AN ARCHAEOLOGICAL INVESTIGATION OF HUMAN SACRIFICE AT XIBEIGANG IN ANYANG DURING THE LATE SHANG DYNASTY

by

MENG YING

B.A., Jilin University, 2000
M.A. Graduate School of Chinese Academy of Social Sciences, 2003

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF ARTS

in

THE FACULTY OF GRADUATE STUDIES
(Anthropology)

THE UNIVERSITY OF BRITISH COLUMBIA
(Vancouver)

November 2009

ABSTRACT

The Late Shang dynasty is well-known for its intensive practice of human sacrifice. Headless skeletons and bodiless skulls have been found by archaeologists working at Xibeigang in Anyang, once a royal cemetery in the Late Shang dynasty. Based on the contexts in which they were found, these remains have come to be seen as a result of human sacrifice. While human sacrifice has been a topic of the Late Shang study for many decades, it lacks a thorough study rooted in archaeological materials. Therefore, the characteristics of human sacrifice in the Late Shang remain unclear and the function of human sacrifice has not been thoroughly examined against the archaeological record.

In this thesis, I present a systematic qualitative and quantitative analysis of published data of sacrificial human remains at Xibeigang. I analyze the characteristics of human sacrifice at Xibeigang (i.e. physical conditions, gender and age profiles, burial postures and spatial and temporal patenting). Based on these observations, I examine the function of human sacrifice especially within the broad ritual development happening in Anyang during the Late Shang. By doing so, I suggest that Shang rulers were increasingly being honored by human sacrifice which, in earlier times, was dedicated to certain deities. It was under this process that human sacrifice became a powerful instrument for Shang rulers to legitimize their political power and transform their status – in effort becoming divine kings.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

ACKNOWLEDGEMENTS

I am grateful to my advisory committee, Dr. Zhichun Jing and Dr. Michael Blake. A special thank you goes to Jing, my graduate advisor, for introducing me anthropological archaeology, for teaching me how to study Chinese archaeology anthropologically, and for supporting my graduate study through his research grant. Mike has also been very important to my research. He helped me make the connection between the data, the questions and the relevant theories, and offered insightful comments and suggestions and encouragement throughout this project.

I am also very indebted to Dr. David Pokotylo and Dr. Bruce Miller. Both David and Bruce helped me get through a difficult time during the course of my program. Without their incredible support, my graduate study could not have been completed.

I would also like to thank Dr. Jigen Tang for introducing me this fascinating topic of the Late Shang human sacrifice. I am also thankful to Dr. Mark Collard for his comments on my thesis proposal. And thank you to Dr. Brian Chisholm who took time to edit and give his extremely helpful comments and suggestions.

I must also thank my friends, Denise Fong, Sue Formosa, Cameron Robertson, Kengo Seki, Craig Smith, and Zhang Hua for just always being around corner when I needed a chat. In particular, Denise was instrumental in helping me settle down when I came to Vancouver and supported me both emotionally and academically in my graduate study. Craig was also important in my study. He helped me make my first class presentation in English and shared lots of his learning experience with me. A special thank goes to Cam who took time out of his busy schedule as a proofreader to edit my draft and give his comments.

I am also very grateful to my parents who have encouraged me to pursue my dreams no matter how far I am away from home. Lastly, I thank Chinese Government Award for Outstanding Self-financed Students Abroad for supporting this research.

Introduction

Evidence of human sacrifice in the Late Shang dynasty (Late Shang) was limited primarily to textual records until 1934. When new archaeological excavations began at Xibeigang (a royal cemetery of the Late Shang) in Anyang, a great deal of attention has been focused on the phenomenon of human sacrifice and its function in archaeology. As previous research lacks a systematic analysis of archaeological data, the characteristics of human sacrifice at Xibeigang remain unclear; especially, when we examine the socio-political meaning of human sacrifice in light of known archaeological data. Considering the shortcomings of current scholarship, I re-evaluate current published data of possible sacrificial human remains found at Xibeigang through a systematic qualitative and quantitative analysis to 1) examine the physical characteristics of human sacrifice, and 2) develop the existing interpretative model for the function and significance of changing of human sacrifice in Anyang during the Late Shang.

I begin by a general discussion of anthropological definition of human sacrifice to support my research and the ways in which archaeologists have examined remains of human sacrifice and their social and political meanings. I then present the regional archaeological context of the present study including what we know about the sites in Anyang and the possible sacrificial human remains in the royal cemetery at Xibeigang. This is followed by a review of previous research on human sacrifice in Anyang during the Late Shang. Based on a systematic qualitative and quantitative analysis of current osteological data, I observe the characteristics of human sacrifice at Xibeigang (i.e. physical conditions, gender and age profiles, burial postures and spatial and temporal patterning), and discuss the function of human sacrifice within the broader ritual

developments taking place in Anyang. By doing so, I suggest that the socio-political meaning of human sacrifice may have changed in the Late Shang.

Defining Human Sacrifice

Any study of human sacrifice has to begin with the recognition that defining human sacrifice is in fact one of considerable ambiguity and difficulty. The exact meaning of the term sacrifice is actually subject to interpretation. According to E. B. Tylor, sacrifice was originally a gift offered to supernatural beings by people for the purpose of asking for favors (Tylor 1871:375-410). However, W. Robertson Smith argued that the notion of sacrifice as a gift given to the superior was not original, but a later development. He suggested that sacrifice was originally a communication between the god and his worshippers, by which human beings established a relationship with the superior (Smith 1894:338-418). Unlike Tylor and Smith who tended to trace the origin of sacrifice, Henri Hubert and Marcel Mauss (1964) were more concerned with a general sacrificial schema -- how sacrifice was actually practiced. For Hubert and Mauss, sacrifice is "a religious act which, through the consecration of a victim, modifies the condition of the moral person who accomplish it or that of certain objects with which he is concerned" (Hubert and Mauss 1964:13). By consecration, it means "an object passes from the common into the religious domain" (Ibid: 9).

Following this understanding of sacrifice, two notions are crucial to the archaeological investigation of human sacrifice: giving and separation. Giving may involve selecting victims for sacrifice. A number of studies have shown that status, gender and age all appear to have been valuable in determining which members of

communities were likely candidates for sacrifice (Green 2001: 139). Such members were usually marginalized or somehow excluded from the society in which they were sacrificed. As such, war captives are often perceived as a primary source of victims for human sacrifice in many early civilizations. Separation, infers there is a transformation of the victim from earth world to the realm of the sacred. In order for a victim to be transformed, it is necessary for them to be physically or metaphorically removed from the profane. This usually involves decapitation/dismemberment or being buried alive (Green 2001: 24).

Additionally, such forms of human sacrifice should not be viewed as a single act, but are an institutional and highly repetitive ritual performance particularly when it is performed in a complex society (Turner 1977). Through time, human sacrifice can become a regular feature of public ceremonies and its framework becomes more rigid and established: the process is often written down and transmitted from generation to generation by ritual specialist (Turner 1977: 207-208). Human sacrifice is thus understood as a highly repetitive ritual killing of people as an offering to the deity or other supernatural power with the expectation that it will bring some benefit. It follows, at least in principle, that archaeologically recovered evidence of human sacrifice is expected to produce patterns in the material record that differ from the normal methods of burying individuals.

Current archaeological research has demonstrated that such patterns are usually reflected in factors such as irregular body positioning, disarticulation of the skeleton, cut marks on the bones, and skewed age and gender profiles (Tiesler 2007; Verano 2001). This approach has been successfully demonstrated by some current archaeological studies

of human sacrifice. In his study of the physical evidence of human sacrifices found at Huaca de la Luna in Peru, John Verano finds that the skeletal remains excavated at Plaza 3A include complete and articulated skeletons, headless skeletons, and individual isolated bones. No associated burial goods were uncovered. The preliminary counts reveal at least 70 individuals. With the exception of three children, all of the individuals were males aged from approximately 15 to 39 years. No females or older adults (over 45 years) are present (Verano 2001: 177). This demographic profile indicates a highly biased sample of individuals. Additionally, Verano has observed that healed fractures of the ribs, long bones, and depressed fractures on the skulls are quite common within this sample of skeletons. Eleven of 70 individuals show signs of healed trauma on bones which, according to Verano, are typical wounds in cases of interpersonal violence (Verano 2001: 178). Both Verano and Steve Bourget (2001) believe that these victims were once warriors that were captured during violent encounters.

Sacrifice, Ritual and Its Socio-political Meaning

Before I turn to consider the socio-political meaning of human sacrifice, I will briefly discuss ritual and its function since sacrifice is a ritual act. Ritual has been defined in many ways, but Roy Rappaport's (1971) definition seems helpful here as it focuses on the connection between ideas and behavior. For Rappaport, ritual is more or less standard actions that are undertaken with respect to sets of sacred beliefs commonly held by groups of people (Rappaport 1971: 25). One of the primary purposes of ritual is the promotion of group solidarity (Durkheim 1995; Turner 1969). It is argued that collective rituals enable the expression and reaffirmation of shared beliefs, norms, and values, and thus are crucial for maintaining communal stability and group harmony. With the

development of social differentiation, ritual knowledge, facilities, and items are increasingly recognized as sources of social power that can be controlled and deployed (DeMarrais, et al. 1996; Mann 1986). In other words, social groups compete for access to ritual knowledge and symbols crucial to the maintenance of social positioning and differentiation. Such a process should be visible in the archaeological record as changing distributions of artifacts employed in ritual practice (Shennan 1993). From this perspective, the socio-political meaning of human sacrifice should be similar. It maintains the group coherence and can be a manageable source of social power with the development of social differentiation. It thus provides a public arena within which individuals are particularly effective at gaining social and political power. Methodologically, the socio-political meaning of human sacrifice should be examined in a diachronic framework because it is formed over time and space. One may be able to argue that such meaning exists in synchronic data, but I would argue that the evidence is strengthened and rendered more interpretable in a diachronic framework.

Human Sacrifice in Anyang during the Late Shang

In this present study, possible sacrificial human remains found in the Xibeigang cemetery in Anyang were analyzed and discussed. The Xibeigang cemetery is rich in sacrificial data, and more importantly it has been recognized as a royal cemetery in the Late Shang. As such, it has archaeological potential for investigating human sacrifice and its relation to the ruling power during the Late Shang in which ritual was a crucial source of social power. In the following sections, I present the regional archaeological context of the study area and general profile of sacrificial human remains found at Xibeigang. I then review the previous research on human sacrifice in Anyang during the Late Shang,

followed by a critique of the existing interpretative model for the function of human sacrifice, upon which this present study is based.

