihaliç State Farm (*Çiftlikât-ı Hümâyûn*), and between Mihaliç and Kirmasti, where horses and other animals were bred.[433] The new technologies of transport made it possible to send the horses raised in the stud farms to Istanbul in an easier way. The arrival of railways to Eskişehir facilitated the transportation of horses from the stud farm to the proximity of the Sea of Marmara, and from there they could be transported through steamships to Istanbul after 1892.[434] Besides, the horses and other animals like camels in the Royal Stables (*Istabl-ı Âmire*) required a large bulk of supplies for their feeding. According to Ahmet Uzun, this amounted to 1.796 tons of barley and 1.693 tons of hay yearly in the middle of the 19th century.[435] Transportation of these supplies required roads and animals to carry them. Even when they were carried by ships, they would need to be transported via animals to reach their destination.

People usually travelled in the Ottoman Empire by carriages, oxcarts, horses, mules and donkeys.[436] However, traveling through Ottoman inland was fastest on horseback, and besides its visible difference in speed, it had other advantages over ox-carts especially while traveling in harsh environments and in bad or narrow roads or where there were no roads at all. The travel accounts of Burnaby mention such roads.[437] On the other hand, at the start of the 19th century, Seetzen mentions some well-maintained roads made of broken stones, however, these roads were usually narrow and not suitable for carts or wagons.[438]

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[433] Odabaşı, "Mihaliç Çiftlikât-ı Hümâyûnu Ve İdaresi," 18-19.

[434] Arzu Kılınç, "Eskişehir Çifteler Çiftlik-i Hümayunu," in *At Kitabı*, ed. Emine Gürsoy Naskali (İstanbul: Kitabevi, 2017), 557, 576.

[435] Uzun, *İktisâdî ve Malî Yönleriyle Istabl-ı Âmire (1500-1900),* 79.

[436] Halaçoğlu, *Osmanlılarda Ulaşım ve Haberleşme*, 42.

[437] Burnaby, *On Horseback Through Asia Minor,* 1:79-80.

[438] Ulrich Jasper Seetzen, *İstanbul Günlükleri ve Anadolu'da Yolculuk: 12 Aralık 1802-22 Kasım 1803, vol. 2, Anadolu'da Yolculuk: 22 Haziran 1803-22 Kasım 1803*, trans. Selma Türkis Noyan (İstanbul: Kitap Yayınevi, 2017), 459, 500, 543, 721.

Foreign travelers could either rent or buy horses, and if they were seen as important, they could receive horses as gifts, especially on official visits. In the 18th century, Kelemen Mikes mentions such gifts as his lord received from notables and even from the Sultan.[439] Renting or buying horses also depended on the money that the traveler had. Ulrich Jasper Seetzen rented horses and mules throughout his journey, and he had more modest means of travel in relation to other travelers mentioned here. Heinrich Barth also chose to travel with rented horses. He rented animals from people who had this job, probably *mekkâre*s although this term was not used. Later in the journey, he also rented horses and mules from postal services, or *menzilhânes*.[440] Even though he could hire horses from these places, the state couriers (*ulak*) had precedence, and no one could leave before a courier took the horses he needed and departed.

As for places the travelers stayed for the night, Barth mentions two types of structures of rooms and stables. One is a single room separated by a fence from the stable. He described it as a room for travelers and a stable for two or three horses; the room and the stable were separated only by a wooden fence. He remarks that it is because the men in this country would always want to keep their "loyal" horses close by, especially at night, to make sure they are healthy and well-cared for.[441] Another reason must be to benefit from the heat of the animal. The other type, which Barth found the most comfortable, is a building where the stable is on the ground floor and the room where people stay is on top of it, usually with stairs to go up there.[442] We can also see from Burnaby's account that in villages, the houses were usually divided in two for animals and humans, just with a wooden fence, without any wall between them.[443]

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[439] Kelemen Mikes, *Türkiye Mektupları,* trans. Sadrettin Karatay (Ankara: Türk Tarih Kurumu, 2014), 1-2, 5, 9, 11, 173, 191.

[440] Barth, *Heinrich Barth Seyahatnamesi*, 197, 243, 245-246.

[441] Barth, *Heinrich Barth Seyahatnamesi*, 26.

[442] Barth, *Heinrich Barth Seyahatnamesi*, 214, 225.

[443] Burnaby, *On Horseback Through Asia Minor,* 1:159.

Knowing a few words about horses would save travelers from inconveniences. At the end of his travel book, James Ellsworth De Kay added a small dictionary of some Turkish phrases. There were a few phrases related to horses as well: "Have you horses to hire?", "Give me a gentle horse", "Give me a spirited horse", "This one is lame", "This one is lazy", and "Give me a good saddle".[444] Supposedly, these were added for practical purposes and seem to be the most needed ones to hire horses for travelers.

Ottomans, like other states, used ships to transport horses over water. They used small horse boats (*at kayıkları*) for shallow waters and horse ships (*at gemileri*) for deep waters. These boats and ships were used for humans, horses, belongings and supplies, as well as other animals.[445] When encountered rivers, people devised other solutions to travel with their horses too. Horses and people crossed Euphrates or Tigris and their branches by rafts called *kelek*, made of goat or sheep skin, and wooden sticks. Moltke saw and used these rafts on many occasions.[446] When the raft reached its destination in the lower part of the river, it would be dismantled into pieces to be carried back by a horse or a mule.[447] Sea and river travel was thus connected to inland travel, and horses were carried by ships or boats to continue traveling. After the introduction of steamships, horses and their carriages were also transported by them. This can be observed in the travel accounts of Burnaby.[448]

Rented horses were used occasionally by the military to transport items. They can be found in the archives with phrases such as "*mekkâre beygiri*" and "*mekkâri bargiri*", which meant pack horses.[449] As they were instrumental in

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[444] James Ellswort De Kay, *1831-1832 Türkiye'sinden Görünümler,* trans. Serpil Atamaz Hazar, (Ankara: ODTÜ Yayıncılık, 2009), 387-388.

[445] Yarcı, "Osmanlı Deniz Nakliyatında 'At Gemileri'," 108-109.

[446] Moltke, *Moltke'nin Türkiye Mektupları*, 197, 215-16.

[447] Moltke, *Moltke'nin Türkiye Mektupları*, 263.

[448] Burnaby, *On Horseback Through Asia Minor,* 1:8-9, 48-52.

[449] Some examples are: BOA, TŞRBNM., 24/8, (H.21.01.1281 – M.26.06.1864); A.} MKT.MHM., 163/4, (H. 18.01.1276 – M.17.06.1859); C.DH., 177/8827 (H.29.01.1248 – M.28.06.1832);

transporting military supplies, their care was seen as crucial. Therefore, it is not surprising that, in an instruction about the care of military horses, preparing the rent horses (*mekkâre hayvanatı*) before departure and fitting their tack properly is discussed.[450] The instruction also proposed some actions to take when the rent horse (*mekkâre hayvanatı*) fell, became sick and lost weight.[451]

Moltke also writes about these rented horses; when dispatching the military supplies from Harput to Urfa, the principal loads were carried through the mountains, still, more than a thousand rented horses were used for the remainder. He saw this as excessive and protested. Hafız Pasha agreed with him and said that there were many abuses about hiring horses, that pashas and officers demand rent horses even though they have many horses and mules, just to profit from the feeding of their horses. According to Hafız Pasha no one was ready for such a reform, and he did not want to antagonize all the officers.[452] Besides the military, people could also use these rented horses in long distance travel. At least in the cities, they did use rent horses.

For the transportation of goods via land, especially over long distances, camels were widespread whereas the use of wagons was rare, which must be linked to the conditions of roads. However, mules and horses were also used in transportation and caravans, especially for shorter distances. Over long distances, camels were more convenient for transport. One reason was that camels were more economical than other land transports since they "did not need any paved roads", according to Suraiya Faroqhi. However, she says that because in Anatolia only hybrid camels could survive and they were hard to produce, carts and camels coexisted, whereas in places like Egypt and Syria camels were preferred more than

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İ.MVL., 331/14180, (H.15.08.1271 – M.03.05.1855); A.} MKT.UM., 173/67, (H. 06.03.1271 – M.27.11.1854); A.} MKT.UM, 51/23 (H.09.05.1267 – M.12.03.1851).

[450] Nakliye Müfettiş-i Umumiliği, *Hayvanatın Bakımları Hakkında Talimatname,* (İstanbul, Matbaa-i Askeriye, 1333), 21.

[451] Nakliye Müfettiş-i Umumiliği, *Hayvanatın Bakımları Hakkında Talimatname,* (İstanbul, Matbaa-i Askeriye, 1333), 22-23.

[452] Moltke, *Moltke'nin Türkiye Mektupları*, 281.

carts.[453] Moreover, in the court records of the 18th century, horses were seen to be used in transportation, in contrast to camels, which were hardly seen in the records.[454] The fact that some travelers occasionally mention horses and mules in camel caravans, and that they sometimes mention caravans of horses and mules for the transport of goods strengthens this.[455]

Horses were also used in city transportation. Horses and horse carts were used by the people getting off the ships and trains for their own transportation and/or for the items they bring with themselves, while pack horses were used in the cities for carrying goods to and from the market by the porters.

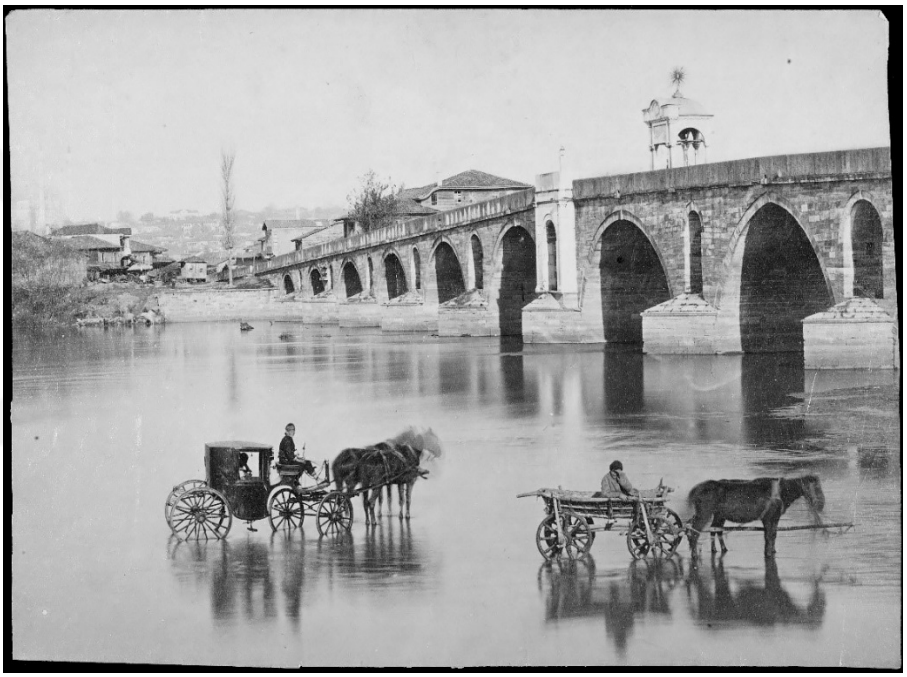

Figure 9: A horse cart and a horse carriage in Edirne (Adrianople).[456]

[453] Faroqhi, "Introduction," 12.

[454] Erkan, "18. Yüzyıl Mahkeme Kayıtlarında Binek ve Nakliye Aracı Olarak Kullanılan Atlar," 133.

[455] For example: Seetzen, *İstanbul Günlükleri ve Anadolu'da Yolculuk,* 2: 403-406, 423, 429, 434, 439. Barth, *Heinrich Barth Seyahatnamesi*, 37, 135, 245.

[456] Anonymous, "Vue d'Andrinople," 1860-1929, undated, Photograph, Getty Research Institute Special Collections, Pierre de Gigord collection of photographs of the Ottoman Empire and the Republic of Turkey, https://rosettaapp.getty.edu/delivery/DeliveryManagerServlet?dps_pid=IE2899142

Figure 9 demonstrates two types of vehicles: An unloaded horse cart and a horse carriage that transports a passenger. Both vehicles used a pair of horses and traveled on the Meriç River. Figure 10 shows horse carts positioned in line and waiting on the market to transport items if necessary. These animals, whether they were donkeys, horses or mules used by porters can be seen not just in Istanbul, since Isabel Burtons' account on them affirms that they could be seen in Egypt and Syria.



Figure 10: Horse carts in the market in Eminönü, undated, circa 1884-1900.[457]

In this context, the letters of Ali Efendi in 19th century Istanbul are very valuable, and their transcriptions were published by Nuri Sağlam. Ali Efendi, who wrote for the journal *Basiret* covered many topics that concerned the residents of Istanbul; he tried to point out the problems that affected daily life, which included horses. Thanks to these letters, we can see horse life in Istanbul. In many different

[457] Sébah & Joaillier, "Place d'Emin Eunu, Mosquée Validé. no. 844," 1884-1900, undated, Photograph, Getty Research Institute Special Collections, Pierre de Gigord collection of photographs of the Ottoman Empire and the Republic of Turkey, https://rosettaapp.getty.edu/delivery/DeliveryManagerServlet?dps_pid=IE2907448

issues of the journal, Ali Efendi addresses the same problems over and over, which shows that the municipality hardly took any precautions about them. One of the problems was about pack horses in the city, which were numerous and were used widely.

In various issues, Ali Efendi complains that the porters who worked with pack horses loaded weights heavier than they could carry and that these animals often couldn't bear it and fell on the streets because of this. He says that these horses are beaten brutally by their owners, worked when their backs are full of scars and their legs are lame, and asks the government to save them.[458] According to Ali Efendi, the municipality announced in 1871 in the newspapers the amount of load the porter horses are allowed to carry and that those who load their animals with more than the specified amount would be punished.[459] However, his complaint in 1874 of the same problem shows that the problem persisted.[460]

It is no wonder that even if such measures were taken, it was not implemented effectively, because loading animals with less meant the need to rent two horses instead of one horse. Ali Efendi says that with these measures, people would need to pay twofold to carry some items, such as wood, which would be hard for them. Therefore, there is a possibility that the cruelty to pack animals was not only the responsibility of the porters but also the public who wanted cheaper transportation at the expense of the animal. Even Ali Efendi opposed the measures about limiting the amount of loading per animal in the passage, yet he continued to write against overburdening animals in later issues just as before. It was forbidden for each pack horse to carry roughly more than 154 kilograms (120 *kıyye*), which would mean that if a person bought around 225 kilograms (1 *çeki* or 176 *kıyye*) of

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[458] Basiretçi Ali Efendi, *İstanbul Şehir Mektupları*, ed. Nuri Sağlam, (İstanbul: Erdem, 2017), 266-267 (Şehir Mektubu no: 77[72], *Basîret,* nr. 1195, 16 Safer 1291 / 22 Mart 1290, s. 1-2.); 273 (Şehir Mektubu no: 80[75], *Basîret,* nr. 1213, 7 Rebiyülevvel 1291/12 Nisan 1290, s. 1-2.); 411 (Şehir Mektubu no: 133[130], *Basîret,* nr. 1548, 7 Cemaziyülevvel 1292/30 Mayıs 1291, s.1.)

[459] Basiretçi Ali Efendi, *İstanbul Şehir Mektupları*, 22. (Şehir Mektubu no: 11, *Basîret*, nr.362, 22 Safer 1288/30 Nisan 1287, s.1-2.)

[460] Basiretçi Ali Efendi, *İstanbul Şehir Mektupları*, 456 (Şehir Mektubu no: 160[158], *Basîret,* nr. 1727, 10 Muharrem 1293/25 Kânunusani 1291, s. 1 -2.)

wood, they would have to rent two horses.[461] The limits-imposed show that these were small, light horses. At that time, Ali Efendi may have thought that the horses were able to carry a lot more than that without trouble since he was usually concerned with the condition of their working conditions. On the other hand, in another letter, he was concerned with the miserable condition of horses that carry around 257 kilograms (200 *kıyye*) of load, because of which they fall only to be beaten with sticks.[462] Since he believed they could carry 225 kilograms of wood before, and since 32 kilograms would not make a serious difference for a horse, we can see a contradiction in his statement, which strengthens economic reasons as a motive to overburden horses. On the other hand, according to Mahmut Şemsi Seydi, the Anatolian horse can carry weights up to 250 kilograms: "The capacity of the Anatolian horse should undoubtedly be considered as high. It is because even though it is small and light and it developed with harsh treatment, insufficient food and care, it carries 250 kilograms of weight, and it eats nothing but the grass that it finds near the roads during the long and tiresome journeys that go on for days."[463] Then either the porter horses worked without rest all day and got exhausted as a result, even though they could carry such a weight; or they were even smaller horses that could not carry such weight without injury. The condition of city streets and hills, the destination's distance, and the equipment's type and quality are other factors that could affect the performance of a horse and injuries and scars on their bodies. Another possibility is that the Anatolian horses that Seydi mentions about also carried these weights in similar hardship and difficulty as the porter horses.

The hardships of Istanbul's working horses were not peculiar to the pack horses. According to Ali Efendi, tramway horses were also suffering from heavy loads, because passengers were bringing too many items with them.[464]

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[461] Basiretçi Ali Efendi, *İstanbul Şehir Mektupları*, 22. (Şehir Mektubu no: 11, *Basîret*, nr.362, 22 Safer 1288/30 Nisan 1287, s.1-2.)

[462] Basiretçi Ali Efendi, *İstanbul Şehir Mektupları*, 99. (Şehir Mektubu no: 8[9], *Basîret,* nr. 806, 19 Şevval 1289/7 Kânunuevvel 1288, s. 1-2.)

[463] Doktor Mahmut Şemsi Seydi, *Atlarımızın Islah ve Teksiri*, 40.

[464] Basiretçi Ali Efendi, *İstanbul Şehir Mektupları*, 298. (Şehir Mektubu no: 91[88], *Basîret,* nr. 1295, 25 Cemaziyülâhır 1291/26 Temmuz 1290, s. 1-2.)

In the daily life of 19th century Istanbul, tramways, horse carts, pack horses, and donkeys could be seen side by side and sometimes posed danger to those walking on the streets.[465] For example, Ali Efendi says that porters' horses and donkey-men go as fast as they can in some places and that the hired horse carts rush in the narrow streets to pass the tramways, which he says is risky for the people in the streets.[466] There are more examples of this in the compilation of his letters.[467] Horses had other uses in the city. Among these uses were transporting patients, building infrastructure of the city, and cleaning.[468]

Moltke mentions riding horses in the streets of Istanbul, including Hungarian heavy horses, although malnourished; and traditions of riding in the city. He also mentions that ambling horses are preferred by Turkish people.[469]

In line with Moltke, Mahmud Şemsi Seydi says that ambling horses are particularly significant among people, even if the army is not interested in them. He says that they are preferred in civilian riding, and often they are sold at prices quite higher than their real worth. He says that if the horse is not naturally ambling, it is made accustomed to it. He asserts that the reason ambling horses are expensive is that they move smoothly, and long journeys can be done with relative ease, moreover, since horses were substituted for automobiles and trains, especially in interior parts of Anatolia, long distances had to be covered on horseback, which made them valuable. On the other hand, Mahmut Şemsi Seydi has seen during his

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[465] He presents a similar picture to that of the depiction of Paris in Paris A Cheval. The falling down of horses was also mentioned in this book: Crafty, *Paris A Cheval*. (Paris : E. Plon et Cie, Imprimeurs-Éditeurs, 1883).

[466] Basiretçi Ali Efendi, *İstanbul Şehir Mektupları*, 297. (Şehir Mektubu no: 90[87], *Basîret,* nr. 1286,18 Cemaziyülâhır 1291/19 Temmuz 1290, s. 1-2.)

[467] For example: Basiretçi Ali Efendi, *İstanbul Şehir Mektupları*, 404 (Şehir Mektubu no: 131[127], *Basîret,* nr. 1530, 15 Rebiyülâhır 1292/9 Mayıs 1291, s. 2-3.); 436 (Şehir Mektubu no: 146[145], *Basîret,* nr. 1651, 6 Şevval 1292/24 Teşrinievvel 1291, s. 1-2.); 450 (Şehir Mektubu no: 156[155], *Basîret,* nr. 1708 Zilhicce 1292/2 Kânunusani 1291, s. 1.)

[468] Basiretçi Ali Efendi, *İstanbul Şehir Mektupları*, 401 (Şehir Mektubu no: 128[125], *Basîret,* nr. 1528, 1 Rebiyülâhır 1292/25 Nîsan 1291, s. 1-2.); 516 (Şehir Mektubu no: 188[189], *Basîret,* nr. 1916, 1 Ramazan 1293/12 Eylül 1292, s. 3.)

[469] Moltke, *Moltke'nin Türkiye Mektupları*, 110.

stay in Germany that Germans think of amble horses differently, since their horses with ambling gait are not comfortable and have a swinging motion. He finds this dislike legitimate since tall, large, and bulky horses don't have the elasticity that the small horses have in Turkey; because their bodies are big and large, their swinging motion is also grand.[470]

Widespread use of animals caused the state to implement taxes and regulations that give information about which kinds of horses were used in the city. A regulation about animal taxes which dates 1864 specifies that in Istanbul, all the cart horses, saddle horses, and pack horses and donkeys will be registered to be taxed, but that the animals of Royal Stables, cavalry, artillery corps, and the embassies will be excluded. The saddle horses of the ruling class and military officers were also going to be excluded from taxes; however, their carriages and the carriage horses were going to be registered.

Then, in another article of the regulation, a more detailed explanation about the horses to be taxed is given. According to this, in Dersaadet (the central part of Istanbul), and three of the biggest districts, different amounts of taxes were going to be taken for each of the cart/carriage horses, saddle horses, and pack horses, as well as saddle and pack horses of the artisans such as gardeners, lime-sellers and water-sellers and for donkeys in general.[471] Besides the animals that dwelled in the city, those that entered the city were taxed as well. According to a regulation from 1884, because of the shortage of income in the municipality of Sivas, 40 *para*s from loaded wagons, 20 *para*s from horses, mules, and camels, and 10 *para*s from donkeys were going to be taken as a tax for entering the city and the towns.[472]

An instruction about census and tax collection for animals (*hayvanat-ı ehliye*), including horses, shows the importance given to the issue of recording

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[470] Doktor Mahmut Şemsi Seydi, *Atlarımızın Islah ve Teksiri*, 41-42.

[471] Düstur, 1. Tertip, 2. Cilt, Dersaadet: Matbaa-i Âmire, H.1289, (H.01.01.1281 - M.06.06.1864), 497.

[472] Düstur, 1. Tertip, 5. Cilt, Ankara: Başvekâlet Matbaası, 1937, (H.25.05.1302 - M.19.11.1884), 607.

animals by the state.[473] The fact that the foals and other animal offspring who are less than two years old were free of tax may mean that the state attempted to encourage animal and horse breeding.[474]

The need for artillery horses has affected city transportation at some point. Ali Efendi tells us about the news that the government decided to take the tramway horses to be used to pull gun carriages, even though shareholders objected to this by complaining that it would incur losses, and cause cartwrights, stable workers, and tramway employees to lose their jobs and that the residents of Istanbul would have to walk in the streets to go somewhere. However, according to Ali Efendi, because artillery horses are extremely in demand by the army lately, these horses are far more important for artillery and people can live like they did before the tramway came.[475]

After the Ottoman – Russian war in 1877-78, many Circassian immigrants came to or passed through Istanbul. Since many of them came with their horses, they influenced the daily sight of the street life of Istanbul. It is seen that in 1878, immigrants in Istanbul were transporting passengers with their hooded carriages pulled by two horses. This way, immigrants could find a way for a living. In a later issue of the Basiret newspaper, Ali Efendi says that these hooded carriages with two horses are well-liked by the people in the city. He adds that immigrants also have a cart pulled by a single horse which is used to carry loads and that because these carts are light-weight and well-made, the horses can draw them easily. He hopes that such carts would be produced in the city of Istanbul because it would lessen the noise of packhorses and donkeys in the city.[476] In some paragraphs, Ali Efendi says that hundreds of immigrants who come to the Sirkeci Dock, are

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[473] *Hayvanat-ı Ehliyenin Ta'datıyla Resminin Cibayetine Dair Talimattır* (Dersaadet, Serviçen Matbaası, 1320).

[474] *Hayvanat-ı Ehliyenin Ta'datıyla Resminin Cibayetine Dair Talimattır*, 2.

[475] Basiretçi Ali Efendi, *İstanbul Şehir Mektupları*, ed. Nuri Sağlam, 651. (Şehir Mektubu no: 154[249], *Basîret,* nr. 2369, 21 Safer 1295/12 Şubat 1293, s. 3.)

[476] Basiretçi Ali Efendi, *İstanbul Şehir Mektupları*, 653. (Şehir Mektubu no: 155[250], *Basîret,* nr. 2367, 28 Safer 1295/13 Şubat 1293, s. 2.)

transported through Istanbul to Alemdağı, first by ships and then by horses and carts in Üsküdar, but that they wait for these vehicles in the streets for days.[477]

In the 1870s, transportation in Istanbul had some technological developments, such as horse trams and railways.[478] Another use of horses emerged with a new method of transportation in cities: Omnibuses. These large horse carts, also called horse buses, could carry over a dozen passengers. Omnibuses, which were first used in France, were a transportation method peculiar to the 19th century, which is probably related to the increase in urbanization. These horse-drawn vehicles were introduced in Istanbul in 1872 in two areas of Istanbul, between Eminönü-Eyüp and Beyazıt-Edirnekapı,[479] and they soon operated in different sections of the city as well.

Even though local people were generally happy with the omnibuses, they also had some complaints, such as bad roads which caused uncomfortable trips, excessive dust, and the bad condition of the horses. Engin says that the strength of the horses that pull omnibuses was not sufficient, and this lack of strength affected the journey. It is notable that the Tramway Company used these horses firstly for omnibuses, then for carriages, and finally for tramways, which caused the worn-out animals to move with difficulty while going uphill.[480] In this instance, it is seen that these horses were treated like living machines again; they had to work all day even if this work strained their bodies and exhausted them. It also showed that breeding strong carriage horses was necessary for the artillery and for the new developments in transportation.

Horse carriages and other vehicles were not used widely in the city until European influences started to change that. Before that, carriages were seen mostly

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[477] Basiretçi Ali Efendi, *İstanbul Şehir Mektupları*, 683. (Şehir Mektubu no: 165[261], *Basîret,* nr. 2444, 17 Cemaziyülevvel 1295/7 Mayıs 1294, s. 3.)

[478] Reinhold Schiffer, *Oriental Panorama: British Travellers in 19th Century Turkey* (Amsterdam: Rodopi, 1999), 154.

[479] Vahdettin Engin, "İstanbul'da Şehiriçi Toplu Taşımacılığın Bir Unsuru Olarak Omnibüsler," in *Osmanlı'da Ulaşım: Kara – Deniz – Demiryolu*, eds. Vahdettin Engin, Ahmet Uçar, Osman Doğan, (Istanbul, Çamlıca Basım Yayın, 2012), 68.

[480] Engin, "İstanbul'da Şehiriçi Toplu Taşımacılığın Bir Unsuru," 70.

as vehicles of women.[481] In the 18th century, high-ranked non-military members of the Ottoman state, namely *şeyhülislam*s and *kazasker*s used carriages, and there were also carriages of the Sultan, but it was more customary for him to be on horseback.[482] In the 18th century, Kelemen mentions a horse carriage sent by the sultan; however, he thought that this vehicle did not deserve the title carriage as it was just a basic one, an "araba". It was drawn by four white horses.[483] There were also litters/sedan chairs (*tahtırevan*) which were either carried by people or mules at the back and the front of the vehicle, and these were used to carry sick people, court women and heavy materials during a war.[484] When Seetzen became very sick, he could get a permission from the *müsellim* of Halep to use a *tahtırevan* to continue his journey. He says that it is unusual to travel with this vehicle in this country, and it requires special permission. It was usually used only by women from distinguished families.[485] Visiting British women found this way of transport in Istanbul comfortable in the 19th century.[486]

Schiffer says that walking in Istanbul was inconvenient for visiting Europeans because they were at risk of being insulted by Muslims or were attacked by the numerous dogs that live in the city. While exploring the city was easier on horseback, this way of transport was limited to gentlemen. Ladies could use arabas, that is a type of oxcart, and found as jolting and uncomfortable by British ladies as they did not have springs. They could also use light carriages of more-or-less based on European models, but they were of older technology in comparison to European carriages. Thus, the sedan-chairs were the most convenient.[487] Horse carriages in the Ottoman Empire did not match the comfort of their European counterparts as

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[481] Dingeç, *Osmanlı Sarayında At*, 78.

[482] Dingeç, *Osmanlı Sarayında At*, 80.

[483] Mikes, *Türkiye Mektupları*, 2.

[484] Dingeç, *Osmanlı Sarayında At*, 70-71.

[485] Seetzen, *İstanbul Günlükleri ve Anadolu'da Yolculuk,* 2:716-717.

[486] Schiffer, *Oriental Panorama*, 158.

[487] Schiffer, *Oriental Panorama*, 155-158.

they did not have springs, however, they started to become a prestigious vehicle to own, and there were not many who owned carriages. For example, the only carriage of Ankara in 1877 belonged to the Pasha, but it had no springs, as it was custom in Ottoman Empire, and it was an old and "funny-looking" four-wheeler.[488] However, having a carriage gave a great prestige to the pasha. Likewise, the governor of Sivas had a carriage that "resembled a brewer's dray", but it was the only carriage in the district and therefore it added to the status of the pasha.[489] The governor of Erzurum also had a carriage that looked like a dray.[490]

Overall, good roads and streets, the capacities, strength and types of horses, the technological level of carts and carriages and their capacity and comfort, environmental conditions, and safety of roads were all factors determining the quality and speed of transportation. The lack of sufficient roads that were well maintained and were wide enough for coaches and other vehicles to pass through, and the fact that the Anatolian horse breeds were light and were more suitable as saddle horses necessitated camels for the transportation of heavy goods and materials. However, it was seen that horses, mules and donkeys were also used in transportation of goods. Although this inland transportation system worked before, the 19th century demands were to transport items quickly and economically. An animal could not carry as much as it could draw in a well-made wagon or cart of the latest technologies. However, Ottomans did not even use springs, and their use of vehicles was limited. This caused a loss of considerable animal power.

At the beginning of the 20th century, European influences and technologies became more prominent. In this respect, Mahmut Şemsi Seydi shows the role of horses in transportation:

> *In the last fifteen years, the development of our agriculture, commerce, and industry and the construction of roads that serve transportation brought the need for deep-bodied, heavy, and relatively big horses to our country as well. This need will also increase day by day too. Transportation of luggage and*

[488] Burnaby, *On Horseback Through Asia Minor,* 1:129.

[489] Burnaby, *On Horseback Through Asia Minor,* 1:296.

[490] Burnaby, *On Horseback Through Asia Minor,* 1:317.

> *construction materials by carts from one region to another region needed relatively big and strong horses all along. In regions where such horses are absent, three to four horses are harnessed to the carts. It is uneconomical, and because it is often difficult to find four horses of the same size and, more importantly, of the same strength, the desired speed for transportation cannot be achieved and difficulties arise. For our commercially and industrially developed cities, we need horses that are big and strong. And because these are not found enough in our country, they are imperatively imported from abroad.*[491]

Overall, the growing need for big and strong horses in the country due to the development of various sectors highlights the importance of importing such horses from abroad. While Seydi was writing these, some Ottoman authors were classifying horses like that of Europe, as if they were about to start importing them at once.

Hüseyin Remzi,[492] categorizes horses into four types based on their specific uses and their bodies needed to be suitable for the type of work they were expected to perform: Saddle horses (*binek atı)*, ordinary cart horses (*adi araba atı*), large wagon horses, and draft horses that are used in heavy work. Large wagon horses were tall horses that pull trams. While there were no draft horses in Istanbul, they were used in large cities like Paris for heavy loads.[493] The horses' bodies needed to be suitable for the type of work they were expected to perform.[494]

On the other hand, Ahmed Cevad[495] divides horses into five categories in terms of usage: Riding horses, pack horses, cart horses (for transporting people),

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[491] Doktor Mahmut Şemsi Seydi, *Atlarımızın Islah ve Teksiri*, 32-33. Translated from Ottoman Turkish.

[492] Hüseyin Remzi was a doctor lieutenant colonel (*kaymakam*) who was a teacher at *Mekteb-i Mülkiye-i Şahane*, *Mekatib-i Tıbbiye-i Askeriye*, and *Mülkiye-i İlm-i Hayvanat*. His book, "*İlm-i Hayvanatın Çiftliklere Tatbiki,*" was used in teaching in the 3rd grade and among other animals, it also contained information about horses.

[493] Hüseyin Remzi, *İlm-i Hayvanatın Çiftliklere Tatbiki* (İstanbul: Karabet ve Kasbar Matbaası, 1304), 440.

[494] Hüseyin Remzi, *İlm-i Hayvanatın Çiftliklere Tatbiki*, 440.

[495] In *Hayvanat-ı Ehliye Yetiştirmek* (Raising Domestic Animals) published in 1913, Ahmed Cevad writes about animal husbandry and horse breeding as well as the types of soil, pastures, terrains, living conditions, feeding, and care that animals need, and his ideas to improve production and

light wagon horses, and heavy wagon horses. He says that riding horses is needed more by the army than by the common people while other services that these animals provide are needed by everyone.[496] One of these uses was for agriculture. However, in the Ottoman Empire, traditionally, farmers used oxen and mules to plow the land and used horses mostly to transport items and people, and they were also used for riding. Yet, many peasants did not own a horse. Oxen were the most common animal they owned because they were less costly to look after in relation to horses. Another reason was because oxen were more suitable for plowing uneven and steep lands, although they worked at approximately half the speed of a horse could work.[497] Thus, horses were mostly used for errands such as carrying water and transporting the products to the market. Especially notables' farms made effective use of them. The records from such farms show that the horses, which were usually fine horses, were either for riding or they were horses for such farm errands. In the imperial big farms (*çiftlikât-ı hümâyûn*) of the province of Aydın, as in other farms in the empire, the most used animals were oxen; however, some of the farms that belonged to the estate used horsepower as well. This can be understood from the number of carts owned by these farms. In total, these farms possessed 43 four-wheeled carts and 484 two-wheeled carts for oxen, and 20 four-wheeled carts and 17 two-wheeled carts for horses.[498] However, it should be remembered that horses could also carry loads on their backs, and they were also used for horseback riding.

Numerous horses, mostly mares, could be found in the estates of some notables. For instance, Karamanoğlu Hacı Mustafa Ağa, whose death was recorded

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quality. He did not give any information about himself in his book but he was probably a zootechnician judging from the detailed information he gives about the subject and his constant reference to this science. Although the book was published in a later period, it retains valuable information about breeding horses, which showed the persisting problems as well as the perception about them in the empire, and the place of these animals in daily life. Horses were not only subservient in these aspects, but they also required agricultural production, for their food and pasture.

[496] Ahmed Cevad, *Hayvanat-ı Ehliye Yetiştirmek*, (İstanbul: Mesai Matbaası, H.1331), 23.

[497] Odabaşı, "Mihaliç Çiftlikât-ı Hümâyûnu ve İdaresi," 293.

[498] Aysun Sarıbey Haykıran, "Aydın Vilayeti'nde Çiftlikler (1839-1918)" (PhD diss., Ege Üniversitesi 2013), 177-179.

in 1755, left behind 151 mares and 57 other horses in his various farms.[499] It is probable that these 57 horses were saddle horses since they were not specified as carthorses or pack horses *(bargir)*. Likewise, in Kara Yunuslu Farm owned by the Voivode of Tire, Yeğen Mehmed Ağa who died in 1787,[500] there were 113 cattle and 28 horses.[501] Some of these horses were for riding as he had six private horse tacks.[502] Besides his 70 camels, he had 18 mares, 4 horses, and 2 donkeys which were used for farm works such as transportation, and he also had 7 donkeys, 18 mules, 5 saddle horses, 10 horses, and 5 foals which were recorded separately.[503] According to the study of Haykıran, on the farms of Torbalı *Çiftlikat-ı Hümayun* there were in sum 2504 cattle, 567 buffalos, 244 camels, 1095 horses, and 881 donkeys which are older than 1 year old. There were also 546 cattle, 165 buffalos, 11 camels, 114 horses, and 151 donkeys that are below 1 year old. Of these animals 203 buffaloes, 1571 oxen, and 347 horses were used in agriculture.[504] This suggests that many animals were produced there since there were so many yearlings, and animals younger than that.

The use of the horse in Ottoman agriculture can be observed in travelers' accounts. Seetzen mentions that a horse was turning the mill that watered a garden near Susurluk Village.[505] Then he says that almost every garden on the Island of Sakız had a watering mill, but he does not say what animal was used to power them.[506] Moltke informs that in Mosul, water from the Tigris was taken by large containers and they were pulled by a horse, with the help of a wooden scaffold and ropes, and the water in these containers was transferred to the water reservoir to

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[499] Sarıbey Haykıran, "Aydın Vilayeti'nde Çiftlikler," 184.

[500] Özer Küpeli, "Tire Voyvodası Yeğen Mehmed Ağa ve Muhallefatı," *Cihannüma Tarih ve Coğrafya Araştırmaları Dergisi* 4 (2018): 19-33.

[501] Sarıbey Haykıran, "Aydın Vilayeti'nde Çiftlikler," 185.

[502] Küpeli, "Tire Voyvodası Yeğen Mehmed Ağa ve Muhallefatı," 26.

[503] Küpeli, "Tire Voyvodası Yeğen Mehmed Ağa ve Muhallefatı," 28.

[504] Sarıbey Haykıran, "Aydın Vilayeti'nde Çiftlikler," 185-188.

[505] Seetzen, *İstanbul Günlükleri ve Anadolu'da Yolculuk,* 2:432.

[506] Seetzen, *İstanbul Günlükleri ve Anadolu'da Yolculuk,* 2:608.

irrigate gardens and fields.[507] Wittman says that after the harvest, instead of threshing the wheat, it is custom for people to "harness horses and oxen to a small car, the bottom of which is studded with portions of flint to cut and bruise the straw, the grain being disengaged by the trampling of the feet of the animals, who move in a circular direction, as if in a mill."[508] Besides working at the farms, their needs created the need to produce and transport fodder and grains, which also affected agriculture.

According to Civani,[509] in agricultural production, the animals constitute the second biggest wealth of the Ottoman Empire, and even though the agricultural conditions are primitive, animals still prompt an important sum of trade.[510] He says that there are around 50 million sheep, 20 million goats, 4 million angora goats, 8-10 million cattle and buffaloes, and three million horses.[511] He notes that, as civilization is developing, the use of the horse is increasing everywhere, which in turn increases the value of horses. He believes that if the economic conditions and agriculture improve, the Ottoman Empire would be one of the primary countries that use and export horses with its vast pastures.[512]

Besides the fact that animals were producers and consumers in agriculture, their need for pastures was also important, because the allocation of lands to pastures meant that no crops would be cultivated there, and it could also cause strife among people because usually there were no clear official records of ownership of pastures; only traditional and blurry boundaries. It was especially a problem when

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[507] Moltke, *Moltke'nin Türkiye Mektupları*, 222.

[508] Wittman, *Travels in Turkey*, 27.

[509] Civani was the director of Veterinary Affairs, Establishments and Statistics Department (*Umur-ı Baytariye Müessesat ve İstatistik Şubesi*) in the Ministry of Agriculture (*Ziraat Nezareti*) and a teacher of the science of animals such as camels, cattle, sheep and goats (*fenn-i mevaşi*) in *Halkalı Ziraat Mektebi* and a teacher of protection of animal health (*hıfzı's-sıhha hayvanat muallimi*) in *Mülkiye Baytar Mektebi*.

[510] Civani, *Teksir ve Islah-ı Hayvanat, Birinci Kısım, Kavaid-i Umumiye* (Darülhilafe: Matbaa-i Hukukiye, 1329), 6.

[511] Civani, *Teksir ve Islah-ı Hayvanat, Birinci Kısım, Kavaid-i Umumiye*, 6.

[512] Civani, *Teksir ve Islah-ı Hayvanat, Birinci Kısım, Kavaid-i Umumiye*,7.

immigrants were placed in various areas of the empire. A document that dates June 2, 1895, sent by the Ministry of Land Registry, gives an example of the strife between horse-herd owners and local people caused by the grazing horses on the pastures that were legally or illegally used by the peasants.[513] In this example, a person from the "*ümera* of Circassians" –"*ümera*" indicating that he was an important individual-, and his companions brought stud mares from Caucasia to the Ottoman Empire, which was as many as 15.000 horses. These emigrants, who were now inhabitants of Aziziye district of the Sivas province[514], wanted to graze the horses during the winter, in the vacant pastures of Adana and Halep provinces and of the Cebel-i Bereket, Kozan, and Maraş sanjaks. It was pointed out that these pastures did not belong to anyone officially by deed and they were not suitable for agriculture. Yet when they attempted to graze the horses in these areas, local people opposed this and prevented them. It was informed by the *Seraskerlik* (Ministry of War) that these people were going to breed and raise the horses needed for the Ottoman Empire and they pleaded that no one would obstruct their usage of the vacant fields and pastures in the winter. In turn, *Seraskerlik* inquired the land registry (*defter-i hâkâni)* about the issue and precise information was demanded from the provinces of Adana and Halep. Then, an official note from the Grand-Vizierate ordered the records and investigations about the pastures and areas for wintering to be reported, a task that was given to the land registry. After the records of the registry of land titles are investigated, several points were going to be solidified: 1) Are these pastures and lands one of those given to people by decree, or are they vacant and ownerless? 2) Are they really lands that are not suitable for agriculture? And if they are suitable, is there no objection or drawback in allocating them for animal usage? 3) By which names were these areas known and which districts did they belong to before the *Tanzimat*? After collecting all this information, local administrative councils were going to give the final report to the Grand Vizierate. This demonstrates how the pastures that animals need for feeding could be a cause for strife and state intervention.

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[513] BOA, BEO., 652/48896, 2. 1, (H.09.01.1313 – M.02.07.1895).

[514] Aziziye is now called Pınarbaşı and it is a district of Kayseri.

It is notable that according to this document, for a field to be a pasture, it was required to be unsuitable for agriculture. On the other hand, modern agriculture and animal breeding advised good soil for pastures to be nutritious to the animals. Ahmed Cevad argued that raising animals and benefiting from them properly required good feeding. Even though the Ottoman lands were fertile, people were lazy and inattentive towards pastures, which were made haphazardly and became worse day by day because of neglect. This did not help the improvement of the animals in any way.[515] Then he meticulously explains how a pasture should be cultivated and maintained. The location of the pasture, the slopes, and fertility according to its closeness to water sources determined which type of animals would be best for these pastures. Seeds for the pastures were to be of the best type as it was wrong to economize on them to obtain a good pasture. He says that after planting the seeds, good care and raking were necessary, and substances such as fertilizers, nitrogen, and potash should be given.[516] Then he points out the importance of the soil in making a good pasture. The soil had to have the necessary minerals and substances such as humus, phosphor, potash, lime, magnesia, and nitrogen. The best and cleanest meadows grew in loamy, marly soil, and environmental factors such as heat, moisture, and climate as well as the way the seeds were planted were also important for a good pasture.[517] However, after he listed the best soil types for pasture, he stated that it was possible to improve and reform the soil through fertilizing it with necessary elements and hard work.[518] This text can be regarded as one of the examples of how scientific knowledge started to influence raising animals. Pastures, which were natural feeding grounds for animals from cattle to horses, now became something improved to feed animals more nutritiously.

An article from *Servet-i Fünûn* suggests that farmers should be encouraged and perhaps even obliged to use horses in their agricultural work as a

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[515] Ahmed Cevad, *Hayvanat-ı Ehliye Yetiştirmek*, 2.

[516] Ahmed Cevad, *Hayvanat-ı Ehliye Yetiştirmek*, 5-7.

[517] Ahmed Cevad, *Hayvanat-ı Ehliye Yetiştirmek*, 9-11.

[518] Ahmed Cevad, *Hayvanat-ı Ehliye Yetiştirmek*, 14-15.

means for the elimination of cattle epizootics, which is one of the most serious problems for farmers.[519] This way, since horse diseases were rare in the country, farmers would be able to continue with their agriculture using their horses when an epizootic hit the cattle. It continues that:

> *For a farmer who runs two pairs of oxen, it is not at all difficult to employ a pair of horses for one pair, since it is possible everywhere to acquire a pair of common mares for a pair of oxen. If a farmer employs a pair of mares in agriculture, the management and maintenance of which is no more difficult than the management and maintenance of a pair of oxen, with a little care and service, a foal can be obtained from one of the two mares, which is a benefit for the farmer out of nothing.*[520]

According to the article, seeing the benefits of using horses in agriculture, and the money breeding horses bring, the farmers would find ways to benefit from both of his mares this way, breed better horses and get more money, and procuring better mares to breed better horses for profit.[521] Moreover, he would realize that it is more profitable "because he can plow the field in half a day with a pair of horses that he can plow in a day with a pair of oxen," and horses provided "convenience and speed in transportation."[522] It is also noted that if horses are used in agriculture instead of oxen in suitable areas, there would be room for the export of black cattle (*kara sığır*) from those places.[523]

Mahmud Şemsi Seydi says that poor peasants and farmers in Anatolia do not own horses, however, middle to large farm owners have always used horses in their works. On the other hand, he believes that it would be a huge financial mistake to propel small peasants to use horses, and it would hinder the amelioration and development of cattle, which had already atrophied and needed improvement with

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[519] [Ayın,] "Teksir ve Islah-ı Cins-i Fereste: Damızlıkların Çalıştırılması," *Servet-i Fünûn* , no.302 (R. 12.10.1312 - M.24.12.1896): 249.

[520] [Ayın,] "Teksir ve Islah-ı Cins-i Fereste: Damızlıkların Çalıştırılması," 250.

[521] [Ayın,] "Teksir ve Islah-ı Cins-i Fereste: Damızlıkların Çalıştırılması," 250.

[522] [Ayın,] "Teksir ve Islah-ı Cins-i Fereste: Damızlıkların Çalıştırılması," 250.

[523] [Ayın,] "Teksir ve Islah-ı Cins-i Fereste: Damızlıkların Çalıştırılması," 250.

great care. However, he says that in areas with the right financial conditions for raising horses, horses should be used and raised. According to him, breeding valuable horses should be strongly encouraged, which stud horses and broodmares and make horse-breeding profitable. Moreover, this way, the peasants would be able to meet their needs for horses cheaply and save themselves from the hardships and deceptions when buying them, if they raise their own horses.[524]

Besides the issue of breeding horses by the peasants, Mahmut Şemsi Seydi also touched upon the usage of the horses in the stud farms in agricultural production in the farm. He proposed that an administration of *haras* (stud farms) should be established which would regulate horse breeding. According to him, if the stud farms are cultivated adequately, the income that will be obtained would meet the entire expenses of the administration of *haras* and a fair amount of the expenses of procuring stud horses and work animals, and the stallion depots and stud farms. He says that in the stud farms where heavy half-bred riding horses and light half-bred cart horses are produced, broodmares should be used to cultivate the land of the stud farm to provide the feed for the animals, until the last months of their pregnancy. He says that this would have many benefits. Firstly, the mares would pay for their food by working and lower the expenses. Secondly, working would give the mares experience, and demonstrate their strength, character, health, and ability to work in harness. Making them work would also help them procreate strong and vigorous foals.[525] From these accounts, we see that horses were included and were seen as important in agriculture as late as 1927. Moreover, they also demonstrate that some problems with horse breeding persisted at that date.

