

CONQUEST, CONCORD, AND CONSUMPTION:
BECOMING SHANG IN EASTERN CHINA

by

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To my family

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Chapter 1

Introduction

As a central question in understanding the long-term trajectories of sociopolitical change in human societies, archaeologists have investigated the trajectory of state formation as well as the diverse ways that ancient states functioned, or failed to function (Wright 1977, 1984, 1986, 2005; Feinman and Marcus 1998; Tainter 1988; Yoffee and Cowgill 1988; Yoffee 2005). Recent works have increasingly focused on how people in states lived, understood their lives, and coped with their governments (Brumfiel 1992, 1994; Stein 1998; Sinopoli 2001).

With the rise of large cities, writing, and elaborate bronze art, the emergence of Shang civilization redefined the ways that political authority was conceived in early China (Bagley 1999; Liu and Chen 2003; Thorp 2006). Archaeologists' characterizations of Shang political structure, however, employed all major vocabulary for "complexity" in the anthropological repertoire, ranging from a complex chiefdom at one end of the spectrum (Keightley 1983: 555), to empire on the other (for the Erligang phase, at least, see Bagley 1999; Liu and Chen 2003), with city-state (Yates 1997), segmentary state (Keightley 2000), and territorial state (Trigger 1999) filling in the middle.

Instead of returning to the drawing board for yet another definition or descriptive term for "Shang," I propose that the study of the early China shows that fixed categories can not adequately characterize the social and political structure of Chinese states or of early states in general. While states went through cycles of strength and weakness at different phases of their history (Feinman and Marcus 1998), various "defining" attributes and abstract labels cannot capture the dynamics of changing structure of early states. Furthermore, the challenge of characterization indicates that early "state" organizations may include attributes associated with social formations thought to characterize non-states.

Central to the understanding of state dynamics is an assessment how state power is sustained as political elites and political structures attempt to respond to and cope with local actors and processes and harness other sources of power immanent in the broader society it seeks to dominate. Power not only exists in the formalized administrative and juridical relations created between state and societies, but also exists in the lived experiences and everyday practices of individuals. These include realms of social practice that are often traditionally unassociated with the direct exercise of state power, such as identity construction in relation to animals, food consumption, ritual, and religious communication. If we take human identity and self-recognition as a politically situated category subject to change and redefinition under changing historical circumstances, then we need to examine how such categories are created and expressed. In Shang period China, the boundaries of the human were threatened by other animals as well as by human others. One way to study the human experience is to look at those who inhabited the other side of the boundaries and the ways that they contributed to the construction of human identity.

States in Process

Following Wright, a state can be defined as “a cultural development with a centralized decision-making process which is both externally specialized with regard to the local processes which it regulates, and internally specialized in that the central process is divisible into separate activities which can be performed in different places at different times” (Wright 1977). The central governing institutions with external specialization emerged before state formation while adding internal specialization changed the whole dynamic. A central concern for Wright’s conception of the state is the effectiveness of communication –“aspects of decision-making can be delegated with minimal fear that subordinate elements in the hierarchy will engage in effective independent action”(ibid).

The fear and anxiety associated with the potential for failed communication was real and persistent for rulers. Indeed, the rise and fall of dynastic fortunes provide ample testimonies of the consequences of this failure. A key feature in such hierarchies is the tension between the potential and need for independent action of “subordinate elements” within control hierarchies and the effort of higher elements to reduce or minimize the fear

of ineffective or inaccurate communication. The tension comes from the fact that the central governing institution, as well as the external and internal specialization associated with it, did not take shape at the instant of state formation. Early kingship and its governing apparatus were at the threshold of a long path towards increasing specialization that took millennia to complete (Wright 2006).

A dominant political strategy in higher-order decision-making is to encourage as much hierarchy and segmentation as possible in order to create contexts of organic solidarity (Wright 1977). At an operational level, early states were not highly centralized, abstract entities that dominated the social landscape within their boundaries. Instead, it took constant effort and strategic maneuvers to keep outlying settlements as permanent subordinates or to incorporate new ones into the state hierarchy. The shape and structure of early states needed to closely respond to the historical circumstances they emerged from and were situated in, as well as potential avenues of local organization and thus of resistance to the state. Understanding those interests and processes in different levels of hierarchy was a prerequisite for establishing domination by virtue of a constellation of interests. However, with limited specialized administrative apparatus, the early states were essentially blind and “knew precious little about its subjects, their wealth, their landholding and yields, their location, their very identity” (Scott 1998: 2). The nature of the economy, cultural conceptions of kingship, entrenched views of cosmological order, technologies of statecraft, configuration of local political authority, the contours of landscape, and the scale of population are all part of the structure and operation of early states, which make the effectiveness of communication rather uneven and risk-laden. The art of statecraft had to be perfected through those long, treacherous processes of making the society legible to the decision makers, implementing administrative devices for effective communication, developing protocols for deterrence, and reforming the structure of governing institutions.

Important strategies of consolidating state domination include control of resources and actions of violence. As Wright (1977) argues, the organizational strategy of encouraging hierarchy and segmentation is reinforced by a strategy of “insuring supporting resources by attacking or undermining equivalent, or if possible higher-order, decision-makers.” Resources critical for state development included both products

essential for sustenance and those symbolically important for the representation of political authority. In early China, the latter included bronze and jade (Chang 1980, 1983; Liu and Chen 2001, 2003). While it is relatively straightforward to identify these resources archaeologically, and even evidence for their control, it is a challenging task to understand the ways that the symbolic resources communicated meaning across social and social boundaries, thus the effectiveness of such communication in perpetuating state authority to the intended audience.

In early Shang state development, when the right to govern and the regulatory practices of rule were yet to be disentangled from claims to supernatural endorsement, the control of many local units and the administration of exchange economies or redistribution from pools of sustenance products often took on a religious overtone. Thus tribute was collected in the name of divine kingship and was deployed in keeping calendars, and performing sacrifices and rituals to maintain the cosmological order. An important strategy used by Shang and other early state rulers to prevent local actors from engaging in effective independent action was to claim sole entitlement to the production of religious and political meaning. Such claims were supported by efforts to control exclusive access to the material resources that embodied such meaning (Chang 1983). And importantly, even the meaning itself was not universally understood; state domination in the production and elaboration of such knowledge and its material embodiment had set it apart from those deprived of such capacity.

High and Inside

To understand the social and cultural matrix in which states operated, Baines and Yoffee (1998: 254) refined the traditional notion of civilization to denote the “overarching social order in which state governance exists and is legitimized. As such, civilization includes the possibility of social resistance from groups both apart from and within the elite, since all participate in a community of interests within the civilization.” This concept allows us to track major “civilizational” symbols and representations not only as mechanisms of social control by a centralized power, or as testimony of artistic achievement under elite sponsorship, but also as vehicles of political contention. Civilizations were “templates” or fields of interactions capable of encompassing

“cohesive tendencies, disruptive tensions, and enduring continuities” including notions of how kings should rule (ibid).

Baines and Yoffee (1998: 258) propose the term “inner elite” as an analytical concept for understanding early state dynamics, as it provides “order to the civilizations, exploiting wealth and aspiring to be self-legitimizing through its role as the carrier of the civilization.” The chief means for self-legitimation for the inner elite is through the transmission and exclusive access to “high culture,” defined as:

the production and consumption of aesthetic items under the control, and for the benefit, of the inner elite of a civilization, including the ruler and the gods. The phrase “aesthetic items,” rather than “works of art,” is intended to encompass a wide range of domains including visual art, visual, verbal, and musical performances, garments, perfumes, and the most highly prized food and drink. The phenomenon also extends to such extravagant forms of “traditional” practice as big-game hunting, the keeping of exotic animals, and the breeding of highly specialized ones (Baines and Yoffee 1998: 235).

By this definition, all key aspects archaeologists used to characterize Shang elite culture would fall into this category, i.e., elaborate bronze art, writing system, gigantic royal mausoleums, palatial complexes, royal hunts and the exotic animals, and massive sacrifice of humans and animals. In the political philosophy of early China, high culture focused on two central components, namely *li* and *yue*, broadly corresponding to rites and musical performances, major cultural institutions that establish and maintain order within the community of elite. In early China, some key goods and practices of these central symbols were associated with food. This includes ritual bronze vessels, feasting, ritual offerings of animals, cereal food, and wine (Chang 1977, 1983).

High culture has specific carriers and a particular status as a tradition, and it is integrated in particular ways into a civilizational, cultural, and stylistic context. A defining aspect of the high culture is its exclusiveness, in which secrecy was a source of elite power. The inner elites made themselves into the focus and repository of civilizational meaning in such a way that the rest of society was excluded from the development and maintenance of those meanings. Part of the extravagance of high culture is that its message should be fully received by few or none (Baines and Yoffee 1998: 236). This community, with its many shared interests, diverts attention from the effects of the attendant inequality on the rest of society. To the members of the group commissioning, consuming, and creating the works, those outside are hardly of account.

Low and Outside

Viewed from this perspective, early states, as represented by kingship, other types of rulers, and their political centers, may not have been the central players in the lives of the broader society. Other than some military defense and economic security, the inner elite and its self-motivating high culture had few direct interactions with the broader society. The latter responded to the calls of senior lineage leaders and local rulers rather than to Shang kings in remote royal cities. As the emergence of states and cities created its own rural hinterlands, goods and labor were extracted from rural producers to support rural elites and both elite and ordinary town dwellers (Wright 1998: 197). Figures with complementary hierarchical roles in a system of control acted to manage the movement of labor or the flow of goods, as well as to keep records of transactions. In bad years, some ordinary producers did receive assistance from central institutions, but an ordered life of reciprocal relations may have benefited only some of the participants in the state and for only limited period of time.

While many early states are characterized by a partial replacement of blood bonds by territorial bonds in state organization and the state monopoly of force (Baines and Yoffee 1998), data from China indicate that the configurations of local society deviated little from pre-Shang structures and local practices persisted, as Chang (1980, 1983) noted many years ago. The lower strata in the broader society responded to demands from states as well as those of local political authorities centered on senior lineages. The presence of these local loci of power typically represented both opportunities for the early states to channel local resources to its own advantage as well as arenas of resistance to the goals of the state—and thus were an essential locus of political struggle.

Before the rise of a centralized empire in the late first millennium B.C., when imperial Han government implemented policies of social control at the household and neighborhood level, the shape and configuration of local society was illegible to the kings and the inner elite. There was minimal local presence of state power in its juridico-institutional sense, rendering the early state a rather weak player in the local political arena.

Intermediate Level of Political Authority

A crucial issue that Baines and Yoffee (1998) failed to address is the way that the inner elite and its high culture, which is self-motivating and exclusive, connected to the broader world and could come to be recognized as legitimizing the social and cosmological order. High culture was not intended for a broad audience, and the juridico-institutional aspect of state power was ineffective or absent in the local world. Coercion only solved questions temporarily. How then did the state make its presence known, understood, and respected in the larger world besides through sheer violence? Who perpetuated the state order after state expansion? In this section, I argue that the connection between the inner elite and other relevant political actors is not without risk, and the very effort of filling the role of the bridge between the broad elite and the intermediate levels of political authority generates potential for changes to the state order.

In contrast to the self-legitimizing inner elite at the royal centers, the intermediate level of political authority and the broad elite associated with it bridged the core and the periphery it created. Such subgroups comprised craft specialists responsible for production of the material components of high culture, i.e. the metallurgist, the jade carver, those scribes and engravers of inscriptions, and those officers who maintained the core symbols, i.e., the overseers and caretakers of sacrificial cattle in the Shang court. Their involvement as providers or entourage to the inner elite, either as crafts producers or as performers, and their access to specialized knowledge and restricted settings, gave them partial access to high culture.

In the outlying communities beyond the Shang royal estates, local political authority comprised either junior lineages dispatched from the capital cities or preexisting polities who participated in the state enterprise for their own advantage or through recognition of the inevitable with a formidable force in sight. Under state expansion the horizontal differentiation of kinship and cultural affiliation based on the notion of common ancestry is crosscut by a vertical differentiation, as control based on hierarchy is particularly affective for state organization (Emberling 1997).

However often in reality, much decision-making power and political authority remained vested in regional rulers, local administrative systems, and semiautonomous officials (Sinopoli 2001: 445). The persistence and actions of intermediate levels of

political authority helped the kings and inner elite to access the broader world and bring the royal agenda to practice. While the sites of such intermediate level of political authority resemble the second or third tier communities on a distribution map of settlement hierarchy (Wright and Johnson 1975; Johnson 1982), their political alignments were far from permanent and hierarchical—they shifted back and forth from subordinate polities to alliances of contenders in response to historical circumstances.

Turning these polities into subordinates in the state hierarchy was the political aspiration of the early expansionist states. When their interests were in constellation with the state agenda, they could facilitate communication and administration. However, conditions like this, where interests and conceptual frames at all levels coincide, were likely relatively few in reality and certainly decreased with the increasing spatial scale, social complexity, and cultural diversity in the expansionist state.

Baines and Yoffee (1998) speak little of the loci of potential risk, crisis, and failure within their framework, which clearly favors the inner elite and the stability of the state order. In contrast, I suggest that the partial bridging of high and low was far from risk free. Even the earliest states made efforts to secure their domination on the basis of a constellation of interests, particularly with local political authority. Concepts and practices from the great centers, even ideas of kingship itself, could be misunderstood or miscommunicated due to the artificial nature of a constructed political unity over a culturally heterogeneous world with different conceptions of political and religious authority. When interests between authorities diverged, communications might be “misunderstood” on purpose. In such contexts, the intermediate level of authority embodies the potential for changing the state structure.

Partial access to the inner elite through marriage alliances, service obligations, periodic audiences, placed these intermediate political authorities both inside and outside of the high culture. Local powers emulated, replicated, and, sometimes, misinterpreted aspects of high culture, namely the Shang civilizational style, in creating the central symbols for local representation of political authority.

In this dissertation, I explore how these dynamics between inner and outer elites had political consequences in Shang society. As elite members of local polities frequently served multiple roles, i.e., head of their elite lineage and local polity, commander of the

Shang army, ritual specialist and hereditary officer in the royal court, and potential contender to the royal power at times of crisis, their access to high culture challenged the very sources of its power—the crucial parts of high culture itself, that were secret (Baines and Yoffee 1998: 237).

Although high culture is a communicative complex, it was intended to communicate within the inner elite, not to or by elite groups associated with widely distributed polities and fluid political loyalty. However, the lack of internal specialization in the Shang political system, in which leaders of local polity served as court officials and ritual specialists, and royal women from diverse polities playing important political roles, makes the exclusive access to high culture by the inner elite rather unfeasible. While members of inner elites used high culture and access to it in mutual competition for status, those outside of it could also deploy symbols available to them for political contention against the state power itself. These are issues that Baines and Yoffee (1998) did not consider in their idealized separation of inner elite with the outside world.

As states expanded to incorporate culturally heterogeneous communities at greater distance, the participation of these local authorities was based on a combination of economic, social, and ideological rewards and the threat of negative consequences for failure to cooperate (Sinopoli 2001: 445). An important aspect of ideological rewards was to provide new material symbols of prestige as well as ceremonies, which highlighted the claim that the kingship secured the whole order of the society and its centrality was cosmologically just. To the onlookers without the shared cultural understanding of these symbols, however, this connection may not be obvious and representations of order could easily turn to spectacle. The exclusive nature of Shang civilization style was never meant to be legible to anyone outside its community of discourse. Furthermore, the intricate connections between representation and order is embedded in specific conceptions of kingship and political authority.

Although it is difficult to distinguish between intentional manipulation and unintended misrepresentation, as political motivations and cultural understandings inevitably entangle, expanded access to Shang symbols often led to the abuse of these core symbols by political forces within the expanded states. Therefore, one of the

unintended consequences of state expansion is the potential transformation of Shang symbols and their embodied cultural and political order.

An example of subversive use of core symbols in a subordinate polity comes from Zhougongmiao and Zhouyuan, two central loci in the political center of the Zhou polity west of Anyang. Towards the end of Late Shang, a series of symbolic representations previously uniquely associated with kingship in Anyang was used here. These included the use of royal divination protocols and the use of a cross-shaped layout for elite graves (Zhouyuan Archaeology Team 2006). As I will discuss further in Chapter 9, I interpret these actions as material expressions of subversion of ritual hierarchy, and suggest that it not coincidental that they took place during the time that the subordinate polity was in the process of toppling the Shang regime.

Similar displays of royal symbols were also observed in the elite cemetery of Sufutun in north Shandong around the same time, where enormous graves with four ramps in cross-shaped layout were found with significant wealth, insignia of political authority, and a large number of human sacrificial victims (Shandong Provincial Museum 1972; Shandong Provincial Institute of Archaeology and Qingzhou City Museum 1989). Without the advantage of historical accounts like we have for the Zhou example, we do not know the political implications of these symbolic subversions of the Shang hierarchy. However, these examples collectively provide insights into the challenges to the centrality of Shang kingship that occurred in the ritual and political order during the dynasty's final phases. Even if we do not know whether actual political actions were associated with these symbolic subversions, the collective experience involved in the ritual performance and the materialization of a different claim to order had already challenged the very foundations of state order and provided a template for further political action.

Becoming Shang: Terms of Interaction

While scholars cannot agree on the “kind” of social formation of the Shang states, they apparently have had little problem recognizing what was Shang on the ground; archaeologists regularly make distinctions between Shang material culture and local cultural emulators, describing the state dynamics in terms of expansion, retraction, and native revival (Tang 1999; Bagley 1999; Liu and Chen 2003; Thorp 2006). What is

Shang then? Is it certain expressions of material culture and the cultural order that they embody? Or particular claims of what a state should be? How should the experience of “becoming Shang” be characterized?

In this study, I make a distinction between Shang states, the Shang civilizational style, and other cultures interacting with the Shang world during the second half of the second millennium B.C. The Shang states refer to political authorities and political processes centered in the cities of Zhengzhou and Anyang (Keightley 1978; Chang 1980, 1983; Liu and Chen 2003; Thorp 2006). Shang in the cultural and stylistic sense does not map perfectly with the Shang in political sense. Style is vital to a civilization’s definition and to its demarcation against what lies outside. Typically, the visual forms of a civilization are so distinctive that an informed onlooker can identify them at a glance (Baines and Yoffee 1998: 237). This is manifested in material culture and ritual configurations—bronzes, pottery, mortuary ritual, and as this dissertation shows, in food, divination protocols, and other aspects involving human relationships with animals. With the high fluidity of political affiliation discussed earlier, the Shang civilizational style did not necessarily coincide with the boundary of the Shang states. Style and material culture lay down the terms of interaction, through which a wide range of political expressions could be made, including the symbolic representations needed for subversion.

During the second millennium B.C., other cultures and polities maintained a high intensity of interaction with the Shang world, for example, the Sanxingdui civilization in the Sichuan basin. Despite their access to Shang core symbols (i.e., bronzes vessels) or their roles as suppliers of some of the prestige objects (i.e., horses, jade, stoneware, and cowries), the material representations of these cultures embody a different notion of a civilizational style. They were not part of Shang civilization but part of the interaction sphere in which polycentric development contributed to state formation in early China (Chang 1986; Wright 2005).

The distinction between states and civilizations does not represent the conceptual scheme of Shang kings, who would see threats from any contenders as a threat against the civilization and its cosmological order:

It is evident, indeed, that—given their repeated request for assistance in their divinations about campaigns—the Shang viewed their struggles with other emerging states on the

North China plain in terms of a confrontation that was not simply military, but also religious (Ito 1961: 273-74) and even, perhaps, epistemic (Keightley 2000: 123).

In this regard, the state order and cosmological order were intricately woven together. Conquest was often construed as an “extension of the boundaries” that built upon the idea of maintaining the cosmos (Baines and Yoffee 1998: 206).

With these distinctions in mind, the Shang conceptions of time, space, and otherworldly authority cannot be taken for granted as *the* conventions internalized by the broader society. The degree to which individual members of Shang society subscribed to the cosmological vision would have varied greatly on the basis of both social status and individual temperament (Keightley 2004). The claim to legitimacy and centrality is something the early states aimed to achieve with real time performance. Legitimacy is not only vested in exclusive access to expensive objects and secret knowledge. The perpetuation of state order also comprises the reconfiguration of ritual protocols, material experiences, political oratories, and, above all, the sense of self-recognition, so that “even the broader exploited society—which is itself not a homogenous whole—has an interest in maintenance of the high-cultural complex because it is seen as a stabilizing institution and, ultimately, as an almost unalterable given” (Baines and Yoffee 1998: 238).

A key strategy by which early states cope with cultural heterogeneity is to foster internalization of orders in everyday practices and discourses/utterances, i.e., in construction of personhood, in taxonomy and other schemes of classifications, in rituals, and in food practices. For instance, Keightley (2004: 29) argues that the liturgy of Shang ancestor veneration “would have encouraged the internalization of its theological assumptions and the validation of new cognitive structures and a particular sense of Shang identity.” A particularly effective way to situate kingship at the center of cosmological order is by framing a connection between natural phenomena and the otherworldly authorities that the ruler could address with proper rituals and offerings:

The damage that wild pigs, monkeys, deer, tigers, birds, locusts, and so on might inflict upon the crops and livestock that supported life would in itself have conferred on them a religious role analogous to the ancestral harm, or the acts of Di and other powers, that interfered with the seasonable rains and blighted the harvest (Keightley 2000: 107).

The promotion of a solidarity centered on the Shang conception of order, however, “should be understood in terms of idealized and even contested claims rather than as

‘collective representations’ of the way Shang society necessarily worked” (Keightley 2000: 112). These were the same realms where state order could be misrepresented, subverted, or resisted.

In this study, “becoming Shang” represents the participation in these realms of interaction as well as making political actions (including subordination, subversion, and resistance) through this symbolic frame of reference. This engagement in the terms of interaction of the Shang civilization speaks more to the stylistic context of political representation than political loyalty—the political leaders recognized that certain material and symbolic expressions embodied greater political leverage for advancing their interests.

Since tensions and negotiations existed at all levels of society, the process of “becoming Shang” probably did not unfold with any sense of uniformity. This is a significant deviation from the Sinicization or Romanization models that characterized previous studies of state expansion and cultural contact (see Woolf 1998 and Yao 2008 for comparative examples). Studies on Shang expansion are not new, but they tended to be regarded as testimonies of the state’s prowess. In most studies, the impetus for change rests exclusively on internal conflict in the royal centers or crisis from foiled military campaigns on the frontier. Besides moments of crisis or rebellion, the life within local polities and the broader Shang world are viewed as affected by but not influencing developments in the Shang centers. It has become increasingly evident that understandings of Shang state dynamics and local life need to be meshed—new circumstances resulting from state expansion and subsequent measures implemented to cope with them have the potential to transform the structure of the state itself.

State expansion poses new challenges for boundary maintenance and manipulation. Food and religion are intricately intertwined in expressing such politics, as both are instruments of power. Animals, food, and ritual are intricately connected in such contexts and variations in the conception of these relationships across social boundaries informs on the perpetuation of state order in the local world. In the following section, I start with the human relationship with other animals in identity construction. This provides a conceptual basis for my analysis of animal remains in diverse social contexts.

I introduce my research questions for this dissertation after an overview of current research on the relationship of animals and Shang states.

Animals and Identity

Animals are essential for human self-definition. In early civilizations, people used animals to animate their language, mirror their world, and in part define themselves (Collins 2002). Evans-Pritchard's account of the place of cattle in Nuer lives serves as a good example—"Nuer tend to define all social processes and relationships in terms of cattle. Their social idiom is a bovine idiom" (1969[1940]: 19). In the Shang world, the lives of humans and animals were closely interwoven:

Animals and men were united by ties of identity, kinship, and fellow feelings...a feeling that would have been particularly strong in the case of domesticate animals—horses, cattle, sheep, pigs, dogs—that clustered in and about the Shang settlements and that in some cases in close association with, if not under the same roof as, their masters (Keightley 2000: 111).

A better appreciation of the animals provides insights into social relations in the human world.

The mastery and conceptions of animals affects our imaginary sense of ourselves and classification of the world around us. One has to ask in what way has human been separated from non-human, and the animal from human (Agamben 2004). This is a central issue for culture and its politics. As Robert Solomon states:

the problem of personal identity might be taken more generally to mean, What is it to be a human being? The answer to this question is built into virtually every language, if not every philosophical tradition, oral and mythological as well as scientific and epistemological; and in most cultural contexts... to be a human being means to be a person much like us... Human being is not a biological category. It is a clumsy and often oppressive political weapon (Solomon 1994: 7-8).

Relationships of power, therefore, lie underneath the politics of identification. Exercise of power cannot be construed as exterior or prior to other social relationships.

Power is not only immanent in formalized relations between state and societies, but also existed in lived experiences and everyday practices. These include realms of social practice that are traditionally unassociated with the exercises of state power, such as identity construction, partly in relation to animals, food consumption, ritual, and religious communication. If we take personhood as a politically situated category subject to change and redefinition under changing historical circumstances, then we need to

pursue such change through its frame of reference. The boundaries of the human were defined against differences between other animals and the human others. One way to study the human experience is to look at those inhabiting the other side of the boundaries and the ways that they contributed to the construction of human identity.

As different social groups conceptualized their relationship with nature, food, and animals along different structural principles and social experiences, variation in the patterning of animal remains in these diverse contexts can serve as important indication of processes of colonization, migration, and acculturation (Reitz and Wing 1999). The Shang state transformed the place of animals in the human world, by creating a new, state-dominated cultural landscape centered on kingship. Animals provisioned the tables, marked social distinctions, and defined the civilizational order. Archaeological concern with power relationship among diverse social groups within the state requires that we develop a better idea of the ideology, practice, and material culture through which these groups are represented (Stein 2001). This dissertation considers faunal remains, not simply as a catalogue of human diet, but as part of social relations and cultural identification. It investigates the presence and performance of authority in everyday life, as it was bound up with the use of animals.

Animals in Food and Ritual

Animals feature prominently in Shang elite art, economy, and religion, as attested by the emphasis on animal motifs in bronze iconography, clan emblems, the use of animal bones in divination activities, and the great quantity and diversity of animal remains found in archaeological contexts (e.g., Li 1977; Loehr 1968; Chang 1980, 1983; Xiong 1992; Keightley 2000). In addition, a significant portion of some 100,000 inscribed oracle bones from Anyang deal with sacrifices, royal hunts, and tribute taking involving animals (Chen 1995; Keightley 1978, 2000).

The Daxinzhuang site provides a good example of an intermediate level of political authority outside the royal capitals of Zhengzhou and Anyang. The rapid emergence of this large town in the 15th century B.C. provided the first indication of a Shang population intrusion into the coastal region (Liu and Chen 2003). The discovery of an elite cemetery, which meticulously replicated rituals of lower ranked elite in Zhengzhou and Anyang, and an inscribed Late Shang oracle bone, which bears stylistic resemblance to the non-

royal group of Anyang oracle bones, gives strong indication that the leadership at Daxinzhuang maintained intense interaction with the royal cities. Previous research on the ceramic assemblage has indicated that changes in social relations resulting from the Shang conquest were probably construed and demarcated along existing lines of cultural difference in the community, and varied over both time and space.

At Daxinzhuang, animal remains came from in five kinds of archaeological contexts: as food refuse from domestic consumption and feasting events, as sacrificial offerings for ancestors or for deities in divination contexts, as companions for the deceased and food offerings in burials, as media for religious communication in divination, and as raw material for craft production. My research explores the interrelated realms of food and ritual, which are critical instruments in revealing cultural distinction and social change (Douglas 1971; Chang 1977; Goody 1982; Wang 2000).

Douglas and Isherwood (1996: 37) define consumption as a use of material possessions that is beyond commerce and free within the law. In comparison to characterizations of diet and subsistence, consumption implies a cultural choice on the part of consumer, who could be irrational, superstitious, traditionalist, or experimental. Consumption choices express and generate culture in its general sense. In highlighting the dimension of cultural choice, I hope to draw attention to the double role of animal food in providing subsistence and in drawing the lines of social relationships.

Food consumption was a key aspect of the human-animal relationship and the majority of animal remains in Shang come from such contexts. As a “highly condensed social fact”(Appadurai 1981: 494), food was, and continues to be, “power in a most basic, tangible and inescapable form” (Arnold 1988). As symbols, food was not just a static expression of social relationships; food-stuffs are instruments in an on-going process of social action (Firth 1973: 261), thus becoming an analytical category of choice for investigating identity, power dynamics, and social change (Goody 1982; Carlin and Rosenthal 1998; Scholliers 2001; Effros 2002). The importance of food in creating social distinction in addition to subsistence has been subject of recent archaeological study (Dietler 1996, 2001; Pauketat *et al.* 2002; van der Veen 2003).

Ethnographers have found multiple entry points for the study of how humans connect food to rituals, symbols, and belief systems. Food is an integral part of ritual,

“the performance of more or less invariant sequences of formal acts and utterances not entirely encoded by the performers” (Rappaport 1999: 24 original has emphasis). For religion, food is used to comment on the sacred and to reenact venerated stories. In consecrated contexts, food "binds" people to their faiths through "powerful links between food and memory" (Feeley-Harnik 1995). Sometimes the food itself is sacred through its association with supernatural beings and processes (Feeley-Harnik 1994).

In addition, food consumption can be used to establish a community of interests, marking close relationship, among those who are neither kin nor affines (Feeley-Harnik 1994:10). Through manipulation of dietary rules –as metaphorical statements of proper relationships – for political and economic purposes, food is used to “create, maintain, and manipulate social relationships (Young 1971: 146). In Young’s view, the sociopolitical value of food is the organizing ethic of social systems.

In establishing precisely who eats what with whom, commensality is one of the most powerful ways of defining and differentiating social groups:

The very act of eating and drinking with a man was a symbol and a confirmation of fellowship and mutual social obligations. The one thing directly expressed in the sacrificial meal is that the god and his worshippers are *commensals* [Smith’s emphasis], but every other point in their mutual relations is included in what this involves. Those who sit at the meat together are united for all social effects, those who do not eat together are aliens to one another, without fellowship in religion and without reciprocal duties. (Smith 1889: 251 in Feeley-Harnik 1994:11).

If “to be a human being means to be a person much like us”(Solomon 1994: 7-8), nothing is better suited for such construction than food practice. Along with knowledge of the elaborate decorum, body techniques, and ritual protocols, highly prized food and drink are integral parts of high culture. With an elaborate order of seating and the structural configuration of animal parts, sides, and cuts, the rules of food consumption and feasting render a sense of order and hierarchy into the social experience. For those within it, elaborate food scenes, just like other aspects of high culture, constitute the material experience of self-recognition. For those outside, the elaboration of food codes is one of many of mechanisms of exclusion.

On the other hand, exclusiveness is difficult to maintain and civilizational style is always prone to emulation by others. Identity is not fixed and consumption, by definition, presents potential for choices, however limited range these may have in a hierarchical

society. In response to their changing circumstances and experiences, people may make a variety of choices—to learn and redefine their dietary ideas and practices, to adhere to the traditional practice, or to shift between multiple sets of rules in different spheres of social interaction.

While the code of conduct is more politically situated for the occasional special meal such as feasting or the offering of sacrifices, social demarcation and identification are often present in ‘simple,’ ‘self-evident’ and ‘unconscious’ matters like domestic consumption (Scholliers 2001: 10). Therefore, it is in the realm of domestic consumption, including resources and their associated food vessels, that social reproduction of cultural norms was inherent. At times of social transformation, material cultures were not merely passive reflection of the changes, but active realms of social action. Observations at this level inform on ways and degree that state power saturated in people’s lived experience.

Previous studies on food systems of early China focused on the structural principles of food classification, preparation, distribution, and consumption (Chang 1977) and the process of social negotiation facilitated through feasting in socially competitive setting (Kim 1994; Underhill 2002). The emphasis on hierarchical and exclusionary aspects of food ways leaves four unresolved questions: How was a particular set of food codes associated with a particular cultural group perpetuated or undercut as the established code of conduct for elite consumption? How did different sets of food practices (including food vessels) and their embodied ideology co-exist after state expansion?

The multifaceted intersection between food and ritual, not only in ritual offerings of food and animals, but in providing devices of religious communication has direct implications for the access to animals and the related consumption episodes. Besides food, other ritual use of animals involved divinations and sacrificial offerings in contexts of communicating and mediating with natural powers, gods, and ancestors. The notion that animal bodies embody legible signs about the cosmological order is nearly universal in early societies. In this context, the Shang practice of pyromantic divination is far from unique in the ancient world.

A particularly revealing aspect of Shang divination with animal bones is the use of writing on divination bones associated with kings and the inner elite during the Late

Shang period. The attention to signs produced on hard surfaces, rather than on the shape of organs or other attributes, may explain why bones were chosen as the “slates” for inscriptions. This connection invites a comprehensive understanding of writing, ritual speech, signs and sounds from bone cracking, and the animal body itself as complementary aspects of religious communication. Beyond the Shang core area, the existence of diverse systems of bone processing—resulting in different cracking patterns to be read as sign systems—mark the presence of multiple protocols for religious communication. While some of these were introductions from the dynastic centers, others represented the resilient reproduction of a local religious tradition. Such independent access to religious powers has the potential to undercut the state’s claims to religious monopoly. The plurality in religious communication, as viewed through these remains, could provide an ideological basis for negotiation and resistance by diverse polities and cultural groups within the broadly defined Shang world.

Animals and the Shang States

In contrast to ample literature devoted to iconographic and textual representation of animals (Chang 1983; Allan 1991; Keightley 2000), integrated study of actual faunal remains in archaeological contexts and the full spectrum of economic, social, and symbolic roles played by animals in the Shang world is a new trend (Yuan and Tang 2000; Fiskesjö 2001; Flad 2004; Okamura 2004, 2005; Yuan and Flad 2005; Flad and Yuan 2006). It can also be characterized a revival of an interdisciplinary research tradition campaigned by the first generation archaeologists working at Anyang (Chang 1980).

Combining zooarchaeological study and textual records, Fiskesjö (2001) studied Shang royal hunting and sacrifice as state building devices. He argues that the Shang anthropocentrism divided the world into at least four groups – Shang people, other people, domesticated animals, and wild animals – with the first two standing in the same relationship to one another as the second two. The hunting of wild animals and the human others served as the means of incorporation and domestication of the entire range of living things. Therefore, Shang rulers used the hunting of wild animals as a lever of state formation, through which kingship could be conceived as central in the world order. As the study on the massive use of Qiang captives in Shang human sacrifices suggest, the

division between other peoples and animals, however, is a culturally defined boundary with violent consequences (Shelach 1996; Huang 2004; Campbell 2007).

Okamura's (2004, 2005) study traces the evolution of political authority in early China and its relationship with the ritual of animal sacrifice. At the center of this investigation was the emergence of the Grand Sacrifice (*tai-lao* in classical accounts) entailing the combination of cattle, sheep, and pig in a state ritual, with cattle featured prominently. The emergence of this ritual took place in the broader context of a steady decline in the use of pigs in royal ritual after the early second millennium. Traditional representation of political authority in the region, once redundantly displayed with pigs (Kim 1994), was articulated through new zoological symbolisms in the early states.

The change in the ritual constellation of major species in the human world was an integral part of the state effort to project its inevitable presence in the ordering of social life. The use of cattle for sacrifice in the Bronze Age was an expensive enterprise (Okamura 2004, 2005). State-sponsored cattle herding contributed to the provision of core symbols of political expression, thus becoming a key aspect of the political economy of Shang states. As Yoffee (2005: 42) puts it:

States were not simply an expression of power by an irresistibly mighty ruler. Rather, states had to be made "natural," that is, legitimized through central symbols, expensively supported and maintained by inner elites who constituted the cultural and administrative core of the state. Ideologies of statecraft also set the rules for how leaders and would-be leaders must guard these symbols and perpetuate the knowledge of how to maintain, display, and reproduce them.

In this regard, ideas of kingship in early China were closely tied to the reconfiguration of human relationship with animals with cattle at the center of ritual institutions. Hierarchy and state order become established as cultural ordering of living beings as well as in political and social realms, as different types of animals were tied to social ranks.

The significant transition from pig to cattle took place during the Erligang period in the mid-second millennium, contemporaneous with the rise of Shang state. Similarly, the use of pig and sheep scapula for divination gave way to the post-Erligang reliance on cattle scapula, at least for elite divination. The archaeologically observed pattern parallels descriptions in classical texts, which concern ritual and sacrifice as important aspects of kingly authority and legitimacy. The classic texts dating the first millennium B.C., e.g., *Yi-li*, *Li-ji*, provide detailed accounts on major animals, from their feeding to ritual

presentation, and elaborate on the rank of sacrificial animals. Cattle for state sacrifice were raised by state agencies, and the choice of proper cattle for sacrifice was an important duty of the king: numerous references in the oracle bone inscription mention kings inspecting the sacrificial cattle. Oracle bone inscriptions also specified the species, age, morphology, and parts of animals used, further indicating the precise attention to these details.

Okamura's (2004, 2005) study is supported by zooarchaeological observations on the inventory of animal sacrifices at major Shang political centers. Yuan and Flad (2005) demonstrate that pigs and dogs dominated in the early Shang centers of Yanshi and Zhengzhou. While a variety of animals continue to be used during the later phases of the Shang period, cattle dominate the sacrificial remains at the Middle Shang site of Xiaoshuangqiao. Finally, at the Late Shang capital of Yinxu, the most common victims were horses and cattle, along with sheep and dogs. Beyond the royal centers, however, the local manifestations of such reconfigurations of ritual order have not been thoroughly investigated.

Research Questions

My research seeks to explore what the ritual reconfiguration of animals meant for the construction of social identity in the broader world incorporated by the Shang states? Previous studies emphasize the representation of kingship at royal centers as seen from the perspective of human-animal relationship. To date, few archaeological investigations have focused on representations of state order in the broad Shang world in areas where the Shang states were not the only or dominant political player.

Seen from the angle of royal divinations at the capital, the Shang state can easily be characterized as an imposition of hierarchical structure over a vast and undifferentiated domain. The political reality on the ground, however, reveals complex interactions among multiple networks over both time and space including kinship, gender, religion, and cultural affiliation. The process of "becoming Shang" can be best conceptualized as on-going tensions between the state's claim to supremacy and diverse local circumstances.

My research on the eastern frontier of the Shang civilization investigates how aspects of the symbolic, social, and natural worlds converged in human interactions with

animals, particularly in the realms of food and religious communication, and in the making of the broader sociopolitical world of late second millennium B.C. Central China. While state(s) likely had an interest in promoting ritual institutions pertaining to its notions of order and legitimacy, local identity was often reproduced through simple and unconscious practices of everyday life.

How was the state order, both political and symbolic, implicated in the societies the Shang states came to subjugate? How did deeply entrenched categories involving animals, food, ritual, and self-recognition change or co-exist with the ones espoused by the new state order? For instance, if cattle became the dominant symbol in the ritual institutions after the state emerged, as Okamura (2004, 2005) argues, how did this shift affect the status of other animals on which local ritual and political expression had focused? How were changes in human-animal relationships after state expansion implicated in other aspects of ritual life, such as religious communication?

In this investigation, animals become a realm of interaction between state claims to order and local practices that either perpetuated or contested the state presence. My study of the patterned variation of animal remains from diverse archaeological contexts at the Shang provincial center of Daxinzhuang informs on status difference, economic condition, and cultural identity at the local society. As social interactions involving food consumption and religious communication engaged state power with different rules and intensity, I expect to identify different patterns of changes in utilization of animals in the different contexts—radical in some realms and conservative in others. Instead of seeking confirmations for fixed dichotomies between local and Shang, my research looks for inconsistencies, overlaps, and blurred boundaries across categories in different contexts of use and performative spheres—the public versus the private, elite versus commoners, the house refuse versus ritual refuse, habitus versus intentionality—and in different media of representation, as one would expect from a complex web of social interaction resulting from a process of state expansion.

The Research Project

My dissertation work at the site of Daxinzhuang investigates the cultural, political, and religious reconfigurations through which the Shang states dominated social life. With a dissertation fieldwork grant from the Wenner-Gren Foundation for

Anthropological Research, I directed the 2005 excavations at the site in collaboration with archaeologists from Shandong University and the Jinan City Institute of Archaeology. The fieldwork yielded a dozen enormous pit features dating to the Middle Shang period and Yinxu Phases I and II (circa 14th to 13th centuries B.C.). Once used as storage pits, they were subsequently filled with large quantities of animal bones, ceramics, and plant remains from residential refuse. Oracle bones as well as human and animal sacrifices are also found in these pits. The excavation allows us to examine the diverse forms of social life among the early residents in this Shang settlement.

Remains excavated from the features inform our understanding of how ritual events were related to the social and political foundations of the society. Ordinary and extraordinary refuse ranging from food and cooking pots to craft production debris and sumptuary goods are associated with a series of large scale, single-event dumping episodes related to activities that occurred in the core occupation area of Daxinzhuang. Taken as a set, the layers of ceramic, zooarchaeological, archaeobotanical, human osteological, and iconographic materials reveal the diverse ways that relationships of dependency were created in the making of Shang political landscape in eastern China.

Classical texts from the first millennium B.C., e.g., *Yi-li*, *Li-ji*, and *Zhou-li*, suggest detailed discrimination of age, sex, season, parts, species combination, cut, cooking method, seasoning, and appropriate use of vessels for preparation of animal food for elite consumption and ritual offerings (Chang 1977; Song 1994; Ji 2005; Okamura 2004, 2005). The basic structure of ritual communication apparently taken for granted by the authors of these works may have been established long before their time (Falkenhausen 1995). Meticulous observation of these food codes served as important means for maintaining proper ritual order in early China (Chang 1977; Okamura 2004, 2005). They correspond with general notions of body, cultural identity, status, and perceived social order (Wang Ming-ke 2000).

To be effective, ritual has to work on areas that most profoundly structuring individuals' life experience, such as the body and food. In periods of state formation or imposition, major reconfigurations in ritual institutions are frequently implemented as a political means to establish a social and cosmological order centered on the new authority. Even if the symbolism attributed to the structural components was subject to

change, I expect that major categories for articulating social distinctions as presented in the later texts were deeply entrenched in the cultural order and lived experience of the society. Therefore, they provide a roadmap for my research.

Many of the attributes described in ritual texts can be documented with established tools of zooarchaeological analysis, namely species representation, age and sex profile, part distribution, and bone modification (Redding 1992; Ryan and Crabtree 1995; Reitz 1987; Reitz and Wing 1999). My analysis of animal bones combines the principal zooarchaeological methods: the range and relative importance of various species, slaughter schedules, sex ratios of the main species, body part distributions, and post-consumption processing and modification of animal bones for secondary use (discussed in more detail in Chapter 2).

This emphasis on cultural preference is not to deny that shifts in production systems can also account for changes in faunal assemblages. But such changes too, are expected to be part of larger state practices. It is well documented that political authority and state institutions often implement changes in a production system to serve its needs of expansion and conquest (e.g., Brumfiel and Earle 1987; Sinopoli 2003). Under such circumstances, the benefits brought about by changes in the production system were never universally or evenly distributed among all social sectors. Therefore, investigations of economy and production need to be carried out within the framework of state strategies and existing relationship of domination and control.

Chapters Organization

The dissertation is comprised of nine chapters. In this chapter I have introduced my research questions and theoretical perspective. The human engagement with animals (hunting, eating, offering, and divining) offers a point-of-entry into understanding how areas incorporated by the Shang states were “becoming Shang.” Chapter 2 provides an overview of the regional background and cultural history up to the beginning of the Late Shang period, which is followed in Chapter 3, by a summary of the history of archaeological research at the Daxinzhuang site. Whereas Chapter 4 highlights the methodology of data analysis, Chapter 5 focuses on the quantitative analysis of animal bones from Daxinzhuang and offers comparisons with other sites in Shandong. Chapter 6 provides a contextual analysis of animal bones in relation to other classes of data within

major features, providing information on the social and cultural patterning of meat consumption at the site. Chapter 7 and 8 deal with animal bones used as devices for religious communication. Notions of materiality, ritual protocols, and writing help us delineate the relationship between local political authority and the royal court. I conclude with Chapter 9, which provides a synthesis and considers the theoretical implications of this study for anthropological study of early states.

Chapter 2

Environment, History, and Archaeology of the Region

Insights on the shape and structure of the local society in the Daxinzhuang region before Shang domination have a direct bearing on our understandings of the types of local responses in the region and the strategies of political control that the state may employ. This chapter traces the local social developments from the collapse of late Longshan society in the turn of the second millennium B.C. to the transition to the broadly defined Shang world in Shandong, when Shang material culture came to play a dominant role in shaping the social experience of everyday life.

Environment and Landscape

Shandong is located in the temperate climatic zone, where rainfall (400-800 mm per year), cold winters, and warm summers permitted dry-field farming of millets, wheat, and sorghum. Rice was also cultivated in pockets of suitable lands. Given the warmer climate in the Shang period, the condition for rice cultivation might have been more favorable than present (Chen 2007).

The climate during the second millennium B.C. was moister and warmer than it is today, and may have supported a predominantly deciduous broadleaf forest (Chang 1986: 76-77). This is supported by the identification of major species of freshwater shells from Daxinzhuang, which are primarily seen in the Yangtze River region today. The frequent presence of freshwater shells in the sites across Shandong indicate that there were probably more marshes, lakes, and ponds in the landscape during the Shang period.

The geography of Shandong is critical for understanding the intricate relationship between the Shang royal cities and outlying political centers. Several reasons account for its critical role. First, scholars have long noticed that the Shang civilization presented many traits characteristic of prehistoric societies of the east coast (Li 1934; Fu 1935; Chang 1986; Keightley 1987). Second, desire to gain access to coastal resources provided impetus for the Shang state expansion during the Early to Middle Shang (Liu

and Chen 2003). And third, extensive military campaigns in the general area during the final phases of the Late Shang effectively undermined the Shang hegemony and contributed to its dramatic collapse (Gao and Shao 2005; Fang 2004b).

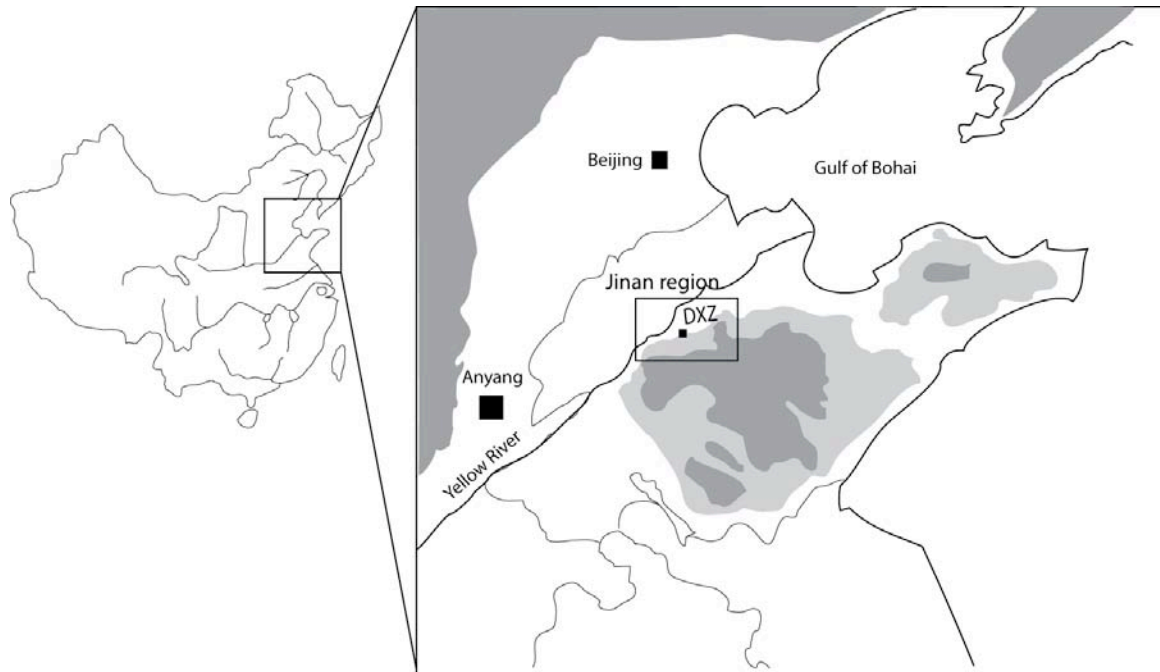


Figure 2. 1 A schematic map of the research region

On the eastern edge of the Central Plains, the Jinan region is situated between the Yellow River and the central mountain range of Shandong (Figure 2.1). The region serves as a corridor to the hilly Jiaodong Peninsula in eastern Shandong. The local landscape is characterized by two types of terrain, the steeply rising slopes of Mount Tai in the south and a strip of alluvial plain in the north. Relatively safe from the floods and abundant in water supplies, the narrow plain is highly productive for agriculture and supported a dense population in early China. Forested hills flanking the plains supplied timber. Hunting may have taken place in both the uncultivated plains and in the hill slopes.

A main route of communication connecting northern China and the southeastern China ran through the southwest plain to the south of Mount Tai. To its west, the broad alluvial loess plains cross the Yellow River and constitute the core region for the Shang civilization. As this vast plain approaches its eastern limit in the Jinan region, it encountered not only some dynamic changes in landscape, but also cultural diversity during the Shang period. To its east, the narrow plain opens up into the Jiaolai plain at the

eastern edge of the central mountain ranges, and then turning into the hilly terrains of the Jiaodong Peninsula. The peninsula region was the eastern frontier of the Bronze Age states. Through the Bronze Age, the states in the Central Plain managed to capture only a part of the peninsula. Therefore the region as a whole provides us with an ideal historical environment to study cultural confrontation and communications (Li Feng 2006: 301).

Cultural History of the Region

The Prehistoric Foundations

The development of Shang in the Central Plains and Shangdong during the mid 2nd millennium BC can be placed in a long history of prehistoric developments characterized by long periods of stability amid episodes of rapid changes (Table 2.1).

Houli Culture	6500-5700 B.C.
Beixin Culture	5300-4100 B.C.
Dawenkou Culture	4100-2600 B.C.
Longshan Culture	2600-1900 B.C.
Yueshi Culture	1800-1500 B.C.

Table 2.1: Major prehistoric cultures in Shandong and their approximate dates

Early egalitarian villages, known as the Houli Culture, developed in the 7th millennium B.C. Houli sites are characterized by large house foundations, heavy sand-tempered red pottery, and millet cultivation, as well as the earliest evidence for rice cultivation in northern China (Gao and Shao 2005; Archaeology Research Center *et al.* 2005; Sun 2005; Crawford *et al.* 2006). The Beixin Culture, which appeared centuries after the Houli assemblage vanished from archaeological record, shows little continuity in ceramic assemblage with the earlier society. Instead it closely resembles the Cishan-Peiligang Cultures in the Central Plains. Besides change in ceramic assemblage and a significant chronological gap between Beixin and Houli, Luan (1996) argues that the social organization might be different. For instance, the houses of the Beixing Culture are significantly smaller in comparison to the Houli predecessor. The Beixin Culture provided the basic design repertoire and shapes in ceramic vessels, such as the *ding* tripod, which later became key symbols for the representation of authority in the region.

Social inequality and wealth differentiation left clear physical imprints in some of the enormous cemeteries of the Dawenkou Culture in 4th millennium B.C. (Pearson 1981, 1988; Fung 2000; Underhill 2000, 2002). Social distinction was expressed through the

redundant display of pig skulls and mandibles along with elaborate pottery vessels in the inventory of funerary goods in the well-constructed shaft burials at the Dawenkou cemetery (Kim 1994). There, 43 of out 138 burials yielded a total of 96 pig mandibles. Pig skulls were probably accumulated in a series of feasting events that occurred over an individual's life rather than from a single consumption episode at the funeral. In the Sanlihe cemetery, 18 out of 66 Dawenkou Culture burials had pig mandibles with a total of 143 mandibles found. The differences in access were delineated along status as well as gender lines, the maximum number of mandibles from a single male (n=37) is much higher than the female counterpart (n=11) (Institute of Archaeology 1988).

Dogs and cattle bones were present at Dawenkou sites, but unlike pigs, they were not used in the ritual display of wealth (Wang Jihuai 1996). The Dawenkou society also introduced the ritual practice of placing the canine tooth from water deer in the hands of the deceased—a funerary practice that was found through the 3rd and 2nd millennia B.C. in the Shandong region, and served a resilient identity marker for the coastal inhabitants.

