

## Funerary animals in the Liangzhou area (Northwest China) during the Han Dynasty

Yilin PEI & Lele REN





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Sculpture en bois de la dynastie Han provenant des tombes Mozuizi. Crédit photo: Lele REN / *Han Dynasty wooden sculpture excavated from the Mozuizi tombs.*  
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# Funerary animals in the Liangzhou area (Northwest China) during the Han Dynasty

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## ABSTRACT

The burial customs of the Han Dynasty (202 BC–220 AD) represent a fascinating evolution of ritual practices, building upon the Qin system and giving rise to a distinct funeral culture in Northwest China. One of the most notable features of this culture was the practice of animal burial, a powerful symbol of both the wealth and social hierarchy of the time. Beyond its social and economic implications, animal burial also offered a glimpse into the everyday lives, customs, and dietary habits of the Han people. During this period, the burial of real animals was complemented by the increasingly popular practice of depositing animal figurines, a unique feature of Han funerary rites. This study sets out to explore and dissect the animal burial customs in Liangzhou, a region rich in archaeological data, to provide a deeper understanding of the local funeral culture. By blending findings from archaeological excavations with historical texts, this research paints a vivid picture of the region's customs, the evolution of its economy, and its cultural exchanges with neighboring areas. Our findings reveal a striking transformation in the practice of animal burial across the Han dynasty. In the Western Han period, it was common to bury real animals, but by the Eastern Han period, this tradition gave way to the deposit of animal figurines. The species chosen for burial underwent a fascinating evolution: in the early Western Han dynasty, cattle, caprine (sheep and goat), and horses were the primary animals represented. However, over time, the range of species broadened to include dogs, chickens, ducks, and even the mythical unicorn. The figurines themselves were predominantly made from wood, with some crafted from talc or pottery – each material choice reflecting different symbolic and practical considerations. The animal burial practices of Liangzhou not only reveals the cultural fusion occurring in the region – where the influences of southern Chu culture, northern Xiongnu (Huns) culture, and the Central Plains all converged – but also relates to the economic landscape of the era. The rise of the manor economy during the Han dynasty is embedded within these burial practices, suggesting a deeper connection between funerary rites and the socioeconomic realities of the time.

**KEY WORDS**  
Han dynasty,  
tombs,  
zoomorphic figurines,  
animal burials.

## RÉSUMÉ

*Animaux funéraires de l'époque des Han dans la région de Liangzhou (Chine du Nord-Ouest).*

Les coutumes funéraires de la dynastie des Han (202 avant J.-C.-220 après J.-C.) constituent une fascinante évolution des pratiques rituelles, qui s'appuient sur le système Qin et donnent naissance à une culture funéraire distincte dans le Nord-Ouest de la Chine. Une des caractéristiques les plus remarquables de cette culture est la pratique de l'inhumation d'animaux, un puissant symbole de la richesse et de la hiérarchie sociale de l'époque. Au-delà de ses implications sociales et économiques, l'inhumation d'animaux offre également un aperçu de la vie quotidienne, des coutumes et des habitudes alimentaires des Han. Pendant cette période, l'inhumation d'animaux fut complétée par la pratique de plus en plus populaire de dépôt de figurines d'animaux, une caractéristique unique des rites funéraires des Han. Cette étude a pour but d'explorer et d'analyser les coutumes funéraires impliquant des animaux à Liangzhou, une région riche en données archéologiques, afin d'offrir une compréhension plus profonde de la culture funéraire locale. En combinant les découvertes de fouilles archéologiques avec les textes historiques, cette recherche dessine une image vivante des coutumes de la région, de l'évolution de son économie et de ses échanges culturels avec les régions voisines. Nos conclusions révèlent une transformation marquante dans la pratique des inhumations d'animaux au cours de la dynastie des Han. Pendant la période des Han occidentaux, il était courant d'inhumer des animaux, mais à l'époque des Han orientaux, cette tradition céda la place à l'inhumation de figurines d'animaux. Les espèces choisies pour l'inhumation ont connu une évolution fascinante : au début de la dynastie des Han occidentaux, les bovins, les caprins (moutons et chèvres), et les chevaux étaient les principaux animaux représentés. Cependant, au fil du temps, la gamme d'espèces s'élargit pour inclure les chiens, les poulets, les canards et même la mythique licorne. Les figurines étaient principalement fabriquées en bois, certaines étant réalisées en talc ou en poterie – chaque choix de matériau reflétant différentes considérations symboliques et pratiques. Les coutumes funéraires impliquant des animaux à Liangzhou témoignent non seulement de la fusion culturelle se produisant dans la région – où les influences de la culture du sud des Chu, de la culture nordique des Xiongnu (Huns) et des plaines du Centre ont convergé – mais révèlent également le paysage économique de l'époque. La montée de l'économie manoriale pendant la dynastie des Han est ancrée dans ces coutumes funéraires, suggérant un lien plus profond entre les rites funéraires et les réalités socioéconomiques de l'époque.

## MOTS CLÉS

Dynastie Han,  
tombes,  
figurines zoomorphes,  
inhumations d'animaux.

## INTRODUCTION

The use of animals in funeral rites and burials was an important way for ancient humans to utilize animals and a significant component of funeral culture (Yuan 2015). The belief that death is like life is a profound understanding and unique expression of the ancients in China towards life and death (Li 2020). Animals, as symbols of wealth and power, therefore, became very important burial objects. As early as the Neolithic Age (10 000-2000 BC), many animals were buried along with the dead. Many tombs of the Yangshao Culture (5000-3000 BC) and Longshan Culture (3000-2000 BC) contained a large number of animal burials. During the Xia (2029-1559 BC), Shang (1559-1046 BC) and Zhou (1046-256 BC) dynasties, with the progress of social productive forces, animal burials reached their peak, and there was a clear trend of diversification, complexity, hierarchy, and scale (Yuan 2015). Following the Qin Dynasty (221-207 BC), the custom of burying animals persisted in the Han Dynasty (202 BC-220 AD), albeit with a declining trend, with animal burials gradually being substituted with figurative models (Deng 2015). Through the study of animal burials, we can not only reconstruct the relationship between the ancestors of the Han Dynasty and animals but

also reflect the funeral customs and characteristics of the economic livelihood of that time.

Throughout the development of animal burials, the Han Dynasty was the most representative period. During this period, not only did the previous custom of burying animals continue but also the use of figurative models emerged. The Liangzhou region in Northwest China served as a must-pass destination for the Silk Road during the Han Dynasty, and its funeral culture was influenced by the Central Plains while maintaining its uniqueness. The species and materials of the animals buried with the dead differed significantly from those found in the Central Plains and southern regions. The unearthed animal remains and figurines include not only common livestock such as chickens and dogs (*Canis familiaris* Linnaeus, 1758) but also species with regional characteristics such as camels. Owing to the arid natural environment, the animal remains and figurines in the Liangzhou region were also well preserved, and the types of figurines, including pottery figurines, wooden figurines, and talc figurines, which were prevalent in South China, were relatively abundant. With a wealth of diverse research materials available, the present study comprehensively analyses the burial practices of animals and animal figurines, specifically during the Han Dynasty era in the Liangzhou area.

