“Shelter My Soul with Your Body” – A Burial Custom Influenced by Shamanism: A Case of Covering a Dead Face with the Right Ribs of a Local Sheep in Inner Mongolia, China

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Abstract

Death represents the termination of all biological functions that sustain an organism and is inevitable in the ordinary life of people. Throughout history, death has been a topic of discussion. The emotion of fear of death has existed since the birth of human beings and has become even more so after civilization. To alleviate the fear of death, the unknown thing, primitive people began to explain death with their own world outlook; thus, the primitive concept of soul and religion came into being. Death is accompanied by the soul, and the fear of death gradually evolved into the awe of the soul, which gradually turned to practical action under the catalysis of primitive religion. Humans began to express their feelings (veneration or contempt) for the deceased in various practical behaviours and rituals that evolved into many fixed forms of burial or sacrificial customs after death. Shamanism is one of them. It is popular among nomadic groups in northern Eurasia, where many archaeological studies of shamanism have been conducted. This paper examined the phenomenon of covering a dead face with all the right ribs of a sheep at Nairentaoligai Cemetery M17 in Inner Mongolia, China. These ribs were carefully researched by zooarchaeological methods, and we defined the basic information about the sheep. Then, we recovered the dismemberment process of the sheep by observing the traces on the bone surface and found that the dead face was covered by all the right ribs of a sheep in this tomb. This may have been to practice a particular idea. In connection with the shamanism culture prevalent in the area, we consider that this act may have been intended to declare the death of the body and shelter the soul of the dead from intrusion. This reflects shamanism culture on burial customs. This discovery is of great significance for the research of religious beliefs and death views of the northern nomadic people of the Mongolian Plateau region.

Introduction

Face-covering burials

The practice of face-covering burial is widespread throughout the world, most notably through the use of funerary masks. Funerary masks have been excavated in many parts of Eurasia (Tong and Li 2016), the most famous being the gold masks of ancient Greek and Mycenaean cultures (BENKŐ 1992). In addition, burial masks have been excavated in areas such as the Marari Cemetery in Uttar Pradesh, India (Bhatt et al. 2008), the Samdzong Cemetery in Mustang, Nepal (Aldenderfer 2013), the Chu Vthag Cemetery (Jin 2012) and the Gurugyam Cemetery (Tong et al. 2014) in Tibet, China, and the burial rounds in the Tulva River Basin, Russia (Olga 2019). The material of such funerary masks is mostly but not exclusively gold; for example, a large number of clay funerary masks have also been found in Siberia (Vadetskaya and Gavrilenko 2006), and some funerary masks made of iron, copper or textiles have been excavated in the northern regions of the Liao Dynasty in China (Zhang 2019). In terms of spatial scope, the burial custom of covering the face with a mask spread throughout Asia and Europe. In terms of time scale, this burial custom of covering the face with a metal mask began to appear around the 3rd century B.C. and lasted until its demise around the 6th century A.D.
The use of funerary masks as a cover is representative of the heyday of the face-covering burial (Olga 2019). However, in the course of the development of face-covering burial, this was not the original form of burial with a cover, nor was it the final form of burial with a cover. Unfortunately, the origins of the development of burial with a face cover worldwide are unclear due to the limitations of the excavated material. However, one thing we can confirm is that worldwide face-covering burials had multiple origins (Guo 2005). In addition, we speculate that the act of covering the death face is a product of a certain stage in the development of human consciousness, which may have been inextricably linked to primitive religion and the idea of the soul.

In China, face-covering burials had a much wider application. Chinese face-covering burial practices began in the Neolithic period and continued throughout Chinese history. The material of the masks evolved from the original red pottery bowl (Gao 2014) to precious objects such as jade, metal and fabric, and the form of the masks evolved from common household objects to tailor-made funerary masks. In the development of Chinese burial masks, there were two systems that flourished: the ‘jade masks’ (Fig. 1) of Central China, where most Han Chinese settled, and the ‘metal masks’ (Fig. 2) of Northern China, where many nomads lived.