The Longshan Society

The development of political authority further accelerated in the Longshan period of the later 3rd millennium B.C. This period is characterized by the development of small walled cities and highly specialized craft production of black pottery and jade (Underhill 2002; Liu Li 2004). Many aspects of the funerary ritual display continuity with the Dawenkou period. For instance, redundant display of pig mandibles remained a key expression of wealth. In the Longshan cemetery at Yinjiacheng site in southern Shandong, the richest burial (M138) had 32 young pig mandibles along with multiple wooden coffins, deep grave shaft, elaborate drinking vessels, and jade objects (Archaeology Specialty 1990: 48). Similarly, M15 contained 24 pots, 20 pig mandibles, a total of 130 alligator bone plates in three piles. In the Longshan burials of the Sanlihe site, gender differences in displays of pigs can be observed, whereas the maximum number of mandibles in a male burial (n=14) double that of the female ones (n=5). Therefore, pigs were the chosen stock for expressing social differences in prehistoric communities from the Dawenkou to the Longshan periods.

Archaeologists often refer the entire 3rd millennium B.C. as the Longshan Period, a term that also encompasses the late Dawenkou phases (Yan 1991). From the

perspective of regional settlement hierarchy, the social structure of the Longshan Period is generally characterized as chiefdoms or paramount chiefdoms (e.g., Underhill 2002; Liu 2004). Other scholars have taken the emergence of walled towns as a major threshold for the development of political authority and characterize the major Longshan centers as cities or city-states that formed evanescent coalitions (Demattè 1999; Shao 2000, 2005). Recent full-coverage survey in southeast Shandong, where two Longshan polities flourished in the Rizhao region during the Early and Middle periods (Underhill *et al.* 2008), however, revealed a four-tier settlement hierarchy characteristic of early states (Wright 1977).

From the perspective of the representation of political authority in early China, the Longshan Period was critical for the development of certain institutions, practices, and core symbols that antecedent for representation political authority and kingship in the second millennium B.C. (Shao 2000, 2005). Even without actual development of kingship, these institutions, symbols, and representations provided the vocabulary for further political action (Yoffee and Li 2005).

These core symbols for an ideology of kingship and religious authority include certain forms of ritual vessels and jade objects, as well iconography, and calendrical and divination practices. These symbols were selectively incorporated and reinterpreted as the Bronze Age states attempted to integrate diverse regional traditions within the scope of their power and to reconfigure social memory. The mortuary ritual at Xizhufeng and the certain patterns of set behavior in the ritual vessels at Tonglin were eventually expanded as rank and status became depicted across what we can think of as an emerging cultural commonality, “the civilization of Early China,” that preceded the emergence of the first durable territorial states in the last first millennium B.C. (Gao and Shao 2005).

Prehistoric communities in Shandong experienced extensive decline in the Late Longshan period (2200 B.C. to 1900 B.C.). With the exception of western Shandong, adjacent to the Central Plains, major regions in Shandong witnessed a significant decrease in site density in the Late Longshan. Luan Fengshi’s (1996) research shows that in eastern Shandong, the Longshan sites are predominately from Phases I, II, and III, while Phase IV and later sites are very rare. In southeast Shangdong, the Rizhao survey reveals that Midde and Early Longshan sites make up to over 90 per cent of the Longshan

sites recorded (Underhill *et al.* 2008). Besides population decline, the production of elaborate black pottery, for which the Longshan Culture was well known, also declined.

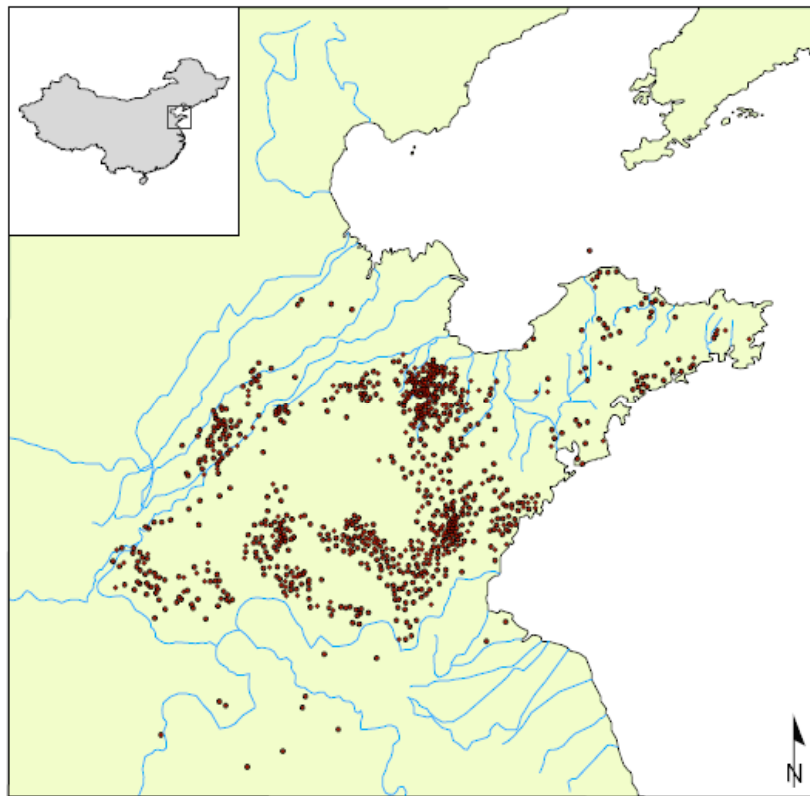
The late third millennium B.C. decline or collapse was so extensively observed in Neolithic China that the scholarly consensus has strongly favored a major climatic fluctuation (Luan 1996; Fang 2003; Wang Wei 2004). Paleoclimatic studies reveal a significant temperature drop around 2000 B.C. This may have contributed to radical social changes, including the collapse of complex social organizations in many parts of China (Wu and Liu 2004). In the Central Plains, there was widespread evidence for violence and instability, as well as abandonment of early cities such as Taosi, before the powerful state emerged at Erlitou (Liu 2004). A crisis at a macro-regional scale probably resulted in the major social and demographic changes seen in the coastal society.

The emergence of Erlitou and Shang states in the Central Plains in the first half of the 2nd millennium certainly complicated the picture, as ecological explanations accounting for large-scale decline in one region may be presented as impetus for centralization in another (Liu 2004). Urbanization in early state centers may cause depopulation among villages in their hinterlands; but it certainly cannot account for the sustained underdevelopment in a vast region quite removed from the urban centers. It was also not the reason for the decline and collapse of the local society in the first place.

A complex interplay of social and ecological reasons would probably be a good starting point for a more satisfactory explanation. While different societies may respond to the crisis or challenges presented to them in different ways leading to contrasting social consequences, archaeologists still need to explain the processes through which such extra-societal conditions work through aspects of social relationships and the existing repertoire of technology and cultural institutions to produce the drastic changes observed and the subsequent new patterns for interregional interaction.

The Yueshi Society

Major stylistic changes in material culture took place in the first half of the 2nd millennium B.C., roughly contemporaneous with the first episode of state formation at Erlitou, western Henan. A rather homogenous material culture with little material manifestation of social hierarchy is found sparsely distributed across a vast region spanning from the Liaodong Peninsula to eastern Henan and northern Jiangsu (Fang 1998 a and b; Cohen 2001). The Yueshi Culture represents the material culture of a society living in the aftermath of the Late Longshan collapse. Most of the Longshan walled cities were abandoned before the end of the third millennium B.C. (Fang 2003). The widespread depopulation in the region continued with very low site density, presenting a sharp contrast to the dense distribution of the 4th and 3rd millennia Dawenkou and Longshan sites (Figure 2.2).



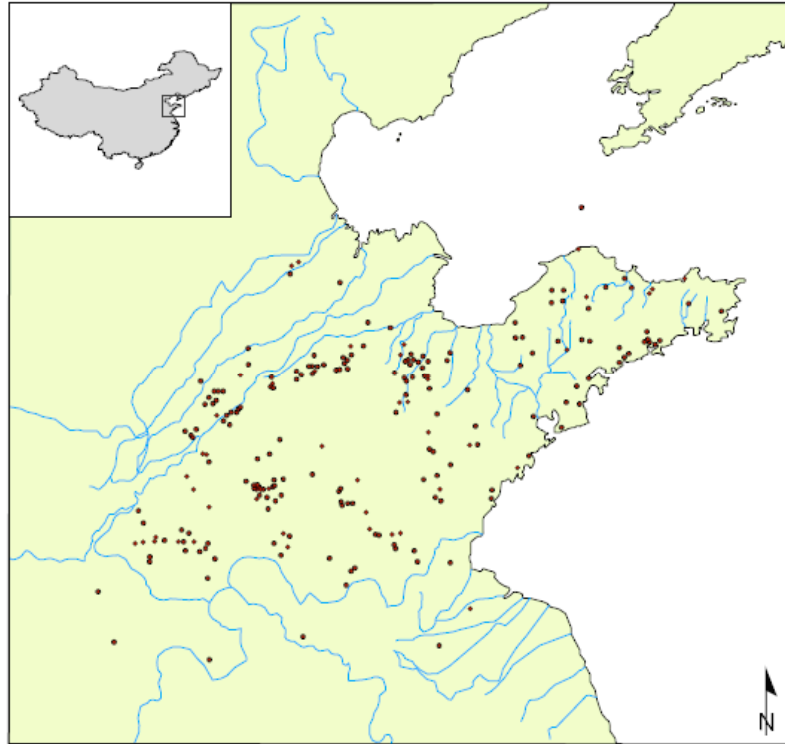


Figure 2.2 (a and b) Distribution of the Longshan sites (a) and Yueshi sites (b) in Shandong (based on Wang Fen 2006)

This broad regional pattern has been further verified from systematically collected data in southeast Shandong, where only 18 sites with diagnostic sherds from the Yueshi Culture were identified in a survey region of 1120 sq. km, in contrast to over 400 Longshan sites (Underhill *et al.* 2008). The pattern is consistent with other areas of Shandong, i.e., Zouping and Zaozhuang, where good resolution data for regional distribution is available (Fang 2003). Luan (1996: 301) observed that the Yueshi cultural deposits across the region all had a distinctive grayish matrix with high ash content and impurities, many with green-colored water stains, and are easily distinguishable from earlier Longshan and subsequent Shang layers. The key to revealing the climatic crisis of such magnitude could just rest in the geological mechanisms underlying this visually observed abnormality.

The Yueshi Culture is defined by its ceramic assemblage, which had predominantly sand-tempered reddish brown pottery trailed by grey ware and black ware (Luan 1996; Fang 1998a and b; Cohen 2001; Gao and Shao 2005). While some vessel forms resemble some attributes of the earlier Longshan Culture, the ceramic tradition took a significant

departure from the highly refined Longshan black-pottery industry. The Yueshi ceramics include fewer types, simpler forms, and thicker construction. Both hand coiling and the slow wheel were employed, though the Yueshi potting technique saw a significant decline by the Longshan standard.

The major cooking vessels included the *ding* tripod, the *yan* steamer, and the *guan* jar. The *li* hollow-legged tripod, which was widely used among the Central Plains societies through the Bronze Age, was rarely used in the Yueshi Culture. Food containers, usually tempered with coarse sand grit, had thick vessel walls with a burnished black surface and grey core.

Vessels for food presentation were often made of fine clay, and included covered jars with fitted, ledged, vertical rims (*zimukou*), the *pen* basin, *zun*-shaped beakers with a ring-foot or flat bottom, and the *dou* stemmed dish (typically with a circular raised ridge on the interior of the shallow pedestaled dish). Many of the Yueshi food presentation vessels had fitted lids (usually with a mushroom-shaped knob). The elaborate drinking vessels, namely the fine pottery *gui* pitchers and high stemmed cups, that defined Longshan ritual practices and feasting, disappeared from the assemblage. The shift in the assemblage seems to indicate changes in food presentation and the social protocols associated with it.

The burnished black wares had a common design element that might be imitating metal work—raised circumferential ridges were added to the exterior of all joint sections on a vessel. For coarser vessels, such as the *yan* steamer, this is done with a band of appliqué around the waist and crotch decorated with impressed circular indentations or incised patterns (Cohen 2001: 72). Finally, scraping marks left by a wood or bamboo slip can be observed on the surfaces of most plain vessels. This distinctive surface treatments stands in marked contrast to the cord marking on the surface of most Bronze Age ceramics.

Polychrome painted pottery, which had fallen out of favor in the region since the early 3rd millennium B.C., became common. Clay food containers were sometimes decorated with cloud, spiral, and band patterns, or straight red coating (Gao and Shao 2005). A typical design features abstract tear-drop/paisley-shaped forms or curvilinear patterns, in cinnabar, red, pink, white, and yellow (Cohen 2001: 73). Such elaboration of

vessel surfaces became widespread among the regional societies, such as the Lower Xiajiadian Culture of northeastern China, that were contemporaneous with the Erlitou. Since the latter held a monopoly over the production of ritual bronzes vessels, such elaborations of vessel surface might have been a cultural response to the new means of representing power through a brilliant surface.

Small bronze articles, such as blades, drills, and projectile points are occasionally encountered in Yueshi deposits (Archaeology Specialty 1990). Scholars generally attribute the dramatic decline in Yueshi ceramic technology to the widespread use of bronze in the early second millennium B.C., an industrial capacity unjustifiably extrapolated from the limited discovery of metal objects (Gao and Shao 2005:195; Luan 1996). The metal objects discovered so far yield no stylistic and functional attributes that can point to a distinctive local experiment of metallurgy, even at its rudimentary form.

All the metal pieces recovered in Yueshi contexts, however, are small, portable items that can travel quite long distance through long distance trade. Absent from the assemblage are the bronze vessels that had become the most important symbol for representing political authority in the Erlitou state (Liu and Chen 2003). This indicates a lack of access to the new technology, rather than its wide distribution of it, as one might be led to believe on the basis of small finds. No correlation between the adoption of bronze metallurgy and the decline of ceramics has been established in early China. Therefore, current evidence does not support a major technological change leading to a shift of focus from elaboration of ceramics to metal. We have to investigate the social causes for the departure from the regional tradition.

The best understood Yueshi settlement site is Yinjiacheng in Sishui, southern Shandong, a multi-component site with Dawenkou, Longshan, Yueshi, Shang, and historical occupations (Archaeology Specialty 1990). The Yueshi remains consisted of eleven badly damaged house foundations and 195 pit features, mostly of irregular shapes. In contrast to the Longshan occupation at Yinjiacheng, where 65 burials along with 20 house foundations and 245 pit features were identified, no burial at the site produced diagnostic Yueshi artifacts. This is consistent with a general pattern for the region, where burials furnished with diagnostic Yueshi objects are extremely rare in all the excavated sites in Shandong. This unusual deviation from the long established pattern of Neolithic

mortuary traditions, where wealth and status were expressed with prestige objects and prescribed forms of tomb construction, implies a change in mortuary ritual, either in ways that reduced the chances for archaeological recovery, such as cremation, or in places away from the settlement area where the fieldwork tend to concentrate on. The lack of access to contemporaneous burials has hampered our understanding of how the political authority was represented in this society, or what was the rite of passage like for its commoners.

There are, however, multiple occurrences of unconventional disposal of human body: a decapitated cranium with part of the neck bones attached was found at the bottom of pit feature H8. Human skull and limb fragments were also found in the ash of pit H166. Luan (1997: 351) noted that such disposal of human body in pits became frequent occurrences beginning in the Late Longshan period and may be indicative of violence.

The Yueshi occupation at the site of Chengziya stands out as an anomaly against the general backdrop of the decline in social complexity at the time. The fortification at the site, first built in the Longshan period, seemed to be strengthened with a new episode of wall construction employing a rather sophisticated technology for the region (Zhang 1993). Chengziya is particularly important for this study as it was within a short distance of Daxinzhuang. It was once thought that the Chengziya site had been abandoned at the time of Shang expansion, and this did not coexist with the Shang settlement at Daxinzhuang. However, a reexamination of the early publications indicates that the site has a Middle Shang component, which I will describe in the next section.

The Yueshi Culture has been frequently portrayed as a coastal society that gradually phased out in the face of Shang expansion after the emergence of Zhengzhou (Yan 1991, 1999; Luan 1996, 1997; Gao and Shao 2005). Yueshi remains were often found beneath Shang layers in eastern Henan and western Shandong, although there is some evidence of partial co-presence (Cohen 2001). The dynamics of transition, however, are not clearly understood at this moment and the relationship between the Yueshi society and the Shang state formation is a complex one. In the Central Plains, a ceramic assemblage closely resembling that of the Yueshi Culture was identified at the Nanguanwai site in Zhengzhou, and was occupied at the end of the Erlitou Culture and immediately before the Lower Erligang Culture (Henan Provincial Institute of

Archaeology 2001). It not only shares the vessel forms stylistically but also the high proportion (80 per cent) of sand-tempered brown ware and fine-clay brown ware (in contrast to the high proportion of fine-clay grey ware in the Lower Erligang Culture). Luan Fengshi (1997: 371) argues that the Nanguawai assemblage represents a late phase of the Yueshi Culture and suggests that its presence in the Central Plain immediately preceding the founding of Zhengzhou Shang city indicates a critical role played by the coastal societies in the formation of the Shang state as political allies.

The theory, however, is challenged by the lack of a clear understanding of the social dynamics in the heartland of Yueshi sites in Shandong. No significant settlement contemporaneous with the Nanguawai phase has been located to substantiate Luan's claim for an expansive political alliance at the critical moment of state formation. Instead, the social dynamics of the Yueshi society remain a serious gap in our archaeological knowledge.

Based on the observation that the Yueshi material culture displayed sufficient connection with the Liaodong peninsula and the Lower Xiajiadian Culture, Zhang Guoshuo (1989) proposed a theory of maritime migration from northeast China. The maritime migration theory may explain the limited repopulation of Shandong after a serious collapse, but not the cause of collapse itself, which took place centuries before the first appearance of the Yueshi assemblage. It also cannot account for the lack of further social elaboration and the high cultural homogeneity observed in the broad region of its site distribution. Therefore, it would be informative to shift the inquiry from "where did the Yueshi Culture come from" to "what are the social and economic conditions that could account for the sustained underdevelopment and depopulation at a macroregional scale during the early to mid second millennium?" This has a direct bearing on understanding the local circumstances prior to Shang state expansion—whether the Shang engaged with a densely populated place with a significant local political structure or expanded into a scarcely populated area. These present different managerial issues for the expanding state.

Much of the problem with Yueshi is the match between archaeological data and the conceptual schemes from the textual sources, and scholars wish to place archaeological cultures in a progressive framework of social evolution leading to

complexity, singular rather than plural (see Cohen 2001 for a critique). For instance, Fu Ssu-nian's (1935) influential theory of early China as emergent from a long-term interaction and competition between cultural blocs, Yi in the east and Xia in the west, frames our expectations on the types of social organization and technologies in the coastal region (Chang 1986: 304). A symbiotic development implies a similar level of complexity for the societies involved. The evidence for sophisticated cultural development observed in the major theaters of the interregional sphere of cultural interaction in the 4th and 3rd millennium B.C. also favors the idea that sufficient regional developments lay the foundation for further integration and development of social complexity (Su and Yin 1981; Su 1988; Chang 1986).

The traditional paradigm of interregional interactions, where the impetus of change toward state formation was distributed among accelerating regional developments to complexity has to be questioned. The effort to mould discontinuity into a narrative of continuity masks the different rhythms and trajectories of change at an interregional level. If cosmological elaborations and "political economies" are major features that distinguish civilizations from non-civilizations, as Baines and Yoffee (1998: 234) have argued, then the lack of elaboration in material expression of the Yueshi society stands as a sharp contrast with the Longshan society came before it or the Shang after it.

Instead of seeing the discontinuity as an obstruction or failure of a coherent historical narrative, discontinuity can be a productive source of knowledge:

where it no longer plays the role of an external condition that must be reduced, but that of a working concept; and therefore the inversion of the signs by which it is no longer the negative of the historical reading (its underside, its failure, the limit of its power), but the positive element that determines its object and validates its analysis (Foucault 1972: 9).

The social developments after the collapse of major Neolithic societies in the coastal regions and the Yangtze River basin clearly represent a very different pattern of interregional interaction than the one witnessed in the 4th and 3rd millennium B.C. The Yueshi society in Shangdong serves as an example of a significantly depopulated society and decentralized social structure before the arrival of Shang. Therefore, we need to build decline, rupture, and discontinuity in regional development into a nuanced approach to the larger picture of interregional interactions.

State Formation in the Central Plains

Erlitou. In contrast to the depopulation of the coastal region, as seen by the low density distribution of the Yueshi sites in Shandong, major episode of state formation took place in the heartland of Central Plains during the first half of the 2nd millennium B.C. On the western edge of the Central Plain, a large urban center of 300 hectares emerged at Erlitou in Yanshi County of the Luoyang region, some 450 kilometers southwest of Daxinzhuang (Liu and Chen 2003; Liu 2004). The Erlitou site had palatial foundations, bronze foundries, and elite burials—the classical components of political authority in the early Bronze Age China. The city emerged in a scarcely populated area, indicating that state formation was not responding to population pressure in the local area. By Erlitou Phase III, the city has reached a population of 18,000 to 30,000 (Liu 2004). Liu *et al.* (2004) argue that a tribute economy based on a four-tier settlement hierarchy was established around Erlitou. For the first time in early China, bronze became the symbol of prestige and authority. The Erlitou state was also engaged in territorial expansion in pursuit of vital resources, i.e. copper and salt (Liu and Chen 2001). The complexity of elaborate bronze working at Erlitou developed in tandem with the emergent social complexity achieved in political, economic, and religious authority (Liu 2004).

The Early Shang. The decline and abandonment of Erlitou corresponded with the emergence of early Shang cities at the Shixiang village, Yanshi, and slightly later at Zhengzhou. The Yanshi Shang city near Erlitou was probably a new city intended to put the former political center on check (Thorp 2006). The city was built in two stages. First, a rammed earth city wall enclosed an area of 1100 meters north-south and the south wall about 740 meters east-west. Palatial foundations were located inside the inner wall. Several well-fortified, multi-storied structures closely associated with the palatial compound within the inner city have been interpreted as state warehouses or arsenals (Institute of Archaeology 2003: 214).

The inner city wall was later expanded by extending the west wall another 600 meters northward, for a total length of over 1700 meters, and by creating a north wall of 1215 meters running east-west, thus increasing the enclosed area from 81 to 200 hectares. An important consequence of this expansion was the increased protection and restriction

of craft production areas. Once outside of the wall enclosure, the bronze foundries, pottery kilns, and bone workshops were now located within the northeast part of the larger city between the two walls. Only medium to small burials have been discovered at the site, none representing the ruling class of the city. The occupation at Yanshi lasted approximately from 1600 to 1400 B.C. The city was probably abandoned due to the shift of political gravity to the eastern Central Plains at that time (Institute of Archaeology 2003: 218).

At Zhengzhou, the inner city wall was built in the Lower Erligang period of the mid second millennium B.C. (Figure 2.3). Its irregular shaped rectangle wall was longer on the north-south side (1700 and 1870 meters) and shorter on the east-west (1690 and 1700 meters). Some sections of the wall still stood nine meters tall today. Within the northeast quarter of the inner city, the palatial precinct with dozens of rammed earth foundations covers an area of 750 by 500 meters, approximately a sixth of the Zhengzhou city. An outer wall was built approximately one km south of the inner city wall to flank the southern half of the city. Bronze foundries, kilns, bone workshops, and other craft production facilities were found in the area between the outer wall and inner wall (Institute of Archaeology 2003: 222). Human bones were used in bone tool production at Zhengzhou along with animal bones (Henan Provincial Institute of Archaeology 2001).

Similar to Yanshi, only small and medium burials have been documented at Zhengzhou, either between the two walls or against the inner city wall. These burials are consistent in many physical features, and in the presence of animal and human sacrifice, and distinctive grave goods. Difference between grave size and equipment, assemblages of bronze vessels and weapons, and various prestige items including jade, ivory, stoneware, lacquer, and small amount of gold suggest social stratification (Thorp 2006: 102). Outside the outer wall, few Erligang occupations were discovered.

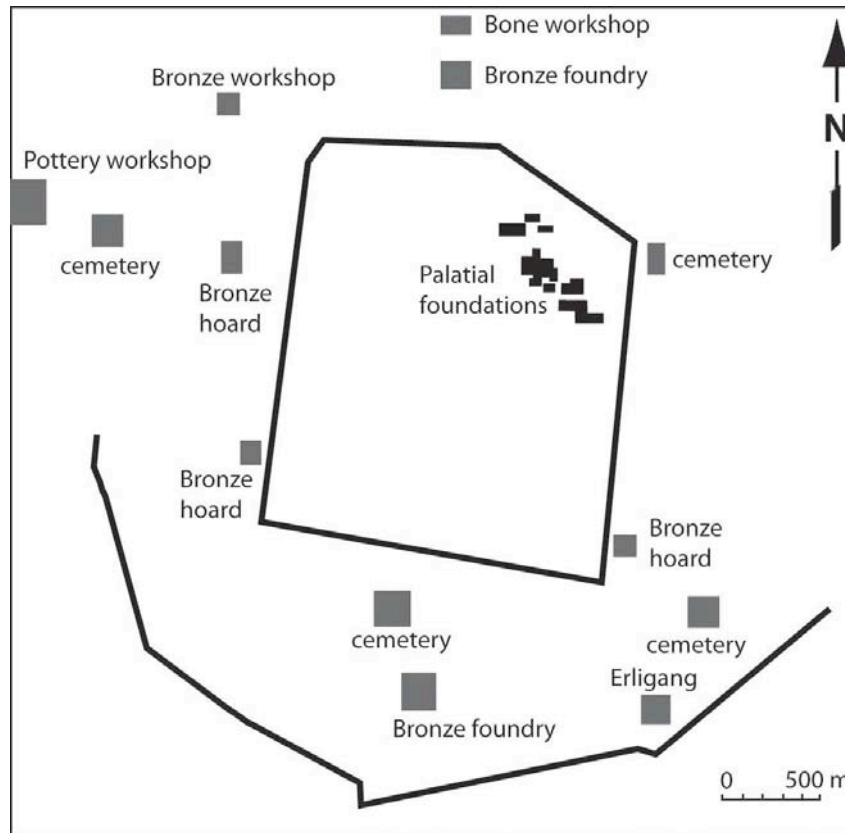


Figure 2.3. Map of the Zhengzhou Shang city (redrawn from Henan Provincial Institute of Archaeology 2001: 2 Figure 2)

The city reached its apogee in Lower Erligang II and Upper Erligang I (Table 2.2), attested by an expansion in palatial construction and craft production workshops. The city declined in Middle Shang Phase I, when the palatial structures appear to be abandoned and the bronze foundry closed down. Some elite tombs with bronze furnishings and three significant hoards of ritual bronze vessels, however, date to this period of abandonment indicating sustained elite activity before the city was completely deserted in Middle Shang Phase II (Institute of Archaeology 2003: 228).

Zhengzhou and Yanshi were the political centers of the Early Shang states, emerging in the Central Plains during the mid 2nd millennium B.C. The apogees of Yanshi and Zhengzhou partially overlap and the relationship between the two remains debated. The scholarly consensus favors the idea that they were dual centers of a single polity rather than independent centers associated with two peer polities (Institute of

Archaeology 2003: 230). Unlike the Late Shang capital of Anyang, there are no archaeological texts that identify these early cities with early Shang capitals mentioned in historical geography. However, given the high consistency with the historical references in their location and the cultural continuity exhibited with the Anyang material, the identification of these cities as Early Shang political centers is convincing, although a precise match on the cities names and Shang personage may be less certain (Thorp 2006).

Erlitou			
	Phases I-IV	circa	1880-1520 B.C.
Early Shang			
	Lower Erligang 1-II	circa	1580-1415 B.C.
	Upper Erligang I-II	circa	1429-1210 B.C.
Middle Shang or Transitional Period]			
	Phases I-III	circa	1300-1200 B.C.
Late Shang			
	Yinxu Phases I-IV	circa	1250-1046 B.C.

Table 2. 2 Chronology of the 2nd millennium B.C. in the Central Plains (based on Zhang *et al.* 2007; Thorp 2006; Xia-Shang-Zhou Chronology Project 2000).

The early Shang state centered in Zhengzhou established frontier citadels at remote locations, including Yuanqu and Dongxiafeng in Shanxi, Fucheng and Mengzhuang in Henan, and Panlongcheng in Hubei. Located 440 kilometers south of Zhengzhou, Panlongcheng in the Middle Yangtze River Basin probably represents the maximum extent of the Early Shang state. Within this parameter, the walled towns discovered were much smaller in size by the standards of Yanshi and Zhengzhou—their city walls range between 200 to 400 meters on each side.

Rammed-earth foundations for palatial and elite residences were found in some of these town sites. Elite tombs associated with these cities have yielded Erligang style bronzes that appear indistinguishable from their counterparts in Zhengzhou. Although some of these tombs, such as Lijiazui M2, displayed greater wealth than the ones discovered in Zhengzhou and Yanshi, this may only be a function of uneven archaeological recovery—the royal cemeteries associated with the large cities probably were located further removed from the urban core and yet to be recovered.

In addition to the movement of bronzes, the ways that sites were laid out, structures built, craft made, and burials outfitted suggest close interactions among these

sites (Bagley 1999; Liu and Chen 2003; Institute of Archaeology 2003; Thorp 2006). It is the comprehensive replication of the civilizational style at these sites rather than mere presence of prestige objects from Zhengzhou, that helps to identify these cities as the loci of intermediate level of political authority in the Early Shang political network.

The spread of a rather uniform civilizational style associated with Zhengzhou, both in material culture and in associated rituals and social practices, in areas previously unaffected by the Erligang Culture led scholars to argue that the dispersion of the Erligang civilization was not a gradual process but a sharply defined event (Bagley 1999; Liu and Chen 2003). For Bagley, the archaeological signature resembles nothing less than imperial expansion:

It seems difficult to image any mechanism other than conquest that would spread a uniform inventory of bronze artifacts and a complex technology in a short space of time over so large an area, and the evidence of archaeology is thus that the Erligang period saw not only the formation of a civilization, but also a sudden territorial expansion (Bagley 1999: 170).

While scholars may question assumptions for connecting cultural uniformity with political centralization, the changes in material culture do support a rapid configuration of social order and cultural conception on a massive scale.

The stylistic uniformity and its implied cultural unity were followed by a breakdown of the state order in the following period, when regional cultures incorporated and transformed the Erligang style for representation of prestige and status. Changes were not only manifested in regional variation in style, but also in the ways that these bronzes articulated in the broader framework of political expression—they were on the terms of local political expression and served to further define them. Such a deviation from a universal representation of state order embodied in a widespread stylistic uniformity once was taken as the material manifestations of a new political order in a new era—a period of instability, crisis, and contesting centers in the Middle Shang period (Bagley 1999; Liu and Chen 2003). This portrayal of the political landscape, however, is complicated by new archaeological evidence for the presence of powerful centers in the core region of the Shang states.

The Middle Shang Transition. Also known as the transitional period, the Middle Shang spans from the early 14th to the late 13th century B.C. (Thorp 1985, 2006; Tang

1999; Institute of Archaeology 2003). With no major political center in the Yellow River valley and absence of a unified style, the society was once characterized as representing a breakdown of the cultural unity temporarily imposed in the Erligang period. Wide distribution of bronze is a phenomenon of the transitional period (Bagley 1999: 175). Local bronze industries began to flourish over a broad area. Similar bronzes have sometimes turned up at widely scattered locations, indicating the presence of a network of interacting centers stretching from Taixi in Hebei (400 km north of Zhengzhou) to Xingan in Jiangxi (900 km south of Zhengzhou). Certainly not all polities in this vast span responded to the call of the Shang kingship.

The Middle Shang saw the decline of the Zhengzhou city site. The majority of the palatial structures in the northeast part of the city were deserted in Middle Shang Phase I (also known as the Baijiazhuang Phase). The bronze foundries outside of the inner city remained in operation (Institute of Archaeology 2003: 271). The discovery of three major hoards of ritual bronze vessels, all from the area between the outer and inner city walls, attests to the impressive wealth and prestige associated with their owners (Institute of Archaeology 2003: 255, 271-74). It is unclear, however, why these bronze caches were buried here in the broad context of urban decline. Two alternative interpretations, ritual deposit under royal patronage or an emergency cache deposited before its owners fled the city, highlight contradictory dynamics for the city this period.

Such contradictory proposals also affect our understanding of an important Middle Shang center at Xiaoshuangqiao, located some 20 km northwest of Zhengzhou (Henan Provincial Institute of Archaeology 1993, 1996). The site measures 1800 meters on the north-south orientation and 800 meters on the east-west orientation. Remains of palatial structures, bronze foundries, and massive sacrificial features define the site as an important ceremonial and political center in early Middle Shang. Dismembered human remains were associated with rammed earth foundations of places and platforms, some believed to be religious structures. A mass grave pit contains several or dozens of dismembered human bodies or individuals suffered traumatic death in a single pit. At least three such pits have been excavated in Xiaoshuangqiao, each containing over thirty individuals, with one over sixty. Many skulls show traumas from blunt or sharp

instruments, which presumably account for the cause of death. Most were young men, with some women, young children, and infants (Song 2004).

Bronzes, stoneware, ceremonial stone blades, and bones from pigs, cattle, elephant, deer, and dogs were found in large features at Xiaoshuangqiao, along with over a hundred cattle skulls from a limited area excavated. The excavator concludes that these were deposits from sacrificial activities performed nearby rather than residential debris (Henan Provincial Institute of Archaeology 1996: 9). The archaeological evidence for the massive use of cattle for royal rituals is significant for this study, as it demonstrates the beginning of such intensive focus on cattle seen in oracle bone inscriptions of the Late Shang period (Yuan and Flad 2005). The ritual significance revealed by the massive use of cattle and human sacrifice is further attested by the discovery of characters written on pottery surface with vermilion. These closely resemble the oracle bone inscriptions in Late Shang Anyang (Song 2003). It is possible that writing had been invented for ritual use at Xiaoshuangqiao, if not earlier.

Xiaoshuangqiao is a very important site—it has the potential to reveal the nature of political authority at the end of the Early Shang. Also important for this project, its material culture and cultural practices closely resemble those from the Daxinzhuang site in Shandong. The Shang occupation at Xiaoshuangqiao partially overlaps with the late Upper Erligang occupation in Zhengzhou and may have still flourished after Zhengzhou was deserted. The function of the site remains debated. Alternative theories range from a ritual complex attached to the royal capital in Zhengzhou, to a new political center to which Zhengzhou's kings relocated after abandoning their city (Institute of Archaeology 2003: 275). Clearly, these two theories have very different implications for the spatial configuration of political authority in the region.

The prominence of Xiaoshuangqiao at the end of the 15th century was short-lived. The center of political gravity shifted away from the Zhengzhou region to the Anyang region in northern Henan in the early 14th century B.C. Tang Jigen (1999) attributes the constant shift of the political center to potential crises in royal succession, as indicated by irregularities in the king list from historical account. The full dynamics for the changes, however, may be more complex and difficult to access.

The center of political gravity during the transitional period after the decline of Xiaoshuangqiao remained elusive until the recent discovery of a square shaped walled city in the area near the village of Huayuanzhuang north of the Huan River in Anyang (Figure 2.4). The rammed earth city wall measures 2150 meters on each side and covers an area of 470 hectares, which was larger than the walled area of Zhengzhou (300 hectares) and Yanshi (200 hectares).

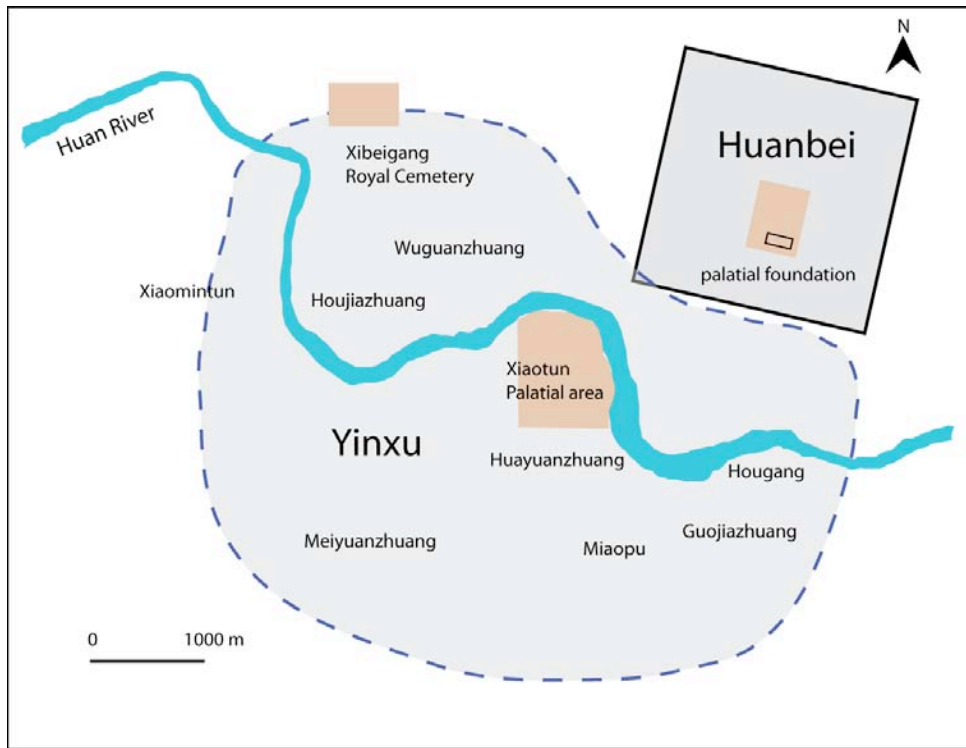


Figure 2.4 Map of Huanbei and Yinxu in Anyang (redrawn from Anyang Team 2003: 4 Figure 2)

The city is orientated about 13 degrees east of magnetic north, characteristic of many other known Shang walled cities as well as monumental architectures such as palatial buildings and royal burials. Foundations of an impressive palatial compound were found inside the city. This compound measures 174 meters on east-west side and 90 meters on north-south and is the largest structure ever discovered at an early Bronze Age site. A large gatehouse on the south has two entries to the yard. A wide gallery connects the gatehouse to east and west galleries. The main hall running across the north itself measures some 85 meters wide and 14.4 meters deep, subdivided into at least nine

chambers. The interior of the compound has revealed a number of sacrificial pits, especially at or under ramps leading to doorways. The overall area of this courtyard compound is 1.6 hectares (Thorp 2006: 132). The ceramics at Huanbei date later than that those associated with the late Upper Erligang occupation at Zhengzhou, and earlier than the earliest (Yinxu I) pottery at other nearby Anyang sites.

After approximately a century of occupation at the Huanbei city, another relocation of political center from Huanbei to Yinxu connects us with the known Late Shang world at Anyang, where palatial foundations, royal mausoleums, sacrificial pits, lineage cemeteries, and workshops have been excavated in both sides of the Huan River since 1928 (see Li Chi 1977 and Institute of Archaeology 1994 for overviews). The royal compound of the Late Shang kingship centered at Xiaotun, south of the Huan River. It was separated from the general residential areas, bronze foundries, and craft production workshops by a large moat.

Outside the core region in Zhengzhou-Anyang, material culture of the Middle Shang style was distributed widely exceeding that of the Upper Erligang material (Tang 1999; Institute of Archaeology 2003). The distribution approached its maximum spatial extent during the Phase III of Middle Shang. In particular, its distribution in east and southeast regions rapidly expanded, reaching the Huantai region some 100 kilometers east of Daxinzhuang (Yan *et al.* 2005).

Located approximately 250 kilometers northwest of Daxinzhuang, the Taixi site in the Gaocheng County, Hebei Province, has yielded the most detailed information on a center of intermediate political authority similar to Daxinzhuang. Such centers would be described as *yi* in early China (Thorp 2006: 78). The excavators divided the remains into an early phase contemporary with Upper Erligang and a later phase that saw the apogee of Shang occupations during the Middle Shang. Fourteen connected house chambers were excavated from the mound site; these were part of a residential compound that included brewing operations for alcoholic beverages.

Among 112 graves found in the Taixi cemetery, only ten contained bronze vessels. These were generally limited to a pair consisting of a *jue* pouring vessel and *gu* goblet. Some assemblage had an additional *ding* tripod and a *jia* wine warmer. Nine out of ten bronze-bearing graves contained human sacrifices and 38 had sacrificial dogs

(Hebei Provincial Institute of Archaeology 1985). Several burials had bundles of three uninscribed divination scapulae left on the ledge, presumably once used by the deceased, a ritual practice not common in burials elsewhere (Bagley 1999: 178). The settlement probably supported a mixed community of petty elite, warriors, and common folk, both farmers and artisans. The material culture from Taixi bears significant resemblance with Daxinzhuang both in stylistic and social aspects.

As the chronology becomes more refined, the once-homogenous Upper Erligang expansion in the Early Shang period is in need of a close scrutiny, particularly for those sites simply identified as Early Shang on the basis of pottery specimens from archaeological reconnaissance. More recently scholars have noted that the expansion was more of a Middle Shang phenomenon (Tang 1999; Institute of Archaeology 2003). The discovery of large cities in the core area of Shang states (i.e. Xiaoshuangqiao and Huanbei), as well as the broad distribution of rather homogenous material culture (previously lumped with the Upper Erligang expansion) challenges the traditional notion of crisis and decentralization for Middle Shang. The new evidence, however, does not necessarily endorse an alternative that emphasizes centralization as the chief mode of social formation. As Tang Jigen's (1999) relative chronology for key Middle Shang sites shows (Table 2.3), none of the major cities lasted very long.

Middle Shang Phases	Zhengzhou Xiaoshuangqiao	Anyang Huanbei	Jinan Daxinzhuang	Gaocheng Taixi
Phase I	Early and late phases		Phase II	
Phase II		Early phase	Phase III	Early
Phase III		Late phase	Phase IV	Late

Table 2.3: Chronology for major Middle Shang sites (Tang 1999).

By current estimate, the Middle Shang spans over a period of one and a half centuries, which is long enough to accommodate both peaks and valleys in political centralization. The new interpretation, however, has to take into account the potential impact, however ephemeral in its duration, on the broader Shang world of the presence of these large political centers.

What were the social dynamics on the broad scope of northern China when the Shang political authority at the Central Plains embarked on a series of migrations? Or, do

these centers represent a migration of a single royal house at all? Could they be in competition as rival polities in a Shang network of states, which was later incorporated into one lineage in later historiography? These alternative models would inevitably affect the outlying communities in different ways. Answers to these questions could rest in the archaeology at Daxinzhuang, as it is the only site with continuous occupation through all three phases of Middle Shang in Tang's chronology. Remains from such frontier sites could inform on the intensity of interaction between the political centers and the far-flung polities that could be on the verge of breaking away when the center was in crisis.

Cultural Changes in Shandong during the Middle Shang

If the Shang expansion took place in the context of cultural and social diversity, we have to investigate ways that other societies coped with and responded to the Shang domain, as well as the ways that the Shang established its political authority in the culturally heterogeneous communities it conquered. This section provides an overview of major sites of the Middle to Late Shang period in Shandong (Figure 2.5).

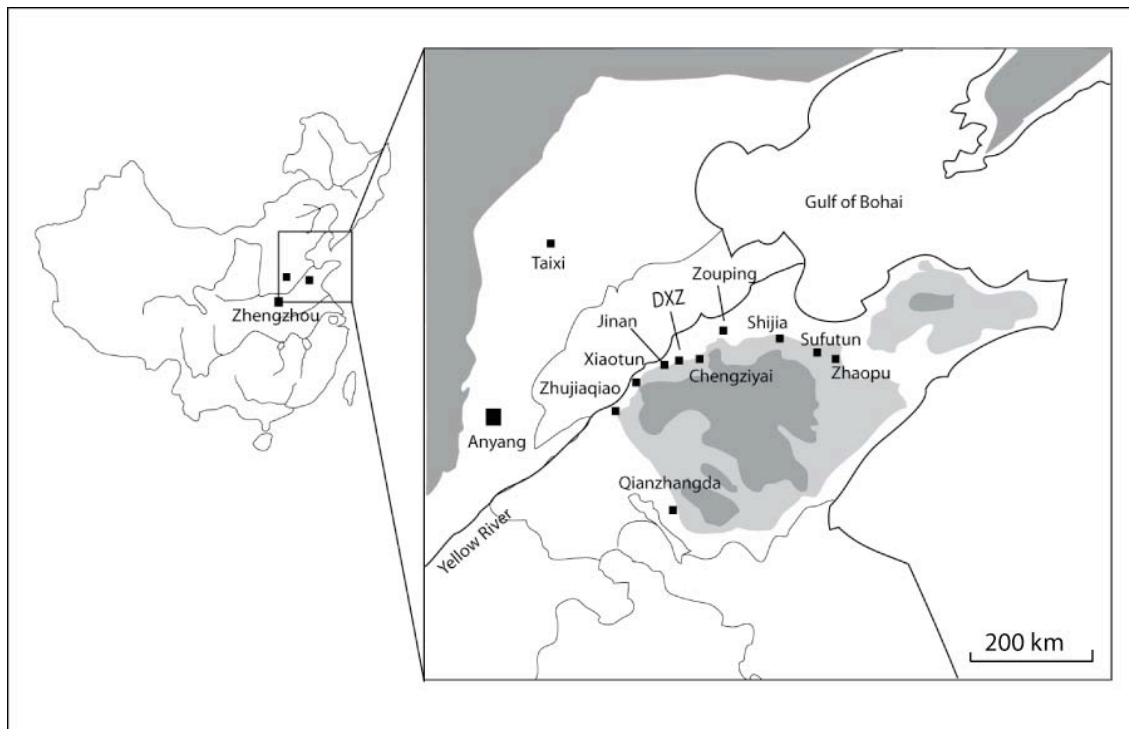


Figure 2.5 Distribution of major Shang sites in Shandong

Yinjiacheng. In southern Shangdong (120 km south of Daxinzhaung), material culture from the late Yueshi phase at Yinjiacheng yields signs of interaction with the Early Shang region, including the increase of cord-mark ceramics among the sherds and presence of new vessel types, i.e. *li* tripod, *jia* footed cup, and small-mouth jar, all vessel types common to the Central Plains (Archaeology Specialty 1990: 241, 309). An increased but potentially indirect interaction was followed by a rapid presence of Shang style material culture, marking an abrupt, instead of gradual, cultural change in the archaeological remains.

The Shang component at Yinjiacheng consists of 52 pit features, five burials, and three severely damaged house floors.¹ Information from the pits suggests that the Shang objects appeared rather abruptly during the late Upper Erligang to early Middle Shang periods. For instance, three nearly intact *li* tripods from the bottom of pit H35 displays an unambiguous Shang style (Archaeology Specialty 1990: 255 Figure 168, Plate 101. 1 and 2), was and are indistinguishable from similar vessels in Zhengzhou and Daxinzhuang phases I, II, and III. Other Shang vessels include *jia* footed-cup, small square *ding* tripod (with counterpart seen in H690), Shang-style *dou* stemmed-cup, and *pen* deep-basin, which bears little stylistic continuity with the local tradition.

The ceramic assemblage in the Shang component at Yinjiacheng differs from the Yueshi assemblage in both stylistic attributes and functional types. While the Yueshi ceramics Shang vessels were predominantly wheel-made grey or red ware with evenly built body and cord-mark surface treatment, the majority of Yueshi pottery were hand-made brown wares of uneven body and plain surface and some more elaborate wares are decorated with ridges, appliqués, geometric motifs, and polychrome painting. The most visible change for function types is manifested in the central role of the *li* tripod in the Shang assemblage and the decline of the *ding* tripod (Archaeology Specialty 1990: 309). At the same time, other diagnostic Yueshi vessel types (i.e. greyware lidded cups with ridge design on the plain body, oval shaped container, several variety of bowls, and polychrome painted wares) cease to appear in the ceramic assemblage.

¹ The burials are all orientated towards the east and all for children. Since they were unfurnished and suffered severe damage, little is known on the social information of the occupants.

Changes did not take place in the ceramic assemblage alone. The presence of finely cast bronze projectile points revealed a technological sophistication and standardization unrivaled by the small metal items from the Yueshi component at the site. Although no detailed inventory of the Shang fauna was provided, the report states that the assemblage was dominated by domesticates, presumably cattle, pig, sheep/goat, and dogs, as listed for the prehistoric components. The majority of nine oracle bones are made of scapulae of cattle or large deer, all using round hollows (Figure 2.6). A turtle plastron with round hollows represents one of the earliest specimens of turtle use in the region (Figure 2.7). Another specimen (T228 layer 6: 79) used the scapula of a large feline, presumably a tiger for this region, for oracle divination (Archaeology Specialty 1990: 252 Figure 166. 2, Plate 99.2).² The Shang component excavated at Yinjiacheng, however, was too fragmented to reveal the full spectrum of social change.



² It was misidentified as the scapula of a David's deer in the report (Archaeology Specialty 1990: 241, 309).



Figure 2.6 (a and b) A cattle scapula for divination use from Shang component at Yinjiacheng





Figure 2. 7 (a and b) A turtle plastron for divination use from Shang component at Yinjiacheng

Chengziya. Within the Jinan region, the most prominent Yueshi site is Chengziya, 24 km east of Daxinzhuang, the famous typesite for the Longshan Culture. Recent studies in the region inform on a reassessment of the data from Li Chi's excavation at Chengziya in the early 20th century. If any overlap in the occupational history of the two sites can be established, the interaction between these two centers could be a major theme in the social dynamics of the mid second millennium.

Li Chi (1934) and his colleagues from Academia Sinica conducted the excavation at Chengziya in 1929 and 1930 when excavations Anyang were temporarily interrupted by a civil war. At the time the cultural sequence for the region was not established and the project at Chengziya pioneered prehistoric research in the region. The material culture from the fortified site was excavated using a trench method and was dated to two components, the "black pottery culture" in the lower level, later known to be the Longshan Culture, and the late Bronze Age remains in the upper level dating to the second half of the 1st millennium B.C. Resumed work in 1991 revealed that the fortified site has three components, Longshan, Yueshi, and late Bronze Age respectively. Neither excavation reported a Shang component in Chengziya (Zhang Xuehai 1993). After the

town was abandoned after the Yueshi occupation, Chengziya was not occupied until the next wall-building episode in the mid 1st millennium B.C.

The argument for the pre-Shang construction of the town-wall as evidence for indigenous political development is based on the combination of two lines of evidence. First, the Yueshi Culture generally predates the Shang. Second, a Shang component is absent at the site, thus the Yueshi walled town was already abandoned when the material culture of the Early Shang made its presence at Daxinzhuang.

However, close scrutiny of published material reveals evidence for Middle Shang occupation at the site, supporting the hypothesis of co-existence or conquest. In his “Ancient Pottery from Shantung,” Drake described the pottery vessels from his archaeological reconnaissance at Chengziya, Liangwangzhuang, and Daxinzhuang:

Figure 2 is a sample of the coarser ware for household use; it shows the hollow leg of a tripod for cooking; the walls are thin and resonant, and are made of a dark grey clay with a black surface; by the side of it is a fragment of the very thin highly polished black pottery that has made Lungshan famous. It is barely a millimeter and a half in thickness, and was dug out of the ground by the side of the tripod leg (Drake 1939-1940: 389).