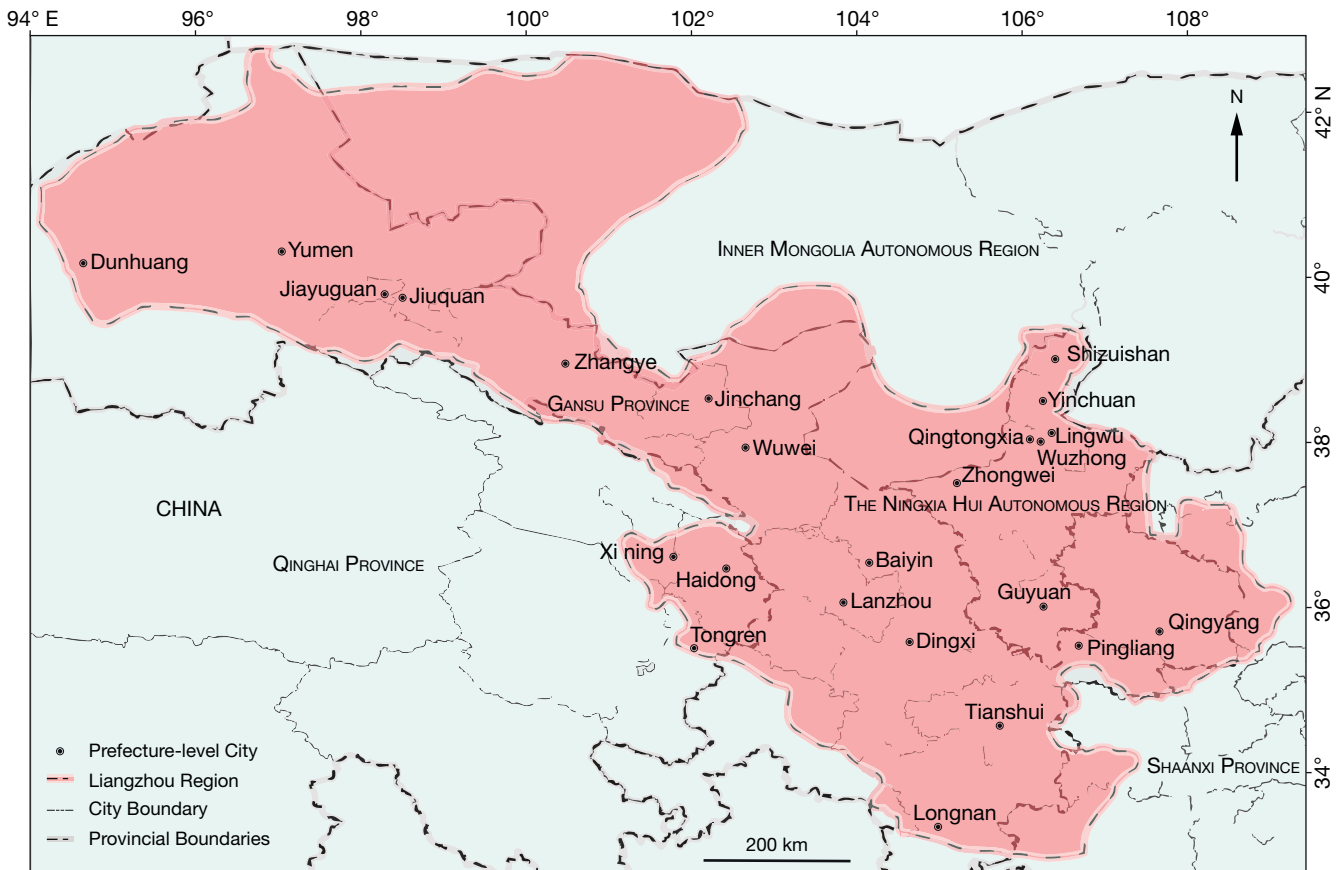


FIG. 1. — Liangzhou area during the Han Dynasty.

On the basis of the current research situation, scholars' studies on animal burial practices have focused mainly on the Neolithic Age to the Warring States Period (10000-221 BC). Furthermore, the research on animal role in burials during the Han Dynasty, especially the burial of animals, has become increasingly limited. Specifically, in the Liangzhou region, the current research on animal burials has focused mostly on individual tombs or tomb groups, with relatively rich achievements in studies of the tombs in Heishuiguo Cemetery in Ganzhou, Zhangye, and the Baguaying cemetery in Minle of Gansu province. However, there is a lack of systematic regional research. Therefore, this article aims to provide a systematic overview of animal burial practices in the Liangzhou region, offering a new perspective from which to deeply understand ancient Liangzhou's social culture, religious beliefs, and funeral customs in detail.

## STUDY AREAS

The Liangzhou region during the Han Dynasty was located mainly in the northwest area of present-day China and included mainly the upper Yellow River area and the Hexi Corridor area (Fig. 1). The upper reaches of the Yellow River covered the eastern part of the Liangzhou area, which was rich in water resources and provided important resources for the development of local agriculture, whereas the Hexi Corridor

represented the western part of the Liangzhou area, which was sandwiched between two mountains, neighboring the Qilian Mountains in the north and the Kunlun Mountains in the south, with a wide valley plain in the middle that had a relatively high terrain and a dry climate but was endowed with abundant grassland resources and was suitable for the development of animal husbandry.

During the Western Han Dynasty, Liangzhou underwent a significant historical turning point. In the fifth year of Yuanfeng (106 BC), during the reign of Emperor Wu of the Han Dynasty, to strengthen centralization, the entire country was divided into thirteen prefectures, known as the Thirteen Inspectorates. Among them, the Inspectorate of Liangzhou had at least eight confirmed jurisdictions, including Longxi prefecture, Wuwei prefecture, Zhangye prefecture, Jiuquan prefecture, Dunhuang prefecture, Tianshui prefecture, Jincheng prefecture, and Anding prefecture (Liu 2020), which correspond to today's Lintao, Wuwei Liangzhou district, Jiuquan Suzhou district, Dunhuang, Tongwei, and Lanzhou in Gansu province, and the Guyuan area in the Ningxia Hui autonomous region. During the Eastern Han Dynasty, the scope of the Inspectorate of Liangzhou gradually expanded eastwards, incorporating Wudu and Beidi prefectures in addition to the original eight, which correspond to today's Qingyang in Gansu province and the Wuzhong area in Ningxia Hui autonomous region.

In general, the Liangzhou region during the Han Dynasty encompassed most of today's Gansu, Ningxia, and the eastern regions of Qinghai. The spatial scope of this study is the jurisdiction of the Liangzhou State Governor's Department during the Eastern Han Dynasty, as shown in Figure 1, which comprises the Hexi region, including Dunhuang, Jiayuguan, Jiuquan, Zhangye, and Wuwei; the central region, including Lanzhou and Dingxi; the Eastern region, encompassing Qingyang, Pingliang, and Guyuan; and southern regions, such as Tianshui and Longnan. Notably, the Liangzhou region referred to in this article is the Liangzhou region during the Han Dynasty, which should be distinguished from the modern Liangzhou district in Wuwei city. Additionally, the temporal scope of this study covers the period from the Western Han Dynasty to the Eastern Han Dynasty, including the Xin Dynasty (9–23 AD) established by Wang Mang. A large number of Han Dynasty tombs were excavated in the region, among which not only a considerable amount of animal remains have been discovered but also animal figurines, both of which possess distinct regional characteristics and provide ample materials for our research.

## MATERIALS AND METHODS

On the basis of available published materials, this article compiles data from more than 800 Han Dynasty tombs in the Liangzhou region, with the geographical distribution shown in Figure 2. Among them, the larger-scale tomb groups include the Heishuiguo Han tomb group in Ganzhou, Zhangye city, and the Shuiquanzi Han tomb group in Yongchang county, with more than 100 tombs excavated in each group. However, owing to the limited availability of detailed information on each tomb, as many tombs have been only briefly reported without comprehensive excavation data, the data and results presented in this article remain incomplete. Therefore, this article focuses only on the Han Dynasty tombs whose excavation materials have been published in details.

In the course of this study, we first consulted historical documents, collected relevant materials, searched for historical data related to Liangzhou in the Han Dynasty, and found materials that were helpful for the study of burial objects in the Han tombs in Liangzhou. On the basis of these findings, in reference to archaeological excavation reports, statistical methods were applied to summarize and sort the animal remains and figurines unearthed from the tombs to explore the deeper cultural connotations behind them.

## RESULTS

Since the founding of New China, with the rapid development of China's infrastructure construction and archaeology, significant achievements have been made in the excavation of Han Dynasty tombs in the Liangzhou region. These include the archaeological excavations of large tomb groups such as the Mozuizi Han Tombs in Wuwei (Dang 1958; Chen 1960; Gansu Provincial Museum 1960, 1972; Zhao 2005; Zhu *et al.* 2011; Wang *et al.*

2012), and the Heishuiguo Han Tombs in Ganzhou, Zhangye (Gansu Provincial Institute of Cultural Relics and Archaeology 2019). The excavation of Han Dynasty tombs in the Liangzhou region has provided valuable evidence for us to study the history and culture of the Liangzhou region during the Han Dynasty. Through these excavations, we can further understand the social structure, economic conditions, lifestyle, and relationships with the Central Plains and Western Regions in the Liangzhou region during the Han Dynasty. Many animals, including horses (*Equus caballus* Linnaeus, 1758), camels, cattle (*Bos taurus* Linnaeus, 1758), caprines (sheep [*Ovis aries* Linnaeus, 1758] and goats [*Capra hircus* Linnaeus, 1758]), were buried in the Han tombs in the Liangzhou region (Appendix 1). Additionally, many animal figurines, which commonly feature caprine, horses, cattle, and other animals, were also buried as accompaniments (Appendix 2).

