

Silk Road Civilization through the Lens of Gansu Han-Dynasty Bamboo Slips and Wooden Tablets

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Abstract: The Han-dynasty bamboo slips and wooden tablets unearthed in Gansu, most notably the Juyan, Xuanquan, Dunhuang, and Jianshui Jinguan collections, encompass military defense, postal relay, administration, laws and statutes, economic exchange, cultural institutions, Confucian classics, medical texts, and private correspondence and emotions, collectively charting the landscape of Han-dynasty governance and cultural life. Analysis of their spatial distribution and content reveals two defining features of Silk Road civilization: an officially established order and a sustained mutual learning animated by bidirectional exchange. It is in the interplay between institutional design and daily practice that the distinctiveness of Silk Road civilization can be grasped most fully.

Keywords: Gansu Han-dynasty bamboo slips and wooden tablets; Silk Road civilization; Exchanges and mutual learning among civilizations

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1. Introduction

Since the early twentieth century, over sixty thousand bamboo slips and wooden tablets excavated from frontier beacon tower and posthouse sites and from tombs of the Qin, Han, Wei, and Jin dynasties in Gansu have earned the province the title “home of Han-dynasty bamboo slips and wooden tablets” and fostered a strikingly distinctive slip culture^[1]. Spatially, the findspots map onto the Han-dynasty border defense system with remarkable precision, forming a distribution belt from Jianshui Jinguan and the Diwan Site northward along the Ruo Shui, past the Dawan Site to the Juyan Fortress, and westward via the Majuanwan Beacon Tower of Dunhuang to the Xuanquan Posthouse Site.

The belt displays a clear functional division: the Juyan Region as the core northern defense zone, Jianshui Jinguan as a frontier inspection station, Xuanquan Posthouse as a postal reception hub, and Majuanwan as a forward outpost under the Wang Mang period (9–23 AD). By this time, Dunhuang had already become “a grand city where Chinese and nomadic peoples converged”^[1]. Including imperial edicts,

laws and statutes, postal station itinerary registers, envoy correspondence records, and tallies, the Xuanquan slips constitute the primary archive and real-time record of Silk Road history ^[2].

2. Contents of the Gansu Han-dynasty bamboo slips and wooden tablets

The bamboo slips and wooden tablets of Gansu province derive from three primary archaeological contexts: frontier fortress sites documenting military garrison and agro-colonization; postal relay sites recording postal documents and personnel reception; and burials yielding classical texts and burial inventory lists ^[1]. Their content spans two intertwined spheres, state governance and cultural life, revealing how top-down institutional design was actualized in the everyday workings at the grassroots.

2.1. State governance

The state governance documented on the bamboo slips and wooden tablets finds its most concentrated expression in the coordinated operation of military defense, administration, postal relay, laws and statutes, and economic exchange.

The Military Defense System: It was defined by an integrated garrison-agro-colonial system, an interconnected beacon network, and uninterrupted postal relay lines, transforming the Hexi Corridor from a mere geographical barrier into the military foundation upon which the empire projected security and control into the Western Regions. It also supplied the most fundamental order for Silk Road trade and diplomacy: only a frontier that could be held could produce a road that could be traversed.

“□□... adversary... penetrated the tian tian of Chengbai Beacon at Sajing Patrol and traversed Linmu.

... Meng, Commandant of Chengbei Section, and junior clerk Qu apprehended enemy horses. Verified.”
(231·9)

Recovered from the Jiaqu Patrol 甲渠候官, this slip reveals that the Hsiung-nu infiltrated the tian tian 天田 surveillance sand strip of Chengbei Beacon 诚北隧 at the Sajing Patrol 卅井 and entered the Linmu Section.

In the sixth month of Hongjia 1 (20 BCE), on the gengwuday, Chang, Scribe of the Eastern Section, reports: “An inquest was duly conducted.”

“At the third division of sunrise, a signal was dispatched from the Lan beacon and relayed to soldier Wanfu. Gong.”