Besides agriculture, horses were functional in social life through horse races and games. Before the nineteenth century, horse races in the Ottoman Empire included cross-country races, shows of skilled cavalrymen, and jereed (*cirit*) games. These races and games functioned as a means of entertainment, legitimation of power, a display and an indicator of prestige, and improvement of skills.

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[524] Doktor Mahmut Şemsi Seydi, *Atlarımızın Islah ve Teksiri*, 33-34.

[525] Doktor Mahmut Şemsi Seydi, *Atlarımızın Islah ve Teksiri*, 23.

Horse races and games originated as a long tradition. Hayri Başbuğ mentions about four kinds of horse games played by the Turkish and Kurdish tribes: *cirit, çevgân* (a kind of polo), horse races, and horse wrestling. He says that winning horses brought much honor to the tribe of their owner and that they were seen as invaluable.[526] Likewise, owning a winning horse was likened to having been given a kingdom in a 14th-century *baytarname*.[527]

In such events, as seen in the article of Tülay Artan, horses were depicted as a symbol of speed, beauty, and power. Instead of the riders, winning horses were emphasized in the historical accounts. According to Artan, these races, especially cross-country races, which accompanied imperial festivals and celebrations in Istanbul, became regular and increasingly systemized from the sixteenth century to the beginning of the seventeenth century.[528] Her study shows us that cross-country races usually covered long distances, sometimes fifteen miles (around 24 kilometers) and sometimes as much as a one-way trip of 33 kilometers (or a round-trip of 66 kilometers, which is not sure).[529] This type of long-duration race that covered long distances required enduring and able horses. Therefore, it suited Anatolian horse breeds like Turkmen and Arabian horses.

One of the reasons why Ottomans may have chosen endurance races instead of shorter distances is because of the type of horses they owned. These small, light but endurant horses were tolerant of challenging conditions and could endure covering long distances better than most of their European counterparts. For this reason, Mahmut Şemsi Seydi argued that horse races in Anatolia should not be based on speed; instead, in compliance with Anatolian horse breeds, they should be based on endurance. According to him, 4-year-old foals should be tried on long distances step by step and be selected for breeding purposes according to

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[526] Hayri Başbuğ, *Aşiretlerimizde At Kültürü*, 27-36.

[527] Özen, "Millî Kütüphanedeki Yazma Baytarnameler," 63.

[528] Tülay Artan, "Horse Racing at the Ottoman Court, 1524-1728." *The International Journal of the History of Sport,* 37, Nos. 3-4, (2020): 246.

[529] Artan, "Horse Racing at the Ottoman Court," 256, 259.

their performances. If their performances are not satisfactory, these mares and stallions should be sent to stallion depots to be used as stallions for people's mares or sold to the people there.[530] Notably, Mahmut Şemsi Seydi wrote these ideas approximately a century after the Ottomans started flat-horse racing; therefore, he may have seen how native horses performed in these races and reached this conclusion.

Tülay Artan mentions other games and shows that included horses in the imperial festivals in the seventeenth century.[531] *Cirit* games, played in groups of horsemen and showing off the horses' and their riders' speed and agility, were also common in Istanbul and provinces of the empire. Tülay Artan says that the royal audience also watched *cirit* games besides horse races during imperial festivals.[532] In South-Eastern Anatolia, *cirit* games were also common. In an article written in 1904-1905, Ziya Gökalp mentions the *cirit* games in the barracks in Diyarbakır. According to Gökalp, obedience, resilience to difficulties, and dedication are the essential characteristics of military service. The *cirit* games held on Fridays and Sundays at Kışla Square supported these features and strengthened the body, turning challenging work into an enjoyable activity. He states that *cirit* games and races encourage people to raise horses and that these races also aid commerce. He says that horse merchants come from Iraq every year to buy many stallions here to sell in India - an echo of the export of fine horses to India at the expense of the horse population in Ottoman lands. However, Gökalp seems not to be concerned about this. Gökalp thinks that if horse breeding is carried out scientifically here, tremendous profit can be gained because of these merchants.[533] It is highly probable that, just like horse breeders in places like Syria and Mosul, fine horses of Diyarbakır, which could be used in horse breeding, were sold to horse merchants instead, and this trade may have harmed horse breeding rather than developing it.

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[530] Doktor Mahmut Şemsi Seydi, *Atlarımızın Islah ve Teksiri*, 40-41.

[531] Artan, "Horse Racing at the Ottoman Court," 251, 256, 261.

[532] Artan, "Horse Racing at the Ottoman Court," 261.

[533] Ziya Gökalp, "Kışla Meydanı," in Makaleler I: Diyarbekir-Peyman-Volkan Gazetelerindeki Yazılar, (İstanbul: Milli Eğitim Basımevi, 1976), 9-10.

Aside from the traditional horse races and games, modern and programmed horse races started with the Levantine families in İzmir.[534] However, flat horse races were just one of the modern horse race types. Hüseyin Remzi describes three types of races: Flat horse races, races in rough terrain[535] (*arızalı olan yarışlar*), and horse shows, contributing both to the betterment of horse breeds and accustoming people to riding.[536]

Modern horse racing was further developed and incorporated into the international setting with the help of a new organization, the Society of Improvement of Horse Breeds and *Sipâhi Ocağı* (a riding club in Istanbul established in 1913). The report of the administrative committee of these societies gives information about their activities in H.1334 (1915-1916).[537] This Society and the riding club were under the Sultan's protection and were established to support horse production and improvement, as well as hunting and marksmanship. This report was only the second one since the Society was new.

Each day, the number of notable members of the *Sipahi Ocağı* was increasing; therefore, new constructions were taking place in the building.[538] Although this could be read as growing support of horse races and competitions, notable people likely participated in this club also for other reasons such as gaining social power, prestige, and networks. Moreover, the state expected significant people in civil and military services to support the Society and the club.

Other activities included constructing, repairing, and arranging the exercise and race tracks and the tower for the judge's box. Aside from these, plenty of gift hedges were received from Europe, probably used as obstacles in steeplechase races. Portable huts were placed on hunting grounds. It was noted that

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[534] Sarıbey Haykıran, "Aydın Vilayeti'nde Çiftlikler," 192.

[535] By this, he probably means cross-country races.

[536] Hüseyin Remzi, *İlm-i Hayvanatın Çiftliklere Tatbiki*, 476.

[537] Islâh-ı Nesl-i Feres Cemiyeti, Sipahi Ocağı, *1334 Senesi Heyet-i İdâre Raporu,* (İstanbul: Hilâl Matbaası, H. 1335).

[538] Islâh-ı Nesl-i Feres Cemiyeti, Sipahi Ocağı, *1334 Senesi Heyet-i İdâre Raporu,* 3.

Hungarian Jockey Club joined the races and brought gifts.[539] The club and the Society organized a foal show, track races, endurance races, trotting races, and different types of jumping races.[540] The Society sponsored the races in İzmir, Balıkesir, Biga and Adapazarı.[541] Twenty-three of the best Arabian stallions and mares which won races were bought by the Ministry of Agriculture to be used as breeding animals.[542] Around the horse, there seems to be another kind of relations forming between people and between countries in this case. While people socialized around activities related to horses, different clubs from countries like Germany and Austria could find common ground: the horse.

According to the Society of Improvement of Horse Breeds regulation, the establishment of this society aimed to raise fine broodmares (dams) and stud horses (sires) through horse races and competitions, horse selection, and horse exhibitions. This was to constitute a base for the improvement and increase of horses with the government's support, making it possible to procure the horses that the Ottoman army and agriculture needed and all the saddle and cart/carriage horses within the country.[543]

Another aim was to develop good riding skills and musketry among the Ottoman people. For this reason, a club named *Sipahi Ocağı* was going to be established, and all the Society of Improvement of Horse Breeds members were required to join this club.

It is seen from this regulation that the memberships were divided into three parts. The first one was for royalty. The second one was for ministers of war, interior affairs, and agriculture, as well as general inspectors of artillery and cavalry, the inspector of Remount, the general director of veterinaries, the

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[539] Islâh-ı Nesl-i Feres Cemiyeti, Sipahi Ocağı, *1334 Senesi Heyet-i İdâre Raporu*, 4.

[540] Islâh-ı Nesl-i Feres Cemiyeti, Sipahi Ocağı, *1334 Senesi Heyet-i İdâre Raporu*, 4, 11.

[541] Islâh-ı Nesl-i Feres Cemiyeti, Sipahi Ocağı, *1334 Senesi Heyet-i İdâre Raporu,* 15.

[542] Islâh-ı Nesl-i Feres Cemiyeti, Sipahi Ocağı, *1334 Senesi Heyet-i İdâre Raporu*, 15.

[543] *Islah-ı Nesl-i Feres Cemiyeti ve Sipahi Ocağı Nizamnameleri*, (İstanbul İkdam Matbaası, H.1339), 3.

governor, and the mayor of Istanbul. Moreover, civilian and military administrators, and veterinary inspectors in places where branch offices were established, were also admitted to this class of membership. The third group of members was permanent members who were selected according to the regulation of the *Sipahi Ocağı.*[544] Notably, the membership is limited to an elite group of people, in contrast to the horse societies established by the farmers in some European countries such as Germany and France.

Tülay Artan says that the transformation of horse races from a royal privilege to a public sport can be seen as a reflection and a model of the new relationship patterns between the court and the people.[545] The horse was a symbol of the ruling class; therefore, including ordinary people in these festivals and letting them watch these races meant being more inclusive to the people. Thus, this exclusive entertainment supported by the cult of the horse shifted toward a more common pleasure, reducing the elevated status of the horse connected to the ruling class and battles. In this way, racehorses and the structures built around them served as leverage in this transformation.

Besides their uses, horses were also a commodity. The breed, allure, health, and physical characteristics of the animals would determine their price: While some horses were costly, others could be relatively cheap. Moreover, their types determined their uses. According to Hüseyin Remzi, as the most important of all is to breed cavalry horses, one should be careful about their height and specifications; making sure that they are not the type of animals that are used for flamboyance. He says that even among ordinary cavalry horses and Arabian horses there is a big difference, and that packhorses (*mekkari hayvanları*) are not the same as the light cavalry horses.[546] He maintains that according to the statistics, one of the reasons why the animals could endure the hardships of war was the type of animals they used. Likewise, the animals that endured the wars of 1855, 1859, and

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[544] *Islah-ı Nesl-i Feres Cemiyeti ve Sipahi Ocağı Nizamnameleri,* 4.

[545] Artan, "Horse Racing at the Ottoman Court," 248.

[546] Hüseyin Remzi, *İlm-i Hayvanatın Çiftliklere Tatbiki*, 455.

1871 in Crimea, Italy, and France were not the types of horses bred for flamboyance, though the stud farms were to raise every type of horses.[547]

As in other countries, in the Ottoman Empire, people could buy horses from horse markets or individuals, and the state regulated these purchases as much as possible. Horse trade on the state level occurred mainly in two ways. Firstly, breeding horses were bought from the provinces and abroad to improve the horse breeds. The state also bought horses for the military. Secondly, stud horses and broodmares were bought by foreign states or merchants either with special permission or by paying taxes, and sometimes illegally from the black market.

Special permissions would usually be for the improvement of horse breeds in Europe. There are many examples of these pleadings and authorizations in the archives. One such example is the request sent by the Principality of Bulgaria, formally a vassal state of the Ottoman Empire but practically independent. This document was sent in French in 1893 and inquired if two Arabian stallions could be provided from Anatolia to ameliorate horse breeds in Tatarpazarcığı (or Tatar Pazardjik) in Bulgaria.[548] Instead of two, sending three stud horses was approved.[549] As another example, in 1896, permission was given for the purchase of sixteen stallions and eight mares free of taxes for the French state stud farm.[550] A year later, another permission was granted for purchasing thirty stud horses and broodmares without taxes for the French stud farms from some of the provinces of the Ottoman Empire (Halep, Diyarbakır, Mosul, Bagdad, Syria, Beirut provinces, and the *Mutasarrıflık* of Zor).[551]

Likewise, there is a record that an adjutant of the Italian King and a veterinary captain (*baytar yüzbaşı*) were going to travel to the "depths" of the

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[547] Hüseyin Remzi, *İlm-i Hayvanatın Çiftliklere Tatbiki*, 455.

[548] BOA, DH.MKT., 5/86, 02, 03, 04, (H.09.09.1310 - M.27.03.1893).

[549] BOA, DH.MKT., 5/86, 09, 11, (H.30.09.1310 - M.17.04.1893) and (H.15.10.1310 - M.02.05.1893).

[550] BOA, HR.TH., 182/74, 01, (H.22.04.1314 - M.30.09.1896).

[551] BOA, İ..HR., 356/48, 03, (H.18.06.1315 - M.14.11.1897).

Şammar Tribe to buy horses for the Italian stud farm with the help of an Ottoman Lieutenant (*mülâzım*).[552] It was noted in another document that the cavalry captain Baron Ajroldi and Captain Canini, after going to Bombay, were going to move on to Basra, Bagdad, Mosul, Halep, and Syria to buy horses for the Italian state stud farms under the jurisdiction of the Italian Ministry of Agriculture and Trade, and the officials in the provinces were notified that the exportation of these horses would not be hindered.[553] Similarly, a request written in French to buy stallions was sent by the Portuguese to the Ministry of Foreign Affairs of the Sublime Porte; if permitted, Antonio Roque da Silveira, a deputy in Portuguese parliament, would be sent to procure the horses.[554] However, the number of the studs to be purchased was not indicated, and the Ottomans wanted to know how many stallions the Portuguese wanted to buy.[555] In some cases, the Ottomans did not permit the export of horses without paying taxes. In 1889, France tried to get permission to purchase horses from Beirut without paying taxes for the military stud farm in Algeria; however, it was not allowed by the Ottoman state, even though it was noted that there was no ban on exporting horses from the empire.[556]

According to Seda Tan, Syria and Iraq are where horse exportation is the most intensely carried out, and most of the exported horses were sent to India. She says there was a significant increase in Arabian horse exportation starting from the second half of the 19th century. She notes that this coincides with steamboats from Baghdad to Basra and the Gulf. Tan states that 2000 to 3000 horses were officially exported yearly from these regions; however, the smuggling traffic increased the actual number. Traditions of nomadic tribes and environmental suitability were the main facilitating factors for horse smuggling. Especially Kuwait stood out as the main smuggling center, and Britain used these Arabian horses it smuggled there to

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[552] BOA, DH.ŞFR., 362/75, (R.31.01.1322 - M.13.04.1906).

[553] BOA, HR.TH., 329/103, (H.30.11.1323 - M.36.01.1906).

[554] BOA, HR.SYS., 1010/19, 01, 02, 03, 04, ([5] Décembre 1902).

[555] BOA, HR.TH., 277/ 59, (H.14.10.1320 - M.14.01.1903).

[556] BOA, HR.TH., 91/48, (H.4.12.1306 - M.1.08.1889).

horse the Indian cavalry.[557] However, these animals were also smuggled as racehorses.

Tan's study shows that from the middle of the 19th century until the First World War, the Ottoman State continuously changed its politics regarding horse exportation from the primary producer regions like Syria, Mosul, Basra, Diyarbakır, and Erzurum.[558] It prohibited and allowed exportation in a few years' notice: the Ottoman Army insisted on these prohibitions because of the short supply of horses for the army, and the horses which were above 140-145 cm were exported in large numbers, while the producers protested to the bans, saying that their business is damaged and sometimes came to a halt, discouraging them from breeding horses. The Ministry of Agriculture and Trade also believed that the exportation of horses in these areas where people depended on horse breeding as a livelihood encouraged horse breeding. Similarly, the Ottoman state did not follow a coherent policy in banning and allowing horse exportation in Tripoli.[559] Another reason for inconsistencies was that when the state banned horse exportation, smuggling horses out of the country without paying taxes rose, forcing the state to cancel the ban.

Besides smuggling, the state also had to combat animal theft inside its borders. In an undated regulation included in the codes (*düstur*), undoubtedly at least in the middle of the 1800s, there was an attempt to prevent animal theft. The animals included were buffalos (local black buffalos - *karasığır*), water buffalos, donkeys, and horses. The features of the animals had to be registered in the local administration records; these were information such as their age, color, breed, and specific marks and signs on their coats. In return, the owners would receive a certification, which was mandatory to own. These certificates would have to be shown and given when the animals were sold.[560]

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[557] Tan, "Osmanlı Devleti'nde At Yetiştiriciliği (1842-1918)," 210-214.

[558] Tan, "Osmanlı Devleti'nde At Yetiştiriciliği (1842-1918)," 214-231.

[559] Tan, "Osmanlı Devleti'nde At Yetiştiriciliği (1842-1918)," 231-233.

[560] Düstur, 1. Tertip, 1. Cilt, Dersaadet: Matbaa-i Âmire, H.1289, (No Date), 742.

The Ottoman Empire purchased large numbers of horses, especially from Austria-Hungary and Russia, for its army starting in 1864.[561] Moreover, as Ottoman horses, mostly Arabian horses, were bought as breeding animals for the European stud farms, Ottomans also bought some animals of the European horse breeds to improve their horses, although these were limited in number. According to Tolga Akay, Çifteler Stud Farm acquired breeding studs and broodmares from Arabian horses and Europe, predominantly Hungarian, French and Russian horses.[562] Other stud farms obtained their horses in a similar manner. For example, in 1851, mares and stallions were purchased from Germany to be used as stud horses and broodmares for herds of horses. These animals were transferred through Belgrade and Edirne. When the men who transported the horses reached the borderline, they were going to hire some people to walk the horses by hand, called "*yedekçi*".[563] Another example is the purchase of 20 stallions from Germany, which would be transported through Odessa.[564] In 1907, two stallions and four mares were bought from Hungary along with cattle; these animals were to improve horses and cattle in Mihaliç State Farm. The horses were kept in rented stables to be examined by veterinarians (*baytars*); however, they were transferred to the *Istabl-ı Amire* (Royal Stables) by decree. After inspection, one of the stallions was found sick and unfit to be a stud horse and was going to be returned as the contract with the stud farm owner dictated. However, purchasing two more stallions and four mares was ordered to improve the horses in Mihaliç.[565] On the other hand, not all the imported horses besides for military use were for improving the breeds. 13 horses and 59 different animals were purchased from Paris in 1883 for *Istabl-ı Amire* (Royal Stables). The purchased horses were two pairs of roan carriage horses, a light bay horse, an English mare, a dark bay horse, a roan horse mare, a

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[561] Akay, *Osmanlı Ordusunda At,* 82-85.

[562] Akay, *Osmanlı Ordusunda At,* 102.

[563] BOA, A.} MKT.MHM., 34/92, (H.29.09.1267 – M.28.07.1851).

[564] BOA, Y.PRK.OMZ., 1/17, (H.18. 09.1301 – M.12.07.1884).

[565] BOA, Y.MTV., 298/75, (H. 19.04.1325 – M.01.06.1907).

pair of great horses (roans), and a brown bay saddle horse. The other animals were defined as hunt animals, composed of 42 chickens, 4 ducks, 3 geese, and 8 pigeons. The remaining animals were two English hunting dogs. 7 of these horses were defined as roans in French and "*karyağdı*" in Ottoman Turkish. These were horses of rarer coat color, which meant white hairs on a bay coat at the time. Moreover, two of the carriage horses were large animals.[566]

Buying stud horses from abroad had some basis in the acknowledgment of the success of European breeding programs. Especially the success of Thoroughbred horses in races made them appealing, both in Europe and the Ottoman Empire. İzzet Pasha, the Horse Master (*mirahur*) and aide-de-camp of the Sultan, had some suggestions to improve horses in the empire. He complained that it was observed that horses in Arabia have been deteriorating. On the other hand, horse breeding in Europe had been improving as much as Arabian horses were degenerating. The race and stud newspapers from France, which showed that many stud farm owners were buying horses for 7000-8000 francs, no longer surprised the people, and sometimes a single horse was bought for up to 20.000 liras. On the other hand, he says that even though Arabia is included, if one travels all over the Ottoman Empire and buys the finest and most famous stallion or mare of the best breed, this horse cannot be sold for more than 1000-1500 liras neither in the country nor in Istanbul nor Europe; moreover, there is no Arabian horse that can win a race of 50 liras in France and England, let alone the races of 5000 and 10000 liras. He says that it is proven that Arabian horses cannot even win regular races. On the other hand, "*pur sang*" horses (meaning Thoroughbred horses) were the offspring of a pure-blooded Arabian, Darley Arabian. According to him, without a pedigree that showed the horse is a descendant of this horse, a horse could not participate in a race in any place in Europe. He says that the importance, rigor, and persistence given to improving horse breeds and the rules and order for it are the same throughout Europe. He gives the example of France: After the war between Prussia and France, in some cities, especially after the siege of Paris, the remaining horses were scarce. Twenty years later, France had around 60.000 cavalry horses in peace

[566] BOA, Y.PRK.HH., 10/33, (H.05.05.1300 – M.14.03.1883).

and 100.000 for active duty, about 3000 artillery horses, three million mobile hospital carriages, and the same number of carriages for the transportation of provisions, ammunition, and bridge sets of the armies, and three million horses for officers including infantry lieutenants, ready for service in case of war. After these arguments, İzzet Pasha asserts that animal expositions with competitions and horse races should be organized as soon as possible in Istanbul and provinces, in accordance with the Sultan's decree. Moreover, at least "*pur sang*" (Thoroughbred) stallions of the truest and most famous ones in Europe should be bought to strengthen the blood of horses through selection in Kağıthane Stud Farm, which was going to be an example for the future stud farms.[567]

However, even though they were unmatchable in races, the use of Thoroughbred horses was limited, and had some defects. According to Civani, even though Thoroughbred horses can travel a short distance with a remarkable speed, they are not suitable for carrying loads or traveling at that speed for a long time, and they would be ruined if they were pushed beyond their abilities. He says the half-bred horses were created to modify such defects of the purebreds. However, he continues that, as the strength of the horse was not only dependent on their size and the mass of their bodies, but it was also wrong to select carriage horses only based on their size and weight, and it was equally wrong to choose horses solely based on their speed and elegance of the body.[568] Therefore, he concludes that:

> *[I]n the breeding and improvement of breeds, one should not push some of the functions of physiology to such an extent that the body is thrown out of balance, and in the breeding of purebreds, one should preserve the harmony and order that nature has bestowed on the original tribes of the breed.*[569]

This showed the author's recognition that the improvement of Ottoman horses should be done carefully.

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[567] BOA, Y.MTV., 80/76, (H.12.01.1311 – M.26.07.1893).

[568] Civani, *Teksir ve Islah-ı Hayvanat, Birinci Kısım, Kavaid-i Umumiye*, 96.

[569] Civani, *Teksir ve Islah-ı Hayvanat, Birinci Kısım, Kavaid-i Umumiye*, 96.

As commerce and international trade came to a new level in the 19th century, horse production became profitable not only for domestic needs but also for international trade. Although Ottomans were far from raising enough horses for their own needs, there were some suggestions for improving production for profit. Ahmed Cevad states that Anatolian people are usually occupied with trading animals; however, they do not try to develop their trade by improving the animal breeds, or they simply do not know about it. He says that animal breeding can be a very profitable occupation, and expenditure for the care of the animals would be taken back threefold in one year.[570] He asserts that while Ottomans could compete with all of the European breeders, Ottoman breeding remained "primitive" because they did not abandon the methods of their ancestors and instead embraced archaic agricultural practices and beliefs.[571] He explains meticulously how a meadow and pasture can be made well and how to care for them; he believes that creating these feeding grounds is one of the steps of raising good animals and requires hard work.[572]

This modern understanding can be observed in the writings of İbrahim Fazıl who puts forth his ideas about how a profitable horse production can be carried out.[573] He says that the products which were "demanded" from horses are manure and offspring. According to him, horse production contains two kinds of expenditures: Expenses of the mare until they give birth and the expenses of the foal until they become of use. He says that horses are not only used as animals that bring income in vulgar methods of agriculture; their strength is always benefited from.[574] According to İbrahim Fazıl, saddle horses, carriage horses, draft horses, and "luxury" horses can be raised for trade. To use and grow these animals,

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[570] Ahmed Cevad, *Hayvanat-ı Ehliye Yetiştirmek*, 3.

[571] Ahmed Cevad, *Hayvanat-ı Ehliye Yetiştirmek*, 4.

[572] Ahmed Cevad, *Hayvanat-ı Ehliye Yetiştirmek*, 5- 20.

[573] He was the deputy headmaster of the School of Agriculture in the *Hüdâvendigâr Vilayeti* (Province of Bursa). This background shows that he had a modern approach to horse breeding and the horse trade.

[574] İbrahim Fazıl, *İktisâd-ı Zirâi: İkinci Kısım* (Bursa: Muayyen Hilal Matbaası, H.1330 [1911-1912]), 225.

however, one needed to consider some conditions: the capability of the soil to produce grass, the requirements of the climate, and economics, that is, capital and expenses.[575] He suggests raising different types of horses according to the kind of soil. He categorizes them as follows: Saddle horses can be raised in meadows with dry soil that produces nutritious grass unsuitable for reaping. In the lands capable of producing grass and herbs suitable for reaping, saddle or carriage horses can be raised. If grains and partly different types of grass are produced in the land, carriage horses should be raised there. If the meadow is relatively dry, the soil fertility is mediocre, and the workload is light, light draft horses (for pulling light carts) should be raised in that terrain. If the land is vigorous, the meadow is plant-rich, and the workload and transportation are very vigorous, then heavy draft horses (for pulling heavy carts and plows) should be raised there.[576]

He says that producing any kind of horses for commerce requires the breeder to consider the production costs. This includes the pasture costs of the mares, foals according to their ages, and the costs of hay and grains like oats, barley, and rye.[577] He classifies the production costs into four categories: "luxury" horse production, the management and training of luxury horses, carthorse production, and the management and training of the carthorse foals from 6 months to 18 months old. Tables to produce "luxury" horses can be seen below:[578]

Table 1: Costs of Raising a Foal.

Costs of the production of a 6-month-old foal:	
To have a stallion serve the mare:	80 kuruş
Since a mare is worth 4800 kuruş: 5 % for interest 7 % for loss 8 % for amortization	960 kuruş

[575] İbrahim Fazıl, *İktisâd-ı Zirâi: İkinci Kısım*, 226.,

[576] İbrahim Fazıl, *İktisâd-ı Zirâi: İkinci Kısım*, 226.

[577] İbrahim Fazıl, *İktisâd-ı Zirâi: İkinci Kısım*, 227.

[578] İbrahim Fazıl, *İktisâd-ı Zirâi: İkinci Kısım*, 227-228.

Feeding costs of the mare during the winter:	
6 kilograms of oats daily for 5 months from 56 *santim*s (56 kuruş for 100 kg)	504 kuruş
150 kilograms of oats given to the foal for 6 months	84 kuruş
Pasture of the mare	600 kuruş
Veterinary and medication costs	000 kuruş[579]
Total Production Cost	2,228 kuruş

Table 2: Management and Training of a Fine Horse.

Management and training of a luxury horse from 6-months-old to 4-years-old without interruption:	
The price of a 6-month-old foal	2228 kuruş
5 % for interest 5% for loss } 10 % for 4 years	1034,04 kuruş
Pasture during the 2nd year	400 kuruş
Pasture during the 3rd and 4th year	1,200 kuruş
2 kilograms of oats daily for 3,5 years	1,430.80 kuruş
Costs of exercise and training	160 kuruş
Shoeing costs, veterinary and medication costs	200 kuruş
Expenses when the horse is sold	80 kuruş
Total Production Cost	6,732.84 kuruş

İbrahim Fazıl points out that the production of luxury or court horses usually means high cost, and even though they are "perfect," they don't have a lot of market. Another drawback with the production of these horses he identifies is that the mares cannot be used for the increase of horse population because they cannot be worked in any job; even if they are worked, it would be an insignificant job.[580] Tables to produce carthorses are as follows: [581]

[579] This was apparently added to show a possible cost.

[580] İbrahim Fazıl, *İktisâd-ı Zirâi: İkinci Kısım*, 228-229.

[581] İbrahim Fazıl, *İktisâd-ı Zirâi: İkinci Kısım*, 229-230.

Table 3: Cart Horse Production.

If the mare works and the foal is sold when it is 8-months old:	
To have a stallion serve the mare:	100 kuruş
Since the mare is worth 4000 kuruş: 5 % interest 7 % loss } 20 % for 6 months 8 % amortization	400 kuruş
The food of the foal: 150 kilograms of oats in 6 months	49 kuruş
Cost of the 50 days when the mare is unable to work, daily 12 kuruş	600 kuruş
The cost of the pasture	
Veterinary and medicine	
Total Production Cost	1184 kuruş

Table 4: Management and Training of a Cart Horse.

Management and training of a cart horse from 6-months-old to 18-months old:	
The price of the foal in six months	1184 kuruş
5 % for interest 5% for loss } 10 % for a year	118.40 kuruş
Feeding the foal for a year after weaning: Pasture 3 kilograms of oats daily 1095 kg from 56 *santim*s (56 kuruş for 100 kg)	613.20 kuruş
Veterinary, medicine, etc.	100 kuruş
The production cost of an 18-months-old animal	3,216.60 kuruş

He notes that he made this calculation to produce fine and big horses and that even though raising local types of horses is cheaper, they are worth less, so it is best to produce larger horses. Moreover, he states that strong and big horses are sought for carts or wagons, carrying loads, and the military. After comparing the strong cart-horse production with local horse breeds production, he also compares the former with breeding luxury saddle horses. He argues that producing carthorses

is more profitable than luxury horses because carthorses can be produced with less cost and can be sold easily, for there is always a market for them.

From his explanations, we can understand that there are different ways of selling, breeding, and raising horses. He informs that breeders sell 18-months-old foals in many places; some sell their foals after they raise them until they are two years old, and some buy 18-months-old foals and raise and use them until they become 4 or 5 years old, and then they sell them.[582] He asserts that horse production is not profitable on farms where industrial crops are grown, but it is convenient in areas where grains and hay are produced.[583]

The problem of the insufficient number of horses in the Ottoman Empire is also mentioned in this text. It is pointed out that there are places where horses are produced, but it is small in comparison to the need. The solutions that İbrahim Fazıl suggests are the exact solutions pointed out by many others at the time: the support of the state by cash prizes, competitions, expositions, stud farms, and similar means. He also recognizes that transportation contributes to horse production: He could be referring to means of transport like omnibuses and horse trams. He states that while improving horse breeds in Rumelia with strong stallions could bring successful results, many of the horses in the country are imported from Hungary and Russia.[584]

How can we place the improvement of horse breeds and systematic breeding of these animals into a capitalist world economy? In an article, Wallerstein poses many questions about the actual peripheralization of the Ottoman Empire and how, when, and why it happened.[585] He distinguishes between a world empire and a world economy, which he says are very different from each other. In his words, "[a] world empire is defined as a single social

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[582] İbrahim Fazıl, *İktisâd-ı Zirâi: İkinci Kısım*, 230-231.

[583] İbrahim Fazıl, *İktisâd-ı Zirâi: İkinci Kısım*, 231.

[584] İbrahim Fazıl, *İktisâd-ı Zirâi: İkinci Kısım*, 231.

[585] Immanuel Wallerstein, "The Ottoman Empire and the Capitalist World-Economy: Some Questions for Research," *Review (Fernand Braudel Center)* 2, no. 3 (1979): 389-398.

economy (a division of labor) with an overarching political structure. A world economy is defined as a single social economy containing multiple state structures. These two systems have different modes of production."[586] According to Wallerstein, the encounter between a world empire and a world economy often results in the absorption of the former by the latter.[587] The Ottoman Empire, a world empire, can be evaluated in this manner.

Wallerstein says that trade between the economic system of a world empire and the financial system of the states absorbed in the world economy is a trade of luxuries and non-essentials.[588] How can we put the horse trade with respect to improving horse breeds, in this context? Horse breeding can be defined in two ways. One is that horses were highly essential in everyday life in the nineteenth century. Horses were in demand in agriculture, travel, trade, and the army. However, horses were also bred for pleasure, a luxury rich people had. Thus, we can see two sides of a coin. Can we say that the Ottoman Empire was also peripheralized in the horse trade, or was this trade carried out like a luxury trade, a trade between two systems, where the Ottoman Empire acted as a world empire and not a peripheral state?

Researchers who support world-system theory may propose that the Ottoman Empire was already incorporated into the world-economy system in the nineteenth century. However, Wallerstein asks, "[is] the "incorporation" a single event, or can different regions of the Empire - Rumelia, Anatolia, Syria, Egypt, etc. - be said to be incorporated at different moments in time?"[589] Maybe not only different regions but also the trade of different goods - and animals - entered the sphere of peripheralization at different moments in time.

If European horse breeds – some better improved than the Ottoman horses- were considered manufactured goods, Ottomans purchased them as

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[586] Wallerstein, "The Ottoman Empire and the Capitalist World-Economy," 390.

[587] Wallerstein, "The Ottoman Empire and the Capitalist World-Economy," 390.

[588] Wallerstein, "The Ottoman Empire and the Capitalist World-Economy," 390.

[589] Wallerstein, "The Ottoman Empire and the Capitalist World-Economy," 393.

improved stallions or mares to ameliorate their own horse breeds. However, even though they could not compete with their European kins because of malnutrition, lack of proper care, and scientific breeding, Ottoman horses were still capable, strong, and resistant to the country's geography.[590] So, they provided a good base. Moreover, pure-bred Arabian horses were sought by some elites in Europe to crossbreed with their horses, and there are many documents in the Ottoman archives that grant special permissions to these persons not to be hindered in any way from buying whichever horse they wanted to buy throughout the Ottoman territories as was seen before. Also, European merchants made many purchases in places like Syria and Iraq, where the best Arabian horses were produced.

3.1.2. The Condition of Horses

Horse breeds in a territory could define capabilities and actions since the type of the bodies of horses imposed limits and advantages. Each breed was formed according to environmental factors like terrain and climate, the needs of people, and the way they were looked after, fed, and selected. There were many horse breeds in the Ottoman territories. Some of them were "Anatolian Native, Uzunyayla, Çukurova, Canik, Malakan, *Hınıs'ın Kolu Kısası*, Rumeli, Ayvacık [pony]," [591] Arabian and Turkmen horses. However, there are different main categorizations.

Ahmed Cevad says that, even though there are many "tribes" of horses in Turkey, the most important ones are the Arabian horses and Çukurova horses.[592] Of these two breeds, Arabian horses are described as very fine, beautiful, and well-trained horses. He says that this breed becomes even better day by day because the Arab people are very fastidious when choosing stud horses and broodmares, and

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[590] Doktor Mahmud Şemsi Seydi, *Atlarımızın Islah ve Teksiri*, (İstanbul: Hamîd Matbaası, 1927).

[591] M. Tekin Koçkar, *At Irkları ve Dağılımı*, (Eskişehir Osmangazi Üniversitesi Yayınları, 2012), 41-42.

[592] Ahmed Cevad, *Hayvanat-ı Ehliye Yetiştirmek*, 26.

each horse has a pedigree; as a result, each foal is born a better horse than its parents.[593]

According to İhsan Abidin, two main breeds of horses have been influential in Asia Minor: the Turan and the Arian. He states that Turan horses, which originated in Mongolia, were strong, courageous, and medium-sized (but sometimes reached up to 150 - 160 cm) and could be seen in Turkmen provinces, India, China, and Japan, in possession of Kyrgyz Turks, Iran, Iraq, Kurdistan, Yemen, Egypt, Tripoli, Tunis, Algeria, and Morocco. The essential examples of the current Turan breed were constituted by the [Akhal] Teke horse in northern Iran, the Turkmen horse in Turkmenistan, and the Berber horse (Barbs) in Northern Africa. The Arian breed was described as 142 - 152 cm in height, harmonious in appearance, enduring, and needing little feeding. The most notable example of this type is the Arabian horses, but most breeds in Europe were constituted by the Arian lineage. The horse breeds of Asia Minor were constituted by these two main lineages and a mixture of them because of cross-breeding for centuries.[594] Then, İhsan Abidin divides horses in Ottoman lands into five sections. These are Arabian horses (and the breeds under their influence), Iraq horses (and Kurdish horses), Çukurova horses, Uzun Yayla horses, and Anatolian horses in general (large and small samples).[595] According to the information given in this book, we see that Anatolian horses are between 130 - 152 cm in height at withers, and unsuitable for agriculture, too light for pulling wagons and carts or carrying loads; they were essentially for riding and were used in many ways in Asia Minor.[596]

Mahmud Şemsi Seydi also divides horse breeds in Anatolia into five main categories: Anatolian, Uzun Yayla, Kurdish, Çukurova and the breed of Eastern Provinces (*Vilayât-ı Şarkiyye*). He says that the Anatolian breed can be found anywhere in the Anatolian peninsula, but they are especially present in high

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[593] Ahmed Cevad, *Hayvanat-ı Ehliye Yetiştirmek*, 26-27.

[594] İhsan Abidin, *Osmanlı Atları*, 59, 61.

[595] İhsan Abidin, *Osmanlı Atları*, 61-62.

[596] İhsan Abidin, *Osmanlı Atları*, 63.

Anatolia, that is, in Ankara, Konya, Sivas, and Kayseri, and in mountainous and coastal areas. This breed is said to be the result of crossbreeding Turkmen horses with Persian and Arabian horses. These light and small horses could be found in different sizes and weights; in areas where they could be fed and cared for better, they were larger and heavier. Aside from their physical attributes, they are content with the little they receive as food (taken from Turkmen horses), vigorous (taken from Persian horses), and have a good learning ability (taken from Arabian horses). He gives examples of how these horses can cover long distances (sometimes up to 130 kilometers a day) without a health problem. They were endurant and had good maneuvering skills.[597]

Mahmud Şemsi Seydi says that Uzun Yayla horses, which originated in Karabakh in Caucasia, are raised in Sivas province, especially in Uzun Yayla district. This horse breed could adapt well to Anatolian soil and climate. Uzun Yayla horses were usually larger and taller than Anatolian horses, and there were many between 155 to 158 cm height-at-withers. Their chests were large and deep.[598] According to Mahmud Şemsi, this horse breed is high in value, and they are used for riding and transportation. He also quotes from a European zootechnician[599] about the Argamak horse - which is known better by the name Akhal Teke today. This Turkmen horse, which was around 164 cm in height in many examples, is depicted as a very valuable stud animal and originates in Karabakh and Shusha. The Karabakh horse was made from crossbreeding Argamak horse and Arabian horse, and they were also very valuable. However, it is complained that there were few true horses left of this breed. The original ones were around 150 cm in height and had a golden bay coat, they had fine skin, short and thin coats, they had a noble dark color, and their mane and tail were blood red.

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[597] Doktor Mahmut Şemsi Seydi, *Atlarımızın Islah ve Teksiri*, 10-13.

[598] This showed that they would not have a shortness of breath when they were cantering.

[599] In Ottoman Turkish it is written as Geraf Verangl, and unfortunately, I could not find the original name. It is noted that his book is about horse breeds.

He quotes Dechambre[600] that the contemporary Karabakh horses are far from their original noble roots.[601]

It is interesting that Mahmut Şemsi Seydi points the origin of the Uzun Yayla horses to the Karabakh horse; this horse breed is also known to be constituted by crossbreeding of Circassian horses. According to Tolga Akay, the Uzun Yayla horse is a Circassian horse that was raised in Kuban and Terek regions, and it can be found on the slopes of the Caucasus mountains from the North of the Black Sea to the Hazar Sea. He describes them as a horse under the influence of Hungarian, Turkmen, and Mongolian horses, which is enduring, is content with little and suitable for long rides.[602]

Kurdish horses, according to Mahmud Şemsi Seydi, are a crossbreed of Arabian and Persian horses. He says that since Persian horses are akin to Arabian horses, Kurdish horses can be regarded as a mountain version of an Arabian. He says that there are extreme weather conditions in this region: it is very hot in 0summers and very cold in winters. He quotes, "The horses of the Kurdish people are small, but they have a nice figure. Either under the cavalrymen or in front of carts, they go swiftly, and they are endurant. When hitched to a light cart, they can cover 18 kilometers an hour in very hot weather and in mountainous terrains." [603] The fourth local horse breed that the author specifies is the Çukurova horse. These horses are depicted as more robust and more beautiful than the Anatolian horses. They were crossbreds of the Anatolian horse and the Arabian horse. He says that the Çukurova district has raised many valuable horses for the cavalry. The cavalry also used half-blood Arabian and Hungarian horses; however, Çukurova was the best cavalry horse, according to Mahmud Şemsi Seydi. Even though Çukurova

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[600] Paul Dechambre, Traité de zootechnie. Tome II : Les équidés. Paris : Charles Amat ; Asselin & Houzeau, 1912.

[601] Doktor Mahmut Şemsi Seydi, *Atlarımızın Islah ve Teksiri*, 13-14.

[602] Tolga Akay, "Kuruluşundan Cumhuriyetin İlk Yıllarına Kadar Aziziye Kazası (Pınarbaşı) ve Çevresinde At Yetiştiriciliği." *Kafdağı* 4, no. 2 (December 2019):152

[603] The original source is "Şuratis Neker" in Ottoman Turkish. It is probably a European zootechnician, but I could not find the original name.

Stud farm had given good services, it was rented to a Hungarian company, and the author hoped it to be taken back.[604]

The fifth local breed was *Vilâyât-ı Şarkiyye* (Eastern Provinces) Breed. These horses could be seen in Russian Armenia as well as Van, Bitlis, and Erzurum in Eastern Anatolia. They had Persian influence and different characteristics from the other four breeds. They were said to be beautiful and noble horses. The author says that even though there are no extensive studies on these horses, it is highly probable that they constituted a different breed, so he called them *Vilâyât-ı Şarkiye* breed for the time being.[605]

Overall, these classifications and explanations suggest that the Ottoman horses in general were light, small to medium-sized, endurant, and could live without much food but thrived with better feeding and care. Although Ottoman horses were also used as pack horses and carthorses, they were not suitable for this work, in comparison to heavier horse breeds. The works that needed much drawing power such as artillery, coaches, carriages, omnibuses, and horse trams could be carried out more easily and economically with a light draft horse, or a crossbred of such a horse. Therefore, whether the existent horse breeds were really deteriorating in quality or not, they were not suitable for the new technological apparatus. Ottomans tried to make their horses larger, stronger and better through breeding programs and importations. On the other hand, some historical sources suggest that foreign horses cannot acclimate to the Ottoman territories and that they perish. For example, Hungarian horses that have been bought as stud horses are said to have lost their essential characteristics, and some of the French Anglo-Norman horses died because they couldn't adapt to the climate, and some of them lost their status of being stud animals because they got a disease called Laryngeal Hemiplegia (le cornage).[606] However, rather than the climate, Hungarian horses may have lost their features also a result of the change in the care and feeding they received in

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[604] Doktor Mahmut Şemsi Seydi, *Atlarımızın Islah ve Teksiri*, 14-15.

[605] Doktor Mahmut Şemsi Seydi, *Atlarımızın Islah ve Teksiri*, 15-16.

[606] Tan, "Osmanlı Devleti'nde At Yetiştiriciliği (1842-1918)," 145.

relation to their previous homes. Horses are known for being extremely susceptible to changes in feeding, and they should receive special care to adapt to a different climate. An abrupt change could have serious effects on the health of a horse. This susceptibility was known by Yusuf Ziya Bey, who noted that in different geographies horses eat different amounts of food, and the transition should be gradual.[607] The prevalent diseases in the Ottoman territories must have played a part too. Anglo-Norman horses might have also perished for the same reasons: The fact that France has also a Mediterranean climate strengthens this probability. If people tried to look after these horses in the same way that they cared for native breeds which are known to be very endurant, tolerant to scarcity, and able to live without much care, this could be the result. Moreover, the lack of scientific treatment and scarcity of knowledgeable veterinarians could have contributed to this problem. On the other hand, Civani mentions deformations and transfigurations in cattle and horses imported from other countries if the breeds are not able to fully harmonize with the climate that could take place in a few generations. He gives examples from horses and their offspring imported from Belgium to Germany and Austria, as well as the deformations that occur in Percheron horses from France and Shire horses from Britain, both of which are draft horses.[608]

Mahmud Şemsi Seydi says that Anatolian horses struggle with starvation during their first years, when food is crucial for their growth. They were also made to work at a very early age, when they were still between 2.5 and 3 years old, which hindered their growth. According to him, the foals can be raised to be strong with the ability to work longer by feeding them properly during their growing years, especially the first year. This shows that aside from the horses of an elite group and the horses of *Istabl-ı Âmire*, Ottoman horses were not generally well-fed. Because the environmental conditions of the terrain necessitated that horses endure a

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[607] Yusuf Ziya, *Bargire Bakmak ve Binmek* (Konstantiniyye: A. Asaduryan Şirket-i Mürettibiye Matbaası, H.1316 [1898]), 53-54. This book has been transcribed into modern Turkish and was published together with the original text from TBMM Kütüphanesi by Yaşar Güçlü. (Av. Yaşar Güçlü, *Osmanlı'da At Bakımı ve Binicilik* (İstanbul: Türkiye Jokey Kulübü Yayınları, 2019).

[608] Civani, *Teksir ve Islah-ı Hayvanat, Birinci Kısım, Kavaid-i Umumiye*, 144.

scarcity of food and water, they were fed and watered sparingly. Moreover, smaller horses had better maneuvering skills and made better saddle horses. However, in the long term, this feeding practice caused smaller and lighter animals than desired.

Mahmud Şemsi Seydi acknowledges that the Anatolian horse is useful in pulling carts on bad roads and is healthy and enduring, but it is also known that they are not patient with plows. He says that the horses are not calm during plow work because stallions instead of gelded horses or mares are usually used as plow horses, and this defect can and should be solved.[609] On the other hand, an article from *Servet-i Fünûn* argued that the Ottoman horses were in fact capable of agricultural work, but there is a belief that they are not:

> *There is a belief that since the current generation of horses in the Ottoman Empire, and especially in Anatolia, are small and fastidious by nature, there will be drawbacks in their employment in threshing and agriculture like the large and heavy horses known in Europe. I am excused for not accepting these opinions and beliefs. Due to my ten years of service and experience, I realized this opinion was futile. And I have personally seen that Tatar immigrants who have settled in some parts of Anatolia use our known horses in agriculture without encountering any drawbacks, and there are even some among them who use modern agricultural equipment.*[610]

Mahmud Şemsi Seydi argues that local horses of Anatolia have a remarkable ability to make use of the food they eat since the foals in the farms feed only on the pastures until they are four or five years old, and they are taken to rudimentary and basic stalls in the winters, where they are usually fed quite insufficiently—a meal composed only of straw and a little amount of hay. Usually, they were sold when they reached four or five years of age. Foals that "distinguished themselves" by being a little better in performance and appearance than "their friends in the herd" were separated to be used in farm work. He says that even though the method of this selection is very primitive, these foals grow to be relatively larger and stronger than their "friends in the herd" because they could

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[609] Doktor Mahmut Şemsi Seydi, *Atlarımızın Islah ve Teksiri*, 19.

