Consider How Horses Play a Role in Leading the Silk Road and the Development in Eurasian History Between Han to Song Dynasty

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Abstract: To find out how horses, to an extent, led to the formation and development of the Silk Road in Eurasian history during the Han to Song dynasty, how and when horses became pervasive will be discussed. Veterinary materials, xiangma, and methods of horse treatments would be compared between east and west to show the existence of early horse culture—such comparison resulted in a common and established horse culture among Eurusian countries during Song.

Keywords: veterinary, Bo Le, Qinmin Yaoshu, Horses, Emperor Han wudi

1. Introduction

Horses play a role in human history and the development of civilization. The role of horses was key to the human race in all periods, and it changed within people’s change in demands and perspectives as well. Historically, horses prevailed during the Period when Mongols dominated the Eurasian continent during the Chinese Yuan dynasty since the mongols were skilled horse riders. Such a belief seems reasonable but still suffers from factual fallacies. Horses benefit the human race centuries before the Mongols. However, despite direct contributions by horses, such a type of animal also indirectly functioned as a stimulus to periods and global events. In this paper, through the comparison and connection between China and the west during Han to Song dynasty, I will focus on the role horses played in the silk road, the connection between the east and west, and how it led to the silk road to continuous development.

2. Demand for Horses during the Han Dynasty for Practical Self-defense against the Nomadic led to the Development of the Silk Road

Silk played a role in trade between Ancient China and western countries. According to research, silk might have been first cultivated 5000 years ago during the XIA dynasty of China, the first dynasty in Chinese history. Silk was always a demanding product. China’s established and profound silk production might exist before the Han dynasty. When thinking of silk, people think of its characteristic of luxury and rare. Thus, silk gradually became popular with western royal families as a symbol of status and a representative of trade and Chinese goods. China accounts for over 70% of
the world's total silk production each year [1]. However, how is silk linked to horses and the development of trade routes?

Such a relationship originated in the Han dynasty and was strongly related to the relationship between Xiongnu and Han. Starting from the Han dynasty's establishment, the relationship between Xiongnu and Han was complex. As nomadic, Xiongnu kept attacking Han's border regions, which brought great trouble and threats to Han's early development. The First Emperor of the Han, Liu Bang, knew the Han needs time and stable development. Thus, in the early stage, Han was trying to keep a relative balance and peaceful relationship with the Xiongnu through marriage. Such a strategy enables the Han to develop peacefully for decades. During this period, the Han put great efforts into developing politics, economy, military, and population. Finally, during the time of emperor Han wudi, the Han was powerful enough to be the counterpart of the Xiongnu. Therefore, Emperor Han Wudi decided to give up the policy of "marriage" and used military force to solve the dispute between Han Dynasty and Xiongnu. This was the time when horses were linked to the trade and silk. Emperor Han wudi wished to fight the Xiongnu with the western countries for self-defencing purposes. Thus, he sent Zhangqian, believed to be the first person to lead to the silk road, to the west for allies. During this journey, Zhangqian was trapped for a decade, and The Han did not go well to the war with Xiongnu. However, Zhangqian discovered the benefits of horses in the Central east and the west since this type of horse (Blood-sweating horse) was not found in Han china. Therefore, Zhangqian recommended that the emperor Han wudi trade for the more advanced horse species to verify the troops of the Han military force against the Xiongnu. Under such a circumstance, the west, especially for the Roman empire, and the central east went to trade with the Han for Chinese goods, mainly silk, in exchange for horses. Such a trade for horses and, later, all kinds of goods further boosted the power of the Han and built up advantages in military forces. Han wudi spent 44 out of 55 years as emperor fighting against the Xiongnu and finally put the Xiongnu to collapse. The trade kept developing and became more worldwide. However, it could be concluded that the silk road was led by the demand for horses by Han for military uses [2].

3. A Common Eurasian Horse Culture may have already Prevailed in Song

Even if the earliest silk road trades about horses showed up in Han, it could be inferred that it was not until the Song dynasty that horse trades leads to an established culture. However, it is still centuries earlier than the common belief that the horse culture started in Yuan. During this time, both west and Song China had an intact horse culture, and both shared some commonalities, which could be indicated by horse medicine in Song China and West, Hippiatrics and Chinese horse doctors, and conditions for Horses to be superior.