On the Jisi (己 巳) day (the 6th day of the sexagenary cycle) of the sixth month, the commandant notified the office: Fugitives from Juyan reportedly crossed into the northern boundary of Guangdi, and a red beacon signal was raised with delay. The commandant orders:

“..... Tuotuo (橐佗) and Jianshui shall each, within their respective sectors, relay and hand over [the signal], and remit a report to the commandant pursuant to the beacon - fire regulations... X

Tuotuo XX”

This fragment, drawn from the *Military Regulations on Frontier Beacon Fires*(塞上烽火品约), documents an emergency administrative investigation triggered by desertions and the resulting “delayed transmission” of beacon signals in the sixth month of the first year of the Hongjia reign period of Emperor Cheng of the Han dynasty (20 BCE). This institutional emergency response mechanism, which fused beacon signals, document transmission, and performance assessment laws into a single apparatus, turned the Hexi

frontier from a defense reliant on soldiers' judgment into an ordered system that was predictable, traceable, and auditable. It thereby furnished the foundational institutional support for the long-range security of the Silk Road.

Administration: Wooden and bamboo slips constituted the fundamental medium for official administrative writing and a principal channel for inter-agency communication. A reliable supply of such slips was essential to sustaining the routine operations of government^[3]. The Jianshui Jinguan slips preserve an array of tallies, permits, and notification documents that meticulously register the identities of persons crossing the frontier gates, functioning as concrete instruments of Han-dynasty social governance^[1]. These credentials sustained an institutional equilibrium between military security and commercial circulation through proceduralized checkpoint control.

Yuanfeng 2 (79 BCE), second month, guimaoday:

Juyan and Jinguan produced a six-cun passage tally.

Notched, sequentially numbered 1–1000.

Left half retained at office; right half transferred to Jinguan.

Match to proceed.

Notch no. 893.

(73EJF1:31)

This slip, from the Jianshui Jinguan Han-dynasty bamboo slips and wooden tablets, reveals how the tally encoded frontier passage in a precision apparatus: standardized dimensions, enumerated notches, and split-verification across two sites rendered access rights traceable, verifiable, and tamper-proof. Central control over Hexi transit nodes was thus materialized as a standardized credential protocol, furnishing the foundational order for the movement of people and goods along the Silk Road.

Postal Relay: The Xuanquan bamboo slips and wooden tablets consist predominantly of documents governing the transportation network, a discovery that has opened fresh vistas for Silk Road scholarship^[4]. The Han-dynasty postal system comprised the post station, postal relay station, postal station, and watchtower, with the zhi ranking as the highest postal organ under the commandery. As recorded in *The Western Regions according to Book of the Later Han*, “they established military farms on fertile lands, and deployed postal stations at strategic passes”^[1]. Anchored by institutions such as the Xuanquan Posthouse and connected by relay routes traversing hundreds of miles, this east-west postal network across Gansu furnished the logistical and transport infrastructure that kept the eastern Silk Road unobstructed. It reveals the lived reality of political, economic, and cultural exchange during the Han dynasty, standing as both a documentary chronicle and a defining marker of Silk Road prosperity during the Han dynasty^[5].

Laws and Statutes: Nearly twenty statutes and ordinances surface in the bamboo slips and wooden tablets of Gansu province, including the *Statutes on the Prison* (囚 律), *Statutes on the Stables* (厩 律), *Statutes on the Forwarding of Documents* (行书律), *Statutes on Checking* (效律), *Ordinance on Striking the Xiongnu and Rewarding Those Who Surrender* (击匈奴降者令), *Ordinance on Granting Meritorious Service* (赐劳令), and “*Ordinances of the Northern Frontier*” (北边挈令), which collectively underpinned Han-dynasty documentary administration^[6]. *The Kangju Envoys' Register* (康居王使者册) records an incident from the fifth year of the Yongguang reign period, Western Han dynasty (39 BCE): the envoys of Kangju and the king of Suxie 苏薤, together with a nobleman from Gumo, submitted a joint appeal after the camels they offered as tribute were unilaterally assessed by the Governor of Jiuquan as “lean and fallow”

and consequently undervalued. The court directed Dunhuang Commandery to investigate and report. A complete foreign-related judicial document, which provides invaluable firsthand evidence for studying the Han-dynasty tribute system, diplomatic negotiations with the Western Regions, and administrative — judicial procedures.