Figure 7. This is a tripod of light brown gritty clay, unusually thin, crisp and resonant. It was made in a basket mould of fine mesh (rubbing Figure 33a). The hollow legs are well splayed, and the tips are solid points affixed to the ends of the legs after the basket mould was removed. The deeply hollowed, well separated legs are regarded as a mark of early date, the later tripods tending to become nearly flat-bottomed, with the tripod form only slightly indicated. The shape of the leg with its attached point is in fact reminiscent of the leg from Cheng-tzu Yai shown in figure 2. The material of which it is made and the basket pattern can also be matched by sherds from Cheng-tzu Yai and other early sites. I am of the opinion therefore that this piece belongs to the Black Pottery culture period. It comes from Region Three, site 1, from which I have gathered sherds and stone implements of Neolithic type, together with the tripod foot of polished grey pottery shown by the side of it, which is of a shape very characteristic of the black polished pottery of Cheng-tzu Yai, as a reference to the report volume Cheng-tzu Yai will show.”(Drake 1939-1940: 390)

Figure 12. A broken tripod of very gritty red pottery from Region Four, Site 1. The basket pattern is coarse, but the gritty surface much eroded [Figure 33 (e)]. The legs are deeply hollowed, and tipped with solid points. If the shape of the legs is any guide this should be a tripod of the early period. The site from which it comes is extremely interesting. Beside a quantity of sherds, some of which are illustrated in Figure 36, it yields implements of stone, bone, deer horn and shell. Among the sherds are examples—for instance pieces of highly polished black pottery—of the Neolithic type; others, as pieces of brown polished pottery, and incised grey pottery, are more like that of the Shang period. In at least one spot a Shang Dynasty grave with bronze vessels and weapons has been unearthed. Some pieces of pottery of the Shang type, as we shall see below, have come from this site. The question then is, is it a Shang Dynasty or a Black

Pottery site? Was the site occupied successively through two periods? Does the presence of bronze only indicate a later burial? (Drake 1939-1940: 392)

Drake's observation of a broken *li* tripod in association with the distinctive black pottery at Chengziya led him to attribute both to the prehistoric "Black Pottery culture-period" the site is best known for. He then used the Chengziya specimen to date similar vessels from other sites, including Daxinzhuang. The black pottery fragment associated with the *li* tripod probably came from an earlier stratum (thus its fragmented state), while the *li* tripods from all three sites date to Upper Erligang to Middle Shang period. The Shang *li* tripod in Drake's report presents convincing evidence for the presence of Middle Shang occupation at Chengziya, as such a well-preserved vessel could only come from burials or pit features.

While Drake was misled by the presence of prehistoric sherds in Shang context, James Menzies, his colleague and collaborator at the Chengziya investigation was of the opinion that some of the ceramics and oracle bones at the site date to the Yinxu period (Fang 2000: 36). This insightful observation derives from his extensive experience with the Shang material culture and oracle bones in Anyang as a missionary before joining the faculty at Cheloo University in Jinan.

The oracle bones from several components at Chengziya are mixed together in the report. The species represented include deer and cattle as reported, as well sheep/goat and pig, as seen from illustrations. Since these could come from any of the four components at the site, there is a great variation in style and media. I agree with Menzies' observation that the published cattle bones in Chengziya closely resemble those commonly used in Shang period communities, as seen in the Shang component at Yinjiacheng and Daxinzhuang. If these indeed come from the pre-Shang contexts, then the continuity in ritual practice is clearly worth notice.

Due to the lack of stratigraphic control in the earlier excavation and the delay in publication of the recent work, the occupational history at Chengziya is far from clear. Particularly, the relationship between Yueshi component and a previously unnoticed Middle Shang component at the site remains unexplored. The potential that the two traditions of material culture coexisted for a significant duration in the region after the mid 2nd millennium challenges the observation that Daxinzhuang rose after Chengziya

was already abandoned. Since such transition is seen at Yinjiacheng and other sites in the region, this should not come as a surprise. Given the comparable size of Daxinzhuang (30 hectares) and Chengziyai (20 hectares), and the short distance that separates these two sites (20 km), it is plausible that the late phases of Yueshi occupation at Chengziyai were contemporaneous with the Upper Erligang settlement at Daxinzhuang for some time.

The presence of Middle Shang component at Chengziyai, in addition to the Yueshi settlement of the mid 2nd millennium, reveals potential social interactions. As the date of the wall construction can be established with inclusions of diagnostic Yueshi sherds in the rammed earth layers and pit features containing Yueshi sherds dug into the wall, the wall could be built either before the arrival of the Shang or as a response to or result from it. The former has been proposed as the default interpretation for the settlement, lending evidence for a pre-Shang local development of social complexity, while the alternative hypothesis was not considered due to the perceived absence of Shang material remains.

Shijia. Located 90 kilometers northeast of Jinan, evidence for similar transitions can be observed at Shijia and its surrounding sites in eastern Shandong. Covering an area of 25-30 hectares, the Shijia site consists of three components: Late Longshan, Late Yueshi, and Yinxu I. A hoard or ritual cache recovered from a wooden framed water well yielded an impressive collection of 334 vessels of Late Yueshi style, some lithic and bone tools, and two unmodified sheep/goat scapulae with pyromantic marks and carved signs. The excavators argue that the character-like signs inscribed on the oracle bones reveal that the practice of writing originated in the local prehistoric tradition (Zhang *et al.* 1997: 17). However, as an early Late Shang layer directly superimposes the well feature, these objects probably date to the Middle Shang period when interactions with the Central Plains were already intensive.

By the Early Late Shang period, the residential area (4-5 hectares) was surrounded by a moat. Numerous house floors, wells, storage pits, sacrificial pits with dismembered human and pigs were found inside the moated area (Yan *et al.* 2005). A Late Shang cemetery was located on north of the moat. Before recent excavations, dozens of ritual bronze vessels have been reported from the site as chance finds. These resemble specimens from the tombs of lesser elites in Anyang in the early Late Shang tradition.

Many bear common Shang day names, i.e. Da Wu, Fu Xin, and Zu Fu, indicating their strong affiliation in the Shang ritual and kinship system (Han 1982).

One bronze *gu* goblet of the Yinxu I style has an eight-character inscription, concerning the possible establishment of a Shang citadel (Han Mingxiang 1982; Wang Yuxin 1999). In addition, the clan emblem “Jing” found on the bronze was also seen on bronze vessels from two other sites in the Jinan region (Gao and Shao 2005), highlighting the presence of certain elite lineages in multiple communities of the region. The excavation also produced nine sacrificial pits of Shang period that contain skeletons of human, pig, cattle, and sheep/goat. This, ritual practice and ritual objects associated with the Shang appeared together by the early Late Shang. Again, the limited information published from Shijia prevents further assessment on the nature of the social change that took place in a largely native society.

Around Shijia, archaeological reconnaissance identified sites contemporary to the Middle Shang at the Tangshan site in Huantai (Yan *et al.* 2005), the Dinggong site in Zouping (Xu *et al.* 1989; Luan 1997), and the Xiaojia site in Qingzhou (Wang Xun 1994: 46). Therefore, Shijia was not isolated in its pre-Anyang phase. These sites represent the eastern limit of the distribution of the Middle Shang remains. Faunal data from two sites from this group are included in this study—Tangshan and Qianbu are both within 15 km radius of the Shijia site. I will present detail of these two sites in Chapter 5.

The Peninsula Region. Evidence from the peninsular region further to the east shows little or no sign of Shang material culture. Almost the same Yueshi ceramic assemblage was observed at Zhaogezhuang towards the eastern end of the Shandong Peninsula (Shandong Team and Yantai City Museum 1986). Pigs, cattle, sheep, and dogs constitute the major domesticates, while marine fish and shells suggests a coastal adaptation. The local society utilized the scapulae of deer, sheep, and pig for oracle divination. Four cattle scapulae have been found fashioned into spades—the site’s residents treated them as raw material for tools rather than preferred media for religious communication, as seen in the Shang society. A bronze drill was also found, which is consistent with the pattern of limited access to portable metal objects seen at Yinjiacheng.

The species inventory between Zhaogezhuang and Chengziya shows a difference in the use of animal species for religious communication, as the latter used deer, sheep,

and cattle, while cattle scapula was excluded in Zhaogezhuang (Shandong Team 1986: 473). Since it was possible that the Chengziya cattle scapula may come from Shang component, this may not necessarily represent a variation between the regions.

In order to develop a better understanding of the dynamic nature of social transitions in Shandong since the mid second millennium B.C. to account for the temporal and spatial variability, scholars have identified the need to reframe of analytical category for the local material culture so that it could embrace more variability. Kikawada Osamu (2005) addressed the gap between the Yueshi Culture of the early 2nd millennium B.C. and the well-established Late Shang occupation in Shandong proper. He proposed a much longer temporal span for the Yueshi Culture in the eastern part of Shandong towards the peninsular region, by lumping what the archaeologists would describe as different cultures into three phases of a broadly define Yueshi Culture. Its Early Phase is contemporaneous with the Erlitou Culture and the Upper Erligang Culture, essentially the early and middle 2nd millennium B.C.; the Middle Phase is contemporaneous with the Middle Shang and Yinxu Phase I of the early Late Shang period. The Late Phase is contemporaneous with Yinxu II to early Western Zhou, which include the material culture primarily in the peninsular region east of Shijia. This revision of the cultural history in Shandong allows a more dynamic examination of changes in the local material culture—not as a static ceramic assemblage narrowly defined after its type-site with numerous regional variations, but as a broadly defined life style sharing the major characteristic traits of the coastal material culture. In this new temporal framework, it is possible to investigate the process of change and interactions among culturally heterogeneous but contemporaneous communities that were once thought to have changed by population replacement.

Shandong in the Late Shang World

The Yinxu period is subdivided into four phases. The first three span the Late Shang; while the latter part of Yinxu IV may date to the post-Zhou conquest period (Tang and Wang 2004). In Late Shang oracle bone records, the Shang kings were most concerned about their own lands (*wang ji*) and the bordering territories (*si tu*). Reports of hostile incursions on these flanks and inquiries about their harvests are common among oracle-bone inscriptions. A variety of persons are named: various archer lords (*hou*) and

marshals (*ya*), allies of the kings, and various chiefs or lords (*bo*) of (often hostile) statelets (*fang*) (Thorp 2006: 215).

The Shang king would sometimes visit those loyal groups on a hunt or peregrination, or join with them in a military campaign against the hostile ones, such as *renfang*, a persistent enemy in the eastern territory. The distinction between *wanji* and *situ*, however, are rather fluid and not territorially defined. Over time allies became enemies and vice versa. With the region in review spanning from the capital to the coast, one is expected to encounter a gradual transition of political relations moving from one settlement to the next away from the Anyang.

The Jinan Region. A major collection of elaborate Late Shang bronzes was reported from the site of Xiaotun (also known as Xingfuhe). A group of 99 bronzes including weapons, chariot fittings, tools, and 16 bronze ritual vessels were discovered in dam construction in 1957, presumably from an elite burial of the late Yinxu period (Yinxu Phase III). The ritual bronze vessels include two *ding* tripods, five *jue* libation cups, three *gu* goblets, two *you* wine containers with chain handle, three *zhi* wine goblets, and a ladle for scooping wine. Twelve of the ritual bronzes had inscriptions, and seven of inscriptions had the clan emblem of Ju. Other clan emblems include Xiang, Mei, and Ge (Shandong Provincial Museum 1964). Five more bronze vessels were reported from Changqing in 1963, with four of them (two square *ding* tripods, a *you* wine container, and a *lei* vase) all have the clan emblem of Ju. Bronzes bearing these clan emblems were also known from Yinxu cemeteries. The emblem Ju was widely found in Late Shang bronzes over a vast spatial extent, and probably represents a prominent clan in the Shang society, possibly part of the Shang royal clan (Zhou 1986; Gao and Shao 2005). The presence of the *ya* symbol, a square frame around the emblem, associated with Ju in the Xiaotun bronzes lends support to this argument, as this symbol was often associated with those holding military ranks in Shang aristocracy. Based on this connection, Li Boqian (1998) argues that this region was probably under direct Shang control during the Late Shang period.

Inside Jinan city, ten kilometers west of Daxinzhuang, a small amount of Shang remains that dates to the Upper Erligang to Middle Shang period was identified at the JiuJunmenxiang site (Gao and Shao 2005). In addition, a group of Late Shang bronzes

was reported from Liujiazhuang in 1973, including a bronze *ding* tripod, a *gui* grain container, and a *you* wine container bearing the same emblem resembling a kneeling person and a pair of hands holding a club. This set may have come from a destroyed elite burial nearby. Gao and Shao (2005) draw a connection to a group of burials in the Western Cemetery of Yinxu, which produced bronzes that bear the same emblem. Over 2000 burials excavated from the Western Cemetery are spatially divided into ten groups. Variations in tomb orientation, burial position, and ceramic assemblage can be observed between groups. Since many bronzes from each burial group often bear the same clan emblem, scholars have identified these burial groups as lineage cemeteries within the larger Shang royal clan cemetery.

A bronze *jue* libation cup bearing the same clan emblem as seen in Liujiazhuang has been discovered in burial M572 and a bronze halberd with the same emblem has allegedly come from the Dasikongcun South Locus in Anyang. Their spatial association with the Shang royal cemetery prompted Gao and Shao (2005) to argue that the emblem belonged to one of the junior lineages of Shang royal clan.

Members of this lineage, or a branch of it, might have been dispatched to settlements in the Jinan region. If so, the emblem and vessel assemblage identify some of the Jinan residents as Late Shang elite who directly migrated from Anyang (Gao and Shao 2005: 247). While the flow of a specific lineage bronze may also be explained by alternative modes of elite exchange, such as dowry, the proposal is a plausible one, as such connections are a recurrent pattern among Late Shang bronzes found in the Jinan region and in Anyang.

Sufutun. Approximately 40 kilometers southeast of the Shijia site, an important political center emerged at the Sufutun site in the Qingzhou region during the Late Shang period (Chang 1986; Bagley 1999; Thorp 2006: 220). Since the 1930s, bronzes bearing the emblem of Ya Chou were found in Qingzhou, thus providing a source for many bronzes with the same emblem from antiquarian catalogues (Qi 1947; Xia and Liu 1996). Four elite tombs and a chariot pit were excavated in 1965-1966. Eight more burials from the same cemetery were excavated in 1986 (Shandong Provincial Museum 1972b; Shandong Provincial Institute of Archaeology and Qingzhou City Museum 1989). They date to the Yinxu III and IV.

The largest tomb (M1) has four ramps, a cross-shaped wooden chamber surrounded by reconstituted second-level platforms, and two successively excavated pits at the bottom, which resembles the shape of royal tombs in Anyang. The burial pit is rectangular, 8.5 meters deep, about 15 meters north-south and 10.7 meters east-west, oriented north-south 3 degrees to the west. Although the tomb has been plundered, the remaining bronze vessels, weapons, pottery, jade objects, stone objects, and 3700 cowrie shells attest to the splendor of the once richly-furnished grave. Many bronzes bear the inscription of Ya Chou in a square frame (Shandong Provincial Museum 1972; Chang 1986: 371). In addition, 48 sacrificial victims and six dogs are found in various parts of the burial. The discovery of a pair of large ceremonial bronze axes presents convincing evidence for the political authority of the deceased. Sufutun M1 remains the highest ranked elite burial found outside Anyang (Figures 2.8 and 2.9).

The only two burials from 1986 excavation, namely M7 and M8, also yielded sets of ritual bronzes containing the inscription Ya Chou in square frame, as well as Rong (Shandong Provincial Institute of Archaeology and Qingzhou City Museum 1989). While in Sufutun, potter's paddle was recovered in the context of an elite burial (M7), indicating a complex relationship between craft production, ritual communication, and status.

In M8, excavators noted ordering of ritual space in the placement of grave offerings. Food vessels and food offerings were placed on the north side of the chamber, near the head of the tomb owner. Weapons were placed on both sides of the deceased, with spears on the left, halberds on the right. Two bronze axes and two large bronze knives are found one on either side of the deceased. Tools and miscellaneous objects were on the right and musical instruments were placed on the left (Shandong Provincial Institute of Archaeology and Qingzhou City Museum 1989: 261). The importance of the ritual ordering of space and objects in mortuary context rests in its emphasis on the embodied frame of reference that is more powerful in shaping human experience than the objects alone.

A Yinxu oracle bone inscription (Oracle Phase V) named a Xiaochen (officer) Chou, who had participated in the eastern campaign against the *renfang* enemies. Sufutun cemetery was probably associated with a powerful pro-Shang polity, where the lineage of this prominent official in the Shang court resided (Fang 2004c). The evidence from

inscriptions, however, remains inconclusive for this connection. The present evidence suggest that these burials could either be physical traces of local lords who allied with the Shang kings in campaigns against the *renfang* during the reigns of last Shang kings, or they could be the leaders of *renfang* themselves (Shandong Provincial Institute of Archaeology and Qingzhou City Museum 1989: 273; Gao and Shao 2005: 260). In either case, the symbolic representation of status that replicates the royal mortuary ritual in Anyang, and the extravagant display of wealth and authority in materials and forms consistent with the royal core, indicates high intensity of interaction, which may not necessarily translate into loyalty. Consistency is one of possible outcomes from a high intensity of interaction. It is, however, the path that the power local elite at Sufutun chose to articulate its political authority with potential signs of subversion.

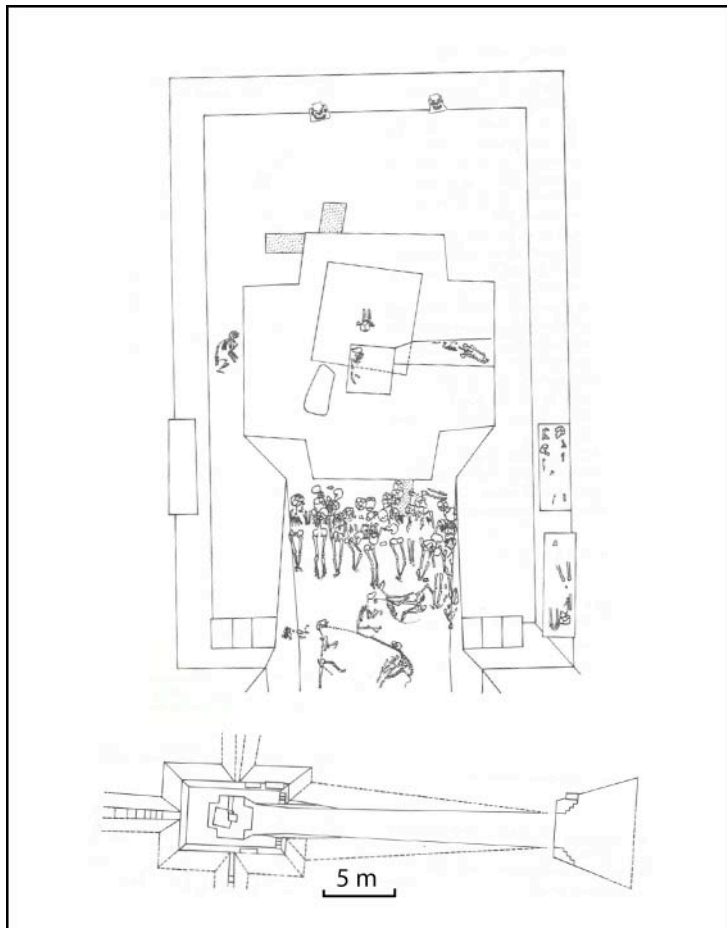


Figure 2. 8 Tomb M1 at Sufutun, Shandong (based on Shandong Provincial Museum 1972b: 18, Figure 2 and 25, Figure 10)



Figure 2. 9 A ceremonial bronze axe with Ya Chou inscription from Sufutun (Shandong Provincial Museum 2007: 30)

At the low end of the social strata, evidence from the Zhaopu site reveals the hybrid nature of the Shang and local material culture in the region (Xia 1989: 183). Excavation at this Late Shang period village yielded house remains, a kiln that once produced cord mark grey ware, and four burials. An oracle bone was found in association with pottery kiln. Grave M1 buried an adult male with simple grave furnishings: a pottery *li* tripod, a pottery *gui* container, both containing unspecified animal bones, a brown ware *guan* jar and a water deer canine in his right hand. While the assemblage of functional types shows consistency with Late Shang food practices (see chapter 6 below), the wares types suggest a mixture of Shang and local traditions. Featuring a shallow body and triangle design, the *gui* container is stylistically similar to those from the Yinxu Phase III. The plain mica-tempered brown ware *li* tripod and sand-tempered brown ware jar, however, are typical of local ceramic tradition (Xia 1989: 201; Gao and Shao 2005).

Despite the hybrid nature of cultural traditions in ceramics, the ritual practice of placing a water deer tusk in the hand of the deceased was a distinctive mortuary ritual in the Shangdong region, which has been observed in the Wangyin cemetery of the Dawenkou Culture in the 4th millennium B.C. (Gao and Shao 2005: 79) and in the Longshan Culture cemetery at the Yinjiacheng site (Archaeology Specialty 1990: 44). Therefore, the evidence from M1 shows that Zhaopu residents cling to a deeply held local tradition in their rites of passage in some aspects and were more receptive to change in others. The plain surfaced *li* tripods were also reported in reconnaissance at half dozen sites in Qingzhou (Xia 1989: 201).

The Gulf Coast. Survey works along the Bohai Gulf Coast in recent years reveal a wide distribution of sites engaged with salt production, which spans from the Shouguang region north of Sufutun to the Yellow River Delta some 100 kilometers north of Daxinzhuang (Archaeology Research Center and Shouguang City Museum 2005a and b; Yan Shengdong 2006; Wang Qing 2006). Scholars have identified the control of salt production as a major incentive for the Late Shang presence in the Bohai Gulf coast region (Liu and Chen 2003; Fang 2004c). Yan Shengdong (2006) has proposed that these coastal sites can be classified into three types: salt production sites located on the coast, which were only seasonally occupied; village settlements further inland where the producers settle permanently, such as Liwu; and regional centers, such as Lanjia, where the elites responsible for the control of production resided. Fang Hui (2004c) identified a group of inscribed Late Shang bronzes excavated from a lesser elite burial at the Lanjia site with the supervisor of salt production (*luxiaochen*) in the Shang administration. These salt producing sites and their associated elite burials generally date to Yinxi III and IV period of the Late Shang. The presence of these production sites represents a significant and unprecedented transformation of the cultural landscape by the Late Shang states. Faunal data from the Liwu site, a village adjacent to the salt production area, is included in this study, and will be described in detail in Chapter 5.

The Peninsula Region. Further to the east in the peninsular region, the ceramic assemblage shows a sharp decrease in the cord-marked gray ware that characterizes the Shang ceramic industry. Local assemblage comprises predominantly of red and brown plain wares in distinctively local forms. The majority of local wares have plain surfaces

created by scrapping, with a small number decorated with coarse cord marks. These handmade vessels are predominately tempered with coarse sand, mica, and crushed soapstone. The vessel forms and manufacturing techniques closely resemble the Yueshi ceramic technology in the region (Luan 1996: 346).

Qianzhangda. In southern Shandong, the Qianzhangda site in the Tengzhou region 180 kilometers south of Daxinzhuang, represents a political center large and important enough to have been a regional powerhouse within the southern perimeter of political interaction for Daxinzhuang (Gao and Shao 2005). Six seasons of excavations have identified Longshan, Yueshi, Upper Erligang, and Late Shang components at the Qianzhangda site (Institute of Archaeology 2005).

Two groups of elite cemeteries of the Late Shang period have been excavated. Many had a double or single ramp, as well as human and animal sacrifice associated with them. Remains from the burials include bronze, jade, stamped stoneware, green-glazed stoneware, and shell-inlaid lacquer. The abundance of glazed stoneware from the Wucheng region in Jiangxi, southern China in these burials suggests that the local polity played an active role in interregional exchange connecting the Central Plains with Southern China.

Although many of the graves were plundered in historical periods, a significant number of bronzes survived to present a glimpse of the political authority that was present locally. Burials from both cemeteries produced bronze vessels with the clan emblem of Shi. In the eleven elite burials from the well-preserved southern cemetery, 20 out of 60 ritual bronze vessels from various burials bear this inscription, sufficient to establish an association with a Shi clan here.

The excavators identify the site as the remains of the Xue state during the Shang period (Shandong Team 1992, 2000; Institute of Archaeology 2005). The Xue attribution seems to be supported by the inscription. Wang Entian (1983, 2000) has identified references to the Xue state in the oracle bone inscriptions from Anyang. With inquiries ranging from building the city at the place of Xue, to the Shang king divining at Xue, to Xue presenting horses to Shang as tribute, to the Shang king launching attack against Xue, the royal divination records clearly characterize the polity as shifting from a subsidiary to an adversary. A small city site of approximately 60 hectares in size has

been identified under the ruins of Xue city of the Zhou period about one km west of Qianzhangda, which was probably contemporaneous with the cemetery.

The elite cemeteries at Sufutun and Qianzhangda in southern Shandong, as well as Taiqinggong in Henan (Institute of Archaeology 2003) shared common traits—they all had large tombs with two or even four ramps, which resemble the Late Shang royal tombs at Xibeigang, Anyang, complete with significant numbers of human victims. All of these sites flourished during the last phases of Late Shang. It is not clear, however, whether they are indicative of powerful Shang regional leaders after further territorial expansion in Late Shang or if they represent emergent local political authority with active interaction with the Shang states. The display of tomb layout exclusively used in Shang royal rituals in these outlying polities suggests that local access to core symbols in the course of “becoming Shang” had political consequences for the symbolic claim to supremacy on the part of the Shang kingship.

Summary

This chapter provides the cultural and social context for the process leading to the transition of Shandong society into part of a broadly defined Shang world in the later half of the second millennium B.C. Evidence for Shang domination in the region seems particularly difficult to comprehend. While sites representing an intermediate level of political authority associated with Shang state expansion has been identified, the key players in such conditions, i.e., the local leadership as well as the subjugated local groups, seem elusive in archaeological records. Unlike other parts of the Shang world, we have yet to come across a local elite burial showing signs of local appropriation of Shang prestige objects. The wholesale presence of Shang material culture in the Early Shang period, as seen in Daxinzhuang, with its embodied inequalities in the size, quality, quantity, set behavior, and stylistic elaboration, in western and central part of Shandong is particularly striking. It is not the objects themselves, but the replication of their context of use in the source society in the large cities, or connection to the major Shang lineages, as seen from the emblems from the Changqing bronzes, that set the political trajectory in the local society on a radically different path.

It is generally accepted that state formation often left those below the elite in an economic condition similar to or worse than that of their prestate forebears (Baines and

Yoffee 1998: 232). As the current evidence stands, we do not have a good understanding about the ways or options that the local societies coped with the Shang presence. No single site has the complete cultural sequence and fine-resolution data to inform on the dynamics of change. Nevertheless the limited information allows the following observations.

There was no comprehensive mixing and exchange of material cultures over a significant duration to suggest sustained interaction between societies associated with them. The Shang material culture first reached local society in very limited scope followed by a rapid comprehensive shift to Shang material culture in northern and southern Shandong at Middle Shang. The local material culture seems to be subsumed by the imposition of a completely new assemblage, visible only in the utilitarian wares without associated cultural context.

Further to the east in the peninsula region, the ceramic assemblage deviated little from the Yueshi tradition through the second millennium and no settlement or burials indicating a political center have been identified. The material culture in the transitional region between western Shandong and the peninsula region, where an imaginary boundary line would fall, was most informative. While change in ceramic assemblage and mortuary rituals marks a fundamental change in the most rudimentary aspect of life – food and rites of passage– evidence from tomb M1 at the Zhaopu site in Qingzhou indicates that some aspects of the local rituals and deeply rooted beliefs persisted despite major ruptures in regional history. It was also significant that the most dramatic display of royal core symbols in mortuary ritual at Sufutun took place at this boundary area. The observation of potentially subversive use of royal symbols for the high elite and the persistence of local prehistoric symbolism among commoners in such regions highlights the broad ranges of symbolic and cultural choices available for members of the culturally heterogeneous community in their political expression and ritual performance.

In the following chapters, I focus on the Daxinzhuang site, which was the most important Shang settlement in the region before the Late Shang period. I investigate the ways that the intermediate level of political authority perpetuated state order in the region and potential venues for on-going tensions between the state's claim to supremacy and diverse local circumstances.

Chapter 3

Archaeology at the Daxinzhuang Site

Location and Setting

The Daxinzhuang site (36°42'40.85"N, 117° 6'21.65"E) is located in the eastern suburbs of Jinan city, some ten kilometers east of the urban core. The local landscape is part of a transitional zone from the low limestone piedmont in the south to alluvial plain of the Xiaoqinghe River drainage in the north. The plain slopes down northward, with elevation dropping from 50 to 20 meters above the sea level. The surrounding area was crosscut by several small streams originating from the southern hills, which are Daxinhe, Beixiaohe, and Longxugou respectively. These seasonal streams empty into the Xiaoqinghe River, which was one of the major rivers in the Jinan region. Several granite hills lay several kilometers north of the site, although these are diminishing rapidly due to a modern stone quarry. The conical shaped Huabuzhushan is an exception though, as it is a historical landmark for a middle first millennium battle and still has an active Taoist shrine from recent centuries.

The site itself is currently a farm field between the Jiao-Ji railway and the Industrial North Road without any distinctive surface features, i.e. mounds, to set it apart from continuous farmland defining the local landscape (Figure 3.1 and 3.2). A dried river channel runs through the middle of the site in a southeast-northwest orientation. It is isolated from the stream system by the railway construction in the early 20th century. In the 1930s the channel, known as the Xiezigou, the Scorpion Ditch, was nearly two meters deep and 500 meters long. It has gradually filled up over the following decades by farming activities. Now it is barely over a meter deep in most parts with the bottom cultivated. Erosion has made the ditch wider, reaching 120 meters at the maximum width. Fragments of Shang ceramics are scattered along the edges of the ditch, indicating the rich cultural deposits on either side.



Figure 3.1 Corona satellite image of the Daxin Zhuang site in 1966 (image source: USGS)

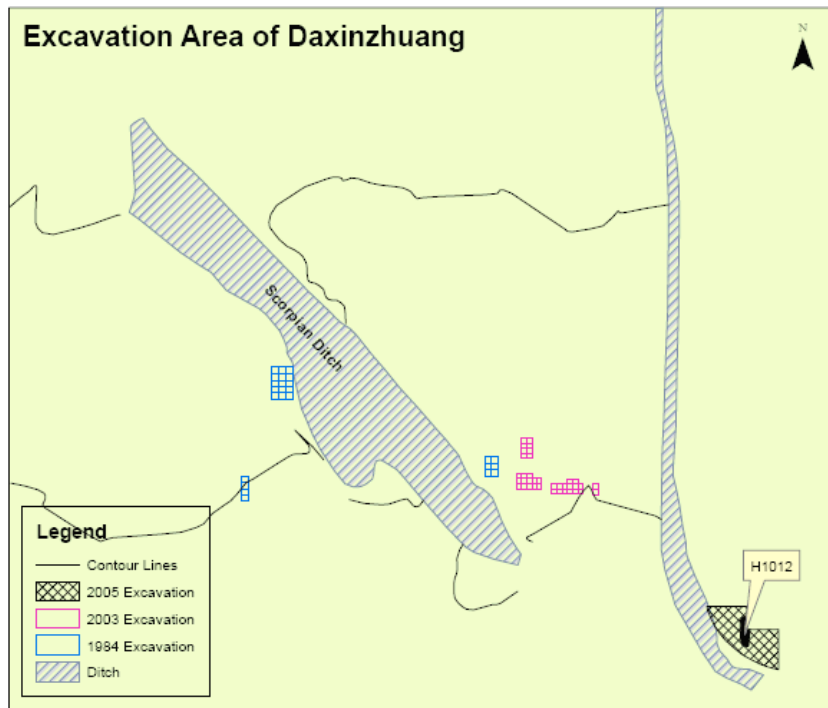


Figure 3.2 Location of the three major excavations at the Daxin Zhuang site

The area north of the site, now occupied by the modern villages of Daxin Zhuang and Zhangmatun, probably once had lower elevation. It was probably once a marshland

filled with sediment of deep unstratified sandy silt, in which recent historical porcelain has been recovered at the depth of 1.5 meter. This later deposit covers an extensive area north of the Daxinzhuang site, well over the north of the Industrial North Road.

History of Archaeological Research

Archaeological excavations in Jinan started in the 1930. As discussed in chapter 2, Li Chi led the excavation of Chengziya (Cheng-tzu-yai), the type-site of Longshan culture 20 km east of Daxinzhuang, following a crisis at the Anyang excavation forcing the Academia Sinica team to halt their efforts at the Late Shang capital. From the start of the archaeological field work the research aim in the region focused on tracing the indigenous origins of the Bronze Age civilization, particularly the recently identified historical civilization of Shang.

Fu Ssu-nian's (1935) research on the historical geography of the Bronze Age civilizations, which framed the dynastic politics of the Bronze Age in light of successive episodes of regional rivalries in pursuit of domination between the coastal cultures and the Central Plains in the west, represents the research paradigm of the era and influenced on the theory of interregional interaction on the formation of early Chinese civilizations (Chang 1983). The Shang civilization manifested traits of a coastal civilization with strong ties with the Shandong region.

At the same time, scholars in Jinan became actively involved in the study of Bronze Age cultures, including the missionary scholars James Menzies and Fredrick Drake, who were professors at the Cheloo University (now Shandong University). Menzies accumulated the largest Shang inscribed oracle bone collections from Anyang at the time and was deeply involved in the teaching and research of the new discipline of Shang inscriptions (Fang 2000). Fredrick S. Drake was more involved in the study of local archaeological sites and conducted archaeological reconnaissance along the Jiao-Ji railway east of Jinan. He discovered the Shang deposits at Daxinzhuang in 1935 and described the remains, its bronzes, bone artifacts, lithics, and pottery of this Shang settlement in subsequent publications (1939, 1939-40, 1940a, 1940b). Drake's efforts helped to place Daxinzhuang among some of the earliest studied Shang sites in China (Fang 2004a).

From the 1950s to the 1980s, the Shandong Provincial Committee of Cultural Resource Management and Shandong University conducted numerous surveys and five test excavations in this area (Shandong Provincial Committee of Cultural Relics Administration 1959a, 1959b; Cai 1973; Ren 1985; Xu 1995a, 1995b). The report of the 1955 excavation noted that some of the artifacts from the site resembled Shang remains from the Erligang site in Zhengzhou (Shandong Provincial Committee of Cultural Relics Administration 1959b), marking the first time that pre-Anyang Shang remains was identified in Shandong. It generated intense scholarly interest on the scale of Shang state in its earlier phases (e.g. Zhou Heng 1964). In addition, chance finds of bronzes predating Anyang help to confirm its place as a medium sized political center before the Late Shang state. It is widely accepted that the settlement at Daxinzhuang represents the first Shang population intrusion in the coastal region (Liu and Chen 2003).

Xu Ji directed the 1984 excavation with a crew from the Shandong University. The team placed 39 units on both sides of the Scorpion Ditch in the southern portion of the site and the excavation covered a total of 849 square meters. The excavation revealed that the Shang component contains evidence for an extensive bone working industry, abundant oracle bone fragments from divinations (over one hundreds specimens recorded), rammed earth foundation of a palatial structure, elite and commoner's residential features (12 house foundations and 315 pit features), and burials (42 graves) (Shandong Provincial Committee of Cultural Relics Administration 1959a, 1959b; Cai 1973; Ren 1985; Xu 1995a; Ni 1998: 256). Among eight wells identified, one (2J2) was filled with nine human skulls, which seems to resemble a ritual deposit. Incomplete human bodies have been dumped in other wells and pit features, a pattern repeatedly seen in other Shang sites.

A Late Shang cemetery consisted of 15 burials is excavated east of the Scorpion Ditch. These burials all had an east-west orientation. The deceased is in a supine position with head lay towards the south. Ten burials included pottery vessels as grave furnishings, which had the basic assemblage of *li* tripod and *pen* basin with the additional *dou* stemmed dish in some burials. Among these, five also had bronze halberds. 11M5 was the only richly furnished burial with a set of bronze vessels, consisting a ding tripod, a jue libation cup, and a gu wine container, and elaborate jade objects. The cemetery

dates to Yinxu II and III of the Late Shang period (Ni 1998: 267). The 1984 excavation was critical for establishing the chronology of Shang remains in Shandong region.

Archaeologists Xu Hong (1992) and Xu Ji (1997, 1998, 2000), used the term “Daxinzhuang type” to describe the regional characteristics of local material culture, which include high proportion of red ware, high frequency of medium and fine cord mark surface treatment, difference in functional types and formal characteristics of ceramic assemblages from the Erligang Culture in Zhengzhou.

Xu’s analysis of the ceramics further revealed plurality in the ceramics technology within the early phases of Daxinzhuang, which he attributed to a colonial dynamics resulting from the advances of Shang power into the coastal region. Xu Ji uses the Type I ceramics to designate the classical Shang pottery and Type II ceramics to designate the pottery manufactured in the native tradition, which were primarily used in domestic cooking vessels, such as *yan* steamers, *ding* tripods, and *li* tripods. The Type II ceramics have not been found in a feature or layer exclusive of the Type I ceramics. Instead, they always mix together in early phases of Daxinzhuang occupation. The ceramic technology and vessel types are clearly rooted in the Yueshi pottery tradition of the early 2nd millennium B.C. Xu considers the gradual disappearance of the local ceramic tradition in later context a result of successful cultural assimilation by the Shang state.

Site Chronology

To develop a regional chronology was a major preoccupation for scholars since the beginning of substantial excavations. Based on observations of artifacts from the 1955 excavation, Zou Heng (1980[1964]) argues that the Shang occupation at Daxinzhuang covered at least three phases, Upper Erligang, Yinxu I, and Yinxu II-III. Zou goes on to attribute the bronzes artifacts from Sufutun and Changqing to Yinxu IV.

Zou’s pioneering research represents the first effort to establish a temporal framework for Shang remains in Shandong. Due to the lack of stratigraphic association in the 1955 excavation, Zou’s ceramic chronology was primarily derived from stylistic correspondence to established Shang ceramic typology in the Central Plain.

The gap of a refined chronology based on local depositional sequences as well comparison to stylistic horizons in the Central Plain was gradually filled in after the 1984

excavation. Xu Hong (1992) proposed a six-phase chronology for Shang remains in northern Shandong and coined the term “Daxinzhuang type.” Ni Zhiyun (1998) classified the remains at Daxinzhuang into four phases, spanning from Upper Erligang to Yinxu III. Based on an analysis of the 1984 excavation material, particularly on the stylistic change for four major types of ceramic vessels, namely *dou* stemmed dish, *li* tripod, *gui* container (a deep bowl with ring foot), and *pen* (a basin-like deep bowl with flat base), in relation to stratigraphic context, Xu Ji proposed a seven-phase typology for the Daxinzhuang ceramic assemblage, which were then compared to the mid and late Shang chronology in Zhengzhou and Anyang for correspondences and relative dating (Institute of Archaeology 1994; Henan Provincial Institute of Archaeology 2001).

Of particular importance is the *li* tripod, a food vessel featuring three hollow legs joined at a crotch centrally and which form into the vessel walls laterally leading up to an open neck and rim. The vessel was in use from the late Neolithic to the late Bronze Age, and provides a continuous record for a refined ceramic typology. The seriation is based on the shape of the vessel feet, the joint of the crotch, the curve of the body wall, rim shape, and cord-marking (Cohen 2001: 219). The general trend in morphological change through the Shang period is characterized by the shortening of the *li* tripod legs and the bulging of the body profile.

Xu (2000) argues that the Daxinzhuang remains can be placed in two time periods. The early period, comprising Phase I to III, represents the early period of the Daxinzhuang occupation from Upper Erligang to early Middle Shang (Baijiazhuang phase in Zhengzhou). The later period, including Phases IV to VII, is contemporaneous with the Yinxu culture at Anyang. Chen Xuexiang’s (2004) analysis of ceramics from the 2003 excavation further refined the Daxinzhuang chronology (Table 3.1). Chen considers Daxinzhuang phase I as roughly contemporaneous with Upper Erligang I, Daxinzhuang II, III, IV as contemporaneous with Middle Shang, Daxinzhuang V to VIII as contemporaneous with the four Yinxu phases. Scholars generally agree that the Daxinzhuang Phase IV was contemporaneous with the transitional period from Middle Shang to the earlier part of Yinxu I and that a critical change took place between Daxinzhuang IV and V (Fang *et al.* 2004).

Ceramic Typology Chart based on the 2003 Excavation (Chen Xuexiang 2004)








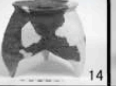





































	type A1 li	type A2 li	type B li	type A dou	type B dou	type A gui	type B gui	deep basin
I	 1	 11		 23			 37	 44
II	 2	 12	 14	 24				 45
	 3	 13						
III	 4		 15	 25				
					 31		 39	 46
IV	 5		 17	 26				 47
V	 6		 18					 48
VI	 7		 19			 33		
			 20		 34	 35		
VII	 8			 27			 40	
			 21	 28			 41	
	 9			 29			 42	
	 10			 30		 36		
VIII			 22				 43	

Table 3. 1 Daxinzhuang chronology chart (Chen Xuexiang 2004)

In general, the major chronological proposals for Daxinzhuang and their correlation with the Shang remains in the Central Plains can be summarized in the following table.

General Shang Periods	Xu Ji Daxinzhuang ceramic Chronology	Xu Ji Daxinzhuang oracle bone chronology	Chen (2004) Daxinzhuang chronology	Shang chronology in the Central Plains
Early Shang	I	I	I	Upper Erligang I
Middle Shang	II	II	II	Mid-Shang I
	III	II	III	Mid-Shang II
	IV	III	IV	Mid-Shang III to early Yinxu I
Late Shang	V	IV	V	later Yinxu I
	VI		VI	Yinxu II
			VII	Yinxu III
	VII	V	VIII	Yinxu IV

Table 3. 2 Chronological correlations for Daxinzhuang and major Shang sites

Besides ceramics, Xu Ji (1995c) also developed a typology of oracle bones based on variation in methods of preparing the bones and drilling the hollows. The oracle bones at Daxinzhuang were put into five phases. The general trend can be summarized as following changes in material and morphology of hollows carved into the bony medium to produce the cracking sign in pyromantic divination. For material, there is a temporal shift from using scapulae from a variety of animals (e.g., deer, sheep, and pigs), to an increasing reliance on cattle scapulae and the newly introduced medium of turtle plastron after the Middle Shang. For morphology of hollows, the pattern changed from using dense round hollows to larger hollows and the introduction of a new *zuan-zao* method, by adding a vertical groove on the side of a round hollow, to produce the crack signs in more predictable forms.

Xu stopped short at elaborating the social and political implications of the oracle bone chronology. However, the relationship between the developmental trajectory in the divinatory practice at Daxinzhuang and other Shang centers clearly manifests the nature and intensity of interaction (Xu and Liu 2003). His observation on the difference in *zuan-zao* orientations between the Daxinzhuang oracle bone and the Anyang oracle bones was particularly important (Xu 2005). If these symbolic expressions were part of

communication system, clearly the system was established during the Middle Shang period, when the orientation appears to be the same at Daxinzhuang, Taixi, and Huanbei. The Daxinzhuang oracle bone record is clearly consistent with the ceramic record, where the Middle Shang period witnesses the greatest intensity in the influx of high Shang material culture and symbolism. I will further elaborate on these ritual changes and their political implication in Chapter 7.

Current Research at Daxinzhuang

The previous research at Daxinzhuang is deficient in its narrow focus on a limited excavation area without reference to developments taking place at a broad scope. While discussions of cultural encounters have been raised on the basis of pottery variability, the chief concern at Daxinzhuang remains the refinement of ceramic chronology. This changed rapidly with the introduction of a comprehensive research program in the last five years aimed at investigating the social dynamics of Shang occupation at Daxinzhuang in its regional and temporal context. The program, led by Fang Hui of the Shandong University, consists of intensive regional survey, systematic probing on the site, excavation, and interdisciplinary analysis of excavation materials. My dissertation research is a key component of this comprehensive initiative.

Regional Survey. The intensive survey started in 2002. The project first covered the Daxinzhuang site itself, aimed at establishing the parameters for the distribution of cultural materials from various phases of occupation. It is conducted by field walking with ten to fifteen meters spacing (Fang *et al.* 2005: 331). The survey identified multiple components from the long occupation history at Daxinzhuang, including the Longshan Culture, the Yueshi Culture, Shang, Zhou, and Han. In contrast to the limited scope of pre-Shang occupations, the Middle and Late Shang occupation saw a dramatic expansion in size, spreading over at least 30 hectares in area, making it one of the largest settlements outside of the Shang heartland, though it is less than a tenth of major Shang royal cities.

The regional survey is conducted by three teams simultaneously, each consisting of five to six students spaced over 30-50 meters. Sherds and feature locations are marked on topographic map of 1:10,000. The intensive survey has covered 100 sq. km in the Xiaoqinghe River Basin (Figure 3.3). The regional survey up to 2003 identified 143 sites dating from prehistoric period to the Han period (33 are multi-components and 110 are

single component). These include two sites of the Houli Culture, six sites of Longshan Culture, three sites of the Yueshi Culture, eleven Shang sites, 42 Zhou sites, and 112 Warring States to Han sites.

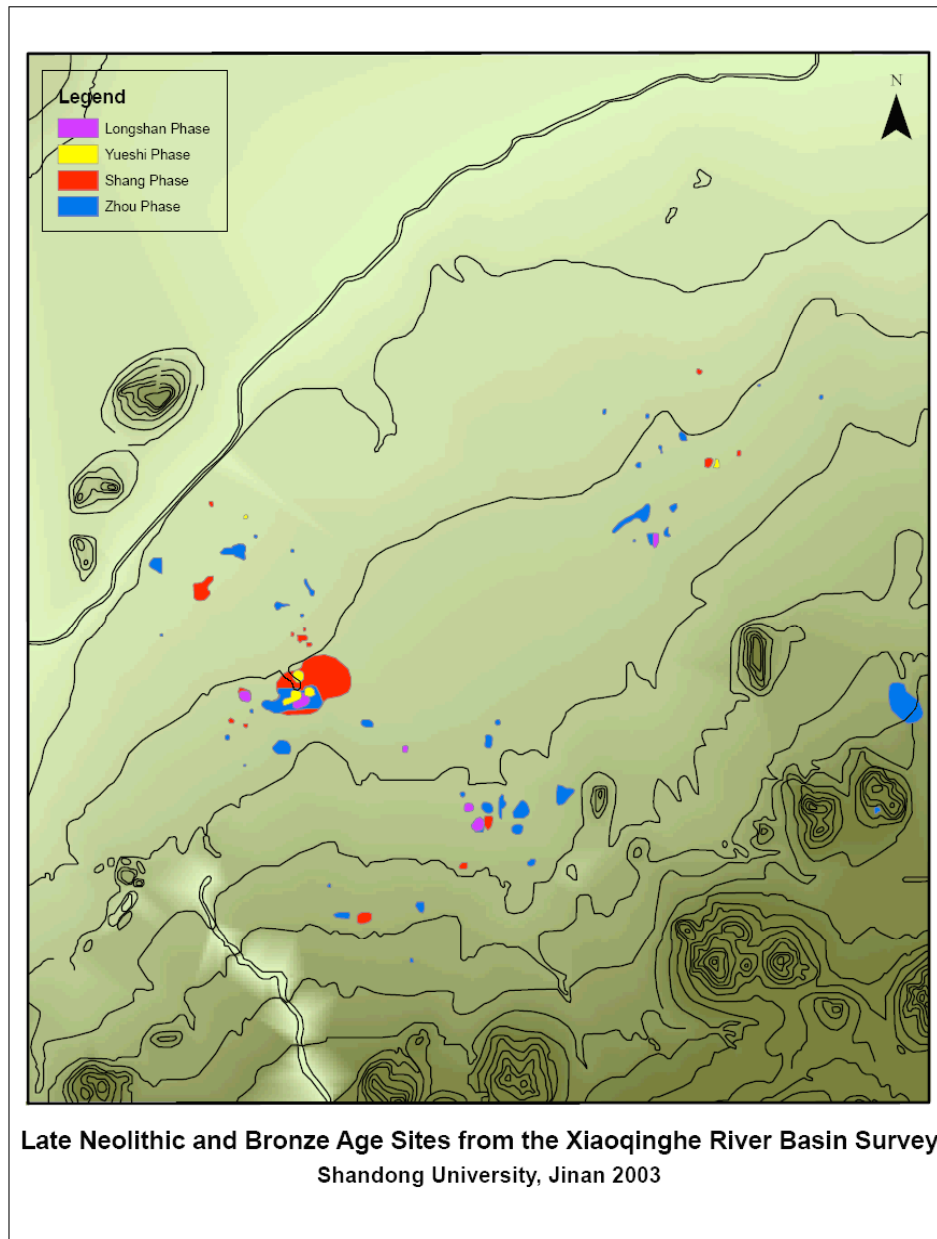


Figure 3.3 Distribution of prehistoric and Bronze Age sites in the Xiaoqinghe survey (redrawn by Rachel Lee based on Fang *et al.* 2005)

In contrast to the urban survey, the regional survey did not see an equally dramatic increase in Shang occupation at a regional scope. Beyond Daxin Zhuang, discovery of Shang period sherds was extremely infrequent and all eleven reported

locations date to the Late Shang. To better understand the Shang community outside of Daxinzhuang, we (Li Min, Gao Jixi, and Wang Hua) conducted a systematic surface collection and shovel test at the Xujiashuang site (XJZ, site no. 11), the second largest Shang site, collecting and recording every sherd in one by one meter grid across the core area of the surface scatter. Subsequent analysis by Fang Hui in 2004 revealed that all the specimens date to terminal Late Shang and early Western Zhou period. No site with material contemporaneous with the Early and Middle Shang occupation at Daxinzhuang has been located in the survey region up to date. With the absence of a well-established settlement hierarchy, the Daxinzhuang expansion appears to represent either an intrusion from outside the region to a scarcely populated region, or a rapid concentration of the population that once lived in nearby villages.

The size of occupation at Daxinzhuang declined in the Zhou period (1050 B.C. to 221 B.C.) despite the longer duration of this time period. Outside of Daxinzhuang, Zhou sites increased in number in the region, indicating a general increase of the population and absence of a regional center within the survey region. In the Han period (204 B.C. to AD 220), many more small settlements of similar size were found within the survey region, without strong indication of a regional political authority (Fang *et al.* 2005). This is consistent with the state reconfiguration of rural landscape under a centralized empire; the administrative center for the macroregion had been established in a large urban center at the Dongpinglingcheng site, some 20 kilometers east of Daxinzhuang (Li Min 2003).

Excavations. Systemic coring was conducted on the site in 2003 by technicians from the Shandong Provincial Institute of Archaeology. The result revealed dense occupation and cemetery in the southern portion of the site, which contributed to the choice of 2003 unit locations.

The stratigraphic excavation is conducted in 4 by 4 meter units. Matrix was sieved through six mm mesh screen according to its context. Soil samples were systematically taken from each feature for flotation and phytolith analysis. While the light fraction was saved for archaeobotanical analysis, the heavy fraction of the floatation is used to improve on the recovery of bones of bird, fish, and smaller mammals that may have otherwise gone through the screen. In 2003, five-liter soil samples from each context

were saved for flotation. In 2005, that amount doubled, which produced significant improvement for the archaeobotanical analysis (Chen 2007).

The 2003 season (March to June) at Daxinzhuang excavated a total of 624 sq. m in thirty-nine units clustered in four zones. The excavation, directed by Fang Hui, was a collaboration of Shandong University archaeological field school, Shandong Provincial Institute of Archaeology, and Jinan City Institute of Archaeology. The units clustered in two groups, an eastern group of 16 units and western group of 21 units (include the eight units in the north), both in the southern portion of Daxinzhuang, near the center of the site during the early phases of occupation. In addition, small-scale exploration was conducted beyond the eastern boundary of the site in search of a potential city wall.

A total of ten Middle Shang houses, 30 tombs, and 300 storage pits have been identified, representing residential remains (in the eastern group of units) and three lineage burials (in the western and northern group of units). All burials were internments of the whole corpse. The body was generally laid supine and extended in a sleep-like posture. Many graves have a ledge around the sides of the shaft, arrayed with grave furnishings and dogs. Wooden coffins did not survive, but impressions are often evident, along with traces of lacquer and cinnabar. The burials spread from Daxinzhuang Phase II to VII, with significant changes in mortuary practice took place between phases Daxinzhuang phases IV and V.

The discovery of an Early to Middle Shang cemetery in the western group of units represents one of the earliest signs of Shang political authority in eastern China. Dating from Daxinzhuang Phase II to IV, sixteen burials were spatially organized in three rows in chronological order. The dates decline from south to north among three rows and from east to west within the same rows. The orientation appears to be consistent, with the head of the deceased towards the southwest at 230 degrees. The tomb chambers were spaced evenly without overlap, which indicate continuous of the space and once presence of structures or mounds above the surface (Figure 3.4).