The ‘jade masks’ was a tradition of indigenous origin in China that took shape during the Zhou Dynasty period and developed into the ‘jade burial clothes’ during the Han Dynasty (Zhao 2013). Jade masks and jade burial clothes have been found in many ancient Chinese tombs. For example, Jade masks were found in M2 of the Hengshui Cemetery (Shanxi Provincial Institute of Archaeology, Yuncheng Cultural Relics Workstation, and Jiang County Cultural Relics Bureau 2006); FQM19 of Fufeng Qijiazhuang; M303 and M159 of Zhangjiapo Jingshu’s Tomb (Institute of Archaeology Chinese Academy of Social Sciences 1999); M8 (Sun et al. 1994), M62 (Zhang et al. 1994) and M92 (Xu et al. 1995) in the graveyard of the Marquis of Jin in Beizhao; and C1M8371 in the tomb of the Eastern Zhou in the Middle Zhongzhou Road of Luoyang City (Sima and Shang 2006). ‘Jade burial clothes’ were found in many tombs of high-ranking Han Dynasty kings, such as the Shuangrushan Tomb (Ren and Cui 1997), the Mancheng Cave Tombs of Han (Han 2009), and the King Nan Yue Tomb.

A departure from the traditional jade overlays of the Central Plains was the system of metal masks in northern China, which often had distinctive ethnic characteristics. This face-covering behaviour was widely circulated from the Western Zhou to the Warring States periods and evolved in the Liao Dynasty in the form of gold funerary masks similar to those found in Central Asia. Generally, the material used in the early stage of this behaviour was uncertain, and the common overlays were generally copper clasps, textiles, mussel shells, etc., but after the development to the Liao Dynasty, they basically all appeared in the form of metal masks. The most typical early form of metal mask was a combination of sackcloth, copper clasps and mussels found in the Zhoujiadi cemetery in Aohan Banner, Inner Mongolia, of the Xiajiadian upper culture (Yang and Gu 1984). In addition, the use of metal objects to cover the face for burial has been found in many other areas of northern China, such as the M3 of the Cixian South City Site II of Pre-Shang Culture (Han 2009), the cemeteries of Yanqing (Beijing Institute of Cultural Heritage 2007), the Sarcophagus Tomb Group in Xingxingshao (Dong 1978), the cemetery of Pingyang Brick Factory
(Hao et al. 1989), the cemetery of Dahabazira in Aohan Banner (Qiu 1996), and many cemeteries of Khitan nobles in the Liao Dynasty (Han 1994; Ma 2014; Institute of Cultural Relics and Archaeology of Inner Mongolia Autonomous Region and Zhirimu League Museum 1993). It is noteworthy that based on research by Chinese scholars, almost all of the above tombs were associated with the nomadic people of northern China, DongHu. Therefore, it is thought that face-covering burials were a common burial method among the DongHu people, possibly stemming from their shamanic beliefs (An 1985).

Shamanic beliefs in Eurasia

Shamanism is one of the oldest religious forms characterized by nature worship, which originated in primitive society. Although there is no unified doctrine, organization or ritual, shamanism is a worldwide religious practice widely distributed in northeastern Eurasia (Witzel 2011) and among the Indian and Eskimo groups in North America (Guo 2017). Among them, the most typical shamanism refers to the original religious form of fishing and hunting nomads in Ural-Altaic language distribution areas, which is also known as the ‘Shaman cultural circle’ (Fig. 3), and many fishing and hunting nomads in northern and northeastern China belong to this typical cultural circle.

However, in a broad sense, the influence of prehistoric Shamanism in China extends far beyond the northern and northeastern regions (Williams 2020). Zhang Guangzhi once pointed out that "The ancient Chinese society had the nature of shamanistic civilization" (Zhang 2010), and there were sacrificial sites and mask culture in many cultural sites in the prehistoric period of China (Zhang 2013). In addition, sacrificial divination became the foundation of the Shang Dynasty (Xie 2019). Unfortunately, compared with the shamanistic civilization in the north and northeast, the shamanistic culture on the Central Plains and South China was gradually influenced by other foreign religions and gradually lost its typicality. Under the influence of Shamanism, similar religious behaviours and customs were developed despite different nationalities and places of distribution. The burial custom of covering the dead face as one of them.