Economic Exchange: Transactions involving grain, coinage, textiles, and livestock, along with debt obligations, constitute the largest category of content.

Account of Expenditure for the Frontier Consoling Envoy's Passage:

Fine millet, 8*dou*, value 160;

Hulled grain, 3*shi*, value 450;

Sheep, 2, value 500;

Ale, 2*shi*, value 280;

Salt and fermented soybeans, 1*dou* each, value 30;

Jijiang condiment, value 50.

Total travel expenditure: 1,470.

Officials present at Jianshui: 27 persons, averaging 55 per person.

The Account of Expenditure for the Frontier Consoling Envoy's Passage, unearthed from the Jianshui Jinguan site, meticulously details the costs incurred upon the arrival of an imperial consoling envoy. The expenses for this official reception were divided equally among 27 officials, providing a precious cross-section of Han social life.

2.2. Cultural life

Complementing the institutional rigidity of state records, the bamboo slips and wooden tablets preserve abundant traces of everyday existence.

Private Correspondence and Emotions: In the desolate northwestern frontier, where garrison duty was grueling, soldiers sustained their bonds with home largely through the bamboo slips and wooden tablets.

In the first year of the Yuankang reign period (65 BCE), on the *jiachen* (甲辰) day of the tenth month, Guangde, bailiff (*se fu* 啬夫) of the Pass, and his assistant Xi report:

Zhao Fu of Shouling Village, Dunhuang, urgently petitioned, stating that her husband Xie, serving as chief of Qianqiu Beacon, is to be sent winter clothing and supplies. We request, in accordance with regulations, that she be permitted to exit the pass. Respectfully reported.

The Record of Clothes Sending by the Dunhuang Woman Zhao Fu (敦煌女子赵负送衣记), recovered from the Han-dynasty beacon tower Site at Majuanwan, Dunhuang, transports the reader to November 5, 65 BCE. With winter only days away, a woman named Zhao Fu applied to local authorities for permission to deliver warm garments to her husband garrisoned beyond the Yumen Pass. Such plain words, reaching across two millennia, render immediate the emotional world of ordinary lives lived in the Silk Road era.

Cultural Institutions: Cultural institutions in the bamboo slips and wooden tablets of Gansu province—centering on the transmission of Confucian classics, elementary scribal training, the promulgation of statutes and imperial edicts, the dissemination of seasonal ordinances, and mortuary rites—represented the systematic extension of Han central ideology and ritual-legal norms to the Hexi frontier. Through these institutions, the Hexi Corridor ceased to function merely as a geographical military perimeter; it became an ordered space culturally isomorphic with the Central Plains and institutionally replicable, furnishing the deep substratum of

cultural identity essential to the Silk Road's long-term stability.

The Emperor issues an edict to the Chancellor and the Imperial Secretary: "From the time of Emperor Gao down to the second year of the present reign, We have deeply pitied the aged and the young."

"Those of advanced age who receive the Imperial Staff, upon which a turtledove is carved, shall have it visible to the common people and regarded as equal to an imperial tally."

The Emperor further edicts: "Those aged seventy who receive the Imperial Staff shall be treated as if of the six-hundred-bushel rank; they may enter the palace without hastening their pace."

"Should they commit a crime punishable by shaving of the beard or more severe, they shall not be impeached by a formal legal complaint. Anyone who dares to summon, oppress, or humiliate them shall be deemed guilty of the most heinous treason."

"In the first year of the Heping reign period, Xian of Changli Village, Xiling County, Runan, aged seventy, received the Imperial Staff."

"... Wushang, the Patrol Officer of Ying Section, ordered his attendants to assault Xian... The Commandant of Justice reported: The offense is manifestly clear. Wushang shall be executed in the marketplace."

The Imperial Staff System exemplifies the Han doctrine of "governing the realm through filial piety." It elevated filial reverence from a domestic virtue to a state ordinance, operating on the principle of upholding morality and exercising measured penalization—granting privileges and leniency to staff-holders while punishing violators with public execution. This configuration reveals a co-governance by virtue and law, in which legal force served the Confucian ethical order and provided officially established protection for the elderly.