[610] [Ayın,] "Teksir ve Islah-ı Cins-i Fereste: Damızlıkların Çalıştırılması," 249.

eat enough barley and good hay as winter food. Mahmud Şemsi Seydi thinks that this shows the ability of the horse breed to grow larger and that they will develop and grow efficiently with proper nutrition and good care. From his standpoint, this shows that the local horses have not degenerated like was believed by some people because, although they were not tried to be improved, the horses that grew with good nourishment became surprisingly strong and capable of working three- to fourfold harder than their counterparts without getting tired.[611] Similarly, Hüseyin Remzi states that the reason the horses remain thin and small is because they could not eat properly when they were young.[612]

Yusuf Ziya, a horse-master in *Istabl-ı Âmire* (Royal Stables) and a *kolağa* of cavalry (a rank between major and captain), was one of the Ottomans who believed in modern horse care and riding. Throughout his book which can be translated as "Looking After and Riding Horse," he explained a variety of subjects, including how a horse should be groomed and cared for in the stable, fed and watered, and prepared for riding. Some of these practices were a mixture of local and European methods. For example, although it was the common practice of the Ottomans to give horses food twice a day at most, and water once a day, he suggested that the horses were given food and water three or four times a day,[613] as was practiced in Europe. On the other hand, he gave information on Turkish style and European style grooming in different categories.[614] When choosing a horse, he gave a place to the traditionally favorite or acceptable and unacceptable marks on the body of a horse, besides its practical and useful features such as a docile, enthusiastic, and courageous character, a proportional and sufficiently large body to carry its rider. However, he noted that the marks on the horses did not completely prevent the use of the horse but caused a price drop.[615]

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[611] Doktor Mahmut Şemsi Seydi, *Atlarımızın Islah ve Teksiri*, 36-37.

[612] Hüseyin Remzi, *İlm-i Hayvanatın Çiftliklere Tatbiki*, 467.

[613] Yusuf Ziya, *Bargire Bakmak ve Binmek,* 54-55.

[614] Yusuf Ziya, *Bargire Bakmak ve Binmek,* 57-59.

[615] Yusuf Ziya, *Bargire Bakmak ve Binmek,* 14-18.

Although he admitted that in some cases horses should be punished, he opposed the excessive use of punishment, if used at all. He was against using punishment on horses that are timid or scared of something, as it would make the horse worse; he argued that instead, these horses should be calmed down and shown the item they are afraid of. According to him, horses are innocent and very sensitive in nature, they like intelligent and soft treatment, and if they are vicious, it was usually caused by the bad treatment of its rider. He advocated nice treatment of horses, and the use of voice for calming, rewarding, and punishing the horse, and teaching it the differences between the nuances of the voice. He says that using the whip harshly, spurring, and striking the horse's mouth with the snaffle or the curb must be avoided as much as possible as it would make the horse feel grudge and hostility towards its rider. Instead, the rider must convince the horse that he is a real friend by treating it softly.[616] He argues that a horse can feel love or hostility towards its caretaker according to the treatment it receives.[617]

Good equestrian skills, equilibrium, and harmony were important for the horse's comfort; a light-weight person with poor skills would disturb the animal and would feel heavy, while a heavy person with good skills would be felt light by the horse.[618] He also suggested the use of a light bridle for the comfort of the horse.[619] The adjustment of bridle parts, such as the curb and curb chain, and the effect of different types of snaffles and curbs were also mentioned, and soft hands and preventing injury to the horse's mouth are stressed. Yusuf Ziya opposed the use of the pelham bit as he found its effect faulty.[620] He says that those who want to be good riders must know every detail of a horse. Then he compares horses with machines; he asks how someone could work a machine without knowing about its

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[616] Yusuf Ziya, *Bargire Bakmak ve Binmek,* 76-80, 104-105.

[617] Yusuf Ziya, *Bargire Bakmak ve Binmek,* 46.

[618] Yusuf Ziya, *Bargire Bakmak ve Binmek,* 101.

[619] Yusuf Ziya, *Bargire Bakmak ve Binmek,* 38.

[620] Yusuf Ziya, *Bargire Bakmak ve Binmek,* 34-40.

parts and says that horses' parts and details constitute a machine that is hard to manage and control.[621]

Yusuf Ziya says that the English saddles are used the most,[622] which shows that some of the modern European riding techniques were adopted. The riding techniques he suggests are the same as those used in contemporary horse riding. He gave information about riding on the manège and outdoors, as well as mounting, seat, aids, halt, half-halt, rein-back, circle, volte, shoulder-in, traverse, renverse, and some simple descriptions and instructions of some more advanced dressage moves, such as half-pass and pirouette.[623] On the other hand, his suggestions represented elite horse riding.

3.2. Efforts to Improve Horse Population and Quality

So far, it has been seen that horses in the Ottoman Empire were not only needed for the military; they were also instrumental in many areas, from transportation to social life. Therefore, even though the state's primary motive for improving horse population and quality was to provide a sufficient pool of above-average horses for the military, the success of such projects would have repercussions in other areas of life that involve animals.

The influential position of the horse in many areas of life and the problems associated with them forced the state to find ways to make these animals more effective. For this purpose, European horse breeding was used as a reference because of the relative success there because of scientific breeding. Even though the Ottomans had their own tradition of horse breeding, it was seen by contemporary people as deteriorating and declined. The situation of horses could hardly meet the Empire's needs, and the quantity and quality of production were insufficient to adapt the expected role of horses to the standards of the 18th and 19th centuries.

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[621] Yusuf Ziya, *Bargire Bakmak ve Binmek,* 77.

[622] Yusuf Ziya, *Bargire Bakmak ve Binmek,* 42.

[623] Yusuf Ziya, *Bargire Bakmak ve Binmek,* 84-131.

For the Ottomans, it was a matter of organization; they tried using different methods and different combinations of these methods. Firstly, breeding sites and facilities were needed. Instead of traditional horse breeding facilities, which were no longer efficient, the establishment of modern stud farms, especially for horse breeding, was seen as a remedy to the problem. When it was understood that the production rate was rather low and the farms suffered losses instead of profiting, new methods were tried: Remount stations would provide the army with selected, young, and tamed horses, and stallion depots would provide accessible fine stallions to the breeders and villagers. The Ottoman Empire had a good base of fine Arabian stallions, which were valuable animals to improve horse breeds, and they tried to make good use of them. The Ottomans also changed the bureaucratic structure of horse breeding which was to supervise, maintain and develop these establishments. The constant change of bureaucratic apparatus was a response to the unsatisfactory results of horse breeding establishments. Secondly, scientific horse breeding required scientifically educated modern veterinaries rather than traditional ones. Initially, a military veterinary school was established for this purpose, which was followed by a civilian veterinary school. These were supported by students who were sent abroad and by foreign teachers. Thirdly, *Islah-ı Nesl-i Feres Cemiyeti* (Society of Betterment of Horses) and *Sipahi Ocağı* (literally Hearth of Cavalrymen) were established. These were aimed to be equivalent to the horse societies in Europe which were seen to have so many positive effects on horse breeding. Lastly, the Ottomans used races, horse exhibitions, and prizes to improve horse breeding. Regardless of the rate of success, these were roughly the solutions the state could find for effective horse breeding.

3.2.1. Modern Stud Farms, Stallion Depots and Remounts

In the Ottoman Empire, just like in other countries, systematic horse-breeding existed even before the modern stud farms. Also, horse breeding tribespeople and peasants raised horses.

The Ottoman state used some organizations to produce well-bred horses for its use. The *taycı* organization (*taycı,* as a job name derived from the word

"foal") used to be a branch of the *müsellems,* (mounted soldiers who later came to be used in supply services), which was mentioned earlier. The *taycı*s, even after the revocation of the organization of *müsellem* in the 16th century, continued to exist under the *Istabl-ı Âmire* (Royal Stables).[624] According to Doğru, it was forbidden for the *taycı*s to use brood mares and stallions for riding or farm work to ensure they were well-cared for. Horses were free in the fields with fences surrounding them in summers, while they were kept in stables in winters. Mares that were expecting foals were kept in separate places.[625] These practices in the 16th century were similar to the stud farm practices.

In the 16th century, herds of court mares were kept in a semi-wild state in the fields of *Manastır* with supervisors called *yund oğlanı,* who were responsible for their care.[626] The word *yund oğlanı* means "shepherd boys" of the herds of mares, suggesting that these animals were released into the pastures to roam about freely. On the other hand, modern horse breeding entailed the selection method as opposed to keeping horses in a semi-wild state (*yılkı*). As was discussed in an article to inform breeders, *yılkı* was no longer seen as a suitable method for breeding horses and ameliorating their breeds:

> *[T]he purpose cannot be achieved by breeding wild animals called yılkı. Even if it is assumed, as a hypothesis, that it could be possible, it is certain that such horses will be so devoid of all good qualities that they will not be useful for anything other than being ordinary beasts of burden and driving animals.*[627]

The fields that the *taycı* organization used for breeding court horses were used for horse-breeding even after the disintegration of the organization in the late 18th century, which shows a continuation of tradition. The rebellious Kumarcı Mustafa and his brother Abdullah were compulsorily settled in some of the fields

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[624] Doğru, *Osmanlı İmparatorluğunda Yaya-Müsellem-Taycı Teşkilatı*, 146.

[625] Doğru, *Osmanlı İmparatorluğunda Yaya-Müsellem-Taycı Teşkilatı*, 150.

[626] Doğru, *Osmanlı İmparatorluğunda Yaya-Müsellem-Taycı Teşkilatı*, 158.

[627] [Ayın,] "Teksir ve Islah-ı Cins-i Fereste: Damızlıkların Çalıştırılması,", 250.

of the *taycı* organization, and they considerably expanded their territories, leaving no areas for this organization.[628] Of these two brothers, Kumarcı Mustafa was known as a remarkable horse-breeder and owner of many good horses. These fields were later turned into the Çifteler stud farm and stallion depots, which showed a striking continuation of horse breeding in the area.

İhsan Abidin also talks about an organization called *hayvanat ocakları* which preceded modern stud farms in the Ottoman Empire.[629] However, according to Emine Dingeç, İhsan Abidin refers to the *taycı* organization by this term rather than a different organization.[630]

Yusuf Halaçoğlu informs us that in some instances when the horses in the royal stables perish, horses were bought from the tribespeople who raise these animals. He gives an example from 1725; when court horses died due to disease, orders were sent to the local governors to purchase horses from Rakka tribes and Turkmens of Reyhanlı and Haremeyn.[631] In such cases, when the state could not procure animals from its horse supplies, the horse-breeding people in the country served as a reserve for horses. This instance also demonstrates the importance of diseases in preserving horse populations.

In this light, the establishment of modern stud farms should not be seen as a completely new phenomenon but rather as a continuation of earlier efforts and tradition. The difference lies in the scientific understanding of horse-breeding, including the method of breeding through selection instead of keeping the horses in a semi-wild state, and a linkage with the new modern state apparatus and bureaucracy, and using the horse breeding institutions and methods common to the era. However, horses were seen as both living beings and tools to be improved and maintained. In other words, improving horses was not new since many people worldwide differentiated “good” and “bad” horses and tried to raise better ones.

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[628] Doğru, *Osmanlı İmparatorluğunda Yaya-Müsellem-Taycı Teşkilatı*, 166.

[629] İhsan Abidin, *Osmanlı Atları*, 1, 8.

[630] Dingeç, *Osmanlı Sarayında At*, 124.

[631] Yusuf Halaçoğlu, "At", in *İslâm Ansiklopedisi, 4. Cilt,* (İstanbul: Türkiye Diyanet Vakfı 1991), 31.

However, the rise of biopolitics was also reflected in horse breeding, and it started to become more systemized. It became directly connected with the modern state apparatus, and contemporary warfare and lifestyles after the 18th century contributed to it. Ottoman horse breeding and new establishments should be seen in this light.

Even though these new forms of establishments and bureaucratic structures of horse breeding were a continuation, it is seen that horse breeding in the Ottoman Empire was in an adverse situation because of several reasons. The revocation of the *timar* system, which had already become mostly ineffective, was one of these. This organization used to make up a pool of mounted soldiers who raised and kept their own horses. Its loss of function and later, revocation caused a vacancy in the usual system of supplying cavalry horses. As will be seen, another reason was the immigrations because of wars and providing animals to the immigrants in a way that damaged horse breeding. Unenthusiastic peasants who were discouraged by wars, and the cost of feeding horses and widespread animal diseases must have contributed to that. Contemporary wars required many horses both for the cavalry and artillery, as well as the transportation of heavy supplies for the latter. The lack of a pool of heavier horse breeds forced the Ottomans to use their native light horses for works they were not suitable to endure, which strained the bodies of the animals and could cause lameness and death. Disastrous losses at wars and hard-won battles further drained the horse supplies.

It was in these circumstances that the Ottoman state decided to allocate some of the *Çiftlikât-ı Hümayun* farms (royal state farms) as state stud farms. İhsan Abidin links the changes in government from 1739 (H. 1152) to 1768 (H. 1182) with the destruction of the usual process of horse breeding and the *Hayvanat Ocakları* (i.e., *taycı* organization). He says that in 1768, the army had to provide their horses from the people because it no longer had its own supply of horses.[632] He states that before Sivastapol (Akyar) Battle in 1854, animals could still be supplied in the country, however, after this date animal exportation for the army was inevitable. The fact that the state could no longer find the necessary number

[632] İhsan Abidin, *Osmanlı Atları*, 8.

of horses from the people showed the dire situation of horse breeding in the Ottoman countryside. For İhsan Abidin, Ottoman horse breeding was still in an advanced position before the 1850-60s; however, after immigration because of the wars, it was affected adversely. He says that "pastures decreased because of the overpopulation caused by immigrations. Because providing animals to immigrants was carried out in a very unnatural way, the order of breeding animals was destroyed."[633] He adds that wars also discouraged villagers from breeding animals. Even though this problem was already present in the 18th century, as the previous sections of this dissertation showed, after the 1850s, the problem became apparent and unbearable for the state. Therefore, it felt the need to improve the situation with new organizations and modern methods. According to Civani, as in the examples of countries like Germany, France, Russia, and Austria-Hungary, the government intervenes in animal breeding in two ways: Directly and with an intermediary. The first method involved stallion depots and state stud farms, while the second one involved giving cash rewards, medallions, and certificates of achievement to horse breeders or horse breeder companies in horse races, shows and exhibitions.[634] These were the methods that the Ottomans tried to implement.

First, Çifteler *Çiftliği* in Eskişehir, then Sultansuyu in Malatya, Veziriye *Çiftliği* in Baghdad, and finally Çukurova *Çiftliği* Hamra in *Adana* were established.[635] In addition, private stud farms were also established, such as the Kabyok Studfarm in Bulgaria established by Mithat Pasha, the stud farm established in Razgrad by Mazhar Pasha, and other significant contributions to animal breeding reform in Rumelia by notables such as Mustafa Bey and İbrahim Pasha.[636] Even though İhsan Abidin sees these establishments as an attempt to revive the archaic *Hayvanat Ocakları*,[637] it is notable that modernity was often

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[633] İhsan Abidin, *Osmanlı Atları*, ى, ك.

[634] Civani, *Teksir ve Islah-ı Hayvanat, Birinci Kısım, Kavaid-i Umumiye*, 356-358.

[635] İhsan Abidin, *Osmanlı Atları,* 8.

[636] İhsan Abidin, *Osmanlı Atları*, 9.

[637] İhsan Abidin, *Osmanlı Atları*, 8.

stressed in these establishments, and the aim was to be in line with contemporary standards. In the late nineteenth century, the word "*hara*" was used for the Ottoman State Stud Farms, which was the pronunciation of the French word "*haras*"; an indication of the intention to adopt modern European horse breeding practices.

İlm-i Hayvanatın Çiftliklere Tatbiki by Hüseyin Remzi, which was a book used for third grade students shows that Ottoman students of zootechnics and veterinary science were informed about the contemporary breeding methods used successfully in Europe. Hüseyin Remzi defines horse breeding institutions (*müessesat-ı hayliye*) as a committee of a collection of miscellaneous administrations, which are established to breed horses via the state, the assembly of the government, and horse breeding societies for this end. He says that these means of horse breeding, some of which exist in almost every European country, can either be directly used to achieve the desired results or the populace is encouraged to this end.[638]

Hüseyin Remzi mentions four branches of horse breeding institutions.[639] The first of these was the administration of *haras*. The stallions in the *haras* belonged to the state and were taken to areas with a lot of mares during the breeding season. These *haras* would exist in each *vilayet* and *kazas*, wherever they are needed, and they were protected under the administration of the district. The second means was to encourage farm owners who breed horses and stallions, and to provide guidance to produce stallions in areas where there were none. The third administration was the one which regulates horse races and shows. The last one was the remount depots. This was the way the entire Europe encouraged horse breeding at the time.[640]

Then, he moves on to a brief history of *haras* in France, and how the changes in organization and reform in administration and supervision through the years helped the improvement of horse breeds. The amount of money France

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[638] Hüseyin Remzi, *İlm-i Hayvanatın Çiftliklere Tatbiki*, 470.

[639] Hüseyin Remzi, *İlm-i Hayvanatın Çiftliklere Tatbiki*, 470-471.

[640] Hüseyin Remzi, *İlm-i Hayvanatın Çiftliklere Tatbiki*, 471.

allocated to horse breeding facilities and personnel, and its school, depots and the place for mares are noted.[641] He continues that the administration of *haras* of France had also branches of depots, inspectors, and a general inspector to supervise all. A large council of notables and those who understand about horses meet yearly.[642]

According to Hüseyin Remzi, to benefit from horse breeding institutions, the necessary stallions and mares are bought by a committee and given to the officials to be bred with the animals in the districts. Another committee from the general council for horse breeding would check and investigate the procedures and horse production.[643] This way, people who have stallions and mares would be forced to inform the state and the administration about the breed and type of their horses, which he finds as a beneficial method for the advantage of the people.[644]

The administration of *haras* gave rewards in varying degrees to those who owned fine mares and foals, especially the ones that were bred from the selected stallions from breeding institutions.[645]

Remounts were not only responsible to buy the necessary horses, but also to breed convenient horses for the army.[646] Four-year-old horses were to be taken for the army and sent back to their districts after the horses become ten years old.[647] These were the methods of horse breeding at the institutional base in the 19th century, and the Ottoman students were being taught about them in 1880s.

Zeynep Ertuğrul says that the first examples of stud farms (*le haras* in French) are seen in France during the reign of Louis XVI. The first royal stud farms in France were established with the help of Colbert in Le Pin, Pompadour, and

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[641] Hüseyin Remzi, *İlm-i Hayvanatın Çiftliklere Tatbiki*, 472-473.

[642] Hüseyin Remzi, *İlm-i Hayvanatın Çiftliklere Tatbiki*, 473.

[643] Hüseyin Remzi, *İlm-i Hayvanatın Çiftliklere Tatbiki*, 474.

[644] Hüseyin Remzi, *İlm-i Hayvanatın Çiftliklere Tatbiki*, 475.

[645] Hüseyin Remzi, *İlm-i Hayvanatın Çiftliklere Tatbiki*, 475.

[646] Hüseyin Remzi, *İlm-i Hayvanatın Çiftliklere Tatbiki*, 477.

[647] Hüseyin Remzi, *İlm-i Hayvanatın Çiftliklere Tatbiki*, 478.

Rosières aux Salines. Habsburgs and Prussians also established many stud farms within their borders.[648] Çifteler Stud Farm in Eskişehir was aimed to be like these European stud farms. It was the first of the modern stud farms established on the old fields of the *taycı* organization and the estate of Kumarcı Mustafa, who had collected many fine stud horses because of his deep interest in these animals. Zeynep Ertuğrul states that the new structure of Çifteler was built during Mahmud II's reign, and it grew to be a large establishment where local and foreign pure-bred and half-bred horses were produced for the palace and the army.[649] Çifteler was followed by three other state horse studs in different districts: Çukurova Stud Farm in Adana district, the south of Anatolia; Vezîriye Stud Farm in Bagdad for Iraq district, Sultansuyu Stud Farm in Malatya for eastern provinces.[650] They were clearly established in different parts of the empire for easy transportation of horses when needed, as was noted by Hüseyin Remzi above. Even though these farms were found for breeding horses and cattle and improving them, they had little success compared to their European counterparts, and some of them were blamed for focusing on agriculture more than horse breeding. While there were many horse breeds in the Ottoman Empire, they could not be raised or improved systematically with modern methods; despite the efforts, traditional methods prevailed in most of the country.

The Ottomans tried to form new bureaucratic structures to facilitate horse breeding and agriculture in general and solve the problems in the stud farms. In 1815, to control, develop and promote agriculture in the empire, the Administration of Imperial Farms *(Çiftlikât-ı Hümâyûn İdâresi)* was established. This establishment was also responsible for overseeing horse breeding. The farms were under *Ceyb-i Hümâyûn Hazinesi,* a special royal treasury for the Sultan until *Tanzimat,* and later, they were transferred to *Hazîne-i Hassa Nezâreti* (Ministry of

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[648] Zeynep Ertuğrul, "Osmanlı'dan Cumhuriyet'e Eskişehir Çifteler Harası Yapıları," *Uluslararası Sosyal Araştırmalar Dergisi* 8, no. 38, (June 2015): 501.

[649] Ertuğrul, "Osmanlı'dan Cumhuriyet'e Eskişehir Çifteler Harası Yapıları," 502.

[650] Erhan Alpaslan and Toroshan Özdamar, *Osmanlı Arşiv Belgelerine Göre Çukurova (Anavarza) Çiftlikât-ı Hümâyûn-u Askerisi* (İstanbul: Hiperyayın, 2019), 7.

Royal Treasury), which was established in 1850 for the same purposes in place of the former one. During the reign of Abdulhamid II, the stud farms were under the Directory of Royal Farms *(Çiftlikât-ı Hümâyûn Müdüriyeti)* which was supervised by Royal Estates (*Emlâk-ı Hümâyûn*). After the stud farms made losses, they were brought under the direct supervision of *Hazîne-i Hassa* in 1881. During the reign of Abdülhamit II, also the Ministry of Royal Stud Farms (*Hârâ-yı Hümâyûnlar Nezâreti)* was established. After 1909, all four state stud farms, Çifteler, Sultansuyu, Çukurova, and Vezîriye, were transferred to the supervision of the Treasury of Ministry of Finance (*Mâliye Nezâreti Hazînesi*).[651]

It is not surprising to see that the horse breeding farms did not have a steady administrative unit during the transformative century when changes in government structures occurred. However, it is interesting that the farms made financial losses, and a ministry for them was established. The efforts to breed quality horses for the army were apparently not enough. One of these stud farms, the Çukurova *Çiftlikât-ı Hümâyûnu,* where some successful Turco-Arab crossbred horses were produced that were suitable for the cavalry, could neither persist in breeding them nor turning those into established crossbred horses with established characteristics. Regardless of the reasons for this outcome, this stud farm could not perform as expected because of the problems with the bureaucracy and local people; it could not breed a satisfactory number of horses for the army; it did not bring economic value to its vast terrain, and it could only produce grains and cotton using primitive agricultural methods which resulted in financial loss.[652]

What could be the reasons for the inability of the Ottomans to compete with European horse breeders? Even though it was easy to find pure Arabian horses, Caucasian breeds, Turkmen breeds, and other breeds that are very endurant to the hardships of the terrain, and to use them to create cross-bred animals for all purposes, bureaucracy and land disputes undermined the effective breeding of animals. For a good result, long years of systematic study and work were required,

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[651] Alpaslan and Özdamar, *Osmanlı Arşiv Belgelerine Göre Çukurova*, 7-8.

[652] Alpaslan and Özdamar, *Osmanlı Arşiv Belgelerine Göre Çukurova*, 11.

but the state and people expected results to come too soon. The work was too cumbersome and difficult, so the stud farms were mostly used as farms and produced only a small number of animals. This also proves that people had little to gain from breeding animals; either the prizes were too small, or it was not a lucrative business since it was forbidden to sell horses abroad in many areas, especially in Anatolia. The state wanted to buy horses cheaper than in the market, and the remounts tried to pay for them as little money as possible. The stallions that are valuable enough to be used as stud animals were declining. Moreover, Ottoman farmers no longer had a tradition of raising many quality horses; they lacked the passion for doing so. It was an important factor because this traditional passion made it possible to continue the practice of raising good animals even when the state did not support horse breeding at the time. It was also a concern for Ottoman authorities, who aimed to improve the capacity to create better horses in large numbers. Moreover, constant wars and economic hardships were not helping any of the endeavors about this matter.

Another reason may be related to knowledge and its inadequate use. Civani says that:

> *Feeding animals in a beneficial way and raising them for a specific purpose depends on the assistance of intelligent and capable people who are experts in the science of animal husbandry. Some parts of this are relatively easy and some parts are very delicate and difficult. For example, raising heavy pack and harness horses is a relatively easy task that can be done by everyone everywhere. However, raising a true and purebred horse is not like this. The specific operations that this work entails can only be mastered by instructors who have had an excellent education and practice in this art."*[653]

Although the relative easiness of breeding heavy pack and harness horses is disputable, which was a science, the passage above recognizes the fact that raising purebred animals like Arabian horses required people well educated and knowledgeable in the subject.

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[653] Civani, *Teksir ve Islah-ı Hayvanat, Birinci Kısım, Kavaid-i Umumiye*, 100.

After praising Arabian horses as the best horses,[654] Hüseyin Remzi says that Thoroughbred horses, which were constituted from Arabian horses, have been well developed including in speed and power.[655] The reasons for this development lie in their feeding, training, and breeding through selection.[656] According to the author, breeding through selection was the main reason why Europeans bred fine horses and this development was visible in hippodromes, and the best horses were the ones who won the races.[657] He laments that while Ottomans are in possession of valuable tribes of Arabians and the necessary horses can be bred with little work, they do not know about it.[658] He informs about a stud farm established in Prussia in the 18th century, where eastern and Thoroughbred horses were included. Of these, Arabian horses were valued above others.[659] In this stud, they bred mostly saddle and harness horses; moreover, they bought horses under the name of "Ottoman horses" from Russia in 1812, and other horses under the name of "*Emir-i Arab*" in 1814, using them as stud horses. Soon, other stud farms were established in Germany, Russia, and Hungary; especially the Hungarian horses became famous worldwide.[660] According to Hüseyin Remzi, the most used animal machine (*makine-i hayvaniye*) in state farms is the horse and benefiting from its offspring is feasible.[661] In this regard, he continues that their heredity is potent because the animals will be used as a dynamic power (*kuvve-i müteharrike*) in the farms, and they are used as dynamic living machines ("*canlı bir müteharrik makine*").[662] He

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[654] Hüseyin Remzi, *İlm-i Hayvanatın Çiftliklere Tatbiki*, 444, 447.

[655] Hüseyin Remzi, *İlm-i Hayvanatın Çiftliklere Tatbiki*, 447.

[656] Hüseyin Remzi, *İlm-i Hayvanatın Çiftliklere Tatbiki*, 448.

[657] Hüseyin Remzi, *İlm-i Hayvanatın Çiftliklere Tatbiki*, 448.

[658] Hüseyin Remzi, *İlm-i Hayvanatın Çiftliklere Tatbiki*, 448.

[659] Hüseyin Remzi, *İlm-i Hayvanatın Çiftliklere Tatbiki*, 449-450.

[660] Hüseyin Remzi, *İlm-i Hayvanatın Çiftliklere Tatbiki*, 450.

[661] Hüseyin Remzi, *İlm-i Hayvanatın Çiftliklere Tatbiki*, 454.

[662] Hüseyin Remzi, *İlm-i Hayvanatın Çiftliklere Tatbiki*, 454. Here, Hüseyin Remzi mentions the horse as a living machine. This supports the idea that people made a correlation between machines and animals, and perceived the latter as a biological machine.

maintains that therefore, the blood of the animals should not be wasted, and their offspring should follow the same breed.[663] Hüseyin Remzi says that as it is possible to breed the desired horses on the farms, the horses should be selected for breeding according to the type of animal that is needed. After this, the selection should be continued in succession.[664]

The report (*layiha*) of Muzaffer Pasha deals with the methods to improve horse breeds and increase the horse population in the Ottoman Empire and is one of the examples of the efforts of the authorities to solve the "horse problem."[665] Muzaffer Pasha states that even though it is impossible to know the exact number of horses in the Ottoman territories, it must be approximately three to four million. Yet he argues that this number was even higher thirty years ago. As the reasons for this decline, lack of attention of the government officials towards the problem, the sale of mares to foreigners, the fact that there was no ban on exporting horses, and that these exports were not recorded were suggested in the report. It is pointed out that the Ottoman state was forced to import horses from abroad since it could not supply its needs from the country, while each year, 100.000 Ottoman horses were exported to India, Egypt, and Europe. [666]

He presented several reasons for the deterioration and mixture (loss of characteristics) of horse breeds: Ottoman horses were not under the supervision of a qualified and influential person; neither a reward nor a punishment was given to horse breeders; horse breeders were raising many foals without caring about what types of horses they are -since they were thinking about nothing but their profit-; and that the best horses were being bought by the Europeans at high prices. He complains that while the existing horse breeds were deteriorating, the horses produced with scientific methods were of inferior quality and in insufficient numbers. Good horses of this kind were rarely encountered in Ottoman territories.

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[663] Hüseyin Remzi, *İlm-i Hayvanatın Çiftliklere Tatbiki*, 454.

[664] Hüseyin Remzi, *İlm-i Hayvanatın Çiftliklere Tatbiki*, 454-455.

[665] BOA, İ.MMS., 65/3057, 3.1, (H.12.11.1296 - M.28.10.1879).

[666] BOA, İ.MMS., 65/3057, 3.2, (H.12.11.1296 - M.28.10.1879).

Yet he says that the Europeans breed good horses from the horses they buy from the Ottoman lands, and he gives Thoroughbred horses as an example.

After this introduction, Muzaffer Pasha presents his solutions to the horse problem in fourteen articles:[667]

1. Exportation of horses should be indefinitely and firmly prohibited; however, after a few years, permission should be granted to export a specified number of gelded horses to avoid hindering the trade of horse breeders completely.

2. All horse breeding and the methods of the management and organization of the farms should be under the supervision of a cavalry major general (*mîr-i livâ*) or cavalry lieutenant general (*ferîk*). There should also be a general administration from chosen veterinarians and cavalry officers. Each year, all over the country should be inspected by divisions composed of expert cavalry officers and veterinarians, who will write reports for the general administration at the end of their assignment.

3. In this article, the method of the first inspection is explained: A commission of cavalry officers and veterinarians will travel the country swiftly and record all the mules, mares, foals, and race horses in the army, in cities, towns, and villages, and in possession of Cretan, Arabian and Turkmen tribes. Before the commission arrives in a district, a record will be made about the number, breed, and age of the horses by the administrators. This way, the commission will be able to travel the whole country in 12 months and make a statistics book. They will also write a report which includes the heights, appearances, and flaws of different breeds. The report will also encompass the necessary and possible course of action to improve horse breeds in a district and determine suitable places for horse farms and stallion depots.

[667] BOA, İ.MMS., 65/3057, 3, (H.12.11.1296 - M.28.10.1879).

4. The commission will also determine the areas for cavalry and depot regiments to settle in. They will also choose areas and make divisions for the reserve cavalry forces (*süvari redif birlikleri*) where horses are produced in great numbers; in each division, horses will be raised in near-equal numbers.

5. Stallions will be given to the platoons of each division, and people in the district will be able to mate their mares with them by paying money. The officers in the divisions will supervise all the horses in the district, and while they are patrolling the district, they will be able to buy horses at a good price.

6. In this section, Muzaffer Pasha enunciates his thoughts about what the new regulations should entail. He suggests that it should specify many subjects such as the features that the stallions should have, methods and seasons of mating, prices, records of birth, punishments that will be given to those who break the law, and rewards for races and expositions that will be organized each year. However, he notes that these regulations should be prepared quickly and declared to the people.

7. In this article, incomes and expenses are sorted out. Incomes were derived from various taxes (like taxes for mating horses and those taken from the people who own stallions), punishments (such as fines and confiscation of horses), earnings from races, and donations. Purchase and care of stallions for the division centers, traveling expenses for patrols, rewards for the races, and expositions made up the expenses.

8. Stallions kept in division centers are selected by the general administration members. Moreover, people must show their strong foals before they are four years old to the patrolling division officers. The people who have foals suitable to be used as stallions will be given an official certificate, and they will be able to use them if they pay the taxes for it. Foals unsuitable to be used as stallions will be gelded immediately.

9. The mating of mares and state stallions will be recorded in the division center. If the stallion belongs to a person from the inhabitants, the record will be taken from the respective local administrations of the stallion and mare owners. A certificate will be given to the mare's owner after the mating, which he will show when the foal is born. Furthermore, the birth and death of horses will be recorded in the administrative centers of the district (*nahiye*); they will give these reports once a month to the division center. (All of this shows how the state attempted to penetrate the lives of both animals and their owners.)

10. Inspectors appointed to cavalry and gendarmerie regiments will scrutinize each aspect of all the equine managements.

11. Horse farms will be established in a row in suitable places, and the number of stallions and mares on the farms will be calculated according to the size and income of the pastures and meadows. These farms will be managed by cavalry officers, who will be called "farm troops" (*Çiftlik bölükleri*).

12. Once or twice a year, horse races will be organized in the division centers to encourage horse production and improvement of horse breeds. The rewards will be covered by the division funds or donations.

13. There will also be horse exhibitions on the race fields; owners of good horses will be rewarded with medals or prizes.

14. As in European countries, an annual and agreeable tax should be put on horses according to their value and services. A part of this tax should be used to establish horse farms and purchase stallions, and it should be given to the general administration for horses.

The article presents the solutions proposed by Muzaffer Pasha to the "horse problem." The proposed solutions include prohibiting the export of horses, supervision of all horse breeding and management under the supervision of cavalry

officers and veterinarians, inspection of all horses in the country, establishment of horse farms and stallion depots, and organizing horse races and exhibitions to encourage horse production and breed improvement. The article also mentions the calculation of incomes and expenses, the registration of mating and birth records, and the potential for annual taxes on horses. However, it notes that new taxes and fees should not be demanded until there is success in horse breed improvement. This report was updated with a few new sections, but otherwise it remains the same. However, this last part of the document entails a note on the side which warns that demanding annual taxes from horse breeders and taking fees for mating the mares would be too heavy on the people at the moment. It is noted that it can only be possible after some success in horse breed improvement, so new taxes and fees should not be demanded now.

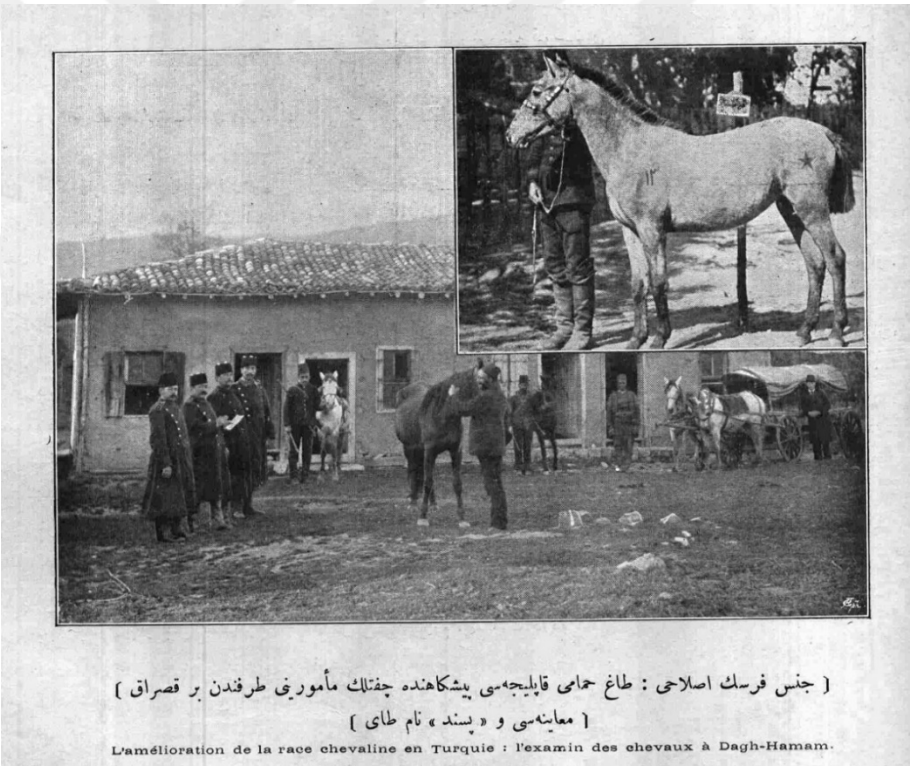

Figure 11: "The amelioration of horses: In front of *Dağ Hamamı Kaplıcası* (hot spring) examination of a mare by the farm officials and a foal named 'Pesend'".[668]

[668] "Cins-i Feresin Islahı: Dağ Hamamı Pişgâhında Çiftlik Memurîni Tarafından Bir Kısrak Muayenesi ve "Pesend" Nam Tay, L'amélioration de la Race Chevaline en Turquie: L'examin de chevaux à Dagh-Hamam," *Servet-i Fünûn*, no.351 (R. 20.09.1313 - M.02.12.1897): 193.

Figure 11 demonstrates how an inspection of horses took place. The horses are noticeably small as common with Ottoman horse breeds; however, some of them may be yearlings. Other than three horses taken out for examination, two harnessed horses are seen in the background. There is a branded horse on the upper right corner, and it can be seen more clearly in Figure 12. The horse was branded with a number and a shape, which was an effective tool of identification, categorization, and control.

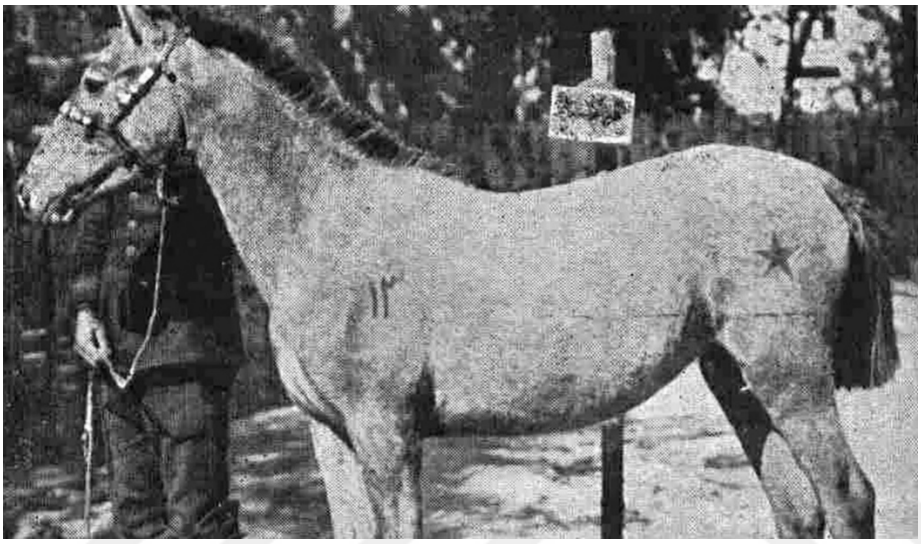

Figure 12: A horse branded with number 13 on its shoulder and a star on its hindquarters.[669]

Ottomans aimed to solidify such efforts of horse breeding through laws. Ottoman Code of Public Laws (*Düstur*) has sections where regulations about horse breeding and the betterment of horse species are included. One of these codes, dated April 8, 1870, and entitled "Instructions on the amelioration of horse and mare species," gives detailed information about how the horses that belonged to the people were going to be improved by the stallions provided by the state.[670]

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[669] "Cins-i Feresin Islahı: Dağ Hamamı Pişgâhında Çiftlik Memurîni Tarafından Bir Kısrak Muayenesi ve "Pesend" Nam Tay, L'amélioration de la Race Chevaline en Turquie: L'examin de chevaux à Dagh-Hamam," *Servet-i Fünûn*, no.351 (R.20.09.1313 - M.02.12.1897): 193.

[670] Düstur, 1. Tertip, 2. Cilt, Dersaadet: Matbaa-i Âmire, H.1289, (H.06.01.1287 – M.08.04.1870), 446-447.

According to this code, the state will send pedigree stallions to the necessary provinces to be used by the people for their mares. These stallions would be shared out to the *sanjaks,* the subdivisions of the provinces, to be kept with utmost care under the authority of the *mutasarrıf* (the governor of the sanjak) in his own stables. Each stallion would have a groom with a wage. When it was not the breeding season, the *mutasarrıfs* were allowed to ride the horses in nearby cities and towns. The stallions would be branded with a particular mark, so it would not be possible to exchange them with another animal or sell them to buy another; these kinds of misconduct would be punished. When the breeding season came, that is in March, April, or May, a few places would be arranged for the stallions in the *sanjaks* to stay temporarily, in areas easy to reach for the peasants. After the announcement of the location of the stallions via village councils and provincial newspapers, mare owners who wanted to mate their animals would receive a stamped note from the village chief (*muhtar*). Then they would take their animals to the inspection area and give these notes to the police officer (*zabıta memuru*) to have a permit. The mares were not to be younger than four years old, and they were not to be "impatient" with the stallions, which means they should not have a habit of kicking and hurting the stallions. Mating lame mares were prohibited, and ten to fifteen days were required to have passed if the animals had foaled beforehand. It is noted that since a stallion could serve no more than 25-30 mares, it was prohibited to exceed this number. After all, the number of mares in a district would be inspected beforehand, and the number of stallions sent would be determined according to this inspection. This breeding program was going to be free of charge, and taking money from the people would be punished according to the law. After the stallions finished serving the mares, they would be returned to the center of the *sanjak.* Mares were to be protected from the cold and hot weather after they became pregnant. If the foals born were male, that is if they were colts, and if the owners wanted to geld them, they would be informed that they should wait for the foal to be at least two years old. Each year, statistics were going to be made in each province about how many mares the stallions served and how many foals were born, and these were going to be sent to the Ministry of the Interior.

What this code deals with are the stallion depots, even though this term was not mentioned in the original text. After it was understood that the state stud farms were not procuring the expected results, the state aimed to ameliorate the horses of the people in the empire. It was thought that producing a few hundred horses on the stud farms would not be efficient enough without improving the general horse population. Stallion depots were a modern method of improving and breeding horses, and their usage implied a centralized state. Providing valuable stallions in the provinces for the people to use, free of charge, required a good and centralized organization to be effective.

There were different practices of using stallion depots, mostly affected by customs. When discussing stallion depots, Civani mentions a practice that can be seen in some countries, including the Ottoman Empire. According to the information provided by the author, in this practice, the stallions were taken from farm to farm during the breeding season to breed them to the mares in demand, while normally the stallions stayed in their stalls and the mares would be brought to them. This custom of breeding was seen in the department of Perche in France, where Percheron horses originated, and in some parts of England and Germany. However, this practice was under certain regulations and in many parts of Germany it was forbidden. In the Ottoman Empire too, it was customary to send stallions of the stallion depots and military *haras* to the stations and places where there were broodmares during breeding season. In Syria, Aleppo, and Arabia, there were people who lived solely on travelling with their stallions to breed them for a fee. Although it was not prohibited as the studs were not "yet subject to inspection and licensing", Civani thought that the custom had more drawbacks than benefits.[671] This was due to the fact that it was not possible to regulate and determine the number of mares that have been served by a travelling stallion, the irregular daily numbers of mating, poor nutrition and exhaustion of the stallions because of long journeys which expose them to serious contagious diseases, the impossibility to use the method of selective breeding or to record the stallions and mares, which

[671] Civani, *Teksir ve Islah-ı Hayvanat, Birinci Kısım, Kavaid-i Umumiye*, 214.

prevented knowing the stallion of the foal.[672] It is notable that these concerns mostly involve the biopolitical control over animal breeding through bureaucratic and scientific control of the state to improve the horse breeds and regulating this process.

A document sent from the Ministry of Trade and Public Works (*Ticaret ve Nafia Nezareti*) in 1892 demonstrated a concern with a more systematic approach to horse breeding to obtain results.[673] This document mentions a decree of the Sultan (*irade*) about breeding suitable horses in the Ottoman Empire in a way to let the Ottoman state stop buying animals from abroad for the cavalry and artillery, and that a notice was sent to the *vilayets*. As a response, Çatalca governorship (*mutasarrıflık*) informed that there was a need for four three-year-old and healthy Hungarian, Russian, and French stallions to breed the desired type of horses; two for Çatalca district (*kaza*), one for Büyük Çekmece, and one for Silivri district (*kaza*).

However, it was stated that the notice's purpose was to receive information about the regions to build a foundation for future conducts for breeding and ameliorating the horse breeds in the Ottoman Empire. On the other hand, this governorship (*mutasarrıflık*) did not give any such information, solely declaring the need for the stallions. In the document, it is informed that 25 years ago the Ottoman state had sent Arabian horses and mares to the provinces, however, could not obtain any results. For this reason, the necessary measures were going to be scrutinized according to the local administrations' investigation. The information required was as follows:

1. What kinds of horses (stallions) and mares are there in the provinces?

2. How are these horses fed and trained? That is, are they kept in herds, or are they in stalls most of the time?

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[672] Civani, *Teksir ve Islah-ı Hayvanat, Birinci Kısım, Kavaid-i Umumiye*, 215-216.

[673] BOA, BEO., 48/3558, (H.06.01.1310 - M.31.07.1892).

3. Approximately how many mares are there and what is their size?

4. In which districts are people eager and accustomed to breeding horses? They breed horses for what purposes? How much exportation and importation of horses occur yearly?

As can be understood from this document, the state attempted to follow a more solid method as it was observed that sending solely stallions to the provinces could not bring the desired results. The information provided by the provinces about horse breeding and horse population could help the Ottoman state to implement more productive measures.

Such efforts were supported by methods of encouragement such as horse exhibitions. For example, an *irade* in 1892 shows that the Ottoman state seen horse exhibitions as a method for improving horse breeds and encouraging breeding, which was another common method in Europe along with state stud farms, remount stations, stallion depots, horse breeding societies and horse races.[674] According to the *irade*, a horse exhibition was going to be opened in order to support horse breeding and improvement of horse breeds which would in turn increase the prosperity and well-being of the Ottoman country and its inhabitants. This exhibition, which was planned to open in June or July, was to be established in Istanbul and would be a branch of the general and permanent exhibition. It was decided that stallions and mares would be sent from the provinces for the exhibition and that an exhibition would first be organized for these horses. In order to encourage stallion and mare breeders, it was also requested that those who were deemed worthy of an award be rewarded with an appropriately high prize, as in similar exhibitions. Animal owners would also benefit from this exhibition, as horses could be bought and sold during the exhibition. In order to achieve all of this, and to ensure that the animals could be brought in at the appointed time, it was ordered that the necessary correspondence with the provinces be carried out

[674] BOA, Y.PRK.BŞK, 25/28.1.1 (H.22.07.1309 - M.21.02.1892)

swiftly, that all aspects of the work be agreed upon, and that the drawings of the building to be constructed for the exhibition be submitted to the sultan.