The material under study was excavated from the Nairentaoligai cemetery, which is located in the Xilinguole grassland region of Inner Mongolia and dates from the late Eastern Han Dynasty, belonging to the early Xianbei lineage. This group originated from the Donghu and lived as nomads, fishermen and hunters and they always had maintained a strong primitive shamanic cult (He 2004). Therefore, the face-covering behaviour of this cemetery should belong to the system of metal object overlays in northern China's northern peoples and was inextricably linked to widespread local shamanism.

Materials And Methods

Materials

Nairentaoligai Cemetery (Baidu Map: N 42°24′36.05″, E 114°9′26.72″) is located 2.5 kilometres northwest of Wengong Wula Sumu Nairentaoligai Gacha, Xianghuang Banner, Inner Mongolia, China (Fig. 4), and
approximately 30 kilometres southwest of the government of Xianghuang Banner. The cemetery is 260 metres long from north to south and 300 metres long from east to west. The cemetery is on a gentle slope, 1336 metres above sea level. The tombs are located in the low hills at the northern foot of the eastern part of the Yinshan Mountain, surrounded by undulating open grasslands and pastures. In conjunction with local infrastructure projects, the Inner Mongolia Institute of Cultural Relics and Archaeology and related cooperative units formed a joint archaeological excavation team to conduct archaeological excavation of the Nairentaoligai site in Xianghuang Banner from June to September 2020. The excavation cleared a total of 17 tombs, all of which were vertical pits. The excavated artefacts and burial customs were basically the same. According to the cultural factors in the tombs, it is estimated that the cemetery was in use during the late Eastern Han Dynasty at the end of the 2nd century AD and belongs to the early Xianbei ethnic group. The system research report of this cemetery is being compiled and will be published soon.

Nairentaoligai M17 is a rectangular vertical cave tomb, and the coffin is composed of round wood. In the head niche, an earthenware jar was excavated, and ornaments were unearthed in both eye sockets and mouths of the tomb owner. In addition, mesh plaques, copper clasps, copper bracelets, copper rings, copper skewers and garlic-shaped pendants were also excavated from the tomb (Fig. 5). There were two individuals in the tomb, one male and one female, in which the female individual laid flat and the male individual was located to the left of the female individual, presumably lying on his side, with his face covered with sheep ribs. The human bones from M17 were dated by Beta Laboratories, USA, to 1734+-94 years ago, which is consistent with the dates inferred above.

Methods

First, we collected data on the species, age and size of the ribs. This identification was performed by using conventional zooarchaeological research methods and comparing the data with other studies. Then, the surface marks of the ribs were observed and studied. The surface marks of the ribs were observed by visual and Dino-Lite handheld microscope observation. The identification and study of surface marks on animal bones was based on the experiments of Blumenschin et al. (1996) and the studies of B. L. Pobiner et al. (2008), Chen Liwen (2008), Wang Yunfu et al. (2009), and Zhang Le et al. (2009). According to the abovementioned studies, the most common butchery marks on the surface of animal bones are cut marks and scratch marks. Cut marks have three main characteristics: first, they are deep and often have a "V" shape; second, they have a small width index; and third, they often have small scratches inside the mark that run parallel to the plane of the mark. In contrast, scratch marks have different characteristics than cut marks, as they are generally shallow, involve only the surface of the bone, do not involve the interior of the bone, do not have a 'V' shape, and often appear in multiple parallel lines. Microscopic observation of the rib surface revealed the presence of both marks on the surface of the sheep ribs, with the two marks in different positions, which may indicate a slaughter method.
Afterwards, we used an integrated anthropological research approach based on the unique geographic location of the cemetery and cultural factors to introduce a kind of translator of the human world, shamanism (Grant 2021), into the research consideration. Ultimately, we attempted to explore the reasons for covering the death face of Nairentaoligai M17 from multiple angles, which, fortunately, we seem to have achieved through our efforts.

