
Heavenly Horses of Bactria: The Creation of the Silk Road

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In 1877, German geographer Ferdinand von Richthofen published his studies of China in his *China Volume I*. Examining an east-to-west route used during the Han Dynasty, Richthofen coined the term “Seidenstrasse,” which translates into English as “Silk Road.”¹ Despite what its name might suggest, the Silk Road was not a single predetermined trade route but a network of varying routes, meandering past mountain ranges and deserts, and adapting to sites of natural disasters and combat zones. Additionally, merchants of antiquity did not physically travel from one end to the other.² Finally, silk was only one of the numerous commodities traded along these routes. Valerie Hansen, a professor of Chinese history at Yale University, emphasizes the greater significance of other traded items, such as paper, which she argues was “surely a far greater contributor to human history than silk.”³ Although much research has been done to analyze the historical nature of the Silk Road and how it diverges from Richthofen’s misnomer, less scholarship has examined the factors behind the Silk Road’s creation and development. Current academia has accepted two primary motivations regarding the Han Dynasty’s expansion westward: firstly, the Silk Road’s economic potential with regard to exporting Chinese goods, and, secondly,

¹ Daniel C. Waugh, “Richthofen’s ‘Silk Roads’: Toward the Archaeology of a Concept.” *The Silk Road* 5, no. 1 (2007): 5.

² Valerie Hansen, *The Silk Road: A New History* (New York: Oxford University Press, 2012), 8-9.

³ *Ibid.*, 7.

the Silk Road's geographic security potential against northern nomadic tribes. I argue that the Silk Road's development stemmed primarily from the combined result of a Han Chinese military gambit to obtain Central Asian horses, and a Bactrian strategy to align commercial interests with political expediency during a period of dynastic decline.

1. First Official Contact: The Travels and Observations of Zhang Qian

Scholars have generally accepted one of the two aforementioned theories regarding the creation of the Silk Road, and most have attributed its beginnings to the explorer Zhang Qian.⁴ Even Yang Juping, a Professor of ancient history at Nankai University who has broken from academic consensus by suggesting the importance of the Central Asian kingdom of Bactria and Alexander the Great in the Silk Road's creation, maintains "it was Zhang Qian who brought information about Hellenistic culture into Central China and whose adventures in the Western Regions marked the opening of the whole Silk Road...."⁵ Zhang Qian overcame the geographic isolation and technological underdevelopment of transportation that had hindered previous contact between China and the rest of the ancient world.⁶ However, some historians have downplayed Zhang Qian's role, contending that trade had long existed prior to the explorer's westward expedition. For example, Sally Church, a fellow at University of Cambridge's Wolfson College, argues that "routes through Central Asia had already been operational for many centuries before [Zhang Qian's] journey."⁷ Citing archaeological findings of imported jade and the transfer of bronze

⁴ Ibid., 236.

⁵ Yang Juping, "Alexander the Great and the Emergence of the Silk Road." *The Silk Road* 6, no. 2 (2009): 19.

⁶ Ibid., 16.

⁷ Sally Church, "The Eurasian Silk Road: Its historical roots and the Chinese imagination." *Cambridge Journal of Eurasian Studies* 2, (2018): 6.

metallurgy and chariot technology to China during this period, Church contends that the Silk Road had existed since at least prehistoric times.⁸

The academic disagreement presented by Yang and Church can be best analyzed by examining primary sources regarding Zhang Qian's travels, as well as determining a more precise definition of the 'Silk Road' to guide academic research. With regard to the definition of the 'Silk Road,' the United Nations Educational, Scientific and Cultural Organization (UNESCO) has defined the Silk Road as "an interconnected web of routes linking the ancient societies of Asia and the Near East, which contributed to the development of many of the world's great civilizations."⁹ However, this all-inclusive portrayal is too vague to isolate the beginnings of the intercontinental trade links that ultimately stretched from China to the Eastern Mediterranean. More specifically, UNESCO's definition does not distinguish the 'Silk Road' that was active during the Han Dynasty from any other exchange of goods between "ancient societies in Asia and the Near East."¹⁰ Any analysis based in such a definition would be both inconclusive and unremarkable, since unofficial interaction and trade between commoners and foreigners was present throughout history. By contrast, I define the Silk Road as the network of official trade routes that (at the very least) connected China with Central Asia. This definition makes a clear distinction between government authorized trade and unofficial exchange of goods between commoners. However, ascertaining whether or not Zhang Qian can be credited for the origination of the *official* Silk Road requires an investigation of relevant primary sources. Sima Qian, the imperial court historian of the early Han Dynasty, recorded the travels and findings of his contemporary, Zhang Qian, in his *Records of the Grand Historian (Shiji)*. Additionally, Ban Gu and Ban Zhao, sibling historians

⁸ Ibid., 4.