### OVERVIEW OF THE ANIMAL SKELETONS AND ANIMAL FIGURINE BURIAL FINDS IN THE LIANGZHOU AREA

The phenomenon of animal burial can be traced back to the Neolithic period. With the development of social productive forces and changes in people's funeral concepts, a trend emerged in the Han Dynasty in which animal figurines replaced real animals as funeral objects. The tombs containing animal remains unearthed in the Liangzhou region are mainly concentrated in the Heishuiguo Tomb Group in Ganzhou and the Baguaying Tomb Group in Minle (Gansu Provincial Institute of Cultural Relics and Archaeology 2014). The tombs from which animal figurines were unearthed are mainly found in the Mozuizi Han Tombs in Wuwei and the Xiaheqing Han Tombs in Jiuquan (Gansu Provincial Cultural Relics Management Committee 1959; Ni 1960). The specific discoveries are as follows:

#### Hexi Region

The number of tombs with animal skeletons in the Hexi region is limited, and most date from the mid-Western Han Dynasty to the early Eastern Han Dynasty. There are three major sites: the Han tomb group in Heishuiguo, Zhangye (Gansu Provincial Institute of Cultural Relics and Archaeology 2019); the Han tomb group in Baguaying, Minle (Gansu Provincial Institute of Cultural Relics and Archaeology 2014); and the Han tomb group in Mozuizi, Wuwei (Dang 1958; Chen 1960; Gansu Provincial Museum 1960, 1972; Zhao 2005; Zhu *et al.* 2011; Wang *et al.* 2012). The analysis of the data from the excavated animal remains mentioned above revealed that chicken bones accounted for a significant proportion, followed by pig (*Sus domesticus* Erxleben, 1777) bones and caprine bones. Notably, camel bones have also been unearthed in this region.

In contrast to real animals, many animal figurines have been discovered in the Hexi region. There are a total of seven tomb clusters where animal figurines were unearthed, namely the Xiaheqing Han Tomb Cluster in Jiuquan City, the Wenshu Town Han Tomb Cluster in Jiayuguan City (Yu & Wang 2014), as well as three Han Tomb Clusters in Zhangye City, namely the Luotuocheng Han Tomb Cluster (Zhang *et al.* 2006), the Linze County Han Tomb Cluster (Wang *et al.* 2023), and the Jiazidun Han Tomb Cluster. Additionally, there are the Shuiquanzi Han Tomb Cluster in Yongchang City (Wang *et al.*



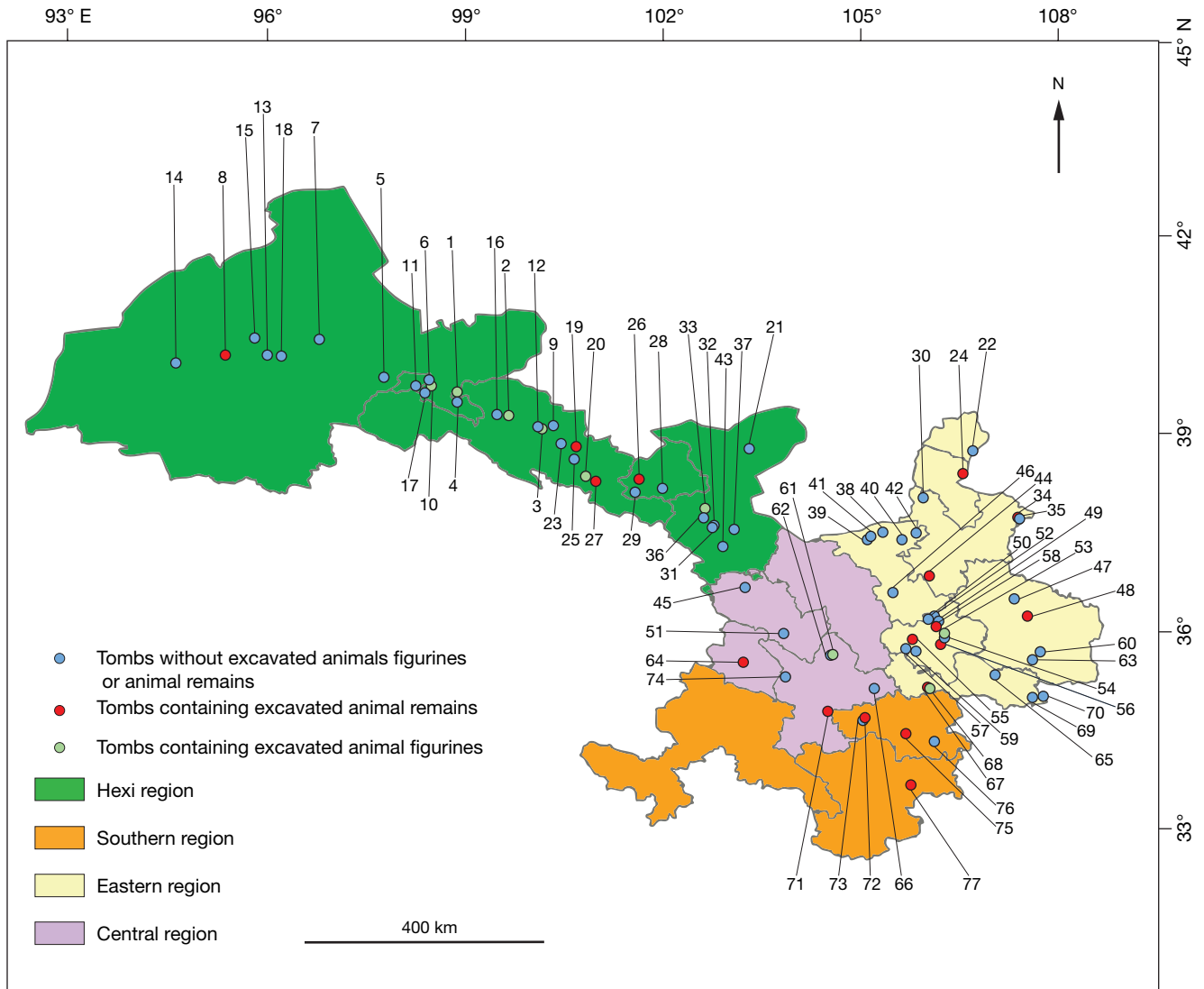


FIG. 2. — Distribution of Han Dynasty tombs in Liangzhou: 1, Xiaheqing; 2, Luotuocheng; 3, Linzehuayin; 4, Yezhugou; 5, Baituliang; 6, Xigou; 7, Wudaogou; 8, Xuan-quanzhi; 9, Guojiaohatan; 10, Wenshu; 11, Yuquan; 12, Shahe; 13, Suoyangcheng; 14, Qijiaowan; 15, Tashi; 16, Xusanwan; 17, Xincheng; 18, Mingshui; 19, Heishuigou; 20, Jiazidun; 21, Guancaigeda; 22, Binggou; 23, Zhuanbaodun; 24, Hengcheng; 25, Hanzhuang; 26, Shuiquanzi; 27, Baguaying; 28, Chaiwangang; 29, Huanjiazhuang; 30, Shaogang; 31, Dongqueping; 32, Hantanpo; 33, Mozuizi; 34, Zhangjiachang; 35, Yuanjigou; 36, Wubashan; 37, Qingshiwan; 38, Mingsha; 39, Changle, Shapotou; 40, Changle; 41, Banjiezishan; 42, Longkeng; 43, Dongjiata; 44, Daodunzi; 45, Nanguan; 46, Huwan; 47, Liujiawan; 48, Quzi; 49, Chenjiawa; 50, Xiyuan; 51, Northwest Minzu University; 52, Yinma River; 53, Beiyuan; 54, the Northern Courtyard of Guyuan Museum; 55, Jiulongshan; 56, Guyuan; 57, Yangjiahe; 58, Yangjiazhuang; 59, Baolin; 60, Xinzhuang; 61, Zhaojiaping; 62, Chankou; 63, Yelin; 64, Dahezhuang; 65, Biejiaogou; 66, Dongjiazhuang; 67, Sijiaowa; 68, Lijayuelou; 69, Gaowanghe; 70, Chenjiashan; 71, Dunping; 72, Donghanping; 73, Xihanping; 74, Dongershipu; 75, Xishanping; 76, Fangmatan; 77, Jianchuannanwan.