The regional archaeological context

Anyang is the modern city where Yinxu, the Late Shang capital was situated. It is located to the east of the Taihang mountains in the Huan River valley that is at the western edge of the North China plain (Figure 1). The Huan River enters the study area from southwest, flows north, then turns and flows east. The urban settlement in Anyang was historically known as *Yinxu*, "the "Ruins of *Yin*" which was occupied during the reign of last twelve Shang kings from 1250 BC to 1046 BC (XiaShangZhou 2000; Yang 1983). It extends along both banks of the Huan River, and the site is considered to cover approximately 30 square km. A number of distinctive areas have been identified within Anyang, including the "temple/palace complex", the royal cemetery, workshops, residential compounds, and non-royal cemeteries (Bagley 1999; Keightley 1999; Li 1977; Zhongguo 1987b, 1994) (Figure 2).

The occupation at Yinxu can be divided into four ceramic phases: Yinxu I-IV, and/or five oracle bone phases I-V, which roughly correspond to the reigns of Shang kings and to a series of radiocarbon dates as shown in Table 1. Among four phases, Yinxu I and II are worth some discussion as most data used in this present study are from these two phases. Yinxu I corresponds to the reign of Kings Xiao Yi and Xiao Xin, and the early reign of King Wu Ding; Yinxu II to the late reign of Wu Ding and the reign of Kings Wu Geng and Zu Jia.

The Xibeigang cemetery

General profile

The Xibeigang cemetery is located north of modern village Wuguancun in Anyang. It can be divided into west and east sections, which are separated by about one hundred meters (Figure 3). In the western section, seven large tombs (M1001, M1002, M1003, M1004, M1217, M1500, M1550) and a large rectangular pit (M1567) (possibly an unfinished/unused tomb) were uncovered (Liang and Gao 1962, 1965, 1967, 1968, 1970, 1974, 1976); in the eastern section (about 5,000 square meters in area) many burials were excavated (Figure 4). In the northeast corner of the east section is a large ramped tomb WGKM1 found in 1950 (Guo 1951). On the northwest corner are three large tombs M1129, M1400, all excavated prior to 1949 (Liang and Gao 1996). Another large tomb M260 (Zhongguo 1987a) is located in the southwest corner. All large tombs are oriented north-south and a few degrees toward the east. Furnished with grave goods, these tombs contain animal and human offerings found inside the central chamber, on the ramps, and in the pounded earth fill. They have long ramps down into a central burial chamber. Some tombs are close to each other so that ramps of later tombs cut into earlier ones, which helps chronological sequencing of those large tombs. All large tombs, according to the excavators, were either occupied by Shang kings or royal family members (Zhongguo 1994).

In addition to large tombs, a great number of small burials (i.e. the physical features/facilities in which the bodies of the dead were deposited) were recovered from a series of excavations in 1934-1935, 1950, 1958-1959 and in 1976. They can be divided into two types in terms of their grave orientation: north-south and east-west. For the

1934-1935 excavation, the results have not been completely published. Kao Chu-hsun (1959) summarized this excavation in one of his publications. According to his summary, a total of 1,221 small burials were found with single/multiple occupants. These small burials either contained skulls or headless skeletons. In addition, there are 20 horse burials, 2 elephant burials, 1 chariot pit, 1 bronze-vessel pit and 20 burials of unidentified animals. Most of the burials were arranged in parallel rows, and clustered in groups of ten. In 1950, 26 small burials were found approximately 50 m south-east of the large tomb WKGM1(Guo 1951). They were all multiple burials with headless skeletons, arranged in parallel rows and oriented north-south. In 1958-1959, 10 burials were uncovered 20 m east of M260. They were also multiple burials with headless skeletons. In 1976, 250 burials were located but only 191 of them were excavated (Figure 4). They were spatially arranged in a pattern similar to those found in 1934-1935, and were classified into 22 groups by the excavators. Of these, 165 burials contain human skeletons; 29 burials contain complete skeletons, 135 contain headless skeletons (Figure 5), and 2 contain both complete and headless skeletons.

Chronology

The chronology of skeletal/skull remains found in large tombs needs to rely on the dating of large tombs. However, dating large tombs remains highly tentative because these tombs had been looted before excavation and they lack datable artifacts (e.g., ceramic vessels). Based upon the stratigraphical information and typological studies of unearthed artifacts, Zou Heng arranged the big tombs in the western section into the following chronological sequence from the earliest to the latest: M1500, M1217, M1001, M1550, M1004, M1002, and M1003. He believed that M1500 and M1217 were built

during the early period of Late Shang that corresponded to the reigns of Shang kings Pan Geng, Xiao Xin and Xiao Yi. In contrast, Yang Xizhang argues that M1500 and M1217 should not be dated to earlier than the reign of Shang king Wu Ding. His evidence mainly comes from the comparison of bone arrow points and hairpins found in these two tombs to those found in other places in Anyang whose dates have been clearly determined after the reign of king Wu Ding (Yang 1981, 1988, 1991). Yang believes that no large tombs were built prior to the reign of Wu Ding.

The chronology of skeletal/skull remains from small burials also needs to be discussed in relation to their spatial distribution. It has been pointed out that small burials were generally constructed in two spatial orientations: north-south and east-west. The stratigraphic data from the 1976 excavation suggest that nearly 21 east-west orientated burials cut into the north-south-orientated ones. It indicates that the north-south orientated burials were constructed earlier than the east-west-orientated ones. Additionally, typological studies of burial goods allow the determination of the relative time period to which these burials correspond. According to excavators, three east-west orientated burials (M12, M229 and M238) have yielded three ceramic vessel *lei* and 1 *li*. The typological study indicates that they are of the ceramic phase Yinxu Period II which corresponds to the late period of Wu Ding and the reigns of kings Zu Geng and Zu Jia. It suggests that the east-west-oriented burials should not be built prior to the Wu Ding period. Since the north-south-orientated burials rarely contain burials goods, it is hard to determine their relative dates. However, based upon the above mentioned stratigraphic information, it seems reasonable to say that the construction of north-south oriented graves started prior to the Wu Ding period.

Previous research on human sacrifice in Anyang

The discovery of headless bodies and bodiless skulls in Anyang in the Late Shang has been interpreted as the result of human sacrifice which has led to a wide range of discussion (Gu 1982; Huang 1983, 2004; Yang 1985 [1969]; Yang and Yang 1977; Yao 1979). Previous studies generally address two questions: 1) how to identify the practice of human sacrifice, and 2) what is the function of human sacrifice? As for the first question, the discussion often involves distinguishing the relationship of the human victims associated with the deceased. Based on Oracle Bone Inscriptions (OBI), records of divination in the Late Shang, both Yao Xiaosui (1979) and Gu Derong (1982) identified two forms of human victims – *Rensheng* (human sacrifice) and *Renxun* (companions in death). Rensheng mostly consisted of captured warriors, while Renxun were typically composed of high-status relatives, close dependents, or personal attendants of the deceased. Following Gu and Yao, Huang Zhanyue (Huang 1983, 2004) further argues that Renxun were usually placed beside the tomb occupant or laid out on a *ercengtai* (second level platform), where their bodies remained articulated and complete. In contrast, "human sacrifice" is mostly found in places referred to as "public ritual areas" that were dedicated to a supernatural power. These skeletons were often disarticulated and rarely associated with burial goods.

In the study of the function of human sacrifice, the interpretation varies. One of the scenarios posits that because there was little need for extra labor during the early period of the Late Shang, human sacrifice was a way to dispose of captured enemy warriors (i.e. Qiang people) (Yang and Yang 1977: 18; Yao 1979: 388) . This argument assumes that the sacrificed victims were captured warriors who were otherwise useless to

the Shang people except in the role of human sacrifice. Captured warriors were not recognized as a source of slave labor until later phases of the Late Shang.

In scenario two, Gideon Shelach (1996) argues that captured warriors were "not a marginal result of wars against the Qiang; rather, obtaining them was one of the incentives that made these wars more attractive to the Shang" (Shelach 1996: 17). In other words, capturing warriors for ritual sacrifice was one of the primary purposes of Shang battles. Those captured, especially the Qiang people, were not used as slaves because they were important for sacrificial use. Shelach has viewed the practice of sacrificing Qiang captives as a mechanism by which Late Shang rulers legitimized their control of power over their population because the Qiang were recognized as a symbol of a strong and dangerous enemy.

A third scenario posits that human sacrifice, as described in OBI records, was a way to communicate with the deities and restore harmony to the world (Chang 1980: 202). Human victims, as sacrificial offerings, were required in order to keep all areas of life strong, fertile and fortunate (Keightley 1978: 215). When the appropriate sacrifice was properly offered to the gods, they were then obliged to pay benefits back to the humans. As part of Shang ritual, human sacrifice thus enabled the Shang people to establish a linkage between humans and deities with the expectation that the deity would bring benefits to the living (Chang 1983; Keightley 1998, 2004; Shih 1959). Such a ritual, according to Keightley, provided powerful psychological and ideological support for the social and political dominance of Shang kings, who performed the sacrifice (Keightley 1978: 213).

A critique of previous research

The previous research has contributed to our understanding of human sacrifice in Anyang during the Late Shang. However, it lacks a thorough study rooted in archaeological methods and data. Thus, the current picture of human sacrifice may not be complete. In the following sections, I will make detailed comments on the three scenarios mentioned above and then propose how to improve our knowledge of human sacrifice in Anyang during the Late Shang.

Disarticulated human remains found in public ritual areas are often believed to be the result of ritual sacrifice activities. However, the identification of disarticulated human remains is not enough to make a solid argument for identifying human sacrifice. Some disarticulated human remains could be the results of disturbance after interment (i.e. grave looting). Therefore, some other important information, such as gender and age, and burial postures of human remains should be considered in the identification of human sacrifice. In some cases, complete skeletons could represent sacrifice as well. This possibility has been demonstrated in the study of human sacrifice in other early civilizations such as Maya (Fowler 1984). Furthermore, the argument for using captured warriors as victims is not satisfactorily addressed, as it relies too much on OBI records and has not been tested against archaeological materials.