Confucian Classics: The bamboo slips and wooden tablets of Confucian texts excavated at Wuwei and other Gansu sites attest that, following Emperor Wu's policy to "dismiss the hundred schools, revere only the Confucians," core classics such as *the Book of Etiquette and Ceremonial*, *the Classic of Filial Piety*, and the *Analect* reached the remote northwestern frontier with remarkable precision and systemization. Their dissemination paralleled the Han establishment of commanderies and counties and the advance of military agro-colonization in the Hexi Corridor, grounding frontier life in an institutionalized classical curriculum.

Medical Texts: The Wuwei medical bamboo slips and wooden tablets were unearthed in November 1972 from an Eastern Han-dynasty tomb at Hantanpo, Xiawuyi Dadui, Baishu Commune, Wuwei County ^[1]. The corpus comprises 92 medical slips recording over 30 complete formulas and nearly 100 medicinal substances, spanning internal medicine, external medicine, gynecology, otorhinolaryngology, and acupuncture. The texts document names of diseases, symptoms, dosages of medicinals, methods of drug preparation, times of administration, and acupuncture points and their contraindications. They attest to a well-developed principle of syndrome differentiation and treatment: externally contracted cold-damage disorders and internal miscellaneous diseases received distinct therapeutic approaches, and compound prescriptions were already in use, signaling that Han formulary science had reached a high level of sophistication. The Dunhuang and Juyan slips contain as many as 94 records concerning cold-induced febrile disease, constituting the earliest, most numerous, and most systematic documentation of *shanghan* among all Han slips discovered to date ^[7].

3. Distinctive character of Silk Road civilization in Gansu Han-dynasty bamboo slips and wooden tablets

Pioneered by Zhang Qian and consolidated under Emperors Wu, Zhao, and Xuan of the Western Han-dynasty, the Silk Road had by the mid-to-late Western Han-dynasty become a thoroughfare bustling with envoys and merchants, inaugurating the first great wave of Sino-Western exchange ^[4]. These primary archives from Gansu chronicle the granular routines of frontier governance while bringing into relief two defining features of Silk Road civilization: an institutional order propelled by centralized state power, and multidirectional exchanges and mutual learning among civilizations conducted within that very framework.

As records of Han-dynasty frontier governance, the slips illuminate an institutional order sustained by state agency—a systemic infrastructure of administrative documents, military deployments, and postal relay networks. Imperial edicts, the most direct embodiment of imperial will, reveal the degree to which the autocratic centralized state deployed documentary governance to regulate local affairs and project authority ^[8]. It was precisely this document-based bureaucracy that transformed the Hexi Corridor from a geographical passage into a tightly administered domain. Silk Road civilization thus emerged not as the spontaneous byproduct of commercial exchange but as the calculated extension of state administrative rationality into the frontier—an institutional civilization incarnated in documentary order.

The Gansu slips portray a bidirectional dynamic of reception and transmission, a sustained process of exchanges and mutual learning among civilizations, rather than unilateral cultural radiation from the center. The earliest Chinese wooden-slip documents were recovered from Niya and Loulan. The wooden slips unearthed in Xinjiang include both Chinese and Kharoṣṭhī specimens. Beyond the Western Regions proper, a substantial corpus of Han slips pertinent to the history of the Western Regions has also been discovered at sites such as Majuanwan and Xuanquan in Gansu ^[9]. On the eastward flow of Western civilization, the Xuanquan slips record Han court relations with major oasis states along the Northern Route—Jushi (车师), Guhu (孤胡), Shanguo (山国), Weixu (危须), Yanqi (焉耆), Wulei (乌垒), Quli (渠犁), Qiuci [Kucha] (龟兹), Gumo (姑墨), Wensu (温宿), Wusun (乌孙), and Dayuan [Ferghana] (大宛)—and the Southern Route—Loulan [Shanshan] (楼兰/鄯善), Qiemo (且末), Xiaoyuan (小宛), Jingjue (精绝), Yumi (扞弥), Qule (渠勒), Yutian [Khotan] (于阗), Pishan (皮山), Shache [Yarkand] (莎车), Puli (蒲梨), and Shule [Kashgar] (疏勒) ^[4]. The mention of “the Small Futu Hamlet” 小浮屠里 in the same corpus attests that Buddhism had already reached Dunhuang and assimilated into local life by the latter half of the first century AD. The slips also preserve records of “interpreter-riders,” mounted couriers proficient in both Chinese and minority languages, signaling that cross-linguistic mediation had become routine in Silk Road administration. Westward, the slips themselves served as material vehicles of institutional civilization. The four-tier defense system of Commandant 都尉—Company Commander 候官—Section 候部—Beacon Tower 烽隧 and its documentary protocols traveled with the slips. The discovery of vast quantities of northwestern part over the past century has, as scholars observe, “profoundly transformed research on Qin-Han history, the historical geography of the northwest, the Silk Road, and the history of Sino-foreign relations.” One scholar aptly notes that with the opening of the Silk Road and the establishment of the four Hexi commanderies, “the will of the state extended along the ancient routes from Longdong through Hexi to the Western Regions,” not only fostering the collision and fusion of civilizations but also incorporating the Western Regions into the effective jurisdiction of the central government.