2017) and the Mozuizi Han Tomb Cluster in Wuwei City. Most of them depict images of cattle, horses, and caprines and are primarily made of wood, with a small number made of talc and pottery. As time progresses, the variety of animal figurines used for burial becomes more diverse. During the middle to late Western Han Dynasty, the main animal figurines buried were cattle and horses. However, during the Xin Dynasty and the Eastern Han Dynasty, new images such as pigs, dogs, monkeys, and Xiezhi (a mythical beast) began to appear.

#### Central Region

The tombs in the central region that have yielded remains of real animals include the Han tombs of Dahezhuang in Linxia (Zheng 1961) and the Han tombs of Dunping in Zhangxian

(Yang & Mao 2018). Animal bones such as those of horses, cattle, and caprine have been excavated, and the burial method primarily involves the use of animal limb bones, including mandibles, skulls, and scapulas. Animal figurines have only been discovered in the Han Dynasty tomb cluster at Zhaojiaping in Dingxi City (Chinese Archaeological Society 2023), their quantity and species identification are however unknown.

#### Eastern Region

In the eastern region, a relatively large number of animal remains have been excavated, which is consistent with the development of agriculture and animal husbandry in this area. Specifically, seven tomb groups in which animal remains have been found exist, including the Han tombs in Quzi (Liu & He 1986), Sijiaowa

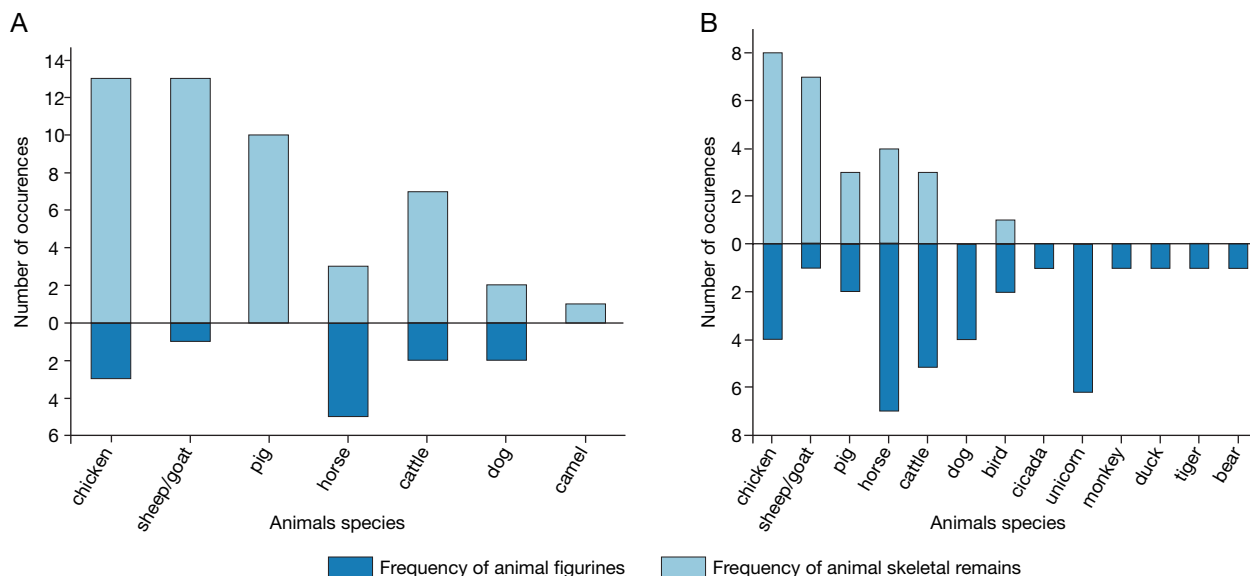


FIG. 3. — Frequency of animal skeletal remains and figurines per species in burial contexts in the Liangzhou area during the Han Dynasty: **A**, Western Han Dynasty; **B**, Eastern Han Dynasty.

(Zhao *et al.* 2017), Zhangjiachang (Xu 1988), Daodunzi (Zhong *et al.* 1987), Hengcheng (Zhao 2020), Yangjiazhuang (Zhou *et al.* 2021), and Jiulongshan (Chinese Archaeological Society 2005). The region has unearthed a diverse range of animal remains, including domesticated animals such as chickens, dogs, pigs, caprine, and horses. Among them, caprine bones were the most frequently unearthed, with six out of the seven aforementioned tomb clusters containing sheep or goat bones as burial offerings, and sheep or goat heads were the most distinctive among these. The discovery of animal figurines in the eastern region is relatively rare, with only one terracotta dog figurine and two terracotta chicken figurines unearthed from the Han tombs in Beiyuan (Guyuan Museum of Ningxia 1995), in addition to an uncertain number of terracotta cattle figurines excavated from the Lijiayuelou Tomb (Chinese Archaeological Society 2024).

#### Southern Region

After excavations in the southern region, a total of three tombs with animal remains were discovered, namely, the Donghanping (Mao & Zhou 2003), Xishanping (Wang *et al.* 1988) and Jianchuannanwan Han tombs (Chinese Archaeological Society 2005), all dating from the Western Han Dynasty. Among them, the Donghanping Han tomb revealed a case of dog sacrifice, while Tomb M2 of the Jianchuannanwan Han tomb was rich in buried animals, with more than 20 horse skulls unearthed according to published data.

#### SPATIAL AND TEMPORAL DISTRIBUTION OF ANIMAL SKELETAL REMAINS AND ANIMAL FIGURINE BURIAL IN THE LIANGZHOU AREA

The Liangzhou region during the Han Dynasty featured a rich variety of animals used in burial practices, with notable changes over time and across different regions. As illustrated in Figure 3, a temporal analysis reveals that during the Western Han Dynasty,

a substantial number of real animals were utilized as burial offerings. Notably, chickens and caprines were the most commonly found, each with an excavation frequency of 13, followed by pigs, cattle, horses, dogs, and camels. However, during this period, animal figurines were infrequently discovered, exhibiting a limited range of varieties and considerably lower excavation frequencies compared to animals skeletal remains. Among these figurines, horses were the most prevalent, yet with only five occurrences. In stark contrast, during the Eastern Han Dynasty, the practice of burying real animals declined, whereas the number and variety of animal figurines increased markedly. In addition to the traditional six domestic animals, new animal depictions emerged, encompassing birds, unicorns, monkeys, ducks, tigers, and bears. Among these animal figurines, horses exhibited the highest excavation frequency, reaching seven, followed closely by unicorns and cattle with respectively six and five occurrences.

From a spatial perspective, as depicted in Figure 4, tombs containing real animals as burial offerings are predominantly located in central and southern Gansu, as well as the eastern region of Liangzhou. In stark contrast, the Hexi region exhibits a significantly lower incidence of real animals being buried with the deceased and a higher occurrence of animal figurines. Animal skeletons found in the central Liangzhou area are limited to two cattle, two caprines, and one horse. In the southern region, one dog, one cattle, one horse, and one caprine skeleton were discovered. Notably, no animal figurines have been found in the southern regions. In the eastern region, real animals dominate the burial offerings, with six occurrences for caprines, three for chicken, two for horses, five for cattle, and one for pigs. Additionally, a limited number of animal figurines, including one dog figurine and one chicken figurine, have been uncovered. The Hexi region distinguishes itself from the other three by possessing a substantial quantity and variety of unearthed animal figurines,