Results

Species identification

A total of 14 ribs were excavated from tomb M17 in the Nairentaoligai Cemetery, which were neatly arranged over the face of the tomb owner. Combined with the position distribution and shape of the ribs when they were unearthed, it was determined that the 14 ribs belonged to the same body and were all the ribs on the left side of a sheep.

The number of vertebrae in ruminants is constant under normal conditions, which are 7 cervical vertebrae (C), 13 thoracic vertebrae (T), 6 lumbar vertebrae (L), and 4 sacral vertebrae (S). The number of thoracic vertebrae is 13, corresponding to 13 ribs on one side. However, the individual found in Nairentaoligai M17 had 14 ribs on one side, which is a genetic mutation. According to zoological research, this phenomenon of multiple vertebrae is related to mutations of the homeobox gene, which often occurs in Mongolian sheep and is most typical in Ujumchin sheep (a kind of Mongolian sheep distributed on the Ujumchin Steppe), with an incidence of 17.36%-28.1% (Zhang et al. 1996). Coincidentally, the Nairentaoligai Cemetery is located in the area where Ujumchin sheep are distributed. Therefore, it can be inferred that the sheep ribs unearthed in M17 may belong to a Ujumchin sheep.

Ujumchin sheep had a long domestication history in Xilinguole League in Inner Mongolia and were mentioned in many ancient Chinese texts. The earliest one is in the Song Mo Ji Wen (宋牧文) (Li 1986), which was written by a scholar in the Song Dynasty Song Hao. The book reads: “The sheep that live in Tartary are as big as donkeys, and their tails are big and thick, like fans. It weighs approximately 5 pounds from cervical vertebrae to tailbone, good quality meat and fat. People from other tribes often traded other things for this kind of sheep. In herding, sheep often travel with the wind. When the wind blows, a flock of sheep (tens of thousands) may run away, and the herders have to search for them on horseback, sometimes for hundreds of miles.” It can be seen that during the Song Dynasty, Ujumchin sheep became an important livestock raised by herdsmen in Inner Mongolia. At that time, herdsmen domesticated Ujumchin sheep in the form of herding for the purpose of utilizing their flesh and fur, which continues to this day. The Ujumchin sheep has a long history of domestication in the Xilinguole region of Inner Mongolia and holds a unique place in the hearts of local herdsmen (Liu et al. 1982).

Age identification

As only ribs were found in the animal bones, the age of the individual could only be determined based on the degree of ossification of the ribs (Fig. 6). According to a study by related scholars (Zhang and Sichin
1997) and the ossification degree and length of the 14th rib, the age of the individual should be more than 10 months.

**Surface observations**

The traces on the ribs are mainly cut and scratch marks. When viewed through the Dino-Lite handheld microscope, the two types of marks differ considerably in their morphology and distribution. The cut marks are obvious in their morphology, with deep wounds, often involving the interior of the bone, or resulting in loss of bone (e.g., loss of the heads of Ribs 1, 2, 9, 10, 11 and 12); the cross-section is "V" shaped (Fig. 7). The distribution of the cut marks is concentrated in the neck of the ribs. However, the scratch marks are much lighter, with most of the damage to the skeleton involving only the surface of the bone; they have the appearance of a thin line, sometimes appearing as a single line, and sometimes as multiple parallel lines. In terms of distribution, scratch marks are mostly found at the angle of the ribs and on the body of the rib near the head of the rib.

Observations and recording of the marks revealed that the distribution of marks on the ribs was mainly concentrated on the front (head and neck) part of the rib. There are very few marks on the ends of the ribs, with only one scratch mark on the end of the 3rd rib (Fig. 8). When combined with the undamaged condition of the rib ends, this suggests that the ribs were attached to rib cartilage at the time of burial. In addition, the microscopic cut and scratch marks are precise and light, showing that the knives used were very sharp and that great care was taken to ensure the integrity of the ribs, which is quite different from the crude butchery of the ribs normally seen.