Later, as the Ottoman state was integrating into the world economy to a greater extent, its efforts to improve agriculture and animal breeding were also becoming more sophisticated. In other words, its attitude toward horse breeding was adapting to its structural and financial transformation. For example, an instruction booklet published in 1910 elucidates the procurement of new agricultural tools, seeds, fertilizers, and animals for breeding to farmers by the state via Ziraat Bank. According to this booklet, the state would buy these tools, seeds, and animals and put them in depots, which are built in places easy to reach. If there was already an animal depot or a model farm nearby, the new depot for tools could be established near it if suitable. Farmers who wanted to start an agricultural enterprise or engage in improvement projects would buy these supplies; however, instead of paying the state directly, they would pay in cash to Ziraat Bank or by taking a loan from the bank jointly with other people by showing at least two guarantors who have real estate property. If it was not possible to find such people with real estate, they could present each other as guarantors. Separate commissions would choose the tools and animals that are going to be in the depots according to the need and the convenience of the district. In areas with no depots, the farmers would place an order for the tools or the animals they wanted (buying animals has the same regulations as buying tools) through the commission and pay the bank.[675]

Some people must have used this opportunity since a document shows that people have been taking loans from the Ziraat Bank to improve their animals with their own means. According to this document from the Ministry of the Interior in 1911, it was learned from the correspondence that in some places, people try to improve their horses and cattle by taking loans from the Ziraat Bank jointly and separately to procure stallions and bulls. It is declared that these people should be encouraged and guided with the necessary information since improving the animal

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[675] *Alat-ı Cedide ve Tohum ve Damızlık Hayvanat Tedarikiyle Islahat ve Teşebbüsat-ı Ziraide Bulunacak Olan Çiftçilere Ziraat Bankasınca İrae ve İcra Olunacak Teshilat ve Muavenat-ı Mukteziyeyi Mübeyyin Talimatnamedir* (İstanbul Matbaa-ı Amire, 12 Nisan [1]326 [25 Nisan 1910]).

species of the people is crucial for the military and trade, in accordance with the report of the Ministry of Forestry, Mining and Agriculture.[676]

However, even before that, in 1896, it was noted in *Servet-i Fünûn* that the Ottoman people were eager to breed and improve their breeding stock by importing stallions and mares, and that was crucial since there was a need for procuring the horses required for the military from within the Ottoman Empire "so that there would be no need for imports in this regard."[677] This shows that even though there were some concerns about the eagerness of the Ottoman horse breeders to produce better horses, there were some breeders who aimed to improve their horses.

While the state had such motives, it also had economic concerns from the onset of its efforts to its end as good animals for breeding cost a lot of money. An example of this concern is seen in the response to a report written by Von Hobe Pasha, who served in *Istabl-ı Âmire* (Royal Stables), for the amelioration and increase of the horse population in the empire. Even though the state preferred to make it less costly, Hobe Pasha's suggestion that a new stud farm should be established in Kağıthane was seen as reasonable.[678] Kağıthane district, which was close but distant enough to the center of Istanbul, was an excursion spot as well as a place where endurance horse races took place. There were also locations where horses were kept, raised, and grazed. Therefore, this new stud farm was going to be built in a place where horse breeding and horse racing were traditionally carried out, and it is not surprising that the state supported Hobe Pasha's idea. However, even though this place was used for court horses, this new stud farm was going to be used to obtain foals to be sent to the provinces to be used as stud horses by the people. According to this document, the stud farm would be composed of stalls for horses, rooms for grooms, barns for fodder such as barley and hay, and an animal

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[676] BOA, DH.HMŞ., 19/72, 001-001, (16 Recep [1]329 – M.13 Temmuz 1911).

[677] [Ayın,] "Teksir ve Islah-ı Cins-i Fereste: Damızlıkların Çalıştırılması,", 250.

[678] BOA, Y.EE., 4/61, 1.2, (R.16.02.1300 - M.28.04.1884). (This document, which I have read before is also used by Emine Gümüşsoy in 2020, before I could complete my Ph.D. [Gümüşsoy, Emine. "Istabl-ı Âmire'de Bir Alman Mirahur: Von Hobe Paşa." *Tarih ve Gelecek Dergisi* 6, no.2 (June 2020): 423-448.]

hospital for the farm animals. Except for the first year, for obvious reasons, the food of the animals and the grooms were going to be provided by the cultivation of the lands around the stud farm, for which the labor of the animals on the farm was going to be used.

Even though Hobe Pasha suggested the purchase of mares from Hungary, it was considered too costly. Therefore, mares were going to be bought from some Circassian villages, as well as from territories like Adana (probably Çukurova horses) and Syria (for well-bred Arabian horses), and they were going to be bought as many as needed. These types of horses were suggested because they were relatively larger. As for stallions, it was stated that only 25-30 horses were going to be imported from Germany and Normandy (Northern France). The foals of these mares and stallions were going to be sent to the provinces when they become four years old.

Hobe Pasha responded that Kağıthane is indeed a very suitable location for horse breeding, and there should be three stud farms in the area instead of one. Moreover, he says that instead of buying 100-200 stallions and sending them to provinces for the use of the local people, buying 30 stallions and sending them to these three stud farms would be more beneficial and appropriate. Despite the response he received, which insisted that only local mares will be bought, Hobe Pasha said that 80 mares for each stud farm should be purchased from Hungary and Germany as well as from the local breeders. These horses' colts (male foals) would be sent to stallion depots in the provinces at age 4, while the fillies (female foals) would be kept on the farms as broodmares. The stallions sent to the provinces would be placed in temporary locations during breeding seasons, then they would be returned to their respective depot in the province. Hobe Pasha states that with this method, gradually, more and more local stallions would be procreated, and these new stud farms would enlarge after a while. Furthermore, even though the response to the report said each mare could be bought for 15-20 liras, Hobe Pasha said the mares should be 65 liras. Likewise, according to Hobe Pasha, each stallion should be around 150 liras since cheaper ones would not be good enough to be a stud, would not improve the horse breeds, and would be a waste of money. He

notes that in Hungary, even cavalry horses that are 152 cm (a mediocre height) are sold for 30 liras. Therefore, a good stallion was impossible to buy at such a price.

Mahmud Şemsi Seydi believes that attempting to improve local horse breeds by using Thoroughbreds, Russian and Hungarian horses is neither helpful to the cause nor economical: It could even be considered dangerous. He says that it was done before without success, resulting in wasted money and time. As a result of using Russian stallions with sloping croups and vulgar, ugly heads in Çifteler stud farm, the mares were virtually deformed. He adds that there are still such examples of mares left in Karacabey stud farm. He argues that such breeds of horses would not be able to endure the conditions of Anatolia like the local horses can; moreover, the local horse breeds are more endurant and can live without much care or food, unlike the horses of Europe or the USA.[679]

However, such a deformation pointed out that improving the horse breeds was attempted with less than capable horses to improve the species, just as Hobe Pasha warned. Moreover, this endeavor needed to be carried out with much care; a scientific, systematic, and long-term approach was needed. Since the Ottomans used different breeds without a plan, a new Ottoman horse breed that showed specific and coherent characteristics could not be created. Another problem was that heavier and larger horses that could be used effectively in agricultural work and artillery needed more food, but the Ottomans wanted their horses to be content with little food, a property of a light riding horse rather than a light draft horse.

According to İhsan Abidin, mating Anatolian horse breeds with Arabian horses could not make larger and heavier horses, because Arabians were used to give good blood and proportions to an animal, and Anatolian horses are not in a bad condition in terms of these properties. What the Ottoman horses needed the most were height and heaviness, and he questions if the Arabians can give them these properties. He says that even though the Çukurova horse, a cross-bred of Arabian and Anatolian horses, was a good horse breed, it could not compare to Gidran, Trakehner, Anglo-Arabian, or Anglo-Norman breeds. The Ottoman

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[679] Doktor Mahmut Şemsi Seydi, *Atlarımızın Islah ve Teksiri*, 17-18.

horses, which were suitable only for riding, needed to be exalted to the level of these horses and to be serviceable in the army and agricultural work.[680] As Arabian horses were also light horses best suitable for riding, and the purpose of their use as studs was to better the blood of the animals and give them finer proportions, they could not be used to make the horse breeds gain in height or heaviness. The Ottoman horses could be made heavier and larger using the blood of heavier horse breeds suitable for local animals and the environment through systematic and long-term horse breeding projects. Just as Arabians were used for the European breeds to make them lighter, more endurant, more proportional, and with better blood, Ottoman horses needed European breeds to make them heavier, bulkier, and larger. However, this was a costly enterprise.

These economic concerns of the Ottoman state to buy more valuable horses from abroad for the horse improvement projects had long-term effects. Mahmud Şemsi Seydi saw it as one of the reasons they did not bring the desired results. In the first section of his book, he focuses on the history of horse breeding in the Ottoman Empire. He remarks that Turkey is a very suitable country to raise horses. However, the War of Independence had a detrimental effect on the efforts to improve horse breeds and increase their numbers, which he admits, were already not well-developed. For Mahmud Şemsi Seydi, horse breeding was quite underdeveloped because there were not any horse breeds in the country that could be useful for improvement projects. According to him, medical and economic inconveniences, not breeding horses for agriculture, not working enough to breed horses, and lack of means of dealing with the problem were other factors. Even so, he argues that Turkey is a great place to breed horses by giving examples from ancient times to the classical era of the Ottoman Empire.[681]

The statistics on stud horses in 1914, made by the Ministry of Agriculture, show the price of stallions and mares in different districts:

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[680] İhsan Abidin, *Osmanlı Atları,* 19-20.

[681] Doktor Mahmud Şemsi Seydi, *Atlarımızın Islah ve Teksiri,* 5-8.

Table 5: Price of Stud Horses in Different Districts in 1914.[682]

Province	A Stallion	A Mare
Adana	1660 kuruş	800 kuruş
Ankara	3638 kuruş	775 kuruş
Bitlis	830 kuruş	600 kuruş
Konya	1500 kuruş	616 kuruş
Diyarbakır	1000 kuruş	1000 kuruş

According to Mahmud Şemsi Seydi, in 1914, the horse population was as follows:

Table 6: Horse Population in 1914. [683]

Mare	480.000
Filly	105.000
Cum. Female horses	585.000
Stallion	170.000
Colt	150.000
Pack Horses & Riding horses	105.000
Donkey	1.130.000

Table 7: The provinces with most mares in 1914:[684]

Provinces	Mares	Foals (Male & Female)
Ankara	41.273	10.477
Aydın	39.290	18.341
Sivas	32.136	10.338
Konya	31.208	16.628
Halep	28.301	17.991
Musul	23.720	6.285
Adana	21.509	7.279
Diyarbakır	18.540	0000

[682] Doktor Mahmud Şemsi Seydi, *Atlarımızın Islah ve Teksiri,* 23.

[683] Doktor Mahmut Şemsi Seydi, *Atlarımızın Islah ve Teksiri*, 25.

[684] Doktor Mahmud Şemsi Seydi, *Atlarımızın Islah ve Teksiri*, 25-26.

Karesi	16.090	4.023
Maraş	11.500	7.800
Antalya	11.300	13.895
Kastamonu	11.164	4.895
Edirne	10.967	5.616
Bursa	9.790	2.136
Bolu	8.233	2.611

In 1926, according to the Directory of Statistics of the Ministry of Agriculture, there were 243.078 mares in the country. The author says that it is expected to have this small number since even the most optimistic calculations would show that two thirds of the mares were lost during the First World War and the War of Independence.[685] It should be noted that while these numbers stated above need to be confirmed with other sources, the fact that the state made such statistics demonstrates its attempt to approach horse breeding and horse population with modern methods.

Hüseyin Remzi warns that the Ottoman horse breeds should not be destroyed, and that purebred blood is available in the country.[686] He maintains that, without considering their costs, the best horses should be kept in the studs and the mares should be chosen through selection method as well.[687] However, a few decades after, Mahmud Şemsi Seydi says that Ottoman horses, which used to be numerous and fine during the classical era, degenerated and became scarce over time. The government tried to prevent this by importing horses from Hungary and Russia and by establishing stud farms. However, none of its endeavors brought the wanted results because no one had knowledge, science, or experience in this subject.[688] He talks about an Arabian stud stallion named Abyân which he encountered on one of the stud farms in Germany, where it was used as one of the stallions. He says that this horse was bought from Çifteler stud farm, with more than 30 signatures by stud farm officials. According to him, if these stud farm

[685] Doktor Mahmud Şemsi Seydi, *Atlarımızın Islah ve Teksiri,* 25.

[686] Hüseyin Remzi, *İlm-i Hayvanatın Çiftliklere Tatbiki*, 472.

[687] Hüseyin Remzi, *İlm-i Hayvanatın Çiftliklere Tatbiki*, 472.

[688] Doktor Mahmud Şemsi Seydi, *Atlarımızın Islah ve Teksiri*, 8.

officials were educated in horse breeding and had an expert as a director of an administration of stud farms, the horse breeding in the country would be much different. This would, in return, help the cavalry, farmers, transportation, and unnecessary expenditure on foreign stud horses and numerous officials in stud farms. He says that even the Çifteler stud farm, the most established among the four farms, could only produce around 1000 foals in ten years, with 45 stallions, 600 mares, and 600-700 foals. This was a very low number, and since there were numerous breeds of stallions and there was no plan for the work done, the foals produced did not belong to any breed. Meanwhile, the Çukurova stud farm in Adana province produced Turco-Arabian half-blood horses, which were almost ideal cavalry horses, but then this farm was rented to a Hungarian company. During the First World War, the Ministry of War wanted to revive stud farms, but the loss of the war prevented it. He says that since the War of Independence was won, engaging in horse-breeding became possible again. Karacabey stud farm was an example of this.[689]

As for solutions to the horse problem, Mahmud Şemsi points out several measures. Firstly, he suggested that an autonomous directory of horse stud farms should be established because the improvement of animals like cattle, goats, and horses as well as veterinary works are currently under the same roof, which is the Directory of General Veterinaries (*Baytar Müdüriyet-i Umûmiyesi).* According to him, it is not possible to have any results in the improvement and production of horses unless an autonomous directory is established specifically for this purpose.[690] In his opinion, when an epidemic disease in animals breaks out, a general directory has to focus all its energy and resources on this issue, while a separate directory for horses can continue doing its own work.[691] Secondly, he suggests that the most successful zootechnicians in Germany and Austria should be invited for a sufficient time period in order to receive their support in

[689] Doktor Mahmud Şemsi Seydi, *Atlarımızın Islah ve Teksiri*, 8-9.

[690] Doktor Mahmud Şemsi Seydi, *Atlarımızın Islah ve Teksiri*, 20.

[691] Doktor Mahmud Şemsi Seydi, *Atlarımızın Islah ve Teksiri,* 21.

determining the principles of horse improvement. People who will administer horse improvement and production should be experts in the subject; otherwise, they should be brought from Europe.[692] Thirdly, he argues that separate stud farms should be established for each of the 5 horse breeds in the Anatolian peninsula,[693] and these stud farms should have large lands to cultivate.[694] This way, each stud farm would be able to cover some of the expenses. In his opinion, another way of reducing costs could be using heavy-riding or light-harness (light-draft) mares in agricultural work. He also mentions the stud farm schools in France and Germany, which graduate valuable officials, agriculturalists, and veterinarians. He argues that Turkey also needs such schools.[695] According to him, to raise good horses, there should also be a scientific farriery, good agriculture of forage crops, and prevention and eradication of epidemic diseases like glanders.[696] He finds horse exhibitions, races, and societies for horse breeding beneficial for improving horse breeding.[697] It should be noted that what he suggests as a society of horse-breeding is one that is composed of farmers in different districts, as opposed to *Islah-ı Nesl-i Feres Cemiyeti* which was composed of elites who supported horse-breeding in the Ottoman Empire. Even though Mahmud Şemsi Seydi opposes importing horses for the cavalry, he says that stud horses can be bought from abroad to breed artillery horses. As quoted before, he thinks the breeds of the horses that will be imported should be chosen according to their experiences in the First World War. As for local horses to be used by the artillery, he points to the horses in Sivas, which are around 160 cm in height at withers.[698]

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[692] Doktor Mahmud Şemsi Seydi, *Atlarımızın Islah ve Teksiri,* 21.

[693] His categorization of horses is mentioned in this dissertation, in the section under the title "The Condition of Horses".

[694] Doktor Mahmud Şemsi Seydi, *Atlarımızın Islah ve Teksiri,* 22.

[695] Doktor Mahmud Şemsi Seydi, *Atlarımızın Islah ve Teksiri,* 31-32.

[696] Doktor Mahmud Şemsi Seydi, *Atlarımızın Islah ve Teksiri,* 43, 52.

[697] Doktor Mahmud Şemsi Seydi, *Atlarımızın Islah ve Teksiri,* 40, 47, 50.

[698] Doktor Mahmud Şemsi Seydi, *Atlarımızın Islah ve Teksiri,* 28.

Besides other means of improving horse breeds and increasing the horse population in the Ottoman Empire, horse races were seen as another method, as was practiced in Europe to accomplish these goals. These races would serve primarily two purposes: Encouraging people to breed better horses and seeing which horses stand out in speed, agility, and endurance, which could help choose better horses for breeding. To make horse races widespread and to ensure they served the purposes above, the Ottoman state took some initiatives. For example, requests were sent from the Ministry of Interior to the military and civilian departments of the Ottoman state for their support in horse races in May 1912. This printed notice was sent to several government departments, with the recipient department indicated by handwriting at the bottom. According to the document, it was determined that the animals (horses) necessary for the Ottoman army were going to be provided from Ottoman territories. For this purpose, among other measures, remount depots were established. Besides, a race regulation was being prepared for organizing horse races; however, finalizing the regulation had been taking a while as expected. Meanwhile, the Society of Improvement of Horse Breeds (*Islah-ı Nesl-i Feres Cemiyeti*) was going to organize horse races in the center of Istanbul (*Dersaadet*). It was decided that the officers will participate in these races, and Army Inspectorships, Army Corps, and Divisions were informed of this. The civil service was informed about the support expected from them. The Ministry of Interior stresses that, together with the civil service, the necessary initiatives must be taken without delay. By organizing horse races all over the Ottoman lands, which was one of the means of improving horse breeds and increasing the number of horses, it was hoped that the lost expert riding skills of the Ottoman people were going to be revived.[699]

These suggestions presented in this section show how ideas about horse breeding transformed into a scientific, modern, and systematized shape with the divisions of institutions that were used in Europe at the time. While the Ottoman state had been trying to improve its horse species in a modern sense since the

[699] BOA, DH.MB.HPS. M., 4/10, (R. 29.02.1328 - M.12.05.1912).

middle of the nineteenth century, these efforts were far from being systematic and were subjected to many variations and changes in structure. As a result, it failed to bring a tangible impact. However, the experiences up until the end of the War of Independence forced the state to adapt to the transformation in horse breeding. Even after the middle of the twentieth century, when the army no longer needed horses, the biopolitics of horse breeding was reflected in breeding race horses, especially on Karacabey farm, where valuable stud horses were imported. Since then, Turkey has been improving in horse breeding, finally creating its own local crossbreed horse Gemlik, which is proof of that. This breed, for which the studies were carried out since 1941, is a combination of Arabian horses, Nonius horses, and the stud horses of Karacabey farm; it is suitable for show-jumping, its pedigree can go back to three generations, and its height-at-withers is between 150-170.[700] This height is important in the sense that it was what the Ottoman state was trying to accomplish.

3.2.2. Modern Veterinaries

The transition from early veterinarian tradition to modern veterinary science was mentioned in the second chapter. Such a transition was necessary for the Ottoman state in two respects. Firstly, modern horse breeding and development of horse species relied on current science, and the success of such projects was seen as related to knowledge. Secondly, as disease control and prevention became an important subject in international trade, Ottomans had to refer to acceptable and contemporary methods of veterinary science to be incorporated effectively. It would also have practical benefits on animal diseases and agricultural production and development.

In this regard, knowledge was seen as essential to improve horses and benefit from them as much as possible. According to Civani, the domestic animals and their products can be increased and developed through the improvement of agriculture, and the knowledge of the nature and breeding of animals by those

[700] Koçkar, *At Irkları ve Dağılımı*, 70.

involved with this work. He says that a machine would be broken and become unusable if its nature and making is not known, or if it is used in a wrong or excessive manner. He defines the animals as a kind of living machines which are subjected to the laws of mechanics and life ("*kavanin-i mihanikiyye ve hayatiyeye tâbi birer canlı makine"*).[701] Therefore, he says that:

> *To be able to operate and utilize them well, it is necessary to know their organization and parts, as well as their needs according to various conditions of economy and climate... Unfortunately, information on this subject is very limited in our country.... In Europe, the improvement of domestic animals and their maximum utilization have been made possible through the dissemination of knowledge of these sciences among the farming class and the efforts and perseverance of the government. To achieve the same result in our country, the same means are needed....*[702]

Besides fulfilling the need to use, produce and improve the horses effectively, the prevention of diseases depended on knowledge and effective organization of the state. In the commission report written on February 18, 1879, that was sent together with the report of Muzaffer Pasha, a colonel (*miralay*) of the cavalry of the *Hassa* Army (First Army), it was remarked that contagious animal diseases adversely affect both the Ottoman realm and exportation and that these diseases should be prevented with the help of the veterinarians.[703] As stated in the document, Mr. Dickson informed on 17 October 1878 that there was a new law in Britain that took measures against the spread of animal diseases by trade. Starting from December 1863 (*Kanun-ı Evvel* 1279), the states that export animals to Britain were to give a document that specified the applied method to prevent the disease from spreading, and a medical report of the general health of the animal when there was a contagious animal disease. The animals without these documents were going to be killed in the ports where they were exported.[704] It can be easily

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[701] Civani, *Teksir ve Islah-ı Hayvanat, Birinci Kısım, Kavaid-i Umumiye*, 8.

[702] Civani, *Teksir ve Islah-ı Hayvanat, Birinci Kısım, Kavaid-i Umumiye*, 8-9.

[703] BOA, İ.MMS., 65/3057, 1.1, (H.12.01.1297 - M.26.12.1879).

[704] BOA, İ.MMS., 65/3057, 2.2, (H.25.02.1296 - M.18.02.1879).

guessed that this new decision was a problem for the Ottoman Empire, which occasionally suffered from contagious animal diseases.

To prevent the spread of such diseases, the Ottoman state had tried to ensure that there were enough civilian veterinaries for the animals in the provinces and enough veterinaries for the military. Therefore, it aimed to train more students for both military and civilian purposes. Regulations about the students who will be taken to the school of veterinary science dated July 8, 1873 (H.12.05.1290) show how it was organized. The document outlines regulations for the admission and education of veterinary students in the Ottoman Empire. Students can be military or civilian, and both must have completed junior high school in the Empire or passed an equivalent knowledge exam. Veterinary school is not differentiated from medical school. A total of 200 students will be admitted over eight years, with 25 students per year. Civilian students are exempt from conscription but have the same obligations as military students. Regulations are also included for transferring between military and civilian programs, and for assigning ranks after graduation. All graduates will study in a surgery hospital for a year before being sent to provinces in need of veterinarians. It is composed of 17 articles. A detailed summary of it is as follows:

1. Two kinds of students will be taken to the school of veterinary science: Military and civilian. They will first study at the high school of medicine for five years and then study in the school of medicine for four years. Upon graduating, they will be sent to the armies and provinces. It is notable that the school of veterinary science and the school of medicine are not differentiated in this document.

2. For the military, 32 students for the high school of medicine and 40 students for the school of medicine will be taken, which is 72 students in sum. Of the civilian veterinary students, 58 will be chosen for the high school, and 70 will be taken to the school of medicine, which makes up 128 students. These 200 students will not be admitted at once but in 8 years, which is 25 students per year.

3. Both the military and civilian students must have graduated from junior high school in the Ottoman Empire or passed the exam proving they have the equivalent body of knowledge if they studied abroad.

4. The civilian students can be Muslims or non-Muslims, but the latter will have to bring a certificate from the Patriarchate or Chief Rabbinate. The number of non-Muslim students will be relative to the Muslim students according to the ratio between Muslim and non-Muslim students admitted to the school of Medicine.

5. Both civilian and military veterinary students will be given clothes, rations, and a wage that increases with each grade.

6. Civilian students at the veterinary school will be exempt from the draw of lots for conscription during their education. Still, they will be obliged with all the duties of the school like the military students, according to the regulations of the military schools.

7. Articles 7 and 8 include the conditions and regulations about transferring from civilian to military veterinary studentship and vice versa.

8. According to article 9, even if students who were educated abroad beforehand could finish the program before nine years, the total number will not exceed 200 students.

9. Articles from 11 to 15: The regulations about the assignment of the military veterinaries' ranks after graduation are specified in these articles. The success of the students in the surgery examinations after a year of studying in the surgery hospital upon their graduation is decisive.

10. According to article 16, the civilian veterinary students will also study in the surgery hospital for a year after graduation and will be examined at the end. They will be sent to provinces where veterinarians need it.

11. Article 17 states that this regulation is only for the students at this veterinary school program. These rules do not apply to veterinarians who have not graduated from these schools. [705]

On January 6, 1876, another regulation organized the civilian veterinaries. According to the regulation, a veterinarian who has a degree either from the military school, medical school, or a school abroad will be placed in the provinces, *sanjak*s, and *kaza*s (smaller districts). The salaries of the veterinarians will be paid by the district council where they are commissioned.[706] Two kinds of civilian veterinarians were differentiated: Inspector veterinarians and country veterinarians. Inspectors were going to be in the center of the province and supervise all the veterinarians in the province where they resided. Country veterinarians were going to be sent to smaller districts, and there were two classes of them according to the size of their districts. According to the regulation, the veterinarians had to examine and treat sick animals without exception. The state also decided for the procurement of the equipment that the veterinarians would need.[707] However, as will be seen, these veterinarians had some problems in the areas they were sent to and could not fulfill their duties as required.

Returning to the previous report of 1879, the following information was obtained from the responses of the Ministry of Medicine (*Tıbbiye Nezareti*) and the Society of Civil Medicine (*Tıbbiye-i Mülkiye Cemiyeti*): It was decided that the inspector veterinarians were going to be assigned to the border districts and the

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[705] Düstur, 1. Tertip, 3. Cilt, İstanbul: Matbaa-i Âmire, H.1290, (H.12.05.1290 - M.08.07.1873), 533-538.

[706] Düstur, 1. Tertip, 3. Cilt, İstanbul: Matbaa-i Âmire, H.1290, (H.09.12.1292 - M.06.01.1876), 539.

[707] Düstur, 1. Tertip, 3. Cilt, İstanbul: Matbaa-i Âmire, H.1290, (H.09.12.1292 - M.06.01.1876), 541.

places all over the Ottoman Empire to eradicate the causes that bring out contagious animal diseases, and to prevent the spread of the disease if it breaks out. For this purpose, a regulation and an instruction booklet were prepared. However, these veterinarians encountered less-than-ideal circumstances in the places they were assigned. The local administrations did not assist them, their written notices were ignored, their salaries were usually not paid with excuses, they were forced to resign, and some were sent back without making any payment. For this reason, existing veterinarians were dispersed in diverse places. It was remarked that this regulation and instruction booklet could be a great assurance for Britain, and their importance has surfaced.[708]

It was asserted that the shortage of veterinarians who could take effective measures against the diffusion of contagious animal diseases in the Ottoman Empire was harming the farmers immensely. The damage it was inflicting on agriculture and the fact that various states were regarding epizootics as a serious problem had led the Ottoman administration to open a new veterinary class to train civilian veterinarians in the Military School (*Mekteb-i Harbiye*) and to send the graduates to areas where they are needed. This was also the reason a regulation and an instruction booklet were prepared. However, because the veterinarians could not receive their payments from the local administrators, they could not be employed as needed. This caused the epizootics to intensify in some places, which meant that animals could not be exported to Britain. As a response, the state ordered again that the veterinarians be sent to the necessary areas, their salaries are adequately paid, and they are to be assisted in the places they were sent to. Provinces were going to be informed, and a copy of the regulations and instruction booklet was going to be given to Britain by Mr. Dickson.

This document shows that the adaptation of modern veterinary science and the problem of epizootics are not solely about internal affairs. In this example, the horses and other animals imported to Britain are killed immediately at the ports with the possibility of a disease if they don't have the required health certificates.

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[708] BOA, İ.MMS., 65/3057, 2.2, (H.25.02.1296 - M.18.02.1879).

This indicates that modern veterinary science started to become necessary for the usual functioning of international trade.

In the introductory part of the same document, which presents the report of Muzaffer Pasha, it is suggested that the veterinary school in Istanbul should be enlarged and improved, and new veterinary schools should be opened in the provinces if the financial situation permits and when the people ask for it. The instructors of the schools in the provinces would be sent from Istanbul. It is also proposed that stables and farms should be established in scientific standards in places suitable for horse breeding.[709]

Modern veterinarians should not be regarded as solely people who treated and cared for horses and other animals in the 19th century. In an emerging and escalating power-knowledge relationship, some higher-ranked veterinarians pioneered the improvement of horse breeding. On September 21, 1892, Ferik Mustafa Pasha, as the Chief of the Permanent Committee of Veterinaries (*Heyet-i Dâime-yi Baytariyye*), sent a report (*maruzat*) about the problem of increasing and improving horses in the empire to the *Mâbeyn Başkitâbeti* which served as an intermediary between the Sultan and the government officials.[710] According to this document, the Permanent Committee of Veterinaries was established in order to confer about and accomplish the aim of increasing the number of horses and improving horse breeds in the Ottoman realm. This shows the importance given to scientific methods. Ferik Mustafa Pasha states that to realize this goal, the committee has been working on its coordination, and it also worked practically, such as sending eight stallions and eight mares to the Sanjak of Izmit. He states that because the horse breeds in the empire had become worse and their numbers had decreased a long time ago, this purpose cannot be accomplished unless strong and tall mares, as well as distinguished stud stallions, are bought from abroad as many as needed. According to him, purchasing several thousands of mares each year and sending these mares to the people in the realm is required. In order not to

[709] BOA, İ.MMS., 65/3057, 1.1, (H.12.01.1297 - M.26.12.1879).

[710] BOA, Y.MTV., 67/103, (H.28.02.1310 - M.21.09.1892).

burden the treasury, a moderate tax should be placed on horses just as the great powers do, and Ziraat Bank should assist with payments as stated in the regulations. Ferik Mustafa Pasha thinks that either himself or someone competent should be assigned to inspect the amount of money needed and the condition and adequacy of the places where the animals will be sent. He says this should be done now since the stud stallions and mares that will be handed out to the people next year should be bought and procured at fair prices to be sent to their stations before spring. He notes that increasing the number of horses and ameliorating horse breeds may be more essential than supplying weapons, and it would be best not to waste any time with unnecessary procedures.[711]

The Ottomans tried to follow modern standards for veterinary science. An example of this were the buildings called *baytarhane.* These were established in the late Ottoman Empire and were used as places for practical education for treating animals and diagnosing their diseases.[712] They were planned as modern establishments.

As seen in Figure 13, a plan was designed for a *baytarhane* for the central army in 1904. The drawing or the plan of the building of veterinaries (*baytarhane*) shows a single-story structure, which includes a room for veterinarians (*baytar odası*), a watch room (*nöbet odası*), a dormitory for people (*efrâd koğuşu*), two operating rooms (*ameliyathâne*), a pharmacy room (*eczahâne*), an autopsy room (*teşrihhâne*) and three different stables respectively for skin diseases (*emrâz-ı cildiye ahırı*), internal diseases (*emrâz-ı dâhiliye ahırı*) and external diseases (*emrâz-ı hâriciye ahırı*). This building was solely planned for veterinary purposes, and its rooms, designed for different purposes, and the separation of the stalls for three kinds of diseases propose a scientific approach.

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[711] BOA, Y.MTV., 67/103, 2.1, (H.28.02.1310 - M.21.09.1892).

[712] Ali Yiğit, Ayşe Menteş Gürler, and Aşkın Yaşar, 2014, "Baytarhane: The Place and Importance in the History of Veterinary Medicine - Baytarhâne: Veteriner Hekimliği Tarihindeki Yeri ve Önemi," *Mersin Üniversitesi Tıp Fakültesi Lokman Hekim Tıp Tarihi ve Folklorik Tıp Dergisi, IV. National Symposium of the History of Veterinary Medicine and Professional Ethics*, *21-23 May 2014,* 19-20. https://dergipark.org.tr/tr/pub/mutftd/issue/46999/590228

On the other hand, *baytarhanes* were also used to accommodate sick people; the dormitory room (*efrâd koğuşu*) must be used for this purpose. For example, 97 sick people were transported via *Şeref Vapuru,* a steamer from Tuzla to Harem Port, to be accommodated in an area made of cabin sheds made for the sick (*musâbin barakası*), possibly a quarantined area on October 30, 1894. However, these sick people were accommodated in the empty *baytarhane* close to the area by the approval of the committee of medicine (*etibba heyeti*).[713] The close relationship between medical science and veterinary science is apparent here.

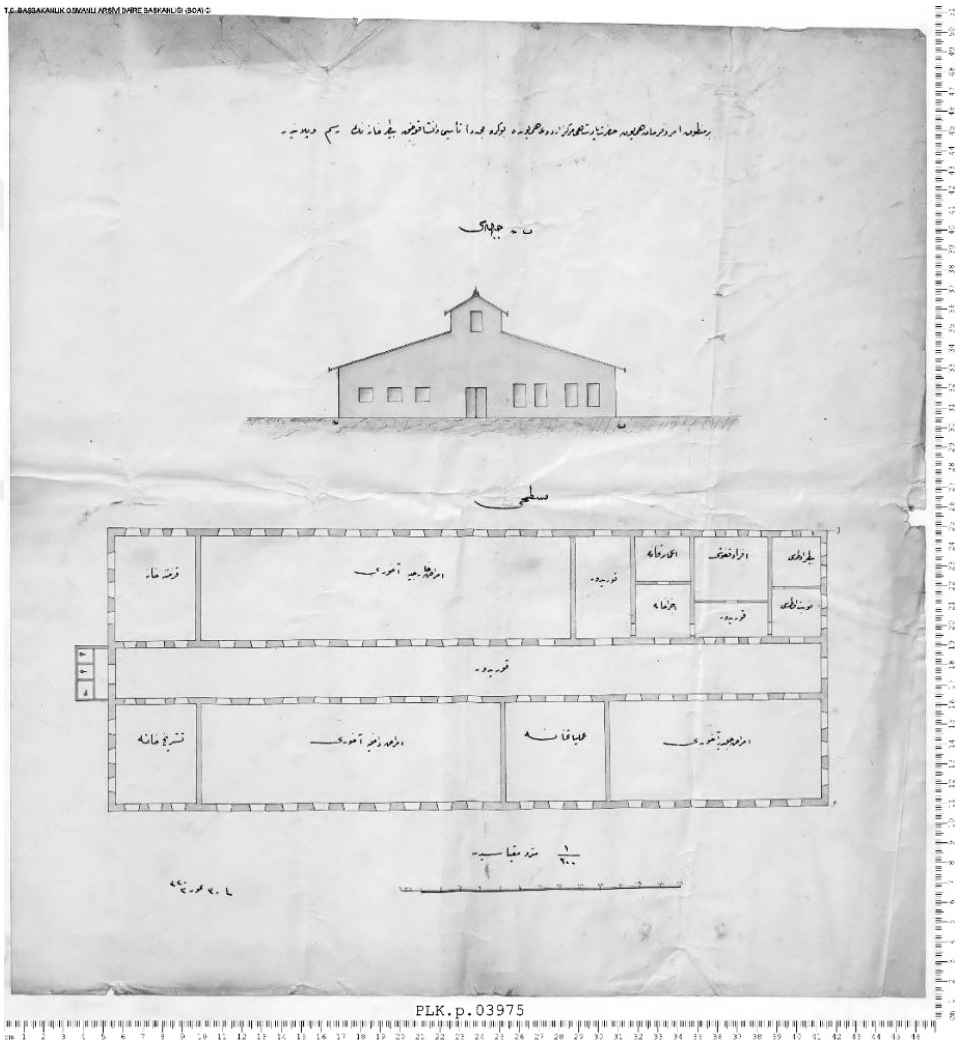

Figure 13: The plan of a baytarhane.[714]

[713] BOA, Y.MTV., 107/112, (H.29.04.1312 - M.30.10.1894).

[714] BOA, PLK. P., 03975/-. (H. 30.05.1322 - M.12.08.1904).

Mahmud Şemsi Seydi, who was a veterinarian and the former specialist of the Ministry of Agriculture for the department of horses in *Karacabey* Stud Farm, states that even though many attempts were made to improve horse breeds and increase horses, these efforts have always been fruitless or at least they didn't accomplish the expected results. According to him, the reason for this lies in the fact that there have not been any genuine zootechnicians yet, either among agriculturists or veterinarians in Turkey. He says that zootechnics is a comprehensive and extensive science, and a genuine and modern zootechnician must be educated both in agriculture and veterinary science. He stresses that this ideal zootechnician would have to know modern methods of agriculture since good agriculture of the food of the animals and green fodder such as oats, barley, corn, carrot, and beet is indispensable. Moreover, knowing about the improvement of pastures and the fight against harmful weeds is essential. The zootechnician would also have to know about anatomy, physiology, and diseases of animals; that is, he would have to be educated in veterinary science as well. He says that a zootechnician cannot be an expert in all these different subjects; however, to be able to make good decisions, he would have to know about the relationships between them.[715] His views showed the transformation of the ideas of horse-breeding strikingly. Whereas before the advent of modern science, horse breeding was a matter of experience, and oral culture with limited access to written works, the veterinary science, zootechnics, knowledge about modern agriculture, and the relationship between these different fields started to become indispensable to horse breeding. Those who had access to this knowledge were to inform and guide the farmers and breeders. This reflected the new control mechanisms of power-knowledge on both the breeders and the animals.

An example of this dissipation of knowledge is encountered in an article of *Servet-i Fünûn* journal.[716] The article is about the usage of studs and broodmares

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[715] Doktor Mahmut Şemsi Seydi, *Atlarımızın Islah ve Teksiri*, 3-4.

[716] [Ayın,] "Teksir ve Islah-ı Cins-i Fereste: Damızlıkların Çalıştırılması," 248-250.

in various works from agriculture to competitions, and its importance in ameliorating and producing horses; therefore, veterinary science and its use in breeding and ameliorating Ottoman horses was given place to inform the breeders. This article shows a modern attitude of horse breeding, and it was based on the current scientific knowledge according to its author.

According to the article, the spread of the horse trade and the increase in its use, of which the importance is well-known, are dependent on the fact that the horse breeding and ameliorating procedures are known and practiced by those involved. This article was therefore written to convey some of what is known to veterinary scientists (*etibba-i baytariye*) to the readers.[717]

The author says it is useful and necessary for both studs and broodmares to be exercised, which would also make the offspring of these horses more inclined to be trained and tamed. Very expensive breeding stock should be put separately in large stalls, if it is feared that they would be harmed in some way. In suitable seasons, the horses should be released into pastures. If this is not feasible, they should be released freely in an enclosed area or on a lawn surrounded by a fence or something similar. Sometimes it was difficult to manage animals in this way, in that case, they should at least be walked with a halter.[718] It was noted that horses deprived of exercise lose their desirable traits and become disobedient or slow-moving and easily susceptible to disease and infertility. Therefore, the benefit of employing stud horses was apparent. Purebred stallions that cannot be used in various industrial services and agricultural work should be used in competitions, while it was possible to employ non-purebred stallions in all kinds of agricultural and transportation work without any harm to them. In the production and ameliorating of horses, the studs and broodmares were to compensate for the costs incurred for them by working. Moreover, it was profitable in terms of increasing the capability of the stallions and ensuring that the foals are of good breed and value.[719] On the other hand, mares should be used less than stallions for work, as

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[717] [Ayın,] "Teksir ve Islah-ı Cins-i Fereste: Damızlıkların Çalıştırılması," 248.

[718] [Ayın,] "Teksir ve Islah-ı Cins-i Fereste: Damızlıkların Çalıştırılması," 248-249.

[719] [Ayın,] "Teksir ve Islah-ı Cins-i Fereste: Damızlıkların Çalıştırılması," 249.

they are gentle in temperament and sometimes, they were pregnant or giving milk. However, using them in agricultural work to the extent of their strength was seen beneficial. He refers to one of France's most famous veterinarians (Mayni?) on the subject and states that the idea of using breeding horses for work is generally accepted in the scientific community.[720]

On the other hand, it was necessary to prohibit the stallions from all kinds of activities during the mating season and never to be ridden during this season and never to wear a saddle blanket on its waist. They were to be walked with a long halter only. Mares were also to be banned from service in the first period of giving milk and the last period of pregnancy.[721] The author concludes that:

> *[W]hen it is necessary to breed animals in an acceptable manner according to the conditions and circumstances and in accordance with the methods and measures of the experts of science, it is necessary to employ the breeding horses in various jobs in order to compensate for their expenses, and their physical activity is almost essential from the point of view of their health and strength.*[722]

Choosing horses for breeding showed another aspect of human control over animal lives. It was not a new phenomenon scientifically or practically, but it evolved and was incorporated into a modern scientific discourse. The classifications of Ahmed Cevad can be regarded in this context. It is an example of how a natural part of the animal life, reproduction, can be controlled and made artificially by humans, which can be evaluated in relation to biopolitics. In nine articles, Ahmed Cevad describes which physical attributes should be checked in horses when choosing stud animals. He says that if the horses do not have these attributes, they are useless as studs. In his opinion, because people give so much

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[720] [Ayın,] "Teksir ve Islah-ı Cins-i Fereste: Damızlıkların Çalıştırılması," 249.

[721] [Ayın,] "Teksir ve Islah-ı Cins-i Fereste: Damızlıkların Çalıştırılması," 249.

[722] [Ayın,] "Teksir ve Islah-ı Cins-i Fereste: Damızlıkların Çalıştırılması." *Servet-i Fünûn* , no.302 (R. 12.10.1312 - M.24.12.1896): 250.

importance to this issue in Europe, better and new kinds of horses are born each day. On the contrary, in Turkey, this issue is left to farmers, and people mate their mares with random stallions, which worsens horse breeds in Turkey over time. Moreover, he adds with regret that people regard raising animals as a vulgar job in Turkey, and they see it as a custom that can be done haphazardly.[723] This depiction of horse breeding, caring, and choosing stud animals are very different from those suggested in the *baytarnames,* which were mentioned in the second chapter of this study. It was stated before that this old veterinary lore about horses contained detailed descriptions of choosing horses, including the condition of the pasterns, eyes, nostrils, and chest of the horse. Ahmed Cevad's nine points for choosing stud horses also had similarities to some of these descriptions. On the other hand, even though there was an oral culture for transmitting this knowledge, as well as books, it is understandable that the knowledge could not diffuse so much because of low literacy, the difficulty in copying books, and the defects of oral culture. It should also be noted that modern booklets like this do not contain any religious or superstitious elements like the *baytarnames*; they are precise and to the point, with an appreciation of science.

Ahmed Cevad gives the example of French horse-breeding as the most successful in the first decade of the twentieth century. In his opinion, even though the horses of Hungarians, the British, and Russians were raised with the same diligent care, they could not compete with French horses even though they attempted to do so. According to him, another indication of this success is the advancements in the French cavalry. He mentions three types of successfully bred French horses: Cross-bred (mixed-breed), Boulonnais, and Ardennais. Boulannais and Ardannais are used for agriculture, and the former breed is the most prized one in this job, according to Ahmed Cevad. This explained why it was imported to many countries.[724] He links the improvement of these breeds to the efforts and encouragement of societies of agriculture in France.[725] This is in line with Mahmud

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[723] Ahmed Cevad, *Hayvanat-ı Ehliye Yetiştirmek*, 30-31.

[724] Ahmed Cevad, *Hayvanat-ı Ehliye Yetiştirmek*, 33, 35.

[725] Ahmed Cevad, *Hayvanat-ı Ehliye Yetiştirmek*, 31-34.

Şemsi Seydi's and Hüseyin Remzi's arguments that societies for horse-breeding are instrumental in improving horses. Interestingly, Ahmed Cevad does not mention one of the most prized draft horses in the world, the Percherons, which were also French horses.

There were usually no stud books in Turkey and the existing ones were not reliable or scientific enough for the most part, as claimed by Mahmud Şemsi Seydi. In many instances, when choosing stud horses, the importance was given to the mare, and the foals were valued in relation to their mothers. He says that when choosing horses for breeding, it is not enough to listen to the statements of the horse owners even if it is also important; a scientific and planned assessment should be made on horses by veterinarians, and since there are no stud books, experiences about their potency, their appearance and shape should be taken into account.[726] However, as he points out, recording the chosen horses, the best horses of the stud farms and the horses that the private breeders own into stud books and building the breed through their lineage would help improve the species.[727] This was in fact the method used in Europe in many instances. For example, Civani says that the horse breeding companies in Europe kept books such as the "stable book" and the "mating book", the first of which recorded the information on stud animals, while the second recorded the characteristics of the female animals that were mated, the place and time of mating, which were recorded by the male animal owners. He adds that the information in these books was taken every year by the relevant unit in the company (*sicil-i hayvanat şirketi kalemi*) and added to the information in the studbooks.[728]

Ahmed Cevad points to another critical factor in raising good horses: the condition of the stalls and the way they were constructed. He says that the animals should not be left to lie down in random places; instead, they should be valued and cared for as if they were humans.[729] In another passage, he says that for the

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[726] Doktor Mahmut Şemsi Seydi, *Atlarımızın Islah ve Teksiri*, 38.

[727] Doktor Mahmut Şemsi Seydi, *Atlarımızın Islah ve Teksiri*, 39-40.

[728] Civani, *Teksir ve Islah-ı Hayvanat, Birinci Kısım, Kavaid-i Umumiye*, 360.

[729] Ahmed Cevad, *Hayvanat-ı Ehliye Yetiştirmek*, 35.

improvement of horse breeds to be possible, the animals should have strong and healthy bodies; and this can be achieved when they are given the same care, attention, and protection from harm that children receive.[730] He informs about the types of stalls, the way the doors, the windows, mangers, and the floors of the stalls should be constructed. He also advises on ventilation, temperature, sewers, dimensions of the stalls, and corridor for walking the horses.[731] His ideas are shared by Yusuf Ziya, who advised that the stables should be spacy, well-ventilated, bright, and warm. He said that the ceiling of the stable should be 4-5 meters high, and the temperature should be between 12-15 degrees Celsius if there is only one horse. He added that the windows should be enough to brighten the room but placed in a way that the light does not directly go into the horse's eyes. He thought keeping a horse without any ties in a closed box as very advisable. He also gave suggestions about the dimensions of boxes and the stable door, ways of separating horses in the stable, drainage, mangers, litter or bedding, and hygiene.[732]

Therefore, animal care on stud farms was seen crucial to increase their productivity. In this regard, Hüseyin Remzi gives advice and information about breeding horses in stud farms:[733]

- Knowing the time and manner of breeding was seen as important and he gives information about this issue.

- He stresses that feeding the animals well and giving the horses some time to rest in a quiet environment after they are mated are necessary.

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[730] Ahmed Cevad, *Hayvanat-ı Ehliye Yetiştirmek*, 40.

[731] Ahmed Cevad, *Hayvanat-ı Ehliye Yetiştirmek*, 35-40.

[732] Yusuf Ziya, *Bargire Bakmak ve Binmek,* 47-50.

[733] Hüseyin Remzi, *İlm-i Hayvanatın Çiftliklere Tatbiki*, 456-457.