To begin with, the Hippiatrics, it is a formal word for horse doctors, first showed up in ancient Greece. However, such an occupation was not well recorded until the Roman empire and the Han dynasty. Even during Rome, Hippiatrics was mostly amateur, meaning horse doctors were not specialists. Only Hippiatrics in the army worked full time. Therefore, it could be inferred that Hippiatrics did not progress much afterward during the Middle Ages.

Similarly, the doctor for horses in china could be traced back to the Qin dynasty. However, Hippiatrics in Ancient China developed differently from the west. In the Qin dynasty, a great man called Bo Le (who will be more comprehensively discussed in the following paragraphs) significantly pushed the development of veterinary. He wrote the first book already known in human history for treating horses using acupuncture. Later, during the Song, the emperor put great effort into developing such an occupation for horses in the army. In Qinmin Yaoshu, an agricultural book recording horses in the Song dynasty, specialist doctors for horses already existed during the Song dynasty.

Secondly, conditions for Horses to be superior could also trace back to the Qin dynasty. Starting from the Qin dynasty, there was a unique art or technique called Xiangma. Xiangma means to observe
or do research about horses [3]. There was a great man called Bo Le, which I have mentioned in the former paragraph; he was a specialist in Xiangma. Bo Le did exhaustive research about horses, bringing him excellent instinct and technique to judge whether a horse has good conditions. A story about Bo Le was that he successfully found a horse that looked inferior but was excellent at traveling long distances. Bo Le did not judge the horse through appearance but instead, its sound and movements. After that, Bo Le became famous to people in the Qin dynasty and the later generations.

Since Bo Le seems to have the ability to see horses’ truth and inner talents, he was also favored in Chinese literature for saying one could see the inner phase of something. Bo Le's Xiangma gradually became a combination of skills and became a science. In the science of Xiangma, people observe the horse's head, eyes, ears, mouth, nose, chest, abdomen, ridge, hooves, tail, hair, tendons, bones, meat, and other details to determine the quality level of a horse. During the song dynasty, Qimin Yaoshu pointed out that the head, neck, ears, spine, trunk, abdomen, ribs, legs, hoof, hip, spleen, and other parts of the body, morphological characteristics and the size of each other is the ancient evaluation of horse health and physical ability which was quite similar to Bo Le's methods [4]. There was no direct evidence of how European countries did their Xiangma during this period, but we could conclude that the west and the Song shared remarkable similarities. However, the Arabics people did show some similarities with the Song dynasty regarding xiangma. The Arabics during the Song time judged the horses' quality through their hooves, which helped them withstand the sand and rocks in a harsh environment [5-7]. Qimin Yaoshu pointed out that the Chinese people during the Song dynasty were also paying attention to horses' hooves, and a lot of practice to protect horse hooves was proposed as well.

Thirdly, the medical treatments and medicine. Western Veterinary medicine can be traced back to Ancient Egypt. However, most records suggest there might be a massive breakthrough in Greece since much historical data and documents about ancient veterinary medicine were written in either Latin or Greek. These hand scripts of veterinary medicine were found in the Roman collection, which the Roman empire pushed its development while benefiting from. The Roman empire was in great demand of horses for wars. Chinese veterinary medicine was not as early compared to the west. Although Bo Le wrote books about Xiangma and medical treatments for horses, the major works of veterinary medicine were believed to develop during Song to Ming dynasty [8]. Nonetheless, Chinese veterinary medicine has specialized according to the Qimin Yaoshu. In the Tang dynasty, the medical book Simuanjiji was a sum of the early knowledge of veterinary medicine, which proves that horse medicine during the Song dynasty was already established and prevailed.