The existence of these two marks provides lateral evidence of the process by which the right ribs were dissected and removed. First, the ribs were separated from the thoracic vertebra by cutting, which was not an easy process. Despite extreme care, the knife marks were left on the surface of the rib, and half of the ribs lost their head. Afterwards, there were still parts of the tissue attached to the ribs, which were trimmed by scratching with a knife until the entire right ribs were removed. It is worth noting that the heads of some ribs were missing, but no thoracic vertebral fragments were observed, which shows that the purpose of rib removal was very clear; that is, only the whole rib was taken. Combined with the delicate knife handling, it is almost certain that the ribs on the right side of this sheep, which were used to cover the face of the tomb owner, were deliberately removed and placed on the head of the tomb owner in as complete a state as possible.
Table 1
Trace types and distribution locations.

<table>
<thead>
<tr>
<th>No.</th>
<th>head of rib</th>
<th>neck of rib</th>
<th>angle of rib</th>
<th>rib body near the head of rib</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020xhnM17:1</td>
<td>Missing (neatly sectioned)</td>
<td>Cut marks</td>
<td>None</td>
<td>Scratching</td>
</tr>
<tr>
<td>2020xhnM17:2</td>
<td>Missing (neatly sectioned)</td>
<td>Cut marks</td>
<td>None</td>
<td>Scratching</td>
</tr>
<tr>
<td>2020xhnM17:3</td>
<td>Deposit</td>
<td>Scratching</td>
<td>Scratching</td>
<td>Scratching</td>
</tr>
<tr>
<td>2020xhnM17:4</td>
<td>Deposit</td>
<td>No trace</td>
<td>Scratching</td>
<td>No trace</td>
</tr>
<tr>
<td>2020xhnM17:5</td>
<td>Deposit</td>
<td>No trace</td>
<td>Scratching</td>
<td>No trace</td>
</tr>
<tr>
<td>2020xhnM17:6</td>
<td>Deposit</td>
<td>No trace</td>
<td>Scratching</td>
<td>Scratching</td>
</tr>
<tr>
<td>2020xhnM17:7</td>
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<td>No trace</td>
<td>Scratching</td>
</tr>
<tr>
<td>2020xhnM17:8</td>
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<td>No trace</td>
<td>Scratching</td>
</tr>
<tr>
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<td>No trace</td>
<td>Scratching</td>
</tr>
<tr>
<td>2020xhnM17:10</td>
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<td>No trace</td>
<td>Scratching</td>
</tr>
<tr>
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<td>No trace</td>
<td>Scratching</td>
</tr>
<tr>
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<td>No trace</td>
<td>Scratching</td>
</tr>
<tr>
<td>2020xhnM17:13</td>
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<td>Scratching</td>
<td>No trace</td>
<td>No trace</td>
</tr>
<tr>
<td>2020xhnM17:14</td>
<td>Missing</td>
<td>Cut marks</td>
<td>No trace</td>
<td>Scratching</td>
</tr>
</tbody>
</table>

Discussion

The right side ribs of a sheep found at M17, Narentaoligai Cemetery, covering the face of the tomb owner, were from an adult Ujumqin sheep. Before death, the sheep was in good health and in the prime of life. After the owner of Tomb M17 died, the person holding the funeral slaughtered the sheep for a special purpose, completely removed its right ribs and soft tissue, and covered the face of the owner of the tomb with this part of tissue. There may have been a deeper meaning to this behaviour. However, because of the abstract nature of ideology, we can not explain the intrinsic driving thoughts about this face-covering behaviour just depend on the anatomical processes. Therefore, we discussed the face-covering behaviour from archaeological and ethnographic perspective in the following.

Archaeological perspective
The Nairentaoligai Cemetery is located in the Xilinguole Grassland of Inner Mongolia, an area that has been the distribution area of the nomadic Donghu since the Shang Dynasty until the Western Han Dynasty (Zhang 2020). The Donghu was an alliance of ethnic minorities that operated in the vast grasslands of northeastern China for a long time, beginning in the Shang Dynasty and continuing for more than 1,300 years until the early years of the Western Han Dynasty when they were destroyed by the Xiongnu. After its demise, the remaining people through migrations and wars developed into several ethnic groups. These include the Wuhuan, Xianbei, Mongolian, Khitan and other ethnic groups, which are unified and called the Donghu clan.