⁹ Rosalind Newlands and Felicitas Wressnig, *Training Handbook for Silk Road Heritage Guides* (Paris: United Nations Educational, Scientific and Cultural Organization UNESCO and World Tourism Organization UNWTO, 2016), 8.

¹⁰ Newlands and Wressnig, *Training Handbook for Silk Road Heritage Guides*, 8.

writing roughly a century after Sima Qian, also record Zhang Qian's expedition in their *History of the Former Han Dynasty (Han Shu)*.

Both the *Shiji* and the *Han Shu* record that in 138 B.C., the Chinese emperor Han Wudi dispatched Zhang Qian on a mission to travel westward in search of the Yuezhi, a nomadic people who had recently been defeated and forcibly ousted by the powerful Xiongnu tribe. Seeking to forge an alliance between Han China and the Yuezhi, Zhang Qian "set out from Longxi" and "traveled west through the territory of the Xiongnu."¹¹ After being captured and imprisoned by the Xiongnu for ten years, Zhang Qian managed to escape and reach the Yuezhi, only to find the Chinese offer for an alliance rejected.¹² Regarding the king of the Yuezhi's decision, Sima Qian notes, "The region he ruled was rich and fertile and seldom troubled by invaders... He considered the Han too far away to bother with and had no intention of... attacking the Xiongnu."¹³ Despite the Yuezhi's rejection of an alliance, Zhang Qian's travels in Central Asia brought him to various unknown kingdoms and produced a wealth of new knowledge to report back to the Han emperor. Zhang Qian's findings in Daxia are of particular interest:

'When I was in Daxia,' Zhang Qian reported, 'I saw bamboo canes from Qiong and cloth made in the province of Shu. When I asked the people how they had gotten such

¹¹ Sima Qian, *Records of the Grand Historian: Han Dynasty II*, trans. Burton Watson (New York: Columbia University Press, 1961), 231-233; Michael Loewe and A.F.P. Hulsewe, *China in Central Asia: The Early Stage: 125 BC-AD 23; An Annotated Translation of Chapters 61 and 96 of the History of the Former Han Dynasty*. (Sinica Leidensia Edidit Institutum Sinologicum Lugduno Batavum Vol. 14, Leiden: E. J. Brill, 1979), 207-210.

¹² Sima Qian, *Records of the Grand Historian: Han Dynasty II*, trans. Burton Watson (New York: Columbia University Press, 1961), 231-233; Michael Loewe and A.F.P. Hulsewe, *China in Central Asia: The Early Stage: 125 BC-AD 23; An Annotated Translation of Chapters 61 and 96 of the History of the Former Han Dynasty*. (Sinica Leidensia Edidit Institutum Sinologicum Lugduno Batavum Vol. 14, Leiden: E. J. Brill, 1979), 207-210.

¹³ Sima Qian, *Records of the Grand Historian: Han Dynasty II*, 232.

articles, they replied, ‘Our merchants go to buy them in the markets of Shendu.’ Shendu, they told me, lies several thousand li southeast of Daxia. The people cultivate the land and live much like the people of Daxia. The region is said to be hot and damp. The inhabitants ride elephants when they go into battle. The kingdom is situated on a great river.¹⁴

Scholars have since identified Daxia and Shendu as Bactria and India, respectively.¹⁵ As a result, Zhang Qian’s observations reveal two important pieces of information. Firstly, as Sally Church and other scholars have emphasized, exchange of goods prior to Zhang Qian’s travels had existed between the Chinese and the Bactrians. For example, through India, bamboo canes and cloth from the Chinese provinces of Qiong and Shu found their way into distant Bactria. Secondly, Zhang Qian’s surprise at finding Chinese goods in Bactria reveals that the imperial Han government was likely unaware of the extent of the trade that was taking place between China and India, much less between China and Bactria. This is further evidenced by Zhang Qian’s suggestion to the Han emperor that he order an official expedition to chart a trade route to Bactria through India.¹⁶ Zhang Qian’s travels ultimately furthered Chinese knowledge of potential trade partners in Asia. His inquisitiveness while in foreign lands further revealed Central Asian interest in purchasing Chinese goods. Furthermore, by proposing an official route to conduct trade with Bactria, Zhang Qian’s expedition was an integral first step in the development of increased contact between China and Central Asia. Despite Church and other scholars’ contention that trade between China and the west had existed long before

¹⁴ Sima Qian, *Records of the Grand Historian: Han Dynasty II*, 235-236; Michael Loewe and A.F.P. Hulsewe. *China in Central Asia: The Early Stage: 125 BC-AD 23; An Annotated Translation of Chapters 61 and 96 of the History of the Former Han Dynasty*, 211.

¹⁵ Xinru Liu, *The Silk Road in World History* (New York: Oxford University Press, 2010), 8; Luce Boulnois, *Silk Road: Monks, Warriors and Merchants*, trans. Helen Loveday (Geneva: Editions Olizane, 2005), 61-67.