- As the pregnant horses give milk to their offspring at the same time, they should be fed accordingly. Such mares should be used in light works; however, they should be entrusted to gentle people.

- At summers, after their light work, the animals graze on the pastures, even at night. They stay in the stables only when the weather is rough, and until the snow covers the ground. They stay in the stables in the winters, eating hay and oats.

Then he gives information about how the foal is born, how the mare and her offspring are cared for, and what kind of food they should be given in what manner and quantity, the complications in feeding, and the manner of weaning.[734]

According to Hüseyin Remzi, to achieve the best productivity from the stud farms, the mares should be mated with the studs again fifteen days after they gave birth to their foals because if the mare is rested for two years, meaning reproduced once in three years, it would cause loss of time and money for the stud farm. This way, while the mare is giving milk to her offspring, she would also carry another in her belly. The mare would start to carry our farmwork after her offspring is four weeks old, which would be good exercise for both. This way, from four years old to six years old, a few offspring could be produced from the mare before she is sent to the cavalry regiments.[735]

Ahmed Cevad talks about three methods of raising animals. The first method is to keep animals only one year after birth and sell them afterward. The second method is to keep them until they reach maturity. Thirdly, breeders can keep the animal after they mature. However, all three methods required the animals to receive good nutrition.[736] He gives a thoroughly detailed list of the food that the animals can eat. The difference is striking when the scientific understanding of

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[734] Hüseyin Remzi, *İlm-i Hayvanatın Çiftliklere Tatbiki*, 458-465.

[735] Hüseyin Remzi, *İlm-i Hayvanatın Çiftliklere Tatbiki*, 459-460.

[736] Ahmed Cevad, *Hayvanat-ı Ehliye Yetiştirmek*, 41.

categorizing animal food in this chart is compared to the traditional understanding of animal feeding.[737] It should be noted that the list contains not the food that is given to animals in Turkey but the food that *should* be given, and some food in the list is suitable or unsuitable for different animals such as horses, goats, and oxen, etc.

Table 8: Nutritional Values of Animal Food According to Ahmed Cevad.

Nour-ishment	Water	Fibre	Phos-phate	Grass Sub-stance [?]	Starch Sugar	Albumin	Nitrogen	Chem-ical Measure
HAYS								
Meadow Hay	13,0	24,4	7,6	3,80	44,4	7,2	1,10	100
Meadow Hay - Second Crop	14,1	21,5	8,0	3,50	45,0	12,4	1,98	58
Flowering Meadow Hay (With flower)	12,2	12,1	8,1	4,00	41,3	13,3	2,13	54
Flowering Meadow Hay (With buds [?])	20,0	22,0	5,0	3,20	39,2	10,6	1,62	67
Wild Lucerne Hay	15,0	22,0	5,7	3,50	41,8	12,0	1,92	60
STRAWS								
Wheat Straw	26,0	89,9	5,1	2,20	35,9	1,9	0,30	383
Wheat Straw (Old)	12,3	36,3	5,1	2,20	39,9	3,1	0,50	230
Rye Straw	18,6	32,4	5,6	1,50	43,0	5,5	0,24	479
Barley Straw	14,2	34,4	3,0	1,70	43,8	1,9	0,30	383
Oat Straw	2110	30,0	4,0	5,10	38,4	1,9	0,30	388
GRAINS								
Wheat with large seeds	14,4	1,5	1,9	1,00	65,6	12,3	2,50	46

[737] Ahmed Cevad, *Hayvanat-ı Ehliye Yetiştirmek*, 42-48.

Wheat with small seeds	14,8	2,3	1,6	2,00	65,7	15,6	2,18	53
Red Wheat	14,5	2,1	2,0	1,50	67,6	12,3	1,97	58
Rye	16,6	3,0	1,9	2,00	67,6	8,9	1,42	81
Barley	13,0	2,6	4,5	2,80	63,7	13,4	2,14	54
Oats	14,0	4,1	3,9	5,50	61,5	11,9	1,90	61
Corn	17,0	1,5	1,1	7,00	61,9	12,5	2,00	58
Millet	14,0	1,4	2,2	3,00	57,8	20,6	3,3	35
Yellow Peas	8,9	3,6	2,0	2,00	59,6	23,9	3,83	30
Lathyrus	14,6	3,5	3,0	2,70	48,9	27,3	4,37	26
Lupin	12,5	3,9	3,0	2,00	47,7	31,9	5,11	23
Lentils	12,5	2,8	2,2	2,50	55,7	25,0	4,00	28
Beans	15,0	3,8	3,5	3,00	48,0	26,0	4,30	27
Flour	11,0	0,5	0,9	1,90	64,4	23,3	4,70	31
Bran	21,0	8,5	3,3	4,00	31,6	11,9	1,90	61
GREEN PLANTS								
Green Corn Wheat	72,0	5,2	2,3	0,90	13,6	6,2	1,0	110
Flowering Wild Lucerne	84,0	5,1	1,38	0,80	9,6	2,8	0,45	226
Non-flowering Lucerne	77,0	6,3	1,4	0,90	1,9	3,1	0,50	235
Flowering Lucerne	82,4	4,2	1,6	0,80	8,3	2,7	0,43	267
Cauliflower	90,1	0,6	0,8	0,90	5,3	2,3	0,37	311
Leaf	74,7	4,6	2,0	2,30	10,6	5,9	0,95	121
Beet Leaf	90,7	1,7	1,4	0,63	3,0	2,6	0,42	374
Carrot Leaf	82,2	3,0	3,6	1,0	7,0	3,2	0,52	221
White Jerusalem Artichoke	80,0	3,4	2,7	0,80	9,8	3,3	0,53	217
ROOTS								
White Beet	84,0	2,0	0,6	0,10	11,7	1,6	0,25	462

Red and Sweet Beet	82,0	2,5	1,0	0,10	11,6	2,8	0,45	256
Wild Beet	87,8	2,2	0,6	0,10	7,9	1,3	0,21	548
White Turnip	92,5	0,3	0,5	0,20	5,7	0,8	0,13	884
Large Turnip	86,0	0,4	0,9	0,15	10,8	1,6	0,25	460
Yellow Turnip	85,1	0,5	0,9	0,20	11,5	1,9	0,30	383
Wild Carrot	88,3	1,0	0,7	0,20	8,2	1,5	0,25	460
[Saf] Plant	91,0	0,3	0,6	0,95	7,0	1,1	0,17	676
Yellow Jerusalem Artichoke	75,9	0,4	0,8	0,20	20,2	2,5	0,40	287
Red Jerusalem Artichoke	70,0	0,6	00	0,20	25,2	3,1	0,50	230
White Jerusalem Artichoke	79,2	1,2	1,1	0,30	16,1	2,1	0,33	363
Apple	83,6	2,8	0,1	0,05	12,5	1,0	0,16	718
Pumpkin	94,5	1,0	0,5	0,05	2,7	1,0	0,21	548
Acorn	56,0	4,5	1,0	2,30	3,42	2,0	0,32	359
Chestnut without burr	48,2		1,8	2,30	3,42	3,0	0,48	329
Beet fruit	80,0	7,0	0,8	0,10	10,0	2,2	0,38	303
Grape sediment	72,6		2,2	1,70	15,7	3,7	0,50	195
Cannabis	12,2	12,1	2,2	33,6	23,6	16,3	2,6	44
Clean hazelnut	85,0	1,17	1,6	55,8	16,1	16,3	2,6	44
Poppy seed	14,7	6,1	7,0	41,0	13,7	17,5	2,8	41
Beechmast	30,0	27,0	3,6	26,5	3,4	8,5	1,36	85
Chestnut seed	12,7	3,2	6,0	3,9	19,0	20,5	3,38	85
Carnation	11,7	1,19	6,0	1010	23,3	37,8	6,05	19

Flax	13,4	5,1	8,3	6,0	33,2	32,7	5,20	22
Hazelnut	6,0	3,4	3,2	9,0	45,6	32,8	5,24	22
Canola	10,5	5,3	7,7	10,0	32,5	30,7	4,42	23

Ahmed Cevad says that animals can be fed in two ways; they can be put into pastures to graze, or their caretakers can directly give them food. However, he warns that in some circumstances like droughts, the animals in the pastures should be given extra nutrition.[738] After explaining how animals should be fed, he also spells out when and how animals should be watered and what kinds of water should be given to them.[739] Overall, when Ahmed Cevad explains how horses and other domestic animals such as cattle and sheep should be kept, fed, and watered, he mentions the likes and dislikes of the animals, and he compares animal needs to human needs. This shows that he attributes at least some personality to animals.

Throughout this chapter, it has been seen that horses have had many different uses, and their presence in human life caused or inspired actions. As urban, agricultural, and military technologies developed, the need to improve and modify their bodies according to different types of jobs became more pressing. Ideally, the individual bodies of horses were taken care of by their owners before these advancements, and they were produced according to traditional knowledge and need. Since they were essential instruments of war, travel, and prestige, they were crucial for traditional states, which held sovereign power, in contrast to biopolitical power. However, the methodical approach to the whole population, taking statistics, trying to control and record births, deaths, and reproduction of the entire population of horses through state apparatus, veterinarians who were educated in modern state schools, and new establishments such as remounts and stallion depots signified a change in the Ottoman Empire. While the mechanical suitability of the bodies of the horses, their docility, training, and discipline were seen as necessary, their proper nutrition and correct care were specified with the

[738] Ahmed Cevad, *Hayvanat-ı Ehliye Yetiştirmek*, 49.

[739] Ahmed Cevad, *Hayvanat-ı Ehliye Yetiştirmek*, 52-56.

help of modern veterinary science. This reflected disciplinary and biopolitical power.

There were many good horses individually in the Ottoman Empire; the real problem was the quality and the size of the horse population in general, and the improvement of this quality and size in the long term. Besides, it had political and economic repercussions: A horse population of the required size and quality would improve the chances in battles, moreover, since horses are instrumental in many areas of daily life, it would contribute to the economy. Therefore, rather than disciplining (or training), caring for, and treating individual horses, the importance is given to a whole population of horses in the empire, improving, shaping their bodies in generations and increasing them by the guidance and interference of the modern state and science. Although the Ottoman state could accomplish this aim, this was its objective. Accordingly, the improvement and management of the horse population can be evaluated from a biopolitical point of view.

If biopolitics can be defined as a technology of control over humans as a species or race, the relations among humans, and the environment in which they live,[740] it is possible to say that biopower also functions on animals as species or breeds, over the relations among animals and their environment. For the "betterment" of horse breeds and modifying and administering the general horse population in the empire, the Ottomans assigned cavalry officers and veterinaries to inspect and analyze the horses and give statistics and reports on them, to decide which stallions were fit to be studs and which ones should be gelded because of their inferior quality. There were also discussions about which horse breeds should be used as broodmares and stallions to improve local horse breeds. This is different from the actions of an ordinary horse breeder who chooses horses to produce; this was a systematical and planned action from above through the state apparatus, through scientific knowledge, with the aid of statistics, veterinarians, and scientific arguments; at least this was what the Ottomans attempted to do. This was a direct intervention and penetration into the lives of horses by the state. This was not for

[740] Foucault, "Society Must Be Defended," 65-66.

individual horses but to foster, develop, maintain and propagate the lives of horses in general and improve the species of a whole horse population in the empire, which is in line with the notion and aim of fostering life of the biopolitical approach. However, it is different in the sense that fostering the life of animals was not a means of legitimacy on the part of the state since animals or an animal population were not regarded as conscious subjects. Instead, fostering, improving, and protecting a horse population first and foremost meant developing the standards of warfare, and wars were closely linked to human life. Horses were very instrumental in battles, both in the front and in transporting necessary supplies; their improvement and propagation would mean improving the battle conditions. This, in turn, reflected the same understanding of "give life and let die" for the humans in a different and indirect manner through the biopolitics of horses. For the life and body of the horse, giving life and letting die meant being cared for, cured and protected from illnesses and bred scientifically under the direct supervision of the state apparatus or being gelded and forced to stop breeding so that the species would improve. Horses also functioned in city transportation, which eased life, aligned with new technologies like omnibuses, horse trams, and improved carriages and coaches. They could transport food and other items through the countryside with speed. Thus, by improving the horse's body, human life would be improved. Moreover, administering them would mean administering and having control over the section of the population that produced horses, including the nomadic or seminomadic tribes.

With the biopolitical turn, the Ottomans adapted their demographic policies in accordance with a modern understanding of family and reproduction as "an economic utility, or … an important source of wealth".[741] Selçuk Dursun states that during the 19th century, particularly with the beginning of the Tanzimat era, the Ottoman Empire engaged in "protecting, supervising, improving, and procreating the … population" and had three concerns: "… the concern to tax, and to create a labor force for agricultural production and local reconstruction projects

[741] Selçuk Dursun, "Procreation, Family and 'Progress': Administrative and Economic Aspects of Ottoman Population Policies in the 19th Century," *The History of the Family* 16, no. 2 (2011): 160.

and to recruit soldiers for the modern armies."[742] These kinds of policies and concerns also included animals. Therefore, this statement can be adapted to animal policies: The concern to tax animal trade and breeding, to create an animal labor force for agricultural purposes and transportation of supplies, and to increase the number of horses for the modern armies. This demonstrates the striking parallelism of the state's policies toward humans and animals.

Furthermore, the Ottoman state changed its approach to the environment in which horses live or are bred. Traditionally, herds of mares with a few stallions would be let loose in the natural pastures of the stud farms, where they would graze and mate freely. They did have stalls or stables, but they were not as comfortable or hygienic as their modern counterparts.[743] With the influence of the scientific turn, proper horse breeding and horse care required stalls built by scientific standards; to keep the bodies of the animals healthy and comfortable in the best possible way. These modern, well-ventilated, bright, carefully constructed, hygienic stalls would protect the horses from cold weather and provide them with a good rest. They also ensured that there were fewer illnesses or casualties in the winter. However, these were what the Ottoman state or influential veterinarians and some cavalry officers wanted to accomplish; this transformation could not occur completely.

Likewise, contemporary horse breeding, or to be more accurate, zootechnies, suggested that the pastures of the animals should not be left to nature and instead should be cultivated with nutritious plants, and the soil, its minerals, the climate, and water sources should be considered. Even though the Ottomans could not conform to these standards, some Ottoman zootechnicians were aware of them. Mating horses also became more regulated and controlled; instead of letting the animals mate in their own way, new methods were promoted, including holding the horses by hand and letting them mate controllably. The Ottoman state even assigned inspectors for this purpose: The inspectors, who were composed of a

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[742] Dursun, "Procreation, Family," 161.

[743] See: Ahmed Cevad, *Hayvanat-ı Ehliye Yetiştirmek,* (İstanbul: Mesai Matbaası, H.1331 (M.1913)).

veterinarian and a cavalry officer, were to supervise the mating of the state stallions.[744] While these new scientific rules assisted the improvement of the health and care of the animals and the efforts of increasing their numbers, these interferences of power-knowledge resulted in more control over animals.

Biopolitics was related to life, death, and longevity, as well as the body itself. Foucault says that this "serial phenomena" of biopolitics is seen in a population in a "period of time". Even though bureaucratic inconsistencies prevented long-term results, it was known by the Ottomans that the horse population could only be improved (or modified) over a long period of time. A newborn foal could only reach maturity in four years, and at least a few generations were needed for a solid result in improvement projects. Moreover, biopolitics involved statistics and forecasts, an attempt to maintain an average and equilibrium, modifying and regulating birth rate, mortality, and life expectancy, and regulating individuals through focusing on the general population,[745] and these concerns can also be observed in the way the Ottoman Empire tried to control and regulate their horse population.

The report of Muzaffer Pasha, which was seen in the previous section, clarified how the statistics should be kept.[746] Statistics were nonexistent before, and now ideally, the horse population as a whole would be recorded. This was to modify and intervene in the development of horse breeds rather than modifying individual horses. It was also required by the local administrations of the *nahiye*s to keep the records of births and deaths of the horses in the areas under their jurisdiction and to give these reports monthly to the authorities in the horse farms of the state. The groups of inspectors that would be assigned to investigate the condition of the horses in the Ottoman Empire were going to consist of a cavalry officer and a veterinary with modern training, which reflected a power-knowledge relationship. Moreover, through civil veterinarians, pamphlets, and regulations, the

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[744] BOA, İ.MMS., 65/3057

[745] Foucault, "Society Must Be Defended," 67.

[746] BOA, İ.MMS., 65/3057, 3, (H.12.11.1296 - M.28.10.1879).

Empire's subjects were going to be educated about topics such as how horses should be cared for, how stud horses and broodmares should be selected, and how horses should be produced, as a biopolitics on horses. Furthermore, it was mentioned in the *layiha* that the number of horses should be equal in each horse farm of the state which was going to be established for the remount depots. In this case, an equilibrium was sought for both the physical attributes of the horses and their numbers as an attempt at direct control over the horse population.

Foucault says that since biopower gives life and lets die, it cannot kill like the sovereign power without contradicting its basis. Therefore, it requires racism to kill.[747] Biopower can only kill to protect and foster life and to guard it against threats; otherwise, it would contradict its power which is established on cultivating life. For this reason, he states that biopower can kill humans, populations, and civilizations only through racism, and this racism could be based on several different reasons such as purifying the species, exalting one's own race, elimination of biological forces and enemies, and from an evolutionary standpoint, enforcement of natural selection through war against a weak or a hostile race.[748] He explains that racism is instrumental in two ways. Firstly, racism distinguishes between the superior and inferior races, the ones that should live and the ones that should die, between the good and the bad races. Secondly, racism seeks to eliminate inferior or abnormal species to make the species stronger, healthier, better, and purer and to ensure its safety through the death of the other. In other words, they can be killed literally or indirectly, because they are a biological threat to the future of the race or species.[749]

When the matter was about useful animals, biopower manifested not in literal death but in gelding; preventing the reproduction of the animal for the greater good of the quality and future of the animal population. On the other hand, killing animals for medical reasons when they were sick with lethal and contagious diseases like glanders was seen, as necessary. More extremely, the fact that Britain

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[747] Foucault, "Society Must Be Defended," 73.

[748] Foucault, "Society Must Be Defended," 76.

[749] Foucault, "Society Must Be Defended," 74-75.

enacted a law that commanded the immediate slaughter of the imported animals from countries in which contagious animal diseases were present at the time if the required documents pertaining to the health of the animal and the techniques pursued for the prevention of the disease were absent, can be linked to biopolitics. In this case, even the possibility of a risk of disease, without an explicit sign of it caused death to protect animal species. These kinds of procedures were done for both the diseases that can be transmitted to humans and the ones that could hinder the general health and life of the domestic animal population; which was apparently for economic reasons. However, animal life was not the primary focus of biopower; rather, protecting it was an indirect means of maintaining and supporting human life and the quality of living since animals were instrumental in many areas of life. In other words, when animal life and health were protected and administered, the main aim was to foster and maintain the life of the human population; thus, the biopolitics of animals was for the biopolitics of humans.

Horses in general were separated by their characteristics, features, and capabilities. Like the racism of humans, some horse breeds are thought to be superior, and some of them, including some mixed breeds, are thought to be inferior. As Foucault insists that racism is not a new phenomenon; that it is new in the sense that it was incorporated into the modern state apparatus so strongly that it is in the "basic mechanisms of power", horse breed "racism" existed before the emergence of the modern state, however, the segregation of animals, or "animal racism" exercised by the modern state was different in the sense that it focused on the whole species of horses, in a more systematic, controlled and centralized fashion. Moreover, although Ottomans did not have stud books for horse breeds, in Europe, detailed and precise stud books came into existence in the 19th century.

While horse improvement projects did not include the killing of animals via “animal racism”, the “inferior” quality horses, the ones that are not seen as good enough to produce good offspring were to be gelded and never let to mate. The Ottoman state aimed to prevent people breeding their stallions without a stallion certificate given to them by the authorities, which is a document that showed the

approval of the state that the horse was eligible for breeding.[750] This way, "the degenerates" would be eliminated in a period since the horse breeds were thought to have deteriorated. Ottoman horses were depicted in the various texts as fine and strong horses, and it was thought that their current state was not their original self and that they were not intrinsically bad. Ottoman horses were thought to have become worse with thoughtless and unplanned breeding, mixing with inferior quality horses. The improvement projects would create horse breeds with ideal individual horses, which was a kind of racism about animals. However, except for pure-bred Arabian horses, the aim was not to produce pure-bred horses but to specifically and carefully select horses from the local population to use their blood as a base to create better horses, to make the Ottoman local breeds strong, tall, and beautiful *as they had been before*. In this regard, the belief of the Ottoman state and its scientific community knowledgeable about horses (power-knowledge) that the Ottoman horses used to be good horses, but they have degenerated over time is notable. Even though "inferior" horses are not killed, their species are allowed to die out by preventing them from propagating, as they are a threat to the general well-being of Ottoman horses: they are degenerated types and must be replaced by genuine, improved breeds of horses. Therefore, scientifically calculated efforts to select horses and create different types of horse populations segregated according to their uses are closely linked to biopolitics over animals.

Even after the idea of animal rights became stronger, which can also be assessed as an act of biopower, nowadays, gelding animals is carried out primarily for the sake of the health of the animals, of the future of their offspring and for the population control of animals. In any case, the natural life and instincts of animals came under the scope of biopower, *for the sake of animals,* for the protection of their life, and to foster their life, their natural instincts are suppressed and controlled via gelding. Even if they are not killed per se, they are virtually killed when their future bloodline is controlled by humans, which created a neater, more sterile, and controlled city life, and that, in turn, also fostered the life of humans and ensured their supremacy as well as their safety in the streets. In other words, while

[750] BOA, İ.MMS., 65/3057, 3, (H.12.11.1296 - M.28.10.1879).

biopolitics on animals used to be carried out solely for the sake of humans, after the ideas of animal rights became more widespread, biopolitics started to be exercised with the claim of fostering and supporting the lives of both humans and animals. Thus, even though there are some distinctions between the biopolitics over humans and over animals in terms of purpose and characteristics, there are certainly some parallelisms and affinities since they are interrelated.

CHAPTER 4

CONCLUSION

The role of animals in human history has often been overlooked until recent years, and their contribution has been relegated to that of passive subjects without significant agency or influence. The issue of animals' agency and personality is a controversial topic as it can be criticized as anthropocentric, irrational, and sentimental, making it difficult for scholars and scientists to explore alternative perspectives on animals and their historical significance. Nonetheless, it is essential to continue examining and recognizing the roles that animals have played in human history, as their impact and agency have been more significant than previously acknowledged.

The second chapter of this thesis focused on exploring the impact of horses on human life. Divided into three main sections, the chapter aimed to present a comprehensive understanding of the place that horses held in human society. Firstly, it was noted that horses were regarded as a form of technology, given their unique characteristics of speed, agility, endurance, and strength. As such, horses played a pivotal role in all aspects of human life, including production and consumption, until they were gradually replaced by newer forms of technology. Moreover, horses were an integral part of various tools such as mills, carts, carriages, plows, and later, horse trams and omnibuses. Furthermore, the chapter highlighted how horses provided speed in the transportation of goods and people. In the 19th and early 20th centuries, horses were still considered indispensable in this regard. The importance of horses in human life was so significant that the terminology and understanding of machines and new vehicles were perceived and advertised through reference to the horse's body and common behavioral attitudes. The presence or absence of horses had the power to change the trajectory of events and their actions in human life limited and shaped the actions of humans. Overall,

this chapter provides insight into the historical significance of horses and their impact on human life. The role of horses in shaping human society, culture, and language cannot be underestimated, and it is essential to recognize their contributions to our shared history.

Animals were dependent on humans for their care and labor. They required adequate food, shelter, and equipment to function properly. This often meant large quantities of grains had to be cultivated and transported for them. Also, many skilled artisans were required to make their harnesses, saddles, and shoes. When people traveled or went into battle, they had to consider their animals' needs for food, water, and protection from heat, insects, and fatigue, which had an impact on their decision-making.

Furthermore, the horse had a significant impact on human culture, as its presence inspired the formation of horse cults across diverse and unrelated cultures. The horse also played a critical role in identity formation, symbolisms of divinity, religion, courage, nobility, warriorship, masculinity, and various art forms, including literature, painting, sculpture, and miniatures. People were captivated by horses' physical qualities, behavioral characteristics, and their presence in daily life.

Another crucial aspect of the horse's impact on humans was its role in wars and conflicts. Despite being instinctively inclined to flee from danger as prey animals, horses could be trained for battle and adapted to circumstances against their nature. Their absence or presence had a profound effect on military history, and people relied on their strength and speed for a powerful charge, the fear they caused through the sound of their hooves, and the dust they created. Battle formations, techniques, and strategies were developed around the capabilities of horses. Horses were indispensable machines of war, but they were susceptible to diseases and lameness. Therefore, people developed methods to treat and care for horses, contributing to the improvement of veterinary science.

Islamic veterinary works, such as *baytarname*s, focused primarily on horses, with little information about other animals due to the importance of horses in war. These works, which had a unique style, were first based on texts from Ancient Greece and other ancient studies, then developed with the addition of

original works. In the second half of the 18th century, modern veterinary schools were established in Europe, which eventually spread to other parts of the world as the importance of horses in daily life increased, along with concerns for animal productivity and health.

It is crucial to recognize the agency and importance of animals in human history, particularly in the case of horses. While humans may have been the active agents in these events, horses were not mere passive resources, but active and functional contributors to human society. Their labor and presence had a profound impact on human life and culture, shaping the way people thought about and defined themselves in relation to animals. This relationship was not one-sided; people attributed personalities and meanings to their actions, recognized their abilities to respond differently to treatment, and even became angry at their resistance. Moreover, the significance of horses can be seen by examining what would happen if their labor were taken out of human history. It is clear animals, including horses, played a vital and irreplaceable role in shaping human history and culture. By recognizing this, we can gain a more comprehensive understanding of the impact of non-human agents on human events.

The domestication of horses allowed for the manipulation and disciplining of their bodies through various practices, such as breeding, training, and veterinary care. These practices were shaped by the biopolitical structures of the emerging modern state, which sought to manage populations, including animals, for economic, political, and social purposes. The modern state created institutions such as breeding societies, veterinary schools, and racing clubs, which promoted the lives of horses through the improvement of their breed and health, as well as through the development of equestrian sports and entertainment.

Through selective breeding, horses were transformed into specialized breeds suited for specific tasks, such as racing, carriage driving, and military purposes. Training techniques such as the use of bits, spurs, and whips, were developed to discipline horses and make them more obedient to human commands. Veterinary care also became a crucial aspect of horse management, with the development of medical treatments and surgical interventions to prevent and treat injuries and illnesses. Promoting equestrian sports and entertainment, such as horse

racing and show jumping, also significantly impacted horses. These activities placed a premium on the speed, agility, and physical appearance of horses, leading to further selective breeding and the creation of specialized breeds. However, they also placed significant stress on the horse's body, leading to the development of ethical concerns regarding horse welfare in modern times.

However, over time, there were increasing concerns about the welfare of animals, including horses, as people began to recognize their ability to feel pain and suffer. Laws and regulations were established to protect animals from abuse and neglect, and modern veterinary science emerged to improve their health and well-being. The welfare of horses became a concern of the state, with regulations established to ensure proper care and treatment. However, the origins of such treatment and a claim of superiority over animals could be traced back to Aristoteles and the story of Genesis, where Adam was given the right to name animals and exercise control over them, as Derrida showed us. People also treated animals as machines because it was convenient to do so. They were tools to use and profit from, and if seen necessary, they could be discarded and worked to death.

On the other hand, there were also alternative views on the treatment of horses and other animals, which could be seen from the arguments of Xenophon to the Islamic understanding of compassion for animals. In the 19th century, compassion and kindness to animals became linked to humanist ideals in Europe. This also resulted from a belief in human superiority over animals, and being kind to them formed an identity. Through the “prevention of cruelty” organizations, people tried to improve working conditions and prevent abuse of animals, to promote animal welfare, and horse rescue organizations emerged to rescue and rehabilitate abused and neglected horses. Such organizations criticized abuses against animals, including horses, in Europe, the Islamic world, India, and the other places. Therefore, because animals were subjected to the control of humans, they were affected by their actions and ideas.

In this dissertation, it was revealed that the emergence of disciplinary power and biopolitics in the 16th century was not limited to humans but also extended to animals, particularly horses. The state apparatus gained increasing control over the lives of horses, indicating a biopolitical approach to animals.

While the effectiveness and achievements of this control may be debated, the trend towards controlling horses persisted. Instead of viewing this control as an end in itself or as a sign of progress or modernization, the focus was on how power over animals transformed and the resulting shift in perceptions.

The bodies of horses had always been modified, transformed, and improved in a certain way, and horses had always been trained to carry out certain tasks. However, it was on an individual scale and did not address a "whole" population of horses, nor was it supported by rationalist state apparatus and scientific knowledge, and tools of control like statistics, approval or disapproval of stallions with inspections, recording stallions and mares that were mated and the foals they produced in detail, their births and deaths, recording and measuring the performance, height, and weight of horses to choose for breeding. This was supported by modern veterinary science which was incorporated into the state apparatus and functioned as a tool to combat epizootics and "ignorance" about horse care and breeding. As this way of promoting and multiplying the horse life stemmed from rationalist thought and originated in Europe, the disciplinary power on horses "in a rationalist manner" was also seen in Europe, starting in Italy in the 16th century, and dispersed to other countries like France and Austria. These were the haute école (classical dressage) and airs above the ground, which was the high-level haute école. Not every horse could perform these movements; they needed certain physical attributes, and that encouraged breeding of a certain kind of horse. The movements were precise and not rudimentary and required years of exercise and training for both the rider and the horse, as well as mental and physical discipline. It was individually and focused on the utmost performance, beauty, and submission that the horse's body could present. Although the emergence of this disciplinary power over horses was limited to a certain extent, came to existence a century earlier than what Foucault suggests for the disciplinary power over humans, and had fundamental differences such as a concern with aesthetics, there are also some parallels: This disciplinary power was exercised on individual animals, focused on to improve and train the horse body and mind in such a way that to exert the most benefit from the horse, including the grandeur and prestige that it could give to its rider. There were also ethical concerns; while the horse was

taught to submit completely and perform these dangerous movements, the rider, as a noble person, would learn how to be patient, compassionate, adaptive, and stern through the horse, then he would exercise these merits over his people. Nevertheless, parallels can be drawn, including a focus on improving and training the individual animal, ethical concerns, and a relationship between the horse and its rider that influenced both sides. These differences in disciplinary power are understandable due to the involvement of animals and the relationship between different species.

In the 19th century, the emergence of experiment stations reflected another aspect of disciplinary power, where measuring horsepower and enhancing the effectiveness of horse bodies were a primary focus. In addition, the improvement of horse breeds was closely linked to these efforts.

Until the biopolitical turn, horse breeding and improvement were supported mainly by the aristocracy or sovereign power. In the late 18th century, a more systemized horse breeding by means of state apparatus emerged in Europe. As horses were incorporated into the technologies and needs of the era, their bodies had to be improved according to these needs. State stud farms, stallion depots, and remount depots became widespread and highly functional in different countries and at different time periods. The need for larger and heavier horses for new artillery carriages, transport vehicles, and farm work with heavy and efficient plows became apparent. Different types of horses were needed for different purposes. While heavy draft work could be done with horses that were bred to become heavier and heavier, the artillery required horses that were large and drafty enough but speedy and agile. On the other hand, the cavalry needed lighter and spirited horse breeds that could run fast but strong enough to carry their riders and endure the harsh conditions.

During this time, the Ottoman Empire faced a significant "horse problem" amidst the changes happening in Europe. Despite the state's reliance on its old system, supplying artillery horses became increasingly challenging after the 1850s. Crossbreeding and improving horse breeds required many generations of horses, and as European countries had already established their stud farms by the late 18th century, the Ottomans were lagging behind. Furthermore, the horse breeds of the

Ottoman Empire were light and had supposedly become even smaller and lighter over time. As a result, they were unsuitable for the new technologies that required heavier horse breeds. Even the stronger horses were mainly saddle horses and unable to perform as light-draft horses could. It was still possible to modify and improve Ottoman horse breeds with perseverance and good planning, and the Ottomans aimed to establish a modern horse breeding system by following the developments in Europe after seeing their results. However, urgent needs for horses made it hard for the state to stick to a long-term plan which was needed to establish a solid breed that showed the same characteristics through generations.

The Ottoman state failed to accomplish its aims because it lacked sufficient resources and consistency. However, what is important here is it tried to adapt to the modern techniques of horse breeding and horse care through new establishments and modern veterinary science and treated the horse population. For example, the state tried to constrict the breeding of "unfit" stallions and to geld (castrate) them, to approve horses that were allowed to breed, and to make statistics about the number, breeds, physical characteristics, births, and deaths of horses throughout the Ottoman territories to improve its horse breeds. There were also some attempts to breed horses through selection instead of leaving them to breed by themselves in the pastures of the stud farms. As in Europe, it tried to support these efforts through horse races, shows, prizes, and a breeding society. With stallion depots established in the provinces, it aimed to improve the people's horses by providing them with well-bred stallions while recording and controlling the stallions and the mares served. Through remount depots, it wanted to create a pool of available horses trained for the army. Therefore, even though the state was inconsistent in its attempts to improve the empire's horse breeds and failed to see solid results, its aims and methods were in line with the biopolitical approach to the horse population in its territories.

The various efforts towards improving horse breeds in the Ottoman Empire were not solely driven by the need for better equine performance but also had a significant impact on human life. The physical attributes and abilities of Ottoman horses imposed limitations on human actions and abilities. Thus, enhancing the quality of horse breeds would result in numerous benefits for society.

The Ottoman military, transportation, and agriculture relied heavily on horses. Equine-related sports and competitions also played a vital role in social life. Furthermore, despite the advent of steam power and railways, there was still a growing demand for horses in the 19th century due to their commercial value.

The second and third chapters of this dissertation have demonstrated that horses exerted both short-term and long-term effects on shaping and constraining human actions and ideas. Consequently, horses were subjected to selective breeding and training, and subjected to gentle or harsh treatment to modify and improve their behaviors and bodies. These interactions between humans and horses can be viewed as circular in nature. For instance, as horses became physically stronger, they had a greater impact on city transportation by enabling them to pull heavier vehicles, which in turn motivated people to further improve and modify their physical attributes.

This dissertation acknowledges that the implementation of biopolitics on animals and the resulting changes in mentality were not uniform or flawless. Rather, it was an ongoing process observed unevenly across different regions and continues to evolve. This process was a dynamic relationship between animals and humans or between animals and the state, which involved the changing attitudes towards science, health, and animal welfare. However, it is important to recognize that animals were not passive recipients of these changes. Instead, they were active participants in this relationship, shaping the course of events in their own ways.

This dissertation focuses on how humans have shaped horses, including the transformation and improvement of horse breeds, and the emergence of a biopolitical and rational scientific approach towards horses. However, there are other variables and aspects that have influenced the relationship between humans and horses, but they are not included in this study to maintain the study's scope. Additionally, other possible impacts of horses on humans are not explored for the same reason.

By examining the biopolitical dynamics of animal histories, such as in the Ottoman Empire and other places, we can gain insights into how humans have approached and transformed animals, and how this has influenced their mentalities and understandings of them. This approach offers a more nuanced understanding

of animal histories and sheds light on the development of human history. Rather than viewing animal-human interactions as a one-sided hierarchy, approaching it as a complex relationship can challenge long-held assumptions and offer new perspectives on the evolution of human societies. Ultimately, studying animal histories through the lens of biopolitics can broaden our understanding of the interconnectedness of human and animal life and highlight the importance of ethical considerations in the treatment of animals.

To further enhance the dissertation on horses in the Ottoman Empire, future researchers can adopt a comparative approach with other regions or empires that had similar horse breeding and training practices, to identify similarities and differences in their methodologies. In Appendix C, I have attempted to provide an overview of the sources that might be useful for such a study, and the similarities and differences of the Ottoman case on a source-by-source basis, but I am aware that there are many more sources that need to be read and analysed. Additionally, more extensive archival research should be conducted to gain access to primary sources such as letters, diaries, and official documents, to gather additional sources and data. Researchers should also explore the role of women in Ottoman horse breeding and training, and their contribution to the horse culture. Furthermore, the impact of Ottoman horse breeding and training on other horse cultures beyond the Empire should be investigated, and the study should be expanded to examine the interactions of Ottoman horses with other animals such as camels and donkeys. Moreover, the historical role of other species of animals, such as camels, cattle, donkeys, and mules, and biopolitical approaches towards them can be investigated in future studies in the context of animal-human interactions. Lastly, it is important to consider the ethical dimension of the biopolitical approach toward animals and examine the attitudes and practices of animal welfare and rights in the Ottoman Empire, and how they have evolved over time

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APPENDICES

APPENDIX A: FIGURES



Figure 14: A photograph of an equestrian from the Balkans in 1912.[751]

[751] Agence Rol. Agence photographique (commanditaire), "*Balkans [cavalier turc ? et son cheval] : [photographie de presse] / [Agence Rol]*," October 1912, Photograph, Bibliothèque nationale de France, département Estampes et photographie, EST EI-13 (202), https://gallica.bnf.fr/ark:/12148/btv1b6921872z.r=cheval%20ottoman?rk=21459;2#

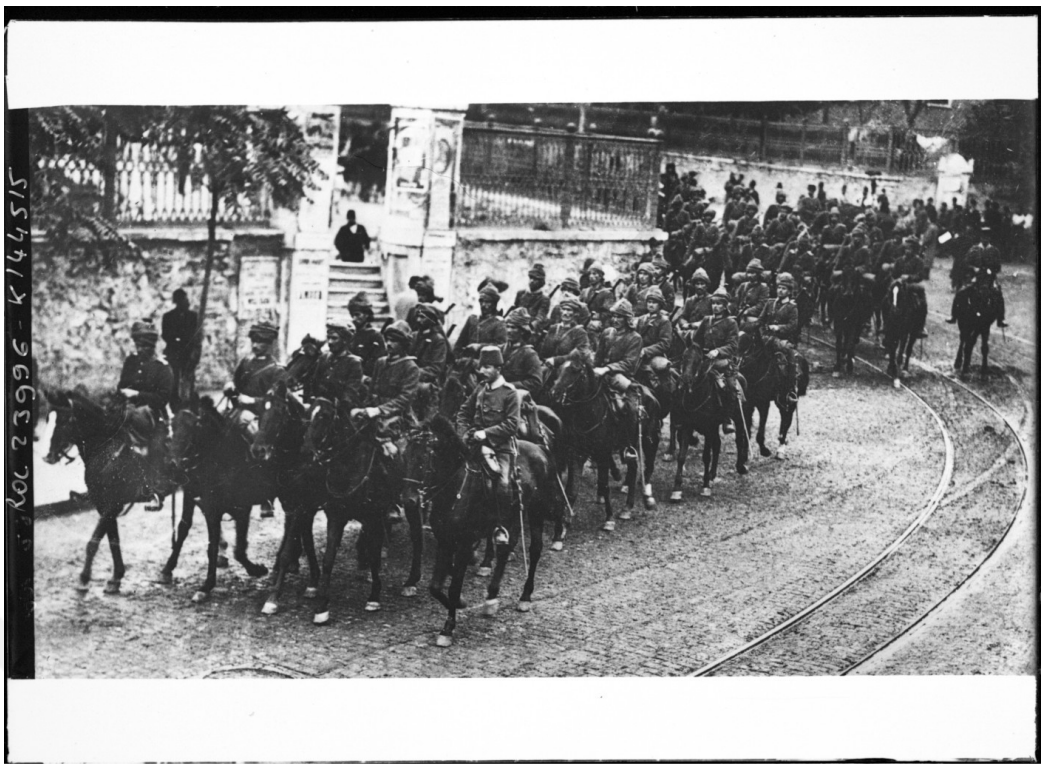


Figure 15: Ottoman cavalry from the Balkans.[752]

[752] Agence Rol. Agence photographique (commanditaire), "*Balkans [cavaliers turcs ?] : [photographie de presse] / [Agence Rol]*," 1912, Photograph, Bibliothèque nationale de France, département Estampes et photographie, EST EI-13 (200), https://gallica.bnf.fr/ark:/12148/btv1b6921759r#



Figure 16: Ottoman soldiers on horseback.[753]

[753] Agence Rol. Agence photographique (commanditaire), *"Turquie [soldats à cheval dans une rue] : [photographie de presse] / [Agence Rol],"* 1912, Photograph, Bibliothèque nationale de France, département Estampes et photographie, EST EI-13 (183), https://gallica.bnf.fr/ark:/12148/btv1b6920884v.r=cheval%20ottoman?rk=42918;4#

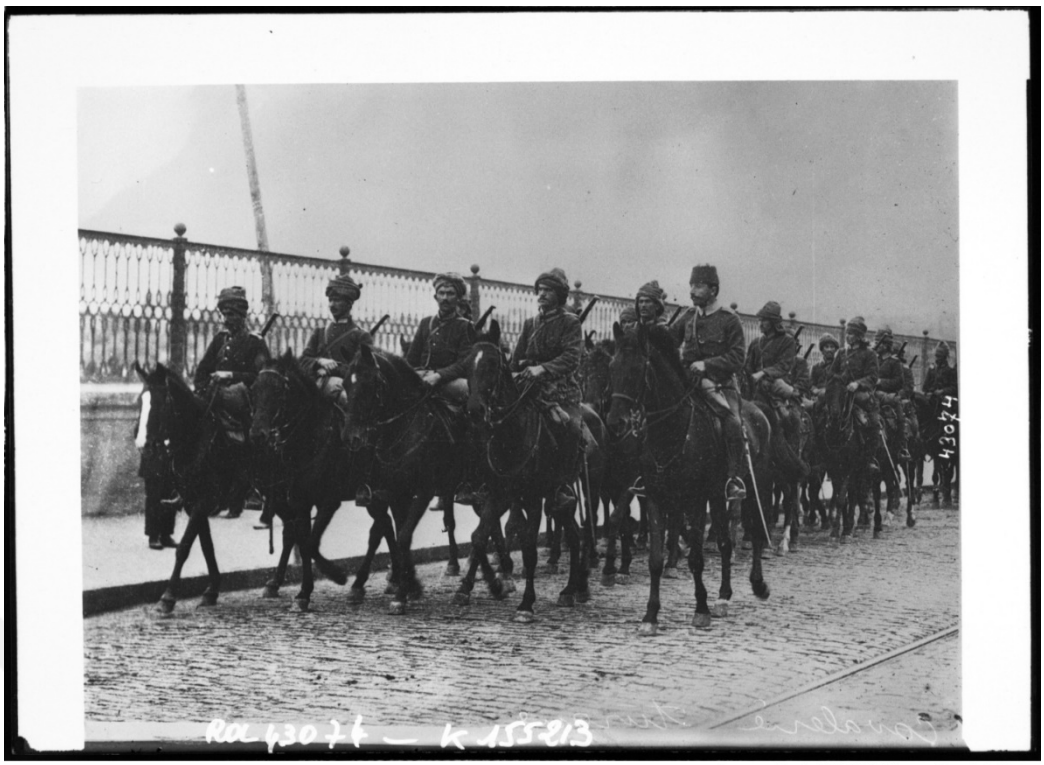


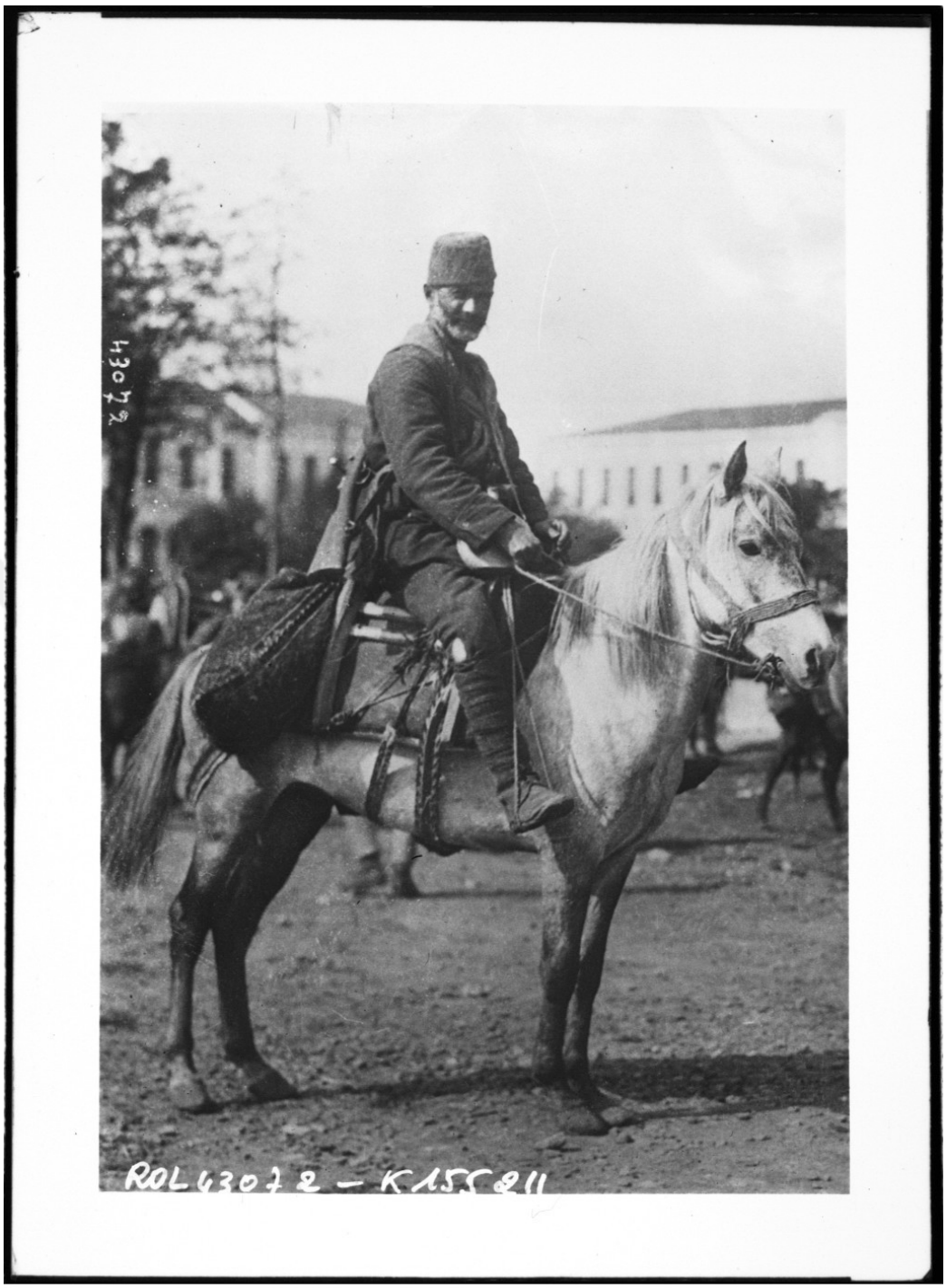
Figure 17: Ottoman cavalry in 1914.[754]

[754] Agence Rol. Agence photographique (commanditaire), *"Cavalerie turque : [photographie de presse] / [Agence Rol],"* November 1914, Photograph, Bibliothèque nationale de France, département Estampes et photographie, EST EI-13 (406), https://gallica.bnf.fr/ark:/12148/btv1b6932491h.r=cheval%20ottoman?rk=64378;0#