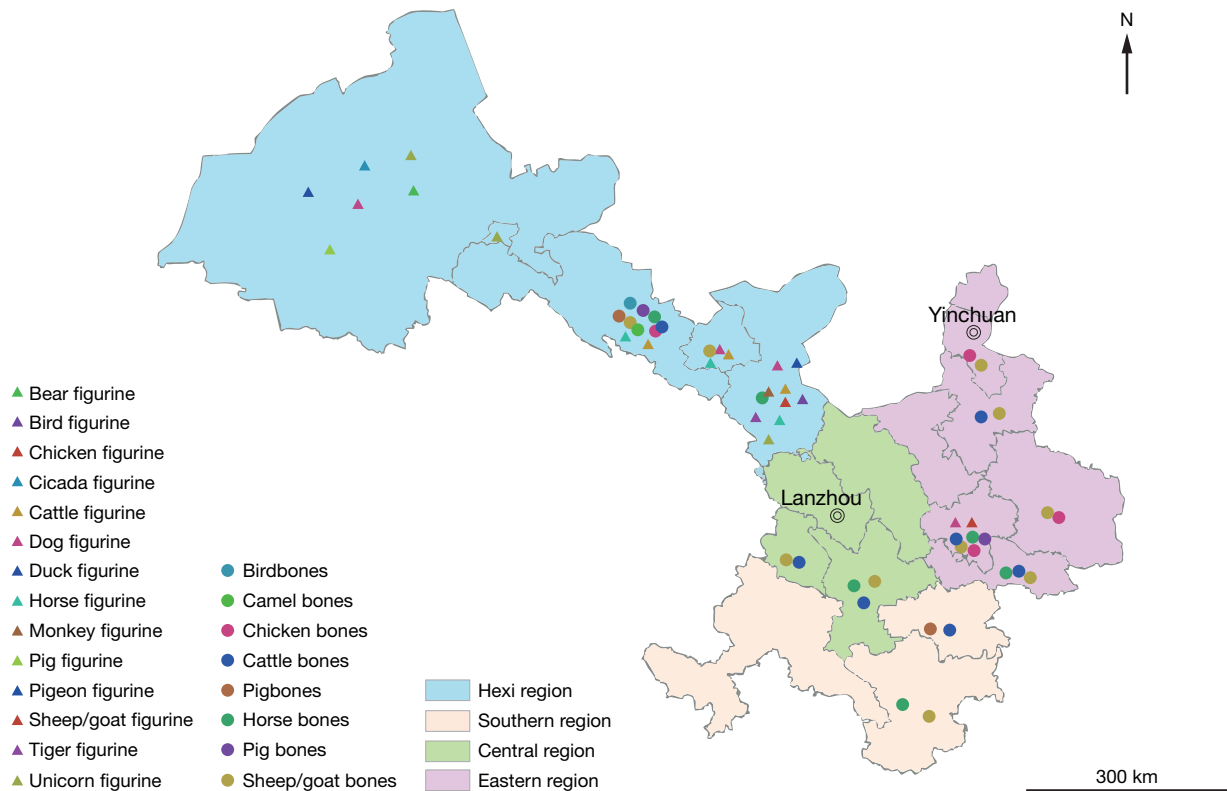


FIG. 4. — Distribution of animal skeletal remains and figurines per species discovered in burial contexts in various municipal administrative regions.

coupled with a lesser number of animal skeletal remains. Among the animals remains found, chickens were discovered twice, pigs once, caprine twice, cattle twice, horses twice, and camels once. Among the animal figurines, cattle, horses, and unicorns are the most frequently unearthed, each discovered five times, followed by dogs, which have been found three times. Other animal figurines, such as chickens, pigs, caprine, pigeons, cicadas, monkeys, birds, and ducks, have each been discovered once.

## DISCUSSION

### CHARACTERISTICS OF THE BURIED ANIMALS

In the Han Dynasty tombs with animal remains excavated in the Liangzhou area, six domestic species are primarily buried with the dead. They include cattle, caprine, and other representative animals of the livestock economy, as well as pigs and chickens, which are emblematic of the agricultural economy. Temporally, the practice of burying animals was prevalent during the Western Han Dynasty and gradually declined during the Eastern Han Dynasty (Fig. 3). Geographically, tombs with buried animal are concentrated in the central, southern, and eastern regions of the Liangzhou Region. These areas likely boasted relatively advanced agriculture and animal husbandry during the Han Dynasty, resulting in a heavy reliance on animals in people's daily lives, which is reflected in the abundance of animals buried in the tombs.

The animal figurines excavated from the Han Dynasty tombs in the Liangzhou area exhibit diverse forms and species. From a temporal perspective, fewer animal figurines were found during the Western Han Dynasty, while more diverse species, including not only six common domestic animal species but also wild animals such as monkeys and tigers, were discovered during the Eastern Han Dynasty. Geographically, more animal figurines were buried in the Hexi region. In the eastern, central, and southern regions, they are relatively scarce, especially in today's Ningxia region, with only one dog terracotta figurine and two chicken terracotta figurines found in the Beiyuan Han Tomb Cluster in Guyuan.

Overall, the role of animals in burials in the Liangzhou area is characterized by a temporal pattern of more real animals in the Western Han Dynasty and more animal figurines in the Eastern Han Dynasty, as well as a geographical feature of more real animals in the eastern and southern regions and more animal figurines in the Hexi region. The diverse species and abundance of animal burials reveal the development of the animal husbandry and agricultural economies in Liangzhou during the Han Dynasty.

As a concrete embodiment of ancient material culture, the material of animal figurines can also reflect the cultural exchanges among different regions. The animal figurines in the Liangzhou region are mostly made of wood, with a smaller number crafted from clay, copper, limestone, and talc. The custom of burying talc objects originated in the Changsha area of Hunan Province in the middle of the Warring States

period, and the custom of burying talc objects in other regions was influenced by the Hunan area (Li 2001). During the Han Dynasty, many talc-made funeral objects were also unearthed from tombs in southern China. Hunan is rich in talc, so talc objects are concentrated in Hunan Province, especially in Xiangxi, Changsha, Hengyang and other areas (Zhang 2015). However, in the Xiaheqing Han tombs in Jiuquan, Gansu Province, talc pigs and talc cicadas were also found (Ni 1960). This discovery not only broadens our understanding of the geographical distribution of talc craftsmanship but also is a vivid example of cultural exchanges and integration between regions during the Han Dynasty. The appearance of these talc objects is undoubtedly closely related to trade, population migration and cultural exchanges along the Silk Road.

In addition to domestic mammals and poultry, which are closely related to people's lives, the unicorn, which is considered as a mythical creature – Xiezhi – is also frequently unearthed from the Han tombs in the Liangzhou area. According to the published data, 11 Xiezhi figurines have been found in Han tombs in the Liangzhou area and these figurines are often placed at the entrance of the tomb chamber as tomb-guarding animals. According to the records in the *Book of the Later Han Dynasty*, Xiezhi, the divine caprine, can distinguish right and wrong. The King of Chu once captured it, so he used it as a crown (Fan 2012). As a symbol of bravery and justice, Xiezhi appeared in the late Western Han Dynasty and reached its peak in the Eastern Han Dynasty. Many kinds and quantities of Xiezhi figurines were unearthed, which played a role in driving away evil spirits and protecting the peace of the tomb owner. This is a manifestation of people's concept of treating death as life.

Many pigeon-headed staff were also found in the Han tombs in the Liangzhou area. According to the published data, twice pigeon-headed staff were unearthed from the Han tombs in the Liangzhou area, all of which were made of wood. In the Han Dynasty, pigeon-shaped staffs were often given special moral and symbolic meanings. It may represent the cultural tradition of respecting elderly individuals, as it was a symbol granted to the elderly in that era, reflecting society's respect and care for elderly individuals. In addition, the pigeon-shaped staff may also be related to religious beliefs and mythological legends of that time, serving as a medium for communication between humans and gods (Wang 2020). These pigeon-shaped staffs buried with the dead not only demonstrated the noble status of the tomb owners but also reflected the importance of respecting the elderly in society at that time.

#### BURIAL CUSTOMS REFLECTED IN THE ANIMAL BURIALS IN THE LIANGZHOU AREA OF THE HAN DYNASTY

The Han Dynasty was a period in which the burial customs of ancient Chinese ancestors underwent significant changes. In the early stages of the Han Dynasty, with the recovery and development of the economy, people's living standards gradually improved, and their concept of death also changed, leading to more elaborate burials (Li 2020). It is widely believed that death is not the end of life but rather a continuation in another form. Therefore, to enable the deceased to live a bet-

ter life in the afterlife, people spared no effort or resources to build luxurious tombs and bury the dead with abundant items. The animals buried in the Liangzhou area, both in terms of species and quantity, are abundant, imitating the world of the tomb owner before their death to the fullest extent possible. With filial piety as the governance of the Han Dynasty, Confucianism played a significant role in Han society. The concepts of filial piety and ritual systems are deeply ingrained in people's minds, and it is generally believed that the richness of burial offerings and the grandeur of funeral ceremonies are important ways to demonstrate filial piety and etiquette (Li 2020). In addition to the dominance of filial piety culture, the Taoist concept of pursuing immortality also influenced the funeral customs of the Han Dynasty. The advocacy of Taoist nature-following somewhat diminished people's fear and sorrow towards death, and people began to seek ways to extend the life of the deceased through burial offerings. Furthermore, the burial items were also a means for eunuchs, aristocrats, and powerful landlords to showcase their social status and wealth, and the strengthening of the social hierarchy further promoted the prevalence of elaborate burials.