¹⁶ Sima Qian, *Records of the Grand Historian: Han Dynasty II*, 236.

the Han Dynasty, it is for these reasons that Zhang Qian's role in the development of an official Silk Road should not be undermined.

2. Maintaining Contact: The Resource of Central Asian Horses

Although Zhang Qian was pivotal in encouraging trade west of China, to credit him entirely with opening the official Silk Road would disregard another major contributing factor to the decision by the Han to act upon Zhang's findings: the fabled horses bred in Central Asia. For historical context, the Xiongnu had controlled the northwestern steppe route ever since they ousted the Yuezhi. To Zhang's dismay, hostile bandit tribes brutally killed envoys traveling through the southwestern pass towards India. Persistent in obtaining a direct route to Bactria, Emperor Han Wudi sent an army to attack the Xiongnu. When this first attack was defeated, the emperor mustered another campaign in an attempt to secure the route to Central Asia.¹⁷ This determined struggle to conduct trade suggests that an unusually potent incentive was influencing the emperor. To secure a trail to the far-flung region of Bactria, some valuable good justified the costly challenge to the Xiongnu.

Scholars have generally assumed that such an incentive was twofold: geographic security and economic potential. For example, Sally Church writes that establishing military protectorates in the Western Regions allowed for a stronger border against the Xiongnu.¹⁸ Julia Lovell adds that Dunhuang and Yumenguan, the farthest outposts of the Chinese Western Regions, were strategically situated to fend off Xiongnu attacks.¹⁹ As a result, these scholars argue that westward expansion towards Central Asia served as a means to defend China. Confounding this explanation, however, is that the presence of defenses in the West did not necessarily amount to a

¹⁷ *Ibid.*, 236-237.

¹⁸ Sally Church, "The Eurasian Silk Road: Its historical roots and the Chinese imagination." *Cambridge Journal of Eurasian Studies* 2, (2018): 5.

¹⁹ Julia Lovell, *The Great Wall: China against the World, 1000BC-AD 2000*. (New York: Grove/Atlantic Inc., 2007), 74-75.

stronger border, as the increased distance of the frontier made provisioning the army more challenging.²⁰ Troops had to rely on supplies from native oasis towns that did not always comply with Han rule.²¹ Perhaps most telling of all, when the Han Dynasty began to decline, the Western Regions were the first to be abandoned under the premise that these lands were still “remote, difficult, and dangerous to reach.”²² In contrast to the Han Dynasty, the Roman Empire responded to internal and external threats in 330 A.D. by relocating the Roman capital from the heart of the empire to its defensible provinces on the eastern frontier. While the Romans perceived their holdings in the Eastern Mediterranean to be more secure than the heartland of Italy, the Han government regarded their holdings in the Western Regions to be less secure than that of the Chinese heartland. Therefore, the argument that westward expansion was to increase Han geographic security is likely inadequate.

Renowned China scholar Julia Lovell argues that economic potential was another impetus for creating and maintaining the Silk Road:

Zhang Qian’s reports suggested a second excellent reason—economics—for Chinese expansion and wall-building westwards... The idea was to establish a route... to provide protection for (and extract customs duties from) merchants and their valuable caravans on their way to and from Central Asia and northern India.²³

Other scholars have supported Lovell’s claim, adding that the Chinese soon became aware of the profitability of selling silk, a common household

²⁰ Sima Qian, *Records of the Grand Historian: Han Dynasty II*, 245.

²¹ *Ibid.*, 247.

²² John E. Hill, “The Western Regions according to the Hou Hanshu” *Accessed online at http://depts.washington.edu/uwch/silkroad/texts/hhshu/hou_han_shu.html*, (Seattle: Silk Road Seattle Project, 2002).

²³ Julia Lovell, *The Great Wall: China against the World, 1000BC-AD 2000*, 74.

textile in China.²⁴ While the argument for an economic incentive is well-warranted, it does not sufficiently consider the social climate of Han China. Describing the social structure of the late-18th century Qing Dynasty, Cranmer-Byng writes that the ruling scholar-official class regarded the merchant profession with contempt.²⁵ Recently, scholars have challenged this portrayal of social aversion to tradespeople. Nevertheless, although numerous merchants did manage to amass great wealth and rise in status, the early Han Dynasty was indeed particularly disapproving of the merchant class. Merchants were viewed as belonging to a class just above that of slaves in the social hierarchy.²⁶ The *Han Shu* reports that Emperor Gaozu, founder of the Han Dynasty, “ordered that tradespeople should not wear garments of silk, nor ride in carts [indicating superiority]; and he increased *shui-tsu* (taxes-in-kind)... in order to hamper and humiliate them.”²⁷ Emperor Wudi continued anti-merchant policies by nationalizing the salt and iron industries and levying taxes proportional to the wealth of merchants.²⁸ Even Sima Qian intimated that he despised merchant behavior, reporting that, following Zhang Qian’s mission, there was a surplus of lawless men signing up to become envoys only because they desired to make a profit by purchasing goods in foreign lands and selling them at higher prices back home.²⁹ Additionally, Sima Qian records that Daxia (Bactria) became so “surfeited with Han goods” that the people no longer prized the goods at all.³⁰ The acceptance of lawless men to act as envoys

²⁴ Xinru Liu, *The Silk Road in World History*, 10.