Through the analysis of the pottery vessels excavated from the Nairentaoligai Cemetery, the researchers concluded that the cemetery belongs to the Donghu clan, and share common characteristics with the South Yangjiayingzi Cemetery of Balinzuo Banner (Liu 1964), Shijiagou Cemetery of Zhuozhi County (Inner Mongolia Museum 1998), Bailingmiao Cemetery of Damao Banner (Wu 2013), Tato Cemetery of Luanxian County, Hebei Province (Zhang 2012), Iheura Cemetery of Xinbalhoo Banner (Institute of Cultural Relics and Archaeology of Inner Mongolia Autonomous Region 2004), and Dongdajing Cemeteries in Inner Mongolia (Ni 2011). The results of anthropological (Gao 2022) and ancient DNA (Zheng 2022) studies of the Nairentaoligai Cemetery also corroborate this result. Likewise, the similar case about using animal carcasses to cover the dead face that we have collected also seems to provide evidence for the people affiliation of the Nairentaoligai cemetery.

The following three cemeteries, in addition to Nairentaoligai, have been identified for the use of animal carcasses to cover the decedent face: M3 of Cixian South City Site II of Pre-Shang Culture, Hebei (Han 2009), M45 at Zhoujiadi Cemetery (Yang 1984), and M2 at the Iheura Cemetery (Institute of Cultural Relics and Archaeology of Inner Mongolia Autonomous Region 2004) (Fig. 9). Among them, both Cixian South City Site II M3 and Zhoujiadi M45 used shell (mussel or scallop shells) to cover decedent face, and Iheura M2 used horse skull to cover deceased face. The overlying material in the above cemetery is different from the ribs used in Nairentaoligai. But the same thing is that these coverings are body parts with certain protective properties. Besides, both Zhoujiadi M45 and Iheura M2 can be identified as remains of the Donghu clan, with Zhoujiadi M45 considered to be an ancestor of the Donghu clan and Iheura M2 considered to be the burial of early Xianbei people of the Donghu clan. Although the ethnicity of the Nancheng Cemetery in Cixian County is currently unknown, strontium isotope results suggest that part of the population in the cemetery came from a more northerly region (Hou 2021), which also happens to be within the distribution range of the Dondohu ethnic group. By analogy, the owner of Nairentaoligai M17 is also likely to be an Donghu.

Combined with various archaeological evidence, this face-covering burial behaviour with a sheep ribs is a special burial behaviour of some individuals in the Donghu clan, but this behaviour is not universal but
sporadic in the Donghu clan, and its occurrence does not show a high degree of clustering. This phenomenon is very inconsistent with the survival status of the Donghu clan. These nomadic hunter-gatherers are scattered and mobile along with herd, and the connection between tribes is not very close, so it is difficult to form a specific burial custom that is universally accepted by all tribes. However, the similar burial sites were all concentrated in the distribution area of the Donghu clan, so we suspected that this seemingly occasional special phenomenon is actually catalyzed by a special ideology. Thus, in what follows, we focus on another common feature of the Donghu clan, shamanism, and explain the reason for this from an ethnographic and religious perspective.

**Ethnographic perspective**

In a practical sense, the act of covering the face of the dead can prevent the living from directly witnessing the death of their loved one's "ghastliness" and reduce secondary emotional damage. In modern society, white cloth is often used to cover the body to announce the death of the individual. The significance of this behaviour is to give the deceased the final dignity and avoid inflicting greater mental harm on their relatives. From an ethnographic point of view, we can explain this behaviour from the shamanic concept of the soul and the concept of "animism".

**Shamanic Concept of the Soul**

In a religious sense, the appearance of face-covering behaviour under the influence of shamanistic culture is inseparable from the original concept of the soul, which is the core of the shamanistic religious system. Shamanism holds that all things have spirits, and the body is dead, but the soul is immortal. The soul runs through life in the form of 'living soul', 'wandering soul' and 'corpse soul' (Guo 2005). After the end of the body's life, 'living soul' and 'wandering soul' either dissipate or leave, while 'corpse soul' still stays in the body and lives in the teeth, hair and other parts of the corpse, acting as a guardian of the corpse; as long as the skeleton remains, it will never disappear.