Figure 18: In the Balkans, resupplying [Ottoman] soldiers in 1912.[755]

[755] Agence Rol. Agence photographique (commanditaire), *"[Balkans, ravitaillement turc ?] : [photographie de presse] / [Agence Rol],"* November 1912, Photograph, Bibliothèque nationale de France, département Estampes et photographie, EST EI-13 (204), https://gallica.bnf.fr/ark:/12148/btv1b69220216/f1.vertical.r=cheval%20ottoman#



Source gallica.bnf.fr / Bibliothèque nationale de France

Figure 19: An Ottoman cavalry soldier and his horse in 1914.[756]

[756] Agence Rol. Agence photographique (commanditaire), "*Type de cavalier turc : [photographie de presse] / [Agence Rol],"* November 1914, Photograph, Bibliothèque nationale de France, département Estampes et photographie, EST EI-13 (406), https://gallica.bnf.fr/ark:/12148/btv1b6932489f.r=cheval%20ottoman?rk=128756;0#



Source gallica.bnf.fr / Bibliothèque nationale de France

Figure 20: "Balkan Wars, [the retreat of Turkish soldiers, a man is pulling a horse that carries a person in a bad state]".[757]

[757] Agence Rol. Agence photographique (commanditaire), *"Guerre des Balkans [retraite des soldats turcs, un homme tire un cheval qui porte une personne mal en point] : [photographie de presse] / [Agence Rol],"* November 1912, Photograph, Bibliothèque nationale de France, département Estampes et photographie, EST EI-13 (206), https://gallica.bnf.fr/ark:/12148/btv1b6922098r.r=cheval%20ottoman?rk=150215;2#

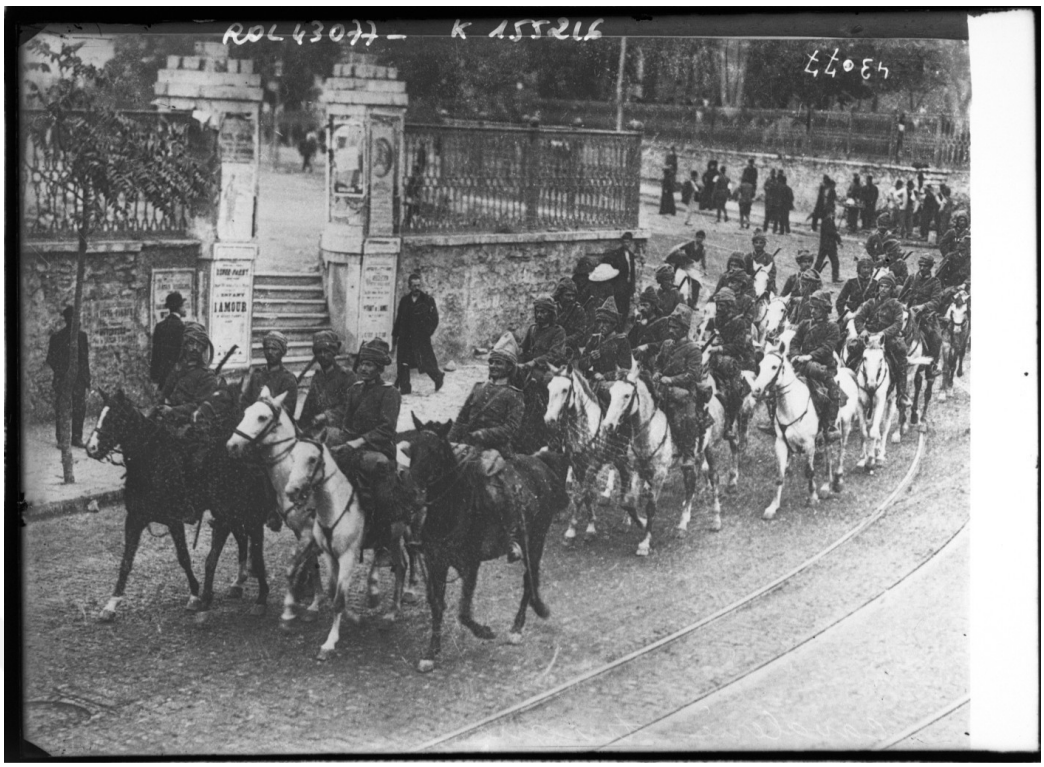


Figure 21: A photograph of the Ottoman Cavalry.[758]

[758] Agence Rol. Agence photographique (commanditaire), *"Cavalerie turque : [photographie de presse] / [Agence Rol],"* November 1914, Photograph, Bibliothèque nationale de France, département Estampes et photographie, EST EI-13 (406), https://gallica.bnf.fr/ark:/12148/btv1b6932494r.r=cheval%20ottoman?rk=214593;2#

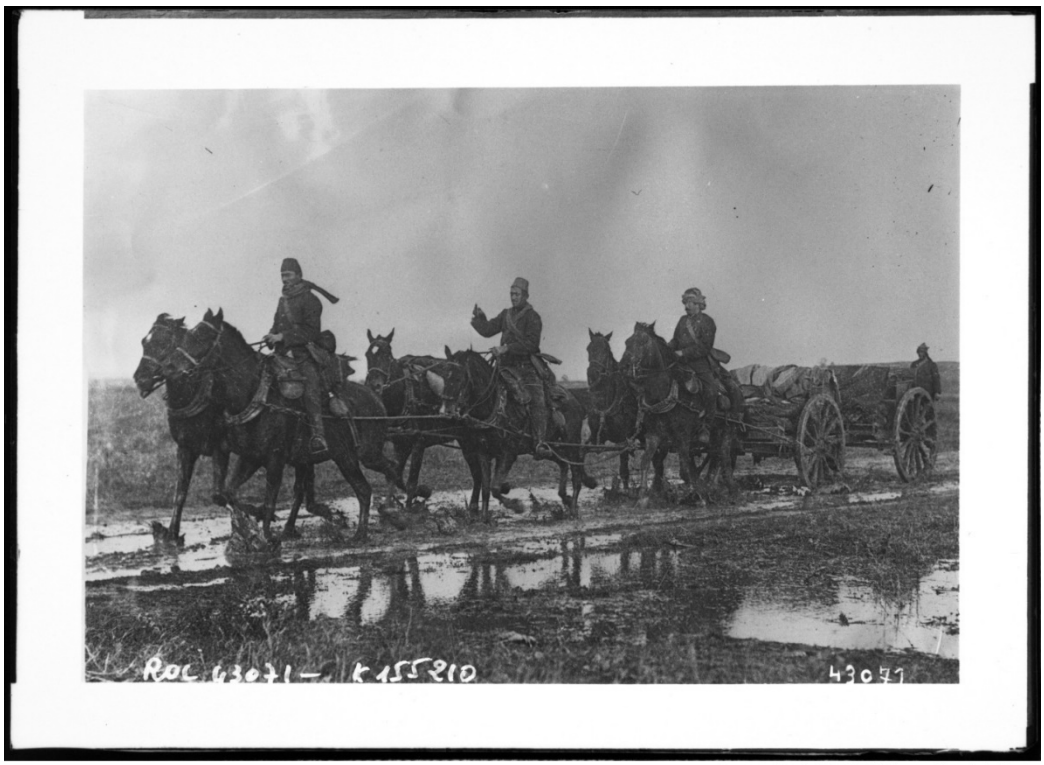


Figure 22: An Ottoman artillery carriage pulled by six horses.[759]

[759] Agence Rol. Agence photographique (commanditaire), *"Artillerie turque [chariot tiré par 6 chevaux] : [photographie de presse] / [Agence Rol],"* November 1914, Photograph, Bibliothèque nationale de France, département Estampes et photographie, EST EI-13 (406), https://gallica.bnf.fr/ark:/12148/btv1b69324881.r=cheval%20ottoman?rk=236052;4#



Figure 23: Artillery guns pulled by horses ridden or carrying packs, as the Ottoman artillery leaves Istanbul.[760]

[760] Agence Rol. Agence photographique (commanditaire), *"Artillerie turque quittant Constantinople [canons tirés par des chevaux] : [photographie de presse] / [Agence Rol],"* November 1914, Photograph, Bibliothèque nationale de France, département Estampes et photographie, EST EI-13 (406), https://gallica.bnf.fr/ark:/12148/btv1b6932501f.r=cheval%20ottoman?rk=257512;0#



[ممالك شاهانه‌ده جنس فرسك اصلاحى : قوزولق چفتلكنده يتشديريلن حمدانى بر آت]

L'amélioration de la race chevaline en Turquie : un cheval Hamedani a Kouzoulouk.

Figure 24: An Arabian horse from Hamdani strain bred in *Kuzuluk* Farm.[761]

[761] "Memâlik-i Şâhânede Cins-i Feresin Islahı: Kuzuluk Çiftliğinde Yetiştirilen Hamdâni Bir At, L'amélioration de la race chevaline en Turquie : un cheval Hamedani a Kouzoulouk," *Servet-i Fünûn* , no.353 (R. 04.10.1313 - M.16.12.1897): 225.



Figure 25: An Arabian horse from Keheilan (*Küheylân*) strain bred in *Kuzuluk* Farm. [762]

[762] "Memâlik-i Şâhânede Cins-i Feresin Islahı: Kuzuluk Çiftliğinde Yetiştirilen Bir Küheylân," *Servet-i Fünûn* , no.355 (R. 18.10.1313 - M.30.12.1897): 260.



Figure 26: Three children holding three foals bred from Hungarian mares to improve Ottoman horses.[763]

[763] "Cins-i Feresin Islahı: Macar Kısraklarından Mütevellid Haymar Tayları, L'amélioration de la race chevaline en Turquie," *Servet-i Fünûn* , no.351 (R. 20.09.1313 - M.02.12.1897): 196.

APPENDIX B: TAMING ZEBRAS

In the 19th century, it was thought that zebras could be domesticated and used just like horses, but it was soon understood that it was not possible. Zebras came to be known as untamable animals in the nineteenth century so commonly that they were described as such even in a children's book published in 1853:

> *The zebra can run as fast as the horse, but the horse is kind to his rider, and carries him with pleasure; while the zebra, if one gets on his back, rears up, and throws him off if he can. He is so obstinate and fierce that he cannot be made to work at all. ... Mr. Buffon says that he saw a zebra in Paris, and that when the animal came there he was extremely wild and fierce, but that afterwards he became a little more tame, so that when two men held him by the bridle another man would venture to get upon his back. This creature could not be any further tamed.*[764]

Thomas Bewick describes the zebra as "one of the most beautiful and also one of the wildest and most untamable animals in nature"[765]. He says that seeing the beauty of this animal, it seems like nature made these animals to "gratify the pride", and to be used "for the service of man", showing his intrinsic understanding of male human superiority over nature.[766] Bewick believes that zebras can be domesticated or in his words, can be brought under subjection because they resemble horses in many ways. According to him this can be possible only through hard work, yet zebras remained free-natured, fierce, resistant and vicious, and when approached too familiarly, they proved to be unsafe. This wild nature, for Bewick, is because the "wretched inhabitants" of the habitat of the zebras do not know of making use of animals other than using them as food. [767] Thus, after hinting at the

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[764] *History of Quadrupeds: Part V*, (Concord, N.H.: Rufus Merrill, 1853), 9.

[765] Thomas Bewick, *A General History of Quadrupeds* (Newcastle upon Tyne: Printed by Edward Walker, 1807), 22.

[766] Bewick, *A General History of Quadrupeds*, 23.

[767] Bewick, *A General History of Quadrupeds*, 23.

superiority of men over nature and animals, he presented his belief in the superiority of the western men over African people. On the other hand, the experiments of Boers to domesticate zebras in the 18th and 19th centuries showed that they were not suitable and comfortable for riding, they lacked the strength and stamina to pull carts and coaches, and they were too vicious to be used.[768] Therefore, even if native people may have tried to domesticate these animals, it was not possible to do so. Moreover, in a 14th-century original veterinary work written in Yemen, Ali Bin Davud describes zebras as untamable, and he asserts that zebra foals cannot be tamed either and when captured, they would not live long. According to him, female zebras can be used for riding, but because they cannot get used to living in the stables, they would not live for long.[769] This strengthens the possibility that people indeed tried to domesticate these animals but failed to do so because of the nature of this species.



Figure 27: "Lord Walter Rothschild with his team of carriage-pulling zebras. Rothschild (1868 – 1937) of the global Rothschild banking family, owned his own zoo." The animal in the front left seems like a horse.[770]

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[768] Pita Kelekna, *The Horse in Human History* (New York: Cambridge University Press, 2009), 219-220.

[769] Abdullah Özen, "Millî Kütüphanedeki Yazma Baytarnameler Üzerinde Tarihsel İncelemeler" PhD diss., (Ankara Üniversitesi, 1999), 110.

[770] "When people tried to domesticate zebras, 1890-1940", Accessed November 15, 2021, https://rarehistoricalphotos.com/riding-zebras-photographs/

Although zebras were attempted to be tamed, and there were some instances when they were harnessed, their use could never be widespread because they could not be domesticated. The photo above (Figure 28) is an example of how zebras were harnessed. Zebras that were shown off this way were certainly a sight of attraction for most people, and it was also prestigious to have tamed them, to harness them, and to ride and use them. As for the zebras, they were stripped from their wild habitat and their characteristic small family group, and the herds which were made of these small groups, and they were brought to unfamiliar and noisy surroundings.

APPENDIX C: THE HORSE IN SELECTED SOURCES: TECHNOLOGY, SOCIAL LIFE, AND SCIENCE

In this part, I presented nine selected sources published from the 19th century to the early 20th century to give an idea about the effect of the transformation in horse care and horse breeding, as well as the perceptions about these animals and their place in daily life. These sources held crucial information about people's mindsets about horses in the era, which can be seen through a deconstruction of the texts and an observation of possible underlying motivations. Otherwise, the information they present needs to be cross-checked with other sources. Especially when considering the Ottoman aim of improving and increasing horses as a response to current needs and developments, these texts could provide background information and context about the transformative era to understand its motives better.

C.1. "A Guide to Training and Horse Management in India" (1878)

Hayes was a veterinarian and the Captain of the Bengal Staff Corps. This is one of the many books he has written that gave detailed information about subjects such as horse care, treatments, surgery, bits, and curbs, riding for both men and women, and hunting.[771]

In his book, Hayes shows a clear concern with the position and the material used for the construction of the stables, their spaciousness and hygiene, and shelter with enough air ventilation. Like his contemporaries, Hayes argues that poorly ventilated stables made horses susceptible to diseases, pneumonia the most

[771] Some of his books are: Veterinary Notes for Horse Owners (1903), The Horsewoman: A Practical Guide to Side-Saddle Riding (1903), The Points of the Horse: A Familiar Treatise on Equine Conformation (1893), Stable Management and Exercise: A Book for Horse-Owners and Students (1900), etc.

among the rest in winters.[772] In another chapter, he dwells about horse feeding and gives advice about which food should and should not be given to horses to keep them healthy and strong, including traditional and regional foods given to horses. Moreover, he offers recommendations about how the grass should be cut, dried and how hay can retain its nutritional elements better. He also mentions the maintenance of the grasslands with correct manuring to produce more quality grass.[773] These ideas are in parallel with Ahmed Cevad's work.[774] Then, Hayes moves on to more scientific explanations about the components and chemical elements and the usual operation of the horse body. Then he moves on to the food that contains these elements to aid the nutrition of horses.[775] The tables he presents bear a striking resemblance to the tables of nutritional chart of horse food by Ahmet Cevad in his book *Hayvanat-ı Ehliye Yetiştirmek* in the Ottoman Empire.[776] An example is given below to compare it with the tables by Ahmed Cevad.

Table 9: Analysis of Grains, according to Hayes.[777]

	Nitrogenous matters	Starch and Sugar	Fatty matters	Mineral matters	Woody Fibre	Water
Indian Corn (Parkes)	9.9	64.5	6.7	1.4	4	13.5
Oats (Stonehenge)	11.4	53	0.6	2.5	20	12.5
Wheat (Kensington)	11.64	68.74	…	1.75	2.6	15.27
Bran (ditto)	12.44	27.94	2.82	2.52	43.98	10.30
Barley (ditto)	13.2	56.9	2.6	2.8	11.5	12
Linseed (Stonehenge)	20	35	20	6	9	10

[772] M. Horace Hayes, *A Guide to Training and Horse Management in India,* (Calcutta: Thacker, Spink, And Co., 1878), 1-10.

[773] Hayes, *A Guide to Training and Horse Management,* 20-31.

[774] Ahmed Cevad, *Hayvanat-ı Ehliye Yetiştirmek*, (İstanbul: Mesai Matbaası, H.1331).

[775] Hayes, *A Guide to Training and Horse Management,* 34-37.

[776] Ahmed Cevad, *Hayvanat-ı Ehliye Yetiştirmek*, 42-48.

[777] Hayes, *A Guide to Training and Horse Management,* 38.

Gram (Parkes)*	22.70	63.18	3.76	2.60	…	11.39
Kúlthee (ditto)*	23.27	59.38	2.20	3.19	…	12.03
Urud (ditto)*	24.73	58.76	1.36	3.17	…	12.44
Peas (Stonehenge)	24	48	2	3	9	14
Beans (ditto)	26	40	2.5	3	14.5	14
Milk (Voelcker)	4.04	4.62	3.08	0.71	…	87.55
Locust Meal (Kensington)	5.87	70.43	1.08	2.87	7.14	12.61
Rice (ditto)	6.40	75.70	…	0.69	3.01	14.20
Rice husks (ditto)	4.18	44.94	1.10	13.18	26.80	9.80
Rye (ditto)	8.8	65.5	2	1.8	6.4	15.5
Bread (ditto)	8.8	57.6	…	1.1	…	32.5
Dates (ditto)	10.93	63.40**	0.19	1.50	2.38	21.60
Eggs (ditto)	14.08	…	10.25	1.65	…	74.02
Brewers' Grains (ditto)	5.87	15.24	…	1.98	7.21	69.70

* "Not including husks" ** "Dates contain 56.41 per cent of sugar."

Similarly, grooming horses was instructed with reference to science. Detailed instructions on grooming, possible diseases of the skin, and instructions on stable routines were mentioned.[778]

Another chapter was about tools of control; these were different bits: curbs, pelhams, and snaffles; and other tools, namely nosebands, bridles, reins, saddles, martingales, stirrups, girths, and saddle cloths. Hayes gave information about all the available varieties and uses of horse bits at the time, together with other tools of control, such as reins, nosebands, and martingales.[779] His suggestions reflect the improvements in horse equipment, including bits. For example, in two different articles in Scientific American in the late 19th century, new types of bits were presented as patented innovations. One of them was an "improved" horse bit

[778] Hayes, *A Guide to Training and Horse Management,* 71-74.

[779] Hayes, *A Guide to Training and Horse Management,* 87-106.

which had a mechanism that could be adjusted instantly from a bit for "a gentle and easy driving" to "a severe bit for curbing frightened or vicious horses."[780] The other improved bit, named "Baldwin Bit," was designed in a way to prevent "the horse from seizing the bit and holding it in his teeth." According to the article, many use "a very severe and cruel bit" for horses with vicious and unreliable behavior, but this bit is convenient for "those who believe in treating the horse rationally and humanely" because it will give control to the driver without cruelty, whether it is a man or a woman who is on the driver's seat.[781]

This book shows that environmental factors played a critical role in deciding the care, nutrition, and accommodation of horses. Through British colonization, modern scientific horse care was introduced upon a long history of local traditions of horse care through such books.

C.2. "Horse-Racing in England: A Synoptical Review" (1893)

This book is helpful to see the transformation of flat horse races from the 17th century to the end of the 19th century. It shows how the horse, as an animal associated with kings and nobles, slowly lost its status as a signifier of such an identity and became popularized through the enthusiasm of flat horse races with the new horse breed, Thoroughbreds.

According to Robert Black, there were no professional riders as jockeys until the last quarter of the 17th century, but the king himself and his friends were usually the ones who raced amongst themselves.[782] During the reign of Queen Anne, an unintentional incorporation of a lower segment of society was introduced in the races; they could now take part in races and bet on horses, while it used to be confined to the elite. Robert Black laments that it turned "'the sport of kings'

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[780] "An Improved Bit for Horses," *Scientific American* 57, no. 12 (1887): 179. http://www.jstor.org/stable/26089402.

[781] "Improvement In Bits for Horses," *Scientific American* 21, no. 19 (1869): 293. http://www.jstor.org/stable/26035102.

[782] Robert Black, *Horse-Racing in England: A Synoptical Review* (London: Richard Bentley and Son, 1893), 2-3.

into a game of speculation for men of straw," who participated in them only for gambling.[783] This was not welcome by the elite horse-owners and horse racers, as it was "their" prestigious activity and was a part of their identity.

As can be seen in the book, during the reign of Queen Victoria sport had turned into an international business. The people from different backgrounds who got into this "business" thought that they were the backbones of this sport. People from countries like the United States, France, Austria-Hungary, Germany, South Africa, China, Egypt, and many other places were buying valuable Thoroughbred studs from Britain now and were competing in races, which culminated during the reign of Queen Victoria.[784] However, according to Robert Black, a contemporary of that era, breeding, and running racehorses have become more precarious and unprofitable than ever before, since covering the costs of the animals was not always possible; few could hope to cover the expenses by winning races.[785]

During the reign of Queen Victoria, the heights of horses increased: while a horse around 154 cm was seen as exceptional "in the old days", now this height had become ordinary, and some horses could reach up to around 182 cm of height-at-withers.[786] This shows that the height of horses increased considerably through selective breeding.

During this period, the public and the horse-racing industry, including the breeders and horse owners, became more intertwined. Black mentions a "name-giving-craze" in public, and the breeders appealed for names in daily newspapers. The public interest in racehorses was so great that an owner of a horse no longer had the luxury of giving the name of his horse himself or leaving it nameless. The people came into a position where they could coerce the owner or breeder of racehorses to their will. Not just giving names became an absolute necessity in these circumstances, but also a story of breeding behind the name that reveals "something indicative of the paternal and maternal origin" was demanded. This

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[783] Black, *Horse-Racing in England*, 16-18.

[784] Black, *Horse-Racing in England*, 208-209.

[785] Black, *Horse-Racing in England*, 211-212.

[786] Black, *Horse-Racing in England*, 259.

was primarily caused by the fact that the bets of the people were the funding of these races and of the "monster prizes" now.[787]

It is seen that in the Victorian era, flat horse races became both a national and an international phenomenon, turning the racehorse from an animal that identifies the noble to an animal that is embraced by a wide array of different classes of people.

C.3. "Paris A Cheval" (1883)

In this book one can find some insights into breeding horses and the horse trade. Moreover, the disruptions caused by new technologies such as omnibuses, horse trams, and steam trams are visible. In this regard, some similarities with Basiretçi Ali Efendi's descriptions of Istanbul are apparent. The French breeding society and races can be compared to that of *Islah-ı Nesl-i Feres Cemiyeti*.

The book shows the detailed relationship between the horse and high society and how the social life of the elite revolved around the horse as an element of identity. Owning a good stable and carriages was a matter of prestige and showing them to others took a considerable part of the day. Manners of horse riding and driving were also an essential component of the book. The author describes the Parisian life formed around horses, and horse carriages; however, it will not be discussed here.

In the preface of the book, written by Gustave Droz, it was complained that making horses faster via breeding ruined the balance of these animals, which in turn disrupted the old ways of equitation, the art of riding; now the horses were larger and faster, sacrificing the harmony between the rider and the horse, and the submission and suppleness of the horse.[788] It even affected hunting: Even though the horses could now run fast in pursuit of foxes and deer, this was against the

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[787] Black, *Horse-Racing in England*, 260-262.

[788] This danger of disrupting the breeds' balance while breeding them selectively was warned by Civani, an Ottoman instructor. Civani, *Teksir ve Islah-ı Hayvanat, Birinci Kısım, Kavaid-i Umumiye* (Darülhilafe: Matbaa-i Hukukiye, 1329), 96.

principle of hunting. He says that hunting is done through calculations, almost like a science, as if playing chess on a horse, and the prey is hunted with deliberate movements, not by brutal force and aggressiveness. However, he says that one cannot play chess on a fast horse and must use force and brutal methods in hunting.[789]

It was complained that the "unfortunate horses" brought from various countries where they were bred in large numbers to Paris were subjected to overwork by the coachers. Moreover, the grooms looked after them badly and stole their oats; as a result, even the strongest horse could not persist in these conditions for long; they either died or became rebellious, forcing the owner to replace them.[790] According to Crafty, even though the law sometimes protects the horse from getting beaten, whipped, falling on the ground, and even being stabbed out of fury, it does not protect them against the brutality of hard work beyond their capabilities, nor does it punish those who subject their animals to intolerable exhaustion for many years.[791]

All types and breeds of horses came from all over France and the world to Paris which were used for different purposes.[792] The author mentions different horse markets that can be found in Paris; these markets, auctions and individual horse merchants sold horses of different types, uses and prices.[793] Among these merchants, there were some situated near the city entrances, inside or outside of the city. They acted as intermediaries between the breeders in the countryside and the buyers. The horses would be brought to them in herds and sold to be used for omnibuses, trams, and other transports. These were strong horses with good training, and non-muscular horses were rejected.[794]

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[789] Gustave Droz, preface to *Paris A Cheval*, xi-xiii.

[790] Crafty, *Paris A Cheval* (Paris : E. Plon et Cie, Imprimeurs-Éditeurs, 1883), 2.

[791] Crafty, *Paris A Cheval*, 9.

[792] Crafty, *Paris A Cheval*, 3-15, 21-26.

[793] Crafty, *Paris A Cheval*, 4.

[794] Crafty, *Paris A Cheval*, 30.

Parallel to the descriptions of Istanbul traffic by Basiretçi Ali Efendi, according to the text, the traffic was less than ideal in Paris, and many coachers did not drive well and caused danger. Especially encounters with omnibuses, which were gradually becoming larger and carrying more passengers, were the most dangerous, and could even be fatal. Omnibuses, defined as "the heavy vehicle of the proletariat," occupied the road, pressed against the sidewalks, and dragged or knocked over other vehicles because of their large size. They were especially dangerous on the slopes. In many places, the whips used by omnibus or cab drivers caused other horses to be frightened, which sometimes caused accidents or gave a hard time to the rider or other drivers. Many times, the drivers did this on purpose.[795] He provides other examples of problems on the streets of Paris, including the sounds and appearance of trams and steam trams.[796] All of these were related to the relationships between drivers, riders, and "bizarre vehicles" that frightened horses.[797]

In another chapter, the author dwells on horse shows and horse races. He mentions a society of breeders whose founders intended the horse shows to encourage breeding thoroughbred horses in France. According to him, it gave excellent results; also, a group of amateurs promoted the production of half-bred horses. These shows were also to facilitate the relations between breeders and buyers. At first, this Society carefully pursued these aims for a very short time.[798] He does not know why the breeders lost their interest in the shows, but they soon formed only a tiny minority of exhibitors. The greatest number of horses sent to the new market opened during the 15 days of horse shows belonged to a few large dealers, who monopolized it.[799] After the steeplechase races, which were supposed to encourage breeders, "*la Société hippique*" offered other shows. One of those was

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[795] Crafty, *Paris A Cheval*, 92.

[796] Crafty, *Paris A Cheval*, 34, 36-38.

[797] Crafty, *Paris A Cheval*, 57.

[798] Crafty, *Paris A Cheval*, 146.

[799] Crafty, *Paris A Cheval*, 149.

defined as a very incoherent show, which consisted of a parade of a hundred horses of all types and sizes ridden by their owners, grooms, and professional horsemen, and the author questions this competition's effect on horse breeding.[800] The mail coaches show that presented the horses, the harnesses, and the vehicles had the same result; it was not helpful and created discontent.[801] This shows an attempt to encourage horse breeders, even though it was not very successful.

According to the author, the fury of bets on flat races has done more for horse breeding than the encouragement of the Equestrian Society.[802] He says that, in the past, a man whose "principal pastime was to follow the races" was seen as a man who did nothing. But now, he was regarded as the busiest man who did not miss a race. Still, he says the passion for horses in France, in general, has not reached the level of intensity in England.[803]

Overall, the book successfully presents a picture of Paris concerning horses through the eyes of the writer and the illustrator. In the drawings, the tails of the horses are always docked, which reflected the fashion of the era. In the preface written by Gustave Droz, we see yet again the likening of horses to machines. The descriptions about how people handled horses in the first part also suggests that people treated them as if they were biological machines.

It is seen that even though there were many horse shows, they had many inherent problems. They were not used effectively to support horse breeding; although it did arouse a lot of public interest, these shows could do much more. Flat races lured many people from different backgrounds to bet on horses and watch the races. However, horse races were still a profound aspect of high society.

The diversity of merchants, the options of different breeds and types of horses, the numerous horses sold in 19th century Paris, and the herds of horses brought to the merchants near the city borders from the countryside show a striking

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[800] Crafty, *Paris A Cheval*, 168, 171.

[801] Crafty, *Paris A Cheval*, 171.

[802] Crafty, *Paris A Cheval*, 306-307.

[803] Crafty, *Paris A Cheval*, 304.

contrast to the Ottoman scarcity of horses. "Horses bought for their strength" indicates that the horses brought from the countryside could be used in heavy work. It was also easy to find horses that could pull carriages, omnibuses, and trams. Animals with a height between 140-145 were defined as ponies in Paris,[804] while it was hard to find horses higher than that in the Ottoman Empire. The Ottomans were at a disadvantage because they had to import heavier horses or meticulously search for the strongest and tallest horses amongst their lighter horse breeds for heavy work.

On the other hand, there were many harshly treated, neglected and malnourished horses besides well-cared ones in Paris, just as in Istanbul. Like the pack horses, omnibus horses, and tram horses of Istanbul in the 19th century, Parisian horses were often subjected to overwork. There were also sights of beating horses, and falling horses, as indicated in the book and one of its drawings, but the author says that the law punished such people. In a drawing on page 9, a fallen horse is whipped by its owner, and various people try to prevent it. This illustrated sight is strikingly like those complained about in *İstanbul Mektupları*.

C.4. "A History of the Percheron Horse" (1917)

This book offers a lengthy history of the Percheron horse breed, one of the most prized draft horse breeds in the world, which originated in France, in the old province of Perche. These horses were not only useful for farm work, but also in artillery and carriages, and were capable of doing heavy work. In this book, one can see several points covered in this dissertation, such as the biopolitics of the body of the horse, its different uses adapting to changing circumstances, traditional/oral knowledge and modern scientific knowledge, breeding societies, stud books, horse trade, state stud farms and stallion depots.

At the end of the 17th century, along with other animals and animal products, foals were sold at the market of Perche, which were brought to the

[804] Crafty, *Paris A Cheval*, 139-140.

markets in Paris.[805] It was a region where livestock and especially good horses were raised in the 17th century. During the reign of Louis XIV, the first modern state studs were established, and selected horses from royal stables were used as stallions for people's mares to improve their horses according to the need. *Haras National du Pin* was the stud farm related to the horse breeders of the Perche.

During the eighteenth century, breeding horses in the Perche and other regions of France became more important.[806] In the 17th and the beginning of the 18th century, that is, during the reign of Louis XIV (1638-1715), the heavier horse type was still in demand.[807] However, during the 18th century, lighter horses for the cavalry were sought. The horses in the French government stud farm "*Haras du Pin*" favored horses that could serve in the cavalry.[808] Accordingly, the French government aimed to modify and use the Percheron breed for the army, both for the cavalry and artillery; therefore, it wanted to make it a lighter horse that was active but still retained its good qualities, as the authors make clear. For this purpose, it used the state stud farm, *Haras du Pin*, to supply stallions for the mares of the Perche. The need for more horses in 19th century France also showed itself through the establishment of new stallion depots over the existing depots and *haras* with a royal ordinance in 1833.[809] However, the farmers and breeders were not happy with turning their horses into lighter types. At the beginning of the 19th century, there were complaints about the "annihilation" of the Percheron breed, that there were no longer heavy types of stallions, and that the breed should be reestablished by using and distributing the best stallions in the district.[810]

In the first half of the 19th century, draft horses were ubiquitous in France, and at that time, the director of *le Pin* confirmed that a draft horse was too common

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[805] Alwin Howard Sanders and Wayne Dinsmore, *A History of the Percheron Horse,* (Chicago: Breeder's Gazette Print, 1917), 25.

[806] Sanders and Dinsmore, *A History of the Percheron Horse,* 28.

[807] Sanders and Dinsmore, *A History of the Percheron Horse,* 26.

[808] Sanders and Dinsmore, *A History of the Percheron Horse,* 74.

[809] Sanders and Dinsmore, *A History of the Percheron Horse,* 188-189.

[810] Sanders and Dinsmore, *A History of the Percheron Horse,* 55, 59.

for the stud farm.[811] However, the director of *le Pin* used the best draft horses for breeding, despite the government inspectors' opposition to using them other than farm work. The government wanted the mares to be served only by blood horses to produce cavalry horses.[812] Nevertheless, in the 19th century, the stud farm also started to keep heavy draft stallions.[813]

The army and artillery preferred heavier horses, yet too drafty or heavy horses were not useful because they lacked the vigor or the speed of lighter types. Because of the use of too many large and heavy stallions, the Percheron breed was becoming heavier, as the farmers wanted, but as opposed to the needs of the army. At a meeting held by the Agricultural Society of Mans in 1845, it was protested that the horses had become too heavy, and even if they were good horses, it was not what the artillery needed:

> *But, really, what do we want today? Light, vigorous draft horses for our artillery, mail coaches, and diligences, the number of which has been doubled since twenty years ago. We need horses capable of doing about 7 to 10 miles an hour, at least, in harness. Shall we obtain these results with heavy horses, only suitable for heavy draft work and large exploitations?* [814]

Among other things, this excerpt also shows that in 1845, besides the need for artillery, there were more stagecoaches and mail coaches, which meant an increase in the demand for light-draft horses. However, farmers preferred heavier draft horses because of the change in agricultural techniques. Increased demand for grain and modern methods urged the farmers all over France to stop using oxen for plowing and shifting to the use of heavy draft horses instead.[815]

According to Sanders and Dinsmore, although there were no exact records of the origin of the Percheron horse, it was a modern creation:

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[811] Sanders and Dinsmore, *A History of the Percheron Horse,* 77.

[812] Sanders and Dinsmore, *A History of the Percheron Horse,* 81.

[813] Sanders and Dinsmore, *A History of the Percheron Horse,* 75.

[814] Sanders and Dinsmore, *A History of the Percheron Horse,* 103.

[815] Sanders and Dinsmore, *A History of the Percheron Horse,* 103.

> *Prior to the Napoleonic wars the Percherons were practically all of the diligence type, and it was not until about 1820 that a demand for heavier horses for agricultural purposes manifested itself sufficiently to induce a studied effort at increasing the size and weight of the breed. The French government gave this movement support, ... and the farmers of The Perche persisted in their efforts in this direction...* [816]

In this sense, the support of the government and the efforts of the people were the deciding factors for this breed.

The book gave a large part to the Mortagne Congress in 1843, where the history and improvement of the Percheron breed were discussed. In the congress, the idea of improving or modifying horse breeds, a scientific approach to horse breeding and carefully selecting breeding horses can be seen. There were discussions about how to modify and improve the Percheron breed to make it suitable especially for the army and trade. [817] They also discussed the origins of this breed.[818]

As was mentioned in the previous chapters, giving prizes for well-bred horses was a common method for improving horse breeding, and 19th-century France also used this method. This book reflects the importance given to the practice of giving awards and prizes to horse breeders to encourage them.[819] The book also gives place to the establishment of stud books in both the United States and France.[820] At the time, there was only "The General Stud Book" in England which contained data and pedigrees of the Thoroughbred horses; there was not a similar stud book for draft horses yet. Sanders and Dinsmore argue that the stud book for thoroughbred horses was not arranged by a specific organization. They were private records kept by the breeders for practical needs, for reasons like

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[816] Sanders and Dinsmore, *A History of the Percheron Horse,* 34.

[817] Sanders and Dinsmore, *A History of the Percheron Horse,* 45-46.

[818] Sanders and Dinsmore, *A History of the Percheron Horse,* 49-51.

[819] Sanders and Dinsmore, *A History of the Percheron Horse,* 59, 82-85, 98-99, 193.

[820] Sanders and Dinsmore, *A History of the Percheron Horse,* 77-80, 180-184, 226.

preventing fraud.[821] In this respect, keeping stud books started to shift from the compilation of private records for practical uses to organizational and methodical record-keeping for horses. For example, the sires (the stallions) of the *Haras de Pin* were recorded in detail, and their names, physical properties, the mares they had served, and the foals reproduced from them, and the notes about their useful work can be seen in the inspectors' notes.[822] When the Percheron stud book of France was established, Percheron stallions were being imported by many countries, including Russia, Austria, Germany, Italy, and Britain. It was believed that with the aid of the studbook, the animals could now be classified by their pedigrees and the strains of blood, revealing the best ones amongst them and making it easier to select breeding animals to improve and modify the breed according to the needs.[823]

Horse breeding communities were another essential part of horse breeding in the 19th century, and there was also a community for the Percheron breed. According to the book, in 1836, a horse-breeding community was founded in France, in the district of Perche, which organized horse exhibitions and gave awards to the best horses to encourage the "maintenance and improvement of the Percheron breed". It was organized by prominent people including the best farmers of the district.[824]

According to Sanders and Dinsmore, the Percheron breed was sought by breeding societies of Switzerland, Germany, and upper Normandy, and the prizes given to the best broodmares of the Perche was continuing in 1844. Aside from the state stallions, there were many stallions that were privately owned, and these horses "were inspected, authorized and pensioned by the government officials according to their merits".[825]

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[821] Sanders and Dinsmore, *A History of the Percheron Horse,* 179-180.

[822] Sanders and Dinsmore, *A History of the Percheron Horse,* 77-80.

[823] Sanders and Dinsmore, *A History of the Percheron Horse,* 229.

[824] Sanders and Dinsmore, *A History of the Percheron Horse,* 189.

[825] Sanders and Dinsmore, *A History of the Percheron Horse,* 190.

Other than the modification of the height, weight, and other physical attributes of horses, they were also branded for identification and recording and were modified according to fashion. According to the book, "the successful management of Percherons" can best be achieved by permanent marks to identify "individual animals". Branding them with numbers and recording them in the studbook would give no chance for mistakes.[826]

In the book, there are detailed explanations about horse care, given by the breeders at the time. Clean, well-ventilated, and well-kept stalls, fresh water, sweet hay, clean oats, and bran were advised.[827]

It is reported that around the mid-19th century, the popularity of the Percheron breed had risen, especially for stagecoaches to transport mail, goods, and people between cities. Even after the railroads, these horses were useful: thousands of Percherons worked for omnibuses in Paris. [828] In the early 1880s, around 7000 horses each year were sent from Perche to Paris to be used in omnibuses. These horses were selected from stallions unsuitable for breeding and barren mares.[829]

Besides the local horse trade, large numbers of Percheron studs and mares were exported to the United States, and foals were bred specifically for this purpose. By 1868, producing draft horses with imported stallions and mares from France became a profitable business in the United States.[830] In 1916, 9.044 Percherons were added to the records of the Percheron Society of America, and of these horses, only 140 were imported; the rest were American-bred.[831] This shows that the breeders had successfully used imported horses to produce these animals. The French Embargo on the exportation of horses to preserve its horse populations

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[826] Sanders and Dinsmore, *A History of the Percheron Horse,* 583.

[827] Sanders and Dinsmore, *A History of the Percheron Horse,* 511-560.

[828] Sanders and Dinsmore, *A History of the Percheron Horse,* 102-103.

[829] Sanders and Dinsmore, *A History of the Percheron Horse,* 218.

[830] Sanders and Dinsmore, *A History of the Percheron Horse,* 139-142.

[831] Sanders and Dinsmore, *A History of the Percheron Horse,* 476.

during the war also stimulated the American breeding of Percherons.[832] The Percheron breed was the most preferred draft horse breed in the US; 64 percent of all draft horses recorded were Percherons.[833] These high numbers made it possible for the US to export horses to Europe during the First World War. According to the authors, 774,947 horses and 255,014 mules were exported; artillery and transport horses were the most demanded types of these animals. Percherons and half-breed Percherons were at least 75 percent of the horses exported for artillery and transport work in the military.[834]

Overall, it is seen that although the French government supported and encouraged the production of Percherons, the breeders and farmers themselves were eager for the improvement and production of their horses. The breeders formed societies, gave awards and prizes, worked for the establishment of a studbook and sometimes opposed the policies of the government which aimed to make their horses lighter and more suitable for the cavalry. The farmers and breeders wanted larger and bigger draft horses and worked towards it, not only for farm work but because there was an increasing demand for such horses. They were eager for horse breeding, partly because they made a good profit from it; while these horses were sold in France, they were also exported to many countries, mainly to the United States, and countries like Germany, Italy, Austria, and even Britain where Thoroughbred horses were produced.

It is seen throughout the book that breeder societies in France played a prominent role in the betterment of horse breeds in the 19th century. On the other hand, in the Ottoman Empire, the only horse-breeding society was established in 1911 by prominent people and was an elite foundation,[835] and could not include the farmers as expected. Moreover, it was founded relatively lately. This may explain the limits of the Ottoman horse-breeding community, still, it organized horse shows and races, which were well-received.

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[832] Sanders and Dinsmore, *A History of the Percheron Horse,* 497.

[833] Sanders and Dinsmore, *A History of the Percheron Horse,* 494.

[834] Sanders and Dinsmore, *A History of the Percheron Horse,* 495.

[835] Islah-ı Nesl-i Feres Cemiyeti.

First in the United States, and then in France studbooks for the Percherons were established. These were preceded by a studbook for Thoroughbred horses in England. As was discussed before, keeping detailed records of breeding horses and pedigrees systematically -which was also a characteristic of the 19th century- gave more control over the modification and improvement of horses as well as credibility over their breed.

The French state inspected and supervised the state stallions. This control and inspection of stallions were also existent in the Ottoman Empire, and it was a 19th-century practice.

French draft horse-breeders docked their horses' tails.[836] As was the trend in Europe in the 19th century, the tails of horses were amputated for a "fashionable" look, especially among the higher stratum of the society both for carriage and riding horses. Draft horse breeders also docked the tails of their horses for the same reason. For example, the tails of the Belgian draft horses were also amputated for this fashion, making them vulnerable to flies, since their tails protected them.[837]

C.5. "Animal Plagues: Their History, Nature, and Prevention" (1882)

According to George Fleming, who was the president of the Royal College of Veterinary Surgeons in London and was a member of many veterinary associations in Europe, knowledge about the history of contagious diseases in animals is so important that it could help the prevention of the spread of these diseases. He says that because of the ignorance of this history, in 1839 and 1841, these "terrible disorders" were allowed to invade the shores of Britain, and from there spread the contagious pleuro-pneumonia "over nearly the whole world".[838] His book about animal plagues listed the diseases that affected animals, including horses, in the first half of the 19th century. These diseases sometimes affected

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[836] Sanders and Dinsmore, *A History of the Percheron Horse,* 113.

[837] L. Devriese, "Staarten Couperen : Modeverschijnsel in de Late 19de Eeuw Geintroduceerd bij het Belgisch Trekpaard," *Vlaams Diergeneeskundig Tijdschrift* 87 (2018): 47-52.

[838] George Fleming, *Animal Plagues: Their History, Nature, and Prevention,* vol. 2, *From A.D. 1800-1844* (London: Baillière, Tindall, and Cox, 1882), xii.

humans as well, and the locations ranged from continental Europe to Ireland, England, Egypt, India, Russia, and America.[839] Some of the diseases that affected horses were "malignant yellow fever", glanders, influenza, epizooty of Bilious fever, and others. It is seen that the various forms of influenza were the most common. The book included diseases, symptoms of these diseases, and sometimes the treatments applied to domestic animals like dogs, cats, cattle, horses, pigs, and wild animals such as foxes, wolves, and various types of birds. A summary of the horse diseases that appeared in the first half of the 19th century, seen and documented in the book will show the seriousness of the matter throughout the globe, which makes it easier to understand why modern states established modern veterinary establishments. Most of the diseases were fatal, and even when infection did not result in death, it caused serious loss of horsepower and costs for treatment. Even though the book contained the contagious diseases that occurred in animals as well, as dictated by the scope of this study, only the diseases which affected horses are listed below.

1800: Epidemic malignant yellow fever, which was fatal, was seen among horses besides other animals in America and Spain.[840] This year, glanders also broke out among the horses that were sent to Egypt for the expedition. According to Fleming, this malady was already prevalent in England, particularly among the cavalry and artillery horses, and possibly some of the infected horses were sent on the expedition, causing the disease to spread to healthy horses.[841]

1802: In Ireland, influenza was seen among horses in 1802, and some died because of that.[842]

1803: When influenza appeared among humans in England and France, animals were also affected by this disease, including horses. It was unknown if the

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[839] George Fleming, *Animal Plagues: Their History, Nature, and Prevention,* vol. 2, *From A.D. 1800-1844* (London: Baillière, Tindall, and Cox, 1882).

[840] Fleming, *Animal Plagues*, 1.

[841] Fleming, *Animal Plagues*, 2-3.

[842] Fleming, *Animal Plagues*, 4-5.

disease of the animals preceded or followed the influenza of humans. Fleming says that when the disease was at its worst in humans, several horses also died very suddenly and that at the end of 1802 and the beginning of 1803, horses everywhere were "unusually diseased" and many of them died, including the horses of the farmers.[843]

1804: Fleming reported that epizooty appeared among horses during the winter of 1804-1805 in Holland, Germany, and Northern France. It was a form of influenza.[844]

1805: In 1805, influenza rapidly spread among the horses of Germany; however, the disease did not show the same characteristics in all places. This malady was also seen in Austria.[845]

1807: This year, catarrhal fever, influenza, or brain-typhus spread in East Prussia. It was seen "among the highly-fed, well-bred horses … near the high-roads". Also, in 1807-1808, glanders was spread in France; it was caused by a horse dealer who brought 20 diseased horses and sold them, and they infected healthy horses.[846]

1809: A bilious fever in horses was seen in Switzerland.[847]

1811: Influenza was spread epizootically in Piedmont.[848]

1812-1814: Russian army horses suffered from glanders. Moreover, in 1812, 1813 and 1814, a form of influenza infected the horses of the armies of Continental Europe. Influenza in horses was also seen in Switzerland and France.[849]

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[843] Fleming, *Animal Plagues*, 6.

[844] Fleming, *Animal Plagues*, 14.

[845] Fleming, *Animal Plagues*, 18-19.

[846] Fleming, *Animal Plagues*, 22.

[847] Fleming, *Animal Plagues*, 26.

[848] Fleming, *Animal Plagues*, 31.

[849] Fleming, *Animal Plagues*, 32, 36.