²⁵ Jack Cranmer-Byng, *Lord Macartney’s Embassy to Peking in 1793: From Official Chinese Documents*, 118.

²⁶ Carol J. Kaufman, “The Evaluation of Marketing in a Society: The Han Dynasty of Ancient China,” *Journal of Macromarketing* 7, no. 2 (1987): 58.

²⁷ Ban Gu, *Food & Money in Ancient China: Han Shu 24*, trans. Nancy L. Swann (Princeton: Princeton University Press, 1950), 231.

²⁸ *Ibid.*, 275-283.

²⁹ Sima Qian, *Records of the Grand Historian: Han Dynasty II*, 242.

³⁰ *Ibid.*, 241.

and the failure to regulate the export of Chinese goods demonstrate the Han government's inattention to managing trade. Such carelessness strongly suggests that the Silk Road, in its formative years, was not primarily a sponsored commercial enterprise.

Hence, in addition to the aforementioned geographic security and economic incentives for Han westward expansion, there was likely a more potent incentive that drove the Han government to incur expansion at such great costs. Zhang Qian's report of Dayuan, northern Bactria, suggests the likely source:

Dayuan lies southwest of the territory of the Xiongnu, some 10,000 li directly west of China. The people are settled on the land, plowing the fields and growing rice and wheat. They also make wine out of grapes. The region has many fine horses, which sweat blood; their forebears are supposed to have been foaled from heavenly horses.³¹

The blood-sweating horse greatly interested Emperor Wudi. Impressed by their hardiness and larger size when compared with other steeds, Wudi bestowed upon them the title of "heavenly horses"(天馬).³² Numerous interactions between Han China and Central Asia convey the Han Chinese appreciation and desire for strong Central Asian horse breeds. For example, after receiving the horses of Dayuan, it is written that the emperor "sent a constant stream of envoys to that region to acquire them."³³ When the Central Asian Wusun tribe proposed a marriage alliance with Han China, the Chinese requested a betrothal gift of 1000 horses.³⁴ Moreover, when the king of Dayuan was discovered hiding his country's best horses in Ershi, Emperor Wudi dispatched a caravan of envoys to bargain. The Dayuan king

³¹ Sima Qian, *Records of the Grand Historian: Han Dynasty*, 233.

³² *Ibid.*, 240.

³³ *Ibid.*, 240-243.

³⁴ *Ibid.*, 240-243.

refused and ordered the envoys to be executed. In retaliation, the emperor sent General Li Guangli to besiege Ershi. Failure was unacceptable to Wudi and, when Li Guangli attempted to retreat, the emperor ordered him not to return. Sima Qian writes that Wudi's persistence is also evident in the fact that the Han had already suffered concurrent military defeats to the Xiongnu, and there existed a general need for Chinese armies to protect the peace internally rather than outside Han borders. Undeterred, the emperor sent a larger army to Li Guangli's position to ensure that the general succeeded. Among these, Wudi also sent individuals who were "skilled in judging horses."³⁵ Realizing that defeat to the Han was inevitable, the inhabitants of Dayuan assassinated their king and made an offer: a trade of 3000 of their finest horses for peace. Considering prospect of Dayuan reinforcements, the 30,000-strong Chinese army accepted the offer, selected their desired horses, and promptly returned home.³⁶

Some might argue that the war against Dayuan was incited by the murders of Han envoys, not the desire for horses, and that peace was only agreed to because of the Dayuan king's assassination. However, this assertion is contradicted by the fact that no military engagement of such scale was recorded being sent against the aforementioned bandit tribes, who murdered countless Han envoys traveling along Zhang Qian's proposed southwestern route toward India. This argument also neglects the purpose of Emperor Wudi's decision to send an envoy to Ershi in the first place: to acquire horses. The fact that the Chinese army, equipped with those specifically selected to judge the quality of horses, left Ershi unharmed after accepting the offer of peace for horses further evidences that the most important Han motive for war with Dayuan was horse acquisition. It is likely that the murder of the Han envoys and the death of Dayuan's king were only pretexts for initiating hostilities. Whether in the form of tribute, trade, or gifts, horses clearly played a central role in early Chinese interactions with Central Asia. Therefore, although Zhang Qian was the first

³⁵ Sima Qian, *Records of the Grand Historian: Han Dynasty*, 245-250.