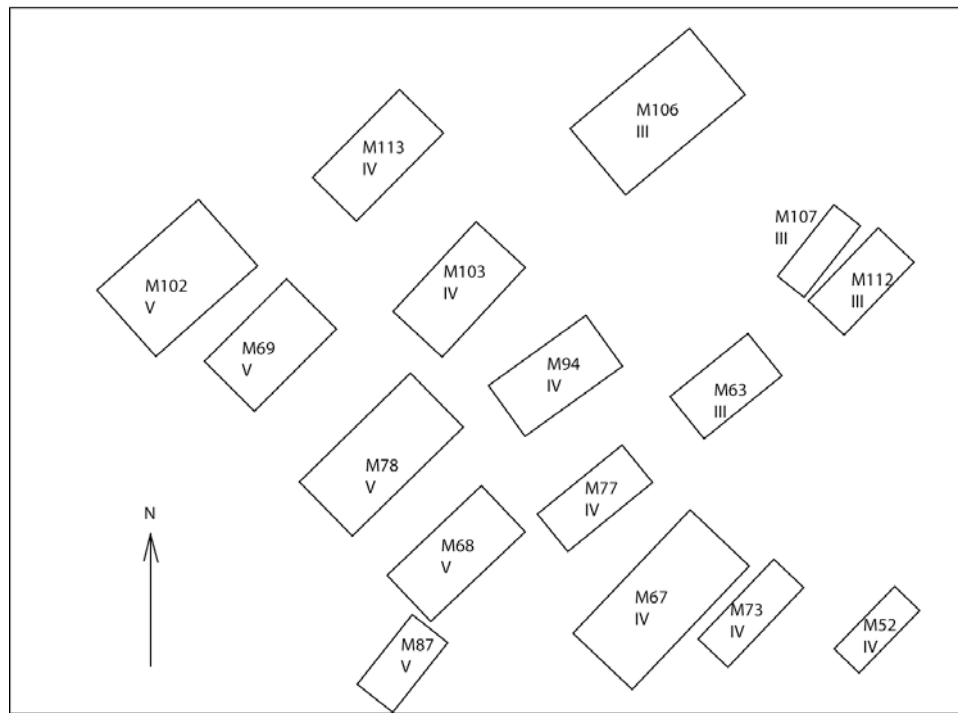


Figure 3. 4 The Middle Shang cemetery in Daxinzhuang 2003 excavation

M106 was among the earliest in the excavated group. The tomb shaft measures 3.2 meters long, 2.2 meters wide, and 2.7 meters deep, filled with rammed earth. The chamber has one sarcophagus and one outer coffin (*guo*). Three sacrificial victims have been identified between the two coffins and outside of them. Eleven bronze vessels and 19 jade items were found among the grave goods. The bronze assemblage includes *gu* goblet, *jue* footed libation cup, *jia* footed wine cup, *zun* wine container, and *hu* wine bottle. The jades include ceremonial *ge* headdress, *yue* axe, *gui* ceremonial jade blade, *biqu* disc-shaped ceremonial axe, *huang* pendent, and *bingxingqi* handle-shaped instrument. Eleven cowry shells were also found inside the grave (Fang *et al.* 2004). Cowry shell was an important form of wealth from long-distance trade, which was often bestowed on elites by Shang kings in reward for their loyalty. M106 dates to Daxinzhuang Phase II to III, contemporaneous with the Phase II of Upper Erligang (Figure 3.5).



Figure 3. 5 Photo of Daxinzhuang Burial M106

The practice of constructing a square or rectangular pit in the base of the shaft known as the waist pit, because it lies under the midsection of the corpse, with a dog placed inside became popular among Daxinzhuang Phase III and IV burials. Articulated skeletons of dogs started to appear in on the tomb ledge during this period with the tendency of increasing quantity for the later burials.

Food offerings were placed on the ledge of burials along with libation vessels. Lamb was the preferred choice of food for the dead, which marks a significant departure from the local mortuary tradition of emphasizing pigs, which has been prominent since the 4th millennium B.C. The increasing popularity of sacrificing dogs as companions or guardians in burials is observed in the cemetery, which is consistent with the Shang pattern.

Two groups of Late Shang burials were also excavated in 2003 (Chen 2004: 48), producing a total of eleven burials dating from Yinxu Phase I to III. The heads of the deceased pointed towards south, orientation 190 degrees. The number of dogs sacrificed increased in these Late Shang burials, ranging from the average burials with four dogs on the ledge to some having as many as 20 dogs. Almost every tomb had a sacrificial dog in the waist pit. Some burials included human sacrifices. The ceramic assemblages consist of *li* tripod, *dou* stemmed dish, and *gui* deep container. The bronze assemblages are characterized by a combination of a *gu* goblet, a *jue* libation cup, and a *ding* tripod. Some burials also yield bronze weapons.

M72 (Yinxu III), for instance, had an inner coffin and an outer coffin. A *gu* goblet, a *jue* libation cup, and a *ding* tripod, and two bronze halberds were found inside the inner coffin. A dog was in the waist pit and ten on the ledge. A single inscription representing a hand holding a club-like instrument was underneath the handle of the bronze *jue* libation cup, which appears to be a clan emblem for the patron who commissioned the bronze (Chen 2004: 48). This emblem is deciphered as Xin, as in the village name of Daxinzhuang (the village of the Great Xin), which appeared on ritual bronze vessels from at least two Late Shang burials. When multiple burials yield bronzes bearing the same emblem, it generally indicates that the cemetery was organized along lineage lines (though exceptions have been recognized). It is expected that the inhabitants at the settlement may have been made up of several such lineages. Military responsibilities of these aristocrats were revealed by the placement of bronze halberds at prominent positions in most of the burials, e.g. on the chest, or by the side of the corpse.

With its ledged shafts, occasional human sacrifices, dog companions, cowry shells, and elite art in bronze and jade, the elite burials at Daxinzhuang resemble the mortuary rituals typical of the medium to low ranked Shang elite in the royal capitals. The bronze vessels reveal the highly stylized animal motifs and geometric patterns that characterize the classical Shang style. Many of the bronze items from these burials are indistinguishable from the products of Anyang foundries. These Late Shang burials filled in the gap of late Yinxu period materials that were poorly represented in previous research.

Besides burials, residential features from the 2003 excavation were equally informative. Evidence suggests the presence of an elaborate elite culture consistent with the Shang heartland since the very early phases of Shang period occupation at Daxinzhuang. This is best represented in the pit feature H690. Dating to the Daxinzhuang Phase I, the large pit measures 5.2 meters in diameter and 3 meters deep. The presence of well furnished walls, wooden floor, access stairs, and a central post mold all suggests that the subterranean feature was probably constructed as a cellar. After it was abandoned, the pit was gradually filled in with fourteen layers of residential trash, which yielded some of the items representing elite consumption. These include gold foil, jade fragments, glazed stoneware fragments, white pottery with highly stylized animal iconography. In this pit, local style pottery has been found alongside the Upper Erligang ceramics, indicating that, at least during the early period of Shang occupation, the dichotomy was visible in material culture and crosscut the spatial boundaries in distribution.

Among hundreds of unscribed oracle bone fragments discovered in residential features of subsequent phases, an inscribed turtle plastron was found on the floor a semi-subterranean house which date to late Yinxu II to early Yinxu III. The inscriptions resemble the non-royal group of oracle bone inscriptions in Anyang. They contained inquiries to certain female ancestors on the need to perform certain rituals of blessing, as well as whether to move or migrate. It is apparent that the local elite performing the divination consulted their own deified ancestors and had their own protocols for divination ritual, despite a shared religious rubric in principle. This is the first time that an inscribed Shang oracle bone has been discovered outside of the royal centers, which I will provide detailed descriptions and discussions in Chapters 7 and 8.

The 2003 excavation revealed that Shang occupation reached its apex in Mid Shang and early Late Shang (Upper Erligang II to Yinxu II), when the site might have served as the seat of political control for state expansion in the region. The settlement declined in middle Late Shang (Yinxu III) and eventually turning into an ordinary village during Yinxu IV.

The 2005 season (March to June) of excavation at Daxinzhuang, directed by Gao Jixi of the Jinan City Institute of Archaeology, Wang Hua of Shandong University, and

myself, excavated in an area 100 meters east of the 2003 excavation area (36°42'36.18"N 117° 6'32.54"E, taken at pit feature H1012). Here, railway construction had removed from 1 to 1.5 meters of cultural deposit, which exposed numerous large pit features in an area of 1200 square meters just beyond the site protection boundary. The destruction directly exposed an activity surface of the Houli Culture of the 6th millennium B.C. where a hearth with rich fauna remains, ceramic vessels, and human remains have been excavated. This extends the occupation history back to the earliest Neolithic villagers of the region.

The lower portions of a half dozen very large pit features dug deep through the Houli surface and yielded rich archaeological remains from primarily the Middle Shang to early Late Shang period, including pits containing human and animal sacrifices. Due to their early date, nearly all features produced small amounts of native ceramics alongside Shang specimens. The most important feature was H1012, a large soil extraction pit dating to the early Yinxu Phase I. Such enormous long trench-like features are frequently seen in Shang settlement sites, usually associated with the extraction of soil for construction of walls or foundations of large structures (Figure 3.6). As remains from these pits provide the major set of data for my research, I will discuss these features and their content in greater detail in Chapter 6.

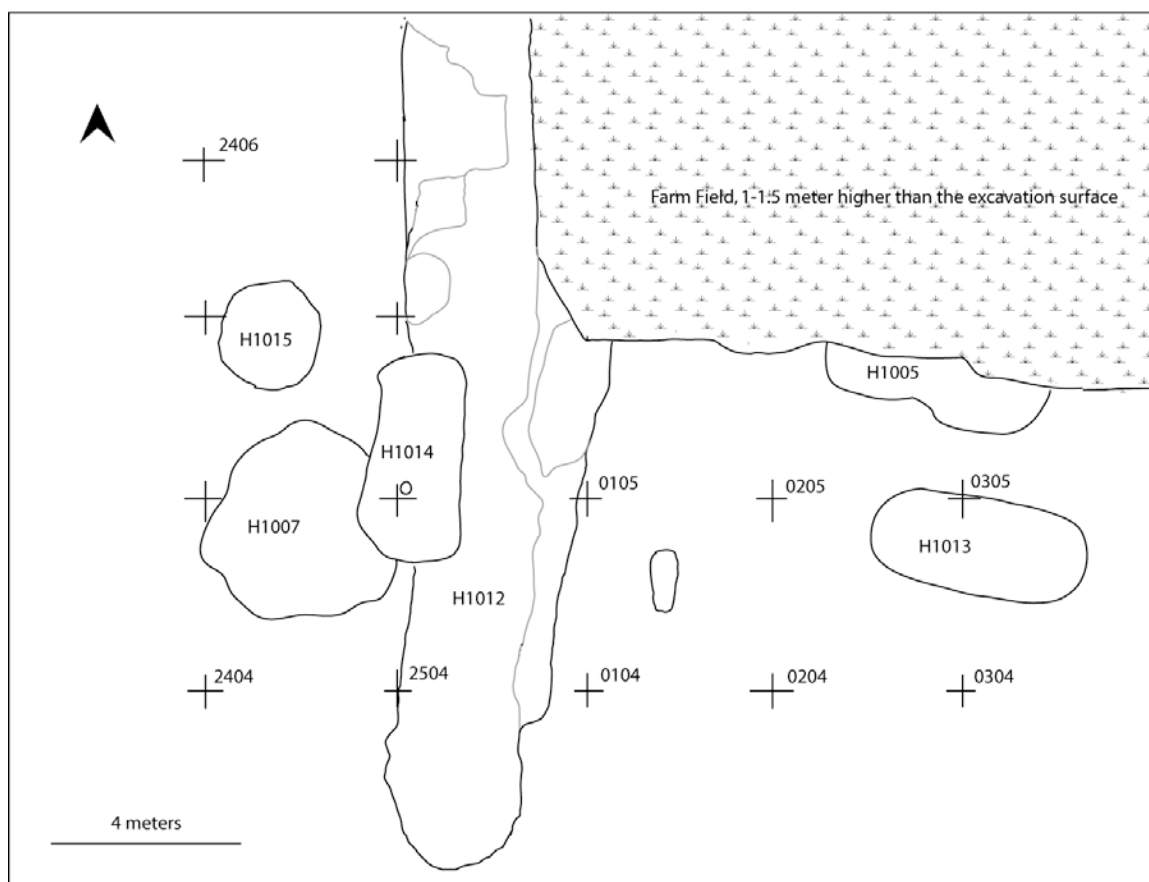


Figure 3. 6 Major Shang features of the 2005 excavation at the Daxinzhuang site

The original stratigraphy can be observed from the profile left around the destructed area. It comprises six layers. Layer 1 is the plow zone, ranging from 30 to 40 cm in thickness. Layer 2 is a clean layer of yellow loess with few inclusions or evidence of cultural remains. The distribution of this layer at the excavation area is rather limited to higher grounds. In most agricultural areas of lower grounds, this layer no longer exists and the plow zone directly covers the Bronze Age deposit.

Layer 3 is characterized by dark brown matrix mixed with cord mark sherds, ash, burnt clay, and cultural features such as hearth. It also has localized distribution of river pebble in thin lenses, which were left by stream flow. Layer 4 is again yellow loess, 20-30 cm thick, with clean and even soil structure, presumably formed by natural causes. This layer was once treated as sterile soil in the 2003 excavation.

Layer 5 is a thick layer of rather homogenous brown soil (average thickness 30-40 cm), with the exception of dense distribution of rodent burrows filled with yellow loess

from the layer above. No cultural features were observed in this layer. Occasional presence of small Houli sherds and small pieces of burnt clay, however, are observed as random inclusions within the layer without any associated feature or patterns of concentration. Luan Fengshi (2005 personal communication) noted that a similar layer is also observed in association with Houli sites in the region. In most of the area, the railway destruction has cut deep into layer 5, removing everything above it.

Layer 6 comprises light yellowish grey soil. The Houli hearth feature (H1002) is situated at the surface of this layer, but no cultural remains were noted within this highly homogenous layer. After excavation of the Houli feature, a test trench was cut into this layer for an additional depth of 50 cm, which reveals no change in matrix and no cultural remains.

Multidisciplinary Research. Since the 2003 excavation, scholars from diverse institutions have been involved in the multidisciplinary research on various aspects of the material remains. Wang Changsui and Zhu Jian (2006) performed neutron activation test on stoneware specimens from Daxinzhuang and Wucheng, which led to their observation that the Daxinzhuang specimens were not produced in Wucheng, the most important center of stoneware production in southern China during the Middle Shang period. Schepartz and Miller-Antonio's (2006) human osteology analysis of the Daxinzhuang burials revealed that the sacrificial victims were primarily young individuals, and they display a higher frequency of health problems (89 per cent) than the primary figure being interned (38 per cent).

Jin Guiyun (2006)'s phytolith analysis reported rice and millet as the primary crop at the site and further identified potential processing area on the site. Chen Xuexiang (2007) analyzed the carbonized seeds from the light fraction of 2003 and 2005 flotation samples. Besides millet as the dominant crop, wheat, rice, hemp, and soy bean were grown in small amount at the site. Wild grape and fruits may have been part of the ingredient for brewing. In addition, Qian Yihui (2005) studied the polished stone industry at Daxinzhuang and Wang Hua (2006) provided a detailed seriation of oracle bones from the 2003 and 1984 excavations.

The two recent excavations yielded large amounts of faunal remains from diverse contexts. These form the core of my dissertation research data. The majority of animal

bones recovered from excavations at Daxinzhuang consist of disarticulated fragments, part of the refuse discarded by the human population living on the site. Initial analysis has revealed that cattle, goats/sheep, pigs, and dogs are the primary domesticates. Remains of exotic animals, such as tiger, are found in ritual contexts in association with oracle bones and signs of burning. These animal remains represent the economic as well as symbolic relationship between the inhabitants of the settlements and the surrounding landscape, both familiar hinterland and untamed wilderness. In chapters 4, 5, and 6 below, I focus on analysis the faunal remains from these features as ways to investigate foodways and associated social differences in Daxinzhuang and its contemporaneous communities.

Chapter 4

Methodology for Faunal and Ceramic Analysis

The goal of my research is to establish an inventory of fauna assemblages and determine variation in the relative abundance of different animal species in Daxinzhuang and between sites. I use several attributes of ceramic analysis to understand chronology, material culture association, social status, and consumption patterns for the features where the animal bones were deposited.

The basic units of analysis are features and layers within features, rather than site, because these features were probably spatially associated with certain households or larger residential units that regularly dumped their trash into the pits. Variations between these features could reveal patterns of consumption within and between sites. Although collapsing the data from features would produce a larger sample set for comparison, it also reduces the resolution on social, temporal, and spatial differences. In the following sections, I detail the attributes that are examined in subsequent chapters, moving from analysis of fauna to ceramics.

Fauna Analysis

The bone assemblage included in this study comes from the 2003 and 2005 excavations at Daxinzhuang and collections from three sites in the macroregion of northern Shandong. Half of the faunal materials from the extensive collection of the 2003 season have been analyzed, which include some of the major pit features such as H690. The data primarily come from large pit features of the Middle Shang to early Late Shang period, which saw the apogee of the Shang occupation. For the later part of the Late Shang, the excavation only produced graves and small pit features, which did not yield a sufficient data set for comparison. My research focuses on major features with large bone samples of this collection.

The 2005 excavation data further contribute to this sample and the combined assemblage has been analyzed. The resulting sample size is sufficient to reveal the major species exploited and the proportion of different age groups culled (Davis 1987: 46) With

the help and supervision of Dr. Richard Redding, I conducted much of the analysis at the zooarchaeology lab of the Archaeological Research Center in the Shandong University in Jinan. The first phase of analysis separated diagnostic bones from unidentifiable fragments. Unidentifiable bone fragments were counted, weighed, and classified to a more general level, e.g., large, medium, or small-sized mammal long bone fragments (Davis 1987; Reitz and Wing 1999) as well as the general skeletal region represented, such as skull, vertebrae, limb, or unidentifiable elements (UNID) (Zeder 1985: Appendix 1-c). The species represented by these unidentifiable fragments likely correspond to the principal species represented in the identifiable bones—the large-mammal fragments are probably from cattle and deer, and medium to small-mammal fragments are probably from pigs, sheep/goat, and dogs. Within the major skeletal regions (e.g., axial), subcategories, such as ribs, vertebrae, and pelvis were recorded. These subcategories may provide valuable information about species ratios and body part distributions.

For the identifiable specimens, each bone was identified to the lowest taxonomic level using the comparative collection available in the zooarchaeology lab, recording skeletal parts, fragmentation, fusion, eruption and wear stages for teeth, pathologies, types of human modification (cut marks, burning, impact fractures), carnivore/rodent gnawing, specimen weight, and provenience (Zeder 1985: Appendix 1-a; Redding *et al.* 1977; Redding *et al.* 1978; Reitz and Wing 1999).

Quantification. Two of the most widely used approaches in quantifying faunal assemblages are MNI (minimum number of individuals) and NISP (number of identified specimens). The relevance of the two methods for the specific research goals and sample size remains a subject of lasting debate (Grayson 1984; Chase and Hagaman 1987; Ringrose 1993; Lyman 1994 a). Yuan and Yang's (2005: 758) analysis of the faunal assemblage from Qianzhangda, an important Shang regional center similar to Daxinzhuang in southern Shandong, has shown that NISP is a reliable indication of MNI.

In this analysis, I use NISP for calculating the relative frequency of different species, as well as understanding the patterns of part distribution, to reduce biases in analytical context (Grayson 1984; Redding 1992; Reitz and Wing 1999). NISP is an observational unit measuring the total number of specimens per taxon, where identification of taxon can include subspecies, species, genus, family, or anything higher

in terms of taxonomic classification (Lyman 1994a: 38). NISP is reasonably accurate in estimating relative abundance applied to sites involved in consumption and production with large sample sizes (Redding 1992: 100).

Criticism of NISP primarily concentrates on its usage in measuring absolute abundance of different species, as there can be significant variation stemming from differential preservation and recovery (Grayson 1984; Chase and Hagaman 1987; Ringrose 1993). Since I am interested in the relative abundance of species and the spatial patterns of parts in similar contexts, the entire faunal assemblage would be subject to similar biases and destructive forces. Due to differences in the representation of different skeletal parts and the degree of fragmentation, I do not assume a direct relation between the relative frequency of the animals in the faunal sample and their relative frequency in the living populations. When I need to analyze the number of animals represented in a specific context, I use MNI in addition to NISP.

Taphonomic Consideration and Recovery Bias. The impact of postdepositional forces on bone preservation and dispersal needs to be addressed to understand the degree to which such processes obscure patterning related to social practices (Zeder 1991: 98; Lyman 1994b). Articulated elements, good preservation, and low frequency of carnivore damage indicate rapid deposition after consumption, while frequent carnivore gnawing, poor preservation, and disarticulation often indicate that bone deposition was further removed from the consumption event itself.

Serious recovery bias may result from the collection of bones by hand without screening (Payne 1972). Ma Xiaolin (2005: 51-9) has demonstrated a difference in recovery rates between screened and unscreened faunal material in Chinese Neolithic sites. With frequent rain in the spring, systematic use of screens was not always feasible for our 2005 excavations at Daxinzhuang. Several local assistants were hired to sort the bones from the excavated fill when screening was not possible; after basic training they did careful work, as seen by the frequent recovery of small bones such as those of rodents and hare. While screening was performed on the majority of excavated deposits, some bones from small animals may nonetheless have inadvertently passed through the screens or disintegrated in the sifting process.

The potential underrepresentation of small fauna from the excavation was controlled by analysis of the heavy fraction from flotation samples. Approximately, 8-10 liters of sediment were obtained from each layer or feature for flotation during the 2005 excavation. After collection of the light fractions for analysis of plant remains, the heavy fractions were poured through very fine-meshed screen (1 mm mesh). Professor Henry Wright and I analyzed the heavy fractions in the summer of 2006 (Appendix 1). The resulting inventory of bones, sherds, and stones from these samples provide a reasonable representation of the proportion of small faunal and other materials per liter of matrix in each feature.

Species Profile. The majority of the bone assemblage came from food consumption, but also secondary use such as oracle bone divination or craft production, which utilize certain animal parts. In this section, I outline the major attributes used in my quantitative and qualitative investigation. The species profile of a faunal assemblage informs on many aspects of past societies, i.e., environment, subsistence, social status, and cultural preferences. For this research, I focus on variations in animal utilization as an indication of social differences between sites, features, and occupations of various phases. In the context of Shang expansion, the rise of cattle to prominence, the adoption of formalized animal assemblages for state ritual, and the rapid introduction of the turtle in oracle divination all attest to changes in the relationship between humans and animals in cultural, economic, and religious domains. Therefore, my approach in utilizing species profiles is aimed at understanding the diverse ways that state expansion is manifested in local life, of which food consumption is one important aspect. I take the intra-site and inter-site variation of patterns in these attributes and the diachronic change as a strong indication of shifting social dynamics.

The species profile is expressed in the diversity and the relative abundance of different taxa in the faunal assemblage that were consumed or utilized at the site. Amorosi *et al.* (1996) has demonstrated that 300-500 identifiable bones is the minimum sample size for establishing a reliable species inventory for a site. However, since my unit of analysis is the feature level in order to explore social variability within a community, a desire for achieving statistical significance has to be reconciled with sample-size constraints that inevitably result from a fine-grained focus on specific

depositional contexts. Therefore, my analysis of species profiles is divided into two halves: a quantitative approach for broad patterns at the level of inter-site comparison and a contextual approach for depositional relationships within proveniences.

The potential of integrating faunal analysis with investigations of social integration and economic intensification in state-dominated societies has been demonstrated in several case studies cross-culturally (Stein 1987; Grant 1988; Zeder 1991; Redding 1991, 1992; Wattenmaker 1998). For instance, the “Romanization” of Britain has been documented by high percentages of cattle, medium percentages of pig, and low percentages of sheep/goat in towns and villas, in contrast to high percentages of sheep/goat at native farmsteads (King 1978, 1984; Barker 1985).

Ritual behavior would be manifested through distinctive (or recurrent) patterns in the combination of animals as ritual sets, which is similar to the recurrent use of specific ritual vessel sets for ancestral cults. Textual accounts of political institutions from the first millennium B.C. in China indicate that the use of certain combinations of animal species for ritual sacrifice had become rather formalized and were closely associated with the authority of kingship and aristocracy (Fiskesjö 2001; Okamura 2004, 2005; Yuan and Flad 2005). *Tai-lao*, the Grand Sacrifice, for state ancestral ritual constituted the combination of cattle, pigs, and sheep in early China (Okamura 2004, 2005). Similar ritual protocols may be expected for Shang society, which can be observed through patterning of animal bones in ritual contexts. The discovery of a diversity of ritual and consumption contexts at Daxinzhuang already yielded associated fauna, which are available for study. The combination and frequency of these species may be very different in diverse ritual contexts in Daxinzhuang and other sites as a result of status differences, cultural preferences, and symbolic attributions.

Zhuang Shen's (1990) reconstruction of Bronze Age cuisine from textual accounts indicates that cattle was the most important animal for elite consumption in Zhou society, followed by sheep/goats and pigs, then deer and dogs. We can use this historical account from the first millennium B.C. as a model for cultural preferences and test the Shang data set against it. The archaeological pattern from Shang could resemble this or deviate from it. These five major mammals account for the majority of bone remains at Daxinzhuang, which is consistent with the patterns in Anyang and other Shang

sites (Yuan 1999; Yuan and Tang 2000; Yuan and Flad 2002). As these animals were attributed with different symbolic and social values, a measurement of relative abundance among these five, all domesticates except deer, at different sites and different features at Daxinzhuang will provide a key indicator of social difference.

Body Part Distribution. Once the species inventory has been established, the next question concerns whether animals were utilized as food, ritual offerings, or religious communication. The first step is to understand the patterning of animal parts. Because of their higher status, elite residents at Daxinzhuang very likely had greater access to better cuts of meat than did non-elites in the community and residents in smaller communities, hence we can expect social differences reflected in body part distribution as well as differences in average meat utility (Binford 1977, 1981; Lyman 1994 a).

Meat utility indices alone, however, cannot be assumed to account for all differences in body part distribution in a diverse society. Animal part variation and butchering practices can reveal important social patterns. In Egypt, Redding's (1992, 2008) study of the faunal assemblage at the worker's town at Giza revealed convincing evidence for status variation in diet and food provisioning by a central authority for the pyramid builders and administrators.

Further, different groups may have different conceptions of the taste and symbolic meaning of animal types and parts consumed or used in ritual (Crabtree 1990; Collins 2002). Chang (1977), for example, has argued that the choice of animals in a ritual context is culturally influenced; it does not necessarily parallel the consumption patterns of the living society. This applies to species representation and methods of cooking as well as the parts chosen. For instance, in some cultures animal heads were considered of low meat utility, but attributed with greater symbolic significance in others, such as China. The presence of animal head and hoof rituals across the Eurasian steppes by the end of the 2nd millennium B.C. has been linked with migration or acculturation (Anthony and Brown 1991). These examples suggest that variation in the conception and utilization of animals can inform on changes in the social, cultural, and political realms (Reitz and Wing 1999; Ryan and Crabtree 1995). The multi-functionality of bones further complicates body part distribution —the animal may be butchered in one place and

consumed in another, while some bones may have been set aside for manufacturing tools or performing divination, thus ending up in yet another part of the settlement.

Body Part distributions are examined by comparing the proportions of bones grouped by skeletal regions to the proportion found in a complete skeleton. Scholars have made various proposals of grouping the parts into regions based on ethnographic observation, ranging from anatomical regions to a dichotomy of meat bearing and nonmeat bearing parts (see Marciniak (2005) for an overview). A scheme based solely on meat utility clearly underestimates the complexity of animal use in early China, where different body parts were closely interwoven with ritual protocols regulating social practice and where bones also had religious and functional uses after consumption. In this study, I follow Stiner (1991, 2002) and Marciniak’s (2005) approach in grouping the animal remains by anatomical regions with minor modifications. Based on Stiner’s observation that the midpoints and ranges of variation in bone structural density of each region are very similar, it is expected that the regional representation would be more or less the same for different parts under ideal circumstances. Therefore, differential representation of these parts may be the result of human intervention.

Division of Anatomical Regions for Faunal Analysis at Daxinzhuang	
Anatomical region	Elements
Horn and antler	
Head and neck	Skull, mandible, teeth, axis, atlas, cervical vertebrae
Axial column below the neck	Thoracic vertebrae, lumbar vertebrae, ribs, sternum, pelvis, sacrum
Upper fore limbs	Scapula, humerus
Lower fore limbs	Radius, ulna,
Upper hind limbs	Femur
Lower hind limbs	Tibia, patella, fibula, astragalus, calcaneum
Feet	Carpals, metacarpals, tarsals, metatarsals, phalanges, sesamoids

Table 4. 1. Anatomical regions used in this analysis (modified from Stiner 1991, 2002 and Marciniak 2005)

Multiple factors provide justification for such detailed distinctions: 1. general meat utility associated with each body part, as mentioned earlier; 2. archaeologically observed units, frequently seen as offerings in graves or articulated sections in pits (i.e.

the lower limb section in H1014); 3. textual accounts for ritual use of these body parts in menus for ritual protocols, such as *Yi-li*, compiled in the first millennium B.C. in which different parts and part combinations were attributed with different ritual significance (Yang 2004; Ji 2005). A combination of these factors allows a more realistic assessment of classification categories that have symbolic and economic implications.

NISP is an adequate method for quantifying part abundance (Marciniak 2005). I will examine the variations in the patterning of these regions against the contextual information for the deposit. For instance, a disproportionately high representation of ribs in comparison to vertebrae in a context may indicate that animals were probably butchered in a different location and the prime cuts were brought in for elite consumption. In such cases, I will analyze multiple lines of evidence in the same context to determine if there is a consistent expression of status. Certain parts were more likely to be removed from the consumption assemblage because they were highly desired for other purposes, such as scapulamancy or craft production. Some animal parts are important for reasons other than consumption, such as tiger skins, turtle shells, water deer canines, and cowry shells. Their distribution would be approached with consideration of the social or ritual significance associated with these parts in cultural context.

Age Profiles. Age and sex profiles have been used primarily for understanding the economy—to distinguish consumer from producer communities, or to determine whether meat or byproducts (draught power, milk, or wool) served as the primary purpose of animal husbandry (Crabtree 1990). Different husbandry strategies will result in the slaughter of particular groups of animals in a herd, defined by age and by sex. From the perspective of consumption, young pigs were desirable in many pig-consuming societies. In early China, roasted young pigs were one of the eight delicacies mentioned in *Nei-ze* chapter of *Li-ji*, compiled in the first millennium B.C. (Zhuang 2005 [1990]).

Ritual protocols add another layer to such decision-making. Oracle bone inscriptions in Anyang and later Bronze Age texts frequently specify the age of animals offered for sacrifice (Song 1994). The oracle bone inscription from Daxinzhuang also makes clear distinctions concerning the kinds of pigs used for offerings, indicating a system of evaluation in these ritual contexts. Those prized for sacrificial offering, such as adult male animals, are often not the most cost-effective from the point of view of

economic input and return, as disposing of excess males is best done when they are juveniles. This indicates that assessments of cultural value operated alongside economic rationales, which at times may work at cross purposes. On the other hand, juvenile pigs were frequently mentioned as food offering in diverse ritual settings in *Yi-li* (Ji 2005), and if these were frequently males such offerings would not have had as detrimental an effect as loss of the adult animals.

The age of an animal at death is estimated using epiphyseal fusion, teeth eruption, and the wear state of the dentition (Schmid 1972; Grant 1982; Bull and Payne 1982). With the exception of pig and cattle, the age data for other animals in the Daxinzhuang assemblage are too small to produce reliable results, thus not included in the analysis. Using dental age classes, I have divided pig age into four groups: juvenile (less than six months), immature (latter part of first year), subadult (second year), adult (third year). The first two age groups fall in the category of the early-fusing group (including scapula, distal humerus, phalange, proximal radius, and pelvis), the subadult corresponds to the middle-fusing group (including metapodial, distal tibia, and calcaneum), and the adult group falls into the late-fusing group (including proximal humerus, distal radius, ulna, femur, fibula, and proximal tibia) (Schmid 1972). I calculated the percentage of animals killed by each latest possible age of fusion to reveal the proportion of the four animal age groups consumed in a feature.

The number of specimens for which sex can be determined is too small to produce any patterns of any degree of reliability, thus not included in the quantitative study.

Side Preference. The side of an animal has been recorded to calculate MNI. Since many pre-industrial societies reference animal and human bodies as a metaphor for the conception of cosmological and social order (Keightley 2000: 107-113), a side preference, which is trivial in terms of subsistence concerns, was nonetheless a very important category in the ritual use of animals and as an indicator of status. As a feasting episode involves social groups larger than the household, body parts as well as culturally assigned values to sides form the semantics of food in the distribution and consumption of animal bodies, providing a material basis for relationships of hierarchy that can be reproduced or contested. First millennium B.C. ritual menus like *Yi-li* give clear indication that Bronze Age residents in early China paid close attention to the side of

animal parts used in ritual contexts, such as weddings, funerals, and ancestral offerings, and the right side was considered more auspicious and prestigious than the left (Yang 2004; Ji 2005).

Side preference in ritual occasions was certainly not unique to Bronze Age China. It is frequently noted in archaeological descriptions of ritual deposits and sanctuaries worldwide that there is a general preference for the right side (e.g., Davis 1987, 1996). In Egypt, Redding (2007) also documented a preference for forelimbs, over hindlimbs, in offerings. Although there are very few projects in early China that offer the level of resolution needed to discuss side preference in animal bones, evidence from Qianzhangda, a Late Shang cemetery in southern Shandong offers promising leads. Yuan and Yang (2005) observed that when multiple animal limbs were placed in a burial at Qianzhangda cemetery, they would all come from the same side, either all from the left or all from the right side of different animals. Ma Xiaolin (2008: personal communication) has observed clear side preference in elite tombs of the Western Zhou period in Zhouyuan, Shaanxi, where limbs from different animals interred all came from the right side.

I do not assume that the any patterns of side preference in Shang archaeological record would yield the same meaning as in ritual menus compiled centuries later. We can, however, infer that side preference was in fact a culturally meaningful category in Early China. If we find the Shang archaeological record to be consistent with the Zhou ritual menu, we can infer that fundamental reconfiguration of people's basic conceptions of space and body did not take place as a result of dynastic change or the simple passage of time. If the pattern consistently shows otherwise, then we have good evidence for ritual reform, which would be a fascinating lead for further investigation.

Investigating culturally determined categories in a residential setting in contrast to elite burials, royal precincts, or sanctuaries, is a challenge. At Daxinzhuang, we are not dealing with kings or divine beings, whose demand on choice categories (i.e. species, body part, color, sex, age, or side) served as powerful means of exclusion, either for political supremacy or for religious sanction. Neither the elite residents at Daxinzhuang nor the common patrons of ritual menus in the mid first millennium B.C. could afford such luxury. Instead, these ritual protocols were practiced on the level of daily life—a

wedding needs a piglet and a dried rabbit, a lesser noble's funeral demanded the left leg of pig, the right leg being reserved for more important ritual occasions, and so on. Beside daily consumption, the residents had to obtain, put away, or provide animals or animal parts for diverse ritual occasions on a rather frequent basis as a normal part of their social life.

As the fauna from Daxinzhuang constitute the remains from coping with life's contingencies in an undifferentiated residential area, I do not expect to find a consistent side bias in the large assemblage from pits that may have taken months to fill up, and reflect a complex mixture of discard events affected by issues of reciprocity, status, special occasion meals, and daily consumption. Ideally, we would prefer contexts where animal parts were deposited together at the same time or over a short duration. Burials come to mind as one good example of such occasions as they seal a series of ritual events and their material embodiment in a relatively brief time capsule. Funerals, however, are not the only occasion that people use animals and rituals for commensality and social negotiation. Archaeological studies of food remains in Oaxaca (Mexico) and Cahokia (Illinois) among many other examples, have demonstrated that concrete evidence of feasting can be recognized from fine resolution observation (see Marcus and Flannery 1996; Pauketat *et al.* 2002). I will analyze the contextual information for evidence of siding related to specific episodes in Chapter 6.

Bone Modification. Bone modifications at Daxinzhuang range from burning due to roasting, butchering mark, cuts from craft production, to modifications related to oracle bone divination. Preparing and drilling scapulae and turtle plastrons for divination constitutes a unique category of bone modification. Certain sections of the scapula or turtle shell have to be removed to make the device. For the scapula, half of the neck section and the spine section is split and removed. For turtles, the carapace is separated from the plastron and internal bones are removed. For some specimens, the bridge is reduced.

Variations in drilling methods imply both chronological difference and religious preference (Hsü 1977, 1979; Xu 1995c; Wang and Yang 1999). K. Y. Chang's (1982) experimental archaeology with the processing the natural bones into the prescribed forms for pyromantic divination reveals the specialized knowledge needed for bone divination.

At Daxinzhuang, several styles of oracle divination were practiced side by side, including those closely resembling royal divination in Anyang and those continuing local traditions of the 3rd millennium and early 2nd millennium B.C. (Xu 1995c). Again, there are signs of local imitations of the highly specialized divination methods used in the royal centers. These variations indicate the reproduction and change of specialized religious knowledge within each social group. I will use the classification system developed by Hsü (1977, 1979) to account for spatial and temporal patterning at the site as well as their association with other contextual information. Further, as divination may involve elaborate ritual activities of sacrifice, feasting, and performances, the oracle bones themselves are only partial materializations of rituals and they have to be examined in the context of other animal remains and artifacts.

I include the use of writing on a bony medium for divination as an extension of bone modification, as the inscription was closely related to the signs produced from cracking. If one considers the importance of materiality in oracle bone divination, from the ritual care of the animal, to the ritual feasting involved, to fashioning the bone to certain forms, to boring the hollows according to prescribed shapes and layout, to the sound and cracks from the bone after heat application, which represent audio and visual signs of religious communication, it is only logical to situate the emergence of the first writing system in this context instead of treating the bones as a mere medium of writing, like clay or paper. Many questions can be profitably raised and investigated from this exceptional interface between text and materiality, writing and the animal body, which only makes sense when we place writing at the end of a long sequence of human interactions with animals. I will discuss this aspect in Chapter 8.

Ceramic Analysis

In order to determine the temporal placement of the faunal remains and the context of meat consumption, I analyzed the ceramic assemblage from the 2005 excavation for several key attributes directly relevant to my research on food, i.e. style and chronology, quality, functional types, ware types, source, and technological tradition. Variation in shapes, designs and quality that are meant to communicate differences to various audiences will have meaningful implications for understanding social differentiation (Sinopoli 1991: 84-5). I detail them one by one.

Chronology. Sherds from the 2005 features were first refitted and restored with the assumption that vessels intact at the time of disposal would more likely be closely linked to the timing and social activities associated with disposal than small, isolated sherds, which could have come from earlier contexts. The assemblage was then compared with the established ceramic sequence for this region and for Shang in general. The hollow legged *li* tripod was particularly important for dating, as the vessel, generally used for cooking porridge, was in use from the third to the first millennium B.C.

Detailed studies of stylistic changes over time provide a fine resolution in dating ceramic assemblages. The seriation is also based on the shape of the vessel feet, the joint of the crotch, the curve of the body wall, rim shape, and cord-marking (Cohen 2001: 219). The general trend in stylistic change is consistent with Drake's (1939-40) observation (see discussion on the Shang components at the Chengziya in Chapter 2), whereby tall and slender vessels date earlier and short ones date later.

Functional Types. Functional types inform on the food practices associated with consumption. As stated in Chapter 2, change in the ceramic assemblage took place as part of the Yueshi-Shang transition. The Shang ceramic assemblage repeatedly consists of *li* tripod, *gui* container, *zun* container, *dou* stemmed dish, *yan* steamer, and *guan* storage jar.¹ This combination is not only encountered frequently in fragments from trash deposits, but also appears as vessel sets (*li*, *gui*, and *dou*) in Shang burials, indicating that they constitute the essential components of Shang foodways.

¹ Many of the vessel names for the Bronze Age material culture came from scholarship of the late 10th and early 11th century AD, when early efforts at classifying and studying these vessels started. They have been continuously evaluated based on textual accounts and inscriptions on bronzes, and were incorporated into the contemporary archaeological vocabulary in China for the description of vessel types.



Figure 4. 1 Food vessel assemblage, *gui* container, *li* tripod and *dou* stemmed dish displayed on the ledge of M75 at Daxinzhuang

Ware Types. Ware types are classified according to color (black, grey, brown), decoration (cord-marked and plain), temper (fine clay and sand tempered), which are the basic categories used to classify the ceramic assemblage of contemporaneous sites such as Xiaoshuangqiao and Taixi (Institute of Archaeology 2003). Significant variations in ware types have been observed in previous research, particularly in color, whereby the ceramic assemblage in Shandong has more brown wares in comparison to collections from Zhengzhou-Anyang region (Luan 1996).

Quality and Sources. Higher frequencies of vessels that are of better quality and more elaborate in design may signify not only sophisticated control of production techniques but also a shared significance of the activities performed using these ceramics. Quality is reflected in technique, construction, and decoration. Excavation of Shang kilns in the hinterland of Daxinzhuang only produced utilitarian wares, such as the Sunjia kiln site, which specialized in the *li* tripod during the Yinxu II and III phase (Figure 4. 2). Many high-quality vessels with elaborate designs and superior workmanship were probably imported from other regions, such as the Zhengzhou-Anyang area. In the case of glazed stoneware, it could have come from as far as the documented production center in Wucheng in the mid Yangtze River basin, though the question of sourcing remains a subject of debate (Chen *et al.* 2003; Wang and Chen 2006).



Figure 4. 2 A Yinxu II-III period kiln for *li* tripod excavated at the Sunjia site, Jinan (photo courtesy of Cui Dayong, Jinan City Institute of Archaeology).

Ceramic Traditions. An important consideration of ceramic analysis is the proposed cultural variation in the Daxinzhuang assemblage, which has made it a showcase for investigating changes in material culture under conquest. Since the 1984 excavation, Xu Ji's (1997, 1998, 2000) identification of a "Type II ceramic tradition" that shares technical and stylistic attributes with the Yueshi assemblage in the region has been generally accepted as the material culture associated with the native population under Shang domination. These wares, along with the classical Shang ceramics, named Type I ceramics by Xu, and imported prestige wares from the Zhengzhou-Anyang region and possibly southern China, make up the full ceramic assemblage at Daxinzhuang.

Xu associated the Type II ceramics with the subjugated native population after the Shang expansion and conquest and considers the gradual disappearance of the local ceramic tradition in later contexts the result of successful cultural assimilation by the Shang state. Therefore, the farther east in Shandong a site is located, the greater the longevity of this tradition's survival. Xu's major argument for asymmetry in power relationships is based on the nature of stylistic change. While the Type II assemblage displays technological continuity with local Yueshi productions, such continuity only exists in utilitarian vessels, such as cooking vessels and general containers. While some appeared to be local forms, others show characteristics of imitation of Shang vessel

forms, such as *li* tripod, produced with a local technique or a hybrid of Shang and local construction attributes. No Shang vessels, which were generally of better quality and higher standardization, show signs of imitation of local shapes.

For higher end products, the fine quality wares and vessel forms from the Yueshi assemblage, such as the grey ware lidded cups and polychrome painted wares, ceased to be represented in the Shang assemblage at Daxinzhuang. There are a few exceptions in the very early phase of Shang occupation, where the 1984 excavation has produced fine clay grey ware knobs for the classical Yueshi style lidded cup. Otherwise, the high quality pieces in later phases were all Shang imports.



Figure 4. 3 Yueshi Style ceramics from early Shang components in 1984 excavation (photo courtesy of Xu Ji, Shandong University)



Figure 4. 4 A fine gray ware knob for a Yueshi style lidded cup from Daxinzhuang (1984 surface collection No. 16, photo courtesy of Xu Ji, Shandong University)

The shape, color, construction, and stylistic attributes of Type I ceramics bear little deviation from their counterparts from the Shang heartland in the Central Plains. Greyware with cord-marking surface design is the dominant ware type in Daxinzhuang, though brown wares are represented in great quantity as well. The neck is marked by an angular turn and the profile of the rim is squared.

The Type II ceramics are defined by their similarity with the Yueshi assemblage. These vessels are primarily reddish brown wares with a plain surface. The majority of fragments feature a distinctive surface treatment (Figure 4.5) resulting from scrapping with a fine comb-like instrument, which was common in the local ceramic tradition since the third millennium B.C. In comparison to the Type II ceramics, the Type II wares use very coarse and unsorted sand temper. These angular temper materials consist of mica, quartzite, and asphalt, possibly derived from crushed granite. The vessel neck features a smooth turn and their rim profiles are thick and rounded. They were usually of inferior quality to Shang wares and had a lower firing temperature.



Figure 4. 5 Detail of surface treatment of Type II ceramics (H1012-2: 25)

In addition, Xu's observation of broken vessels reveals that the potters of Type II used a very different construction technique to execute the form of Type I vessels. At the base of the Type II *yan* steamer, a large sherd was planted inside the clay at the point where the three hollow legs join the vessel body (Xu and Chen 2006).

Since this variation in ceramic traditions has potential ties with social dynamics in the region, I take this distinction as a key attribute in my observations and will investigate its relationship with other lines of evidence in food consumption. As the general category of Type II ceramics covers a broad spectrum of wares, some specimens can be easily identified according to the established attributes, while others appear to deviate little from the Shang ceramics in the assemblage. Some vessels used cord-mark decoration and others have the rim in square-shaped profile, which has been attributed to the Shang influence (Xu and Chen 2006). In order to achieve consistency in classification, Xu Ji helped me to sort through the entire 2005 sherd collection to identify each Type II ceramic sherd. The results are discussed in Chapter 6.

Chapter 5

Quantitative Analysis of Daxinzhuang Fauna and Inter-Site Comparison

The Daxinzhuang faunal assemblage predominately comes from contexts dating from the Middle to early Late Shang. Of 7564 bones analyzed, 2668 fragments were identifiable to species or genus. This includes all of the faunal assemblage from the 2005 season and approximately half of the material from the 2003 season. In this chapter, I first investigate patterns of relative abundance of taxa, body parts, and age ranges, and then use some of these same analytical tools for contextual analysis of animal use in their specific archaeological context in the next chapter.

Species Inventory

Mammals comprise the largest portion of the faunal assemblage from Daxinzhuang. Local domesticates include dog (*Canis lupus familiaris*), cattle (*Bos* sp.), sheep (*Ovis* sp.), goat (*Capra* sp.), and pig (*Sus scrofa*). Deer is the most abundantly represented wild animal in the faunal collection. A small number of deer bones can be identified as water deer (*Hydropotes inermis*), sika deer (*Cervus Nippon*), and David's deer (*Elaphurus davidianus*, also known as elaphure deer). The majority, however, can only be described as indeterminate small-medium deer, medium deer, and large deer. In the following discussion, I generally refer them in the broad category of deer.

Other indigenous wild mammals consist of tiger (*Panthera tigris*), leopard (*Panthera pardus*), bamboo rat (*Rhizomys sinensis*), fox (*Vulpes* sp.), hedgehog (Erinaceidae), badger (*Meles meles*), hare (*Lepus* sp.), wild cat (Felidae), raccoon dog (*Nyctereutes procyonides*), bear (*Ursus* sp.), porcupine (Hystricidae). Rodents and mole remains may be later intrusions into the deposit.

Reptiles include Reeve's turtle (*Chinemys reevesii*), Chinese stripe-necked turtle (*Ocadia sinensis*), soft-shell turtle (*Trionyx sinensis*), and Chinese alligator (*Alligator sinensis*). Although reptiles account for only a small fraction of the faunal assemblage from Daxinzhuang, some species represented in this class had significant symbolic value

or ritual use in the Shang world, which will be further discussed in Chapter 7. For example, turtle plastrons were heavily used in Shang oracle divination, and alligator skin has been traditionally made into skin drums representing political authority. A small number of snake and lizard bones are found. Birds constitute a very small share of the faunal sample and have not yet been identified.

A small number of fish bones are identified, which include common carp (*Cyprinus carpio*), catfish (*Parasilurus asotus*), grass carp (*Ctenopharyngodon idella*), black carp (*Mylopharyngodon piceus*), and silver carp (*Hypophthalmichthys molitrix*), all common freshwater fish native to the region. Several crab claws and a single frog bone have been identified. Three types of marine shells have been found in very low numbers. With the exception of cowry shells, which are exotic imports, all other marine shells, identified as *Meretrix meretrix* and *Arca (Anadara) subcrenata*, were native to the Bohai Gulf coast, some 180 km northeast of Daxinzhuang.

Freshwater mollusks include *Anodonta woodiana*, *Lanceolaria grayana*, *Unio douglasiae*, *Cuneopsis*, *Hyropsis cumingii*, and several types of *Lamprotula*. The frequent presence of freshwater mollusks in each feature and the similarity of the species from these features indicate that they were brought in from a nearby source on a frequent basis, presumably from nearby river channels and lakes. The modern habitat for a majority of these species is in the warmer regions of the Huaihe and Yangtze River basins south of Shandong. Their presence indicates a climate wetter and warmer than the current conditions.

Fauna and Landscape

The native fauna from Daxinzhuang provide a sketch of the landscape in which the community was situated, consisting of farm fields, grazing land, wilderness, freshwater lakes, marshes, and rivers. This is a familiar world from the perspective of Zhengzhou and Anyang, in which the native fauna were essentially the same.

Absent are the exotic animals that roamed the royal parks around the major Shang cities, such as elephants and rhinos, which symbolize the enormous efforts of the Shang kingship in constructing a zoological representation of an imagined cultural landscape and its mastery of wilderness (Fiskesjö 2001). Even the sight of such exotic beasts was

probably a luxury for the residents at Daxinzhuang, with the exceptions of its elite residents who appeared to have maintained frequent interaction with the royal cities. Horses were absent in the community, along with the prestige these handsome animals may have presented to their chariot riders. As a newly introduced species into the Shang world (Yuan and Flad 2005), presumably from the steppes, horses were probably very expensive to maintain and may not have adapted well to be effective military instruments. Horses only appeared in the region after the apogee of the Daxinzhuang settlement, as seen in the Qianzhangda cemetery of southern Shandong.

Without these zoological manifestations of the Shang state apparatus, the major changes one would recognize in the faunal assemblage from these outlying communities are in the differential access to major animals by groups occupying different places in the hierarchy of the Shang world. The increasing emphasis on cattle is an important aspect of these changes that took place after the emergence of the Shang state (Okamura 2004, 2005). I will analyze its local manifestations in the next section.

Assemblages for Comparison

This analysis of food consumption at Daxinzhuang focuses on three major features (H690, H1012, and H1014) that produced the largest assemblages from residential debris. Although not all features reach the required sample size (300-500 NISP) for a reliable species profile (Amorosi *et al.* 1996), they were close enough to indicate some degree of variation in consumption patterns. Other smaller features from Daxinzhuang (14 features analyzed) were lumped into one unit for inter-site comparison.¹

In order to understand inter-community variation in animal consumption, I compare the Daxinzhuang assemblage with data from five sites in Shandong, three from northern Shandong and two from southern Shandong. Not all assemblages involved in these comparisons are contemporaneous with the Daxinzhuang features, which are concentrated in the late Middle Shang to early Late Shang periods. Faunal assemblages from occupations earlier or later than Daxinzhuang, i.e., Longshan and Yueshi assemblage from Yinjiacheng and Western Zhou assemblage from Qianzhangda, were also included in the comparative study to shed light on diachronic change in the region.

¹ These Daxinzhuang features include H514, H521, H558, H585, H605, H666, H724, H1005, H1006, H1007, H1013, H1015, G54, G55, which date to late Middle Shang to early Late Shang period.