As to the function of human sacrifice in Late Shang, the first scenario, disposing of unneeded enemy warriors is not reasonable. Current archaeological data from Anyang suggest that most of the individuals identified as of human sacrifices were buried in a well- built grave pit (Zhongguo 1994). Such treatment would not make sense if human sacrifice was only used as a technique for disposing of captured warriors because

constructing the grave pit cost time and energy. It is also worth noting that there is little evidence that captured warriors (i.e., from Qiang) were slave laborers (Shelach 1996: 16). So far, two types of activities – agriculture and hunting – are believed to be associated with Qiang slaves. The only evidence that scholars use to argue for the use of Qiang slaves as agricultural workers in the field is one OBI record. It is usually read as follows, "Inquired: The King to order the many Qiang to clear new fields" (Chang 1980: 227-228). The problem with this evidence is that the character for the word Qiang is incomplete. It is possible that it could be another character that refers to a different place name (Shelach 1996: 17). Last, the OBI evidence indicating the Qiang were employed as hunters is very weak. Such evidence has been retrieved from only two pieces of OBI records according to the concordance of OBI edited by Shima Kunio (1958).

The problem with the second scenario (warriors captured with the intent of sacrifice) is that OBI records on Shang use of war captives (i.e. from Qiang) as sacrificial victims were approximately dated to Period III and IV while the majority of bodies believed to be human sacrifices, that Shelach used for his argument, were dated to Period I and II. Therefore, using OBI records as a primary source for arguing that the acquisition of human victims led to the Shang ritual war against the Qiang is not convincing. Even if such ritual war had occurred prior to OBI records, this scenario would fail in explaining the ritual sacrifice of human victims from different cultural groups. As recorded in OBI records, warriors captured by the Shang could come from other *fang guo* (states) like Da, Heng, Shi, Mei, Er, Yin etc. (Yao 1979).

Little can be said against scenario three, the concept that human sacrifice is a form of communication between deities and the living society with expectation that the

deities would bring benefits to the living. The phenomenon of human sacrifice as a way of nourishing the gods can be found in many early civilizations. For example, ritual human sacrifice was a regular occurrence in both Andean and Mesoamerican cultures (Trigger 2003)., Additionally, human sacrifice was commonly employed as an instrument of political control by rulers. However, to assume that rulers achieved their political power by practicing human sacrifice does not reveal the process under which this occurred.

In summary, current explanations of human sacrifice found at Xibeigang are not addressed in a satisfactory manner and it is likely that we have an incomplete picture of human sacrifice. Important data, such as physical conditions, gender and age, and burial postures, have not been analyzed within the context of this phenomenon. Basic questions concerning human sacrifice at Xibeigang thus remain unanswered. As for the function of human sacrifice, the first two interpretations outlined above are not well supported by current evidence. The last one is reasonable, but such an explanation is not satisfied without addressing the process in which Shang rulers employed human sacrifice as a political instrument. Considering the merits and the problems of current scholarship, the present study re-evaluates the current osteological data of possible sacrificial human remains found at Xibeigang through a systematic qualitative and quantitative analysis so as to elucidate the characteristics of human sacrifice and develop the existing interpretative model for the function of human sacrifice in the Late Shang.

Data Observations

Human victims in large tombs

The large tombs yielded both complete and partial skeletal remains of human victims. Complete skeletons were only found in four tombs; M001, M1003, WKGM1 and M260. The complete skeleton was placed in a small pit dug into either the bottom or the second level platform of the tomb. As Table 2 shows, almost all of the complete skeletons were buried with prestigious grave goods, among which the blade *ge* was common. No pattern was observed regarding the burial posture. Due to the poor preservation, gender and age of most of the individuals could not be determined except for those found in M1001. Individuals identified in M1001 were all male adults. No microscopic analysis was made to determine the presence/absence of cut marks on the skeletons. This makes it impossible to determine whether or not the injuries occurred at the time of death. Therefore, it is hard to say whether or not these individuals were the result of human sacrifice because one crucial notion to the determination of sacrifice is separation. Such separation means a physically or metaphorically removal from the profane which usually involves decapitation or other dismemberment or burial alive. Based on current evidence, these individuals were likely “companions in death” for the tomb’s occupant.

Partial skeletal remains can be divided into two groups: headless skeletons and skulls only. They are dominated by skulls (89 percent; n=537). Headless skeletons make up only 11 percent (n=67) (Figure 6). As Table 3 shows, few burial goods are found associated with individual remains except for one skull in M1004. That skull is buried with many military bronze gear and weapons (i.e. helmet, spear and blade). Among

individuals identified by their position, all headless skeletons were placed prone. Skulls were typically arranged in layers and faced the central chamber particularly in M1001, M1400 and M1500.

Gender and age identification of the partial skeletons is difficult because of poor preservation. Fifty nine headless skeletons and 73 skulls found in M1001 were examined to determine their age. They were all between the ages of 15 to 20 years old. Additionally, the excavators pointed out that these 59 headless skeletons were male individuals (Liang and Gao 1962). The presence/absence of perimortem injuries is unknown because no microscopic analysis was done on the bones. All of the headless skeletons in M1001 had their hands tied behind their back, and a total of 9 skulls were left with some pieces of vertebra. This indicates that violence might have happened to these individuals at or around the time of death (Liang and Gao 1962).

Human victims in small burials excavated in 1976

The skeletal remains found in small burials are more complicated as they were collected during field seasons spanning more than 40 years. Some of these remains have not been formally published. Thus, the analysis of skeletal remains will be mainly based upon the most recent and relatively complete data from the 1976 excavation with additional information from previous field excavations.

As mentioned above, the small burials excavated in 1976 are of two types in terms of their orientation: north-south and east-west. Among them 156 are oriented north-south. Of these, 13 burials lack the skeletal data. The remaining 143 burials are all multiple burials with each having eight individuals on average. Two percent of these

burials (n=3) contain burial goods including dog teeth, jade ornaments and bronze daggers (Table 4).

A total of 136 burials contain headless skeletons (n=1079) and only seven burials contain complete skeletons (n=40). In other words, the skeletal assemblage in the north-south oriented burials is dominated by headless skeletons (97 percent) (Figure 7). The excavators have reported that these headless skeletons might be the result of decapitation (Zhongguo 1977:22). They observe that in the burial M39 the cervical vertebrae were left with skeletons. Unfortunately, no systematic analysis has been conducted regarding the presence/absence of cut marks on bones. Burial posture is dominated by the prone posture (80 percent, n=893). Random posture makes up the second largest group (10 percent, n=111). Supine posture comprises only four percent (n=50) of the skeletons. The rest of skeletons are undetermined (six percent, n=65) (Figure 8).

Gender and age identification was made for this skeletal assemblage by the physical anthropology group, Institute of Archaeology of Chinese Academy of Social Sciences in 1977(Renleixuezu 1977). Of this assemblage, 486 individuals were identified male, 17 were female, and 616 individuals remained undetermined due to the poor preservation of bones. All identified female individuals are complete skeletons while males are headless. Of 1079 individuals 641 are age-identified. Ninety-eight percent (n=631) are adults while only two percent (n=10) are juvenile. Among adults, 47 individuals are further identified as young adults and 27 are old adults (Figure 9). In the cases where gender and age identification for individuals are both available, all of them (n=181) are adults. Of these, 15 individuals are young male adults, three old male adults and seven old female adults (Figure 10).

In the area excavated in 1976, there are 35 small burials oriented east by west, and eight of them lack skeletal data due to heavy disturbance. Among 27 burials with identifiable skeleton data, 16 burials (59 percent) are of single burial; and 11 (41 percent, n=11) of multiple burials, each contains three individuals on average. Eleven of 27 burials contain burial goods. Among them, 73 percent (n=8) are single burial while 27 percent (n=3) are multiple burials (Table 5). A total of 55 skeletons are indentified in these 27 burials and 50 of them are complete skeletons. Only four skeletons are headless and one is bodiless skull (Figure 11).

No cut marks were observed on complete skeletons. But, the skeletons uncovered in burial M6 show that their hands might be tied behind their backs and their feet also bound. The headless skeletons seem similar to those found in the north-south oriented burials. Burial posture is dominated by the prone posture (64 percent, n=35). Supine posture makes up the second largest group (18 percent, n=10). Side posture and random posture respectively comprises seven percent (n=4) and nine percent (n=5) of the skeletons. The burial posture of the rest skeletons is undetermined (2 percent, n=1) (Figure 12).

Of this assemblage, eight individuals are identified as male, 16 are female, and 31 individuals remain undetermined due to the poor preservation of bones. Thirty-six of 55 individuals are age-identified. Forty-seven percent (n=17) are juvenile while 53 percent (n=19) are adults. Among adults, one individual is further identified as young adult and 10 are old adults (Figure 13). In cases where gender and age identification for individuals are both available, all (n=15) are adults. Of these, one individual is further identified as a young female adult, three old male adults and seven female adults (Figure 14).

Human victims in small burials excavated prior to 1976

Although field data prior to the 1976 excavation have not be formally reported, they have been briefly mentioned in Kao's (1959) publication. The 1934-1935 excavations yielded 1,221 north-south-oriented burials that are either single or multiple burials. Of these, 209 burials contain bodiless skulls with 3-39 skulls each burial; 192 contain headless skeletons with each having 1-10 skeletons; and nine contain infant remains buried between layers of potsherds. A total of 389 skulls were studied by Yang His-mei (Yang 1985 [1969]). Of these, 370 skulls were identified as adults. Most of them (86 percent; n=319) were male. Females accounted for only 14 percent (n=51) of the skulls. Some skulls display signs of trauma on the lower jaw and the cervical vertebrae of some skeletons were left with the lower jaw.

DISCUSSION

Characteristics of human sacrifice

Physical conditions

Remains of sacrificial victims in large tombs were dominated by skulls (89 percent); only 11 percent were headless skeletons. They were rarely associated with burial goods. Few microscopic observations were made on bones regarding the presence/absence of cut marks. However, a total of 59 headless skeletons from M1001 were found with their hands bound behind their backs, and a total of nine skulls were found with some pieces of vertebra associated, which may indicate some interpersonal violence.