The treatments for horses back then were mostly about bleeding and hooves care [9,10]. Bleeding treatments were similar during the Han dynasty in both Han China and the Roman empire in the west. This treatment of bleeding was not about treatments to stop bleeding. Back then, people typically make horses bleed to help them maintain long-term physical health. In western veterinary material, bleeding correctly is an excellent way to cure chronic illness, which people remove and replace those old blood. It was believed that this helped release the pressure in the vein thus helping the horses to get rid of illness in the pulse and vein. China did the same thing as well, according to Qimin Yaoshu. The Treatment of hoof care was another standard treatment in Eurasian countries. Since Qin China, Bo Le has pointed out the importance of horses' hooves; it was crucial to the movement of horses. In Ancient times people mainly depended on horses for land transportation; even when later Canals and ships became common in Eurasian countries, horses still played an important role. Based on this situation, Ancient people used horses often. Thus it could be easy for horse hooves to damage and cause injuries to horses. Thus, people in both ancient China and the west thought of different treatments for this. It is believed that the western people first invented horseshoes to protect horse hooves during Roman times. Soon after the Han dynasty in China, there was a specific practice to strengthen the horse hooves. According to Qimin Yaoshu, Chinese people at that time often shave
the hooves of horses to make the horse hooves harder, thus extending their use. There were also other treatments to protect the horse hooves, similar to a horseshoe in the west. Based on these similarities in Eurasian countries, horse culture was already advanced and famous during the song dynasty.

4. Trades based on Horses Put Closer the Relationship Between the East and West. Thus, it Further Developed the Network in Eurasian Countries

Although there was no clear evidence to prove when the European countries first had a relationship with the east, we can be confident that the silk road irreplaceably, to a great extent, connected the west and the east. In the Han dynasty, after emperor Han wudi sent Zhangqian to the west for allies, China started to trade with the west based on horse demand. After that, the west stopped giving tributes to the nomadic people and profoundly built-up relationships with China over the century. Such a relationship brought great benefits to both east and west in various aspects. For instance, trade led to a broader choice of consumption, thus benefitting the economy in both areas. Despite direct influence on the connection between the west and ancient china, horses, to an extent, also indirectly led to such a connection. Thus, pushing the network of Eurasian countries.

The Song dynasty was similar to the Han dynasty; the Song struggled to fight against the nomadic. In the late Song dynasty, the nomadic gradually became powerful, and they did not simply attack the border of the Song but started an extensive campaign with the well-trained army of Song. As a result, the Song gradually failed against the nomadic army, which became the later Yuan dynasty. Such an ending has a great relationship with the policy of the Song dynasty. The first emperor of Song was the person who successfully led various rebellions against the Tang dynasty; as a result, when he built up Song, he abandoned the position of what the modern day calls a general of an army to avoid the same issue of Tang. What emperor Song taizu(the first emperor of Song) did instead was that he charged those civil servants as the army's leader. Such a change, to an extent, did help to maintain the peace of the Song. However, by charging the civil servant to lead the army, the army's capacity was of great concern, leading to Song’s later failure. Since the Song dynasty was not a country with a strong army, the issue of the nomadic was never resolved. Thus, horses to fight against the nomadic was in great demand. Such a demand, again, led to trade with the Eurasian countries. The silk road during this time was not as stable and secure as it was during Tang or Han since the nomadic often attacked the units. To solve such a problem and to fill the demand for horses and other trading goods, the Song dynasty spent a large percentage of the money on the development of navigation. With excellent navigating skills and ships, the Song started to trade more, usually with other countries, bringing a significant amount of money, material, weapons, and horses to Song China.

5. Conclusion

Horses, as an animal that played a role in the entire human history, during Han to Song dynasty to a great extent, both directly and indirectly led to the development of Eurasian countries. Horses led to the silk road and later developed the silk road, which pushed the Eurasian economy to grow and formed a strong bond between the west and the east. Such a bond benefits the human race in all fields, from technology to the idea that horses are irreplaceable.

References
[2] Daka staff, Mar. 2nd 2021, elements to failure of emperor Han wudi to Xiongnu nomadics. https://nr.mbd.baidu.com/r/KF4K4TMNyg?scp&a=86f1e6124d3d0f75


[9] Paul D. Buell, PhD, horst-Gortz-Stifungsinstutit, Berlin, The horse and silk road: movement and ideas