In the Liangzhou area during the Western Han Dynasty, the tombs mainly inherited the Qin system, with a relatively large number of animals buried. For example, in the Western Han tombs at Heishuiguo in Ganzhou, Zhangye, many domesticated and wild animals of various species were discovered; similarly, many animal skeletons were found in the Baguaying cemetery in Minle County. Starting from the middle and late Western Han Dynasty, people's burial concepts began to change, and the burial utensils tended to become ritualistic. The number and species of animal figurines unearthed during this period significantly changed compared with those in the earlier stage. From the early Eastern Han Dynasty, relatively abundant animal figurines were unearthed in the Liangzhou area, and domestic animals such as chickens and caprine frequently appeared, reflecting an increasingly strong sense of life. In addition to domestic animals, pottery warehouses, pottery stoves, and other living utensils were also unearthed, gradually covering all aspects of life.

The Liangzhou area is located on the northwestern border of China, and its funeral culture is influenced by the Central Plains culture, the Eurasian steppe culture and the southern Jingchu culture. The Liangzhou region is adjacent to the Central Plains, and burial customs such as burying pigs, chickens, and pottery figurines are deeply influenced by the funeral culture of the Central Plains (Deng 2015). In addition, many unicorn images were unearthed from the Han tombs in the Liangzhou area, which may have been influenced by the Eurasian steppe culture. During the Qin and Han Dynasties, while absorbing the Han culture, the Xiongnu combined Eurasian steppe cultural elements to form a unique Xiongnu culture. Among the gold and silver ornaments buried with the tombs of Xiongnu nobles found in Mongolia, the unicorn is the most distinctive mythological animal image (Erden 2019). A total of 12 Xiezhi figurines were unearthed from the Han tombs in the Liangzhou area and were deeply influenced by the Xiongnu culture. There are

commonalities and differences between the unicorns in the Liangzhou and Xiongnu areas. The unicorns in the Xiongnu tombs are mostly based on antelopes and hammered on the surface of gold and silver utensils, whereas the unicorns in Liangzhou are mostly wooden and are based on cattle, caprine, and horses (Chen 2023). Both cultures have borrowed from each other while retaining their local characteristics, embodying multicultural factors.

In addition, the Han tombs in the Liangzhou area may also have been influenced by the Chu culture. The history of woodcarving art dates back a long time, traceable to the Hemudu site of the Neolithic Age. Some scholars believe that from the unearthened cultural relics, a large number of wooden figurines were first discovered in the tombs of the Chu Kingdom and the Chu Kingdom was the originator of wooden figurines and created conditions for the rise of wooden carvings in the Han Dynasty (Zhang 2003). In the pre-Qin period, the Chu Kingdom was located in southern China, which has a temperate and humid climate, and the vast forest vegetation provided sufficient raw materials for the production of lacquered wooden ware, which gave it unique advantages in the development of woodworking technology. Therefore, the excavation of wooden figures is very common (Chen *et al.* 2021). Therefore, it can be inferred from the geographical distribution of wooden figurines that the woodcarving craftsmanship in the Liangzhou area may have been influenced by southern Jingchu culture and formed a unique funeral culture on this basis.

There is also a sequential relationship between the Liangzhou region and the Chu in Jingzhou, Hubei, in terms of the rise of woodcarving techniques. In the early Western Han Dynasty, many wooden figurines were unearthed from the tombs in the Jingzhou area, Hubei Province. However, over time, the number of wooden figurines gradually decreased and almost disappeared during the Eastern Han Dynasty. The custom of burying wooden figurines as funeral objects gradually declined in the Jingzhou area (Liu 2023). However, in the Liangzhou area, many wooden animal figurines were buried in the tombs of the middle and late Western Han Dynasty, and this trend reached its peak in the Eastern Han Dynasty. The temporal connection of the two may be the result of the central government's policy of immigration and border reinforcement (Cao 2001). To develop the western region, the main measures were to establish counties and prefectures, develop transportation, and resettle immigrants to cultivate the land. In the northwestern region, for example, in the third year of Taichu (102 BC), the Han Dynasty built Wuyuan, a series of cities outside the border, and Juyan City, sending eighteen thousand soldiers to Jiuquan and northern Zhangye and setting up Juyan and Xiutu to defend Jiuquan. The Han Dynasty led in the large-scale development and management of the western region (Cao 2001).

Notably, the wooden figurines unearthed in the Liangzhou area are mostly concentrated in today's Wuwei area, whereas they are relatively rare in the northern and southern areas of Gansu Province. This phenomenon is likely because the Wuwei area was the main immigration area at that time, which also

explains the inadequacy of cultural integration from the side. In his book *Woodcarving Art of the Han Dynasty in China*, Zhang (2003) inferred that Wuwei is located in the eastern section of the Hexi Corridor, bordering Qinghai to the south, connecting the Western Regions to the west, and Longyuan to the east. Wooden figurines were also unearthed from the Han tombs in Pengjiazhai, Xining, Qinghai Province. Therefore, it is believed that after the wooden figurines from southern China were transmitted to northern Sichuan, they were then transmitted to Qinghai and then to Wuwei, affecting the burial customs of the Han tombs in Mozuizi. Therefore, we can speculate that the custom of burying wooden figurines in the Liangzhou area was influenced by the Chu area.

#### THE CHARACTERISTICS OF THE ANIMAL BURIALS REFLECT THE SUBSISTENCE STRATEGY IN THE LIANGZHOU AREA OF THE HAN DYNASTY

The prevalence of lavish funeral rites in the Han Dynasty provides valuable materials for us to explore the subsistence strategy of the Han Dynasty in depth. The burial of animals in the Liangzhou area profoundly reflects their way of life, combining agriculture and nomadic herding.

Given the situation of animal burials in the Han tombs in the Liangzhou area, both faunal remains and animal figurines are quite diverse, covering 14 types of animal depiction in total. Among them, chickens, horses and caprine account for the largest number, followed by pigs and cattle. In contrast, in the Central Plains, pig figurines, chicken figurines, and dog figurines dominate, whereas horse figurines, cattle figurines, and caprine figurines are relatively rare (Deng 2015). These excavated animal figurines not only reflect the animal husbandry economic model in the Liangzhou area, which mainly consisted of horses, cattle, and caprine, but also reflect the agricultural economic aspects of the area, which was dominated by the breeding of domestic animals and livestock such as pigs, chickens, and dogs.

Given the diachronic changes in animal depiction, in the early Western Han Dynasty, horses, cattle, and caprine were frequently unearthed in the Han tombs in the Liangzhou area. However, over time, from the Xin Dynasty to the Eastern Han Dynasty, the types of animals buried in the tombs became more diverse. Domestic animals, such as chickens and dogs, as well as wild animals, such as monkeys and tigers, appeared. The differences in quantity, species, and time profoundly reveal the changes in the economic life of the Liangzhou area, reflecting the integration of animal husbandry and the agricultural economy. In addition to the excavation of animal remains and animal figurines, models of cattle-drawn carts and cattle-drawn ploughs were also found in the Han tombs in the Liangzhou area, revealing, to a certain extent, the agricultural development of the area, especially the popularization of cattle-drawn farming techniques, which provided advanced productivity for local land reclamation activities and promoted the prosperity and development of agriculture in the region.

By delving deeply into the animal burial practices in the Liangzhou region during the Han Dynasty, we can further understand the development of the manor economy at that time



(Yue 2015). Although the Han Dynasty was predominantly an agricultural society based on a small-scale peasant economy, since the Spring and Autumn and the Warring States periods, the establishment of private land ownership had led to ordinary people selling their lands due to unbearable living burdens. The landlord class and aristocrats relied on political and economic privileges to acquire and annex lands, resulting in the rich becoming richer and the poor becoming poorer, and the social polarization continued to intensify, which gave rise to the manor economy dominated by powerful landlords. Therefore, the increasing frequency of animal figurines unearthed from high-grade tombs in the late Western Han Dynasty confirms the gradual growth and development of the manor economy. The manor economy is a comprehensive and diversified agricultural-based production and operation model that combines large-scale land with a large labour forces (Hu 2017). Under the manor economic development model, agriculture, forestry, animal husbandry, fishery, and handicrafts coexist, and the breeding of small domestic animals is an important component. Among the burial objects unearthed from the Han tombs in the Liangzhou area were not only common domestic animals such as chickens, dogs, and pigs but also some associated artefacts, such as pottery pig pens, wooden chicken perches, and pavilions and pottery barns simulating real-life scenes, all of which strongly confirm the prosperity of the manor economy in the Liangzhou area during the Eastern Han Dynasty.