Sacrificial victims in small burials are more complicated because they were retrieved in different field seasons and some of them have not been formally reported. Based upon information from the 1976 excavations, sacrificial victims were found in two different orientations: north-south and east-west. The north-south oriented burials (n=143) were composed of multiple burials with an average of eight individuals per burial. Only two percent of these burials (n=3) contained burial goods. The skeletal remains are dominated by headless skeletons (97 percent, n=1079).

Burials with an east-west orientation were dominated by complete skeletons (n=50). Only four skeletons were headless and one was a bodiless skull. No cut marks were observed on complete skeletons. Different from those complete skeletons in large tombs, the complete skeletons in small burials show the indicators of interpersonal violence - their hands were bound behind their backs and their feet were tied, suggesting they may have been buried alive.

Gender and age profiles

Gender and age of most sacrificial victims in the large tombs were difficult to identify due to the poor preservation. Even so, a total of 59 headless skeletons and 73 skulls from M1001 were determined to be male adults aged from 15-20 years. In small burials, there was some variation in the gender profile by burial orientation. Among the north-south oriented burials whose age could be determined (n=641), 98 percent (n=631) were adults while only two percent (n=10) were juvenile. Where gender and age identification were both available, the individuals were primarily male adults (n=174). Among the east-west oriented burials that could be sexed, most were female (n=16), while males accounted for only eight individuals.

Burial posture

Most sacrificial victims in both large tombs and small burials were placed in the prone posture. Especially in small north-south oriented burials excavated in 1976, 80 percent of human victims (n=893) were prone. The meaning of this prone posture becomes significant when the preferred lay out of the dead in Late Shang is considered. Current studies of Late Shang mortuary customs suggest that the occupants of elite burials were generally buried in the supine, extended position, their bodies not being dismembered in any way, while those of lower classes were usually buried in the prone posture (Guo 1951; Ma and Zhou 1956; Zhao 1956). However, some scholars like Meng Xianwu (1992) have observed that burial postures in Late Shang were actually associated with gender of the dead – males were buried prone and females supine. It seems that the burial posture of sacrificial victims studied here somewhat supports Meng's theory since the majority of prone burials were male.

Spatial and temporal patterning

As mentioned earlier, human sacrifice in the Xibeigang cemetery was found in two mortuary contexts: large tombs and small burials. The scale of human sacrifice conducted in small burials was so large that it covered nearly half of the eastern section of Xibeigang cemetery. Among those excavated in 1976, the smallest group was composed of a single grave while the largest consisted of 47 graves with more than 339 victims (Zhongguo 1977). It seems reasonable to argue that the small burials did not result from a single act, but a highly repetitive performance of human sacrifice. Although small burials were located close to the large tombs M1400, WKGM1 and M260, they

were rarely associated with them because most small burials were constructed earlier than the large tombs.

As discussed in the previous section, the earliest use of the Xibeigang cemetery was for the small north-south oriented sacrificial burials. Most of them, if not all, particularly in the eastern section of cemetery, were interred prior to Wu Ding period. In the late Wu Ding period, the small east-west oriented sacrificial burials appeared. Human sacrifice in these burials differed from those in early north-south oriented ones. They were dominated by single sacrificial burial and victims were mostly female adults compared to early multiple male-dominant burials. Additionally, the scale of sacrifice in east-west oriented burials was much less than in north-south oriented ones. Meanwhile, human sacrifice in the large tombs started during the Wu Ding period and continued through the rest of Late Shang.

The function of human sacrifice

The function of human sacrifice varies depending upon the context in which it was conducted. In his comparative study of early civilizations, Bruce Trigger (2003) observes that human sacrifice is conducted to build up communication with a deity, to seek protection for worshippers against their enemies or from evil powers, to cure epidemics, to avoid war or famine, and so on (Trigger 2003: 473). In a similar vein, Luo Kun (1982) in his analysis of OBI records points out that human sacrifice in Late Shang might have served for: 1) healing the sick; 2) celebrating the war victory; 3) praying for harvest; 4) worshiping nature; 5) praying for rain; and 6) erecting new buildings. Perhaps human sacrifice in Xibeigang bears some of above mentioned social-political meanings.

While it is not easy to link any specific meaning with any individual human sacrifice, it is possible to interpret the general function of human sacrifice in Xibeigang based on the observed spatial and temporal patterning with additional information from OBI records.

Human sacrifice at Xibeigang was made in two general contexts: large tombs and small burials. In the case of small burials, human sacrifice was conducted repeatedly in the east section of Xibeigang cemetery. Although this section included some large tombs, their constructions were later than most if not all of the small burials. Thus, it is unlikely that human sacrifice was dedicated to the nearby large tombs. Since human sacrifice in small burials was practiced in an open area, perhaps accessible and visible to the public, this type of sacrifice was likely conducted for collective well-being. According to Keightley (1978: 214), Shang religious practice rested upon the principle of *do ut des* ('I give, in order that thou shouldst give'): the belief that correct ritual would result in favors conferred by Di. It is thought that the high god Di could maintain the order of the universe, confer fruitful harvest to Shang people, and thus secure common well-being. It is then possible that human sacrifice in small burials was part of this *do ut des* belief-based religious practice. In other words, this type of sacrifice was to communicate with deities (i.e., Di) that could benefit the living society.

In contrast, human sacrifice conducted in large tombs was for the exclusive benefit of the tomb occupant who was either a Shang king or a royal family member. In this context, human sacrifice was not for common well-being, but for individuals and important events in Shang royal life. It conveys two ideas: 1) even human life was trivial compared to the person being honored by human sacrifice, and 2) the honored person was considered to have been a god. Such sacrifice usually underlines the superiority and

power of the receiver, and is concerned with individual benefits and needs rather than the common well-being (Bourdillon 1980: 13).

As mentioned earlier, this type of human sacrifice started during the Wu Ding period. At that time, two ritual-related developments occurred in Anyang. One is that a ditch was constructed around the western and southern edges of the palace/ temple complex. This ditch was 1050 m long north-south, 650 m wide east-west. It was 7-21 m in width and up to 10 m in depth. Together with the Huan River it separated the palace/ temple zone from other settlements (Zhongguo 1987b: 94-96). The other development is that in the OBI records Shang kings divination were less concerned about Di (a god) ordering the rain or thunder or about seeking Di's general approval or assistance (Puett 2002:41). This points to a trend that ritual became exclusively associated with Shang kings and royal power over ritual practice was enhanced.

Turning back to human sacrifice in large tombs, I suggest that this type of human sacrifice was probably part of ritual exclusion occurring in the Wu Ding period. That is to say, Shang rulers were increasingly being honored by human sacrifice which, in earlier times, was dedicated only to certain deities. Human sacrifice then provided a public arena for the demonstration of Shang rulers' ritual power and linkage to the supernatural. It was a powerful psychological and ideological support for rulers to legitimize their political power (Keightley 1978: 213).

CONCLUSION

In summary, the purpose of this thesis was to conduct a systematic analysis of current osteological data of sacrificial human remains found at Xibeigang so as to study

the characteristics of human sacrifice and its social and political meanings. This study has demonstrated that remains of sacrificial human victims at Xibeigang were mostly headless skeletons or skulls except for some complete skeletons found in the east-west oriented small burials. Gender and age profiles show that male adults were the preferred sacrificial victims. And, most of sacrificial victims were buried in the prone posture, unlike non-sacrificial burials which were mostly supine. Based on observed spatial and temporal patterning of sacrificial victims, human sacrifice at Xibeigang served to meet the interests of both collective well-being and the Shang ruling class. With the context of broader ritual-related developments in Anyang, it seems that Shang rulers were increasingly being honored by human sacrifice which, in earlier times, was dedicated to certain deities. It was under this process that human sacrifice became a powerful instrument for Shang rulers to consolidate their political power.

Meanwhile, the archaeological data and observations presented above may provide a useful example of how human sacrifice as a ritual act was employed as a source of social power in which political authority was legitimated during the development of complex society. As I have suggested, human sacrifice at Xibeigang in the Late Shang appeared to be a complexity of ritual behavior serving for common well-being and gradually became exclusive to the ruling class. Because ritual works through the sense to structure our sense of reality and our understanding of the world around us, this change of human sacrifice helps create the new ideology of societies, that is, the idea that there should be a centralized leadership and dependants. The degree to which human sacrifice is associated with the legitimacy of political power relates to the extent to which ritual is

a source of power for the political elite. The relationship between human sacrifice and power is therefore flexible and dynamic.

TABLES AND FIGURES

Table 1. Late Shang Periodization.

Kings	Ceramic phases	Oracle bone phases	Rounded C14 dates BCE
Di Xin	Yinxu IV	Period V	1075-1046
Di Yi			1101-1076
Wen Wu Ding	Yinxu III	Period IV	1112-1102
Wu Yi			1147-1113
Kang Ding, Lin Xin		Period III	1191-1148
Zu Jia, Zu Geng	Yinxu II	Period II	
Late Wu Ding		Period I	1250-1192
Early Wu Ding	Yinxu I		
Xiao Yi, Xiao Xin			

Source: Xiashangzhou (2000); Yang and Gao (2003); and Keightley (1999)

Table 2 Complete Skeletons Identified in Large Tombs

Tomb	Number	Location	Posture	Gender	Age	Burial goods
M1001	9	Bottom	Prone (n=4); Side (n=5)	Male	Adult	Dog, stone/bronze blade *ge*
M1003	1	Bottom	Side	Undetermined	Undetermined	Unknown
WKGM1	1	Bottom	Undetermined	Undetermined	Undetermined	Bronze blade *ge*
	41	Second level platform	Prone (n=13); Supine (n=5); Side (n=1); Undetermined (n=22)	Undetermined	Undetermined	Bronze blade *ge* / vessels, and jade ornaments
M260	5	Bottom	Undetermined	Undetermined	Undetermined	Dog, jade blade *ge*, coffin

Source: (Guo 1951; Liang and Gao 1962, 1965, 1967, 1968, 1970, 1974, 1976, 1996; Zhongguo 1987a)