Here, I provide brief information on sites not covered in previous chapters and the contexts from which these faunal remains were excavated. Recent excavations at Tangshan, Qianbu, and Liwu led by Yan Shengdong of the Shandong Provincial Institute of Archaeology have shed light on the social life of smaller communities during the Late Shang period in northern Shandong (Figure 5.1)(Yan *et al.* 2005). Faunal assemblages from these three sites have been analyzed and published by Song Yanbo, the zooarchaeologist at Shandong University (Song and Yan 2007). The two authors have generously provided the original data for my comparative analysis.

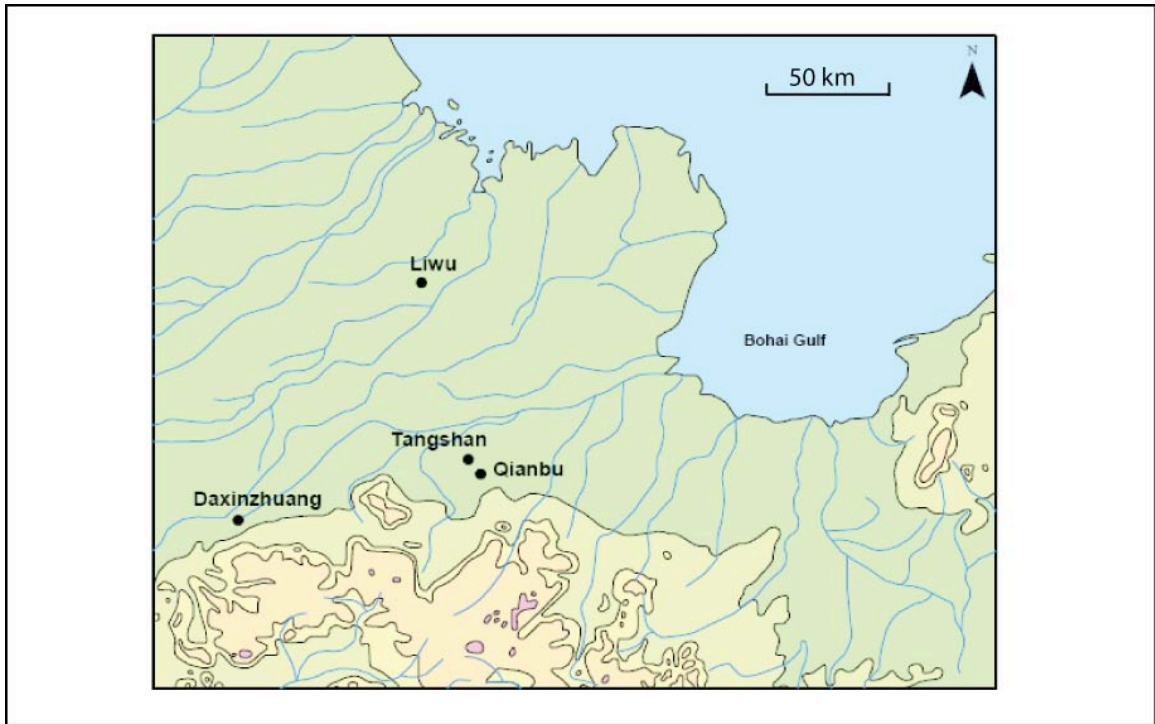


Figure 5. 1 Location of Liwu, Tangshan, and Qianbu sites in northern Shandong

The Tangshan site in Huantai County is 90 km east of Daxinzhuang, 85 km from the current coastline of Bohai Gulf. Feature H122 is among several large pits located on the west side of the Tangshan settlement. These pits have an average size of 200 square meters and are approximately 2 meters deep. Probing shows that H122 measures 20 meters in length, 15 meters wide, and over 3 meters deep. An area 10 meters in length and 5 meters in width was excavated. The faunal assemblage from Tangshan for this study comes exclusively from this excavated area. The deposit comprises six layers of sandy matrix and ash. Faunal remains were recovered by hand sorting. The faunal inventory (NISP 341) includes cattle, pigs, dogs, sheep/goat, deer, and turtle. The turtle

was exclusively for divination use, while the others were food remains. The excavators attributed the ceramic assemblage to the later part of Yinxu I (Yan *et al.* 2005).

Located for km southeast of Tangshan, the Qianbu site was a smaller Shang settlement of five to six hectares. H129 is the largest pit feature in an area densely clustered with pits. It measures over 300 sq meters and 2-3 meters deep. An area of 20 meters in length and 6 meters in width was excavated. The excavators date ceramic assemblage to late Yinxu II. Fauna remains from nine layers of deposit were collected with systematic screening. The assemblage includes pigs, cattle, sheep/goat, deer, hare, birds, and turtles.

The Liwu site in Yangxin County is located 110 km northeast of Daxinzhuang and 70 km from the shoreline of the Bohai Gulf. Liwu was continuously occupied from Yinxu I through Late Shang. The settlement was rather small—less than one hectare. The unusually high frequency (over 70 %) of helmet-shaped containers in the ceramic assemblage in some features at this site (H22, H33, H38, H43, H46, H48) indicates that the residents of the settlement were probably engaged in salt production (Yan 2004). A cluster of large salt-producing sites has been identified 20-30 km to the east. Based on the close proximity of these sites, Yan argues that settlement sites like Liwu represent a year-round residential base for seasonal activities of salt production along the coast.

The faunal data from Liwu for comparison with Daxinzhuang come from four large pits: H24 (Yinxu II), H20 (early Yinxu III), H31 (late Yinxu III), and H12 (early Yinxu IV). They were filled with residential debris and ceramic assemblages involved in everyday life, which was similar to H122 in Tangshan and H129 in Qianbu. The hand-collected faunal inventories from the four pits are generally similar, including cattle, pig, David's deer, water deer, dog, raccoon dog, cat, hare, bamboo rat, rodents, birds, turtle, soft shell turtle, crab, cowry shell, a large number of freshwater and marine fish, marine shell, and freshwater shells. All four features display a consistently high frequency of deer (Song and Yan 2007).

Besides these three recently excavated sites and the prehistoric data from Yinjiacheng, I also included the Late Shang and Western Zhou assemblages from the Qianzhangda site, in Tengzhou, southern Shandong. Qianzhangda was an important regional polity spanning from the early Late Shang to Western Zhou period. Hand-

collected bones were attributed to cultural layers associated with each period. Excavation of a lineage cemetery associated with the local elite at the site indicates that Qianzhangda was a key political center in southern Shandong, similar to the status of Daxinzhuang during the Middle to early Late Shang period in northern Shandong. The faunal research by Yuan Jing and Yang Mengfei (2005) has been published as part of the excavation report for Qianzhangda.

Although these sites do not represent neighboring communities closely integrated in a regional network and the data resolution varies from site to site, a comparative analysis of their faunal assemblages should outline broad patterns of social and temporal variation at the inter-site level that have not been available for Shang archaeology.

Relative Abundance of Major Mammals

Cattle, pig, sheep/goat, deer, and dog dominate the faunal assemblages (NISP 1742, 65% of the total NISP for animal bones) (Appendix 2). In this section, I first present the frequency distribution for the five major taxa in major features from the four Shang sites in northern Shandong (Table 5.1).

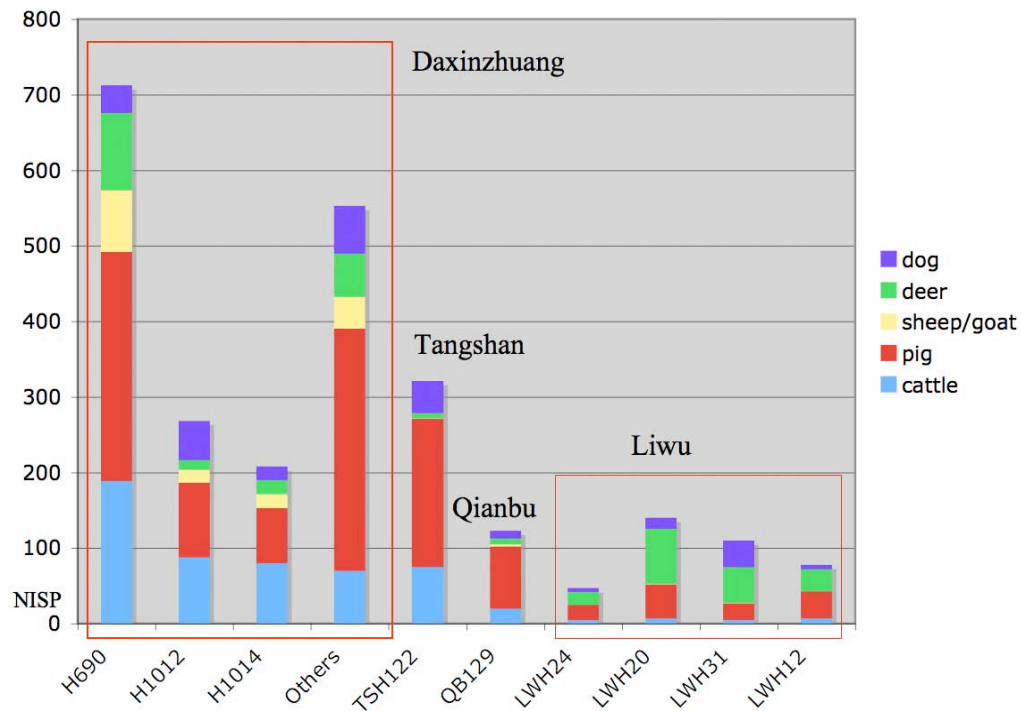


Table 5. 1 Quantity and frequency of five major mammals in major features from four sites in northern Shandong

The data is then compared with two components (Late Shang and Western Zhou) at Qianzhangda in southern Shandong (Table 5.2).

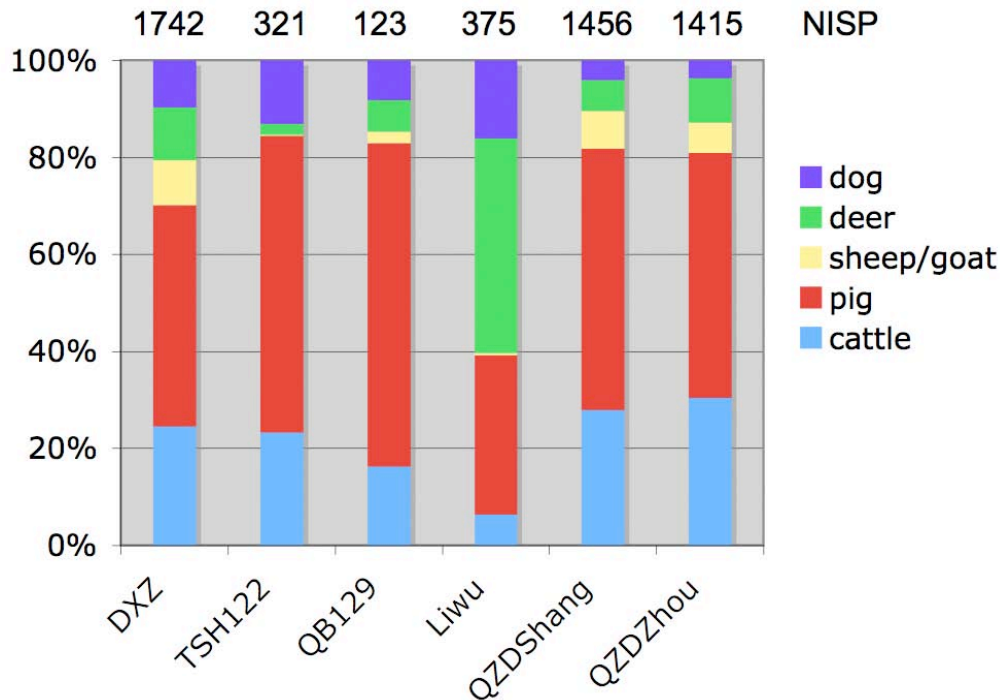


Table 5. 2 Relative abundance in NISP values and percentages for four northern Shandong sites and two components from Qianzhangda in southern Shandong

Tables 5.1 and 2 indicate that the proportion of cattle from Daxinzhuang features (mean=25%, ranging from 23-27%) and Qianzhangda (Late Shang 28% and Western Zhou 30.5%) are consistently at the higher end, despite the differences in sample size. If the small and unsystematically collected samples from Longshan (0.5%) and Yueshi layers at Yinjiacheng (10%) are any indication of pre-Shang consumption (Archaeology Specialty 1990: 350), then such a high proportion of cattle in local consumption deviates markedly from the pre-Shang patterns.

The general profile from Daxinzhuang and Qianzhangda is similar to the inventory that Yuan Jing provided for the faunal assemblage (1807 specimens) from fourteen Middle Shang features from Huanbei, Anyang, including cattle (17%, MNI = 10), pigs (58%, MNI = 35), sheep/goat (10%, MNI = 6), and dogs (7%, MNI = 4) (2004: 238). Therefore, the pattern from Daxinzhuang and Qianzhangda is in line with the general consumption pattern seen in the Shang centers. This is consistent with the similar

political status that archaeologists have attributed to these two sites (Gao and Shao 2005). The strong similarities in frequency of major species in these three large samples from two different sites (Daxinzhuang and Qianzhangda) and two different components (at Qianzhangda), and the associated evidence of local political authorities, i.e., elite cemeteries, present a basic outline of the meat consumption in these regional political centers.

Data from Tangshan, Qianbu, Liwu, and Yinjiacheng are of various size, some well below the 300-500 NISP threshold for a reliable species profile (Amorosi *et al.* 1996). The data from Tangshan and Qianbu come from a single feature at each site, which may not be representative of the consumption patterns at the site level. In comparison to Daxinzhuang and Qianzhangda, these two sites have a smaller proportion of cattle (Tangshan 22% and Qianbu 16%) and a larger share of pigs (Tangshan 61%, Qianbu 67%) in their fauna assemblages. Pigs represent approximately half of the faunal assemblage from Daxinzhuang (46%) and Qianzhangda (Late Shang 54%, and Western Zhou 50%). A comparison of bone distribution of three major taxa (Table 5.3) suggests that most of these differences, however, may not be significant. Liwu, however, was an exception, which shows marked difference in its profile for two major domesticates and hunted deer.

	Daxinzhuang	Tangshan	Qianbu	Liwu	QZD L. Shang	QZD W. Zhou
Cattle	427 (21-27 %)	75 (16-30%)	20 (6-26%)	24 (0-12 %)	407 (25-31%)	431 (27.5-33.5%)
Pig	796 (43-49%)	196 (54-68%)	82 (57-77%)	123 (27-39%)	785 (51-57%)	715 (47.5-53.5%)
Deer	190 (8-14%)	57 (0-9%)	8 (0-17%)	166 (38-50%)	93 (3.4-9.4%)	130 (6.2-12.2%)

Table 5.3 Distribution of cattle, pig, and deer bones in five sites (with 95% confidence interval)

Despite relatively small sample sizes, the data from the four selected features at Liwu consistently display a high frequency of deer, ranging from 36 % to 52%, indicating that this coastal settlement was more involved with hunting than the regional centers. In contrast, the proportion of cattle (4.5% to 11%) at Liwu is much lower than at Daxinzhuang and Qianzhangda. One of the likely reasons for this difference in species

inventory is the social difference between settlements—more rural the settlement the more likely wild fauna (deer) more abundant in the environment. This difference in animal consumption is not solely matters of culinary preference. One of the social consequences for differential access to these animals lies in the ritual sphere—the wild animals do not occupy the same place in the context of ritual offerings as the major domesticates (Fiskesjö 2001). In comparison to the pre-Shang data from Yijiacheng, it seems that major changes in species profile in Shang society are characterized by an increase in cattle, a relatively stable proportion of pigs, and a decrease of deer in major political centers. The pre-Shang pattern, however, can still be observed at rural sites on the periphery of the Shang sphere, such as Liwu, where the high percentage of deer is seen in all features and cattle are few. As cattle were attributed with greater prestige and ritual significance than deer or pigs in Shang society, they had greater value and were an important indicator of wealth and status. This difference is consistent with the less political importance of sites like Liwu as suggested by multiple lines of evidence, i.e., smaller settlement size, absence of elite cemetery, and lesser quality of bronzes and other elite objects (Yan *et al.* 2005). The faunal record, particularly the age profiles of certain of the animals, provides further insight into the nature of these inter-site differences.

Age Profile

In comparison to the data for species inventory, the sample size for constructing age profiles is significantly reduced. Only pigs and cattle have sufficient data for analysis at the site and feature level. No age data are available from Qianzhangda. The specimens with age attributes from four features at Liwu are too few to be representative. Therefore, I lump them together for comparison.

The age profile for pig bones is determined by epiphyseal fusion and tooth eruption-wear state (Schmid 1972; Grant 1982), and visual observation of bone size and morphology for very young animals. The data displayed variation between the sites and between features within Daxinzhuang (Table 5.4). In comparison to Tangshan and Qianbu, the Daxinzhuang faunal assemblage had a much greater proportion of juvenile (less than half-year old), immature (second half of the first year), and subadult animals (second year). Between 42% and 70% of the pigs were consumed before the early fusing epiphyses fused (i.e. before ca. 1 year) and 61% to 76% were consumed before the

middle fusing epiphyses fused (i.e. before ca. 2 years). 68% to 86% was consumed before the late fusing epiphyses fused (i.e. ca. 3–3.5 years).

Site	Feature	< 6 month	<1 year	< 2 year	< 3 year
DXZ	H690	32 (28%)	48(42%)	70 (61%)	78 (68%)
	H1012	24 (57%)	26 (62%)	32 (76%)	36(86%)
	H1014	24 (65%)	26 (70%)	28 (76%)	28 (76%)
	Others	42 (48%)	47 (54%)	58 (67%)	59 (68%)
Tangshan	H122	5 (4%)	9 (8%)	27 (24%)	28 (25%)
Qianbu	H129	0	7(12%)	21 (37%)	23 (40%)
Liwu	Combined	26 (76%)	28 (82%)	31 (91%)	31 (91%)

Table 5. 4 Age profile for pig bones from four Shang sites in northern Shandong

The age profile for pigs from Daxinzhuang contrasts sharply with the data from two large features at Tangshan and Qianbu, where juvenile and immature animals constitute a very small portion of the pigs consumed. In Tangshan, only 4% are under a half-year old and 25% are under three years. At the other end of the spectrum, 17 specimens (15%) are identified as older than three-and-a-half years. Similarly, no juvenile bones are reported from Qianbu H129 and 40% are under three-years old. The attempt to attribute a social interpretation for the observed inter-site difference is complicated by the data from Liwu, where the high representation of juvenile (76%), immature and subadult (91%) animals displayed a pattern similar to Daxinzhuang. Despite the small sample size from Liwu, the pattern contrasts strongly with Tangshan and Qianbu. Clearly, age profile cannot be used as independent evidence for social differences in consumption at the community level.

Albarella and Payne (2005) have argued that a typical kill-off pattern for pig populations in a past society would display a high frequency of animals killed between the second half of their first year and the third year. Their study of the age range from the British Neolithic assemblage from Durrington Walls, for instance, is consistent with this general profile, in which 25–30% of the animals were killed before the early fusing epiphyses fused (i.e., before ca. 1 year), about 50% before the middle fusing epiphyses fused (i.e. before ca. 2 years) and 70–90% before the late fusing epiphyses fused (i.e. ca. 3–3.5 years). In Daxinzhuang, pig bones from the large sample from H690 share a similar pattern. Other assemblages deviate from this general pattern either with a high frequency

of young animals or old ones. Variations in sample size from these features could inevitably affect the result at the feature level. However, the pattern of inter-site difference appears to be consistent and some features, such as H122 in Tangshan, have fairly large sample sizes.

The age data for cattle are rather limited in comparison to pigs. Nevertheless, they reveal that the consumption of juvenile and subadult animals was much less common in cattle than in pigs (Table 5.5). A possible explanation for this difference is that a young pig can be consumed by a family over several days or exchanged with neighbors on the expectations of future return. In early textual accounts, such as *Yi-li*, young pigs, known as *Te-sheng*, were frequently used as presents for occasions more intimately related to everyday life and, such as visiting a funeral or wedding (Ji 2005: 123). A cow/bull/steer carcass must be exchanged over a wider area or shared over a wider area. This may account for the use of cattle in “occasions of grandeur,” where cattle were raised under elite sponsorship and male animals of prime age were highly regarded.

Site	Feature	< 6 month	<1 year	< 2 year	< 3 year
DXZ	H690	0	1(2%)	5 (10%)	7 (15%)
	H1012	1 (5%)	1 (5%)	6 (32%)	8 (42%)
	H1014	0	0	3 (43%)	3 (43%)
	Others combined	0	1 (10%)	1 (10%)	2 (20%)
Tangshan	H122	0	3 (8%)	4 (10%)	5 (12.5%)
Qianbu	H129	0	1 (9%)	2 (18 %)	2 (18%)
Liwu	Combined	0	0	0	0

Table 5. 5 Age profile for cattle bones from four Shang sites in northern Shandong

Side and Body Part Distributions

As described in the previous chapter, calculating side and body part frequencies in faunal assemblages from non-specialized residential contexts are not particularly informative concerning the diverse ritual protocols for different occasions involving side and part preference. Since these large pit features may take months to fill up, remains from different consumption episodes probably even out any cultural preferences involved in each occasion. Nevertheless, an overall distribution is important for laying out the

general patterns in these features and sites, against which deviation of specific contexts can be measured (Tables 5.6 and 7).

Site	Feature	Head	Fore Upper		Fore Lower		Hind Upper		Hind Lower		Other parts	Sum
			L	R	L	R	L	R	L	R		
DXZ	H690	447	15	19	11	21	2	1	14	7	49	303
			4*		3		1		9			
	H1012	36	9	9	8	3	3		6	4	15	99
			4						2			
	H1014	32	3	6		5					19	73
			3		1				4			
Others combined	131	25	18	11	10	6	2	11	15	74	321	
		3		5		1		9				
Tangshan	H122	74	16	22	9	9	5	5	9	8	37	196
					1		1					
Qianbu	H129	44	4	8	2	3	3	1	8	2	6	82
									1			
Liwu	Combined	54	6	11	6	3	4	3	3	6	19	123
			2		3		2		1			

* indicates number of bones with indeterminate side

Table 5. 6 Siding and parts frequency for pig bones from four Shang sites in northern Shandong

Site	Feature	head	Fore Upper		Fore Lower		Hind Upper		Hind Lower		Others	Sum
			L	R	L	R	L	R	L	R		
DXZ	H690	60	3	5	5	16	3	4	11	5	64	189
			8*		3				1			
	H1012	24	2	4	2	2		1	2	15	31	88
			2		1		1		1			
H1014	32	3	5	6	1	1				31	80	
				1		1						

	Others combined	24	2	2	4	4	2		3	1	27	70
			1									
Tangshan	H122	35	4	6	3	1		2	1	4	16	75
			2		1							
Qianbu	H129	10				1		1			10	20
Liwu	Combined	3	1	1	1					4	14	24

* indicates number of bones with indeterminate side

Table 5.7 Siding and parts frequency for cattle bones from four Shang sites in northern Shandong

The basis for comparison of body part frequencies varies depending on which portion of the carcass is being considered. For example, the upper forelimb includes two bones – scapula and humerus, whereas the upper hind limb has only one, the femur. Moreover, the morphology of these bones affects the rate of identification. Even under fragmented conditions, the ulna is easier to recognize and side than the fibula. In addition, cultural factors can influence the representation of different elements – the ulna and fibula were frequently fashioned into awls, and every cattle scapula was removed from consumption contexts for divination use. Therefore, the number of elements in the upper fore and hind limbs becomes equivalent for cattle. As fewer pig scapulae were removed for divination, the effect in this species is less significant. There are other factors affecting the representation of different elements, such as the removal of the humerus and femur for craft production, but no systematic pattern could be recognized.

Taking these factors into consideration, it is understandable that the forelimbs are represented with higher frequency than the hind ones in nearly all assemblages considered here instead of a random distribution as seen in the side data. However, some features, such as H1014, display a particularly low proportion of hindlimbs, both for cattle and pigs, which I will investigate further through contextual analysis within the feature and comparison with the ritual preference of animal limbs in mortuary contexts in the next chapter.

Summary

This chapter presents a broad outline of the inventory of animals present at the site and major patterns in meat consumption. The native fauna reflect a landscape similar to the hinterlands of Zhengzhou and Anyang. A comparison of the relative abundance of the five major mammals in local consumption from six sites in Shandong reveals significant differences in time, space, and political importance. Two prominent regional centers, Daxinzhuang and Qianzhangda, shared very similar consumption patterns with each other and with an inventory from Huanbei, one of the major Shang urban center sites.

The transition from the late Neolithic to life under Shang domination in zooarchaeological perspective can be best characterized by a final triumph of domesticates, as deer consumption declined in major political centers. The high proportion of deer in meat consumption along with domesticated pigs, which characterize the prehistoric consumption pattern, is only seen in rural sites in the region during the Shang period. While this change in species inventory may not have a significant impact on protein intake, the social implications of this change are critical. While deer constituted a major source of meat in prehistoric society, it was not an important animal in the ritual context with the exception of the special ritual significance attributed to water deer canine teeth by the local Neolithic society for several millennia. Pigs, on the other hand, were important animals for social interactions (Kim 1994).

As cattle rose to prominence in ritual contexts in the early second millennium, particularly in the royal rituals of the early Bronze Age states as one of the key means of performing legitimacy, access to cattle had more political than culinary or dietary significance. On the other hand, once cattle become the core symbols for elite attention, culinary refinement would inevitably follow. Based on correlations of species profile with independent lines of evidence on the importance of settlements, such as elite cemetery, settlement sites, and imported prestige objects, we can argue with confidence that a large share in cattle consumption is a good indication of political prominence for a community during the Shang period. This conclusion is consistent with information from work in the royal centers as well as inscriptional and textual accounts (Chang 1977; Fiskesjö 2001; Yuan and Flad 2005; Okamura 2004, 2005).

The profound difference between deer and cattle is that the former has less symbolic and social meaning embodied in it. Therefore, the response to how the meat might have tasted is not solely based on how much fat or protein it provided. Rather, it was at least as important to consume the sense of hierarchy and commensality, not only with fellow elite, but also along with the ancestors and other supernatural beings to whom the animal may have been offered in a ritual setting.

As I will further discuss in Chapters 7 and 8, the meaning and prestige endowed in cattle was multifaceted. Cattle were not only the central component for making a grand offering for ancestral ritual, they also provided the premium medium for religious communication, and cattle scapulae were among tribute items consolidating the relationship of dominance between the Shang kingship and elite in outlying polities. If we scrutinize cattle consumption in light of the comprehensive ways that cattle and authority intersected in Shang society, it would be plausible to construe that cattle consumption was one of the many central realms of social practice through which the Shang state was performed and witnessed in local political centers like Daxinzhuang and Qianzhangda. State order is embodied in a good meal.

When we move to other attributes, such as age, the picture becomes less straightforward and hierarchical. While the age profile for pig consumption at Daxinzhuang and the two smaller sites in Huantai shows a difference (more young animals in Daxinzhuang and more old animals at Huantai) that seems consistent with the social importance of these sites, the pattern is contradicted by the similarity between Daxinzhuang and Liwu. It is not clear whether this represents dynamics yet to be investigated about these sites, or simply sampling error produced by the small sample size from Liwu.

A discernible pattern for part and side preference is not expected at the community level, as these were categories for social differentiation among participants within specific consumption contexts. This brings out the issue of reconciling contextual resolution with statistical significance. As only a very small fraction of animals from consumption debris are identifiable and it takes at least 300-500 identifiable specimens to establish a reliable species ratio (Amorosi *et al.* 1996), to come up with any statistically meaningful pattern would take an entire assemblage from large features like H690 or by

lumping data from many features. The resulting observation is far removed from the resolution of lived social experience, i.e. a feast as part of a ritual event or a series of domestic consumption spanning over weeks or months in a specific local. Every episode could be animated with cultural and social meaning, as one would expect from any ethnographic observation of food and eating, which would be rendered invisible by the reduction of data to figures.

The challenge of differential scales can be effectively addressed by a contextual approach—making fine resolution observations of the animal bone deposits within the rich context in which they were situated and the intricate relationship they have with other categories of data, such as food vessels and plant remains. This is the aim for the next chapter, in which questions of food consumption are investigated at the level of specific contexts.

Chapter 6

Contextual Analysis of Animal Remains

Although different features are frequently attributed to a single archaeological phase, their social relationships can rarely be firmly established. Therefore, lumping them together in a statistical analysis has the benefit of establishing broad consumption patterns at the community level over a long duration. On the other hand, the strength of large sample size and the effort of lumping data to achieve it reduces the potential for investigating concrete consumption episodes and ritual events, which could leave their archaeological footprints within features and specific contexts. An ideal approach to account for both broad patterns and specific events is to combine quantitative comparison with contextual analysis. This chapter is aimed at understanding the intricate relationship between animal bones *in situ* and other categories of data produced by these social practices, and their changing relationship in time, space, and function.

I first investigate three large features from the Middle Shang and early Late Shang periods to document the rich dynamics of local consumption during the apogee of the Shang occupation at Daxinzhuang. The choice of these three is based on three criteria: large sample size, rich diversity of data categories, and good contextual information to establish the nature of consumption episodes, which provide a crucial basis for intra and inter-site comparison. This is followed by an examination of animal bones from burials, where cultural patterns of animal use from these well-defined ritual contexts are compared with data from the pit deposit.

Since three features came from two excavation seasons (H690 from 2003 and H1012 and 1014 from 2005) that employed slightly different recovery procedures, such as the volume and frequency of soil samples taken for flotation, there is some variation in the resolution of the data. Later Shang occupations were not represented here as all post-Yinxu I features are rather small with scarce bones.

DXZ Phase II: Feature H690

Description. Feature H690 from the 2003 excavation is the most comprehensive of the features associated with the early phases (Daxinzhuang II) of Shang occupation at Daxinzhuang. It is a round pit, 5.2 meters in diameter and 3.07 meters in depth. Its steep walls have smooth surfaces with the bottom covered by wooden boards. Two stairs were dug into the central section of the south wall, which was presumably the entrance for the subterranean pit structure. At the center of the pit floor is a round post mould, 0.2 meter in diameter and 1.3 meters in depth. A well-furnished wall, wooden plank floor, stairs, and a central post all indicate that the subterranean feature was probably once used as a cellar by a residential unit larger than a single household.

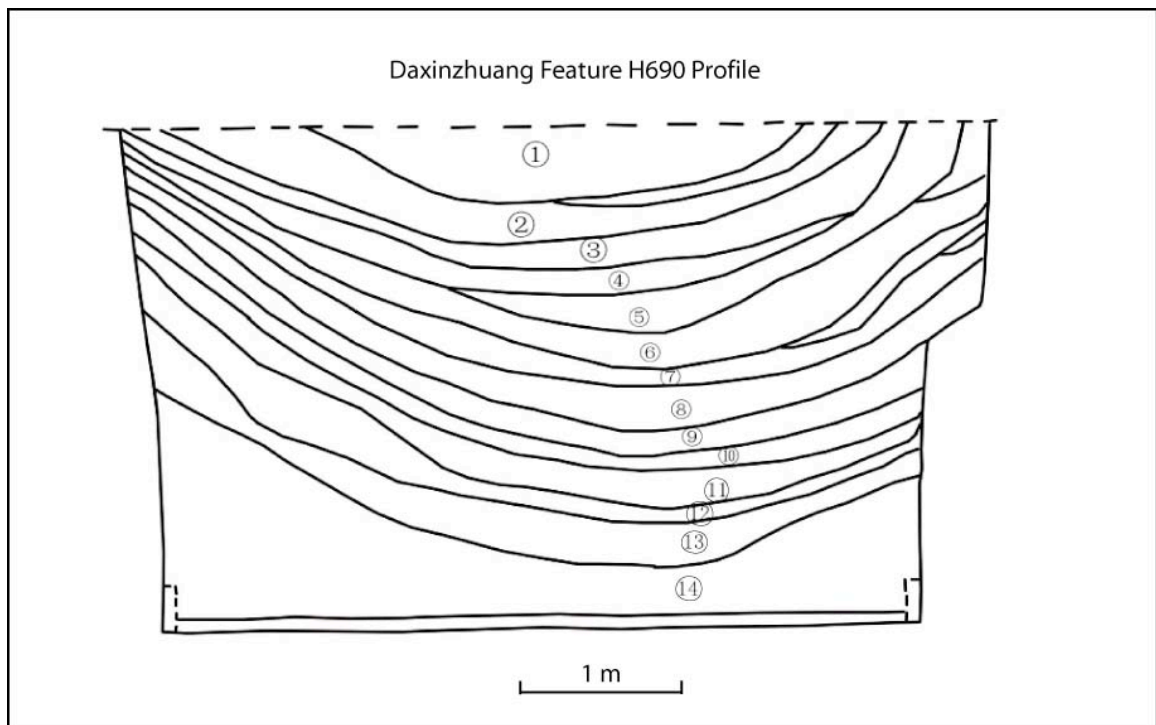


Figure 6.1 Profile map of Feature H690

After it was no longer used for storage, the large pit was filled with residential debris containing abundant animal bones, including fish bones and fish scales resulting from food consumption, as well as fragments from bone and antler craft production, and fragments of oracle bones (Fang *et al.* 2004: 26). Because some categories of data for H690 are still being analyzed, there is no quantification for many artifact types. Besides a large quantity of ceramic vessel fragments and bone fragments, remains of various

media are found in the deposit: i.e., bone hairpins, bone awls, bone projectile points, bone spoons, worked antlers and bones, polished stone spades, stone knives, shell sickles, and grinding stones. They represent the residues of a rather undifferentiated use of social space near the location. Other items were probably imported and were once associated with elite consumption: i.e., fragments of gold foil, jade fragments, glazed stoneware fragments, white pottery with highly stylized animal iconography, bronze hairpin, and bronze vessel fragments. The presence of these materials, as well as the sheer size and fine construction of the cellar itself, serves as a strong indication that this is an elite residential area.



Figure 6.2. Imported high quality ceramics with iconography from H690



Figure 6.3 Metacarpal and metapodial end sections from H690

Faunal Assemblage. The assemblage consists of 1189 identifiable specimens and 298 unidentifiable ones. It is dominated by domesticates: cattle (NISP=189), pigs (303), sheep/goat (82), and dogs (37). Other animals include a variety of deer (104, including water deer, David's deer, human (27), hare (11), raccoon dog (1), bear (1), porcupine (3), cat (2), hedgehog (1), rodents (3), birds (304), fish (140), alligator (1), tiger (2), and turtle (2). There are variations in the distribution of the major species in these layers. However, pigs consistently dominate the assemblage, except in layer 5 (Table 6.1). Less than 16 percent (48 from 303) of pig bones come from young pigs less than one year old. Several common species of freshwater shells are also present in nearly all layers, including *Hyopsis cumingii*, *Lamprotula*, *Cuneopsis*, *Unio douglasiae*, and *Lanceolaria grayana*.

Besides the variations in quantity, which could result either from differences in density or in the volume of each layer, the condition of the animal bones varies significantly from layer to layer, indicating rather different depositional episodes in filling up the pit. Bones in layer 5 are well preserved and may be more directly associated with specific consumption events. Bones in other layers were badly weathered and are highly fragmented and gnawed by carnivores, indicating significant time delay between

the consumption episode and eventual deposition. Most sizeable shaft bones were broken for marrow leaving spiral shaped fractures. Bones from layer 7 and below are enclosed in thick residue of clay as if the pit was once submerged.

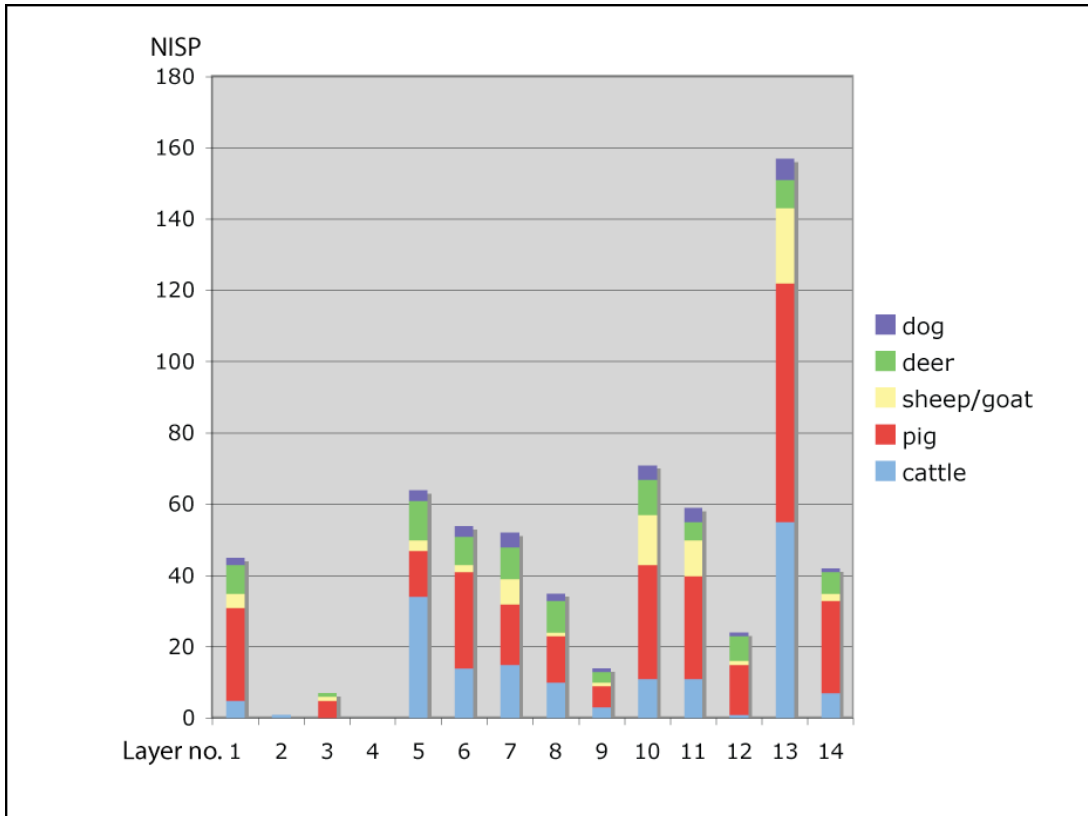


Table 6.1 Frequency of five major mammal bones within 14 layers of H690

Based on their uniformly good preservation and complete absence of gnawing marks, the majority of cattle bones from layer 5 probably resulted from a single consumption episode that was deposited soon after. The assemblage consists of eight forelimbs, one upper forelimb, and five lower hindlimbs. Among the forelimb bones, five right ulnas from five different cattle were represented and the assemblage was clearly biased towards the right forelimbs (8 to 0). While the numbers may be too small to be statistically significant, the pattern is highly context-specific. The contextual evidence clearly indicates a side and part bias for this specific consumption episode, where at least five lower right cattle limbs were discarded together, not a common scene for a daily meal.

No such significant side bias or part variation was observed for other species in H690. There was a high ratio for the number of rib versus vertebrae, 72: 29 for large

mammals, 301: 48 for medium mammals, and 11: 2 for small mammals. The difference is particularly significant for the medium sized mammals (primarily pigs, sheep/goat, deer, and dog), which is consistent in almost all layers and highly visible in layers 11 (85: 4) and 13 (47: 6). Such disproportionate high representation of ribs indicates that the animals were probably butchered elsewhere and the valuable rib sections brought in for consumption at this location.

Layer 11 contains a lamb mandible from an animal that was three to four months in age. As sheep and goats give birth in the spring, this layer was probably a summer deposit. Lamb bones are also found in layers 7 and 13. A pig maxilla from a two to three months old individual was also found in the same context. In addition, all neonatal and very young pigs from H690 were found in all but one layer below layer 6 and were absent from the upper layers. At the bottom of the pit (layer 14), the complete skeleton of a very young pig was buried intact, presumably as a ritual offering. Pigs give birth twice a year, thus the presence of young animal remains cannot serve as an independent indicator of season. The concentration of these young animal bones of both species in a series of consecutive layers, however, indicates that the lower layers probably are all summer deposits. If the clues from animal consumptions are instructive, it gives a sense of the length of time it took for the pit to fill up or the seasonal cycles to which these layers may correlate. As the upper layers do not have any young domesticates, the large feature probably filled up within a year.

The presence of less frequently encountered animals may be related to non-food use of animal parts. Alligator is identified from an osteoderm. Similar osteoderms have been identified in other contexts at Daxinzhuang, all without alligator bones associated, showing that the skin was probably brought in. These skin plates may be part of alligator skin drums, which were widely used as a symbol of political authority in Late Neolithic and early Bronze Age.



Figure 6. 4 Tiger phalanges from feature H690 at Daxinzhuang

Two tiger phalanges were probably once attached to a skin canopy, an important symbol of elite status. A bear mandible shows no signs of modification. However, a bear skull modified into a bone mask was recovered from the Qianzhangda site in southern Shandong, indicating the cultural attention placed on such animal parts. The lack of associated body and limb bones with these animals indicates that these bones were either brought in from elsewhere, or the circulation and curation of these bones have long been removed from the consumption episodes themselves.

At least five oracle bones were found in H690, all scapulae. One well-preserved specimen was a pig scapula, while others were fragments from cattle or large deer. All of them had round hollows only. Turtle plastron divination was completely absent from the assemblage. A shell fragment from a soft-shell turtle was identified from the heavy fraction of flotation sample in H690. Soft shell turtle was a common source of food in the region since the 6th millennium B.C. and were used for soup and porridge in Bronze Age cuisines (Chang 1977). A fairly large turtle femur, 42 mm in length, was identified in layer 12. This is the only turtle limb bone found in the two excavations. It is not clear, however, if it came from soft shell turtle, which could be remains from food

consumption, or from a hard-shell turtle resulting from the process of removing the plastrons and carapace. This is important, as turtle plastron divination was a rapid introduction into the local practice of religious communication around this period. Its absence from such a comprehensive deposit could provide an upper limit for its time of introduction. I will return to this point in chapters 7 and 8.

Fish remains are represented by 140 bones in the collection, all fairly large in size. All identifiable ones are freshwater species, including catfish, common carp, black carp, silver carp, and grass carp. The large numbers of fish scales noted in the excavation report (not found in the faunal collection) indicate that these bones alone cannot be seen as quantitatively representative of the importance fish in the consumption episodes associated with these debris. The small quantity of freshwater shells reflects this bias.

Isolated human remains are scattered in nearly every layer. Those from the top layer appear to come from a disturbed tomb, once marked as M86, as the phalanges appear to have the same state of good preservation. The majority, however, were already fragmented at the time of deposition, including a child's mandible, adult and child limbs, the pelvis of a child, and adult skull fragments. One adult human femur has a series of fine cut marks on its shaft, which may be the result of defleshing. Skull fragments are most frequent and some may have been cut or intentionally broken. Excavation of well-preserved Shang houses at Taixi indicates that numerous human skulls could be hanging under the roof and buried under the house floor (Hebei Provincial Institute of Archaeology 1985). These isolated fragments probably came from such a context.

Plant Remains. Two light fraction samples from flotation have been analyzed for H690 (Chen 2007: 209). The sample from layer 12 produced a good inventory of charred plant remains and seeds, including millet (62), wheat (13), Panicoideae (22), Fabaceae (19), Chenopodiaceae (2), wild grape (*Vitis*) (5), and tuber (1). The small sample size (approximately 6 liters, increased to 8-10 liter in 2005) and limited numbers of samples taken suggests that they may not be representative of the rich diversity of plant remains in such a large deposit. Nevertheless, the samples yielded important information on the presence of wheat remains in this context. The contextual information from the pit and the general absence of wheat remains from other features confirm Chen's argument that this plant food, introduced to Shandong in the third millennium B.C. (Crawford *et al.*

2004; Crawford *et al.* 2005), was probably associated with elite consumption (Chen 2007).

Ceramic Assemblage. Quantitative data for the ceramics from H690 are not yet available. Besides the prestige objects described earlier, ceramic objects associated with elite consumption also include refined food presentation vessels, such as a large high-stemmed *dou* dish, a ceramic imitation of an ivory cup, and a ceramic imitation of a bronze *ding* tripod. The majority of the vessels in H690 were utilitarian cooking vessels and containers for food and liquid, such as *li* tripod, *guan* jar, *yan* steamer, *pen* basin, and *dou* stemmed dish, which represent both of the two major technological traditions, those of the Zhengzhou-Huanbei tradition (Type I) and those of the local tradition (Type II) (Fang *et al.* 2004: 28).



Figure 6. 5 A plain-surface *li* tripod of Type II ceramics in H690 (H690: 48)

Based on comparisons with ceramic assemblages with Zhengzhou and Anyang, Fang *et al.* (2004: 26) originally dated the pit to Lower Erligang in Zhengzhou in the preliminary report. The relative date was soon revised to Phase I of the Middle Shang, on the basis of the fact that the ceramic assemblage resembles those from VG3, H57, H43 from Xiaoshuangqiao near Zhengzhou (Chen 2004). The artifact assemblage, consisting of such prestige objects as gold, jade, and bronze, clearly indicates that the debris filling

in the cellar came from elite residences close by. This is consistent with the animal and plant remains. The young animals in the lower layers are not only indicators of time and lifecycle, but also evidence of preference and access. This also applies to the high frequency of prime cuts, such as rib sections, and the consumption of multiple limb sections of several cattle in a single consumption episode.

Since this feature was associated with elite life in the early phases of Shang occupation at Daxinzhuang, it serves as important evidence for understanding the nature of change perpetuated by the emergence and expansion of the Shang state in the region. The cultural assemblage from H690 shows only limited signs of local emulation of the Shang material culture and practice. Instead, the rich and diverse material culture from the pit deposit closely resembles the archaeological assemblage observed at Xiaoshuangqiao near Zhengzhou, currently interpreted as the cult center or a political center of the early Middle Shang state (see chapter 2). The ceramic assemblage at Daxinzhuang shows significant departure from the local Yueshi tradition in terms of stylistic and functional types. In addition, there are greater varieties in the vessel assemblage and in the presence of elaborate imports from sources closely interacting with the Shang centers. Local emulation of Shang ceramics can be observed only in ceramic construction and is relatively easy to identify. The comprehensive evidence from H690, along with evidence from the Middle Shang cemetery at Daxinzhuang, supports the argument for conquest and direct transplantation of the metropolitan material culture from the Zhengzhou-Anyang region (Liu and Chen 2003).

Daxinzhuang Phases III-V: Features H1012 and H1014

Description of H1012. A series of large pit features from the 2005 excavation at Daxinzhuang provide insight concerning Daxinzhuang's occupational history during the century after H690. These include H1007, H1005, H1013, and H1012, located on the southeast corner of the settlement. Ceramics from these features date to late Middle Shang and Yinxu I. While they appear to be filled with residential debris, ritual deposits of animal or human remains in the pits, as well as ritual disposal of oracle bone, usually at the bottom of some of the pits, informs on the religious dimension of these features.

Feature H1012 is a large long, irregular-shaped pit similar to those long trench-like features in Xiaoshuangqiao (chapter 2). It measures over 10 meters in length and 1.5

to 1.8 meters in depth.¹ The pit was filled with a rather homogenous, sandy yellowish brown matrix, with a thin layer of dark ash extending horizontally through the fill. Layer 2 is slightly more compact and of yellow color. Analysis of the flotation samples from this layer indicates a low frequency of plant remains (15 millet seeds and one nutshell), in contrast to the rich organic remains found in H1014 (below) (Chen 2007: 213).

Faunal Assemblage. Immediately below the thin ash layer, a total of eighteen cattle bones (including articulated limb sections) were scattered at the same level, along with large fragments of broken vessels (Figure 6.6). Closely associated with the bone cluster were the base and wall sections of a high-quality greyware *zun* container (Figure 6.7), decorated with parallel lines on its plain, smooth surface. A bone hairpin with a highly stylized bird design on the top was found next to the *zun* container.



Figure 6. 6 A layer of scattered cattle bones in feature H1012, Daxinzhuang

¹ While three small depressions at the bottom were once given separate numbers H1016, H1017 and 1018, they were eventually determined to be part of the same feature, thus H1012 include these feature numbers.



Figure 6. 7 A greyware *zun* container associated with the cattle bone layer in H1012 (H1012-2: 12)

This bone cluster is distinctive in several aspects, suggesting that it probably results from a single consumption event and was deposited soon after assumption. First, the bones are well preserved and have few signs of carnivore gnawing or weathering due to exposure. Second, some limb bones were lying in an articulated fashion, indicating that they were dumped into the pit soon after the consumption episode. Third, at least three articulated cattle lower limbs were discarded together, indicating that they were removed at the same time. Fourth, these bones show a rather uniform method of cooking. In contrast to the bones from H1014 (described below), none of these bones carried any signs of burning. Large limb bones and vertebrae were broken or cut into sections that would fit into the vessels seen in the same context. Cut marks were seen on the joint area of these cattle bones, presumably made with sharp metal tools.

These bones include three skull fragments, three articulated vertebrae sections (two show flat cross sections resulting from cleaving with a sharp blade for separation), a left distal humerus, a left metacarpal, a right metacarpal, a right distable humerus, a right radius with articulated ulna, a right proximal humerus, a right femur fragment, and two right metapodials each with articulated joint (Figure 6.8). Observations on the right

metapodials suggest that these bones came from at least two individual cattle, one around two years old and the other older. At least four large bones came from the meat-bearing sections of upper limbs. Large limb bones were broken for marrow.



Figure 6. 8 (a and b) Side difference in limb bones from the cattle bone layer, a is from the left side and b is from the right



Figure 6.9 A bone hairpin fragment associated with the cattle bone layer in H1012

An elaborately made hairpin (Figure 6.9), diagnostic of the late Huanbei and early Yinxu I phases, was found next to the cattle bone cluster and offers clues to those involved with the social activities represented in H1012. Similar pins are have been frequently found in contemporaneous contexts at Daxinzhuang, Huanbei, Yinxu, People's Park at Zhengzhou, Taixi, and Qianzhangda (Henan Provincial Institute of Archaeology 2001; Institute of Archaeology 2005). One pin with an identical design has been found at a semisubterranean house (F51) at Daxinzhuang, in associated with oracle bones and turtle plastrons.

Hairdressing was an important social marker in Shang society, as in other pre-industrial societies (Li Chi 1959; Marcus 1998: 35). Royal consort Fu Hao had a box on her coffin containing 499 bone hairpins; inside the coffin 61 jade pins and similar ornaments were found. And 130 hairpins found in situ around the head of a female retainer (1550-49) in the Houjiazhuang HP-KM1550 burial show that they would be used in large quantities in ceremonial settings (Wang Ying 2004: 494). The social importance of hairpins is supported with epigraphic evidence: *fu*, the character for noble women, is depicted as a bundle of hair with a hairpin through it (Qi 2003: 149). The character for women also depicts a woman on her knees with crossed hands, sometimes with a hairpin (Bagley 2004). If these highly stylized pins were indeed social markers, their distribution at the site indicates the range of social activities in which these people were involved.

The faunal inventory (NISP=390 and UNID=518) consists of cattle (88), pigs (99), sheep/goats (17), deer (13), dog (51), hare (42), raccoon dog (1), cat (1), human (17), rodent (4), turtle (3), and birds (41, including 8 chicken bones). Other than the rodent bones, all others were probably associated with the original depositional context. Various body parts for the major domesticates were represented in the feature. Over a quarter (26) of the pig bones were from animals less than one year old.

Despite the enormous size of this feature, the faunal collection is rather small. Analysis of the heavy flotation fraction identified few fish or small animals. This is consistent with the field observation of the homogenous matrix in the fill. These two lines of evidence suggest a credible absence of smaller bones in H1012, making the cluster of large cattle bones more exceptional.

All three turtle bones were fragments from small turtle plastrons used as oracle bones, bearing pyromantic marks created with the *zuan-zao* method – combining a round hollow with a vertical groove (Keightley 1978; further discussed in Chapter 7). In addition, five fragments of scapulae shows signs of pyromancy. Only one bone can be identified as pig scapula and others are all too small for any positive identification. Human bones appear to be miscellaneous finds of skull, limb, and other skeletal remains. No articulation or patterns of association is observed.

The pit contained 555 freshwater shells, including several species of *Lamprotula*, *Hyropsis cumingii*, *Cuneopsis*, *Unio douglasiae*, and *Lanceolaria grayana*. Three marine shells, identified as *Meretrix meretrix*, are native to the Bohai Gulf coast.