³⁶ *Ibid.*, 245-250.

state-recognized agent to travel to the Western Regions, it was the key resource of Central Asian horses, arguably more so than geographic security and economic potential, that urged Han China to send envoys, wage costly wars, and establish varying routes along the Silk Road.

3. Benefiting from Contact: Military Potential of Central Asian Horses

Although scholars have generally viewed the blood-sweating horse as an exotic curiosity with questionable practical purpose, evidence suggests that the Han Dynasty viewed Central Asian horses as a military resource that the empire could not afford to overlook.³⁷ According to Sima Qian, Emperor Wudi had prophesied by divining through the *I Ching* that heavenly horses would appear from the northwest. In contrast to the rational incentives of geographic security and economic potential, some scholars have suggested that Wudi's endeavor to acquire Central Asian horses stemmed from a personal obsession.³⁸ A closer examination of horses in Chinese culture, however, suggests that the acquisition of Central Asian horses was certainly a rational initiative. Horses had been used for many purposes in China since at least the Shang Dynasty (1600-1046 BC).³⁹ Analyzing the height of skeletal remains, Chow Ben-Shun writes that ancient Chinese horses between the Shang Dynasty and the Spring and Autumn Period (770-476 BC) gradually grew in average size, from 133 centimeters to 149 centimeters in height. Characteristics such as heavy heads with short bodies and legs identified them as being related to the small-statured Przewalski's horse.⁴⁰ These horses' growth in height, however, suggests that ancient Chinese horse breeders may have conducted

³⁷ Xinru Liu, *Ancient India and Ancient China: trade and religious exchanges, AD 1-600* (Delphi: Oxford University Press, 1988), 13.

³⁸ Craig Benjamin, *Empires of Ancient Eurasia: The First Silk Roads Era, 100 BCE – 250 CE* (Cambridge: Cambridge University Press, 2018), 29.

³⁹ Yuan Fang. "The Favorite Animal: The Horse as Mingqi in Han Tombs." (Thesis., Cornell University, 2017), 1.

⁴⁰ Chow Ben-Shun, "The Domestic Horse of the Pre-Ch'in Period in China," *The Walking Larder: Patterns of Domestication, Pastoralism, and Predation 2* (1989): 106.

artificial selection for larger horses. As a result, centuries prior to Emperor Wudi's affinity for heavenly horses, it seems as though the Chinese were already interested in obtaining larger steeds.

A possible reason for Chinese interest in larger horse breeds can be found in the tomb of China's 'First Emperor,' Shi Huangdi. The terracotta army in the famous mausoleum of Emperor Shi Huangdi at Lintong is an invaluable source of information regarding military horse usage during the Qin Dynasty (221-206 BC). Due to the fact that the Han Dynasty succeeded the Qin Dynasty's short fifteen-year reign, it can be reasonably assumed that the horses depicted in the Qin tomb were similar to those available during the early Han. The Qin tomb also showcases numerous chariots and smaller contingents of light cavalry. The sculpted chariot and saddle horses reveal the same stocky characteristics of the ancient horse remains examined by Chow Ben-Shun.⁴¹ Additionally, these life-size terracotta statues display the prevalent (or even idealized) equine conformation of China's warhorses, shedding light on the physical shortcomings of Chinese horses compared to those bred in Central Asia. Chinese horses' diminutive physique, coupled with their heavy heads, meant that Chinese horses likely suffered from poor balance, a quality necessary for smooth maneuverability and greater power.⁴² The saddle horse statues also display a post-legged conformation in the hind leg, which can cause strain on the horse's hock joint. Historian Luce Boulnois adds that Chinese horses had hooves that wore out quickly, making long-distance campaigns extremely difficult. Furthermore, China was agriculturist, and the widespread planting of cereal crops resulted in poor pasturelands for horses.⁴³ Austin Coates offered

⁴¹ Ibid., 106.

⁴² Kylee Jo Duberstein, "Evaluating Horse Conformation," *University of Georgia: Extension/Publications* (2012): 3-5.

⁴³ Luce Boulnois, *Silk Road: Monks, Warriors and Merchants*, trans. Helen Loveday (Editions Olizane: Geneva, Switzerland, 2005), 76.

another explanation: “The horse cannot be bred successfully in China due to the calcium deficiency in all organic matter including water.”⁴⁴

By contrast, Bactria was filled with lush Central Asian grasslands, perfect for breeding horses, with herdsman dotting the landscape as they still do today. Ancient inhabitants of the Eurasian steppe were among the first to master horseback riding.⁴⁵ Bactrian horses, raised in a land with good pastures and a cultural emphasis on horses, were reputed to traverse mountains, jump far, and gallop gracefully. In addition to ‘sweating blood,’ horses of Dayuan were said to cover “a thousand li” in a day. Chinese poetry adds that these horses even had “a double spinal column” for additional comfort when seated on or riding them (although this description may, I suspect, be the result of confusion between Bactrian horses and Bactrian camels).⁴⁶ Nevertheless, the high reputation of Central Asian horses for being larger, hardier, and swifter beasts than Chinese horses would certainly have caught the attention of the Han Dynasty.