Table 3 Partial Skeletal Remains Indentified in Large Tombs

Tombs	Place	Headless skeletons				Skulls				Notes
		Number	Gender	Age	Posture	Number	Gender	Age	Posture	
M1001	East tomb ramp	1	undetermined	adult	prone	6	undetermined	15-20	facing the central chamber	
	South tomb ramp	59	male	15-20	Prone with hands bound at the back	42	undetermined	15-20	facing the central chamber	
	West tomb ramp	n/a	n/a	n/a	n/a	11	undetermined	15-20	facing the central chamber	
	North tomb ramp	n/a	n/a	n/a	n/a	14	undetermined	15-20	facing the central chamber	
	East side chamber	1	undetermined	undetermined	prone	n/a	n/a	n/a	n/a	
M1002	Tomb fill close to the north-west corner of chamber	n/a	n/a	n/a	n/a	4	Undetermined	Undetermined	Random	Placed in 3 layers with 0.5m distance between each other
	Tomb fill close to the north-east corner of chamber	n/a	n/a	n/a	n/a	5	Undetermined	Undetermined	Random	Placed in 3 layers with 0.1m distance between each other

Tombs	Place	Headless skeletons				Skulls				Notes
		Number	Gender	Age	Posture	Number	Gender	Age	Posture	
M1004	Tomb fill between chamber and coffin	n/a	n/a	n/a	n/a	5	Undetermined	Undetermined	Random	
	North tomb ramp	n/a	n/a	n/a	n/a	7	Undetermined	Undetermined	Random	
	South tomb ramp	n/a	n/a	n/a	n/a	1	Undetermined	Undetermined	Random	Left with 3-4 pieces of vertebra; buried with some 50 bronze helmets, 360 bronze spears and 69 bronze blade *ge*
M1500	Tomb fill	n/a	n/a	n/a	n/a	114	Undetermined	Undetermined	facing to the central chamber	Placed in a few layers with random distance between each other
M1550	Tomb fill within the south ramp	n/a	n/a	n/a	n/a	8	Undetermined	Undetermined	facing to the north	Left with some pieces of vertebra
	Tomb fill	n/a	n/a	n/a	n/a	235	Undetermined	Undetermined	facing to the south	Placed in 24 rows with each row having 9/10/11/12/13 skulls
M1400	Tomb fill	n/a	n/a	n/a	n/a	29	Undetermined	Undetermined	Random	
WKGM1	Tomb fill	n/a	n/a	n/a	n/a	34	Undetermined	Undetermined	facing to the central chamber	Placed in 3 layers
M260	Tomb fill	6	Undetermined	Undetermined	Undetermined	n/a	n/a	n/a	n/a	
	Tomb ramp floor	n/a	n/a	n/a	n/a	22	Undetermined	Undetermined	random	Grouped and placed 35 cm or more away from the tomb entrance

Table 4 North-South Oriented Burials Containing Burial Goods Excavated in 1976

Burials	Number of skeletons	Gender	Age	Posture	Condition of skeletons	Burial goods
M4	2	Female	25-28	side	complete	1 jade frog, 1 jade decoration, 1 jade hair decoration
M6	7	female (n=6); undetermined (n=1)	20-30; 35	supine (n=1); prone (n=6)	complete	1 jade decoration
M137	4	male (n=2); undetermined (n=2)	25-30 (n=2); undetermined (n=2)	random	headless	1 bronze blade *ge*; 3 pig teeth; 5 dog teeth; 4 human teeth

Table 5 East-West Oriented Burials Containing Burial Goods Excavated in 1976

Burials	Number of skeletons	Gender	Age	Posture	Condition of skeletons	Burial goods
M12	4	Female	25-30	supine (n=2); prone (n=2)	complete	1 ceramic *lei*; 1 ceramic vessel lid; 1 bone hair decoration
M98	3	undetermined	undetermined	prone	complete	10 dog skeletons
M217	1	Undetermined	undetermined	prone	complete	5 eagle skeletons; ceramic fragments
M221	2	male (n=1); undetermined (n=1)	6-7	supine	complete	1 bronze blade *dao*
M223	1	Undetermined	undetermined	undetermined	bodiless skull	green stone
M228	1	Male	25	supine	complete	jade decoration
M229	1	undetermined	6-7	prone	complete	1 bronze vessel *dou*; 2 bronze vessel *ding*; 2 hard ceramic vessel *fou*
M230	1	undetermined	7	prone	complete	ceramic vessel fragments
M233	1	undetermined	undetermined	prone	complete	Jade fish; white glassy ball; green stone
M238	1	undetermined	undetermined	prone	complete	1 ceramic vessel *li*; 1 ceramic vessel *lei*; 1 ceramic vessel lid
M240	1	undetermined	undetermined	supine	complete	1 stone blade *yue*; 4 shells

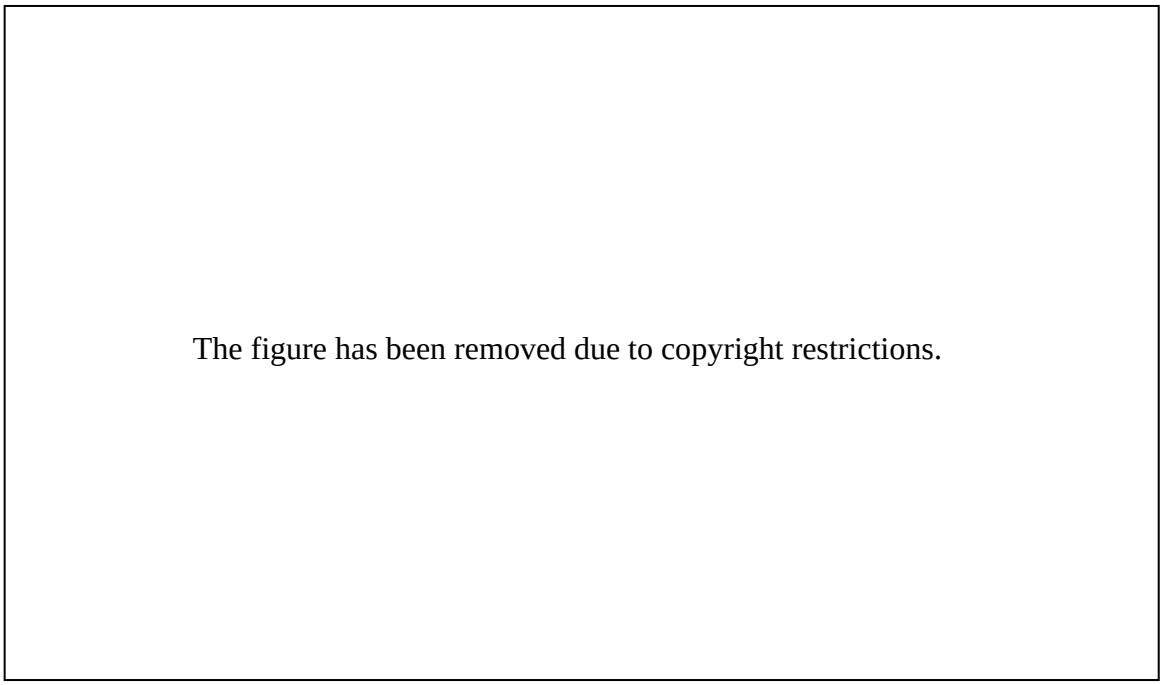

Figure 1. Location of Yinxu in Huan River Basin (adopted from Yang and Gao 2003: 287, Figure 6-2)

Figure 2. Map of Selected Sites in Anyang (modified from Yang and Gao 2003: 285, Figure 6-1)

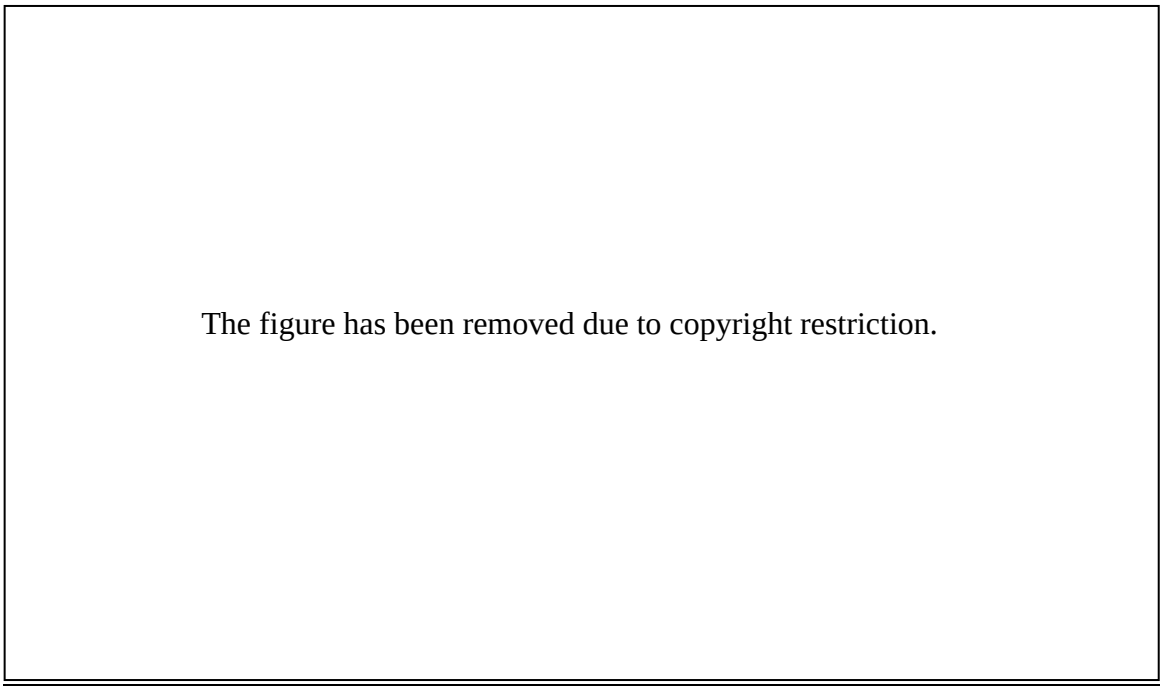

Figure 3. The Xibeigang Cemetery (adopted from Tang 2004, fig. 7.5)