1815-1819: In 1815, serious malady, glanders, and farcy appeared among horses in England, and three out of five horses died. Fleming says that this malady reappeared in 1823, but it was not as fatal.[850] It was also reported that, in Ireland, great mortality of horses was witnessed at the beginning of 1817, however, according to him, this was likely caused because of starvation rather than a disease, as there was scarcity that winter. That year, in France and Piedmont, many horses died because of an epizootic caused by bad forage.[851] In early 1819, influenza in horses was reported to be "very prevalent and total" in England.[852]

1820-1822: Influenza among horses in Saxony and Prussia from 1820 to 1822 was spread, and the disease extended to the continent.[853]

1823: This year, influenza that affected the horses in England between 1815 and 1819 reappeared.[854]

1824: Fleming says that for several years, especially between 1824 and 1828, horses almost all over Europe suffered a type of epizootic fever. It also affected army horses. According to him, this disease, which caused great suffering in horses, was strengthened when the horses were kept in certain circumstances: "great fatigue, musty hay, bad water, marshy localities; cold, damp, draughty stables; poor pasture; cold, foggy weather" could be some of these factors.[855]

1826: Fleming says that glanders became "unusually frequent" in England in 1826 -1827. This disease caused "the destruction of a vast number of horses". This year, also in Colmar, France, an eye disease called catarrhal ophthalmia spread rapidly and affected both civilian and army horses (particularly dragoons) in large numbers.[856]

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[850] Fleming, *Animal Plagues*, 55.

[851] Fleming, *Animal Plagues*, 63.

[852] Fleming, *Animal Plagues*, 72.

[853] Fleming, *Animal Plagues*, 86.

[854] Fleming, *Animal Plagues*, 88.

[855] Fleming, *Animal Plagues*, 102-106.

[856] Fleming, *Animal Plagues*, 124-125.

1828: Once more, influenza spread in England in 1828, and it was more common and fatal in London in comparison to other provinces.[857]

1830: It was reported that a disease, which was described as cholera by the contemporaries, affected the horses in Edinburg in 1830. The same year, a "mysterious disease" appeared among the horses in France, in one of the largest proprietors in Somme. As in other cases, a veterinarian was sent to treat them. The veterinary, M. Renault, reported that: "Among the persons who were consulted, some attributed it to the unhealthiness of the stables; others to the bad quality of the water; some believed it to be contagious; the people of the establishment believed all sorts of things; the owner knew not what to think in the midst of all these contrarieties, and was in absolute despair."[858] Other than these, in France, an epizooty of diabetes attacked horses this year. Also, an outbreak of grease (horse-pox) was seen in Berlin, Germany. Moreover, "vast swarms of gnat" from the marshy regions of Serbia caused the death of "hundreds of horses, cows, and swine" in Austria, Hungary and Moravia. The book mentioned the diseases as far as Amazon. It was reported that horses were abundant in Marajo Island and "the president of the province of Para made an agreement with a company" to slaughter them for their skins. Because the slaughters were made carelessly, it caused a disease that caused the death of all the other horses. [859]

1831-1832: This year, epidemic influenza, which was named "la grippe" in Paris appeared in Europe among humans, and horses also got sick with similar symptoms.[860] Moreover, when cholera affected people in Warsaw, cavalry horses situated there were also affected by an epizooty.[861] In Punjab, stud horses were affected by an epidemic disease, which was cured by a "Mahommedan". In

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[857] Fleming, *Animal Plagues*, 139.

[858] Fleming, *Animal Plagues*, 151-152.

[859] Fleming, *Animal Plagues*, 166.

[860] Fleming, *Animal Plagues*, 168.

[861] Fleming, *Animal Plagues*, 178.

gratitude, the Sikhs "repaired and beautified his temple".[862] Glanders was seen in Holland in 1832.[863]

1833: In London, when people suffered from influenza, horses were also affected by it. The disease spread rapidly. It was seen as curious that while there were some districts affected by the disease, there were other districts where the horses were healthy. The veterinarians tried to find out the reason, and although there was not a prominent difference in the districts in terms of stables and stable management, they found out that "the probability of the disease seemed to be in a tenfold ratio with the number of horses inhabiting a stable". This malady, which was seen throughout England, affected larger stables more than the small ones.[864]

It was reported that the horses recovering at the veterinary school near Paris got yet another disease and it also infected healthy horses in 1833. In the same year, the horses in France also suffered from a disease that was like the "grippe" that French people were suffering from at the time throughout the country.[865]

1836: Starting in 1834 and 1835, but more prominently in 1836, horses in England and Scotland were severely affected by a form of influenza, and great numbers of them died.[866] Horse influenza also affected Continental Europe at this time.[867]

Fleming says that it had been observed that in the late 18th century and the beginning of the 19th century, catarrhal nervous fever with different complications was common throughout Germany and other countries in Europe. This disease was referred to as "horse plague", "nervous catarrhal fever", "chest disease", "epizootic lung-and-liver inflammation" and "influenza". He says that "since 1821, this disease has broken out again, now here, now there, in a variety of forms, and has

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[862] Fleming, *Animal Plagues*, 172.

[863] Fleming, *Animal Plagues*, 203.

[864] Fleming, *Animal Plagues*, 203-204.

[865] Fleming, *Animal Plagues*, 205-206.

[866] Fleming, *Animal Plagues*, 268.

[867] Fleming, *Animal Plagues*, 283.

caused great loss in studs, in the public and cavalry stables".[868] In 1836, the disease persisted. It was noted that between 1835 and 1836, glanders were frequently seen in Prussian provinces.[869]

1837: This year, influenza among humans was prevalent in many countries, including Scotland, England, Russia, Sweden, Denmark, and France. At the same time, animals, mostly horses, were affected by influenza, in places such as Glasgow, London, Medoc (France), as well as in Germany. It was reported that it was a dangerous disease in Germany and many horses died because of it. In 1839, it persisted. This same disease was also seen among broodmares in Bavaria in 1837 and 1838. A similar disease among horses was observed in Germany during that time.[870] In 1837, in South Africa, a great number of horses died after a severe drought at the Cape of Good Hope.[871]

1838: Fleming says around 1838, veterinarians were preoccupied with a serious disease of horses like syphilis, which attacked the generative organs. This disease only affected stallions and mares and did not influence horses that could not breed, that is, geldings and foals. The origins of the malady were not certain, and it could have originated in Russia, but it was first discovered in Prussia, in 1796. It was observed in Prussia and Germany from time to time after that date, and it sometimes attacked the State Stud Farm in Prussia, Trakehner. In a few decades, it spread to Austrian Empire, especially in Bohemia. In 1830, it was in Switzerland for the first time, then it was seen in France. It caused serious damage to some of the districts. After 1842, Prussia managed to control the disease; only a few horses were affected that year. Fleming attributes this success to "the wise and rigorous sanitary measures enforced by the government of that country in 1840". In Bohemia, the disease prevailed seriously. Also, the horses in Russia were affected by the malady seriously, and it was also seen in Russian imperial breeding establishments. While the malady did not spread to England, Italy, and Belgium, it

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[868] Fleming, *Animal Plagues*, 283.

[869] Fleming, *Animal Plagues*, 288.

[870] Fleming, *Animal Plagues*, 293-299.

[871] Fleming, *Animal Plagues*, 306.

was observed in Algiers in 1847. In 1855, it was very widespread in Algeria, and it caused "great destruction" and high mortality of horses belonging to the native tribes there. It is supposed that it was transmitted from the government *haras* of Tarbes in France to Algeria. The duration of the disease of an infected horse could be lengthy; it ranged from 4 months to 15 months.[872]

1839-1843: From 1839 to 1841, in much of Europe, a general form of influenza appeared among horses. It was observed to be more malignant than before, and it was especially seen in large stables crowded with horses.[873]

In Fontainebleau, near Paris, an epizooty broke out and affected horses the most in 1839-1840. The horses watered from dirty ponds were usually affected while those which drank from clean wells stayed healthy. The horses which were worked severely were also susceptible to the disease.[874]

In 1840, horses in Germany, England, and France suffered from influenza. Post and coach horses, farm and cart horses, stabled horses, and horses in the pasture (although less affected than stabled horses) were the most susceptible horses in England. In France, "young and vigorous horses, employed as diligence or post animals", carriage and riding horses, and heavy draft horses were affected mostly.[875]

In 1840 and 1841, French Military Train horses in Algeria suffered great losses from glanders and farcy. It was reported that 1900 horses out of 2400 died in 1840, and 200 horses were lost in 1841 because of the disease.[876]

In 1840-1843, influenza or typhus prevailed among horses in France, England, and Germany. As an example, Fleming gives the accounts of a veterinarian in Stade, Germany. In this place, the disease was first seen among cavalry horses, and older horses were seen to be more susceptible to the disease

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[872] Fleming, *Animal Plagues*, 308-318.

[873] Fleming, *Animal Plagues*, 319.

[874] Fleming, *Animal Plagues*, 436.

[875] Fleming, *Animal Plagues*, 437, 439, 440-441.

[876] Fleming, *Animal Plagues*, 448.

than the young ones. He says that it is because the old horses "were hard-worked while the five-year-old horses were nearly all gently ridden". Moreover, most young horses were in artillery barracks where the disease was not present. In 1841, it was reported that fresh horses aged between 4-5 years old came from the remounts to the barracks where they got the disease, and 6 of them died. Another account from Germany stated that the disease appeared mostly in stables where a great number of horses were kept together rather than the horses kept in the open air, in pastures. Therefore, it was seen in cavalry horses at the depots. [877]

In France, influenza attacked young horses in the remount depot of Saint-Avold, in 1841. Many horses were lost in a matter of days after getting the disease, and then the horses which were being treated were also attacked by a form of glanders.[878] Fleming also gave the accounts of various veterinary surgeons' reports and observations of this disease in the following pages. As in other cases of severe disease among horses, very detailed and long information and reports were given on the subject. This indicates the importance given to horses.

This long but necessary summary of the diseases documented in the book which included the ones suffered by horses between 1800-1843, showed most remarkably the serious damage inflicted upon the aims for improvement and increasing the number of horses on the part of the state, the loss of labor power and economic loss on the part of both people and the state, and suffering and death it caused upon horses. The frequency of maladies and the large area that various fatal diseases reigned in are noticeable; they occurred almost every year in some places in different forms. Mainly, influenza and glanders were the most common diseases encountered. Detailed symptoms are given for most cases throughout the book, by quoting the veterinarian surgeons, who witnessed them in their animal patients. Moreover, some relations between human diseases and animal diseases are made, and the coincidences of these are pointed out in the book. In general, when encountered with an epizooty, the causes were investigated firstly in the sanitary or hygienic conditions of the stables or the pastures of the animals, including the

[877] Fleming, *Animal Plagues*, 460-461, 463.

[878] Fleming, *Animal Plagues*, 464, 467.

weather conditions, water, and food they are given. In most cases, the diseases spread more quickly in large establishments where the numbers of horses were significant. It also showed that, in the first half of the 19th century, contagious diseases among animals were not only prevalent in the Ottoman Empire but in many parts of the world. All the damage these diseases caused to horses made veterinary surgeons indispensable for the state.

C.6. "Veterinary Topics of the Day: A Paper Read Before the North of England Veterinary Medical Association" (1880)

A speech published by a veterinary surgeon, Clement Stephenson (1835-1918), presents some problems in the veterinary profession in 1880 in Britain. It gives some ideas about how the veterinarians were seen by the people, how they were educated, what their current problems were, and what they were expected to do.

Stephenson complained that the arrangements made by the headquarters for the education of veterinary surgeons harmed rather than benefited the profession. The problem was the fact that the theoretical side of the profession was given priority, neglecting the practical knowledge and experience. This resulted in unqualified veterinary surgeons. Then, the Council of the Royal College of Veterinary Surgeons passed legislation that he found a hasty, ill-conceived decision that would block progress instead of helping it. According to this legislation, an "unqualified man" could be "saved from disgrace" by studying for one year with "a qualified member of the profession".[879] However, for Stephenson, a penal clause for the unsuccessful would not prevent the people from hiring "non-qualified men" and it would not bring more clients to the qualified veterinary surgeons because people are aware that the people they are hiring are not qualified and do not have the diploma. "They simply employ him because they believe in him", not because they believe they are qualified. He says that "We have only to prove to the public that we are what our diplomas say we are: "Fully qualified to

[879] Stephenson, *Veterinary Topics of the Day,* 3.

practice the art and science of Veterinary Surgery and Medicine" to gain their confidence.[880] He thinks that by understanding their profession thoroughly and acting honorably, veterinary surgeons can "defeat the non-qualified man" without a penal clause, "until there is not one left in the country".[881] Therefore, the persuasion of the people was necessary by practicing this science well enough.

According to Stephenson, the public choose who will treat their animals according to what is more convenient for them. They employed the people whom they believed could cure their animals to make them work again as soon as possible. He says that not only do their animal patients depend on the practical knowledge of the veterinary surgeon, but people's belief also depends on it. He says that these people would first look for practical knowledge combined with science in the background.[882]

According to Stephenson, one of the difficulties of veterinary practitioners is the fact that they cannot ask questions to their patients, unlike a doctor. On the other hand, he argues that animals can also speak in a way that a close observer can understand. This is another proof for him to think that theory and science should be accompanied by practical knowledge.[883] Another difference he points out between a doctor and a veterinarian is the importance given to the time spent on the treatment and recovery, and the understanding of accomplishment connected to it. He says that doctors still receive credit for their work, even if their patients cannot recover fully or cannot use some parts of their bodies. On the other hand, the patients of the veterinarians were expected to recover as soon as possible, because their owners want them to be serviceable soon enough and that the animals should not cost more than they are worth, otherwise the veterinarian would lose their clients.[884]

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[880] Stephenson, *Veterinary Topics of the Day,* 4.

[881] Stephenson, *Veterinary Topics of the Day,* 4-5.

[882] Stephenson, *Veterinary Topics of the Day,* 5-6.

[883] Stephenson, *Veterinary Topics of the Day,* 6-7.

[884] Stephenson, *Veterinary Topics of the Day,* 6.

From Stephenson's speech, we understand that farriery, as a profession, was looked down on. The fact that "the forge" which produced horse-shoes and shoed horses was in connection with veterinary science often degraded the latter in the eyes of the people and some thought that there was "no more reason for the Veterinary Surgeon to have a forge, than there is for a doctor to keep a boot and shoe shop".[885] However, he asserts that often the problem with the horse is related to its foot and that the animals cannot explain their problems like humans, which necessitates a well-educated veterinarian to diagnose the problems and to treat lameness.[886] Therefore, he thinks that "the forge" is a necessary addition to the profession of veterinaries, it also makes "the non-qualified practitioner" less of a choice when veterinary care and shoeing horses go hand in hand under the supervision of a legitimate practitioner.[887] He hopes that with the addition of practical knowledge to the theoretical and scientific knowledge given to veterinary students, in the future, "every Veterinary Surgeon will be held in esteem and respect, both by his clients and the public at large".[888]

Overall, this text shows us that in the late 19th century, scientific veterinary practices were still viewed with suspicion by the British people in general, and they still hired people who are known to understand horses for the treatment of their animals, as traditionally. This created strife between the formally and scientifically educated veterinarians, and it was sometimes hard for them to find clients. The fact that the education received in college was more theoretical than practical caused people to choose unqualified practitioners who had a more practical experience even though they did not have a diploma. This indicated that even though at the state level, veterinarians were favored, the public had yet to recognize the modern veterinarian as superior in knowledge, preferring traditional methods that are best known to them. The process of transformation from tradition to rational and scientific treatment of the animals was a slower process than the medical

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[885] Stephenson, *Veterinary Topics of the Day,* 10.

[886] Stephenson, *Veterinary Topics of the Day,* 10.

[887] Stephenson, *Veterinary Topics of the Day,* 11.

[888] Stephenson, *Veterinary Topics of the Day,* 11.

developments for humans. This may have resulted from the fact that the animals were seen as workers with costs, and as inferior to human beings: this made veterinarians inferior to doctors in the eyes of the people. Moreover, the fact that veterinary science was closely linked to the forge, the black-smithery for horses, an occupation which was seen as crude work, further damaged the prestige of the profession of veterinary medicine, even though it was a very important part of it since the lameness and recovery of the horse depended on it. Another notable part of this text is the view toward animals. He says that even though these creatures are called "dumb" and unable to speak, they had a language that a careful observer could understand and that a veterinarian should be able to understand this language to treat the animal correctly. This implied that the animals had an agency recognized by some people, especially those who were eager to understand them.

Moreover, their inferiority and slave-like labor were manifested through the demand of their owners. They wanted their animals to be treated as soon as possible with minimum cost, and the animal's recovery was a means to an end: starting to be of service again. On the other hand, for humans, recovery was an end, not a means to another purpose. Therefore, when the treatment of an animal took too long, or it could not be recovered completely, the dignity of the veterinarian was harmed, as Stephenson argued, while in the same circumstances the dignity of the doctor was still in place. This showed the fact that the working animal was not seen just as a living being but also as a tool or a biological machine.

C.7. "What Horse for The Cavalry?" (1912)

In his words, Spencer Borden was a modest breeder who studied horses and judged horses in many of the States in America, inspecting and awarding them for "a third of a century".[889] He visited some of the prominent stud farms in Germany and Austria-Hungary in 1911 and wrote about his investigations and observations about horses and horse breeding in these countries.

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[889] Spencer Borden, *What Horse for the Cavalry?* (Fall River, Massachusetts: J. H. Franklin Company, 1912), 8.

Borden first points out his ideas about the current state of horse breeding in the USA. According to him, the United States does not possess enough horses that are fit for the cavalry and war. Borden gives the numbers of horses as 21,625,800 horses in 1900, and with an increase of 11.5 percent, the number of animals rose to 24,016,024 horses in ten years. He admits that the United States is only second to Russia among the countries which possess the most of these animals. Still, Borden calculates that about 70 percent of the horses are draft horses and ponies, unsuitable for the cavalry. The remaining 30 percent were mainly composed of mongrels (mixed-breeds), and only a small number were licensed stallions that could be bred for army purposes.[890]



Figure 28: Eberhard II from the Trakehnen Stud Farm in Prussia.[891]

"Imperial German Government" is described as the principal breeder of Europe in the book. The state studs of Trakehnen and Graditz are mentioned as examples of many others and the remount stations at Newmarkt and Geisenfeld

[890] Borden, *What Horse for the Cavalry?*, I – III.

[891] Ottomar Anschütz, "Eberhard II, Trakehner horse, royal stud farm, Prussia," 1884, Photograph, The Nelson-Atkins Museum of Art, https://art.nelson-atkins.org/objects/72622/eberhard-ii-trakehner-horse-royal-stud-farm-prussia?ctx=5dd4c5bd-2c46-4932-8253-9d2a4cf74d13&idx=1

which bred horses for the army. These state-owned stud farms and remounts aimed above all to produce stallions for peasants' use for their mares. It is noted that the government bred English Thoroughbred horses from valuable studs and broodmares and raced them as well. According to the author, because the enterprise was backed up by the government, it was hard for the private breeders to compete on the racetrack. However, there were also a few private breeders of racehorses in Germany. He describes the meticulously and carefully constructed stables of such a breeder that he visited, and the careful maintenance of the routines of care, exercises, and training of horses and colts.[892]

On the other hand, he was disappointed with the mounts of the officers in Württemberg: The front legs of the horses needed boots to prevent knocking, the hind legs were straight and weak, and their tails were "cut to the proportionate length and shape of that of a cotton-tail rabbit".[893] He further comments on the horses with docked tails, however, it is out of an aesthetic concern rather than for concern about the animals:

> *Nevertheless, Kaiser Wilhelm the II has allowed himself, — also his father, Kaiser Frederick—to be mounted on a horse with a docked tail, on the bronze statues at the end of the great bridge over the Rhine at Cologne. This is shocking as a matter of taste, and probably unprecedented in all plastic art. The writer knows of no other examples. Who would ever think of Napoleon, or Frederick the Great, Alexander, or Wellington, or George Washington, riding a horse with the tail of a rabbit! In our own day, try to picture Lord Roberts or Kitchener on a bob-tailed horse!* [894]

The fact that such statues seemed unbelievable to the author showed another underlying understanding: Horses were a part of the identity of famous people and pointed towards their grandeur and prominence. On the other hand, these statues could be made exactly for that purpose, as docked tail was a fashion that

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[892] Borden, *What Horse for the Cavalry?*,17-21.

[893] Borden, *What Horse for the Cavalry?*, 31.

[894] Borden, *What Horse for the Cavalry?*, 32.

emphasized the strength of the hind legs of the animal, which could emphasize the strength of its rider.

Borden does not hide his admiration for horses in Austria in general; for him, even the most common horses looked well-bred in the Austrian territory. Even though these horses were cast off from private or government stables and usually had "unsound legs", they looked as if "they were bred for better things and have fallen on evil days". He also says that, unlike German officers, Austrian officers mounted on "excellent" and "well-bred" cavalry horses.[895] Quite a lengthy part is about the Lipizzaner horses; these "distinctly Austrian horses" could only be found in Imperial stables, Imperial studs, and the government stud Fogares in Hungary, which was reserved only for this breed of horses.[896] Lipizza was the main breeding farm for this breed; the horses were sent from there to different places. After weaning at 4 months of age, they were sent to Pröstrenegg, and at 4 years old, stallions were sent to Spanish Riding School in Vienna for their training in Haute école, and geldings and mares were sent to royal stables or stud farms.[897]

Borden also mentions a sheep-nosed horse from Kladrub. Kladrubers, with their distinctive and unfamiliarly shaped heads, were exclusively bred for the Emperor of Austria, and no one else was allowed to own a horse from this breed. These horses were used on the coronation coach and other special occasions.[898]

Borden visited four state stud farms in Hungary and got detailed information from the Horse Breeding Department at the Ministry of Agriculture of Hungary and printed reports. Each state stud was for a different type of horse.

Mezohegyes, founded on 1784,[899] was producing crossbred horses: Gidran and Nonius. Gidran breed was the crossbreed of Thoroughbred and Arabian

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[895] Borden, *What Horse for the Cavalry?*, 41.

[896] Borden, *What Horse for the Cavalry?*, 42.

[897] Borden, *What Horse for the Cavalry?*, 45.

[898] Borden, *What Horse for the Cavalry?*, 48-50. (In the previous chapter of this dissertation, it was seen that the Austrian Emperor sent two carriage horses from Kladrub Stud Farm to the Ottoman Sultan.)

[899] Borden says that it was bought that year and was established in 1785.

horses and were for the cavalry. Nonius horses were a crossbreed of English Thoroughbred and French Coach horses, used for artillery service and "other harness work".[900] At first, most of the horses were allowed to breed naturally in the pastures. Later, heavy breeds of mares were served by the stallions selected by the management while the rest were still allowed to breed naturally. Only after 1835 did the "faults" of these natural breeding be corrected by crossing all the good mares to pure-bred stallions. In 1810, "the first branding of the colts to distinguish them from one another according to their breeding" started. He also talks about the mare Nonius, the founder of the Nonius breed, and the stallion Gidran I, the founder of the Gidran breed.[901]

Another stud farm was Babolna. Bought by Emperor Joseph II in 1789, it was established in 1790. It was a stud farm for breeding purebred and half-bred Arabians, to create a supply of these animals to use in improving the quality of horses, according to the Hungarian Department of Agriculture. The pure Arabians were mostly bought from Syria around Aleppo and Damascus, some of them were from Egypt, and some purebreds were also bought from Hungarian breeders.[902] The purebreds and half-breds were branded on different sides, together with their year of birth and stud book numbers, so that no mistakes were made.

Kisber was founded in 1853, it was for English Thoroughbred racehorses. The most famous horse in the stud was the Buccaneer, which was a major influence and a winner of prominent races all over Europe.[903] There were also the horses of private breeders in the stud.[904]

Fogaras included Lipizzaners, which were moved there because it was thought its mountainous terrain would preserve this breed's characteristics. This

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[900] Borden, *What Horse for the Cavalry?*, 60-61.

[901] Borden, *What Horse for the Cavalry?*, 70-74.

[902] Borden, *What Horse for the Cavalry?*, 79-83.

[903] Borden, *What Horse for the Cavalry?*, 95-96.

[904] Borden, *What Horse for the Cavalry?*, 99.

stud farm also sent several stallions to the stallion depots to add to the qualities of existent mountain horses and ponies.[905]

Borden says that Hungary is known for their good horses for generations, but they were "probably … never so good". This he links to scientific methods that the country persistently follows, which was directed by the Hungarian Department of Agriculture. The object was to produce as many stallions as possible to distribute them all over the country for the use of private breeders, in favorable terms too to encourage them.[906]

He gives detailed information about how the stallions and mares are managed by the Hungarian government in 1911. It can be summarized as follows:[907]

In October, 3-year-old stallions would be sent to stallion depots to stay there until they were 4 years old, then scattered throughout the country to serve the native mares. In July, they would return to stallion depots; there were more than 400 depots. Some of the stallions could be hired by approved breeders for a whole season to be returned in July. The Horse Breeding Bureau of the Department of Agriculture at Budapest kept a complete record of the mares served by each stallion and the fees collected. There was also a limit to how many mares each stallion could cover. The government also bought a few approved colts of 1 or 3 years old from breeders each year to encourage them, and after they were examined in the fall, they were either sent to stallion stations or gelded and sold in auctions. Private breeders could also send their 3-year-old approved colts to stallion depots to be used in the same way as state stallions, but when the horse returned, the earned fees went to the breeder. This was also done to encourage breeders. In 1911, there were 3234 government stallions composed of English Thoroughbreds, English half-bred horses, pure Arabians, half-bred Arabians, Nonius, Gidran, and Lipizzan horses, draft stallions, as well as 3-4 years old half-bred horses, and yearlings bought from private breeders.

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[905] Borden, *What Horse for the Cavalry?*, 101-102.

[906] Borden, *What Horse for the Cavalry?*, 60-61.

[907] Borden, *What Horse for the Cavalry?*, 62-66.

In October, mares would be sent to training stables to prepare for spring races. Each of the four government stud farms had running and trotting racing tracks according to the horse breeds they raised. Running races were 3 km with 60-63 kg weight. If the horses could finish the race under the time limit, they were sent to the stud farms; if they could not finish it in an hour, they were sent to auction. Some mares and young stallions were also tried as hunters in the field and sent to the cavalry regiments situated near hunting clubs. They were recorded there in detail from their performance in jumping and in the field to their needs for feeding. These reports were sent to the Agricultural Department Bureau in Budapest, where the fates of the stallions and mares were decided in the same manner.

As for auctions, old broodmares were sold on the first day; they would usually be in foal and were only sold to Hungarian breeders. This was another method to provide the country with good animals. The next day, the mares would be sold without any restriction.

Horses were expected to be productive in any way possible, just like a biological machine: "No animal is allowed to be idle. All are broken to saddle; all mares are broken to harness. If a mare in the stud fails, for any reason, to produce a foal in any given year, she is bred again, and put to work while carrying her foal."[908]

Borden's observations about horse breeding in Austria-Hungary can be confirmed in a newspaper dated 1893. This article in the Sydney Mail was originally from a British newspaper, St. James's Gazette. In the article, it was noted that the success of Austrian horses was noticed by the public after the long-distance military rides from Vienna to Berlin, which was seen because of scientific breeding for many years. Especially Hungarian horses and the Hungarian system was praised. The article also confirms the large numbers of horses exported annually, "a system of studs and stallion depots, which are under the control of the Ministry of Agriculture, but superintended by military inspectors," four royal studs that were separated according to the race of animals, and auctions of mares, some of which

[908] Borden, *What Horse for the Cavalry?*, 66.

had to stay in the country and sold only to breeders there. Besides, the article mentions that there were about 150 private stud farms in Hungary alongside state establishments.[909]

All the elements of the horse breeding system in Hungary were connected in a rational way and thus ensured that good horses were produced and the horses in the country were well-bred too. This was done through stallion depots, stud farms, trying the horses for flat and cross-country races, and classifying them according to their performance, which decided their fate. They were either sent to breeding farms or stallion depots or were sold at auctions. Winners of races were regarded with high esteem as usual and were used for breeding. If the performance of a colt, along with its other merits, were not satisfactory, it would be gelded and sold; if satisfactory, it would be sent to stallion depots for breeding. As for the mares, they were either sold or sent to breeding farms on the same criterion. This methodical understanding of horse breeding brought good results in increasing the number of horses and improving the overall quality of the horse population in the country, as the discarded horses were well-bred as well -just not satisfactory enough to improve the horse breeds. On the other hand, it also reflected the increasing methodical and systematic control over the lives of the animals.

In all the countries Borden visited, there were stud farms and systematic horse breeding. The state played an important role in improving, controlling, and multiplying horse life. The environment and soil were seen as essential factors for horse breeding. There were also private breeders; however, unlike in Britain, these were overshadowed by state farms in continental Europe. In 1912, horses were still indispensable for armies, but breeding racehorses was also prominent.

C.8. "The Oldenburg Horse" (1914)

The Oldenburg Horse Breeders' Society issued this book in Rodenkirchen, Oldenburg, and the author is the society's secretary. Throughout the

[909] St. James's Gazette, "Horse-breeding in Hungary," *The Sydney Mail*, January 14, 1893, 95.

book, the long history of the horse breed, thus, its reputation is emphasized with a commercial interest which can be felt in the background.

The Oldenburg horse is described as "a strong heavy carriage horse," which "has a muscular and symmetrical body with good neck, … strong, sinewy legs with plenty of bone" with "energetic action." They had a robust constitution and a hardy character, which the author connects to their rearing and climate. They were also tall animals; while 3-year-old fillies were around 161 cm on average, 3-year-old colts chosen for the army were about 168 cm. According to Schüssler, the Oldenburg horses were bred mainly by small farmers "since time immemorial," and there were no State Stud Farms in the area.[910]

Then, the origins and consolidation of the horse breed and the blood used for its improvement are discussed. The Oldenburg carriage horse was a cross-breed animal of Thoroughbred and half-bred coach horses and Oldenburg mares, and its uniform type was consolidated with careful breeding. Although records for these horses contained pedigrees and descriptions of broodmares, a fire destroyed nearly all these records. Schüssler also mentions "the State Selecting Commission," which had a rigorous way of choosing animals for breeding; the horses were shown to and approved by this committee. He notes that while many warm-blooded breeds were becoming too fine and nervy, the Oldenburg breed kept its weight and strength and was recognized as the heaviest warm-blooded horse breed.[911]

Schüssler says that the information about the breed can be traced back to the 15th century and that the Counts of Oldenburg in the 16th and 17th centuries strived to improve this breed. In this respect, Count Anton Günther (1603-1667) was respected as a good breeder; he bought breeding animals from different countries, including Naples, Spain, Turkey, Poland, and Eurasia, and supported the breeders by allowing them to use his stallions in his numerous studs to improve their mares.[912]

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[910] J. Schüssler, *The Oldenburg Horse* (Hannover: M. & H. Schaper, 1914), 1-6.

[911] Schüssler, *The Oldenburg Horse*, 8-15.

[912] Schüssler, *The Oldenburg Horse*, 18-23.

According to Schüssler, the state did not take an interest until 1780. He mentions regulations enacted in 1784 for horse breeding and for choosing stallions. After a 20-year gap, using these regulations as the basis, a new set of rules was decided in 1820, which were still in use in 1914. These rules included the choice of stallions and prizes and prohibitions such as the ban on using two-year-old stallions for breeding. In 1820, Committee members were formed from the breeders in the area by the state to select stallions "allowed to serve" and horses that receive premiums each year. This organization's structure was changed several times to serve the purpose better, and new regulations were enforced. The northern division of the committee chose a heavy coaching type, close to the original, and the southern division chose horses of a lighter type (of a medium weight). The regulations of 1861 made the registration of the horses more precise: Only horses which did not have hereditary problems, had parents on both sides true to the breed's characteristics, and were three years old could be registered. If they were not Oldenburg horses, they had to be horses capable of improving the horse breed.[913] Because of the growing export of Oldenburg horses to the United States, and American Customs only allowed horses that had pedigrees going back to three generations to be duty-free, an Oldenburg Stud Book was formed in 1891 as a private initiative. Its first volume was composed of books and papers that included knowledge about the horses and "the official papers of the Grand-ducal Selecting Committee that was formed in 1820." Besides commercial concerns, the studbook protected the Oldenburg breed against the danger of contamination by other breeds and ensured that they were kept pure. Moreover, the breeders would not choose breeding horses by seeing them only; they would now have access to their history, which was crucial for the breed's future. Meanwhile, the state also had a pedigree register, which caused confusion about pedigrees. At the request of the Oldenburg Horse Breeders' Association, the Government put the stud book in place of its imperfect registers. After 1897, the state took other measures regarding horse breeding in the district. Moreover, the breeders established two different societies with two distinct selecting committees and their respective stud books. The state

[913] Schüssler, *The Oldenburg Horse*, 23-27.

appointed three permanent members of the selecting committees, and the remaining three members were chosen amongst the breeders but had to be approved by the state. Through these committees, the state had the right to inspect stallions' offspring, choose horses according to the value of the horses' parents, and allow or prohibit the use of horses for breeding. The breeders were actively included in this system: Every breeder with a broodmare in the stud book was a member of the society and represented by a chairperson and three committee members. Improving the breeding "material," developing external trade, and sending horses to horse shows were some of the objects of these societies.[914]

He also notes that there is good communication and "a network of excellent roads and railways," good hotels in small or large towns in the area, and many horse fairs that make it easier for the traveler to come and choose horses at any time of the year, and that promotes the breeding of the Oldenburg horse.[915] Oldenburg horses were used to improve horses in the stud farms of other states in Germany and abroad, including Prussia, Bavaria, the Kingdom of Saxony, Holland, Italy, Austria, Switzerland, Russia, Denmark, and Sweden. They were suitable for army use, so they were increasingly sought after by the Remount Department.[916] Then, he remarks that Oldenburg horses have won many prizes and medals in horse shows, including an international exhibition in Paris and at the World's Fair St. Louis in 1904, which made them known "throughout the civilised world."[917] The text of the regulations for horse breeding, prizes, stud books, and competitions in Oldenburg was added to the book, confirming the author's points about these state regulations in full detail.

When the book is examined thoroughly, several conclusions can be made. Horse raising is seen as closely connected with the climate and soil. Using nature's gifts helped rear better animals. It is not surprising that every detail of the natural

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[914] Schüssler, *The Oldenburg Horse*, 28-30, 32, 34-36.

[915] Schüssler, *The Oldenburg Horse*, 41-42.

[916] Schüssler, *The Oldenburg Horse*, 47-51.

[917] Schüssler, *The Oldenburg Horse*, 55-56, 61.

environment is considered. It is a relationship between humans, animals, and the natural environment.

It is seen that until the death of Count Anton Günther, horse breeding was carried out with the support of the Counts and depended on their interest in horses, as well as the enthusiasm and willingness of local breeders. Farmers and breeders had a crucial impact on the origins of the breed. Their interest in horse breeding was essential in preserving a good number of fine horses in times of crisis when the Counts could not support horse breeding.[918] Towards the end of the 18th century, the State took an interest in breeding horses in Oldenburg and, from 1820 to 1897, strived to promote and improve horse breeding. However, after the central state started to take control of horse breeding and improvement, it also incorporated the breeders into its bureaucratic apparatus. This may be another reason state control did not meet with resistance; according to the author, in general, they were pleased with these rules, which improved their horses.[919] Just like the breeders of Percherons, the breeders of Oldenburg horses were careful not to make the horse too light and preserve its qualities to be a strong carriage horse.

Just in other countries at the time, the state used the methods of appointing officials, giving prizes, and enacting regulations. The Oldenburg horse breed was further consolidated and improved by a state selection committee. This committee approved the horses they saw fit for breeding and aimed to carefully manage the improvement of the breed while protecting its characteristic traits, such as weight and robust body. Starting from the late 18th century towards the 20th century, this control mechanism seems to have consolidated and become more precise. Two types of Oldenburg horses were raised: One type was a heavy coach horse, and the other was a relatively light carriage horse, or a warmblood horse, that is heavier than Arabians but lighter than draft horses. They were found to be useful for army use.

As there was no ban on horse export, the Oldenburg horses were sold in large numbers both in the country and abroad each year, which likely made them

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[918] Schüssler, *The Oldenburg Horse*, 25.

[919] Schüssler, *The Oldenburg Horse*, 34-35.

more eager to breed better horses, like Percheron breeders. The prizes earned increased the horses' reputation and made them more reliable. Recording horses systematically in stud books in an organized and reliable fashion, in contrast to earlier records, was another common trait of the era. These stud books served to improve horse breeds by referring to horses' personal history and were also used as a reference for the horse trade. The names of the studs and mares that were crucial for the breed's development are mentioned in detail; here, we can spot the effect of individual horses on the constitution of a fine breed that is still well-liked as a sport horse in the present time.

The importance of a road and railway network for the promotion of horse breeding and horse trade can be seen in the book. Horses were a commodity that could be improved through rational methods and through adding new blood "material" and were a sort of biological manufacture. Its successful incorporation into capitalist trade largely depended on easy access through a good transportation network.

In the book, many photographs and pictures showed Oldenburg horses with docked tails. It indicates that Oldenburg breeders also adopted the trend of amputation of tails.

C.9. "Works on Horses and Equitation: A Bibliographical Record of Hippology" by Huth (1887)

This work shows many works about horses listed chronologically, which were available in Europe at the time, and that at least the elite had a wide range of books and manuals available to choose from.

The list of books started from 430 BCE to 1879 CE. This bibliographical study was an attempt to catalogue all available books about hippology. It includes books from European states, some books of early veterinary studies from Ancient Greece and the Roman Empire, and a few Persian and Indian books. According to the list of books, while the number of studies about horses continuously rose since the 16th century, during the 19th century, they have tremendously increased. The 19th century has the bulk of the books, holding many scientific studies about

veterinary medicine and zootechnics as well as manuals for riding and caring for horses and its history, training, breeding, drills, problems in the cavalry, and some other general topics.

The index shows the subjects contained in the books, and I have arranged the table below according to it so that it may give a glimpse of the focus of interest in different periods.[920] The same book could have many different subjects; therefore, this list does not show the number of works known in Europe at the time, but the concentration of the subjects according to the books and periods these books were published.

Table 10: Subjects Studied According to The Period.

	Number of Books According to the Period					
Subjects	14th c.	15th c.	16th c.	17th c.	18th c.	19th c.
Breeding	0	1	5	8	18	386
Equitation, Breaking, Taming and Stable Management	2	1	28	46	77	569
Racing	0	0	2	1	14	125
The Horse's Foot, Shoes and Shoeing	0	1	5	6	20	154
Harness, Bits and Bitting	0	0	7	6	4	49
Carriages, Driving and Coachbuilding	1	0	1	4	9	73
Uses After Death	0	0	0	1	0	14
Laws Relating to Warranty, Acts, Etc.	0	0	0	3	8	46
Miscellaneous	0	0	2	5	9	68
Natural History, Anatomy, Physiology and External Form[921]	0	6	13	17	40	244
Cavalry[922]	0	0	3	23	40	501
Veterinary[923]	2	8	19	30	159	842
The Chase	2	1	3	6	14	96

[920] F. H. (Frederick Henry) Huth, *Works on Horses and Equitation: A Bibliographical Record of Hippology* (London: Bernard Quaritch, 1887).

[921] In addition to this categorization, 5 sources were ancient texts, and the 3 of the 6 works published in the 15th century were translations of some of these earlier texts.

[922] Three other sources were listed prior to these dates, namely the works of Xenophon, Hadrian, and Ammianus Marcellinus.

[923] Nine other studies were listed from 430 BCE to 950 CE.

Age of Horse, Dentition and Dentistry	0	1	0	1	0	32
Stable Architecture	0	0	0	0	0	11
Artistic	0	1	3	0	8	19
Mules and Asses	0	1	6	2	4	17
Brands and Marks	0	0	2	1	0	2
Pageantry, Chariots, etc.	0	0	1	3	5	1

From this list, it is seen that during the 19th century, veterinary science was the most demanded subject, followed by equitation, breaking and taming horses and stable management; books concerning the cavalry; horse breeding; natural history, and the anatomy, physiology and the physical appearance of the horse; horse's foot and shoeing; racing; and hunting on horseback or "the chase". From the 16th century onwards, especially the subjects of veterinary science, equitation, horse riding and training skills, natural history, sciences such as anatomy and physiology, and the drills and techniques concerning cavalry rose steadily until the 19th century. Rationality and the rise of modern science, as well as methods of control and discipline reflected in the relationship between humans and horses, as can be seen in the concentration of the subjects.

APPENDIX D: CURRICULUM VITAE

PERSONAL INFORMATION

Name: Canan Halaçoğlu

Date of Birth: [redacted]

Place of Birth: [redacted]

Nationality: Turkish

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ACADEMIC AND EDUCATIONAL QUALIFICATIONS

2023 - PhD, Department of History, Middle East Technical University. Thesis Title: Revitalizing Ottoman Equine Heritage: Transformation Of 19th Century Horse Breeding Practices and Their Impacts on the Ottoman Empire. Supervisor: Assist. Prof. Dr. Selçuk Dursun.

2013 - M.S., Middle East Studies, Middle East Technical University. Thesis Title: Occupation and the Colonization of Algeria: A Struggle for Dominance. Supervisor: Prof. Dr. Recep Boztemur.

2010 - B.A., Department of History, Middle East Technical University.

RESEARCH INTERESTS

Animal Histories

Environmental History

Colonialism and Postcolonialism

History of Mentalities

EMPLOYMENT HISTORY

2011-2021 - Research Assistant, Department of History, Middle East Technical University, Ankara, Turkey.

LANGUAGE SKILLS

Turkish (Native)

English (Fluent)

French (Intermediate)

Ottoman Turkish (Advanced)

ADDITIONAL ACTIVITIES

2015 - Music Single, Imaginary World (using the alias Luna Rin)

2015 - Music Single, The Assassin (using the alias Luna Rin)

2016 - Music Single, I Know I Can Fly Like You (using the alias Luna Rin)

2016 - National Equestrian Coaching Certification (Ulusal At Antrenörlüğü), Türkiye Binicilik Federasyonu

2016 - Club Member of Ankara Atlı Spor Kulübü (Ankara Equestrian Club)

2017 - Music Single, Carry On (using the alias Luna Rin)

2022 - **Music Composition** (using the alias Luna Rin) for the short animation film "That Last Moment" by Burcu Nehir Halaçoğlu

APPENDIX E: TURKISH SUMMARY / TÜRKÇE ÖZET

OSMANLI ATÇILIK MİRASININ YENİDEN CANLANDIRILMASI: 19. YÜZYIL AT YETİŞTİRİCİLİĞİ UYGULAMALARININ DÖNÜŞÜMÜ VE BUNLARIN OSMANLI İMPARATORLUĞU ÜZERİNDEKİ ETKİLERİ

BÖLÜM 1

GİRİŞ

Son yıllarda, hayvan çalışmaları araştırmacıların büyük ilgisini çekmeye başlamıştır. Ortaya çıkan bulgular, insanlık tarihinin doğal çevre ve insan-hayvan arasındaki ilişkilerle iç içe geçtiğini göstermiştir. Shaw'ın ortaya koyduğu gibi, tarih yazımı hayvanları gittikçe daha kapsayıcı bir şekle dönüşürken,[924] hayvan failliğinin tarihsel bağlamdaki yeri de tartışılmaya başlanmıştır. Bu çalışmada amaç, Osmanlı atları ve onların Osmanlı hayatının çeşitli yapılarındaki yeri üzerine odaklanarak gelişmekte olan hayvan tarihi literatürüne katkıda bulunmaktır. Özellikle de 19. Yüzyılın ikinci yarısında Osmanlı atlarına olan biyopolitik yaklaşım incelenmektedir.

İnsanlar ve atlar arasındaki ilişki, tarih boyunca kompleks ve çok yönlü olagelmiştir. Bir yandan atlar insan toplumları üzerinde önemli bir role sahipken, bir yandan da insanlar atları çeşitli pratikler ve kurumlar ile şekillendirmiş ve etkilemiştir. Yükselen modern devletin biyopolitik yapıları bu ilişki üzerinde önemli bir rol oynamış, atların hayatlarını modern kurumlar, düzenlemeler ve pratikler aracılığıyla teşvik etmek, bedenlerini biyolojik açıdan yönetmek, sağlık ve performanslarını geliştirmek önem kazanmıştır.

Atlar, insan hayatının ekonomik, teknolojik, politik ve askeri gibi çeşitli alanlarında tarihsel anlamda önemli bir rol oynamış olduğundan tarih yazımında göz ardı edilmemelidir. Onları pasif objeler olarak görmek yerine ihtiyaçları,

[924] David Gary Shaw, "A Way with Animals," *History and Theory* 52, no. 4 (2013): 4-5.

emekleri, günlük hayattaki rolleri açısından tarihe katkıları tanınmalıdır. Bu şekilde geçmiş, çok daha kapsamlı ve bütüncül olarak anlaşılabilir. Bu nedenle bu tez insan-hayvan ilişkilerini iki perspektiften incelemektedir. Birinci olarak, insanlar ve hayvanlar arasındaki karşılıklı etkileşimin her iki tarafı da nasıl etkilediği genel bir çerçeve içerisinde ortaya konulmaya çalışılmıştır. İkinci olarak, algı biçimlerinin ve karşılıklı etkileşimin günlük yaşam, tarihsel değişimler ve felsefi görüşlerden nasıl etkilendiği göz önüne alınmıştır. Bu çalışma, insanlar ve atlar arasındaki etkileşime birincil ve ikincil kaynaklar üzerinden odaklanmıştır. Ayrıca, at bedeni ve onun kontrolüne yönelik algısal değişimler ve 19. yüzyılda atın çeşitli alanlarda artan etkileri üzerinden insan-hayvan ilişkileri ve bunların tarihe olan etkileri konusunda daha derin bir anlayışa ulaşmak hedeflenmiştir.

Hayvanların insan hayatındaki etkileri sadece emeklerine ve hareketlerine bağlı değildi. Fiziksel limitleri, bedensel kabiliyetleri ve insan dünyasının yapıları içerisindeki varlıkları ve emekleri vasıtasıyla bu yapılar üzerindeki etkileri tarihsel olarak önemli faktörlerdi. İnsan merkezli bakış açılarında, bazı dinlerde ve edebi yapıtlarda, insanın ve hayvanın ikili karşıtlıklar üzerinden değerlendirildiği, insan kimliğinin hayvanlarla olan benzerlikler ve farklılıklar üzerinden tanımlandığı görülüyor. Bunun ötesinde atlar hayvan gücüne bağımlı bir dünyada ana güç kaynaklarından biri, teknolojilerin ve savaşların bir parçası ve bilimsel çalışmalarda bir konuydu. Diğer hayvanlarla beraber atlar insan kimliğinin oluşmasında bir role sahipti ve insan hayatındaki varlığının kültürel yansımaları vardı. Zira atların sadece emeklerinden değil sosyal ve kültürel önemlerinden de istifade ediliyordu.