Further evidence that the development of the “Silk Road” can be traced to the Han pursuit of Central Asian horses can be found in the sudden change in representation of horses in Han art. For example, sculptures from tombs dating to the Han Dynasty after Wudi’s reign show a sudden change in the species of horses being represented. One sculpture, named the “Flying Horse of Gansu,” presents a graceful horse in mid-flight, with one leg resting on a bird.⁴⁷ The horse depicted is noticeably larger in physique than those represented by the Han’s Qin predecessors. Furthermore, the Weishan terracotta army illustrates a Han Dynasty battle formation, with cavalry serving as the vanguard—a significant shift from the less prominent role of

⁴⁴ In Frances Wood, *The Silk Road: 2000 Years in the Heart of Asia* (Berkeley: University of California Press, 2002), 54.

⁴⁵ Xinru Liu, *The Silk Road in World History*, 1.

⁴⁶ Valerie Hansen, *The Silk Road: A New History*. (New York: Oxford University Press, 2012), 16; Luce Boulnois, *Silk Road: Monks, Warriors and Merchants*, trans. Helen Loveday (Editions Olizane: Geneva, Switzerland, 2005), 77.

⁴⁷ *Ibid.*, 83.

cavalry displayed in the Qin tomb.⁴⁸ Evidently, Central Asian horses were not only used by the Han military, but their significance also altered the composition of the army.

Recent biological research also alludes to the practical justification for Emperor Wudi to desire Central Asian horses. Sequencing mitochondrial DNA of modern Chinese and Mongolian horse breeds, a team of scientists from the Shaanxi Key Laboratory of Molecular Biology for Agriculture has reported greater genetic diversity among Chinese horses. Compared with the sequences of Bronze Age Chinese horse remains obtained from GenBank, the modern Chinese breeds were still more genetically diverse. Scientists have suggested that procuring horses from foreign lands and interbreeding them with native horse populations would result in the observed genetic diversity.⁴⁹ While it is highly unlikely that Emperor Wudi possessed such an understanding of genetics, his motivations and actions required only observation and a basic understanding of inherited traits. Furthermore, evidenced by osteological and archaeological research, the horses of ancient China would have been physically inept for war. Sima Qian's record shows that Wudi certainly observed and was impressed by the advantages of Central Asian horses. Subsequent importation of strong Central Asian horses and the intermixing of horse populations (suggested by genetic research) allowed the Han armies to acquire stronger and more diverse steeds. Han tombs further reveal that these new horses were certainly put to military use. As a result, although Emperor Wudi may have been personally or religiously motivated to obtain the heavenly horses of Central Asia, Wudi's acquisition certainly entailed the practical motivation of improving the Chinese military.

⁴⁸ Yuan Fang, "The Favorite Animal: The Horse as Mingqi in Han Tombs." (Thesis., Cornell University, 2017), 24; Frances Wood, *The Silk Road: 2000 Years in the Heart of Asia* (Berkeley: University of California Press, 2002), 54.

⁴⁹ C.Z. Lei, R. Su, M. A. Bower, C. J. Edwards, X. B. Wang, S. Weining, L. Liu, W. M. Xie, F. Li, R. Y. Liu, Y. S. Zhang, C. M. Zhang and H. Chen, "Multiple maternal origins of native modern and ancient horse populations in China," *Animal Genetics* 40, no. 6 (2009): 933-944.

4. Reciprocating Contact: Bactria's Incentives

As the Han Dynasty expanded its trade routes westward, the Bactrians reciprocated diplomatically. Few scholars, if any, have credited Bactria with the opening of the Silk Road. Nevertheless, a trade route consists of two ends. Although Zhang Qian's informative expedition and the military potential of Central Asian horses incentivized Han China to expand westward, the states of Central Asia should also share credit with their involvement in creating the official Silk Road. Bactria's incentives for maintaining early trade with the Han were similar to those of China in their regard to economics and security. Regarding economics, Xinru Liu notes that silk was highly desired by the people of Central Asia.⁵⁰ Because silk production remained a Chinese secret for centuries, bypassing middlemen through direct trade with China offered Bactria a cheaper method to obtain the luxury textile. Moreover, surplus in Han goods did not harm Bactrian commercial interests, because Bactrians could resell the merchandise at higher prices to other countries and peoples. Consequently, the Roman Empire, located at the westward end of the Silk Road, suffered the exorbitant prices that silk goods accumulated as they were traded westward.⁵¹ Evidence of deep Bactrian involvement in Silk Road trade is also prevalent. After Alexander the Great's conquest of Bactria-Sogdiana, an influx of Greek colonists settled in Central Asia.⁵² Over subsequent generations, their customs merged with those of the native population, creating a hybrid culture.⁵³ Greek influences, such as a bustling system of trade, facilitated by the Attic standard that was originally introduced to Central Asia by Alexander the Great, were discovered in recent excavations

⁵⁰ Xinru Liu, *The Silk Road in World History*, 10.