Therefore, relatives often handle the bodies of the deceased with great care and respect, covering the face of the body for the protection of the soul. In addition, based on ethnological materials, in contemporary China, some ethnic groups influenced by a strong shamanistic culture, such as Mongolian, Erlunchun, Daur, Hezhen and Ewenki, still have the custom of covering the face of the deceased with paper or cloth. "animism"

Shamanism has a primitive and respectful worship of life, often giving various animals anthropomorphic characteristics or deifying them (Eleanor and David 2021). Among many nomadic herdsmen in northern China (Ewenki, Manchu), eagles, wild boars, wolves, bears, tigers and other fierce animals are often regarded as gods and spirits, and were the object of worship of early humans. In addition, those animals that are closely related to the life of herders and bring benefits to humans, such as deer, sheep, hedgehogs, etc., are often given special missions and meanings, which is a refinement of the concept of "all things have spirits" in shamanism. Such animal worship also exists among other shamanic peoples.
of the world, which is the attitude of nomadic people towards nature arising from their nomadic fishing and hunting mode of production. Nomads are born from animals. They live on animal resources, and they also pay respect to animals and anthropomorphize various animals as deities.

In Mongolian medicine, there is a unique medical technique known as "abdominal fumigation", in which a dying person is placed inside the abdominal cavity of a freshly slaughtered cow or camel. This was partly due to the productivity limitations of the time, when the temperature and environment inside the animal's abdominal cavity could provide better temperature conditions for the injured, and partly due to the nomadic concept of animal worship. Likewise, the choice of sheep ribs as a covering in Nairentaoligai M17 may have been motivated by this idea.

**Reasons for face-covering burial in Nairentaoligai M17**

In conjunction with the above ethnographic and archaeological data, the phenomenon of covering the face of the tomb owner of M17 is inextricably related to the shamanic cult. In the shamanic concept of the soul, after the death of the physical body, the "eternal soul" is stored in the head; thus, the act of covering the face can be regarded as a kind of protection for the "eternal soul" of the tomb owner. Furthermore, the animal worship under the shamanic cultural system reinforced their belief that the body of an animal could strengthen this protection. Then, the Ujumchin sheep, an elf in the Ujumchin grassland, became unique in the hearts of local people with its black-and-white appearance and quick-and-light dexterity. Hence, while choosing the shield of the "immortal soul" on the corpse's head, the ancients focused their attention on this animal that was closely related to their lives. While burying the deceased, his relatives slaughtered a robust Ujumchin sheep and carefully removed the ribs and soft tissue on the right side of the chest, leaving the ribs that once supported and protected the sheep's internal organs, allowing them to continue their defensive duties in a new way for their new owner.

It can be tentatively assumed from the above discussion that the reason for covering the face of the male deceased in Nairentaoligai Cemetery M17 was to shelter his soul. An interesting detail, however, is that the same phenomenon was not found in any of the other burials in the cemetery, and even the faces of the female individuals buried together in the same tomb did not show the phenomenon of the face being covered. This discrepancy seems to be due to the special status of the M17 owner.

Through the excavation of other tombs, it was found that among the entire cemetery, M17 was the richest in burial objects compared to the other 16 burials, with not only pottery but even bronze ornaments, which were not found with the others, such as mesh plaques, copper clasps, copper bracelets, copper rings, copper skewers and garlic-shaped pendants being unearthed. According to the productivity level at that time, this was not a state that could be reached by commoner financial resources; therefore, M17 should be a local noble tomb. This explains why the phenomenon of face-covering burial existed only in M17; the practice of face-covering burial seems to have been the exclusive preserve of nobles, and Narentaoligai is no exception.
So if it was the status of the nobility that led to the male tomb owner being masked, how can the female owner of the same tomb be explained? To solve this problem, we must first clarify that in ancient China, the social status of women has always been lower than that of men, and under this premise, the status of men in M17 should be higher than that of women. Therefore, this burial custom only for the male also verifies this face-covering act was a privilege. In addition, we referred some information concerning the human bones and learned through the research of physical anthropology researchers that the skull of the male tomb owner was in a very poor state of preservation and severely fragmented compared to the female tomb owner. These results provide us with another supposition that the damage to the skull led to the destruction of the soul's abode, leaving the soul of the male tomb owner in greater need for shelter compared to those of the female tomb owners.