Atların hayatın birçok alanında kullanılıyor olması gerçeği bile onların tarihin önemli bir parçası olduklarını gösteriyor. Atlar ve diğer hayvanların ulaşımda, inşaatlarda, tarımda, ekonomide, teknolojide, savaşlarda itici kuvvet olarak oynadığı rol ve hayvanların bu farklı yapılar içerisindeki varlıkları, insanların eylemlerinde hayvanları hesaba katmasını zorunlu kılıyordu. Hayvanların fiziksel ve davranışsal özellikleri verilen kararları sınırlandırıyor, bakımları için de emek, zaman ve kaynaklar sarfetmek gerekiyordu. Hayvanların bu kompleks failliği ancak onları bu farklı yapılardan çıkardığımızda ortaya çıkar, çünkü tarihin başlangıcından bu yana insan hayatına dahil olan evcil veya vahşi

hayvanlar öyle kanıksanmışlardır ki tarihsel kayıtlarda sıradan insanlara kıyasla güçlükle bulunabilir. Ayrıca hayvanların bir kısmının halk tarafından gizlenerek kayıt altına alınmaması, onların yalnızca bir meta veya sayı olarak kaydedilmesi ve arşivlerin sınıflandırılmasında hayvanların esas alınmaması onlarla ilgili detaylı bilgiye ulaşmayı güçleştirir.[925] İnsan üstünlüğüne dair felsefi ve dini yaklaşımlar hayvanların tarih üzerindeki etkisini daha da görünmez ve umursanmaz hale getirmektedir. Bu doğrultuda, farklı katmanlardaki insanları, maduniyeti, hayvanları ve çevreyi, onların görünür eylemleri ve rasyonaliteleri üzerinden değil, tarihi şekillendirmedeki fiili ve varlıksal etkileri üzerinden dahil eden çok katmanlı bir tarihsel faillik anlayışı, tarih yazımında yeni yollar açabilir.

İnsan tarihinde ulaşımdan savaşa önemli bir rol oynayan atların insanlar tarafından kontrol edilmesi, onların tamamen pasif, insanların ya da kendi hayatları üzerinde hiçbir etkisi olmayan canlılar oldukları anlamına gelmez. İnsanlar atları ancak onların kabul edebildiği ölçüde itaatkâr kılabilmiştir. Atlar direnebilir, korkabilir ve bu şekilde kazalara neden olabilirdi. Ayrıca insanlar atı ve bedenini ancak bu hayvanların ve onların bedenlerinin sınırlılıkları ve kabiliyetleri ölçüsünde şekillendirebilir ve eğitebilirdi. Sonuç olarak, hayvan failliğine hayvanların ve insanların sürekli ve dinamik olarak birbirlerinin hareketlerini etkileyip şekillendirdikleri insan-hayvan etkileşimleri açısından yaklaşılabilir.

Bu kapsamda insan hayatında üretim, askeri ve ulaşım da dahil olmak üzere çeşitli şekillerde rol oynayan atın önemi insanları atları fiziksel, genetik ve sosyal olarak ihtiyaçlara daha uygun bir hale şekillendirmeye yöneltmiştir. At, bin yıllardır insanlar tarafından yazılı ve sözlü geleneksel bilgiyle dikkatle üretilip dönüştürülmüştür. Ancak, bilimsel akılcılık ve modern devletin gelişmesi ve at emeğine olan artan ihtiyaç, at bedeninin kontrol ve değiştirilmesini daha sistematik ve tek taraflı bir hale çevirmiştir. Bu değişimin ilk bulguları 16. Yüzyılda başlarken, 19. Yüzyıla doğru bu sistematik yaklaşımın sağlamlaştığı görülmektedir. Uzun vadede, at ırklarının ıslah edilmesi, yani atların bedenlerinin

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[925] Suraiya Faroqhi, "Introduction," in *Animals and People in the Ottoman Empire*, edited by Suraiya Faroqhi, (Istanbul: Eren, 2010). Kathryn Elizabeth Renton, "A Social and Environmental History of the Horse in Spain and Spanish America, 1492-1600." (PhD diss., University of California, 2018).

insan müdahalesiyle değiştirilmesi akılcılık, teknoloji ve tıbbı içeren yeni bir bilimsel anlayışa paralel olarak daha sistematik ve tutarlı, kesin bir hale dönüşmüştür. Diğer bir deyişle, damızlık atların seçilmesi önceden geleneksel bilgiye ya da gelişigüzel pratiklere dayanırken, şimdi, bir kesim insanın sahip olduğu bireysel atlara değil, bütün bir at popülasyonuna odaklanan bilimsel bir olgu haline gelmeye başlamış, at üretimi ve ıslahı kapitalist ekonomiye eklemlenmiştir. Ulaşımda, tarımda ve orduda meydana gelen teknolojik gelişmeler nedeniyle atlara artan talep Avrupa ve ABD'de at ıslahı, üretimi ve ticaretini 19. Yüzyılda elzem hale getirmiştir. Osmanlı Devleti de bu gelişmelere kayıtsız kalamamış, ülke içerisindeki genel at popülasyonuna olan tutumu bu modern gelişmelere uygun olarak, ancak kendi tarihsel değişkenlerinin de etkisinde, evrilmiştir.

Osmanlı İmparatorluğu'nda sadece askeri alanda değil, ulaşımdan sosyal aktivitelere kadar birçok açıdan önemli bir rol oynayan atın ıslahı ve yüksek miktarda üretiminin ülkede birçok alanı olumlu yönde etkilemesi bekleniyordu. 19. Yüzyıl'da Osmanlı Devleti'nin o dönemde Avrupa ülkelerinden yayılan devlet haraları, aygır depoları, remont istasyonları, at yetiştiricilerini teşvik amaçlı ödüllü at sergileri, at yarışları ve müsabakaları, at yetiştirme cemiyetleri ve bunları destekleyen bürokratik oluşumlar ile, modern veterinerlik okulları, at popülasyonuna yönelik istatistikler ve kayıtlar, müfettişler aracılığıyla teftişler gibi bilim odaklı kontrol ve sağlık mekanizmalarını benimsediğini görebiliriz. Bu yöntemler geleneksel at yetiştiriciliğinden ayrılsa da Osmanlı Devleti bu yeni gelişmeleri geçmişinden getirdiği atçılık kültürünün üzerine inşa etmiştir.

Kaynaklar, 19. Yüzyılda Osmanlı Devleti'nin bir "at problemi" olduğunu ortaya koyuyor. Bu problemle başa çıkmak için başvurduğu yöntemler ise o dönemde başka ülkelerde de aynı amaçlarla kullanılan yöntemlerdi. Modern devlet ve bilgi mekanizmaları arasındaki ilişkiden doğan bu sistematik, bürokratik, merkezi, akılcı ve modern bilimsel yöntemler, başarıyla tatbik edilsin edilmesin, biyopolitik bir algıya doğru dönüşümün belirtileriydi.

Tezin ikinci bölümü özellikle hayvan failliği, atların insanlık tarihine olan etkileri ve akılcılığın ve teknolojik gelişmelerin yükseldiği bir dönüşüm çağında insan eylemleri ile hayvan hayatı arasındaki karşılıklı etkileşim, 19. Yüzyılda artan

at ihtiyacı, devlet nezdinde sistematik ve bilimsel at yetiştiriciliği konuları üzerinden genel bir çerçeve çiziyor. Üçüncü bölümde ise bu küresel çerçevenin üzerine Osmanlı atlarının rolü ve Osmanlı at yetiştirme projeleri yerleştirilip değerlendiriliyor.

BÖLÜM 2

İNSAN VE HAYVAN FAİLLERİ ARASINDAKİ ETKİLEŞİM

Farklı kültür ve coğrafyalarda tarihin bir parçası olan atların varlığı ve kullanımı insanları yiyecek üretmekten kontrol sağlayabilmek ve itaatsizliği engellemek için teknolojiler üretmeye çeşitli eylemlere mecbur bırakmıştır. Atlar bir yandan insan yapılarının bir parçası haline gelirken ve insanlar tarafından dönüştürülürken, bir yandan da onların bu yapılardaki varlıkları ve özellikleri bu yapıların evrilmesinde bir etkiye sahipti. Bu bölümde insan merkezli bir tarih yerine tarihsel anlayışa yeni boyutlar kazandıracak şekilde hayvanların da tarih yazımına eklemlenmesi savunuluyor. Hayvanlar tarih boyunca insanlarla iç içe yaşadığından onların da insanlar ve insan tarihi üzerinde etkilerinin olması kaçınılmazdır. Dolayısıyla bu bölümde özellikle atlara odaklanarak insan-hayvan etkileşiminin karşılıklı ve birbirini etkileyen döngüsel yapısı öne çıkmaktadır. İlk kısımda tarihsel rolleri açısından atların insanlar üzerindeki etkileri, ikinci kısımda zihniyet ve teknolojideki değişimler ve biyopolitika üzerinden insanların atlara olan etkileri, üçüncü kısımda da bu ele alınan konular üzerine hayvan failliği tartışılmaktadır.

2.1. Atın İnsanlar Üzerindeki Etkisi

Bu kısımda atın insan hayatına olan etkileri üç ana kategoride değerlendirilerek bu etkinin çok yönlü yapısı gözler önüne serilmiştir.

2.1.1. Bir Teknoloji Olarak ve Üretim, Tüketim ve Dönüşümün Bir Aracı Olarak At

Öncelikle at hem Osmanlı İmparatorluğunda hem de başka ülkelerde ve kültürlerde bir teknolojiydi, çeşitli teknolojilerin ana güç kaynağıydı ve üretim, tüketim ve teknolojik gelişmelerle yakından bağlantılıydı. Atların teknolojideki yeri Osmanlı Devleti'nden ve İngiltere'den verilen örneklerle ortaya koyulmuştur.

18. ve 19. yüzyıllarda at hala dünyanın çeşitli bölgelerinde ana güç kaynağı olarak kullanılıyordu. 20. yüzyılın ilk yarısına kadar da kullanılmaya devam etti. Özellikle 19. yüzyıl demiryolları ve buhar gücüyle anılsa da at gücünün kullanımı birdenbire tarih sahnesinden çekilmedi, aksine atlar bu teknolojik gelişmelere eklemlendi ve hatta bazı bölgelerde bu dönüşüme emeğiyle katkı sağladı. Önce çeşitli ülkelerdeki insanlar demiryollarının yayılmasıyla ata olan ihtiyacın ortadan kalkacağını düşünse de bilakis atlara olan ihtiyaç arttı ve at nüfusunda Fransa'dan ABD'ye farklı ülkelerde ciddi artışlar oldu. Kentsel hayatta, demiryollarına ulaşımda, demiryollarının olmadığı yerlerde ve endüstrileşmede at iş gücü olarak kullanıldı.

Ancak bu her zaman her yerde aynı şekilde olmadı. Atların ve diğer hayvanların varlığı ya da yokluğunun insan dünyasının yapıları üzerinde doğrudan bir etkisinin olduğu modern Amerikan ve Mısır şehirlerinin inşalarının karşılaştırılmasında görülebilir. Bu konuda Ann Norton Greene ve Alan Mikhail'in çalışmaları esas alınmıştır.[926] ABD'de hayvanların varlığı endüstriyel gelişmelere etkide bulunurken Mısır'da hayvanların yokluğu ekonomik ve sosyal değişimlere neden olmuştur.

Atların ekonomiye tek etkisi emekleri değildi. Onlar için de hem gıda hem de eşya üretiliyordu, ayrıca derileri de ekonomik bir değere sahipti. Birçok insanın mesleği ve geçimi bu hayvanların varlıklarına dayanıyordu. Sonuç olarak atların insan hayatındaki varlıkları üretim ve tüketimde bir etkiye sahip olmasının yanı sıra 19. yüzyılda ve 20. yüzyılın başındaki teknolojik değişimler içerisinde de kendine bir yer bulmuştur.

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[926] Greene, Ann Norton. *Horses at Work: Harnessing Power in Industrial America*. Cambridge, Massachusetts; London, England: Harvard University Press, 2008. Mikhail, Alan. *The Animal in Ottoman Egypt.* Oxford; New York: Oxford University Press, 2014.

Bu kısımda ayrıca atların, at gücünün ve bedeninin 19. yüzyılda ve 20. yüzyıl başlarında yükselen mühendislik ve araba sektörünün üzerindeki etkisi de tartışılmaktadır. Bu tarihlerde insanlar gibi atlar da bir çeşit makine gibi görülmeye başlanmış, makineler, insanlar ve atlar karşılaştırılmıştır. Yüzyıllar boyu emeğinden faydalanılan atlar makineleri anlamakta, tanıtmakta ve güçlerinin hesaplanmasında bir kıstas olarak kullanılmıştır. Atlar ve diğer hayvanların etkisiyle çok eski zamanlardan bu yana oluşan sosyal ve ekonomik yapılar içerisinde makineler ve arabalar hayvan gücünün yerini almış, bu eski yapıların etkileriyse sürmüştür.

2.1.2. Kültürel Bir İkon Olarak ve Estetiğin, Saygınlığın ve Dinin Aracı Olarak At

Bu kısımda antik çağdan bu yana atın farklı kültürlerdeki benzer etkileri karşılaştırılmalı olarak tartışılarak bir giriş yapılmıştır. Bu etkiler edebiyat, sanat, folklor ile atın sembolik değerini ve kimlik oluşturmadaki önemini kapsamaktadır.

Atın, İngilizler, İspanyollar, Eski Türkler, Çerkesler, Araplar, Osmanlılar gibi birçok ayrı kültürde ve ülkede kimlikle bağlantılı ve onu oluşturmaya katkı sağlayan bir unsur olduğu görülmektedir. At ırklarının kimi kültürlerde onları yetiştiren ailelerin isimlerini aldığını, onun bir saygınlık unsuru olduğunu, atın cinsinin, güzellik ve gücünün binicisi ya da sahibinin kimliğine bir katkıda bulunup adeta bir bütün ya da tamamlayıcı bir öğe olarak yer aldığı anlaşılıyor.

Bu kısımda ayrıca baytarnameler üzerinden at kültü ele alınmaktadır. Bu eserlerde atların kültürel ve dini açıdan ele alınması aslında bu hayvanların insanlar üzerinde bıraktığı etkinin bir sonucu olarak ele alınabilir. Bu eserlerde atın önemi dinsel metin ve hikayelerle kanıtlanır, çeşitli özellikteki hayvanlara karakter ve soyluluk atfedilir, sağlıklı olan ve kusurlu olan hayvan tanımlanır ve önceki bölümde görüldüğü üzere bütün bunlarla at, sahibinin kimlik oluşumunda bir etkiye sahiptir. Atın dinsel değerinin en önemli sebebi olarak savaşlardaki konumu göze çarpmaktadır.

2.1.3. Bir Savaş Makinesi Olarak ve Zaferin, Yenilginin ve Bilimin Bir Aracı Olarak At

Atın savaşlarda kullanılmaya başlanmasından itibaren savaşların ve olayların gelişmesinde belirleyici faktörlerden biri olarak öne çıktığını ve bu sebeplerle atın etrafında onu daha iyi kontrol edebilmek ve daha etkili kontrol edebilmek için yöntem ve tekniklerin geliştirildiği gözlemlenmektedir. Bu kısımda 19. Yüzyılda Avrupa ve Osmanlı İmparatorluğu ordularında artan at ihtiyacına da değinilmiştir.

Atın savaşlarda önemli bir vasıta olması at bedeninin daha iyi anlaşılması ve sağlığının korunup geliştirilmesini zorunlu kılmış, bu da veterinerlik biliminin gelişmesine sebep olmuştur. Bu konu, daha önce mitsel ve dini öğelerinin tartışıldığı baytarnamelerin bilimsel taraflarının ele alınmasıyla anlaşılmaya çalışılmıştır. Bu şekilde antik dönemden gelen farklı dillerden bilgileri koruyup aktararak geliştiren baytarnameler bu konu çerçevesi içerisindeki yerini bulmaktadır.

Baytarnamelerde görülen ata karşı mistik ve dinsel yaklaşım, modern veterinerliğin ve endüstriyel gelişmelerin ilerlemesiyle gittikçe azalıp yerini at bedeninin ve uzuvlarının bir çeşit makine gibi görüldüğü rasyonel bir yaklaşıma bırakmaya başlamıştır. Osmanlı İmparatorluğu içerisinde de 19. yüzyılda önce çeviri eserler olarak başlayıp orijinal yapıtlarla devam eden çalışmalar bulunmaktadır. İlk Osmanlı veteriner okulunun önce askeri amaçlarla kurulması atın savaş alanında kullanılması ve veterinerlik arasındaki sıkı bağı gözler önüne sermektedir.

2.2. İnsanların Atlar Üzerindeki Etkisi

Önceki kısımlarda atların ve diğer hayvanların insan hayatı içerisindeki varlıklarıyla insan tarihi üzerindeki etkileri yani tarihsel faillikleri görüldü. Bu kısımda ise insan-hayvan etkileşimi içerisinde insan öznesinin hayvanlar üzerinde olan etkileri 19. yüzyılda tam olarak kendini gösteren biyopolitika ve insan-hayvan ilişkilerindeki değişim ile sınırlandırılarak incelendi.

Bu bölümün girişinde 16. Yüzyılda İtalya'da yükselen ve giderek diğer Avrupa ülkelerine yayılan binici ve atın uyumunu, disiplini ve bir atın yapabileceği

en zor hareketleri mutlak bir uyum, itaat ve zarafet ile yapabilmesini hedefleyen yeni bir tür at terbiyesi (dresaj) ele alınmıştır. Bütün bir at popülasyonunu değil, tek tek atların disiplin, eğitim ve becerisine odaklanan bu yaklaşım, Foucault'nun düşüncesinde biyopolitik dönüşten önce görülen ve daha sonra da biyopolitika ile birlikte ilerleyen disipline edici güç ile ilişkilendirilmiştir.

2.2.1. Biyolojik Bir Makine Olarak At

Daha önce, atların makinelere benzetilmesine ve makinelerin anlaşılır kılınmasındaki etkisine bakılmıştı. Bu kısımda ise onların birer makine gibi görülmesinin atlar üzerinde yol açan etkilere insan zihniyetinin şekillenmesi üzerinden bakılmıştır.

Atların birer makine olarak görülmesinin altında ekonomik ve pratik nedenler de bulunmaktaydı. Her şeyden önce atların bakımı pahalıydı ve insanlar mümkün olduğunca hayvanın gücünden istifade etmeye çalışıyordu. Ayrıca yaşayan varlıklar olsalar da başka aletlerin birer parçasıydılar. Dolayısıyla hayvana bu bakış ekonomik olarak da elverişliydi. İnsanın hayvanlar karşısındaki yaratılıştan gelen yüceliğini savunan felsefi ve dini düşünceler insanların hayvanları makinelermiş gibi görmesine, onların bu konuda ahlaki bir yükümlülükten kurtulmalarına yardımcı olmuştur.

Öte yandan, at kültü konusunda görüldüğü üzere ister İslam dünyasında ister Hristiyan dünyasında olsun, atın diğer hayvanlara kıyasla insanlar arasında özel bir konumu da vardı. Nasıl çeşitli baytarnamelerde dine referans verilerek at insandan hemen sonraki bir konuma yerleştiriliyorsa, İncil'de de atlar yüksek bir konumda olduğundan Avrupa'da bazı yazarlar atı insandan hemen sonra gelen bir konuma yerleştiriyor ve onlara kötü davranmanın günah olduğunu savunuyordu. Descartes'ın fikirlerinden etkilenen insanların yanında atların zekalarını ve duygularını kabul edip yücelten insanlar da bulunmaktaydı.[927] Bu şekilde,

[927] Buna örnek olarak Merwin ve Stewart verilebilir: H. C. (Henry Childs) Merwin, *Road, Track, and Stable: Chapters About Horses and Their Treatment,* (Boston: Little Brown, and Company, 1892). John Stewart, *The Stable Book; Being a Treatise on the Management of Horses, In Relation to Stabling, Grooming, Feeding, Watering and Working, Construction of Stables, Ventilation,*

insanların zihniyet yapısı, ekonomik ve pratik kaygıları hareketlerini yönlendirmiş, bunun da doğrudan atların hayatları üzerinde bir etkisi olmuştur.

2.2.2. Biyopolitika ve At Cinslerinin Geliştirilmesi

Bu kısımda Foucault'nun biyopolitika hakkındaki görüşleri ile at ıslahı konusu ele alınmıştır. Foucault'ya göre 17. yüzyıldan itibaren politika ve yaşam arasındaki ilişki değişime uğramaya başlamıştır. İktidarın yaşamla ilgili olan klasik anlayışı bu değişime kadar hayat ve ölüm üzerindendir; yani yaşamı almak, ya da yaşamaya izin vermek üzerinden. Ancak sonra bu anlayışın yerini yaşamı destekleyen ve geliştiren ya da ölüme kadar gidebilecek şekilde men eden bir güç almıştır. Foucault'ya göre bu iktidar, 17. yüzyıldan itibaren iki formda kendini göstermiştir. Birinci form bedenin bir makine olarak görülmesi, onun işe yararlılığı ve verimini ortaya çıkaran disiplin, düzen ve kontrol ile ilgili bir güçtür. Ancak bu güç tüm popülasyona odaklanmak yerine bireysel bedene odaklanmak eğilimindedir. İkinci form hayatın mekanik ve biyolojik kısımlarıyla, yani doğum, ölüm, sağlık ve yaşam süresi beklentisi ve bunu uzatma gibi meselelerle ilgiliydi. Aynı zamanda ilkinin aksine bütün popülasyona birden odaklanmaktaydı. Bu ikinci form da bilimle ve devletin düzenleyici kontrolüyle, yani biyopolitikasıyla bağlantılıydı. Her ne kadar salgın hastalık ve doğal felaketler nedeniyle tarih ve hayat eskiden beri ilişkili olsa da buradaki fark iktidar ve bilginin ölüm riski üzerinden değil, yaşam vaadi üzerinden hayatı kontrol ve düzenleme hakkı iddia etmesidir.[928]

Bu açıdan 19. yüzyılda modern veterinerlik ve yeni gelişmiş bilimsel metotlarla ve modern devlet aparatlarıyla daha önce hiç olmadığı kadar sistematik ve akılcı bir biçimde at üretme ve at cinsini geliştirme çabaları -başarılı olsun

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Stable Appendages, Management of the Feet, (New York: A. O. Moore, Agricultural Book Publisher, 1858).

[928] Michel Foucault, *The History of Sexuality: Volume I: An Introduction*, trans., Robert Hurley, (New York: Pantheon Books, 1978), 136-143. Michel Foucault, ""Society Must Be Defended," Lecture at the Collège de France, March 17, 1976," in *Biopolitics: A Reader,* eds. Timothy Campbell, Adam Sitze (Durham and London: Duke University Press, 2013), 63-73.

olmasın- biyopolitik bir yaklaşım sergilemektedir. Hem Avrupa'da hem de Osmanlı İmparatorluğu'nda at nüfusunu arttırmak ve cinslerini geliştirmek önemli görülüyordu ve devletler istatistikler, aygırlar için tetkik sonrasında verilen üreme izin belgeleri, onaylanmayanların iğdiş edilmeleri, modern esaslarla bilime uygun haralar, remont istasyonları ve aygır depolarıyla sadece bir kesimin atlarını değil, ülkelerindeki at nüfusunu bir bütün olarak geliştirmeye çabalıyordu.

2.2.3. At Hayatını Teşvik Etmek

Biyopolitikanın, devletin hayat üzerindeki kontrol ve düzenleme hakkının meşruiyeti hayatı desteklemek üzerinden sağlandığından bu dönüşümün atlar üzerinde de etkisi olmuştu. Yani bu, sadece atların sayılarının arttırılmasına ve cinslerinin iyileştirilmesine olan bilimsel ve merkezi devlet kontrolüyle ilgili değil aynı zamanda atların hayatlarıyla da ilgiliydi. Bu hayvanların üretkenliklerini arttırmak, onlardan en iyi istifade edebilmek, iyi ve sağlıklı atlar yetiştirebilmek için onların yaşam koşulları, beslenme şekilleri, ahırlarındaki hijyen, havalandırma ve ışık, kullandıkları koşum, eyer gibi aparatların konforu gibi hususlara da önem veriliyordu. Ancak belirtmek gerekir ki bu bahsedilen ideal koşullardan kasıt bilimsel yaklaşımdır ve 19. yüzyılda biyopolitikanın görüldüğü ülkelerdeki atların yaşam koşullarının bir tasviri değildir.

2.3. Hayvan Failliği ve Dönüşüm

Daha önceki kısımlarda hayvanların insan hayatındaki varlığının tarihsel seyirde nasıl etki sahibi olduğu görülmüştü. Bu kısımda ise hayvanın tarihsel failliğine mevcut literatür üzerinden daha ayrıntılı olarak değinilmektedir.

Bu tezde esas alınan rasyonellik üzerinden değil, hayvanların insan hayatı ve yapıları içerisindeki varlığı ve çeşitli alanlardaki etkileri üzerinden bir hayvan öznesi tanımıdır. Bu gizli özne her zaman görünür olmasa da farazi olarak insan tarihinden çıkarıldığında her şey alt üst olur ve değerini belli eder.

Bu kısımda ayrıca tarihteki dönüşümlerin insanlar arasındaki ilişki biçimlerini değiştirdiği gibi insan-hayvan ilişkilerini de değiştirdiği konusu

tartışılıyor. Devlet aygıtları ve bilim aracılığıyla at üretimine ve genel olarak hayvanlara karşı gittikçe artan biyopolitik yaklaşımın hayvan gücünden makine gücüne geçişten sonra da günümüze kadar devam ettiği görülüyor.

BÖLÜM 3

OSMANLI İMPARATORLUĞU'NUN ATLARI

Bu bölümün ilk kısmında Osmanlı İmparatorluğu'nda atların çeşitli alanlardaki kullanımları üzerinden insanların günlük hayatlarında bu hayvanlara olan bağımlılığı, çeşitli yapıların atlar etrafında şekillendiği ve atın insan hayatındaki varlığının onun tarihsel failliğini ortaya koyması konuları tartışılmıştır. Atın kullanımı askeri, ulaşım, at yarışları ve oyunlarını kapsayan sosyal aktiviteler, at ticareti gibi birçok alana yayılıyor, onların Osmanlı hayatındaki varlığı ve emeği tüm bu alanlara tarihsel bir katkıda bulunuyordu. Bu katkı, bu tezin ikinci bölümünde ele alınan konulara bağlı olarak, teknoloji, üretim, tüketim, kültür, kimlik, saygınlık, savaş ve bilim alanlarında Osmanlı hayatını etkilemesi açısından değerlendirilmiştir.

Öte yandan ikinci bölümde ata talebin arttığı, at yetiştiriciliğinin modern devlet gözetiminde daha sistematik ve bilimsel bir yöne evrildiği, bu değişimlere uyum sağlamamanın ise problemlere yol açtığı iddia edilmişti. 18. yüzyılda Osmanlı at popülasyonu azalmaya ve at kalitesi düşmeye başlamışsa da bu problem ancak 19. yüzyılda görünür hale geldiğinden buna açık bir müdahale yapılmamıştı. Ancak 19. yüzyılda Osmanlı devleti de at yetiştiriciliğindeki gelişmelere uyum sağlama çabası göstermiştir. Bu bölüm Osmanlı at yetiştirme projelerini önceki bölümde sunulan küresel çerçeve ve değişim koşullarında ele almaktadır.

3.1. İmparatorlukta At Popülasyonu ve Kalitesi

Önceki kısımlarda görüldüğü üzere atlar diğer hayvanlarla birlikte hayatın her yerindeydi, ancak 19. yüzyıldaki gelişmeler sonucu ata artan ihtiyaç Osmanlı devletini at yetiştirmeye yönelik yeni bakış açılarına yöneltti. Bu mesele devlet

tarafından daha çok askerî açıdan ele alınsa da atın birçok alanda etkisi olduğundan çok yönlü etkilerin değerlendirilmesi at ırklarının ıslahının ve çoğaltılmasının neden elzem olduğunu gözler önüne serecektir.

3.1.1. Atların Kullanımları ve Problemleri

Bu kısımda atın orduda, ulaşımda, tarımda, sosyal hayatta ve ticarette oynadığı rol görülmektedir. Sonuç olarak teknolojilerdeki değişim at türlerinin değişmesine bir gereklilik oluşturmuştur.

Osmanlı at cinsleri insanların hareketlerinde olanaklar ve sınırlılıklar getirmiştir. Çeşitli kaynaklara göre Osmanlı iklim ve coğrafyasının zorlu koşullarına ve yiyecek kıtlıklarına hatırı sayılır bir dayanıklılığa sahip olmaları, çevik, genellikle iyi eğitilebilir, dengeli, ayağı yere sağlam basan ve uzun yolculuklara dayanıklı ve kanaatkâr atlar olmaları insanlara olanaklar sunmuştur. Osmanlı at cinslerinin hafif binek atları olmaları ve gittikçe küçülüp hafifleşmeleri ise insanların hareketlerine sınırlılıklar getirmiştir. Mesela, Osmanlı at cinsleri arasında Avrupa'dakilere benzer ağır çeki atlarının olmaması atlar tarafından çekilen, derine nüfuz eden ve üretimi arttıran ağır demir pullukların yaygın olarak kullanılamamasına ve modern top arabalarını çekecek at bulmakta güçlüklere yol açmıştır.

Atlar öncelikle Osmanlı İmparatorluğu'nda askerî açıdan kullanılıyordu. 19. yüzyılda topçuluktaki gelişmelere rağmen süvari atları hala aktif bir şekilde kullanılmaktaydı. Dolayısıyla Osmanlılar binek at cinslerini ıslah etmek ve miktarlarını arttırmak niyetindeydi. Zira Rusya ve Avusturya-Macaristan gibi ülkelerden hem süvari hem topçu atları ithal edilmek zorunda kalınıyordu. Bunda azalan at nüfusu ve artan at ihtiyacının yanında atların yeterlilikleri de bir rol oynuyordu. Hafif süvariliğe uygun Osmanlı atları ağır topçu arabalarını çekmeye uygun değildi ve Avrupa'da bu iş için yetişen çeki atlarının karşısında fiziksel bir dezavantaja sahipti. Oysa o dönemde topçu arabalarının atlar yardımıyla hızla konum değiştirmesi ve mobilize hareket etmesi önemli bir savaş stratejisiydi ve savaşlarda belirleyici bir rol oynayabiliyordu. Diğer bir deyişle, emekleri nedeniyle uygun miktarda ve özellikte atların varlığı ya da yokluğu askeri anlamda gidişatı

değiştirebiliyordu. Osmanlı atlarının miktar ve özelliklerinin durumu ve Osmanlı devletinin içinde bulunduğu at problemi, bir gerileme çerçevesi yerine teknolojik değişimler ve yeni savaş stratejileri ışığında ele alınabilir. 18. yüzyılda başlayan bu değişimlerin etkileri Osmanlı devletinde 19. yüzyılın ikinci yarısında net bir şekilde hissedilmeye başlanmıştır. Bu nedenle Osmanlı devleti sadece at popülasyonunu arttırmaya ve amaca uygun hale getirmeye değil, doğru bir bakımla at kayıplarını engelleyerek onu korumaya da yönelmiştir.[929]

Bunun ötesinde atların Osmanlı toplumunda ulaşım açısından önemli bir tarihsel rolü vardı. At tek ulaşım aracı olmasa da hızı, gücü ve dayanıklılığı onu oldukça değerli kılıyordu. Bu kısımda menzil teşkilatı, posta servisi, modern itfaiye arabaları, şehirde ve kırsalda eşya ve insan nakliyatı, omnibüsler ve at tramvaylarındaki kullanımları, Osmanlı atlarının mümkün kıldığı olanaklar ve yetersizlikler, 19. yüzyılda artan at ihtiyacı gibi konulara değinilmiştir.

Atların tarım işlerinde kullanıldığı da çeşitli kaynaklarda görülmektedir. Birçok Osmanlı köylüsü tarla sürmede öküzleri kullansa da atlar su taşıma, tarım ürünlerini pazara ulaştırma, değirmen döndürme ve bazı yerlerde tarla sürme gibi işlerde kullanılmaktaydı.[930] Özellikle orta ve büyük ölçekli çiftlik sahipleri atlardan tarımsal işlerde faydalanıyordu.[931] Ayrıca atların emeklerinden haralardaki tarımsal faaliyetlerde de faydalanılabiliyordu.

Bu kısımda ayrıca at yarışları ve müsabakalarının tarihsel, sosyal ve kültürel açıdan ele alınması ile Islah-ı Nesl-i Feres Cemiyeti ve Sipahi Ocağı'nın kurulmasına yer veriliyor. Bu cemiyetin nizamnameleri ve aktiviteleri ile modern

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[929] Nakliye Müfettiş-i Umumiliği. *Hayvanatın Bakımları Hakkında Talimatname.* İstanbul: Matbaa-i Askeriye, H.1333.

[930] For example, Murat Baskıcı, "Osmanlı Tarımında Makineleşme: 1870-1914," *Ankara Üniversitesi Siyasal Bilgiler Fakültesi Dergisi* 58, no.1 (2003): 29-53. Aysun Sarıbey Haykıran, "Aydın Vilayeti'nde Çiftlikler (1839-1918)." (PhD diss., Ege Üniversitesi, 2013). Özer Küpeli, "Tire Voyvodası Yeğen Mehmed Ağa ve Muhallefatı." *Cihannüma Tarih ve Coğrafya Araştırmaları Dergisi* 4 (2018): 19-33. Ulrich Jasper Seetzen, *Anadolu'da Yolculuk: 22 Haziran 1803-22 Kasım 1803.* Vol. 2 of *İstanbul Günlükleri ve Anadolu'da Yolculuk: 12 Aralık 1802-22 Kasım 1803,* trans. by Selma Türkis Noyan, (İstanbul: Kitap Yayınevi, 2017).

[931] Doktor Mahmud Şemsi Seydi, *Atlarımızın Islah ve Teksiri* (İstanbul: Hamîd Matbaası, 1927), 33-34.

yaklaşımlar ve at yetiştiriciliği, ıslahı ve biniciliğinin teşviki üzerine gösterilen çabalar ortaya konuluyor.

Bundan sonra çeşitli belgelerle at cinslerinin geliştirilmesi için damızlık atların 19. yüzyılın ikinci yarısından itibaren uluslararası olarak alınıp satıldığı arşiv belgelerinden örnekleniyor, at ticareti konusu ile üretime dayalı modern ve rasyonel yaklaşımlara yer veriliyor.[932]

3.1.2. Atların Durumları

19. yüzyılda topçulukta, şehirde ve şehirler arası ulaşımda ve tarımda görülen yenilikler daha ağır ve cüsseli atları gerekli kılıyordu. Hafif atlar yeterince kuvvetli olmadıklarından ve çekmek yerine binilmeye daha müsait olduklarından bu yeni teknolojilere uygun değillerdi. Bu nedenle Osmanlı devletinin at ithalatı yapmak yerine kendi imkanlarıyla istediği türde atları üretmek için atlarını dönüştürmesi, geliştirmesi, ıslah etmesi gerekiyordu. Bu kısımda ayrıca at yetiştiriciliğine, bakımına ve beslenmesine dair modern yaklaşımların bazı Osmanlı yazarları tarafından benimsendiğini görüyoruz. Ayrıca bu yazarların Osmanlı at cinslerini nasıl sınıflandırdıklarını ve tanımladıklarını görüyoruz.

3.2. At Popülasyonu ve Kalitesini Geliştirmek Üzerine Çabalar

Bu kısımda arşiv belgeleri, talimatnameler, layihalar, basılı kitaplar gibi birincil kaynaklar ile ikincil kaynaklar üzerinden 19. yüzyılda Osmanlı devletinin o dönemde Avrupa ve ABD'de de kullanılan ve geliştirilmekte olan at yetiştirme ve ıslah yöntemlerini kullanmaya çalıştığını görüyoruz. Bu yaklaşım bir yandan devletin müdahalesini, diğer yandan rasyonel ve bilimsel yöntemlerin geliştirilmesi ve kullanılmasını gerektiriyordu. Osmanlı devleti modern haralar, remont istasyonları, aygır depoları, at yarışları ve sergileri, ödüller ve bir at

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[932] BOA, Y.MTV., 80/76, (H.12.01.1311 – M.26.07.1893). Civani, *Teksir ve Islah-ı Hayvanat, Birinci Kısım, Kavaid-i Umumiye* (Darülhilafe: Matbaa-i Hukukiye, 1329), 96. Ahmed Cevad, *Hayvanat-ı Ehliye Yetiştirmek*, (İstanbul: Mesai Matbaası, H.1331), 3-20. İbrahim Fazıl, *İktisâd-ı Zirâi: İkinci Kısım* (Bursa: Muayyen Hilal Matbaası, H.1330 [1911-1912]), 225-231.

cemiyeti gibi bürokratik yapılar yoluyla at yetiştiriciliği üzerinde merkezi bir kontrol kurmaya çalıştı. Aynı zamanda Osmanlı at cinslerinin ıslahı ve geliştirilmesi, at popülasyonunun çoğaltılması ve salgın hastalıklara karşı koruma ve onlarla mücadele için modern veterinerlik okulları, müfettişler yoluyla teftiş ve istatistiklere yöneldi. Bu yöntemler Avrupa'da farklı ülkelerde ve ABD'de at popülasyonlarının çoğaltılması, ıslahı ve geliştirilmesi için o dönemde kullanılan yöntemlerle aynıydı.

3.2.1. Modern Devlet Haraları, Aygır Depoları ve Remontlar

Devletin kullandığı yöntemlerin farklı fonksiyonları vardı. Devlet haraları atları ıslah etmek, yeni ırklar oluşturmak ve geliştirmek ve at üretimi içindi. Aygır depoları genel insanların atlarını, yani ülkedeki genel at popülasyonunun kalitesini geliştirmek içindi. Remont istasyonları ordu için genç atlar eğitmek ve bir at havuzu oluşturmaktı. At yarışları, müsabakaları, sergileri, bunlar için verilen ödüller ve Islah-ı Nesl-i Feres Cemiyeti adındaki at cemiyeti ve Sipahi Ocağı at yetiştiricilerini teşvik etmek ve halkı atçılığa yöneltmek içindi. Yeni bürokratik yapılar, müfettişlikler, istatistikler, ülkedeki atların boy, cüsse, cins, soy, doğum, ölüm, yaş gibi özelliklerinin kayıt altına alınması, damızlığa uygun olmayan aygırların zorla kısırlaştırılması gibi uygulamalar ve hedefler devletin bu süreci daha etkili bir şekilde yönetmesi içindi. Bundan sonraki kısımdaki konuyu oluşturan hayvan hastalıklarının engellenmesi ve kontrol edilmesi ile iyi bir at bakımı ise üretimi ve verimi arttırmaya yönelikti.

Bu kısımda öncelikle Osmanlı İmparatorluğu'nda at yetiştirme kültürü ve organizasyonuna değinilmiş, biyopolitik yaklaşımla aradaki fark belirtilmiştir. Ancak modern at yetiştiricilik kurumlarının bu geçmişten gelen kültür ve kurumların üzerine inşa edildiği anlaşılmaktadır. 18. yüzyılda başlayan ve 19. yüzyılın ikinci yarısında aşikâr olan at problemi ve sebepleri tartışılmıştır. Osmanlıların Avrupa'daki at yetiştiriciliğiyle ilgili gelişmeleri takip etmesi ve bunun sonucunda kurulan devlet haraları ve bürokratik yapılar konusu

işlenmiştir.[933] Bundan sonra Osmanlı at yetiştiriciliğinin bu gelişmelere rağmen neden çeşitli Avrupa ülkelerine kıyasla başarılı olamadığının nedenleri tartışılmıştır. Bundan sonra Osmanlı'da görülen hayvanlara yönelik biyopolitik yaklaşım örneklenmiştir.[934] Bu kısımda Osmanlı devletinin Osmanlı İmparatorluğu'ndaki genel at popülasyonunu iyileştirmeye ve arttırmaya yönelik çabalarının olduğu fakat bu çabaların ekonomik yetersizlikler, yetişmiş, alanında uzman kişilerin az olması ve tutarsız yaklaşımlar gibi sebeplerle yetersiz kaldığı gözlemleniyor. Yetişmiş Osmanlı yazarlarından dönemde gözlemlenen zihniyet değişimi ve at yetiştiriciliğindeki problemleri görüyoruz.

3.2.2. Modern Veterinerlik

Tezin ikinci bölümünde geleneksel veterinerlikten modern veterinerliğe geçiş konusu ele alınmıştı. Böyle bir geçiş Osmanlı devleti açısından iki yönde önemliydi: Öncelikle modern at yetiştiriciliği ve at cinslerinin iyileştirilmesi ve bu projelerin başarısı bilgiyle bağlantılı görülüyordu. Öte yandan salgın hayvan hastalığının kontrolü ve engellenmesi uluslararası ticarette önem kazanmıştı, Osmanlı devleti güncel veterinerlik esaslarını referans göstermeden uluslararası ticarete entegre olmakta güçlük çekmeye başlamıştı. Ayrıca bu hastalıkların etkin kontrolü ve engellenmesi at miktarının arttırılması, tarımsal üretim ve gelişim gibi konularda da önemliydi. Bu kısımda bu bakış açısı birincil kaynaklar üzerinden ortaya konulmuş, sonra da biyopolitikayla bağdaştırılmıştır.

Bu bölümde 19. yüzyılda Osmanlı atlarının miktarı ve kalitesi ile ilgili bir problem olduğu gözlemlenmiştir. Ayrıca bu dönemde Osmanlı İmparatorluğu'nda

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[933] Mesela Hüseyin Remzi ve Civani gibi yazarlar Avrupa'daki uygulamaları ayrıntılarıyla ders kitaplarına aktarıyordu. Hüseyin Remzi. *İlm-i Hayvanatın Çiftliklere Tatbiki.* İstanbul: Karabet ve Kasbar Matbaası, 1304. Civani. *Teksir ve Islah-ı Hayvanat, Birinci Kısım, Kavaid-i Umumiye*. Darülhilafe: Matbaa-i Hukukiye, 1329.

[934] For example, BOA, İ.MMS., 65/3057. BOA, BEO., 48/3558. BOA, Y.PRK.BŞK, 25/28. BOA, DH.HMŞ., 19/72. Düstur, 1. Tertip, 2. Cilt, Dersaadet: Matbaa-i Âmire, H.1289, (H.06.01.1287 – M.08.04.1870), 446-447. *Alat-ı Cedide ve Tohum ve Damızlık Hayvanat Tedarikiyle Islahat Ve Teşebbüsat-ı Ziraide Bulunacak Olan Çiftçilere Ziraat Bankasınca İrae ve İcra Olunacak Teshilat ve Muavenat-ı Mukteziyeyi Mübeyyin Talimatnamedir*. İstanbul Matbaa-ı Amire: 12 Nisan [1]326 [25 Nisan 1910].

at yetiştiriciliğinde bir dönüşüm ve tavır değişikliği görülüyor. Geleneksel bilgiden modern veterinerlik ve zootekniye doğru kademeli ve yavaş bir geçişin varlığı görülmekte ancak geleneksel bilgiler yeni gelişmelerle bir arada bulunmaya devam etmekteydi. Osmanlılar bazı Avrupa ülkelerinin at yetiştiriciliği konusundaki başarılarını takip edip gözlemlemekteydi. Osmanlı devletinin hareketleri de Avrupa ve ABD'deki uygulamalarla aynı dokuya sahipti. Ancak at yetiştirme projelerinde organizasyon problemleri ve ekonomik yetersizlikler beklenen sonuçların elde edilememesine sebep oldu. Tutarlı, kuvvetli çekme gücüne sahip, istenilen boyda ve istenilen miktarda at yetiştirilemedi ve genel at popülasyonu istenilen şekilde ıslah edilemedi.

BÖLÜM 4

SONUÇ

Bu tezde insan-hayvan etkileşimi çerçevesinde hayvan failliği ve hayvanlara biyopolitik yaklaşım Osmanlı İmparatorluğu'nda ve küresel bir çerçevede ele alınmıştır.

Bu tezin ikinci bölümünde atların insan hayatı üzerindeki etkileri araştırılarak atların tarihsel konumu belirlenmeye çalışıldı. 19. yüzyıl ve erken 20. yüzyılda atlara talebin, at üretimi ve ıslahının teknolojik gelişmelere rağmen arttığı ve rasyonel bir şekle büründüğü ortaya konuldu. Atların varlık ve yokluğunun olayların seyrini etkileme gücü, insan kültürüne ve eylemlerine etkisi gibi hususlar incelendi. Bütün bunlardan atların varlık ve eylemlerinin insan hareketlerini ve tarihsel olayları çeşitli açılardan olanaklı hale getirdiği ve kısıtladığı, bu şekilde fiziksel ve davranışsal özellikleri ve eylemleriyle farklı insan yapılarında bir etki sahibi olduğu ve bu şekilde tarihsel failliğini gösterdiği belirlendi. Ancak bu tarihsel faillik döngüsel bir insan-hayvan etkileşimi içerisinde ele alındı. Tezde atların, diğer hayvanlarla birlikte insan hayatı ve yapıları üzerinde bir etkiye sahipken, insanların da atların hayatını etkilediği görülmektedir. Ayrıca insanların atı evcilleştirildiğinden bu yana eğiterek, çeşitli kıstaslara göre yetiştirip üreterek

modifiye ettiği, böylelikle farklı özelliklere kavuşan atların da insanlara hareketlerinde yeni sınırlılıklar ve olanaklar sunduğu belirlenmiştir.

Bu tezde rasyonalite ve mekanik icatlarla paralel olarak, insan merkezli dinsel ve kültürel geçmişin de etkisiyle özellikle 17. yüzyıldan itibaren hayvanlara olan bakış açısında görülen bir zihniyet değişimine yer verilmiştir. Ayrıca 16. yüzyılda Avrupa'da benimsenen at terbiyesi (dresaj) teknikleri ve anlayışı Foucault'nun disiplin görüşüyle, özellikle 18. yüzyıldan itibaren görülen ve 19. yüzyılda somut bir hale gelen at bedenine ve popülasyonuna devlet ve bilim odaklı bakış açısı da biyopolitikayla bağdaştırılmıştır. Yani bu tezde, ortaya çıkan disipline edici ve biyopolitik bakışın insanlarla sınırlı olmadığı, atlar üzerinde de görüldüğü anlaşılmaktadır.

Ayrıca tezde Osmanlı devletinin 1850'lerden itibaren görünür hale gelen bir at problemiyle karşılaştığı görülmüştür. 18. yüzyıldan itibaren Avrupa'da at yetiştiriciliği alanında net bir şekilde görülen değişiklikler ve devletlerin sistematik bir şekilde at üretimi ve ıslahına müdahale etmesine rağmen, Osmanlı devletinin ancak 19. yüzyılda bu modern gelişmelere uyum sağlamaya çalıştığı görülüyor. Osmanlı İmparatorluğu yeterli sayıda ve özellikte atların yokluğunu çekiyordu, yeni gelişmeler ve talepler karşısında at cinsleri ve kalitesi yetersiz kalıyordu. Bu problemlerle başa çıkabilmek için o dönemin güncel ve akılcı at yetiştirme yöntemlerini benimseyerek ülkedeki at popülasyonunu geliştirmeye ve arttırmaya yönelik biyopolitik bir yaklaşım sergiledi. Bu yaklaşım yeni yapılar aracılığıyla merkezi devletin müdahalesi ve at yetiştirme ve bakımıyla ilgili modern bilgilerin yayılması çabasıydı. Böyle bir eğilim ve çaba görülmesine rağmen bunların yeterli seviyeye ulaşamadığı ve istenilen hedefin elde edilemediği ortaya çıkmıştır.

Bu tezde ayrıca Ek C'de (Appendix C) sunulan 19. yüzyıl ve erken 20. yüzyılda Avrupa ve ABD'de basılmış seçili kitap ve yayınların incelenip değerlendirilmesi aracılığıyla hem Osmanlı İmparatorluğu'ndaki durumun küresel bir boyutta daha anlaşılır hale getirilmesi hem de farklılıkların ve benzerliklerin ortaya konulması hedeflenmiştir.

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