Although the burial objects in the Han tombs in the Liangzhou area reflect the development of the manor economy to a certain extent, the craftsmanship and quantity of these objects already reveal the beginning of the commercialization of burial objects. Taking the wooden sculptures in the central region of Liangzhou as an example, their craftsmanship is cumbersome and complex and usually involves four steps: material selection, dehumidification, sculpting, and painting (Hu 2018). This process takes a long time and requires a high level of craftsmanship. However, they have a broad consumer market, ranging from nobles and generals to ordinary people. Wooden figurines are indispensable burial objects. It can be inferred that in the Han Dynasty, there were already craftsmen or workshops specializing in the production of burial objects for sale, and the development of the commodity economy had already penetrated into the tombs.

## CONCLUSION

The evolution of animal burials in the Liangzhou region during the Han Dynasty was characterized by the transition from the use of real animals in the early and middle stages of the Western Han Dynasty to the main use of animal figurines supplemented by real animals in the later stage. In terms of species, both animals remains and animal figurines are dominated by six domestic species: pigs, cattle, caprine, horses, chickens and dogs. The presence of small domestic animals such as chickens, pigs, and dogs in later tombs was positively correlated with the development of the manor economy. Animal burials in this region were influenced not only by the Chu culture in south-

ern China but also by the Eurasian steppe culture in northern China and the Central Plains culture in East China, forming a unique and rich funeral culture on this basis.

Research on animal burials in the Liangzhou region revealed that people's funeral concepts began to change in the middle and late stages of the Western Han Dynasty, with the emergence of a trend of using funerary objects as symbolic items. Additionally, the species of animal figurines became more diverse, with many animal images, such as those of horses, cattle, caprine, and chickens, reflecting the combination of agricultural and nomadic life in the Liangzhou region. Furthermore, the appearance of domestic animals and funerary objects simulating real-life scenes also strongly corroborates the prosperity of the manor economy in the Liangzhou region during the Eastern Han Dynasty.

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## APPENDICES

APPENDIX 1. — Statistical table of animal remains unearthed in Liangzhou area during the Han Dynasty.

Tomb name	Location	Period	Species and Quantity	References
Heishuiguo M5	Zhangye, Gansu	Wang Mang – Early Eastern Han Dynasty	Four chicken bones	Gansu Provincial Institute of Cultural Relics and Archaeology 2019
Heishuiguo M6	Zhangye, Gansu	Late Western Han Dynasty	36 chicken bones	Gansu Provincial Institute of Cultural Relics and Archaeology 2019
Heishuiguo M10	Zhangye, Gansu	Late Western Han Dynasty	99 sheep bones	Gansu Provincial Institute of Cultural Relics and Archaeology 2019
Heishuiguo M14	Zhangye, Gansu	Han Dynasty	12 chicken bones; one horse bone	Gansu Provincial Institute of Cultural Relics and Archaeology 2019
Heishuiguo M15	Zhangye, Gansu	Late Western Han Dynasty	43 chicken bones; 16 baby pig bones	Gansu Provincial Institute of Cultural Relics and Archaeology 2019
Heishuiguo M16	Zhangye, Gansu	Later Mid-Western Han Dynasty	10 chicken bones; 35 sheep bones; six baby pig bones; 19 pig bones	Gansu Provincial Institute of Cultural Relics and Archaeology 2019
Heishuiguo M18	Zhangye, Gansu	Late Western Han Dynasty	79 chicken bones; 21 baby pig bones	Gansu Provincial Institute of Cultural Relics and Archaeology 2019
Heishuiguo M19	Zhangye, Gansu	Late Western Han Dynasty	One chicken bone	Gansu Provincial Institute of Cultural Relics and Archaeology 2019
Heishuiguo M23	Zhangye, Gansu	Later Mid-Western Han Dynasty	38 chicken bones; 26 baby pig bones	Gansu Provincial Institute of Cultural Relics and Archaeology 2019
Heishuiguo M24	Zhangye, Gansu	Wang Mang – Early Eastern Han Dynasty	35 chicken bones (in the fill)	Gansu Provincial Institute of Cultural Relics and Archaeology 2019
Heishuiguo M25	Zhangye, Gansu	Later Mid-Western Han Dynasty	11 baby pig bones; 10 pig bones	Gansu Provincial Institute of Cultural Relics and Archaeology 2019
Heishuiguo M28	Zhangye, Gansu	Late Western Han Dynasty	27 chicken bones; 21 baby pig bones; two pig bones	Gansu Provincial Institute of Cultural Relics and Archaeology 2019
Heishuiguo M30	Zhangye, Gansu	Late Western Han Dynasty	44 chicken bones	Gansu Provincial Institute of Cultural Relics and Archaeology 2019
Heishuiguo M32	Zhangye, Gansu	Wang Mang – Early Eastern Han Dynasty	One chicken bone; four sheep bones	Gansu Provincial Institute of Cultural Relics and Archaeology 2019
Heishuiguo M33	Zhangye, Gansu	Late Western Han Dynasty	Animal bones	Gansu Provincial Institute of Cultural Relics and Archaeology 2019
Heishuiguo M36	Zhangye, Gansu	Han Dynasty	Two chicken bones	Gansu Provincial Institute of Cultural Relics and Archaeology 2019
Heishuiguo M40	Zhangye, Gansu	Late Western Han Dynasty	Animal bones	Gansu Provincial Institute of Cultural Relics and Archaeology 2019
Heishuiguo M48	Zhangye, Gansu	Late Western Han Dynasty to the Early Eastern Han Dynasty	Eight chicken bones	Gansu Provincial Institute of Cultural Relics and Archaeology 2019
Heishuiguo M54	Zhangye, Gansu	Late Western Han Dynasty	34 baby pig bones	Gansu Provincial Institute of Cultural Relics and Archaeology 2019
Heishuiguo M55	Zhangye, Gansu	Later Mid-Western Han Dynasty	71 cattle bones; 18 chicken bones; 17 baby pig bones	Gansu Provincial Institute of Cultural Relics and Archaeology 2019
Heishuiguo M57	Zhangye, Gansu	Later Mid-Western Han Dynasty	Nine dog bones; 21 cattle bones; 109 chicken bones; 42 baby pig bones; one pig bone	Gansu Provincial Institute of Cultural Relics and Archaeology 2019
Heishuiguo M58	Zhangye, Gansu	Wang Mang – Early Eastern Han Dynasty	Three baby pig bones	Gansu Provincial Institute of Cultural Relics and Archaeology 2019
Heishuiguo M59	Zhangye, Gansu	Later Mid-Western Han Dynasty	Animal bones	Gansu Provincial Institute of Cultural Relics and Archaeology 2019
Heishuiguo M79	Zhangye, Gansu	Wang Mang – Early Eastern Han Dynasty	Animal bones	Gansu Provincial Institute of Cultural Relics and Archaeology 2019
Heishuiguo M89	Zhangye, Gansu	Late Western Han Dynasty	33 chicken bones	Gansu Provincial Institute of Cultural Relics and Archaeology 2019
Heishuiguo M101	Zhangye, Gansu	Early Eastern Han Dynasty	One large bird's beak bone; 14 chicken bones; two baby pig bones; one human bone	Gansu Provincial Institute of Cultural Relics and Archaeology 2019
Heishuiguo M106	Zhangye, Gansu	Wang Mang – Early Eastern Han Dynasty	Animal bones	Gansu Provincial Institute of Cultural Relics and Archaeology 2019
Heishuiguo M115	Zhangye, Gansu	Wang Mang – Early Eastern Han Dynasty	One chicken bone; 13 baby pig bones	Gansu Provincial Institute of Cultural Relics and Archaeology 2019