Gansu was instrumental in opening, sustaining, and facilitating exchange along the Silk Road in the

Han dynasty, which profoundly reshaped the political, economic, cultural, artistic, philosophical, and scientific landscapes of China and the regions along its route ^[5]. As documentary records, it captured the ingress of foreign civilizational elements; as material artifacts, they embodied the outward projection of Chinese institutional civilization. This convergence of reception and transmission within a single medium—simultaneously archive and vehicle—offers the most compelling testimony to the exchanges and mutual learning that defined Silk Road civilization. The bamboo slips and wooden tablets excavated in Gansu are thus themselves “products of cultural exchange and mutual learning among civilizations.”

4. Conclusion

The Silk Road civilization preserved in the Gansu Han-dynasty bamboo slips and wooden tablets emerges from the interplay of an officially established institutional order and sustained mutual learning among civilizations, each constitutive of the other ^[10]. Postal relay networks, documentary administration, military defense, and statutory regulation converged to erect a precise and durable operational framework for the Silk Road. Far from an insular apparatus of control, this framework supplied the reliable physical and institutional infrastructure through which goods, envoys, and cultures circulated and intermingled with remarkable regularity, revealing a distinctively Chinese mode of early cross-civilizational engagement, one in which institutional capacity formed the very backbone of exchange, and the deep imprint of Chinese civilizational openness remains legible in the ink on bamboo and wood.

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References

- [1] Ma Z, 2021, Bamboo and Wooden Slips in Gansu: The Home of Han Wooden Slips in China. Gansu People's Press, Lanzhou.
- [2] Zhang D, 2025, Northwestern Han Inscribed Slips and the Study of the Authentic History of the Silk Road. Guangming Daily, March 17, 2025, 14.
- [3] Shen G, 2024, Routine Supply and Distribution of Wooden and Bamboo Slips in Local Government and the Centralization of the Qin–Han State. Gansu Social Sciences, 2024(4): 56–64.
- [4] Ma Z, 2017, Dunhuang Han Wooden Slips: Historical Witness to the Unobstructed Silk Road in the Han Dynasty. Guangming Daily, February 15, 2017, 11.
- [5] Wang S, 2020, Han Dynasty Postal Relay Stations on the Silk Road, Gansu Daily, 2020-07-22.
- [6] Li Y, 2021, Administrative Management in the Qin and Han Dynasties as Seen from Gansu Bamboo Slips, Gansu Daily, 2021-04-08(009).

- [7] Sun Q, He S, Zhang D, 2017, Frontier Medicine of the Han Dynasty on the Silk Road as Seen in Dunhuang and Juyan Slips. *Dunhuang Research*, 2017(6): 140–146.
- [8] Li J, Chen M, 2019, Seventy Years of Bamboo and Wooden Slip Studies. *Chinese Culture Research*, 2019(3): 1–25.
- [9] Zhang D, 2025, Excavated Bamboo Slips and the Study of the History of the Western Regions. *Western Regions Studies*, 2025(2): 1–4.
- [10] Liu X, 2010, *The Silk Road in World History*. Oxford University Press, New York.

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