⁵¹ Frances Wood, *The Silk Road: 2000 Years in the Heart of Asia*, 30.

⁵² Frank L. Holt, *Alexander the Great and Bactria: The Formation of a Greek Frontier in Central Asia* (Mnemosyne, Bibliotheca Classica Batava. Supplementum; Vol. 104, Leiden; New York: E.J. Brill, 1988) 79-80.

⁵³ Rachel Mairs, *The Hellenistic Far East: Archaeology, Language, and Identity in Greek Central Asia* (University of California Press, 2016), 99.

at Ai Khanoum in Bactria. Although archaeologists did not identify an ἀγορά (public marketplace) in this prominent Bactrian city, a mint was discovered, complete with blank planchets.⁵⁴ Vessels in the treasury room also reveal a complex transaction system, where government officials inspected and signed off transactions and stored goods, both domestic and foreign.⁵⁵ Traces of this lively mercantile culture are noted in Sima Qian's record:

The people are poor in the use of arms and afraid of battle, but they are clever at commerce. After the Great Yuezhi moved west and attacked and conquered Daxia, the entire country came under their sway... The capital is called the city of Lanshi (Bactra) and has a market where all sorts of goods are bought and sold.⁵⁶

Zhang Qian visited Bactria (Daxia) at the end of its former glory (the Yuezhi, ousted by the Xiongnu, had exerted its power over the waning Bactrian state). Nevertheless, Zhang Qian's praiseworthy assessment of Daxia's merchants demonstrates that Bactria still harbored a thriving commercial atmosphere. Unlike the Han Dynasty at that time, it is evident that Bactrian society did not hold such a negative view of the merchant profession.

In addition to the benefits of trade with the Han Dynasty, there were security benefits to be gained for Bactria as well. Zhang Qian describes Dayuan, or northern Bactria, as having a similar culture to Daxia.⁵⁷

⁵⁴ Laurianne Martinez-Sève, "The Spatial Organization of Ai Khanoum, a Greek City in Afghanistan," *American Journal of Archaeology* 118, no. 2 (2014): 279; Rachel Mairs, *The Hellenistic Far East: Archaeology, Language, and Identity in Greek Central Asia* (Oakland: University of California Press, 2016), 50.

⁵⁵ Rachel Mairs, *The Hellenistic Far East: Archaeology, Language, and Identity in Greek Central Asia* (University of California Press, 2016), 49-51.

⁵⁶ Sima Qian, *Records of the Grand Historian: Han Dynasty II*, 235.

⁵⁷ *Ibid.*, 235.

Apparently separated from the rest of Bactria, Dayuan was initially skeptical of the security potential that interactions with Han China could offer. Such skepticism is evident in the Dayuan king's desire to keep his best horses in Ershi, killing Chinese envoys while stating that China was too far away to be of any threat to Dayuan or, as one can reasonably extrapolate, to Dayuan's neighboring states in Central Asia.⁵⁸ Li Guangli's campaign altered this perception; although difficult, Han China proved capable of enforcing its military might deep into the Western Regions. Furthermore, Dayuan's allies failed to come to their aid against the Han.⁵⁹ Years after the conflict, the inhabitants of Dayuan assassinated the puppet leader installed by the Han armies. However, the newly chosen king, Chanfeng, "sent his son as a hostage to the Han court."⁶⁰ As a result, it is evident that Dayuan saw immense benefit in facilitating relations with Han China. Although Dayuan did not wish to be subservient to Han sovereignty, it also dared not to extinguish the link between Bactria and China. Encouraged by both economic and security potential, Daxia and Dayuan actively facilitated trade with Han China, ultimately aiding in the creation of the official Silk Road.

Conclusion

Scholars have generally fully accredited or deemphasized the importance of Zhang Qian's expedition in the creation of the Silk Road. Analyzing evidence from Sima Qian's *Shiji* and Ban Gu's *Han Shu*, I have argued that Zhang Qian's expedition and his encouragement of further contact with the Western Regions of China were instrumental in initiating official trade. Although previous research has accepted the role of economic and security potential as the primary motivations for Chinese efforts to maintain contact and trade with Bactria and Central Asia, I have argued that continued contact was primarily a military gambit to acquire stronger

⁵⁸ *Ibid.*, 245-246.

⁵⁹ *Ibid.*, 249.