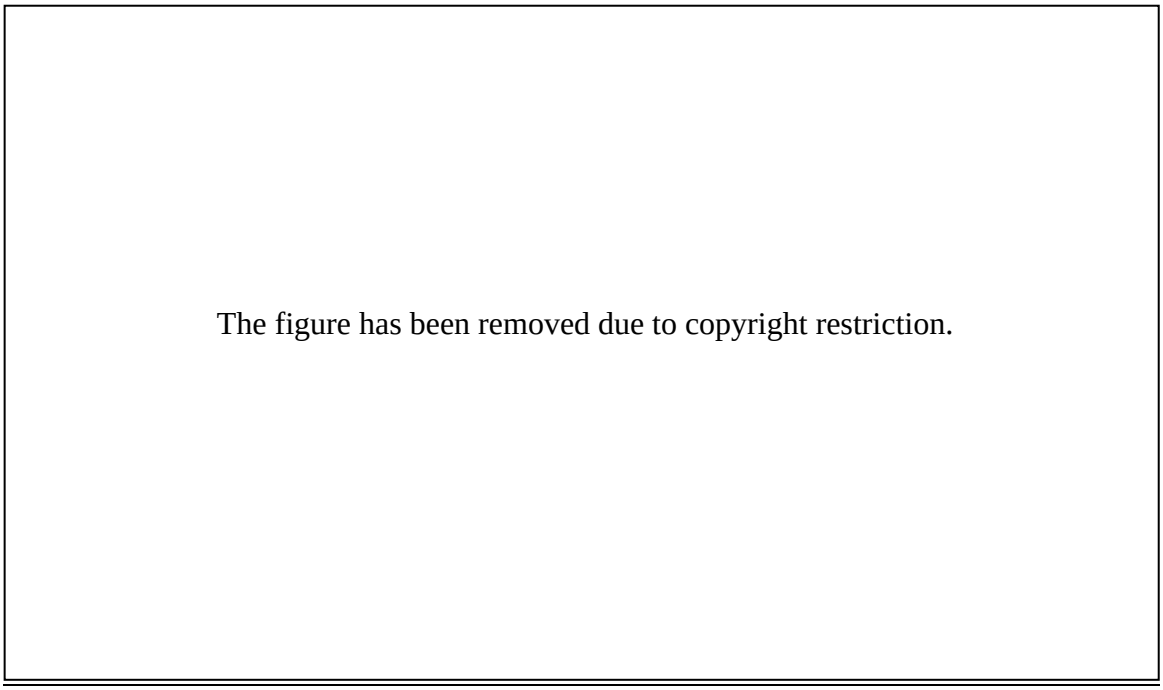

Figure 4. Small Burials Located in the Eastern Section of Xibeigang Cemetery (after Zhongguo 1977)

The figure has been removed due to copyright restriction.

Figure 5 Headless Skeletons Identified in Small Graves M87 and M214 (after Zhongguo 1977)

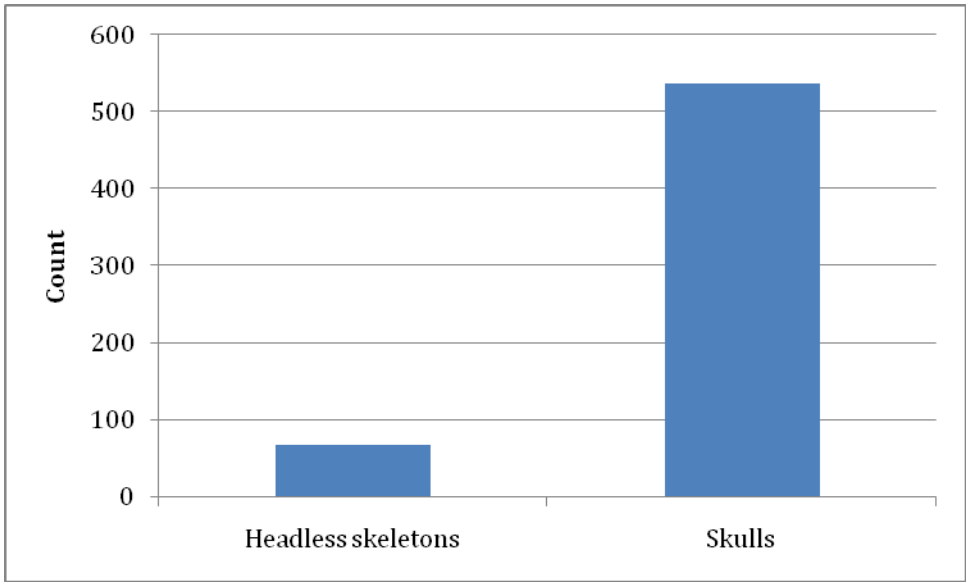

Figure 6 Distribution of Partial Skeletal Remains Identified in Large Tombs

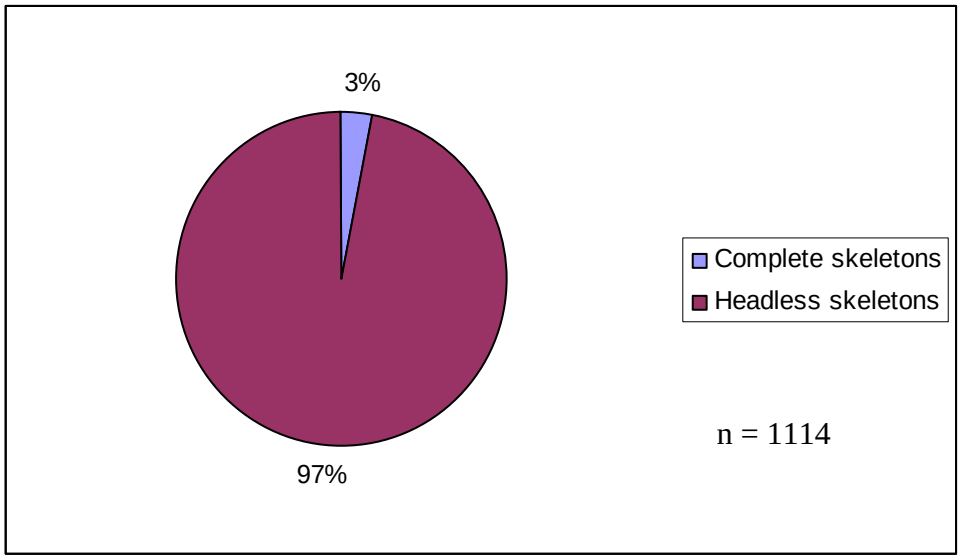

Figure 7 Percentage of Skeletal Remains Identified in the North-South Oriented Burials Excavated in 1976

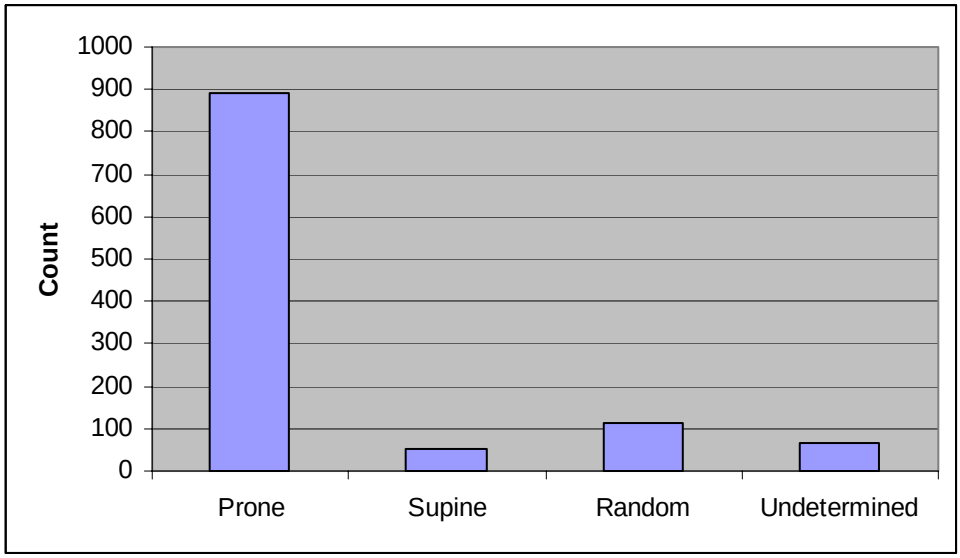

Figure 8 Distribution of Burial Postures Identified in the North-South Oriented Burials Excavated in 1976

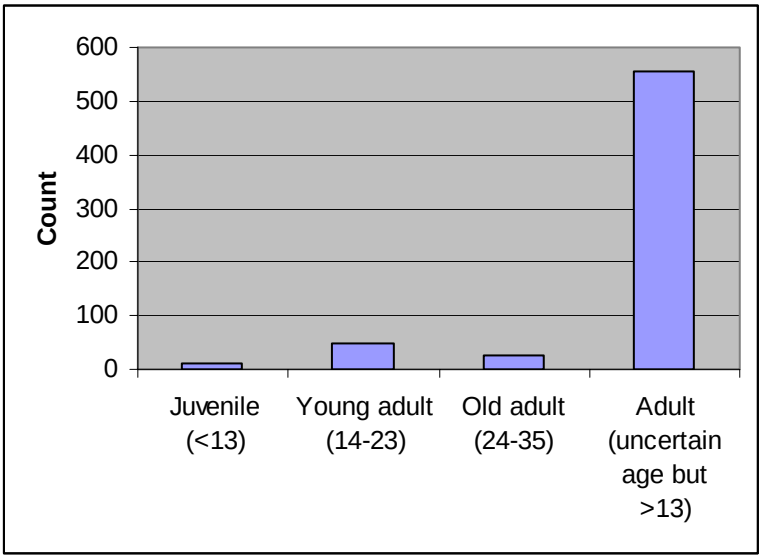

Figure 9 Age Distribution of Skeletal Remains Identified in the North-South Oriented Burials Excavated in 1976