Ceramic Assemblage. Large fragments of ceramic vessels were found in several clusters below the thin ash layer, some at the bottom of the pit. Pieces from different depths can be easily refitted to reconstruct the major portions of whole vessels, indicating that the deposit below the thin ash lens and the bone cluster was filled in at once, rather than a gradual accumulation of many dumping episodes.

Functional types identified from an inventory of 3563 sherds from H1012 include a large *guan* storage jar, *zun* container, *dou* stemmed dish, *li* tripod, and *yan* steamer, predominantly Type I tradition. On the basis of stylistic attributes of the ceramic vessels, such as the *li* tripod shown in Figure 6.10, we date the assemblage to late Huanbei and early Yinxi I. Besides the high quality *zun* container associated with the cattle bone

cluster, there are several broken vessels in the pit, including the upper portion of a *zun* container (approximately 40 cm in rim diameter) and a grey ware jar with cord mark pattern (body diameter 34 cm, mouth diameter 26 cm, estimated height 35-40 cm); both are impressive vessels for food or beverage (Figures 6.11 and 6.12).



Figure 6.10 A Yinxu I style *li* tripod from H1012 (H1012-1: 44)



Figure 6. 11 The fragments of a large grayware *zun* container (H1012-1: 43)



Figure 6. 12 The fragments of a large jar from the bottom of H1012 (H1018-2).

A small number of exotic imports were also found in the assemblage, including a high-fired stoneware container of non-local manufacture and stoneware with a stamped design, which were likely imported from the Wucheng area in Jiangxi in the middle Yangtze River basin (Figures 6. 13 and 6.14).



Figure 6. 13 The fragment of an imported stoneware in H1012 (H1012-2: 8)



Figure 6. 14 The fragment of an imported stamped stoneware in H1012 (H1012-1:1)

Type II ceramics are present in small quantities, 22 in total. With the exception of a Yueshi-style plain greyware cup (H1012 layer 1:41 Figure 6.15), the rest are rather crudely made coarse wares with coarse sand temper, primarily from plain or cord-marked *li* tripods, often with scraping marks on the surface.



Figure 6. 15 The fragment of a Yueshi style plain greyware cup (H1012-1: 41)

When all categories of artifacts are considered together, the contextual information from H1012 reveals social activities beyond the scale of domestic consumption. An enormous long pit was dug near a residential area. The pit was then filled over a very short span of time. Food consumption debris, including recently broken high-quality ceramic vessels and freshly consumed animal parts, was dumped into the pit during the rapid filling episode. This depositional context attests to a sumptuous consumption episode nearby.

Description of H1014. Pit H1014 superimposes H1012. The oval-shaped pit measures 1.1 meters at its maximum depth and 4.12 meters on the long axis. The fill consists of four layers: layer 1 yellowish brown; layer 2, brown; layer 3, black organic ash, which sinks in the center area; layer 4, dense mixed brown matrix. Layers 3 and 4 near the pit bottom are extremely rich in organic material, including bones, carbonized seeds, and large chunks of charcoal. They also contain blocks of wall structure with plant impressions, with bubbling on the surface resulting from intense heat, probably from the cooking structure.

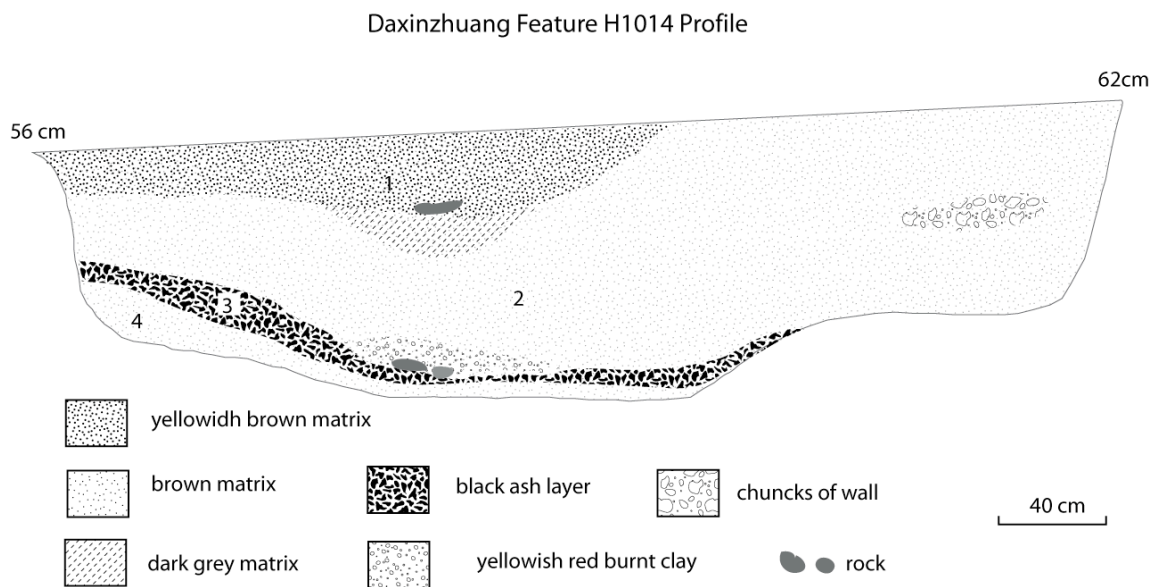


Figure 6.16 The profile map of feature H1014 at Daxinzhuang

Chen Xuexiang's analysis of the flotation samples taken from these two layers suggests that grain dominates the plant remains (standardized density 97 per cent, Chen 2007: 93), with millet representing the overwhelming majority (1201 specimens). This is

consistent with the field observation that the ash layer contained large amounts of small, carbonized grain of rather homogenous size. Other cultigens include *Panicum milliaceum* (4), rice (1), and soybean (6) (Chen 2007: 105, 175, 214). Two types of weed, Fabraceae (37) and Asteraceae (2), and a small number of fruit remains, peach (*Prunus persica*)(3) and nutmeat (2), were also identified (Chen 2007: 114, 214). *Panicum milliaceum* and rice were both related to prestige foods in the Bronze Age and their distribution at the site has been rather limited (Chen 2007).

No plant remains were identified in a sample taken from the top layer of the deposit (Chen 2007: 214), a significant contrast to the rich plant remains in the layers at the bottom of the pit. This indicates that the pit was not filled up over multiple episodes. Rather, the rich deposit, probably debris from consumption events, was dumped in over a relatively short period and then covered over with cleaner soil afterwards.

The homogeneity of the plant remains from the ash layer reveals that it represents debris from a single event, in which large amounts of millet was burnt. The same burning episode was likely responsible for many of the burn marks on the bones from this feature, as these bones share a similar pattern of spot burn, resulting from roasting while the surface was still covered by flesh.

Faunal Assemblage. Faunal remains from this pit are very well preserved with little sign of weathering. They occur at high density and represent a greater diversity of taxa than in other features and contexts (NISP=246 and number of unidentifiable bones =543). The mammals include cattle (NISP=80), pigs (73), sheep/goat (19), deer (18), dog (18), rabbit (6), tiger (1), cat (1), and bamboo rat (1). A tiger phalange was probably once attached to a tiger skin canopy, as bones from other parts of the animal were absent in the feature. A variety of birds (including roosters) are also represented in the faunal collection. Well-preserved rodent bones (16) were probably a later intrusion, given the rich food debris in the feature.

There is a high representation of young pigs (NISP=26)—a third of the pig bones are very young animals, as seen by their fusion, dentition, and size. While vertebrae are absent in the assemblage, a total of 63 small ribs, presumably from young pigs or dogs, were found in the two bottom layers, indicating that at least some of the animals brought in for consumption were already butchered, with less desirable parts discarded elsewhere.

A large articulated chunk of cattle forelimb was deposited at the bottom of the pit, in association with broken ceramic vessels (Figure 6.17). The limb unit consisted of an unfused distal humerus, ulna, and radius from a young animal (less than one and half years old). It was burnt on one side only, presumably resulting from roasting.



Figure 6.17 A partially burnt cattle forelimb deposited at the bottom of H1014

Besides this one well-preserved example, the forelimbs consistently are better represented in the deposit than hindlimbs of major animals, i.e., cattle (15: 2) and pig (18: 4), and sheep/goat (5:1), dog (8:1), and deer (4: 2). It is common that a limb section, rather than a whole carcass, was consumed for a meal. It is a different matter, however, when forelimbs from different animals were consumed in the same context. This may be related to the ritual use of major domesticates in sets during the Bronze Age, which I will elaborate on further after the feature descriptions.

While scapula bones from medium-sized animals are abundantly represented in the feature, as one would expect from the good representation of the forelimbs, cattle scapula are almost absent with the exception of a spine fragment, which would have been removed in the preparation of an oracle bone. Given the significance of cattle scapula in religious communication, their removal from the consumption debris is fully expected. Such a spine fragment indicates that some aspects of transforming scapulae from their natural form into a finished ritual device for religious communication were done at this

locale. A child's left pelvis and several human ribs were buried in the ash of layer 3. They had no signs of weathering from exposure and none had burn marks like many of the animal bones, indicating they result from unrelated depositional episodes.

Aquatic taxa from these layers include various freshwater and marine shells, fish bones, a crab claw, a frog limb, and some freshwater turtle shells used for divination purposes. The claw fragment from a freshwater crab and the frog radio-ulna were excavated in the bottom deposit. The good preservation of these delicate bones indicates that the deposit might have formed in the summer, when these creatures were active. This is consistent with the identification of peach in the plant remains and the high frequency of young pigs. Two large fish bones of unknown taxon were recovered. Analysis of the heavy flotation fraction revealed very small fish vertebrae, but the very low frequency of fish bone in the sample indicates that the lack of fish in the deposit is not a function of sampling errors.

A total of 225 freshwater shells from H1014 display the same range of taxa that are common to other features and sites of the region, including various species of *Lamprotula*, *Cuneopsis*, *Unio douglasiae*, and *Lanceolaria grayana*. While sickles and knives were often fashioned from large shells, such as *Hyopsis cumingii* and *Anodonta woodiana*, most shells were unmodified (Figure 6.18).



Figure 6.18 Examples of freshwater shells from feature H1014

Their presence was not large enough to suggest that they were a major food source. However, their presence in regional sites spanning from the Neolithic to the Bronze Age (i.e., Wangyin, Wucun, Yinjiacheng, and Qianzhangda) indicates a persistent but minor role in local foodways. Textual sources from the first millennium B.C., i.e., *Zhou-li*, indicate that freshwater clams were essential ingredients for sauces as part of Bronze Age cuisine (Zhuang 2005[1990]). The contextual information for these shells may offer support to these earlier accounts.

Three marine shells, all *Meretrix meretrix*, all with naturally perforated beaks, are native to the coastal region of Shandong. A fragment of a small cowry shell (*Monetaria moneta*) was found in the heavy fraction of the flotation sample. Cowry shells were probably imported from the Indian Ocean or South China Sea through a long-distance trade network (Peng and Zhu 1995; Li Yung-ti 2006). They became a major category of prestige items in the second millennium B.C., becoming heavily concentrated in the hands of the high elite. For instance, royal consort Fu Hao's tomb alone produced 7000 cowries (Institute of Archaeology 1986). In Daxinzhuang, a few cowry shells have been excavated from the Shang burials, while the settlement itself produced only one in each excavation season since 1984.

A burnt fragment of a turtle plastron was found, which has a part of two hollows, probably made with the combination *zuan-zao* method (Figure 6.19)



Figure 6.19 The fragment of a small turtle plastron from feature H1014 (H1014-3: 4)

A fragment of a turtle carapace and two bridge fragments were found in this pit. Although without signs of cultural modification, they probably represent discarded sections after plastrons were removed and used for divination. Based on estimates from the shape and thickness of these fragments, it is clear that these turtle shell fragments, including the plastron, came from small turtles within the 10 cm range. Scapulamancy was represented by a tiny fragment of a well-polished oracle bone with small, round hollows.

Ceramic Assemblage. Ceramic functional types observed within the inventory of 1485 sherds from H1014 include *yan* steamer, *li* tripod, *guan* jar, *pen* basin, *dou* stemmed dish, and *gui* food container. They are predominantly Type I in style and construction. Fragments of stamped design stoneware and a white colored stamped stoneware fragment represent some of the high-quality imports from southern China and the Zhengzhou-Anyang region. Other categories of objects include bone hairpins, bone spoons, shell sickles, stone knives, grinding stones, and spindle whorls, which represent rather generalized residential activities taking place in the area. A partially intact *li* tripod helps to date the deposit to Daxinzhuang IV and V (late Huanbei to Yinxu I). Type II ceramic tradition is represented by 25 sherds, all rather fragmented. Functional types include *li* tripod, *dou* stemmed dish (Figure 6.20 a) and fragments of a fine greyware Yueshi style *yu* container (Figure 6.20 b).





Figure 6. 20 (a and b) Type II ceramic sherds in H1014

Pattern of Association. Multiple lines of evidence inform on the dynamics of the consumption episodes and social status of those involved in the formation of this deposit. First, combining historical sources and inscriptions, Chen argues that *Panicum milliaceum* was used for brewing a high grade wine, which was reserved for elite ritual offerings and feasting (Chen 2007: 52-58, 107-8; van der Veen 2003). Rice was also a prestige plant food. Zhuang (1990) argues that rice remained a rarity in the first millennium B.C. and was regarded as a delicacy in Zhou texts. Second, articulated cattle limb sections and a high representation of young pigs in this rapidly filled pit indicate sumptuous meals. Third, limb preferences are possibly related to feasting and ritual. Fourth, exotic animal products, e.g., tiger skin and cowry shell, were all prestige symbols in Bronze Age China. Fifth, the presence of high-quality imported ceramics indicates access to prestige objects from distant sources. And sixth, there is evidence for the practice of oracle divination, as well as possible signs of local processing of a ritual devices, represented by fragments removed from specific areas of the cattle scapulae.

As a comprehensive picture on the contexts of food consumption emerges from the description of these large features, we also have a better idea of ceramic variability associated with food practices. In contrast to an estimated five percent in Early Shang features (Xu Ji 2007: personal communication), the very low frequency of Type II

ceramics in both features is consistent with Luan’s observation that they decline sharply in later Shang components (Luan 1996: 343).

If the ceramic variability indeed manifests cultural differences, then the social distance between the associated groups is rather wide and interaction was probably minimal. On the other hand, comparison of ware types from H1012 and H1014 with that of G3 and H43 in Xiaoshuangxiao (Henan Provincial Institute of Archaeology 2006) shows a higher frequency of brown (both fine clay and sand-tempered ware) in the ceramic assemblage from Daxinzhuang (Table 6.2). This generally high frequency of brown wares has been consistently observed in Shandong.

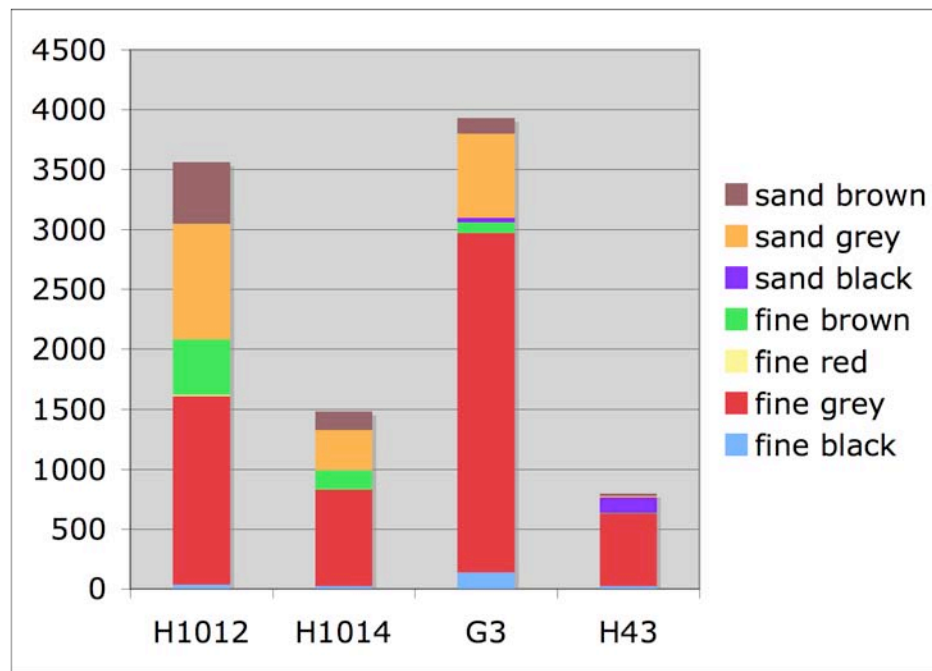


Table 6.2 Frequency of major ware types from four major features at Daxinzhuang (H1012, H1014) and Xiaoshuangqiao (G3, H43)

Food Representation in Burial Contexts

In burial contexts, animal use can be clearly divided into two kinds: dogs as companions and animal limbs as food offerings. Fully articulated skeletons of dogs were placed on the tomb ledge and in the pit under the waist section of the deceased. Since these are the same contexts occupied by human retainers and armed guards in the royal tombs and tombs of the high elite, we can infer that these dogs were symbolic substitutes for human subordinates to accompany the deceased. Seven burials at Daxinzhuang have a

pig, cattle, or sheep/goat limb placed on the ledge. Their ritual significance as food is clearly indicated by their association with food vessels. The ritual use of animals in elite burials is well represented in two published Late Shang burials from the 2003 excavation, both dating to late Yinxu III (Daxinzhuang phase VII).

The shaft of M74 measures 4.16 meters long, 2.04 meters wide, and 3.5 meters deep. The grave consisted of one inner coffin and one outer coffin, with a layer of cinnabar (mercury sulfide) spread at the bottom of the coffin. Twenty dog skeletons were found on the ledge, with one human retainer underneath the bodies of dogs. Another dog skeleton was found in a rectangular pit under the waist section of the interred (known as the “waist pit”). Five bronze objects were found in the grave, consisting of a *ding* tripod, a *gu* goblet, a *jue* libation cup, and two bells, which represent a common assemblage associated with a minor elite in Late Shang. A jade handle-like object was placed near the abdominal position of the interred. A Han period well destroyed the southern end of the burials, where ceramic vessels and animal limbs would have been placed.

The shaft of M72 measures 3 meters long, and 1.2 meter wide. The tomb had an inner coffin and an outer coffin, with a layer of cinnabar on the bottom of the coffin. Ten dog skeletons were placed on the ledge and one more in the waist pit (Fang *et al.* 2004: 27). Bronze objects include a *ding* tripod, a *gu* goblet, a *jue* libation cup, and two bronze *ge* halberds, found inside the inner coffin or between the inner and outer coffin. The ceramic assemblage consists of a *li* tripod, a *dou* stemmed dish, and a *gui* container. They were placed on the ledge as a set. The left forelimb from a young cow of unknown sex (1.5 to 2 years old) on top of the *li* tripod and a left scapula from a large, adult pig was found inside the *gui* container, representing meat offerings for the deceased. A single inscription representing a hand holding a club-like instrument was underneath the handle of the bronze *jue* libation cup, presumably the name or a clan emblem for the patron who commissioned the bronze (Chen 2004: 48). This emblem is deciphered as Xin, which appeared on ritual bronze vessels from at least two other Late Shang burials in the Daxinzhuang cemetery.

A similar display is found in M102, M108, and M86, each featuring a pig limb, and in M62, a sheep limb. The earliest burial, M102 dates to Yinxu I, and the rest date to Yinxu III. With the exception of M102, all these burials with animal limbs yielded a

basic food vessel assemblage consisted of *li* tripod, *dou* stemmed dish, and *gui* container, which characterizes the foodways of the Shang society.

In all recognizable cases (M62, M86, M72, M102, M75, M108), it was a forelimb that was used in such a context (Figures 6.21, 6. 22, and 6.23). This is consistent with the part preference recognized in other Late Shang burials. At Qianzhangda cemetery in southern Shandong, Yuan and Yang (2005) reported four observations of the use of animal limbs in Late Shang and early Western Zhou mortuary ritual. First, there is a clear preference for forelimbs, consistently observed in all eleven burials with animal limbs. Second, among graves using this practice, small graves usually use only one limb (with one exception), usually pig, while medium and large tombs have a combination of animal limbs, of pigs, cattle, and sheep. Third, if more than one forelimb was displayed in a grave, they would all come from the same side, either all right or all left. Fourth, when multiple forelimbs were displayed, each animal is only represented by one limb (Yuan and Yang 2005: 763).



Figure 6. 21 A cattle forelimb with food vessels in tomb M72



Figure 6. 22 A pig forelimb with food vessels in tomb M102



Figure 6. 23 Sheep forelimb with food vessels in tomb M62

With minor variations, the ritual of displaying forelimbs in burials was a common practice in many communities by Late Shang. Yuan and Yang (2005) argue that, at Yinxu, graves with a single sheep forelimb are most frequent, followed by graves with a single cattle forelimb. Those with pig forelimbs are less frequent. In Yinxu West M1713,

a cattle forelimb and a sheep/goat limb were placed in the burial (Tang and Wang 2004: 45). The earliest evidence for a combination of major species was documented at the Taixi cemetery (M102), where limbs of pigs, cattle, and sheep were associated with the burial.² In the Late Shang cemetery at Sufutun in eastern Shandong, two cattle forelimbs were placed on top of the wooden sarcophagus (Shandong Provincial Institute of Archaeology and Qingzhou Museum 1989).

Evidence from Daxinzhuang suggests that the local residents adhered to this shared ritual tradition in the culturally defined Shang world. The Shang practice is clearly a precursor to similar ritual protocols described in *Yi-li*, as the display of animal limbs in burials continued in Zhou mortuary rituals in multiple elite cemeteries across the Central Plains (Yuan and Yang 2005: 763).

Unlike the large pit features, which took a long time to fill up, burials resemble time capsules for a series of events that were involved with this rite of passage. They were not the only occasions at which these protocols were effectively played out in the social life. Rather, the idealized representation of food ritual in burial contexts gives us an idea of the kinds of cultural categories deemed meaningful in the social interactions at communities like Daxinzhuang and Qianzhangda.

Cultural preferences for parts and sides in animal consumption, particularly in ritual settings, structured social life with principles of hierarchy and commensality. For these smaller communities, they are among many means through which order was established, reproduced, and potentially negotiated in everyday life. If the animal body provided a realm of social action, these basic divisions are the units of representation with their own semantics. When patterns observed in the analysis of consumption debris from pit deposits are compared with the idealized representation of food in burial contexts, the similarity between the two sets of data in side and part preference is hardly unexpected. Hierarchy and cultural order are manifested in all aspects of life, and the rituals surrounding the dead were just one of many realms of social action for the living society to reiterate and negotiate the existing relationships.

² The report did not describe the limbs to determine if they were fore or hindlimbs.

Animal Bodies in Other Ritual Contexts

A dichotomy between residential debris and ritual deposits in describing the function of these pit features would be misleading, as burying food or animals in pits, along with burning and sinking them in water, are the three most commonly used methods of making ritual offerings in early China. Many of the food remains, such as the roasted millet and articulated limb sections, could in fact be food offerings, a distinction often impossible to make. As the articulated pig deposit at the bottom of H690 shows, these large pit features were often multi-functional. On the other hand, there are several examples where animals were deposited as intentional offerings, which was the chief function of the pit features themselves.

H1015 is an oval-shaped pit feature. The remaining lower section measures 2.7 meters long, 1.85 meters wide, and 0.7 meter deep (Figure 6.24). The fill has no visible stratigraphy and seems to have been filled at once. An intact dog skeleton was found at the bottom of the pit and was probably deposited as a sacrificial offering.



Figure 6. 24 An articulated dog skeleton at the bottom of pit H1015

In comparison to H1015, the deposit at H1013 was more complex. The oval-shaped feature is 4 meters long, 1.78 meters wide and 1 meter deep, consisting of three layers. The fill contains residential debris with rich organic material and ceramic sherds.

Within layer 1, a human skull, probably an adult female, was found lying on its side. The base of the skull was all broken away. In the contemporaneous site of Taixi, skulls like this may have been hung under the roof or placed on a pole as a trophy around the buildings, which may explain the breakage at the base.

Under the human skull, a young pig skull was discovered. Further down in the pit in layer 3, a young, articulated pig skeleton was deposited, apparently as an offering. Immediately below the pig skeleton was the skeletal remains of a dismembered body of an elderly woman (age and gender identified from the pelvis) (Figure 6.25). Her skull had been detached from the spine. The cranium was split open vertically with the back of the skull removed. The mandible was found away from the face. The articulated spinal column was broken in the middle and bent on its side with some ribs still attached. Both femurs were attached to the pelvis while two lower limbs and feet were chopped off and not recovered in the deposit. Arm bones were identified beneath the body, but not in an articulated state.



Figure 6. 25 A dismembered human skeleton at the bottom of feature H1013

The evidence seems to suggest that some extraordinary force was applied to a decomposing human body to dismember it before it was deposited in the pit. Then, a

whole pig, a pig skull, and a second human skull were added to the feature in different stages. The feature is complex but not unique in Shang sites. For instance, pit features containing a mixture of human bodies with animals have been excavated at Zhengzhou, Xiaoshuangqiao, and Anyang, which have been associated with sacrificial rituals (Huang 2004). The victims in such features have often been attributed to war captives or slaves, as seen from the efforts of their violent destruction and symbolic dehumanization. While the interpretation may likely apply to other cases, especially given the scale of violence observed at the royal centers, the health condition of the victim in H1013 may offer an alternative interpretation for this case.

An examination of the dental pathology by Tang Xianli (2007 personal communication) at the University of Toronto Dental School has revealed that the victim had a serious dental abscess and infection around the root tip of her incisor where bacteria may have been able to get into the blood stream and invaded the brain or heart. Depending on which part of the brain was infected, the person may have had different functional problems and died without effective treatment. Essentially, the elderly woman was already coping with a life-threatening health condition for some time before her death, as the big hole around the tip of the central incisor and the curved root might have started with trauma received early in her life, followed by a longstanding infection. The enormous pain and suffering it must have caused would likely have rendered her into someone abnormal in the views of the community. Therefore, we may have a sequence of events and animal offerings that evolved around the ritual performance of exorcism following the death of a very sick member of the community rather than the sacrifice of a war captive. The mixture of animals and humans, therefore, cannot be taken as a symbolic gesture of dehumanization of the human victim simply by association. Instead, animals might have been used as means to deal with human crises, probably at the end of a long sequence of failed attempts at ritual healings.

Summary

Detailed observations of the context of animal use inform on our understanding of the dynamic ways that animals functioned in local society. For major domesticates, several well-defined contexts of elite consumption all centered on cattle, consistent with Okamura's (2004, 2005) observation of cattle's rise to prominence after the emergence of

Shang states. The evidence for five cattle right limbs in H690, the use of right cattle limbs in H1012, and a combination of forelimbs from different domestic animals in H1014, each in its discrete depositional context, all raise the question of ritual protocol, in quantity and/or species combination, which was central to the ritual systems of Bronze Age China. The display of animal limbs in burials followed similar ritual protocols that paid close attention to parts and sides of animals used in these self-contained contexts of ritual representation. Together, evidence of ritual protocols in animal use reveals shared conceptions of cultural order among communities in the broadly defined Shang world. In contrast to the pre-Shang patterns, the way animals articulated into Shang ritual life can be regarded as crucial aspects of the core symbols, along with ritual vessel sets, dress codes, and other apparatus, through which social hierarchy was represented and materialized.

Changes in food vessels took place in tandem with elaboration of consumption patterns. For food containers and cooking vessels, the shift of the entire assemblage from the Yueshi traditions to the Zhengzhou assemblage took place rather abruptly. While the local ceramic tradition was partially maintained in the presence of Type II ceramics, the assemblage of functional types shows an irreversible shift to a cultural practice consistent with the royal centers, defined by a basic combination of certain food vessels having little continuity with pre-Shang patterns. A related change is a rapid expansion of the scope of interregional interaction, represented by the presence of imported goods ranging from glazed stoneware, gold, bronzes, and jade, to cowry shells, which display sharp contrasts with local Yueshi society where the actual presence of non-native goods is very limited.

In summary, the perpetuation of Shang cultural order in the local society is multifaceted. Food institutions are an important realm of social action where a new order is reaffirmed and demonstrated. The human relationships with animals, however, involve much more than consumption. In the next two chapters, I will explore the dimension of religious communication, for which animals served as a critical medium.

Chapter 7

Oracle Bones: The Materiality and Protocols of Ritual Communication

Divination and Authority

The means by which humans communicate with invisible beings tend to reflect underlying assumptions about the nature of these beings, of the human subjects, and of the social relations between them (Keane 1997b). In this chapter, I look at religious communication in divination rituals at Daxinzhuang to explore relationships of power, religious knowledge, and social control. Shang ritual was an important realm of social action through which state control and local agency negotiated and/or competed for a legitimate voice in engaging otherworldly authority.

Cross-culturally, divinatory systems are important realms for the exercise of authority. Divination can be defined as

a process for obtaining information which is (typically) unavailable by ordinary means; that is, which cannot be gotten by the usual techniques of indigenous practical epistemology, such as seeing, hearing, being told by another person—the commonplace categories of evidential coding systems (to Chafe and Nichols 1986 in Du Bois 1992: 54).

The divinatory procedure has “the effect of stamping with a mark of special legitimacy a particular decision or a particular kind of response to crisis” (Park 1963: 200). In early China, the source of this legitimacy could lie in the “ultimate authority” of ancestors: “a confirmed divinatory verdict is an authorization, a sanction emanating from the ultimate source of authority in matters that concern the occult, the occult agencies themselves, for the ritual action proposed” (Fortes 1966: 415 in Ahern 1981: 86). This is critical for understanding the Shang archaeological material, as communication with the ancestors was the central concern of divination rituals.

Ahern (1981: 45) distinguishes two approaches to ritual divination—interpersonal divination (communicate with the gods) and non-interpersonal divination, aimed at understanding the forces and processes that operated in the world. This distinction allows us to separate systems of knowledge and systems of access to the gods’ knowledge—and to suggest that different forms of divination relate differently to political authority.

Interpersonal divination uses restricted codes and randomizing devices, which cannot be controlled by the human participants. In contrast, spirit possession is more open to human participation (Ahern 1981), thus it is less prone to become the exclusive practice of those with political authority.

A restricted code is a specialized means of communication that differs from ordinary language, in that the number of vocabulary items and the rules for their combination are relatively limited. Access to knowledge for divination involves understanding the constitutive rules and requires an elaborate system of interpretation, and is typically restricted to only certain actors – often those with religious authority. In interpersonal divination, the petitioner can be virtually certain of getting a reply of some kind from the god. The form-letter-like standardization of the replies, therefore, operates to enhance the authority of the practitioner because the social distance between those inside formal positions of political power and those outside it are clearly delineated by the possession of specialized knowledge (Ahern 1981).

This notion of restricted ritual communication serving those in control of political authority is based on Bloch's influential theory of ritual language as an impoverished form of communication. Bloch (1975, 1989) argues that the formal structure of ritual speech diminishes propositional meaning. Through formalization, what can be said is restricted and "choice of form, of style, of words and of syntax is less than in ordinary language" (Bloch 1974: 60). By these effects, highly formal speech restricts the range of possible interpretations and, in so doing serves the perpetuation of authority. Ritual speech "hides" social reality (i.e., the reality of political and economic disparities, including exploitation), reinforces the authority of those with power in society, and provides an idealized picture of the world that makes it difficult for anyone to challenge the established order.

Both spirit possessions and more restricted systems of divination operated in early China in their diverse manifestations. A major Shang ritual practice observable archaeologically was pyromantic divination, practiced by the royalty and the commoners alike. It is a highly formalized way of communicating with the otherworldly authority (from natural powers to recent ancestors), according to well-defined rules and protocols based on specialized ritual knowledge (Keightley 1993: 813). It was performed by

applying an intensive heat source to carefully prepared hollows bored into the back of a cattle scapula or turtle shell, and then interpreting the resultant stress cracks as signs of future auspicious or inauspicious events or outcomes —cracks resulting from the ritual performance produced both sound-like and writing-like signs simultaneously for interpretation by those with ritual knowledge, which falls into the broad category of early science:

because of the elaborate, consistent, and impersonalized theological structures, ritual practices, and cosmological assumptions that the Shang elites developed to give them cultural advantage and assurance when confronted with the world in general and with illness, weather, and bronze-casting in particular. Divination, as both science and technology, permitted the Shang, who paid much attention to the role of numeration, quantification, and timing, to test and implement the hypotheses they had formulated to explain their world (Keightley 2001: 144).

Kings and their inner elite also commissioned inscriptions to be carved into the divination bones after the cracking. These recorded the whole procedure in detail, including charges and verifications, and served as an important means to construct and maintain social memory (Keightley 1978).

Unlike spoken language, which could be perceived as untrustworthy and prone to manipulations in religious communication (Rappaport 1999), the materiality of the media, either scapulae or plastrons, played a significant role in the communication process. The signs were restricted in form and were subject to further technological manipulations and artificial simplification that made the results even more restricted and predictable. The practical aspects of producing the cracking signs, from the preparation of the bone to cracking the sign, inform on notions of truth and authenticity on the part of the practitioners. The ritual knowledge, rules of engagement, courses of action, beliefs, and practices systematically constructed the way the residents of Daxinhuang and broader Shang world spoke with the ancestors, natural powers, and otherworldly authority.

Ritual knowledge involved in religious communication included not only the ability to read the cracks, but also the correct rules to prepare the bones and bore the highly formalized hollows that produce legible and predictable text-like signs. I refer to this knowledge as “ritual protocol.” Shang society possessed certain underlying conditions of truth and convention that constituted what was acceptable in religious communication at a given time. Without these conventions specifying both acts and

effects, ritual performance could not achieve its goal, which lies in prediction as well as intervention in the future event:

Much Shang divination was concerned with forecasting the future, or with understanding the present with a view to shaping the future successfully. It seems likely, however, that the king's production of "lucky" cracks was also thought to play a magical role, so that the royal diviner did not simply forecast the future, he also helped to induce it. Many of the divination charges, accordingly, can be understood not simply as forecasts but as wishes, virtual incantations (Keightley 2001: 146).

Political power and ritual knowledge are interrelated in communicating with otherworldly authorities. Those in power often possess specialist knowledge, including ritual knowledge (Ahern 1981). The production of knowledge and the exercise of political power intertwine, and each serves to enhance the other. The problem that the rest of this study tries to investigate is the plural access to such power by ritual leadership outside the immediate circle of the Shang kingship, and the political consequences that such open access entailed to the broad society.

The conditions of truth in religious communication were subject to diverse negotiations, as individuals and groups choose to conform with, circumvent, or contest existing power-knowledge relations based on their historical circumstances. These negotiations may have resulted in changes to ritual practice at local and region levels, sometimes in major and relatively sudden shifts. While written evidence for the belief systems of the other regional traditions or non-elite in Anyang and other cities is lacking, the information from Daxinzhuang can shed light on the dynamic relationship between ritual communication and articulation of political authority in the broader Shang world.

Material Aspects of Divination

Animals, humans, and supernatural worlds converged in making sign systems and sign relations in religious communication with oracle bone divination. Modern scholars of oracle bones still often 'read' the inscriptions as 'representations' *about* the world and view the bones solely as a hard surface that the text was written on, paying little to no attention to how the text may be materially located *within* them. In contrast, I suggest that the materiality of oracle bone divination is significant in exploring the relationship between ritual communication and social control. Although the ritual performances surrounding the divination were brief, every episode of inquiry (or charge) left a physical imprint permanently recorded on the specially modified animal bones. The number of

inquiries made was restricted by the space on the bone and specific ritual knowledge guiding the use of the space.

The availability of bones was limited by the access to animals from the community or distant sources through a network of exchange and tribute taking. As an individual bovine has only a pair of scapula, such bony medium for religious communication did not have an unlimited supply—one had to have access to cattle to obtain bones. Result of faunal research presented in Chapter 5 has revealed that different communities had differential access to cattle in Shandong, which delineate along lines of social status. If lesser elites divined routinely about detailed aspect of their life, as did the royalty at Anyang, a scapula can run out rather rapidly. As cattle were important to the political economy of the Shang state, the general population likely had to exercise constraint over their worldly anxiety or was soon rendered speechless due to the shortage of proper media. Therefore, the materiality of this form of divination allows us to consider the “economy of religious communication,” in which access to both knowledge and media are prone to controlled access and political manipulation.

Many transformations took place between a chosen animal to become a finished communication device, and many of these can be seen in the archaeological record: cattle were first procured, then were slaughtered, offered to ancestors; consumed in a feast; bones were cleaned and processed into prescribed form; they were then ritually consecrated and hollows were bored and cracks made and interpreted after ritual performance involving sacrifices and ritual performances (Keightley 1999: 236). The yes or no produced by the crack may not be the end of the story, as subsequent interventions could involve re-phrasing the question, ritual intervention, or pledging of offerings to overturn the negative outcome, acts that can open up a whole realm of negotiation (Keightley 1978, 1999, 2004). After many episodes of use, oracle bones remained potent religious objects that could be turned into a medium for inflicting harm on the owner if they fell into the wrong hands. They were frequently ritually disposed, often at the bottom of a pit (Figure 7.1), sometimes with an offering of an animal. This concluded an oracle bone’s long life cycle as a piece of animal bone (Zhang Guoshuo 2003: 356).



Figure 7.1 Disposal of the an oracle bone at the bottom of a pit (H455:1)

The divination practice shared the same routine throughout the broader Shang society, with the exception of the carving a record on the bones, which was exclusive to the royalty and its inner elite. If political authority intervened in the religious communications of the broader society over which it claimed control, when, how and in what contexts did this occur? How was local access to religious communication reconfigured in this process? Specifically, if there was a tension between the institutionalized practice favored by the state and the tradition of “flamboyant, irregular, shamanism” of the traditional society, how did these two reconcile in the local society where the interaction of state and local interests produced different kind of circumstances for religion?

With these questions in mind, I hope to explore the role of sign making in ritual divination as part of social life in the Shang world. In the discussion that follows, I focus particularly on the shift in ritual protocols governing their production that occurred during the Middle Shang period. My consideration of the ritual reconfiguration during the Middle Period focuses on the following attributes of oracle bones: animal species utilized, ritual protocol (including methods of bone preparation, boring method, and

orientation of the signs produced), size of the medium, and their depositional contexts (including distributions at Daxinzhuang as well as inter-site variability).

Species Representation

Approximately one thousand oracle bone fragments have been found in excavations and surface collections at the Daxinzhuang site. The 1984 excavation produced 391 oracle bones fragments, including 80 oracle bones and 311 pieces of turtle shells (Xu and Liu 2003). The 2003 excavation yielded a total of 485 oracle bone fragments, consisting 143 oracle bones and 342 turtle shells. The 2005 excavation produced 14 oracle bone fragments with pyromantic marks. These include 11 mammal scapulae, one identified as cattle and two identified as deer, and three turtle plastrons. In addition, ten turtle carapace and bridge fragments without marks of pyromancy were excavated, which were probably separated associated with the divination bones.

In Daxinzhuang, bones from cattle, turtle, deer, pig, and human were used for divination at various frequencies; cattle dominate the assemblage and a human skull fragment is represented by a single example¹ (T0201 5B: 15 are two pieces of human skull fragments stuck together, one bears a pyromantic mark (Figure 7.2).



Figure 7. 2 Human skull fragments (upper left) with a pyromantic mark

¹ Sixteen specimens from the 143 oracle bones from the 2003 excavation are positively identified, consisting seven cattle scapulae, six deer scapulae, two pig scapulae, and one sheer scapula (Wang 2006).

By the Middle Shang period, turtle plastrons and carapaces appeared in the assemblage of oracle bones. This change presumably took place at Daxinzhuang after pit feature H690 was filled up, since the oracle bones found in the pit were exclusively of mammal scapulae. While a shell plate fragment from a soft-shell turtle along with a turtle femur were discovered in H690, there were no signs of divination using turtle plastrons. Since the extensive fauna assemblage and other categories of archaeological material deposited in the large pit feature provide a comprehensive representation of the diverse social activities taking place at the community, the absence of plastron divination in this context is probably a reliable indication that the new medium had not been adopted as a ritual device at the time, or was used only among some sectors of communication not represented by material remains from H690.

By the Middle Shang period, turtle plastrons had a significant share of the oracle bone assemblage from Daxinzhuang (Table 7.1). The small sample size and the potential for differential fragmentation and preservation of the two media in the post-depositional process warrants against taking the numbers as representative of the overall trend in divination practices at Daxinzhuang. Nevertheless, it is clear that turtle plastrons were used along with scapula by the end of the Middle Shang period.

Phases	Early Shang	Middle Shang	early Late Shang	Late Late Shang
Mammal Bones	1	38	40	8
Plastrons & carapaces		10	40	19
Total	1	48	80	27

Table 7.1: Quantity of oracle bone material from 2003 and 2005 excavations (2003 data based on Wang 2006: 29)

The Daxinzhuang assemblage of oracle bone falls into the period of some significant changes in the millennia-old development of the ritual practice. Ritual divination involving animals had great antiquity and was widely practiced worldwide. By the late Neolithic (4th and 3rd millennia B.C.), pyromantic scapulamancy, using heat sources to crack shoulder blades, has been well documented in multiple sites across China (Liu 1984; Liu 1997). These prehistoric practices generally utilized scapulae of sheep, deer, pig, and cattle.

During the early Bronze Age, the same inventory of species continued to be used in early walled settlements and their surrounding villages, such as at Erlitou, Dongxiafeng, and Xiaqiyuan Layer IV. At Zhengzhou, cattle, sheep, pig scapulae were reported from remains of the Luodamiao Phase of the mid second millennium B.C. (Henan Provincial Institute of Archaeology 2001: 109, 112). A cattle scapula and turtle plastron was reported from the Nanguanwai site, dating to the Nanguanwai Phase, also of the mid second millennium B.C. (Henan Provincial Institute of Archaeology 2001: 136).

Although turtle shells were used in ritual contexts by the sixth millennium B.C., the Zhengzhou plastron from the Nanguanwai phase of the marks one of the first occurrences of its use in pyromantic divination.² Its emergence at this important urban site serves as a strong indication for the convergence of diverse ritual traditions in the context of urban development and state formation in the mid second millennium B.C.

In the Early Shang period, cattle scapulae came to dominate the assemblage of mammal bones used for scapulamancy. During the Lower Erligang Phase, the majority of the 106 oracle bones from Zhengzhou were cattle scapulae (56), trailed by sheep scapulae (33), turtle plastrons (10) and pig scapulae (7) (Henan Provincial Institute of Archaeology 2001: 681). In the Upper Erligang Phase, turtle plastrons (37) increased to a third of the whole oracle bone inventory (Henan Provincial Institute of Archaeology 2001: 835).

At the Panlongcheng site, generally regarded as a garrison town of the Early Shang state in the Yangtze River valley, only cattle scapulae were reported during phase V, contemporaneous with the later Upper Erligang (Hubei Provincial Institute of Archaeology 2001). The residents did not practice plastronomy by the time of the site's abandonment during the end of Upper Erligang phase. This indicates that increasing use of plastronomy was not prompted by the increasing encounter with the culturally heterogeneous populations of southern China as a result of state expansion, nor were the southern colonies involved in procuring the new medium for use in cities like Zhengzhou

² At the Xiaqiyuan site in Cixian, Hebei, the use of turtle plastron in divination was documented in Layer III, which was attributed to the Pre-Erligang period (Hebei Provincial Administration of Cultural Relics 1979). However, the bones and plastron from this layer displayed a combination of characteristics that suggest that they were probably intrusions from early Late Shang features into earlier layers, including the removal of carocoid process, reducing the glenoid cavity in half, and the use of combination *zuan-zao* methods for creating hollows on both bones and plastrons.

during this period. The modest presence of plastronomy in Zhengzhou and its absence in Panlongcheng indicate that turtle shell was likely not among the many categories of goods moving through the interregional exchange network at the time.

This general pattern of species representation is consistent in Middle Shang period sites, where an array of animals was utilized in religious communication, with cattle scapulae and turtle plastron being the preferred medium for such devices. At Huayuanzhuang East Locus of Huanbei walled city site in Anyang, the overwhelming majority of 107 divination scapulae came from cattle, with a few from sheep. In addition, 43 turtle plastrons and carapaces were used for divination (Anyang Team 2004: 335). At Yinjiacheng, eight cattle scapulae, a tiger scapula, and a turtle plastron were documented in the Middle Shang component (Archaeology Specialty 1990).

Among Middle Shang sites, Xiaoshuangqiao is a puzzling exception. Among the enormously rich cultural remains and fauna assemblage excavated from this very important site, only two sheep scapulae used in oracle divination were documented (Henan Provincial Institute of Archaeology 1996). Since the excavation has uncovered skulls and horns representing sixty cattle ritually deposited in over a dozen pit features, the absence of oracle bones, particularly cattle scapulae and turtle plastrons, may indicate a spatial specialization rather than a decline in the ritual practice. Future excavation may reveal areas where those body parts of cattle not represented in this ritual context were deposited.

In contrast to the earlier sites, the oracle bone inventory at the Late Shang capital of Yinxu is disproportionately large. Of a total of 13,931 specimens reportedly excavated in Yinxu since the 1950s, approximately 83% ($n=11,579$) are scapulae (and some shaft bones) and 17% ($n=2352$) are turtle shells (Liu 1997). Cattle dominate the oracle bone assemblage, though deer, pigs, and sheep scapulae continue to be used. Divination on a wide range of other materials, ranging from tiger scapulae to human bones, was also attempted with less frequency.

The relationship between cattle scapulae and turtle plastrons is not one of a gradual replacement of one medium by the other, or of differential access by rank, as they were both used in royal divination in Anyang. Instead, a pattern of almost mutual exclusion was observed in some major discoveries. For instance, of 17,096 inscribed

oracle bones excavated from pit YH127 at Xiaotun in 1936, only eight were scapulae. While pit feature H3 from the Huayuanzhuang East Locus produced an assemblage of 1558 turtle shells and only 25 scapulae. The oracle bones from YH127 were divination records of the 21st king Wu Ding and those from H3 were by a powerful figure of Wu Ding's court.³ In contrast, 10,260 scapulae were discovered along with 75 turtle shells at Xiaotun South Locus in 1973, indicating a shift in emphasis on material under later kings (23-26th) (Anyang Team 1995). The composition of these major caches suggests different social or religious meanings attributed to the choice of media for religious communication.

Cattle were key economic and symbolic resources for political authority in many early Old World civilizations, and China was no exception. The increasingly dominant role played by cattle bone in scapulomancy developed in tandem with the increasing emphasis on cattle in the context of elite-sponsored rituals in the Shang state (Okamura 2004, 2005; Yuan and Flad 2005). The rapid increase in turtle shells in pyromantic divination, reaching enormous quantities in royal divinations by the reigning period of King Wu Ding during the early Late Shang, represents not only a shift or expansion in communication devices and ritual ideology, but also a change in the ritual economy of religious communication – the procurement of shells entails a different geographic configuration, as the turtles and cattle relate to human habitats on different terms. I will further elaborate on the implications for social negotiations in my examination of other attributes involved in this change.

³ Excavators of H3 argue that Zi was the head of a prominent lineage branch off from the royal lineage at time of the 12th king Zu Yi, could be descendent of 14th king Qiang Jia, one of two Zu Ki's sons who held the throne. The high status of Zi is attested by the frequent mention of offering sacrificial ritual, maintaining active interaction with Wu Ding's powerful consort Fu Hao and Ding, another influential figure in the military and political affairs of King Wuding's court, and issuing orders to lesser nobles or officials in the inscriptions. The powerful lord in Anyang had their own divining apparatus and specialists team. The size of the team of ritual specialists also attest to the enormous power of Zi, as at least ten diviners' names were mentioned in H3 (Liu and Cao 2003). Others dispute, e.g. Yang Shengnan (2004) argue that Zi was Wu Ding's crown prince Xiao Yi. Scholars have consensus, however, over the fact that Zi was a very influential member of the inner elite circle in Wu Ding's court.

Bone Modification

The increasing dominance of cattle and turtle among species utilized for religious communication is accompanied by an increasing formalization for methods of bone modification in transforming the animal bone in its natural state into a ritual device according to prescribed forms deemed authentic by the religious protocols.

For the scapulae, the scapular cartilage was first sawn away, leaving only the bony part of the scapulae. While the majority had no modification other than the removal of the spine on the lateral surface, some scapulae also had the lateral half of the glenoid cavity sawn away, reducing the oval shaped socket into a half-moon-shaped section (Keightley 1978:13) (Figure 7.3). The coracoid process and tuberosity near the socket of the cattle scapula was unmodified on oracle bones from all phases excavated at Daxinzhuang (Xu and Liu 2003; Wang 2006).



Figure 7.3 Modification on the glenoid cavity of scapula at Daxinzhuang

After separating the carapace from the plastron of turtles, the bridge on either sides of the plastron of the Daxinzhuang specimens was left untrimmed (Figure 7.4). Further, many plastron specimens from Daxinzhuang had their dorsal surfaces carved to thin the bony plate, leaving broad ridges on the hyoplastron and epiplastron (Figure 7.5).



Figure 7.4 A plastron with untrimmed bridge at Daxinzhuang



Figure 7.5 A plastron with carved bone plate at Daxinzhuang

These attributes are consistent in all of the Early and Middle Shang components at major Shang settlements, such as Zhengzhou, the Huanbei site in Anyang, and the Taixi

site in Gaocheng. A deviation from this widespread practice was documented in the Late Shang capital site of Yinxu in Anyang, where intra-site variations in bone modification are observed within the royal precinct and outside of it (Liu 1997). Here, the royal divination bones found in Xiaotun were modified in following ways: 1. The removal of half or a third of glenoid cavity on the costal side, as described for some Daxinzhuang specimens; 2. A right-angled notch was cut off the coracoid process and tuber scapulae (Keightley 1978: 13); 3. The right-angled notch is vertically oriented--its height is greater than width (Liu 1997).

The Xiaotun specimens have the dorsal surface of the plastron carved flat, leaving no ridge on the margins of hyoplastron and epiplastron. The bridge was trimmed and reduced to a narrow base long either side of the plastron (Keightley 1978: 13). For carapaces, two shapes were observed at Xiaotun. Type I comes from splitting the carapace into half along the long axis of the oval shaped shell. Type II results from further modification of the split shell into an oval shape by grinding down its corners (Liu 1997). These attributes for plastron modification were also shared at Houjiazhuang Southern Locus and Huayuanzhuang East Locus with the exception that Huayuanzhuang East Locus only had the split-carapace without further modification.

In his proposal of a chronological sequence for the morphological change on the glenoid cavity, Liu Yuanlin (1984) characterizes a shift from no modification during the Longshan and Early Shang period, to having the glenoid cavity split in half, and finally to the removal of the coracoid process after the Wu Ding period of the early Late Shang. While this typology has merit in describing a general trend, it fails to account for inter and intra-site variation in the co-existence of various approaches to transforming a bone into a ritual device; or rather, for different notions of what constitutes an authentic form of a ritual device. This pattern of variation is consistently seen in the multiple ritual protocols observed in these sites.

Outside of the royal precinct, Liu Yiman (1997) reported variations on the modification of the glenoid cavity and coracoid process among the nine relatively intact scapulae specimens from Huayuanzhuang Southern Locus. Among those eight pieces that actually had a notch cut into the coracoid process, six conform to the royal convention and two had a horizontal orientation—the width of the notch is greater than

the height. These variations indicates sharing of ritual protocols inside and outside the royal quarters to some degree, the residents outside of Xiaotun had produced the highly formalized modification on their ritual devices similar to the ones used by the ritual specialists serving the royal family and its inner elite. For the turtle plastrons, the specimens from Miaopu Northern Locus at Yinxu share a similar modification as the Daxinzhuang specimens (Institute of Archaeology 1987: 200-202 and Plate 44). For modifications of the carapace, deviations from the observed pattern of royal divination is also documented by a knife-shaped type III was reported from the site in addition to the type I described in Xiaotun.

In general, the modification process involved in preparing animal bones for pyromantic divination indicates a shift towards formalization only in the royal core of Anyang during the early Late Shang period, whereas a more generic approach from the earlier phase have been shared by the communities at large through the Middle and Late Shang periods. This pattern of shared practice in general society, in contrast to the elaborations with the royal court, is repeatedly seen in other attributes involved, which I will detail next.