## APPENDIX 1. — Continuation.

Tomb name	Location	Period	Species and Quantity	References
Baguaying M6	Zhangye,Gansu	Mid-Western Han Dynasty to Early Eastern Han Dynasty	Bones of cattle, horses, and sheep	Gansu Provincial Institute of Cultural Relics and Archaeology 2019
Baguaying M10	Zhangye,Gansu	Mid-Western Han Dynasty to Early Eastern Han Dynasty	A small quantity of sheep bones	Gansu Provincial Institute of Cultural Relics and Archaeology 2014
Baguaying M20	Zhangye,Gansu	Mid-Western Han Dynasty to Early Eastern Han Dynasty	Animal bones;	Gansu Provincial Institute of Cultural Relics and Archaeology 2014
Baguaying M35	Zhangye,Gansu	Mid-Western Han Dynasty to Early Eastern Han Dynasty	broken chicken bones	Gansu Provincial Institute of Cultural Relics and Archaeology 2014
Baguaying M39	Zhangye,Gansu	Mid-Western Han Dynasty to Early Eastern Han Dynasty	Camel scapula and ribs	Gansu Provincial Institute of Cultural Relics and Archaeology 2014
Baguaying M92	Zhangye,Gansu	Mid-Western Han Dynasty to Early Eastern Han Dynasty	Animal bones;	Gansu Provincial Institute of Cultural Relics and Archaeology 2014
Dunping	Dingxi,Gansu	Eastern Han Dynasty	primarily sheep bones	Gansu Provincial Institute of Cultural Relics and Archaeology 2014
Dunping	Dingxi,Gansu	Eastern Han Dynasty	A small quantity of broken sheep bones	Yang & Mao 2018
Dunping	Dingxi,Gansu	Eastern Han Dynasty	A small amount of jaw bones from horses, cattle, sheep, etc.	Yang & Mao 2018
Dunping	Dingxi,Gansu	Eastern Han Dynasty	Heads and hoof bones of horses, cattle, and sheep; animal scapulas or limb bones	Yang & Mao 2018
Sijiaowa M2	Pingliang,Gansu	Han Dynasty	Animal limb bones or scapulas, along with a small amount of sheep heads	Yang & Mao 2018
Sijiaowa M4	Pingliang,Gansu	Han Dynasty	One animal tooth	Zhao <i>et al.</i> 2017
Sijiaowa M6	Pingliang,Gansu	Han Dynasty	Two horse heads; two cow heads; three sheep heads	Zhao <i>et al.</i> 2017
Jianchuannanwan M2	Longnan,Gansu	Early Western Han Dynasty	One horse head; three sheep heads; one bone flute	Zhao <i>et al.</i> 2017
Mozuizi M3	Wuwei,Gansu	Xin Dynasty	Horse teeth, sheep heads, and horse skulls, with a total of over 20 horse skulls	Chinese Archaeological Society 2005
Donghanping M46	Tianshui,Gansu	Early Western Han Dynasty	A small quantity of horse bones	Wang <i>et al.</i> 2012
Xishanping M2	Tianshui,Gansu	Early Western Han Dynasty	Two dogs and other animal bones	Mao & Zhou 2003
Quzi	Qingyang,Gansu	Late Eastern Han Dynasty	Two cattle scapulas	Wang <i>et al.</i> 1988
Dahezhuang M80	Linxia,Gansu	Late Western Han Dynasty	A number of sheep bones and chicken bones; six complete sheep skeletons	Liu & He 1986
Zhangjiachang M1	Wuzhong,Ningxia	Han Dynasty	Several pieces of cattle and sheep bones	Zheng 1961
Daodunzi M10	Wuzhong,Ningxia	Han Dynasty	Large livestock bones	Xu 1988
Hengcheng M1	Yinchuan,Ningxia	The middle and late years of the Eastern Han Dynasty	Two cattle heads; 11 sheep heads	Zhong <i>et al.</i> 1987
Yangjiazhuang M6	Guyuan,Ningxia	The middle and late years of the Western Han Dynasty	A number of sheep bones and chicken bones	Zhao 2020
Jiulongshan M1	Guyuan,Ningxia	The middle and late years of the Eastern Han Dynasty	Cattle and sheep bones	Zhou <i>et al.</i> 2021
Jiulongshan M2	Guyuan,Ningxia	Late Western Han Dynasty	Bones of cattle, horses, sheep, and chickens	Chinese Archaeological Society 2005
Shuiquanzi M16	Jinchang,Gansu	Late Western Han Dynasty to Early Eastern Han Dynasty	Bones of horses, sheep, and pigs	Chinese Archaeological Society 2005
			Scattered sheep bones	Wang <i>et al.</i> 2017

APPENDIX 2. — Statistical table of animal remains and figurines unearthed in Liangzhou area during the Han Dynasty.

Tomb Name	Location	Period	Species and Quantity	References
Xiaheqing M1	Jiuquan, Gansu	Eastern Han Dynasty	One limestone pig	Gansu Provincial Cultural Relics Management Committee 1959
Xiaheqing M8	Jiuquan, Gansu	Eastern Han Dynasty	One pottery dog; two pottery pigeons	Ni 1960
Xiaheqing M17	Jiuquan, Gansu	Eastern Han Dynasty	One talc pig; one talc cicada; one talc bear	Ni 1960
Xiaheqing M18	Jiuquan, Gansu	Eastern Han Dynasty	One bronze xiezhi	Gansu Provincial Cultural Relics Management Committee 1959
Wenshu Town M1	Jiayuguan, Gansu	From the Late Eastern Han Dynasty to the Wei and Jin Dynasties	One bronze xiezhi	Yu & Wang 2014
Luotuocheng M8	Zhangye, Gansu	The middle and late periods of the Eastern Han Dynasty	One wooden horse; two wooden cattle	Zhang <i>et al.</i> 2006
Linzehuayin M1	Zhangye, Gansu	The early period of the Eastern Han Dynasty	Six wooden horses; five wooden oxen	Wang <i>et al.</i> 2023
Shuiquanzi M5	Jinchang, Gansu	The middle and late periods of the Western Han Dynasty	One wooden horse; two wooden cattle	Wang <i>et al.</i> 2017
Shuiquanzi M8	Jinchang, Gansu	The middle and late periods of the Western Han Dynasty	Two wooden horses	Wang <i>et al.</i> 2017
Shuiquanzi M12	Jinchang, Gansu	The middle and late periods of the Western Han Dynasty	One wooden dog	Wang <i>et al.</i> 2017
Shuiquanzi M14	Jinchang, Gansu	The middle and late periods of the Western Han Dynasty	Two wooden horses; one wooden cattle	Wang <i>et al.</i> 2017
Jiazidun	Zhangye, Gansu	Han Dynasty	Wooden horses and wooden cattle (unspecified quantity)	<a href="https://urlr.me/kCBGxd">https://urlr.me/kCBGxd</a> , last consultation on 29 April 2025
Mozuizi (1956 excavation)	Wuwei, Gansu	The early to middle periods of the Eastern Han Dynasty	Two wooden horses; two wooden chickens; one wooden beast; two wooden monkeys	Dang 1958
Mozuizi (1959 excavation)	Wuwei, Gansu	The late period of the Eastern Han Dynasty	Nine wooden horses; eighteen wooden chickens; six wooden dogs; ten wooden sheep; seven wooden unicorns	Gansu Provincial Museum 1960
Mozuizi (1960 Excavation)	Wuwei, Gansu	Han Dynasty	Nine wooden horses; eighteen wooden chickens; six wooden dogs; ten wooden sheep; seven wooden unicorns	Chen 1960
Mozuizi (excavation of M48 in 1972)	Wuwei, Gansu	The late period of the Western Han Dynasty	Eleven wooden horses; two wooden chicken; one wooden sheep	Gansu Provincial Museum 1972
Mozuizi (excavation of M49 in 1972)	Wuwei, Gansu	The middle period of the Eastern Han Dynasty	One wooden unicorn; one wooden horse; one wooden cattle; one wooden dog; one wooden chicken	Gansu Provincial Museum 1972
Mozuizi (excavation of M3 in 2003)	Wuwei, Gansu	Before and After the Xin Dynasty	Two wooden birds	Wang <i>et al.</i> 2012
Mozuizi (excavation of M6 in 2003)	Wuwei, Gansu	Before and After the Xin Dynasty	One wooden chicken; one wooden dog; one wooden horse; one wooden unicorn; two wooden cattle	Wang <i>et al.</i> 2012
Mozuizi (excavation of M25 in 2003)	Wuwei, Gansu	Eastern Han Dynasty	One wooden unicorn; one wooden horse; a set of eight including dogs, chickens, ducks, etc.	Zhao 2005
Mozuizi (2005 Excavation)	Wuwei, Gansu	The Late Western Han Dynasty to the Early Eastern Han Dynasty	Nine wooden horses; two wooden cattle; two wooden chickens	Zhu <i>et al.</i> 2011
Beiyuan (1983 Excavation)	Guyuan, Ningxia	The Late Western Han Dynasty to the Early Eastern Han Dynasty	One pottery dog; two pottery chickens	Guyuan Museum of Ningxia 1995

APPENDIX 1. — Continuation.

Tomb Name	Location	Period	Species and Quantity	References
Zhaojiaping	Dingxi, Gansu	Han Dynasty	Animal bones	Chinese Archaeological Society 2023
Lijiyuelou	Pingliang, Gansu	Han Dynasty	Cattle figurines	Chinese Archaeological Society 2024