**Conclusion**

The Inner Mongolian Plateau region in northern China has always been a nomadic settlement with a tradition of shamanism. Although the form of shamanism is not always the same, for these nomads, the idea of shamanism has implicitly become a part of their own culture. This influence is reflected not only in the world of the living but also in some cases in the world after death. The face-covering burial custom of M17 in the Nairentaoligai Cemetery is a product of the influence of shamanic thought. However, through this case, we find that there is no certain system of rules for this face-covering burial behaviour, and it is not applicable to all people. This suggests that there was also a cognitive differentiation within these nomadic peoples, which may have been due to the difference in material level but also due to the exchange with other surrounding cultures.

**Declarations**

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**Author Declarations**

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**Conflict of Interest**

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.
Ethics approval/declarations

Not applicable

Consent to participate

Not applicable

Consent for publication

Not applicable

Availability of data and material/ Data availability

Not applicable

Code availability

Not applicable

Author Contributions

CW, LB, XL, ZZ and CJ designed the study. CW, LB, XL, ZZ, CD conducted the study. LB, XL, HC and YL identified animal bones. CW, LB, XL and ZZ wrote the main manuscript text. CW, LB and XL prepared figures. BL and XL have contributed equally to this paper and are co-first authors of this paper. All authors reviewed the manuscript.

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Figure 1

The 'jade masks' of the Central China (a) Red pottery bowl face-cover in M156 of the Caoxie Mountain Site Gao 2014; (b) the 'jade masks' in M92 of the Graveyard of the Marquis of Jin in Beizhao Xu 1995; (c) the 'jade masks' in the M2 of the Hengshui Cemetery (Shanxi Provincial Institute of Archaeology, Yuncheng Cultural Relics Workstation, and Jiang County Cultural Relics Bureau 2006); (d) the 'jade burial clothes' in the Mancheng Cave Tombs of Han Han 2009.
Figure 2

The 'metal masks' of northern China (a) The 'metal mask' in the Zhoujiadi cemetery (Yang 1984) in Aohan Banner (a-1 is the state in which the mussel shell on the head is not removed, and a-2 is the state of the mussel shell after being revealed); (b) the face-covered decedent with mussel shell in M3 of Cixian South City Site II of Pre-Shang Culture (Han 2009); (c) the 'metal mask' in the tomb of the Princess of state Chen (Institute of Cultural Relics and Archaeology of Inner Mongolia Autonomous Region and Zhirimu League Museum 1993)
Figure 3

The "Shaman cultural circle" in Eurasia.
Figure 4

Location of the Nairentaoligai Cemetery
Figure 5

(a) The Nairentaoligai Cemetery burial location map; (b) artefacts excavated from the Nairentaoligai M17; (c) Sheep ribs covering the head of the tomb owner in the Nairentaoligai M17; (d) Overall view of the Nairentaoligai M17 (not yet completed excavation); (e) Overall natural environment map of the Nairentaoligai Cemetery
Figure 6
M17 excavated sheep ribs (14 in total)
2020xhnM17:1 (a) double parallel scratches on the surface of the 1st rib near the rib head; (b) cut mark on the head of 1st rib
Figure 8

2020xhnM17:3 (a) double parallel scratches on surface of corner of 3rd rib; (b) double parallel scratches on surface of neck of 3rd rib; (c) scratch on surface of the end of 3rd rib
Figure 9

Distribution of case about using animal carcasses to cover the dead face in the Chinese region: (a) face-cover with horse skull in M2 of the Iheura Cemetery (2004); (b) sheep ribs face-cover in M17 of Nairentaoligai Cemetery; (c) mussel shell face-cover in M45 of Zhoujiadi Cemetery (Yang 1984); (d) mussel shell face-cover in M3 of Cixian South City Site (Han 2009)