Configuration of the Hollows

Traditional hunter-gatherer societies that practice pyromantic scapulamancy often burn the unmodified scapulae directly and read the configuration of burnt marks and cracks on the bone surface as a whole, much like reading a map of a symbolic landscape, giving a spatial orientation of unforeseen event and animals, i.e., the oracle divination among the Labrador (Speck 1977 [1935]: 157). Each bone, therefore, has a very limited use life. In addition, the reading scheme seems rather variable depending on the readers, whose interpretation could vary significantly from person to person.

In comparison to the caribou hunters, pyromantic divination in early China shows an intensive use of the space and greater efforts of human manipulation. In earlier periods, diviners directly applied heat to plots on the surface of unmodified scapulae, delivering answers from religious communication on localized lots on the bone surface and allows the bone to be used repeatedly (Keightley 1978). The whole “landscape” on the bone was reduced to slots and cracks resemble legible signs.

By the mid second millennium B.C., ritual practitioners started to bore hollows or

cavities on the surfaces of the scapulae and plastrons (Wang and Yang 1999: 229). By the Shang period, the majority of oracle bones excavated from major settlements have had hollows created on them using a variety of methods. Four types of hollows were created on the bones: (1) single round hollows (Figure 7.6), (2) single long vertical cuts, (3) a vertical cut at the bottom of a round hollow, and (4) the combination of a round hollow (known as *zuan*, boring or drilling) and a long vertically cut groove (known as *zao*, chiseling) by its side (Keightley 1978: 18; Hsü 1979). The last method, known as the combination *zuan-zao* method, was widespread and formalized in Late Shang oracle bones.



Figure 7.6 Details of round hollows on cattle scapula from Daxinzhuang

In the Central Plains, scapulae and plastrons with round hollows were documented in Early and Middle Shang contexts at Zhengzhou and the Huanbei site in Anyang (Henan Provincial Institute of Archaeology 2001: 136; Anyang Team 2004: 333-6). In addition, the combination *zuan-zao* method was applied to turtle plastrons from Middle Shang contexts at the People's Park site in Zhengzhou and at Huanbei in Anyang. In the early Late Shang period, the combination *zuan-zao* method became the dominant approach in conducting religious communication through divination, particularly in royal divination at Yinxu, Anyang. In other regions, and outside of royal precinct in Yinxu, parallel protocols of religious communications were observed, with round hollows and

combination *zuan-zao* method used side by side widely in the Late Shang society.

At Daxinzhuang, temporal variations in the morphology of the hollows on the oracle bones recovered from 1984 and 2005 have been studied (Xu 1995c; Xu and Liu 2003; Wang 2006). According to their study, specimens from the Middle Shang and earlier periods primarily used round hollows on scapulae. During the late Middle Shang period, turtle plastrons using round hollows appeared in the assemblage in small numbers. A small number of turtle plastrons bear hollows created with the *zuan-zao* method. Meanwhile, all the scapulae had round hollows. By the early Late Shang period, the *zuan-zao* method is more common on the turtle plastrons, which were used in great frequency by now. However small in number, our material from 2005 is consistent with their observations. The majority of 14 specimens from the 2005 excavations, which date to late Middle Shang to early Late Shang period, consist of cattle scapulae fragments with round hollows and fragments from plastrons, while two plastron fragment displays combination *zuan-zao* pyromantic hollows.

Variation in construction of the hollows has a direct bearing on the pattern of signs produced by cracking the bone. Cracks produced by heating a round hollow have the potential to spread in all directions, and are thus open to broad schemes of interpretation. In contrast, hollows produced with the *zuan-zao* method produce a rather restricted sign, resembling the Chinese character 卜, “divination” (Figure 7.7), combining a vertical crack line, produced by the deep vertical cut, and a horizontal crack from the round hollow on its side (Figure 7.8). The addition of a vertical cut adjacent to the round hollow has made the sign produced from the divination ritual more predictable. Like the caribou hunters in Labrador, the Shang society probably still treated their divination bones as world maps (Keightley 2000: 93). With the increasing human manipulation of the signs produced by the pyromantic divination, however, as seen from the elaboration of hollows that produce these signs, bones as map became a cosmological metaphor rather than practical source of spatial reference.

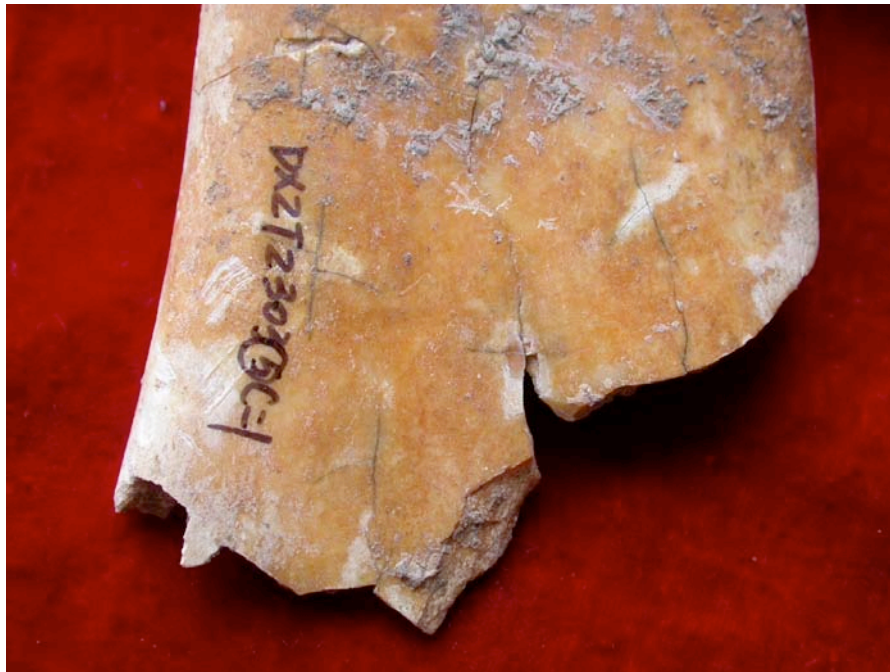


Figure 7.7 The resulting *bu* cracking signs on a cattle scapula from Daxinzhuang



Figure 7.8 A plastron with *zuan-zao* hollows in “mixed orientation” from Daxinzhuang

Such modes of communication restrict the range of possible interpretations by generating form-letter-like replies. The restrictive responses provided by the *zuan-zao* method suppress local idiosyncrasies in ritual knowledge of the practitioners when it comes to reading the crack signs. Instead, it favors those impinging social forces

perpetuating a notion of authenticity based on these standardized signs in religious communication.

By the early Late Shang period, the use of the *zuan-zao* method had become the dominant protocol for religious communication in some sectors of Shang society, particularly the upper strata. What do these changes in ritual protocol and the presence of parallel channels of religious communication reveal about Shang society at large? The adoption of new methods called for a new set of conventions and knowledge in creating, deciphering, and interpreting the character-like signs. The rapid spread of this new method across a vast landscape outside the metropolitan centers of Zhengzhou and Anyang involves transmission of ritual knowledge across social networks and generations. The increasing popularity of the *zuan-zao* method in Daxinzhuang divinations manifests a broader trend among polities in the Shang world.

Orientation of the Signs

Shifts in the morphology of the hollows on turtle plastrons towards the *zuan-zao* method allows the identification of paired charges, one positive and one negative, often symmetrically cracked and divined on a single bone at a single time (Keightley 1988). In Anyang inscriptions, the diviners from the Bin group (Period I), in particular, favored a form of divination in which they treated the topic at issue in complementary fashion. Rather than offer a direct question to the Powers, they formulated a pair of “charges” (*ming ci*), one positive and one negative, the “charge” being understood as the statement of a prediction, a hope, or a fear (Keightley 1999: 243). The horizontal combination of the *zuan* and *zao* allows observation of the orientation of the 卜 like sign produced on the bone surface, which, as I elaborate below, turns out to be a critical attribute for delineating social boundaries.

While the majority of early Late Shang oracle specimens from Daxizhuang shared the *zuan-zao* method with the royal divination ritual at Yinxu, they differ in the orientation of the signs produced on the turtle plastrons. The orientation of *zuan-zao* hollows on the Daxinzhuang specimens can be characterized as a “mixed orientation” (Figure 7. 8). The hollows could be arranged in a variety of orientations— with the transverse line in the 卜 shaped crack sign pointing either towards each other or opposite to each other, a pair of hollows could be placed both on the same half of the plastron or

across the centerline on both sides (Xu 1995c; Xu and Liu 2003; Wang 2006).

The mixed orientation layout was widely documented at Shang sites during the Middle and Late Shang periods, including at People’s Park in Zhengzhou (Henan Provincial Institute of Archaeology 2001: 927), Huanbei in Anyang (Anyang Team 2004: 334-6), and Taixi in Gaocheng (Hebei Provincial Institute of Archaeology 1985). The exclusive use of the mixed orientation at these sites indicate that it was the default ritual protocol with the spread of the *zuan-zao* method on plastrons during the Middle Shang period and continued to be used by the local societies in Late Shang.

In contrast, the inscribed divination bones from Xiaotun, Huayuanzhuang East Locus, and Houjiazhuang South Locus, key locations for royal divination, all used a highly symmetrical layout, which I call the “symmetric orientation” (Figure 7.9)—the paired charges were arranged symmetrically across the centerline, dissecting the plastron into left and right, and the signs produced by each pair of combination *zuan-zao* hollow bored on either side of the plastron, point towards the centerline and each other like mirror reflection (Liu 1997).



Figure 7.9 A turtle plastron fragment from Xiaotun, Anyang displaying the “symmetric orientation” in the layout of the combination *zuan-zao* hollows (*Heji* 635 back).

Distinctions between court and common practices are not restricted to plastrons. At these three royal locales, the *zuan-zao* hollows on carapaces are also orderly and oriented toward the centerline. Hollows on most of the scapulae used in royal divination are oriented towards one side only (the side of carocoid process) and some are symmetrically oriented towards each other. At Maopu North Locus and other non-royal sites in Anyang, the hollows on carapaces shows a mixed orientation, some oriented towards the centerline, others perpendicular to it. The hollows on scapulae from these sites are primarily oriented towards each other. Therefore, the contrast in the orientations of hollows on scapulae is not as clearly drawn as on the plastron.

The spatial pattern for two orientations for plastronomy, one broadly distributed and one exclusively royal, reveals important boundaries of social demarcation. The spatial boundary can be best observed south of Xiaotun—where several hundreds of turtle shells from H3 in the eastern locus exclusively used the symmetric orientation, in accordance with the status of its patron Zi as an inner elite and a senior member of a royal lineage. In contrast, oracle bones with mixed orientation are reported at Miaopu North Locus, Wangyukou South Locus, and Huayuanzhuang South Locus at the Late Shang capital Yinxu. These were areas of craft production and lesser elite residence during the Late Shang period (Institute of Archaeology 1987: 202 and Plate 44). Therefore, the non-royal quarters in Yinxu shared in ritual protocols throughout the broader Shang world in their divination practices during the Late Shang period (Liu 1997; Liu and Cao 2003).

The rapid shift to a new ritual protocol in the Shang court, as seen by the exclusive use of the symmetrical orientation as well as by the sudden use of writing in great quantity at the royal quarters in Anyang, constitutes a major religious reconfiguration immediately before or at the start of King Wu Ding's reign during the early Late Shang. Through this decisive move, the royal divination set itself apart in ritual protocol and many other aspects from the ritual practices of the lesser elite and regional lords in the broader Shang world. The social implications of this reconfiguration, particularly on the patterns of interaction and dissimulation of religious knowledge, can be fully appreciated when we see these attributes in spatial contexts at Anyang and contemporaneous sites.

Size Variation

After the discussion of changes in the inventory of species involved, making of the device from bones, and specific protocols for communicating with the otherworldly authority (including natural powers and ancestors), I now present evidence relevant to addressing how these diverse attributes fell under the rubric of social control, particularly in state access to prime media for ritual communication.

To be socially effective, exclusive access needs to be manifest on attributes culturally meaningful to the society. In historical China, the size of turtle shell was seen as positively correlated with age and wisdom, thus value. Transmitted text from the first millennium B.C. even proposed an idealized notion of ritual hierarchy for the size of the turtles that was appropriate for participants of various ranks: “the son of heaven used (turtle plastrons) of one foot and two inches long, lords used eight inches, ministers six inches, and commoners four inches” (*Yi-li* quoted in *Taiping Yulan* vol. 931), which approximate 28, 18, 14, and 9 cm (Liu 1997). There is no indication, however, that such rank-based restriction in ritual devices was ever implemented in early China. Nonetheless, the fact that a size hierarchy was worked into a material manifestation of a political ideology reveals that an association between size and status was probably entrenched in historical memory of earlier ritual practices.

In Daxinzhuang, the largest plastron is specimen DXZ03T2302-5B:1, the single inscribed divination bone discovered at the site (Fang *et al.* 2003). Damaged on both dimensions, the preserved portion measures 18 cm long and 10.7 cm wide (Figure 7. 10 and 7.11). Sun and Song (2004) estimate that the original plastron would have measured approximately 24 cm long and 13.5 cm wide if intact. With the exception of this extraordinary discovery, the size range of plastrons at Daxinzhuang falls between 14.5 cm and 11.2 cm from all phases (Wang 2006: 21).

This size range also applies to the plastron and carapace fragments from the 2005 excavation. The limited quantity of plastron specimens from Nanguanwai and People’s Park site in Zhengzhou and Huanbei, Anyang all fall within this size range, indicating a lack of significant size variation at the inter-size level during the Early to Middle Shang period. This is consistent with the lack of social demarcation in other attributes, namely bone modification and configuration of hollows. As palatial foundations, royal bronze

hoards, some elite tombs, and large sacrificial features (i.e., the ditch feature filled with human skulls in Zhengzhou and the pit features full of cattle skulls in Xiaoshuangqiao) have been documented at these pre-Yinxu sites, the current observation is probably not a reflection of sampling bias. On the other hand, the absence of royal tombs in these sites serves as a strong indication that these early cities have not yielded all their secrets.



Figure 7. 10 The inscribed oracle bone specimen DXZ03T2302-5B: 1 from Daxinzhuang (Shandong Provincial Museum 2007: 25)

In Yinxu, there is significant size and quantity variation between the royal precinct and the common area. Excavations from nine Late Shang sites outside of the royal core produced approximately 600 plastrons, all of modest size, and roughly same number of bones (Liu 1997). In contrast, the royal sites around Xiaotun yielded a very large quantity of specimens—at least 100,000 fragments of inscribed specimens and at

least the same quantity of uninscribed specimens (Keightley 1978: 166; Liu 1997). These royal sites had exclusive use of the premium turtle shells for divination. From the pit feature YH127 in Xiaotun, more than forty plastrons exceeded 30 cm in length, with the largest shell reaching 44 cm. The seven largest turtle shells from Houjiazhuang South Locus fall in the range of 27-29 cm. Many of the plastrons from H3 in Huayuanzhuang East Locus also fall in this range; more than 20 plastrons were more than 30 cm in length, with the largest specimen reaching 34.5 cm (Liu 1997). Most of the royal divination plastrons are in the range of 20-30 cm.



Figure 7.11 Combination zuan-zao hollows in a “mixed orientation” on the oracle bone specimen DXZ03T2302-5B: 1 (from Fang *et al.* 2003: 5 Figure 2)

The size variation in cattle scapulae shows a similar pattern, with some enormously large specimens reported from the Anyang royal archives, either from adult oxen or wild bovid. The Daxinzhuang scapulae, even in their fragmented state, clearly

came from smaller animals. Since adult oxen were regarded as the prime offering at ritual sacrifices in early China and wild bovids were frequently targeted in royal hunt (Fiskesjö 2001; Okamura 2004, 2005; Yuan and Flad 2005), their exclusive association with the political authority is a predictable pattern. In contrast, the elite at Daxinzhuang were not as resourceful in their animal offerings and cattle were off limit for commoners consumption or family ritual in early China.

Sources of the Bones

Size variation usually indicates differences in age, habitat, or species. Liu Yiman (1997) argues that the size variation reflects a difference in sources—the royalty and high elite used turtle brought in as tribute, while the lesser elite and commoners used locally available turtles. Despite contradicting proposals on the species of turtles used for Shang divination (Berry 1978; Ye 1994; Ye and Liu 2001), which reflect challenges posed by the separation of plastrons and carapaces and the lack of crania and skeletal bones for identification, two tortoise species native in China – Chinese stripe-necked turtle (*Ocadia sinensis*) and Reeve’s turtle (*Chinemys reevesii*) – dominate the major Anyang oracle bone assemblages (Ye and Liu 2001). *Ocadia sinensis* dominates the assemblage at H3 at Huayuanzhuang East Locus while *Chinemys reevesii* is most common at Taixi. Based on observations of comparative samples from the Museum of Zooarchaeology, University of Michigan, I can only come to the conclusion that Daxinzhuang specimens closely resemble these two native species, as most specimens from our excavations are in fragmentary state.

In contemporary China, *Chinemys reevesii* are found widely distributed in the Central Plains and southern regions, while *Ocadia sinensis* come from southern China. The broad geographic distribution of these two species, compounded by the potentially warmer and more humid climate of the second millennium B.C., makes it difficult to pinpoint a source for the tribute. The generally larger size of *Ocadia sinensis* (11.8 to 24.6 cm) in comparison to *Chinemys reevesii* (7.3 to 17 cm) seems to favor the profile observed at H3 in Huayuanzhuang, where Lord Zi would have access to large shells from more distant regions than the elite in smaller communities like Daxinzhuang and Taixi (Ye and Liu 2001). However, overlap in the size range and habitat, similarity in morphology (especially on fragments), great variability, and sexual dimorphism in these

species (female being larger) makes any attempt to map out the distribution pattern problematic.

A lack of inter-site variation in quantity and size based on current data makes it difficult to trace the interregional movement of turtle shells and plastrons during the Early to Middle Shang periods. For the most part, divination bones were probably fashioned from locally procured animals, including cattle used in ritual sacrifice and elite consumption. One would, however, still expect to see variations as a result of differential access to animal resources within and between communities.

Since the early Late Shang, the frequent use of marginal notations on the plastrons or scapulae to document the source and quantity of the bones makes it rather evident that a large quantity of oracle bones used in the Late Shang royal divination were brought in from other polities along with other tribute goods and livestock (Keightley 1978: 15).⁴ The Late Shang inscriptions indicate that turtles were brought in large installments, often in the hundreds (Wang 2003).

Many inscribed plastrons from YH127 bear notations on the bridge indicating sources close to Anyang, such as 我致千 “Wo brought in a thousand” (*Heji* 116 back), 雀入龟五百 “Que brought in five hundred turtles” (*Heji* 9774 back). Based on such notations, Hu Houxuan (1944) estimated that at least 10,000 turtles were brought to Anyang from different locales, primarily from southern regions of the Shang polity. In his study of Shang historical geography, Zheng Jiexiang (1994) places Wo near Lankao in southeastern Henan and Que near Zhengzhou, both south of Anyang. The close proximity of these polities to Anyang is attested by frequent mention of their affairs in royal inscriptions and by their significant role in court politics, as their leaders served in the capacity of generals, diviners, and court officials. It is difficult to estimate the volume of movement, as “so-and-so brought in a thousand” inscribed on different bones could

⁴ Marginal notations: after the bones or shells had been sawed, scraped, and smoothed but before the hollows were bored or chiseled, marginal notations, which recorded such matters as the source and number of shells and bones sent in, the persons associated with their handling, and the day-date, were frequently made. On the turtle plastrons, these administrative records were carved on the back of the bridge, on xiphisplastron, or on the lower part of the carapace, near the spine. On scapulas, they might be carved either in or near the socket itself or on the lower part of the bone, either front or back, near the edge (Keightley 1978: 15).

come from the same installment or different ones. It is also unclear whether these polities procured their turtles locally or obtained them from their own networks of exchange.

Similar notations are also found on plastrons from H3 at Huayuanzhuang East Locus, indicating that the prominent Lord Zi also received tributes from other polities, including the valuable large turtles that were absent in most communities. Such independent access to the premium divination material by the inner elite is justified by Zi's prominent role in King Wu Ding's court and senior membership in the royal lineage. Scholars frequently cite historical sources from the first millennium B.C. stating that the Yangtze River Basin as a major source for the turtle shells (Keightley 1978: 12; Song 1999). As the Late Shang kings in Anyang did not maintain direct control of this region, shells from that area would have had to be obtained through elaborate networks of exchange. Current archaeological research has yet to identify a southern depot for such a trade. For instance, excavations at the important southern city site of Wucheng in Jiangxi did not reported traces of oracle bones. While this could partially be attributed to the acidic soil of region, the preservation of human skeletal remains and "small amount of animal bones" in the city moat suggest that the absence was not completely a result of post-depositional process (Jiangxi Provincial Institute of Archaeology and Zhangshu City Museum 2005: 501). In contrast, the stamped stoneware from Wucheng has been distributed as far as Zhengzhou, Anyang, and Daxinzhuang (Chen *et al.* 2003). The Yangtze River basin origin of plastrons and its political implications for southern cities like Wucheng in distribution networks of turtle shells cannot be resolved with the current evidence.

For cattle scapulae, marginal notations on the royal divination bones indicate that the largest installment brought in consisted of 80 pairs (*Heji* 9544), trailed by five mentions of 50 pairs (*Heji* 9396-9398), and many installments below 40 pairs. The sources for these tribute payments covered a wide range of names; officials, kin, elite women, and subordinate polities that were mentioned in the Wu Ding period inscriptions (Wang 2003: 417). Unlike turtles, which were procured and possibly raised in captivity for the specialized use of divination, the butcher of large meat-bearing animals like cattle was always tied to ritual offerings, feasting, distribution of meat among kin, and other social activities. The removal and attribution of the scapulae for royal tribute would not

have gone unnoticed in the local scene and would probably have been a component of the elaborate rituals of meat consumption.

Movement of large quantity of bones towards the political centers creates conditions for specialized storage and processing areas before their ritual use in royal divinations. A shell storage pit at Xiaotun locus 1 (pit 9, Zhujiadi) produced several hundreds turtle shells of various sizes with their carapaces and plastrons intact. Similar stockpiles for cattle scapulae are also known. The first Yinxu excavation also discovered several hundreds pounds of unprepared scapulae and the 1973 excavation of H99 in the South Locus at Xiaotun also produced 31 unworked scapulae (Anyang Team 1975: 27-46).

At Daxinzhuang, the uniformly small shell size in the local archaeological assemblage indicates some invisible force of social sanction prevented the residents at Daxinzhuang from access to prime quality material for religious communication. Working from the assumption that both *Ocadia sinensis* and *Chinemys reevesii* had significant size variation in their natural habitat, several alternative hypotheses about the source of Daxinzhuang specimens can be made. If the turtle specimens at Daxinzhuang were locally procured, as the natural habitat in Jinan was suitable for at least one of these two species commonly used in divination (as seen by the abundant freshwater species in the features, refer to the fauna chapter that covers these shells), the size selection may indicate that the city's inhabitants sent the big ones to Anyang as tribute and kept the smaller ones in the community. If they were not procured locally, then Daxinzhuang residents either obtained their turtle shells from their sources through trade and exchange, or obtained them from Anyang, which, in turn, received them from the source communities as tribute and kept the large ones for royal use.

While the current evidence remains inconclusive on the source question, it does offer some clues about the divination activities at the site. All cattle scapula discovered at the site bear marks of divination; thus at least some of the ritual devices derived from locally consumed cattle. Ritual deposits of cattle skulls in several features from the 2003 excavation and concentration of cattle bones at feature H1012 in Daxinzhuang (Chapter 6) indicate ritual activities mimicking those at Xiaoshuangqiao and Anyang at a reduced scale. Such activities generated cattle scapulae to be turned into devices of ritual

divination. The recovery of two spine fragments split from cattle scapula provides evidence for on-site processing of the scapula for ritual divination (Chapters 6 and 8). Their deposition in large pits filled with the residential debris from elite consumption suggests that such activities was part of the local social life. Given the small sample size, we do not have sufficient evidence in the bone assemblage to suggest whether some locally produced bones were sent away or if Daxinzhuang actually received additional scapulae from other communities.

Although the later divination rituals at Daxinzhuang made heavier use of turtle shells, as seen by the dramatic rise in turtle carapace and plastron fragments in the Middle to early Late Shang period, no corresponding rise in the frequencies of turtle bones was observed. The only turtle bone found at the site was from H690 in the 2003 excavation in association with a shell plate of soft shell turtle (Chapter 6). The absence of such small bones cannot be solely attributed to sampling bias, as small bones from hare, rodents, fish, and bird were frequently recovered both from screened sediments and from heavy fractions of flotation.

This discrepancy indicates the turtles were either reduced into carapace and plastron at a specialized location at Daxinzhuang not yet excavated, off the site, or in the community where they were initially procured and processed. The latter scenario seems most plausible as the faunal assemblage from the excavations generally presents a generalized use of social space, in which diverse social activities are well represented in the residential debris in these large features. The absence of turtle bones from local processing of the ritual device would favor the hypothesis that turtle shells were probably shipped in through a distribution network rather than locally procured.

Intra-site distribution of oracle bones from the last three seasons of excavations reveals no signs of concentration. Unlike Anyang, the excavations produced no evidence for specialized areas at the site where the unused or used bones concentrated at Daxinzhuang. With one exception of a burial context, oracle bones were either found in pits or mixed with residential debris in houses and cultural layers. This lack of spatial specialization seems to rule out the presence of ritual specialists who had exclusive control of all the bones and performed the divination ritual for patrons in the community. Instead, the decentralized distribution indicates that the bones were probably in the

possession of household. This close association with household raises important questions concerning the transmission of ritual knowledge to the household level. As protocols of religious communication shifted towards a more restricted and formalized direction over time, following the practice from centers of political authority, how did ritual protocols as well as the ritual knowledge associated with them become embedded in the religious life of local inhabitants of Daxinzhuang? Who was involved in the various aspects of divination practice? I will explore these questions in the next chapter.

Summary

Since the mid second millennium B.C., culturally heterogeneous communities in the broadly defined Shang world adhered to the use of diverse ritual devices, species, and protocols for their communication with ancestors and otherworldly authority. While the state effort to control, simplify, and restrict these parallel channels of religious communication was never completely successful, we have nevertheless observed some major trends in this realm— as innovations in media and methods were added to the traditional repertoires of ritual practice. Both of these innovations came from the political centers in Zhengzhou and Anyang.

First, cattle scapulae rose to prominence, displacing a broad range of species that had earlier been used in divination rituals. This transition took place in tandem with the increasingly critical role of cattle in state ritual institutions. Second, a significant shift to turtle plastrons took place in the Middle Shang period. Turtle was initially added to the use of scapulae. Over time, turtle plastrons came to play a significant role and in some contexts dominated the assemblage during the middle to early late Shang periods. Changes in the species profiles for ritual devices were followed by the development of a new method for making the crack signs more predictable. This was accomplished by adding of a deep, vertical cut next to each round hollow. This modification, along with the use of paired charges, reduced the range of possible interpretations.

As Ahern (1981: 110) argues, restricted codes are often found in rituals that inherently involve artificial simplification. Thus, the restriction suppressed local variations in interpretation and favors those who formulated or acquired the elaborate ritual knowledge for interpreting such codified signs. The spread of this ritual protocol based on restriction during the mid Shang period, probably at the expenses of localized

ritual knowledge, has the potential to expand the social distance between those inside formal positions of political power with access to ritual knowledge and those outside it. Since restrictive codes operate through rules of exclusion, delineating what can be spoken of, where and how one may speak and the privileged, and who may speak, it favors those in power and in control of specialist knowledge, both in interpreting the signs and in associated protocols. Therefore, ritual becomes means of social control through formalization.

As these two major source animals featured in the political economy of Shang divination ritual in different ways, their use in the local community affected the way that the state power was manifested in the social and religious life at Daxinzhuang. Cattle commanded enormous symbolic value in Shang society and were closely tied to state sacrifice and elite feasting. Turtle was a specialized medium used exclusively for ritual devices and its distribution network was prone to political control. As the comparison with Anyang shows, the shift to turtle plastrons, which display clear signs of asymmetry in size and quantity, resulted in increasing state monopoly of the media of religious communication upon which the local societies increasingly relied. The result was that outlying communities were increasingly tied to the Shang political axis.

The ability to create and interpret the character-like signs involves transmission of ritual knowledge across generations and social networks. Given that a wide range of methods for bone modification was in use at any given time at Daxinzhuang, the monopoly of a single, exclusive lineage of specialized diviners can be ruled out. Instead, the presence of different media and diverse systems of bone processing—resulting in different cracking patterns—marks the existence of competing protocols and ritual knowledge for religious communication in the community. Variation in protocols reveals networks for the transmission of sacred knowledge and cultural preferences. Patterns of networks identifiable from the use of diverse attribute would only partially overlap. Some attributes, such as the symmetric orientation of the hollows, were exclusive to the royal core, while other attributes and protocols were widely shared across social boundaries. Spatial pattern and provenience even allow some of the social boundaries to be clearly defined.

The highly codified ways of the divination ritual, and the variations and changes

in many attributes of ritual practices, particularly in the context of the practice by the inner elite in Anyang, present important sources of evidence for understanding the nature of political interaction at a time when the early state was rapidly taking form over a vast landscape of cultural and social heterogeneity around its dynastic core at Zhengzhou-Anyang region.

Instead of merely reflecting or expressing reality, ritual also creates reality. Major reconfigurations in Shang divination ritual had the effect of creating a shared experience across a vast landscape. Ritual reorganizes experience, providing a kind of learning, through which the world is simplified for the individual: the complex world of experience is transformed through ritual into an orderly world of symbols. The ritual reconfiguration featured into the larger process of the state establishing itself in the broader arena. The state may have promoted solidarity among its regional representatives through such new institutions of ritual constructed around a cosmology of Shang supremacy and divine kingship. The Shang ancestral ritual encouraged the internalization of the theological assumptions involved in the new protocols and validating new cognitive structures and a particularly sense of Shang identity (Keightley 2004: 29). Such an effort, on the other hand, was not implemented without encountering resistance from alternative traditions promoted by the local authority.

While it is clear that these changes in divination ritual manifested its full effect during the Wu Ding period in early Late Shang, particularly with the overwhelming volume of royal divination records from Yinxu, this research shows a critical transition was already underway during the Middle Shang period, when the use of turtle plastrons rapidly increased and the *zuan-zao* method spread rapidly across a vast landscape with little variations. This challenges our previous understandings that the Middle Shang was a period of crisis and decentralization. In the next chapter, I use the discovery of inscriptions on turtle plastron from Daxinzhuang as evidence to further elaborate on the nature of local interactions with the Shang centers.

Chapter 8

Writing and Religious Communication in Daxinzhuang

Rationales Beyond the Royal Court

The ability to create and interpret the character-like signs involved transmission of ritual knowledge across generations and social networks. Given that a wide range of methods for bone modification was in use at any given time at Daxinzhuang, the monopoly of ritual knowledge by a single, exclusive lineage of specialized diviners can be ruled out. Instead, the presence of different media and diverse systems of bone processing—resulting in different cracking patterns—marks the existence of multiple protocols and ritual knowledge for religious communication in the community. Variation in protocols reveals potential presence of multiple networks for the transmission of sacred knowledge and cultural preferences. I expect that the patterns of networks identifiable from the use of diverse attributes only partially overlap.

Plurality in channels of religious communication indicates that the Shang claim to religious supremacy probably did not come uncontested. It had to cope with problems emerging from diverse sources of religious power embedded in the non-royal lineages in the broadly defined Shang world. Inscriptions from royal divination at Anyang reveal that the Shang powers are divided into six groups (Keightley 2004: 6): 1. Di, the High God; 2. Nature Powers, like He (the River Power), Yang (the Mountain Power), and Ri (the sun); 3. Former Lords, like Kui and Wang Hai, who were ancestors whom the cultists now associated with the dynasty; 4. Predynastic ancestors, like Shang Jia who received veneration ahead of Da Yi, the dynasty founder; 5. The dynastic male ancestors, starting with Da Yi, who could be grouped in a number of ways; 6. The dynastic female ancestors, the consorts of those kings on the main line of descent. The worship of non-dynastic powers (groups 1-3 above), whether natural or human (a distinction that might not have been easy or even desirable to make), presumably strengthened the king's position by enlarging the scope of his influence in the spiritual world.

The key issues for analyzing the Shang religious system is to understand how state involvement in reconfiguration and implementation of ritual protocols serve to advance the state agenda in the culturally diverse societies it came to subjugate through conquest. Through what Keightley (2004) regard as a form of “spiritual imperialism,” the spirits worshiped by local populations were co-opted into the official Shang theology, frequently being placed in the shadowy, and relatively “empty,” pre-dynastic ritual space before Da Yi, the dynastic founder. The establishment of a hierarchy of religious order centered on the royal lineage and its connection with other powers manifest the state’s effort to harness or reduce the religious authority beyond the state pantheon. In frontier sites like Daxinzhuang, we have the potential to identify the archaeological evidence for the state effort to implement the religious supremacy, as well as the potential failures to achieve its goals on the ground.

Moving from the state pantheon to the operational aspects of religious communication, the exclusive use of writing, the monopoly of premium oracle bone materials, and certain elaborate protocols set the royal divination apart from more common practices in the broadly defined Shang world. The use of writing on oracle bones, which attests to the emergence of first writing system in early China, was found nearly exclusively in the royal precinct of Anyang. Since their discovery at the turn of the 20th century and the subsequent archaeological excavations from the 1920s, some 100,000 inscribed specimens have come to light (Keightley 1978). These have provided valuable information on diverse aspects of the social life and anxieties of a very small and privileged sector of the Shang population. The exclusive use of writing by the inner elite is consistent with Baines and Yoffee’s (1998: 235) observation that writing was a key aspect of “high culture”, which was “under the control, and for the benefit, of the inner elite of a civilization, including the ruler and the gods.”

Since the production and content of writing was limited to the inner elite of many early civilizations, textual data tell us little about most other social sectors except as they intersect with elite interests, thus we have some indirect account; women as well are generally excluded or marginalized in written records (Stein 2001: 356). The extraordinary discovery of an inscribed early Late Shang oracle bone from Daxinzhuang presents the first look at the concerns and anxieties of members of the intermediate elite

outside the royal capital. It opens up a completely new dynamic of the political relationship from the perspective of the elite of an outlying region. As my analysis will reveal, the inscription is closely related to women's life in the local society. It allows us to address those questions raised in the previous chapters in new lights: What does it mean to have those outside the inner elite have access to this crucial aspect of the High Culture? How was such knowledge transmitted?

The diverse social power embedded in plural channels of religious communication has its ramifications for the two prevailing theories of the relationship between Shang religion and political authority: K.C. Chang's (1983) argument for shamanism as the ideological source for Shang divine kingship and Keightley's (1998, 2004) argument that Shang divination ritual became more bureaucratic and routinized as the political system became more rational and institutionalized. The difference between Chang and Keightley rests in their understandings of the nature of religious authority during the Late Shang and the ways it became embedded in the political system.

Chang's (1983) argument that the political authority of Shang kingship was based on the monopoly over channels of religious communication has long been the most influential theory on the nature of Shang kingship. Art and ritual became keys to unlock the ideological source of the political power. Chang identifies the Late Shang kings as both chief shamans and head diviners; both roles that reinforced the supremacy of divine kingship. While the connection between religious authority and political one is the premise for this dissertation research, I disagree with Chang's characterization of Shang kingship along the lines of spirit possession, which was a defining attribute of shamans.

In my view, Chang's perspective collapses two potentially contradictory sources of religious powers and fails to consider the potential threat of shamanism for political authority. As Ahern (1981: 86) points out, different types of ritual practices could relate to political authority differently and "rituals of divination that involve restricted codes are more useful to political authorities than those that do not." Restricted codes would be favored by state as "their ossification, standardization and somewhat arbitrary application" reflect and reinforce the nature of formal authority (ibid). As the bony mediums for the communication were prone to political control (as were other precious items closely interwoven with the representation of wealth and state authority, i.e.

bronzes, jade, stoneware, and ivory), the access to these ritual devices for religious communication inevitably varied with social status.

In contrast, forms of ritual communication involving less restricted forms of divination, such as spiritual possession, remain independent of the function of official authorities. It is in this latter category that shamanism fell and its esoteric nature was a potential hazard for formal authorities like kingship. Therefore, I agree with Keightley's critique that kingship and shamanism constitute two incompatible sources of power in early states.

Keightley (1998, 2004) considers priesthood emerging with state apparatus at the expense of the irrational shamanistic religious practice of non-state religion, which belonged to an earlier stage of social development or to non-state sectors. The suppression of the idiosyncrasy of local practices and the rise of more standardized practice in outlying settlements like Daxinzhuang seemingly manifested a triumph for the consolidation of Shang state power. This model of Shang religion and state institution has two limitations. First, it privileges the state as the sole engine of political change. Second, it assumes the coherence of ritual communication without acknowledging variability, risks, and tensions. By characterizing the ritual practice in the non-state sectors as remnants of shamanism belonging to an earlier stage of social development, as well as less "rational," Keightley fails to recognize that the local modes of religious communication may be politically situated and there might be good rationale for not shift to the state-centered practice and its embedded power relationship.

As anthropologists have become increasingly concerned with understanding the heterogeneity, contending interests, and disjunctive perspectives that persisted within the centralizing efforts of early states, they have learned to be suspicious of official depictions of order and domination (Brumfiel 1994; Stein 1998; Sinopoli 2001; Yoffee 2005). A nuanced approach to early states has to account for dynamics of how states manage to establish themselves in the social lives of the broader society, acknowledging their weakness and strength, success and failure.

A distinction between power, authority, status and their various representations at various levels of the Shang society, highlights the fact that the apparent coherence of the state order masks the continuous efforts of negotiation involving the inner elite, the

broader elite, and the local communities over which the Shang claimed dominance. This distinction is especially important when the effort to weave their diverse interests together is a far from untroubled business (Keane 1997a: 7). The effort of coping with sources of power potentially working at cross purposes, the relevant locus of agency—living individual, disembodied ancestor, household, faction, clan, interclan alliance—is subject to ongoing construction and transformation.

In studies of ritual, performance, and conversation, attention has increasingly shifted from a focus on formal patterns to understanding the emergence and negotiation of meanings over the course of interaction. The seemingly repetitious efforts of routine ritual are not free from political implications. As Keane (1997a: 6) argues:

Even the simple norms of everyday propriety, among the least dramatic elements of any cultural account, may serve particular interests or forces of domination (Scott 1990). If the normative is the language of political hegemony, then ritual should be hegemony's most powerful instrument, its authoritativeness bearing some relation (echoing, reproducing, or disguising) to the distribution of political authority within society.

Ritual practices are often construed as reproducing the social order in formalized practices to ensure the stability of authority. However, ritual also embodies potential for change, as one of the aims of ritual performances is to influence the world as well as make the difference between before and after (Wagner 1984). The desire to influence the outcome of religious communication was particularly prevalent in Shang divination, as manifested in offerings of human and animal sacrifices, formalized speeches and protocols, sacred knowledge of names and origins, premium quality bones associated with ritual feasts and special protocols, and other realms of negotiation. I suggest that ritual is best understood as an active field of negotiation rather than a straightforward reproduction of the existing social order and conditions, either in state or non-state sectors of the Shang world.

In this chapter, I use the discovery of an inscribed turtle plastron at Daxinzhuang as a case study of local interactions in the broad Shang world, and of power and agency. I first discuss its archaeological provenience, the embodied episode of religious communication, and how writing is materially situated in the medium of ritual communication. Attention will be placed on kinship and gender as examples of the overlapping sources of power in Shang society.

Inscription and Divination

Archaeological Provenience. Fragments from a single specimen of inscribed turtle plastron were excavated from layers 5A and 5B in unit T2302. Layer 5 (67-108 m) is a Shang layer directly beneath two layers of recent deposit. Ranging from 10 to 22 cm in thickness, 5A is a stratum of horizontally distributed cultural materials rich in pottery sherds, animal bones, oracle bone fragments, and fresh water shells. At the bottom of this layer is feature 5B, a flat, densely packed earthen surface of fine matrix with signs of trampling. A series of postholes around the surface indicate that the oracle bones were scattered on a floor of a house of approximately 15 sq. meters. Therefore, 5B can be best described as consisting two contexts—the floor surface and material that the floor is made of, which has few inclusions other than gravel. Over ten clusters of turtle shell fragments were scattered on the floor surface, probably related to the ritual activities that took place at the locus (Figure 8.1 and 8.2). A child was buried beneath the floor (M59), presumably as foundational offering for the house. Most of inscribed fragments were found lying on the floor, and can be refitted to a single inscribed plastron, registered as DXZ03T2302-5B: 1.



Figure 8.1. The excavation of inscribed oracle bone fragments on a house floor at Daxinhuang (T2302)

Uninscribed turtle shell fragments were also found on this floor. One more inscribed fragment was found in layer 5A, showing some disturbances from the primary context (Fang *et al.* 2004: 27).

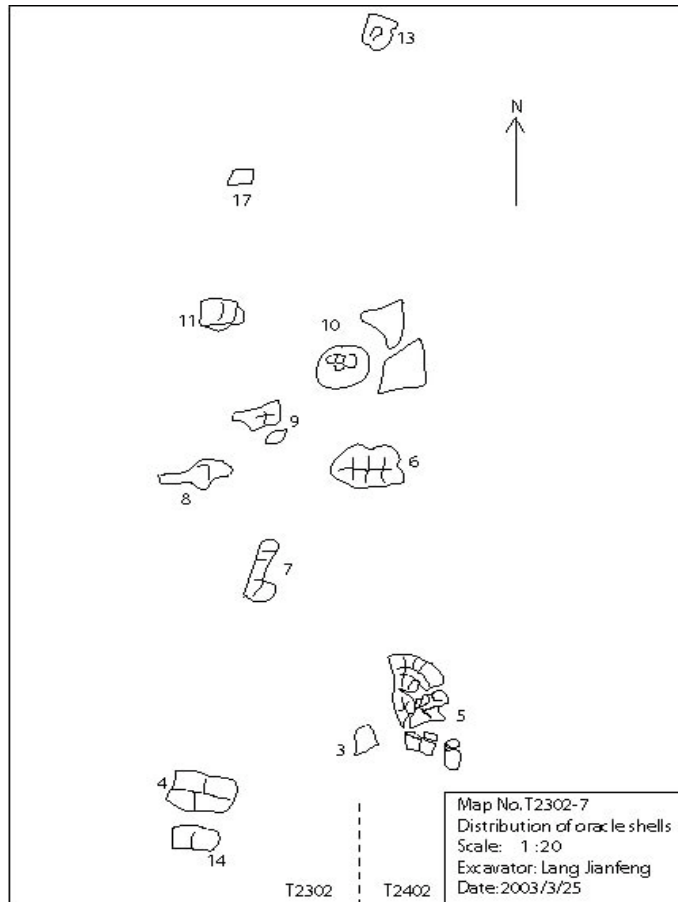


Figure 8.2 Distribution of oracle bones on a house floor in unit T2302

Two features (H547 and M72) in direct relationship with the layers 5A and 5B in excavation unit T2302 help to date the inscribed specimen (Fang *et al.* 2004: 27). Pit feature H547 (top diameter 1.04 meter, bottom diameter 1.22 m, depth 0.93 m) lies immediately below level 5B. Diagnostic ceramics, including two *li* tripods and one *dou* stemmed dish from H547, date to the Yinxu II of Late Shang (Figure 8. 3).



Figure 8.3 Yinxu II period pottery *li* tripod from pit H547 under the floor

In addition, a Late Shang cemetery superimposes layers 5A and 5B. Three graves (M62, M72, and M86) were excavated. M72 has been reported on and its bronze and ceramics date to the late Yinxu III (Fang *et al.* 2004: 27). Therefore, the stratigraphic context helps to date the inscribed oracle bone specimens between late Yinxu II and late Yinxu III.

Inscriptions. My reading of the text builds upon the works of various scholars who have written on this specimen, i.e. Fang *et al.* (2003), Li Xueqin (2004), Zhu Fenghan (2004a), Sun and Song (2004), and Zhu Qixiang (2004). I first discuss the meaning of each character, followed by a translation of the paired charges and a discussion of the layout and orientation of the text (Figure 8. 4).

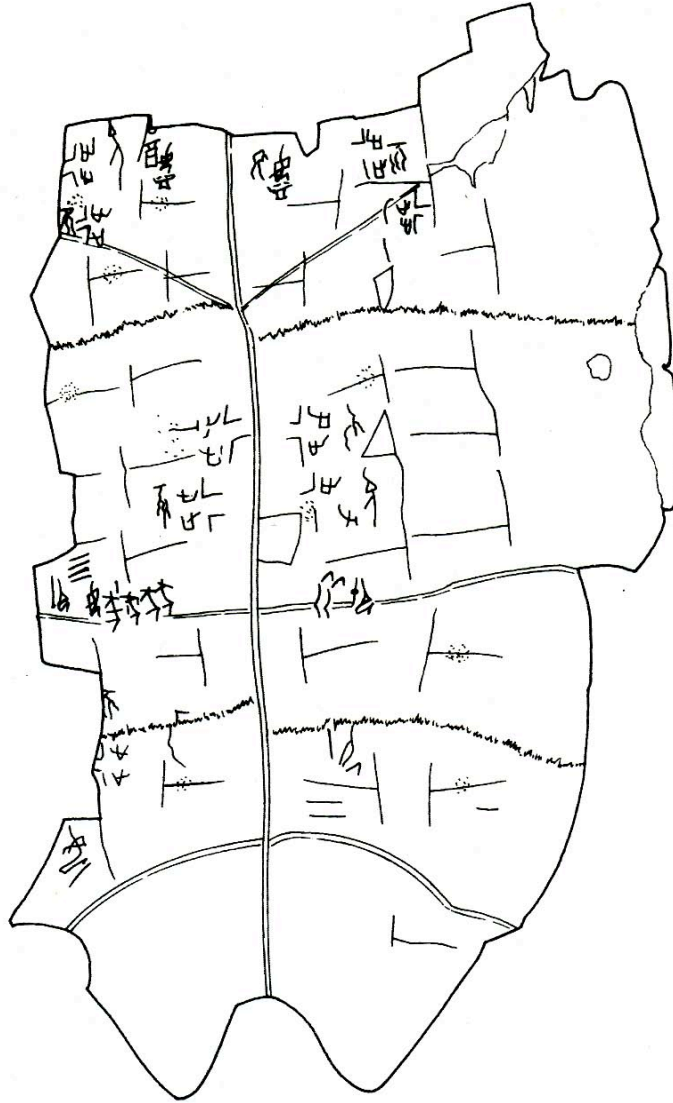


Figure 8.4 A traced copy of inscriptions on oracle bone specimen DXZ03T2302-5B: 1 from Daxinzhuang (Sun and Song 2004: 67 Figure 1)

The composition of characters and the stylistic attributes of the calligraphy on the Daxinzhuang specimens closely resemble the Anyang inscriptions. This allows the rendering of the characters based on a vast body of literature on oracle bone inscriptions from Anyang (Fang *et al.* 2003; Sun and Song 2004). Tables 8.1 and 8.2 present the characters in their original layout on the plastron.

text position	Left half of the plastron	Right half of the plastron
1 hyoplastron	徙允 [] 酉温	弎温 徙不
2	不徙	[允] 徙
3 hyoplastron	徙 []	徙不
4	徙 不	徙允
5	四 御 母彘豕豕豕	弎御
6	不 徙 弎	御
7	母	二 一

Table 8. 1 Layout of the inscriptions on the plastron (based on Fang *et al.* 2003; Sun and Song 2004; Zhu Qixiang 2004)

Text position	Left half of the plastron	Right half of the plastron
1 hyoplastron	evom deedni [date] bath	no bath evom on
2	no move	[indeed] move
3 hyoplastron	[indeed] move	evom on
4	move no	evom deedni
5	four yu mother pig pig pig pig	no yu (exorcism)
6	no move no	yu
7	mother	two one

Table 8. 2 Direct translation of inscriptions in relation to their location on the plastron (reverse spelling order indicates the orientation of the characters)

The subject of the divination was centered on the ritual of *yu* 御, the performance of a certain ritual exorcism in the presence of certain ancestors or deities for fending off

harm and disaster, frequently used in contexts of disease (Yang 1954). It was frequently mentioned in oracle bone divinations, particularly during earlier phases of royal divination in Late Shang. The inscriptions often specify an ancestor, or a combination of them, who were called upon to be present and provide protection for the principal of the divination or other named living descendant identified as the recipient of protection. For instance, 辛卜其御子而于妣庚 “divined on the xin day, making *yu* exorcism for Zi Er in the presence of the female ancestor Geng (*Huadong* No. 181).

In this context, female ancestor (*bi*) Geng was the sources or providers of the spiritual power for exorcism to beneficiary Zi Er. Sometimes, the recipient was not named, and the quantity of animal offerings were indicated following the name of the ancestor from whom the exorcism was solicited, i.e. 癸巳卜：御妣辛：豕五 “divined on the date of gui-si, making *yu* exorcism in the presence of female ancestor Xin, five pigs?” (*Heji* 22074). In this instance, the recipient of the protection was presumably the principal him/herself.

While the details of this ritual exorcism are lost to time, the character *yu* itself shows a person kneeling by a post or rope with two knots, leaving us a visual representation of the performative aspect of the ritual in which the living person engaged with an object, possibly the material embodiment of the ancestor solicited. Analysis of the context of its usage in royal oracle bone inscriptions reveals that its performance was closely related to the body and health, a major source of anxiety for the Anyang elite. For instance, five inscriptions from the H3 at Huayuanzhuang East Locus (*Huadong* No. 39, 53, 275, 450, 501) mentioned serious concerns for symptoms of *Tinnitus* (ringing sound in the ear), which was perceived as inauspicious in Shang. In H3, the a ritual exorcism was performed for Lord Zi in regard to his illness, i.e. 子腹疾 弔御 “Zi with abdominal illness, not to perform *yu* exorcism?” (*Huadong* No. 240)

The ritual exorcism has to be solicited from the ancestor and performed by the living for the recipient. The king would perform the *yu* exorcism ritual for the lineage heads of the royal clan and members of the royal lineage, soliciting the presence of the designated royal ancestors with offers of sacrifice to not do harm to the subject for whom the exorcism was performed. Such exorcisms could be rather formal and were performed at the settlement of the subject by the king on the royal tour, i.e. *Heji* 13740, provides an

example of the king concerned with whether to perform the *yu* ritual at a settlement plagued with disease epidemic (Zhu Fenghan 2004a: 182).

Mu 母, “mother,” refers to female elders of the parent’s generation, alive or deceased. The living receives protection while the deceased relatives could potentially be either sources of protections or origins of trouble, depending on the provision of proper human care. The *yu* exorcism was frequently offered to or solicited from multiple recipients, frequently phrased as “(performing) *yu* ritual exorcism in the presence of or for many mothers (or brothers)” (Zhu Qixiang 2004). Since the mothers in the Daxinzhuang inscription were offered animal sacrifices, they were presumably dead and had become female ancestors. Therefore, the number four above the space between *yu* and *mu* probably refers to the number of female ancestors, whose presence was requested in the ritual.¹

豨 is a pictograph depicting a pig with an arrow through its body, either a hunted wild boar (Fang *et al.* 2003) or a pig brought down as part of an archery ritual, common among ancient aristocracy (Liu Yuan 2002). In either case, the animal offered was distinguished from the generic stock by emphasizing the performative aspects associated with it, either hunting or ritual.

豨 represents a pig surrounded by three dots. The addition of dots next to a specific part of an animal body usually indicates the cut or wound purposely inflicted on the animal, such as a dot or slash on the pig penis to indicate a castrated pig (Sun and Song 2004). Since three dots collectively make up the character 小 “small,” the combination character probably refers to a small pig; similar usage is seen on H3 inscriptions excavated at the Huayuanzhuang East Locus (*Huadong* No. 124).