⁶⁰ *Ibid.*, 251-252.

breeds of horses. Evidence for this conclusion can be found in ancient literary texts as well as from sculptural, osteological, and genetic research on Chinese horses. Finally, regarding Bactria, trade with China unlocked Bactrian economic potential and created a new ally in China during a period of Bactrian decline. Evidence to such effect can be found in both Chinese imperial records and in Central Asian archaeological findings. Although the incentives behind the Silk Road's creation were varied, I have argued that it was Zhang Qian's expedition, the discovery of new breeds of horses, and the combined efforts of Han China and Bactria that would begin a tradition of official trade between China and Central Asia, paving the way for the ancient Silk Road.

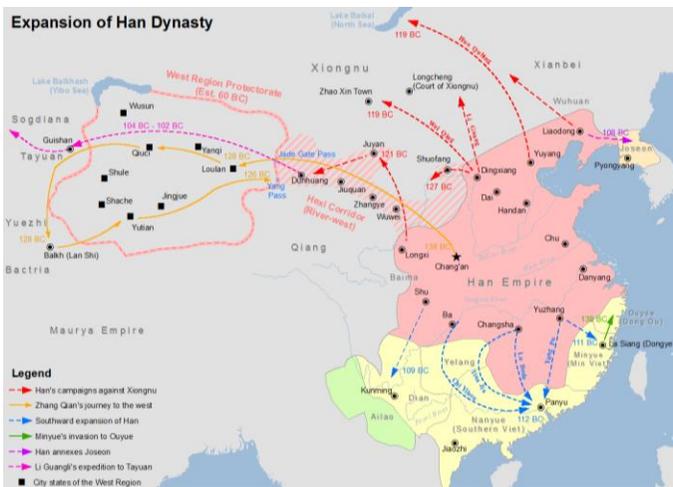


Figure 1: Zhang Qian (Yellow) and Li Guangli's (Pink) Expedition

“Expansion of Han Dynasty.” Digital Image. Accessed December 6, 2018.
https://upload.wikimedia.org/wikipedia/commons/e/e1/Han_Expansion.png



Figure 2: Pre-Han Dynasty Chinese Horse from the Mausoleum of the First Emperor

“Qin Dynasty 221 – 206 BCE.” Digital Image. Accessed December 6, 2018.
http://people.ucls.uchicago.edu/~bwildem/art_hist_laba/chinese.html



Figure 3: Han Dynasty Horses

Zhengwei, Huang. April 10, 2016. *From Luoyang to Hexi Corridor*.
Luoyang Museum, Luoyang. Accessed December 6, 2018.
http://m.chinadaily.com.cn/en/2016-04/12/content_24470676.htm



Figure 4: Flying Horse of Gansu

“Flying horse of Gansu. Eastern Han dynasty 25 – 220 AD.” Digital
Image. Gansu Provincial Museum, Lanzhou. Accessed December 6, 2018.
https://upload.wikimedia.org/wikipedia/commons/2/25/Gansu_Museum_2007_257.jpg

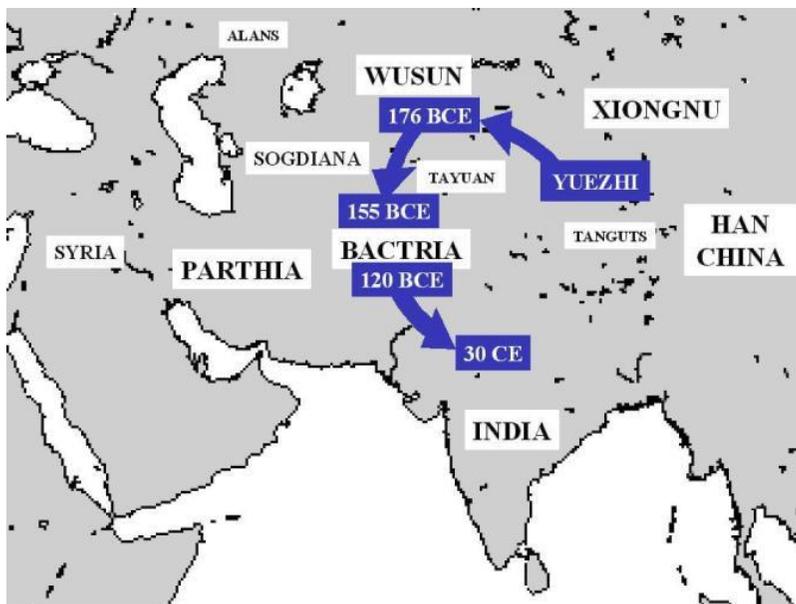


Figure 5: Yuezhi Nomadic Movement and Bactrian Decline

“Yueh-Chih Migrations.” Digital Image. Accessed December 6, 2018.
<https://upload.wikimedia.org/wikipedia/commons/a/ac/Yueh-ChihMigrations.jpg>

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