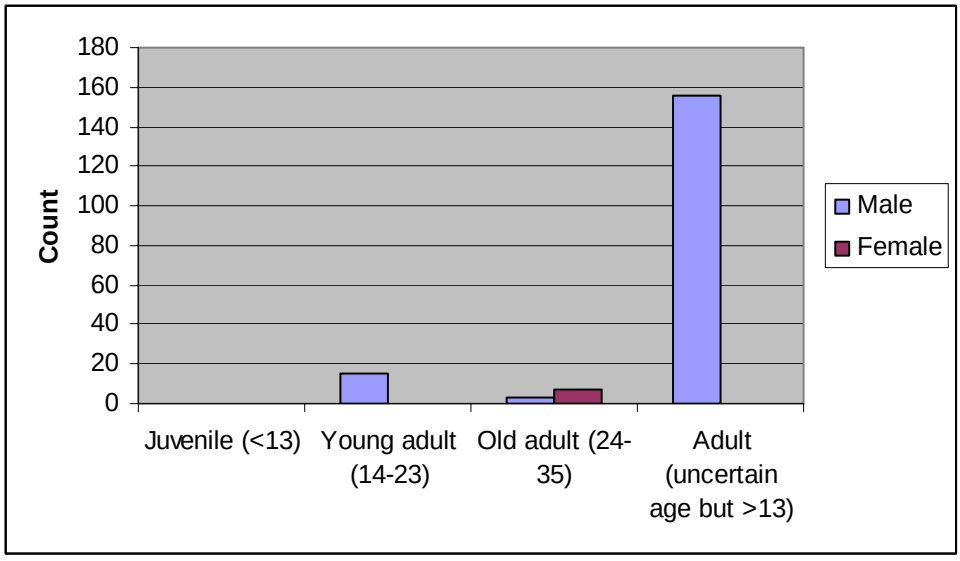

Figure 10 Age and Gender Distribution of Skeletal Remains Identified in the North-South Oriented Burials Excavated in 1976

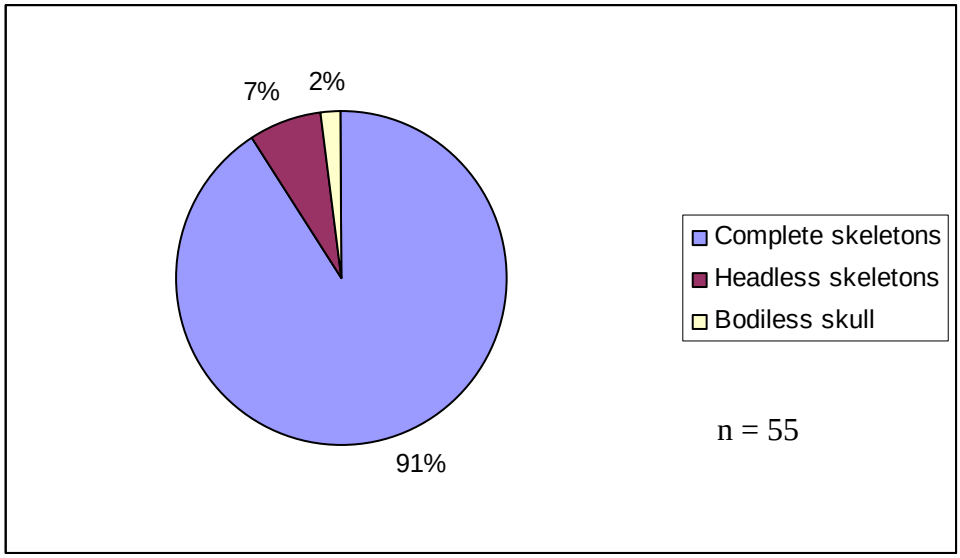

Figure 11 Percentage of Skeletal Remains Identified in the East-West Oriented Burials Excavated in 1976

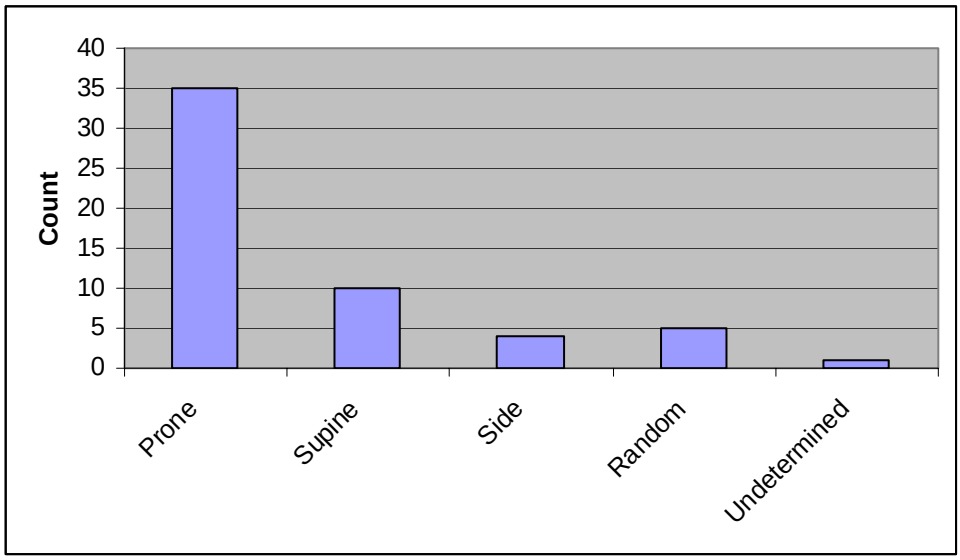

Figure 12 Distribution of Burial Postures Identified in the East-West Oriented Burials Excavated in 1976

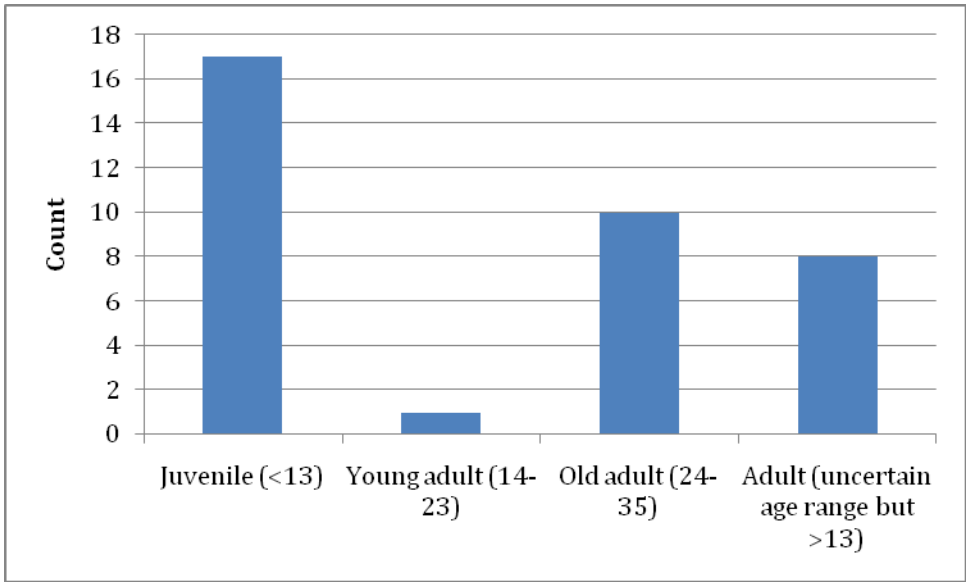

Figure 13 Age Distribution of Skeletal Remains Identified in the East-West Oriented Burials Excavated in 1976

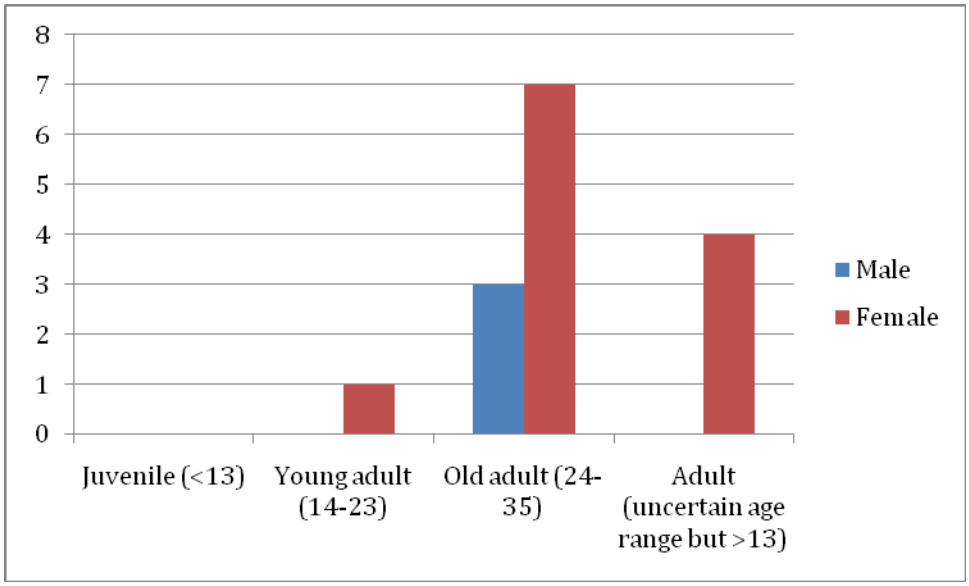

Figure 14 Age and Gender Distribution of Skeletal Remains Identified in the East-West Oriented Burials Excavated in 1976

Bibliography

Bagley, R.

1999 Shang Archaeology. In *The Cambridge History of Ancient China: From the Origins of Civilization to 221 B.C.*, edited by M. Loewe and E. L. Shaughnessy, pp. 124-231. Cambridge University Press, Cambridge.

Bourdillon, M. F. C.

1980 Introduction. In *Sacrifice*, edited by M. F. C. Bourdillon and M. Fortes, pp. 1-27. Academic Press, London.

Bourget, S.

2001 Ritual of Sacrifice: Its Practice at Huaca de La Luna and Its Representation in Moche Iconograpy. In *Moche Art and Archaeology in Ancient Peru*, edited by J. Pillsbury, pp. 89-110. National Gallery of Art, Washington, D.C.

Chang, K. C.

1980 *Shang Civilization*. Yale University Press, New Haven.

1983 *Art, Myth, and Ritual: The Path to Political Authority in Ancient China*. Harvard University Press, Cambridge.

DeMarrais, E., L. J. Castillo and T. Earle

1996 Ideology, Materialization, and Power Strategies. *Current Anthropology* 37(1):15-32.

Durkheim, E.

1995 *The Elementary Forms of Religious Life*. Free Press, New York.

Fowler, W. R., Jr.

1984 Late Preclassic Mortuary Patterns and Evidence for Human Sacrifice at Chalchuapa, El Salvador. *American Antiquity* 49(3):603-618.

Green, M. A.

2001 *Dying for the Gods: Human Sacrifice in Iron Age & Roman Europe*. Tempus, Stroud.

Gu, D.

1982 Zhongguo gudai renxun, rensheng zhe de shefen tanxi (An investigation of the nature of human sacrifice in ancient China). *Zhongguoshi Yanjiu* 2:112-123.

Guo, B.

1951 1950 Nian Chun Yinxu Fajue Baogao (The Excavation Report of 1950 Spring Field Season at Yinxu). *Zhongguo kaogu xuebao* 5:1-61.

Huang, Z.
1983 Yinshang muzang zhong renxun rensheng de zai kaocha (A Re-examination of Human Sacrifice and "Companions in death" in Shang Burials). *Kaogu* 10:935-949.

2004 *Gudai rensheng renxun tonglun (On ancient human immolation)*. Cultural Relics Publishing House, Beijing.

Hubert, H. and M. Mauss
1964 *Sacrifice: Its Nature and Function*. University of Chicago Press, Chicago.

Kao, C.-h.
1959 The Royal Cemetery of the Yin Dynasty at Anyang. *Bulletin of Department of Archaeology and Anthropology, National Taiwan University* 13-14:1-9.

Keightley, D. N.
1978 The Religious Commitment: Shang theology and the Genesis of Chinese Political Culture. *History of Religions* 17(3-4):211-225.

1998 Shamanism, Death, and the Ancestors: Religious Mediation in Neolithic and Shang China (ca. 5000-1000 B.C.). *Asiatische Studien* 52(3):763-831.

1999 The Shang: China's First Historical Dynasty. In *The Cambridge History of Ancient China : From the Origins of Civilization to 221 B.C.*, edited by M. Loewe and E. L. Shaughnessy., pp. 232-291. Cambridge University Press, Cambridge.

2004 The Making of the Ancestors: Late Shang Religion and Its Legacy. In *Religion and Chinese Society*, edited by J. Lagerwey, pp. 3-63. Chinese University Press, Hong Kong.

Li, C.
1977 *Anyang*. University of Washington Press, Seattle.

Liang, S. and Q. Gao
1962 *Houjiazhuang 1001 Hao Damu (The Excavation Report of Houjiazhuang Big Tomb 1001)*. Zhongyang yanjiuyuan lishi yuyan yanjiusuo, Taipei.

1965 *Houjiazhuang 1002 Hao Damu (The Excavation Report of Houjiazhuang Big Tomb 1002)*. Zhongyang yanjiuyuan lishi yuyan yanjiusuo, Taipei.

1967 *Houjiazhuang 1003 Hao Damu (The Excavation Report of Houjiazhuang Big Tomb 1003)*. Zhongyang yanjiuyuan lishi yuyan yanjiusuo, Taipei.

1968 *Houjiazhuang 1217 Hao Damu (The Excavation Report of Houjiazhuang Big Tomb 1217)*. Zhongyang yanjiuyuan lishi yuyan yanjiusuo, Taipei.

1970 *Houjiazhuang 1004 Hao Damu (The Excavation Report of Houjiazhuang Big Tomb 1004)*. Zhongyang yanjiuyuan lishi yuyan yanjiusuo, Taipei.

1974 *Houjiazhuang 1500 Hao Damu (The Excavation Report of Houjiazhuang Big Tomb 1500)*. Zhongyang yanjiuyuan lishi yuyan yanjiusuo, Taipei.

1976 *Houjiazhuang 1550 Hao Damu (The Excavation Report of Houjiazhuang Big Tomb 1550)*. Zhongyang yanjiuyuan lishi yuyan yanjiusuo, Taipei.

1996 *Houjiazhuang 1129, 1400, 1443 Hao Damu (The Excavation Report of Houjiazhuang Big Tomb 1129, 1400, and 1443)*. Zhongyang yanjiuyuan lishi yuyan yanjiusuo, Taipei.

Luo, K.

1982 Shangdai Renji Ji Xiangguan Wenti (Shang Human Sacrifice and Some Associated Questions). In *Jiagu Tanshilu (A Study of History Through Analysis of Oracle Bone Inscriptions)*, edited by H. Hu, pp. 112-191. Sanlian Shudian, Beijing.

Ma, D. and Y. Zhou

1956 Women dui yindai fushen zang de kanfa (Our Opinions on the Burials with Prone Posture in Yinxu). *Kaogu Tongxun* 6:88-90.

Mann, M.

1986 *The Sources of Social Power. Volume I: A History of Power from the Beginning to A.D. 1760*. Cambridge University Press, Cambridge.

Meng, X.

1992 Tan Yinxu fushen zang (A Study of the Burials with Prone Posture in Yinxu). *Zhongyuan Wenwu* 3:52-55.

Puett, M. J.

2002 *To Become a God : Cosmology, Sacrifice, and Self-divinization in Early China*. Harvard University Asia Center for the Harvard-Yenching Institute, Cambridge.

Rappaport, R. A.

1971 The Sacred in Human Evolution. *Annual Review of Ecology and Systematics* 2:23-44.

Renleixuezu

1977 Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Renleixuezu: Anyang yindai jisikeng rengu de xingbie Nianling Jianding (Determing the age and gender of human bones from Shang sacrificial pits in Anyang). *Kaogu* 3:210-214.

Shelach, G.
1996 The Qiang and the Question of Human Sacrifice in the Late Shang Period. *Asian Perspectives* 35(1):1-26.

Shennan, S.
1993 After Social Evolution: A New Archaeological Agenda? In *Archaeological Theory: Who Sets the Agenda?*, edited by N. Yoffee and A. Sherratt, pp. 53-59. Cambridge University Press, Cambridge.

Shih, C.-j.
1959 *Jizhi yu muzang (Features and Burials)*. Xiaotun yizhi de faxian yu fajue: bing bian. Jianzhu yicun (Xiaotun: The Yin Shang Site at Anyang, Henan. Vol. 1: The Site, Its discovery and Excavations. Fascide 3: Architectural Remains). Zhongyang Yanjiuyuan Lishi Yuyan Yanjiusuo, Taipei.

Shima, K.
1958 *A Concordence of Yinxu Oracle Bone Inscriptions*. Kyuko Shoin, Tokyo.

Smith, W. R.
1894 *The Religion of the Semites: The Fundamental Institutions*. A. and C. Black, London.

Tiesler, V.
2007 Funerary or Nonfunerary? New References in Identifying Ancient Maya Sacrificial and Postsacrificial Behaviors from Human Assemblages. In *New Perspectives on Human Sacrifice and Ritual Body Treatments in Ancient Maya Society*, edited by V. Tiesler and A. Cucina, pp. 14-44. Springer, New York.

Trigger, B. G.
2003 Cult. In *Understanding Early Civilizations: A Comparative Study*, pp. 472-494. Cambridge University Press, Cambridge.

Turner, V. W.
1969 *The Ritual Process: Structure and Anti-Structure*. Aldine Pub. Co., Chicago.

1977 Sacrifice as Quintessential Process: Prophylaxis or Abandonment? *History of Religions* 16(3):189-215.

Tylor, E. B.
1871 *Primitive Culture: Researches in the Development of Mythology, Philosophy, Religion, Language, Arts, and Custom*. Brentano's Books, New York.

Verano, J. W.

2001 The Physical Evidence of Human Sacrifice in Ancient Peru. In *Ritual Sacrifice in Ancien Peru*, edited by E. P. Benson and A. G. Cook, pp. 165-185. University of Texas Press, Austin.

XiaShangZhou

2000 *Xia Shang Zhou duan dai gong cheng zhuan jia zu: Xia Shang Zhou duan dai gong cheng 1996-2000 nian jie duan cheng guo bao gao : jian ben*. Shi jie tu shu chu ban gong si, Beijing.

Yang, H.-m.

1985 [1969] He'nan Anyang Yinxu muzang zhong renti guge de zhengli he yanjiu (A Study of Human Skeletons From Yinxu Burials in Anyang, He'nan). In *Anyang Yixu tougu yanjiu (A Study of Human Skulls From Yinxu)*, pp. 21-49. Wewu chubanshe, Beijing.

Yang, X.

1981 Anyang Yinxu Xibeigang damu de fenqi ji youguan wenti (The Periodization of Big tombs found in Xibeigang, Anyang). *Zhongyuan Wenwu* 3:47-52.

1983 Shangdai de mudi zhidu (Shang Cemetery System). *Kaogu* 10:929-934.

1988 Guanyu Yinxu chuqi wangling wenti (A Study of the Royal Cemetery in Yinxu Early Phase). *Huaxia Kaogu* 1:86-94.

1991 Yinxu de niandai ji xingzhi wenti (The Periodization of Yinxu and Its Nature). *Zhongyuan Wenwu* 1:49-58.

Yang, X. and B. Yang

1977 Cong Shangdai jisikeng kan Shangdai nuli shehui de rensheng (Observations on the nature of slave society during the Shang period according to the excavations of sacrificial pits). *Kaogu* 1:13-19.

Yao, X.

1979 Shangdai de fulu (Captives during Shang period). *Guwenzi Yanjiu* 1:337-390.

Zhao, G.

1956 Guanyu yindai fushen zang wenti de yidian yijian (Some Points on the Burials with Prone Posture in Yinxu). *Kaogu Tongxun* 6:85-88.

Zhongguo

1977 Anyang jikongjinong wenwu kaogu duanjunban; Zhongguo kexueyuan kaogu yanjiusuo anyang fajuedui: Anyang nuli jisi keng de fajue (The Excavation Report of Slaves' Sacrificial Pits at Anyang). *kaogu* 1:20-36.

1987a Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Anyang Gongzuodui: Yinxu 259, 260 hao mu fajue bao kao (The excavation report of M259, M260 at Yinxu). *kaogu Xuebao* 1:99-117.

1987b *Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo: Yinxu fajue baogao (Excavation report of Yinxu)*. Cultural Relics Publishing House, Beijing.

1994 *Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo: Yinxu de faxian yu yanjiu (Archaeology excavation and researches in the Yin ruins)*. Science Press, Beijing.