The character 豨 probably refers to a subcategory of pigs to distinguish them from the other two types listed. Fang *et al.* (2003) read it is a domesticated pig whereas Sun and Song (2004) argue that it refers to female pig. The character itself, however, yields little to evaluate the alternative proposals. Thus, I remain content that the last two

¹ The irregular placement of number four on top of the line makes it possible for an alternative reading that the number marks the sequence of the pyromantic marks next to the charge rather than part of it (Fang *et al.* 2003). Since the ancestress as recipients were offered with four animals for the exorcism, it is plausible that the female ancestors was provided with matching number animals (Li Xueqin 2004; Zhu Qixiang 2004; Sun and Song 2004: 71)

pictographs refer to generic pigs in general.

The four nearly identical pictographs represent an inventory of the animals for sacrificial offering in the exorcism. Similar uses of pigs in the *yu* exorcism ritual for female ancestors are commonly seen in the Anyang inscriptions (Zhu Qixiang 2004). In contrast to the description of the mothers by a number, the individual depiction of each sacrificed pig reveals the attention paid to the physiological and symbolic differences in sacrificial animals in such ritual contexts. This is not necessarily the norm, since some inscriptions describe the animals individually and ancestors in plural, while others list animals in plural and name the ancestor recipients individually.

The character 徙 is constructed of two footsteps by a crossroad (Sun and Song 2004: 72). The verb refers to the general notion of “to move” as in moving from one place to another, moving in, moving home, migrating, or traveling. As travels remained a common source of anxiety, especially to unfamiliar terrain, the prospect of *xi* was frequently divined in the historical era. For the meaning to be established for this context, however, the verb for mobility needs to be examined in relation to other charges in this specific episode of religious communication, particularly the subject of the movement. Since the rest of inscription consist of repeated charges regarding a single inquiry concerned with performing the *yu* exorcism ritual and offering animal sacrifices for the exorcism, the verb *xi* probably refers to the descending movement of ancestral spirit from their otherworldly domain to the ritually defined space where they received offerings (Zhu Qixiang 2004; Sun and Song 2004). It was likely part of the single effort of the many repeated inquiries, rather than referring to moving residence, travel, or migration, which would be a different subject matter.

盥 has a less direct correspondence with the modern character. It depicts a kneeling woman in a pedestalled vessel with dots depicting water drops between the two. It is generally thought as referring to the verb to bath oneself with water for purification in ritual context or to prepare for a ritual ceremony (Sun and Song 2004).

The other characters and numbers are more closely tied to the divination practice itself than to the content of the charges. 允 marks the positive charge, which means “indeed, in fact, truly.”(Sun and Song 2004: 72). 弔 (do not, not to) and 不 (will not) both are expressions making the negative charge in the divination. As a paired charge is

generally phrased as:

(Positive charge) the king will in fact do something at some place at some time

(Negative charge) not to do so.

These two terms lead the negative charge.

One 一 and two 二 are two crack numbers, to indicate their sequence in the set for multiple charges concerning the same inquiry. In Anyang oracle bone inscriptions, such crack numbers were inscribed into the front of the plastron before the content of the charge itself was carved. Clearly, the Anyang practice was followed here, with the exception of the orientation of the numbers in relation to the actual cracks they mark. I will further elaborate on this later.

To place these key terms in the context of a single divination episode with repeated charges, the inscriptions on the plastron can be tentatively interpreted as such: To perform *yu* exorcism ritual in the presence of the four mothers (presumably deceased, thus female ancestors) by offering four pigs of various attributes? Or no *yu* exorcism? To have a purification bath (for the ritual)? Or no bath? Would the spirits of (the female ancestors) come down to receive the offerings? Or not? These charges were probably spoken at the time of divination, and the inscriptions carved on bone were only an abbreviation of a more complete charge proposed orally for each crack (Keightley 1978: 33).

Ritual speech and the accompanying material practices (sacrifice, offerings, and feasting) are the central components of such events, usually associated with high formality, shared cultural values, and traditional ceremonialism. The problems of communication between this world and another, or of handling authoritative words derived from distant sources, are critical to many religious practices: Not only do they impose special semiotic difficulties on human practitioners, but their language must sometimes contend with the fact that the very presence of the deity, spirits, or ancestors cannot be taken for granted (Keane 1997a). Therefore, multiple charges about *xi*, to move or to descend, or “are you coming?” were aimed at securing the actual presence of the ancestral spirits into the scene of communication and encounter.

The key concern for the religious communication was the line about the ritual exorcism involving the four mothers—soliciting their involvement in providing

protection and blessing from the female ancestors and providing four pigs in return. Therefore, the charge was complete with details. Other charges focused on aspects of the exorcism.

Erving Goffman (1981) distinguished several roles involved in ritual speech events, including the *principal* who bears responsibility for what is said, the *author* who formulates the actual words, the *animator* who utters them, the proximal *addressee* of the utterance, the *target* to whom the words are ultimately directed, and the *overhearer*. To treat a spirit as the addressee of words is to impute to it a different sort of presence, and perhaps agency, than that of an overhearer (Keane 1997b). In the case of Shang oracle divination, the diviner may combine the role of author and animator, and the addressee was either the ancestral spirits and natural powers in absentia or an impersonator, though the latter is generally believed to be not in use until the 1st millennium B.C. (Liu Yuan 2004). The individual who initiates the ritual, however, may not be the one for whom the ensuing benefit from the ritual was intended. In this case, the addressees were the four female ancestors, and the principal remains unknown, presumably an adult elite figure at Daxinzhuang, male or female. The beneficiary for the ritual exorcism, who may or may not be the principle, is also unknown.

The ritual practice described in the inscription closely resembles the ethnographic account provided by Bascom (1941: 43 in Ahern 1981: 86) on divination practices. A divination generally follows the pattern of describing a previous divination for an animal or legendary character, which is to serve as a precedent for the client; they begin by naming the diviner who made the prediction and usually tell the problem that confronted the character and the sacrifice that was prescribed for him. They tell how that character either sacrificed and prospered, or failed to sacrifice and met with misfortune, and conclude by stating or implying that the present client is confronted with a similar problem and should make similar sacrifice. Actions proven efficacious by past experience are cited as precedent in the present.

The divination itself is a highly structured performative event, involving ritual speech, reading of signs, and engraving the charges afterwards (Wang and Yang 1999: 204). The charges were framed in a combination of simple and complex sentences. As seen in Anyang, the inscription at Daxinzhuang used one or two lines as the headlines,

complete with the subjects concerned (Sun and Song 2004: 69). Other repeated efforts would be phrased with simplified lines, much like “to be or not to be” without specifying what was actually referred to. Such combination charges generally took place in the context of repeated inquiry about a single event—a ritual exorcism in this case, involving ancestor veneration, ritual bathing, and the sacrificial offering of pigs. The same issue was divined multiple times, from different perspectives, with the questions phrased differently to secure a reliable result. The practice was not just a matter of determining what the spirits wanted; it also told the ancestral spirits what the principal wanted. The habit of not asking questions but of proposing answers served to limit the kinds of answers that could be obtained (Keightley 1984: 22-23.)

As Shang diviners preferred to make cracks in sets of three or five,² divinations were probably made on other bones of the same set concerning the same event, though these have yet to be excavated at Daxinzhuang (Keightley 1978: 39). The repetition of charges indicates anxiety and serious attention to the ritual event in question. Unlike rolling dice or any other randomizing device that provide unlimited opportunities for repetition, the materiality of the turtle shells and cattle plastrons sets limitation to the number of charges one could make in the ritual practice. Coupled with the scarcity of the prime medium, this limitation implies that each episode of religious communication entailed significant expenditure for the patron. In addition, the differential quality of the media was probably perceived as contributing to the quality and effectiveness of the communication—the use of precious media was probably perceived as either contributing to a favorable outcome or simply as yielding more accurate outcomes.

Inscription Orientation. The material attributes for the media of communication and the layout of the inscriptions mutually reinforce a ritual order based on a binary opposition. Within one inscription, the graphs are read from top to bottom in columns or sideways as lines. The natural symmetry of the plastrons (and scapula pairs) encouraged the oracle-bone engravers to balance the inscription in antipodal fashion so that if one column moved from right to left, the matching column would move from left to right (Keightley 1978: 50). On turtle shells, the columns might be read moving from the center

² At the Taixi cemetery, sets of three oracle scapula bones were placed on the ledge of some burials (Hebei Provincial Institute of Archaeology 1985).

of the plastron towards the edge, or from the edge towards the center; pairs were usually of this form, being carved so that the inscriptions either moved toward or away from, each other, like mirror reflections. Charges were occasionally written as single horizontal lines; it was also possible for a horizontal line of graphs to continue as a vertical column or vice versa, or even for an inscription to shift from vertical columns to a horizontal column and back to a vertical column. Some of these patterns tended to be associated with specific plastron areas. For scapula, the direction of the cracks influenced the direction of the inscription. In general, the inscriptions ran against the cracks. If the *bu* 卜 crack faced right, then the columns of the inscription moved from right to left, in the opposite direction; if the *bu* crack faced left, then the inscription columns moved from left to right (Keightley 1978).

Liu and Cao (1999) further observed four major patterns in orientation for the placement of oracle bone inscriptions at Anyang.³ Unlike the almost universal use of the “symmetric orientation” in the hollow placement on oracle bones for the Shang kings and the inner elite at Xiaotun, which indicates some shared understanding of religious protocol among this exclusive group, the variations in text placement reveal multiple networks or circles for the transmission of religious knowledge and ritual protocols, probably associated with different diviner groups or lineages. Lord Zi alone had at least fifteen diviners in his entourage, who would be the social circle responsible for the distinctive patterns of text placement noted by Liu and Cao (1999).

While symmetry remains a central preoccupation in the spatial placement of charges on the plastron, texts for each pair of charges on the Daxinzhuang inscription are oriented in a single direction rather than the oppositional directions seen on the Anyang

³ 1. the symmetric orientation: moving from the center of the plastron towards the edge, those on the left move leftward, those on right move rightward. Those on the front and back, moves from the edge towards the center, those on the left move rightward and those on right move leftward; 2. Wu group: most conform with the symmetric orientation, but some (such as *heji* 22048, *yi* 4063) the columns move from the edge towards the center; 3. Zi group, most texts on the plastron move leftward, few move right ward; 4. H3 from Huayuanzhuang East Locus the columns move from the center of the plastron towards the edge, most in single lines, or turning from single lines to multiple lines (Liu and Cao1999).

specimens. For instance, the positive charge “*yu* (exorcism) four ancestors four pigs” on the left hyoplastron and the negative charge “no *yu* (exorcism)” on the right hyoplastron both read from left to right. Two pairs of charges in the first line were each oriented to one direction, one pair on “bath” reads toward right and another on “move” toward left. Clearly, there is no dominant orientation among multiple pairs of charges on the plastron. Such a mixed orientation in the text layout is distinctive from all previously observed patterns in the royal center at Anyang (Sun and Song 2004; Liu and Cao 1999).

Difference from the royal practice is also seen in the placement of the crack numbers, which are placed next to each highly formalized cracking pattern consisting of a vertical and a transverse cracking line produced by the *zuan-zao* combination hollows. The location of the crack number indicates the direction of the transverse crack (Keightley 1978: 37). In Anyang, this number was generally placed to the right or left of the upper end of the vertical crack and on the same side as the transverse side; occasionally, it was placed at the end of the transverse crack. The crack number on the Daxinzhuang specimen is placed at the lower end of the vertical crack, on the side and below the transverse crack. This pair of numbers was both on the right hyoplastron, and both transverse cracks point outward, clearly represent the “mixed orientation” defined in the previous chapter and different from the ritual protocols of the Shang kings and inner elite.

The Daxinzhuang specimen shares many attributes with its Anyang counterparts, including plastron preparation, morphology of the hollows, paired charges, character composition, calligraphy style, grammar, ritual protocol, and subject matters. These similarities are indicative of the intensity of interaction between the two regions. However, differences in the text orientation, hollow orientation, and the placement of crack numbers, deviate from the court practice at Anyang. These differences indicate that the practitioner of the divination ritual at Daxinzhuang was probably a local elite rather than the Shang king or member of the inner elite among the entourage passing through the settlement during one of the many royal tours through the Shang domain. Having made this distinction, I will explore the social identity of those involved in the ritual practice and the implications of such local access to aspects of the High Culture for the making of the Shang world.

Ritual Exorcism and Female Ancestors

The addressee of divination charges at Daxinzhuang were the principal's own female ancestors, who may not be members of the royal lineage (at least the text did not use the terminology reserved for the royal ancestors). This makes it an example of the so-called "non-royal divination inscription," those divination records associated with the high elite previously identified in Anyang, including those belonging to Lord Zi in pit H3 in Huayuanzhuang East Locus (Zhu Fenghan 2004b). Zhu Fenghan (2004a) has convincingly argued that the ruling elite at Daxinzhuang probably had its own ritual system for ancestor veneration, associated ritual protocols, and divination tradition, while maintaining close interactions with the royal court in Anyang. Using the size comparison discussed in the previous chapter, the estimated size of Daxinzhuang inscribed plastron (24 cm based on the estimate of Sun and Song 2004) is modest by the standard of Shang royal divination (the largest reaching 44 cm in length). However, it is the largest divination plastron locally seen. This close connection between the prized medium for ritual communication and the near exclusive practice of writing, at Daxinzhuang as well as at Anyang, informs on the ways that political and religious authority was conveyed in Shang society.

The inscription shows acute observation of the writing practice and workings of the religious communication of the inner elite in Anyang by ritual practitioners at Daxinzhuang. This find does not have parallels identified of the Late Shang capital until the very end of the dynastic power, and raises important questions. Who were the people involved in the ritual event? How did the elite at Daxinzhuang foster and maintain such high-level connections with the court? What would be the consequences of such local access to aspects of the high culture formerly thought to be exclusive to the inner elite in Anyang? Understanding the social identity of those involved in the ritual practice can provide insight into the ways that religious knowledge was maintained and transmitted. I will first look at the nature of the exorcism and the source of religious power, and then make inferences on the people actually involved in the ritual.

Both male and female ancestors were venerated in ancestral rituals and called upon for ritual exorcism for their descendents. During the early Late Shang period the addressees of *yu* exorcism were frequently prominent ancestors, who were importuned to

assist with or prevent misfortunes.⁴ For instance, among 689 inscribed oracle bones (primarily turtle shells) discovered in pit H3 in Huayuanzhuang East Locus in Anyang, 53 inscribed specimens are concerned with the performance of *yu* exorcism ritual (Anyang Team 1993; Liu and Cao 2003). Of the 43 inscribed pieces that actually named the ancestor called upon for the exorcism, 26 were directed at female ancestors only and three called upon both male and female ancestors (*Huadong* No. 149, 162, and 409). Most (25 times) were directed towards the female ancestor “Bi Geng,” which, according to the excavators, could refer to either or both of two prominent female ancestors by this name, the wives of Zu Yi (12th king) and Zu Jia (14th king, also known as Wo Jia or Qiang Jia) (Liu and Cao 2003), from whom the lineage of Lord Zi, the chief principal of the divination bones deposited in H3, seemed to have branched off from the royal line. The concerns addressed to these two prominent female ancestors were primarily related to the health and illness of Lord Zi himself, such as toothache (*Huadong* No. 163), oral disease (*Huadong* No. 247), and abdominal problems (*Huadong* No. 240). Sometimes, health conditions of other named elite individuals were the focus of the divination (i.e. *Huadong* No. 478 and 214). These individuals were presumably close to Lord Zi, including his own children. In contrast, no specific health concerns were addressed to the former kings Zu Yi and Zu Jia themselves, despite frequent offerings of sacrifice to these male royal ancestors, presumably as a general gesture of veneration.

The *yu* exorcism was frequently performed in the presence of ancestors to cope with health and safety concerns and prominent female ancestors were perceived as the primary providers of such protection in the early Late Shang world. Powerful elite figures like Lord Zi evoked the spiritual power endowed in their own lineage for interventions in actual or perceived life crises. Ancestral intervention was rewarded by their living descendents, Zi in this case, with animal and human sacrifice, ranging from frequent offerings of a pig or cow, often with color and sex specified, to the extraordinary offer of 105 cattle to the female ancestor Bi Geng for her presence in a *yu* exorcism at the settlement of Lai. This event was recorded on three plastrons (*Huadong* No. 27, 32, and 320), presumably a set concerning the same event.

⁴ Many non-royal group of divination inscriptions in Anyang used *yu* exorcism from their own ancestors (Zhu Fenghan 2004: 224).

Unlike the majority of H3 divinations, where certain prominent *bi* female ancestors held sway because of their association with prominent royal ancestors several generations removed from the principal Lord Zi, the Daxinzhuang inscription is concerned with near relatives. As *mu* refers to female relatives of the parent's generation, these were women with whom the principal of the ritual communication might once have direct contact.

Human deference toward the addressee shapes the nature of religious communication. The social distance has implications for the degree of negotiability between the principal and the ancestors. Keightley (2004: 11) argues that the Shang conceived of nature and the ancestral powers as occupying a "hierarchy of negotiability," with the close ancestors of the pantheon being most open to pledging, and the higher Powers, both ancestral and natural, less approachable.

An attempt to negotiate with the supernatural is common cross-culturally. In her study on women's ritual in Mesoamerica, Joyce Marcus (1998:17) argues that recent ancestors were probably considered beneficent, as they are closely connected with one household or group, while more remote ancestors and supernatural forces tend to be viewed as punitive or dangerous. As ancestors become less involved in the lives of their descendents, an important distinction takes place. Within the family, all recent ancestors can be memorialized; outside the family, at a higher and more remote level, ancestor rituals become strictly patrilineal (Marcus 1998: 19).

Relating to this distinction, Marcus (1998: 17) observes a gender difference in relation to social distance—women in many cultures play a special role in feeding, communicating with, and maintaining links to near ancestors, often in home-based rituals, leaving more remote ancestors to men or even to ritual specialists. In Mesoamerica, recent ancestors continued for a time to participate as "elders" in family decisions and life crises through small solid figurines made and used by women in the household. More remote ancestors (usually men), buried in bundles or in the seated position, were eventually moved to special places away from the household.⁵

⁵ Freedman (1965: 83-85) in Marcus (1998: 20): Uninfluential people had their own immediate forebears to care for at home even though they might be excluded from the rites carried out in ancestral halls... Once an ancestor had been placed in the shrine belonging to a hall, he had ceased to be an object of personal devotion and had become part of the ritual center if a lineage

The divination inscriptions from Lord Zi are consistent with this pattern. While Lord Zi was active in the early Late Shang royal court of Wu Ding, the 21st king, most of his religious communications were directed towards his prominent royal ancestors Zu Yi and Zu Jia, and their spouses, both named Bi Geng. If we take the Shang royal genealogy for a rough estimate, these ancestors were approximately three generations removed from Lord Zi himself. In contrast, communications with members of the parent generation constituted only a tiny fraction of the divination record from H3.

A single find prevents us from making broad generalizations—we cannot determine whether the local elites at Daxinzhuang were more concerned with their own near ancestors in divination, or if there are at least as many divinations concerning the remote ancestors yet to be excavated. We can speak with some confidence that some near relatives, the four mothers in this case, commanded serious respect from elite members at Daxinzhuang who had access to generous offerings of animals and the largest turtle plastron locally available as medium for oracle divination. This attests to the important ritual significance attributed to these elite women, whose prominence probably traces back to their social lives in the community and/or their roles as spouses of important men. After their death, they became potent sources of religious powers, which deserved due respect from their male and female descendents.

Based on the inscription alone, we cannot determine the gender of the principal and beneficiary at Daxinzhuang. The inscriptions from H3 at Huayuanzhuang East Locus suggest they could be either male or female. However, there is evidence that women were active as principals of the *yu* ritual as well as beneficiaries.⁶ Zheng Huisheng's (2003:500) observation of royal oracle bone inscriptions involving the performance of *yu* exorcism from Anyang, mostly from early Late Shang and roughly contemporaneous with Daxinzhuang, suggests that among those 29 named individuals whose presence were

segment. In a hall an ancestor was endowed with a remoter and less individualized personality... The rites performed in the halls were conducted by and in the presence of men; their daughters and wives placed no direct part of the proceedings. In the home, in contrast, it is clear that, whatever the theoretical inferiority of women in the sphere of ancestor worship, they occupied a central position in its performance.... Women had prime charge of the ancestors in the home, remembering their death-dates and praying to them in need.

⁶ The principle is the one initiate and perform the exorcism, often for his/her own benefits and protection. The beneficiary is a person (often in trouble) for whom the exorcism is requested by someone else.

called upon for the *yu* exorcism as the ancestors, ten were royal women with the title of *fu* in their names. Fu Hao was the most frequently involved: calling upon various male ancestors seven times, female ancestors seven times, and eleven times to ancestors of unspecified gender. Other principals were probably royal offspring, some clearly women, as their names had been mentioned in inquiries about childbirth. Presumably, these were all members of the 53 offspring of King Wu Ding (Hu Houxuan 1944). While a gender division in religious access was not well defined in early Late Shang, Marcus's (1998) observation of some gender preference in ancestral veneration and religious communication seems to be evident in the Shang society.

Elite Women and Ritual Protocol

Besides active involvement in performing the divination ritual, Shang women were directly involved in the execution of the ritual protocol, thus becoming the bearers of the ritual knowledge associated with it.

We can make reliable inferences about the ritual practice from inscriptions documenting royal divination at early Late Shang Anyang. The so-called marginal notations on the turtle plastron or glenoid cavity of the scapula (socket) record the source of the bone (usually as tribute) and the name of the person prepared it for the use in royal divination, as well as the name of the diviner who received it.

Since the T-shaped verb for “ritual preparation” comes prior to the pyromantic burning that took place (based on the discovery of inscribed bones without signs of burning), it is plausible to assume that it involved the preparation of the bone or shell, probably the creation of hollows (Chen Mengjia 1956). Since the verb (though not necessarily the word) was the same as the graph for “altar stand,” also it is likely that the preparation of bones involved as much ritual as mechanical effort. Therefore, Keightley (1978: 17) uses the phrase “ritually prepare” as a more inclusive translation.

The individuals responsible for this particular task were predominantly royal women (Chen Mengjia 1956), indicating that the preparation of the bone was not solely a matter of craftsmanship. These royal women bore the names “*fu* so-and-so”. For instance, “Wo brought in one thousand (turtle shells), (royal consort) Fu Jing ritually prepared one hundred. (Recorded by royal diviner) Que” and “Wo brought in one thousand (turtle shells); (royal consort) Fu Jing ritually prepared forty. (Recorded by royal diviner) Bin.”

(Keightley 1978). Many royal consorts in Shang court probably married in from outlying polities, and their names bore the place name of the polity or settlement from which these elite women originated. Some may have been the wives of the *duo-zi*, “the many sons” or “the many Zi” of the royal lineage (Keightley 1978: 17). Others were probably princesses of the Shang royal lineage, who would marry to aristocrats in and outside of Anyang. Approximately eighty such elite women were named in oracle bone inscriptions; about sixty were active during King Wu Ding’s period (Hu Houxuan 1944).

Of approximately 210 specimens bearing marginal notations concerning with “so-and-so T,” 130 had the title of *fu* in their names (Xu Yihua 2003). Of the other 70, some single character names without the title *fu* resemble the names of the same royal women, such as Jing and Hao. A small number of bones were done by people like Yi and Gu, who were diviners at the court. For instance: 庚申， 妇示八十屯， 古 “On the gen-shen day, royal woman ritually prepared eighty pairs of scapulae, (recorded by royal diviner) Gu” (*Heji* 9544 socket). These same names were seen as the signing individuals after the royal women who prepared the bones.

The most prominent figures in this list are Fu Hao and Fu Jing, two powerful royal consorts in Wu Ding’s court. Divination records concerning these royal women reveal that they played a leading role in a whole range of social activities in the Shang political arena: conducting military campaigns against hostile polities on the frontier, carrying out managerial duties, raising tributes and personnel, and conducting royal divination. Early Late Shang was a period when elite women played an active role in all aspects of political and religious life (Qi Wenxin 2003). Fu Hao was involved in many military campaigns in the western frontier, commanding armies in the tens of thousands. The excavation of Fu Hao’s tomb in Anyang yielded impressive wealth (Institute of Archaeology 1986). Fu Jing was also a competent general, leading military campaigns and also led hunting expeditions (Qi Wenxin 2003: 150). She died after Fu Hao and was buried in the royal cemetery of Xibeigang north of the Huan River (Keightley 2004), where gigantic ramps and main chamber attesting to the glory now lost to looters.

Since the ancestors were involved in generating the oracular cracks in bony medium and spoke to their descendants through the sounds made by the cracks as they formed (Keightley 2004: 7), the ritual preparation would embody underlying assumptions

about religious knowledge and notions of authenticity. The enormous power and status wielded in the hands of these royal women reveals that the task of “ritual preparation” of divination bones was probably not a trivial matter. Instead, it was likely endowed with religious significance associated with other aspects of ritual and women’s role in society that cannot be reduced to the mechanical aspects of boring hollows on the bone surface.

Besides ritually preparing the bones, these royal women were also involved in the obtaining (marked by the verb 气, to obtain) the bones or sending bones in from their own land as tribute. For instance, 妇井乞骨又三十 “(royal woman) Fu Jing obtained thirty bones” (*Heji* 9389), 妇好入五十 “(royal woman) Fu Hao sent in fifty” (*Heji* 10133 back). Keightley (1978: 16) noted that notations on the scapulae using the verb 气 outnumbered those on shell by four to one, suggesting that the Shang tended to take scapulae rather than turtle shells from regions close to their capital. Given the frequency of animal sacrifice in inscriptions and the prestige of cattle in the Shang society, the task of collecting scapula did not involve merely obtaining the bones left over from episodes of sumptuous consumption, but involved direct access to the ritual significance of the prime animals, which had also been used in realms of food and ritual, in building commensality, marking status, and negotiating alliances.

The fact that the verb “ T ” does not appear on oracle ones bearing the marginal notations “sent in” (*ru* or *lai*) suggests a potential differences between those sent in and those brought in—that is, that the scapulas or plastrons sent in were already prepared while those brought in were not and had to be prepared by the Shang themselves (Keightley 1978: 16, note 69). When we put these two together, it can be further argued that the Shang elite women in outlying communities were probably involved in preparing oracle bones to be “sent in” as tribute, as their symbolic and material contribution to Shang royal ritual. Such transactions indicate the movement of ritual knowledge to the outlying communities where these elite women resided, while finished bones as device for religious communication moved towards the capital. Also moving along through these networks was military intelligence, i.e., inscriptions indicate elite women *fu* so-and-so reported the enemy invasion and the capture of the local residents (of a frontier settlement) (*Heji* 6057 back in Qi Wenxin 2003), and much other information.

What does this mean for women’s work and status in Shang society at large? We

can make these generalizations: first, women possessed crucial components of ritual knowledge; in early Late Shang society, women were directly involved in at least some aspects of ritual protocols for religious communication. Second, women were responsible for the transmission of the knowledge to and from settlements outside of Anyang, along with gathering of cattle scapula from the ritual consumption of animals in local society for use as devices in religious communication. In early Late Shang, royal women split their time as local rulers, military leaders, and royal consorts in Shang court. In addition, lords loyal to the Shang kings served as official duties in Shang court and court diviners.⁷ Together, these elite constituted a complex web of social interaction between Anyang and these outlying communities through which information flowed between the court and the frontier.

Since most of the oracle bones outside of Anyang were not inscribed, we do not know who processed them though it is not unreasonable to suggest that were probably processed by the elite women, and that elite women at Daxinhuang performed similar duties as their royal counterparts. Fragments of spine removed from the scapulae indicate local processing in the elite residential area at the southeast corner of the settlement (Figure 8. 5). With the absence of specialized diviners in Daxinhuang, as seen by the absence of a large body of highly standardized texts like H3 in Huayuanhuang East Locus and H127 in Xiaotun, women's involvement could only increase in such outlying communities. Such practices helped to domesticate the frontier society, creating a sense of order against unpredictability and chaotic circumstances. These interactions contribute to the formation of what Keightley (2001: 145) calls an "epistemic community," that provided "moral and cognitive standards that were deeply implicated in the distribution of power on the North China plain by the end of the second millennium."

⁷ The last nine Shang kings were served by over 120 diviners whose names are known. Some bore the names of communities or countries whose leaders and activities also formed part of the divination record suggests that the diviners, as members of named lineages, were not of low status. They were political leaders at the local and national arena (Keightley 1999: 237).



Figure 8. 5 (a and b). Fragments of spine removed from the scapulae at Daxinzhuang

The diversity of divination practices found at Daxinzhuang may indicate important social variability as one's association with different social networks and statuses may affect the preferences or access to ritual protocol. Some individuals or

groups subscribed to or brought over new ritual knowledge from the royal centers at Zhengzhou and Anyang, probably as a result of marriage alliances between the elite lineages in the frontier community and those in the centers. The shared physical attributes between the Daxinzhuang specimens with those of Taixi, and Miaopu North Locus and other loci outside of the royal precinct in Late Shang city of Anyang, indicates close interactions with certain social groups, enclaves, or elite lineages in other settlements.

In the past, the application of concepts like dynasty and lineage often glossed over important transformations in gender relationships. If one's own lineage and access to ritual knowledge served as important source of religious authority, either to perpetuate the Shang conceptions of social order or to advance a local understanding, elite women held significant sway in the ritual sphere, particularly in the early Late Shang period. This highlights gender as among the important networks of power, along with lineage, in early Late Shang society. In early Late Shang, we learned that elite women were actively involved in political, military, domestic, and religious spheres at the royal court while maintaining connections with their own settlement and direct access to resources and personnel. Potentially, these women constituted a key network for the transmission of ritual knowledge.

After king Wu Ding's reign in the middle of the Late Shang period, however, Keightley (2004) noted an important historical process in gender relations and configurations of power. Specifically, there was a rapid decline in the involvement of royal women in divination rituals under the 23rd King Zu Jia (ca. 1177-1158 B.C., period IIb), with a new class of ritual specialists (*xiaoren*) taking over the duty. At the same time, the content of the rituals changed towards more routinized charges. The marginal notations carved on the scapula sockets, plastron bridges, and elsewhere, which record provenance, number of pieces received, date, and the persons responsible for the ritual preparation and for making the record, with some exceptions, declined significantly on bone or shell after period I (Keightley 1978: 113). This change may indicate a change in the system of tribute and ritual preparation or a in the record-keeping method.

The layout of the inscription also became increasingly ordered and regular with the passage of time (Keightley 1978: 112). The divination prefaces in period IV and V rarely record the diviner's name, a trend that may have been related to the decreasing

importance of the court diviners and the increasing control of divination by the king. The study of calligraphy and epigraphic evolution suggests that the peak number of prefatory formulas was reached in period II while period III and IV saw a peak in the number of epigraphic variants, indicating that divination models were standardized earlier than epigraphic ones (Keightley 1978: 114). When placed together, these multiple lines of evidence suggest a decline in elite women's involvement in the ritual sphere, as the ritual system shifted from a more personal emotional form of kinship commemoration prevalent in king Wu Ding's period to more systematic impersonal structures developed under king Zu Jia (Keightley 2004: 57).

Risk and Agency in Religious Communication

Park (1963: 236) argues that divination has the potential for suppressing personal agency and responsibility, as it is “the peculiar property of the diviner's role that he is able, in the public conscience, to remove the agency and responsibility for a decision from the actor himself, casting it upon the heavens where it lies beyond cavil and beyond reproach.” Rather than taking on the role of speech actor, one can defer to the apersonal source. And impersonally authoritative decisions can more readily attract consensus, by virtue of the fact that they cannot be attacked as proceeding from some self-interested person or faction (Bloch 1975, 1989).

One needs to look beyond the apparent to identify power and agency within the divination ritual, which was fundamental to religious communication in Shang society. While oracle divination may have suppressed the human agency in comparison to spirit possessions and other religious alternatives, the materiality of the ritual device, the highly formalized ritual protocol, and social demarcation in the distribution of ritual knowledge and practice privileged those in possession of these specialized necessities.

The act of producing a decision from the expensive animal products has important implications. Using a randomizing device, people could say a prayer, drop the blocks, then unless they fall as a “yes” say another prayer of a slightly different form, drop them again, and so on until a favorable response is obtained (Ahern 1981). The same probably happened in Shang—with questions reframed and petitions made and cracking repeated until luck breaks and the omen favors the patron. In contrast to potentially unlimited effort one can achieve with a reusable randomizing device, the symbolic and exchange

value of cattle scapulae (almost certainly coming from ritual feasts) and turtle plastrons (with evidence of elite efforts to secure and even monopolize the premium material in Anyang) indicate these ritual objects were attributed as having their own power to intervene in religious communication. Although an elite patron could physically own the precious bones, and even to some degree manipulate the output of the result by preparing paired hollows in combination *zun-zao* method that produced highly predictable, legible crack signs, the religious power embodied in the materiality of these powerful religious devices was autonomous, and could not be fully controlled or manipulated by its owner. A large scapula or plastron from a premium animal could potentially provide more physical (and ritual) space for a concern to be repeatedly addressed to assure a positive response. An overall negative response produced by such a highly charged ritual device, however, would be equally detrimental to the principal.

The materiality of these bones embodies agency independent of the owner, the ritual practitioner, and the choice of religious protocols. It is a source of power, risk, and anxiety to be reckoned with. Therefore, the religious values attributed to these prized objects simultaneously make them both a source of authority and a threat to those who use them. This threat is concretized in people's anxieties both about ancestral vengeance for errors and the fact that political outcomes are unforeseeable.

As Shang oracle divination is essentially an attempted communication with the powers, gods, and, above all, one's ancestors over issues causing anxiety and uncertainty, Webb Keane's (1997a: 23-28) notion of hazard in religious communication is a useful concept for understanding the ritual practice, particularly the power of writing in the context of Shang oracle divination. Keane (1997a: 23) argues that scenes of encounter are prone to certain hazards as exercises of power. These hazards are functions, in part, of the vulnerability imposed by the need to interact with others. Hazard is critical for understanding the powers, resistances, and experiences that representational practices produce and the historical fates to which they contribute. In this regard, the smooth functioning of ritual is not necessarily desirable. Ritual needs to risk failure. As Keane (1997a: 27) argues:

The dramatization of risk provides a fundamental, but neither unique nor unchallengeable, component of the meaning of being rich, poor, affine, dependent, ancestor, or living descendant. The structure of performance seems to induce participants

to imagine a number of alternatives and risks, one effect of which is to portray social interaction as a fundamentally risk-laden undertaking and a great achievement (see Lévi-Strauss [1949] 1969: 48).

The element of risk, actual and imagined, reminds us not only of the limits that ritual mediation imposes on the legitimate exercise of power but also of the importance of the unintended consequences of action.

The problem of agency becomes especially acute in circumstances that are supposed to involve otherworldly agents and in practices that impose severe constraints on the human practitioner. Precisely because correct protocols in ritual performances insist on risk of bringing on misfortunes for deviation, it is haunted by "the possibility that something could go wrong" (Keane 1997a: 25). Much of the politics and even the cosmology of representations in a local society could concern this effort—the power and resistances it generates, and the hazards to which it is prone. This potential for failure reflects the way in which authority, legitimate agency, and the various sources of social and economic power do not necessarily cohere. To bring them effectively together takes ongoing effort to weave together tactical moves and ancestral conventions.

Follow this line reasoning, I argue that the use of writing in Late Shang oracle divination, primarily a court practice as part of the high culture of the inner elite, represents an effort to deal with the quandary of agency in religious communication and the anxiety for failure associated with it. The quality of writing as detachable from particular speaker and speech act allows a permanent representation of the religious communication on the media of communication. In contrast to the ambiguity of agency generated by the autonomy of the media, which stood independent of the human intentions in producing cracks and sounds as representations of the supernatural responses, the practice of writing in Shang oracle bone divination embodies strong human agency in dictating the content and responses. It lends the ritual practitioners one more addition to the many efforts of human intervention in the religious communication, along with a list including the procurement of the prized media, refining the layout of hollows to formalize the shape of cracks, repeatedly phrasing the charges to secure or enhance favorable results, and offerings of human and animals in exchange or anticipation of favorable ancestral intervention. What is distinctive about the situation is their conjunction—ritual speech, the practice of writing and materiality are inseparable –

– and that the powers of religious communication are entangled with those of objects.

The practice of writing had its exclusive context and political implications. Power and authority are embedded in the practice of writing in religious communication in Shang royal divination, making it one of the central symbols for legitimizing the Shang state. Ideologies of statecraft set the rules for “how leaders and would-be leaders must guard these symbols and perpetuate the knowledge of how to maintain, display, and reproduce them” (Yoffee 2005:42). Spatially, the practice of writing is consistent with other attributes of royal practice discussed in previous chapters—writing in the context of religious communication was found almost exclusively in Anyang, particularly inside the royal precinct at Xiaotun. Outside Anyang, writing only appeared on bronze inscriptions in very limited scope and complexity, many commissioned in Anyang in later phases of the Late Shang and usually marking lineage emblems and patrons. We are not even clear if the owners of these vessels were truly literate.

The addition of writing to the ritual protocols of divination rituals at Daxinzhuang reveals the effort of distant local elite to tap into the symbolic power embodied in a practice that was closely associated with the kingship and the Shang inner elite. The extraordinary discovery at Daxinzhuang highlights the transmission of ritual knowledge through networks of elite interaction during a period when elite women played a significant role in political, social, and religious realms of Shang society. The power and authority invested in the religious use of writing has the potential to lend supernatural endorsement to local elite, which may become especially important and strategically deployed when the efforts of state legitimation were contested or weakened.⁸

Summary

⁸ The Shang-Zhou relationship serves as very good example. During late Late Shang, Zhou changed from a subsidiary of Shang to a rival, which eventually overturned the Shang domination around 1046 B.C. During the period of transition, Zhou kings divined with plastrons and scapulae, using a mixture of Shang court practice, i.e. the *zuan-zao* combination hollows, the symmetric orientations in hollow placement, and the practice of writing, as well as attributes specific to Zhou diviners, including rectangular shaped hollows, very tiny characters, and specific terminology. Some charges referred to Shang kings, presumably during the period that the two are on friendly terms. The inscriptions and the ritual protocols reveal a complex relationship of negotiations in the religious domain prior the overthrow of the Shang court (Wang 1984; Cao 2002; Zhouyuan Archaeology Team 2006).

Rather than merely reflecting or expressing reality, ritual creates reality. Major reconfigurations in Shang divination ritual had the effect of creating a shared experience across the Shang landscape. Even as the Shang kingship encouraged the internalization of its theological assumptions and sought to validate new cognitive structures, the effort of fostering of a shared, homogenous, and hierarchical Shang identity centered on the Shang kingship nonetheless remained detached from the reality of the Shang world.

The presence of multiple protocols of religious communication at Daxinzhuan reveals that members of the local society maintained their own sacred knowledge, religious protocols, and historical memories. An individual's prestigious ancestry and knowledge of the names, origins, and genealogy of those ancestors constituted an important source of religious authority. In the social processes of legitimation and power, such knowledge was plural, contextual, and historically produced through local negotiations and ritual practices. Independent access to sources of religious power that was endowed in one's own ancestral lineage introduced potential for divergence or subversion of state agenda.

The degree to which individual members of Late Shang society subscribed to the cosmological vision of the ruling elite would have varied greatly on the basis of both social status and individual temperament. Shang conceptions of time, space, and otherworldly authority did not necessarily become *the* conventions that were internalized by the broader society to enhance Shang hegemony. Rather than perceiving the Shang as a theocracy in which kings claimed monopoly over the channels of religious communication (Chang 1983), diverse loci of religious authority helped to constitute overlapping networks of sacred and political power. As the state interest and the interest of locals may not have been the same and the local society did not have to operate on the terms of political center in their ritual practice, these overlapping sources of power may have worked at cross-purposes. Enormous effort is demanded to weave these sources together into some form of coherency that we can identify as a "Shang identity."

The royal domination over religious communication manifested in the distribution of the prime media (the scapula and turtle shells), elaboration of ritual protocols, and maintenance of a large number of ritual specialists (diviners). Such domination was implemented through the practice of the elite subordinates, but at the same time, had the

potential to be undercut by the latter, who received their own tribute in shells and perform their own religious communications. The practice of writing in the context of religious communication in the outlying community of Daxingzhuang, which was previously thought to be exclusive to the inner elite in Anyang, allows a closer look of other sources of power that have been eclipsed by the overwhelming claim to supremacy by the Shang kingship. The potential for subversion could be evoked through independent claims of supernatural endorsement from their own ancestral lineage, in much the same way that the Zhou polity later achieved in putting an end of Shang hegemony around 1046 B.C.

During the early Late Shang period, elite women were important carriers of the ritual protocol and ritual knowledge. Variation in the spatial pattern of these protocols partly manifests aspects of social demarcation among elite social networks and status difference. Subsequent efforts of religious reconfiguration appeared to have increasingly stressed the centrality of kingship and its entourage of professional diviners, and elite women's involvement in religious communication in the royal court declined after the early Late Shang period. However, the ramifications of such transformations for the broader Shang world remain unclear.

By looking at bones in their broader settlement context, my research suggests that state expansion should be conceptualized not only as an imposition of hierarchical structure, but also as a process of interaction between multiple networks and multiple scales of power, including kinship, gender, religion, and cultural affiliation. The process of "becoming Shang" embodies on-going tensions between the state claim to supremacy and diverse local circumstances.

Chapter 9

Conclusions

My dissertation has investigated the diverse aspects of human interaction with animals as potential loci for state reconfiguration of the ritual order in and beyond the community of Daxinzhuang. I also explore how this interaction serves as loci for parallel networks of local and state power to diverge, subvert, or resist the state's claim to centrality in the structure of Shang life. "Becoming Shang" describes the processes through which the state order was perpetuated and contested in the vast landscape of northern China, where the presence of a new political authority and symbols of representation changed the terms of social and political interaction. Since tensions and negotiations inevitably exist at all levels of society, the process of "becoming Shang" probably did not unfold with any sense of uniformity. Further, even the defining attributes of Shang symbolism and ritual could contribute to the state's ultimate demise. It is significant that the display of royal core symbols took place at polities in the border regions. For instance, the use of four ramps to form a cross-shaped elite tomb, once exclusive to the royal cemetery at Anyang, was first discovered at Sufutun at the eastern extreme of the Shang political domain in the Late Shang period, then at Zhougongmiao, at the western end in association with the inner elite of the Zhou polity (Zhouyuan Archaeological Team 2006). In the latter case, we have the advantage of knowing the historical context of these subversive displays of Shang royal symbols—the cemetery belonged to the political leaders (and their heirs) who were directly responsible for toppling Shang domination in the middle of the 11th century B.C.

These examples of subversive use of Shang royal symbols, one before and one after the political demise of the Shang kingship, reveal the paradox in the notion of "Shang identity" in archaeological observation—when interacting polities chose to represent themselves on Shang terms, one of the cultural and political consequences of these ritual performances was the alteration of the very frame of reference that the Shang kingship intended to construct through these core symbols. In a sense, subversion is

emulation with anticipated political consequences. Such a transformative process is a key dimension of “becoming Shang” and informs on the nature of political negotiation in the Shang world.

Geertz argues that rituals are well suited to express or catalyze political tensions (Geertz 1973 [1959]). Such tensions, however, do not have to exist solely in grand ritual contexts, such as an impressive funeral of a powerful lord, where archaeologists are accustomed to making acute observations on conformation or subversion of ritual protocols in major aspects of symbolic expressions (i.e., tomb layout, size, chamber construction method, and set behavior of ritual vessels). State order did not manifest only in rites of passage. Instead, the perpetuation of state order and tensions from divergence or resistance to that order at the local level could unfold in ritual performances in all aspects of life. This study has focused on the human relationship with animals, which is a good source for observing the ritual configuration of Shang experience and its embodied tensions.

Animals in Food and Mortuary Ritual

In the Shang world, animals were a source of knowledge of people's everyday lives, featuring into economic strategies, social representations, food consumption, feasting, sacrifice, rites of passage, and religious communication. They nourished the living, as well as the ancestors and gods, and they helped to give meaning, through their symbolic associations, to social relations and cosmological order. Keightley's vivid portrayal of animals in the Shang cultural landscape captures this dynamic relationship that crosscuts the boundary between culture and nature, the real and the imaginary:

In their daily lives, the Shang would have encountered the crash of large game through the undergrowth, the whir of countless birds in flight, the hum of swarming insects, the yapping of hunting dogs, the neighing of chariot horses, the lowing of cattle and bleating of sheep, the variety of odors associated with all the livestock, and the animal patronymics and animal titles borne by Shang offers and communities. And in their ritual practice, there would [would] have been the cracking of the pyromantic bones and shells, the cries of the animal victims about to be sacrificed, the smoke from the victims' carcasses rising to the skies, the prayers of rituals addressed to ancestral animal figures, the presence of animals like tiger and deer in the king's dreams, and the stylized animal forms cast into the surface of the glistening ritual bronzes used in the ancestral cult. All these experiences would have reinforced the Shang kings' sense of a world in which animals, like other natural phenomena, and like man himself, expressed and were beholden to the energy of the Powers who ruled the world, filling it with life, fortune, and misfortune (Keightley 2000: 113).

My study on various dimensions of human relationships with animals and nature in a community at the margins of Shang civilization reveals the constructed nature (at least in part) of this cultural landscape, and the ways in which the state order was embedded in within it. Some animals were used as core symbols by the Shang state order and political authority, along with bronzes, jades, elaborate ritual protocols, while others continued their role in the local social life in ways that would have been familiar to the prehistoric inhabitants of the region for millennia.

This Shang cultural landscape was not static and “out there” as the backdrop of a social drama unfolding in the settlements. Instead, it was part of the drama, a constructed frame, resulting from the state reconfiguration of human relationships with nature. As one moved across the Shang landscape, from royal centers, to regional centers, and to villages like Liwu, so too did the view and experience of this landscape, and people’s engagements with animals, and the political, economic, and ritual realms changed accordingly, based on their circumstances and relations with the states. Therefore, this cultural landscape continued to frame the Shang experience, even as it changed and was (re)constituted through this experience.

My research on the animal bones in diverse archaeological contexts, ranging from debris of everyday meals to mortuary and divinatory contexts, is a long way from filling the void left by this dynamic burst of life that animated the Shang landscape and imagination. Analysis of archaeological remains of animal bones from a regional society, however, provide some insights into the ways that the natural and the cultural worlds converged in the interactions between state order and everyday experience in the broader Shang world.

Comprehensive change in the ceramic assemblage in the mid second millennium B.C., along with other aspects of Shang material culture, indicates profound changes in food practices within the regional society of Shandong. These more standardized practices would have felt familiar to people from other communities of the Shang world in terms of the basic approach to food preparation and presentation, despite a spatial separation of several hundreds kilometers. At the center of the food assemblage was the hollow legged *li* tripod, *gui* container, and the *dou* stemmed dish, which comprised the basic set of food vessels that individuals in Shang society viewed as necessary to

provision the living as well as the dead. These were significant changes from the prehistoric food practices in the region, as well as prehistoric presentations of food in mortuary context from the 4th and 3rd millennia B.C.

Closely tied to the changes in food assemblages is a significant shift in the use of animals for food consumption and related activities, i.e., as provisions for the dead or offerings to gods and ancestors. In the major regional centers of Daxinzhuang and Sufutun, which were intermediate level of political authority in the Shang world, food debris from features displayed very a similar structure. Cattle and pigs dominated the assemblage in high proportions, followed by a small share of deer, sheep/goat, and dog. In smaller communities with elite presence, such as Tangshan and Qianbu, we had a higher frequency of pigs and relatively lower number of cattle. Finally, in the village represented by Liwu, wild deer took the largest share in meat consumption.

As meat consumption was not a common subsistence activity in Bronze Age or historical China, inter-site variation in access to animals informs on the social differences in status and access at intra- and inter-communal levels. Besides differences in protein and energy expenditure, a major difference between these major animals is their endowed social and symbolic meanings. Cattle and pigs carried significantly greater meaning in the society than the hunted deer—they mediated and catalyzed social and religious interactions in the Shang society.

The centrality of cattle in the Shang royal rituals is well-documented with the impressive display of cattle remains at the Middle Shan ritual center of Xiaoshuangqiao (Henan Provincial Institute of Archaeology 1996; Song 2004; Yuan and Flad 2005). It marks a clear departure from the local prehistoric ritual practices that focused on pigs for feasting and mortuary deposit in the 4th and 3rd millennium B.C. (Kim 1994). By the late second millennium B.C., the combined use of cattle, pig, and sheep for sacrificial offerings was established as a key component of state ritual (Chang 1977; Okamura 2004, 2005; Yuan and Flad 2005; Ji 2005).

This change has been construed in terms of political economy—cattle require greater wealth and investment of time and energy (Okamura 2004, 2005), thus the insistence on cattle serves as means for exclusion that helped to maintain the prestige of kingship. An economic explanation, however, fails to address the ritual and ideological

elaborations associated with any shift in core symbols so that it they could come to accepted by the society at large as *the* way to engage with authority. Such elaborations allow the transformation of wealth into authority, as domination through particular claims to legitimacy, so that the state order embodied in these symbols was not questioned:

Both in the dedication of high-cultural products to deities and to the ruler, and in the consumption of those products by the elite, there is little questioning of the view that it is impossible to do things in a less extravagant way and that the necessary labor is provided by a dependent workforce (Baines and Yoffee 1998: 238).

Therefore, the shift in the ritual constellation of animals is not only an increase in energy expenditure and access to luxury goods, but also the establishment of a new order of things and beings. It aligned animals, symbols, gods, and rituals familiar to the local society with ones unfamiliar to them, placed them in a hierarchical order, and gave them new political and religious meaning. It was a new frame of political and ritual expression, in which the state order, kingship, its claim to cosmological centrality, and associated central symbols were deeply embedded.

The primacy of cattle in ritual sacrifice and the ritual protocols associated with them connected the people with the powers, gods, and ancestors. The meaning embedded in cattle are multifaceted, cattle were important for sacrificial offering, for feasting, and for divination. These dimensions placed different animals on a scale of hierarchy much more complex to define than the cost of maintaining the herd.

This connection, however, was not deeply rooted in the local prehistoric conception of authority, but a recently constructed one intricately tied to the rise of kingship and its material representation. The constructed nature of its ritual centrality is similar to that of ritual bronze vessels, another category of core symbols that has received much wider academic attention. For K.C. Chang (1983), ritual bronze vessels were among the major media for religious communication, and thus a key symbol of political authority. This claim, I think, has to be modified—the ritual vessels were deeply rooted in prehistoric ritual and political representations, but the materiality of bronze was not. Therefore, any universal acceptance of the new medium and the ideology embodied in it cannot be taken for granted; rather, it is a political process, a process with diverse political consequences for those with and without access to the new symbol. And importantly, the process of constructing meaning with new symbols is often paralleled by

a process of denying or depriving meaning for traditional forms of political representation.

At Daxinzhuang, cattle feature importantly in several well-preserved contexts resulting from concrete feasting events and they display some of the cultural patterns parallel to those observed in mortuary ritual contexts at several major Shang cemeteries. This indicates that cattle and the associated symbolism articulated in the ritual life of local elite at Daxinzhuang in ways consistent with other parts of the Shang world. Therefore, cattle were important for articulating the categories of the Shang culture and provided a frame of reference for representing hierarchy.

Pigs, on the other hand, remained central in local animal consumption at major settlements. According to first millennium menus for ritual protocols, such as *Yili*, the significance of pigs is manifest in ritual events of lower elite, i.e., initiation to adulthood, weddings, funeral, and ancestral offerings (Ji 2005: 123-36). This was probably the case for the Bronze Age society in general, as seen in the frequent encounter of articulated young pigs as offerings, the display of pig forelimbs with food vessels in burials, and their frequent mention in oracle bone inscriptions. The oracle bone inscription discovered in Daxinzhuang demonstrates the detailed attention to the classification of pigs used for ancestral offerings. Therefore, pigs played an important role in the mediation of local life while cattle were reserved for more grand occasions.

The placement of animals in mortuary context shows a parallel to the changes in animal consumption observed from other contexts. The redundant display of pigs in prehistoric mortuary rituals was replaced by a general focus on forelimbs of cattle, pigs, or sheep/goat. Cattle forelimbs were the preferred choice for important elite burials, as seen in Anyang and Qianzhangda, while pig forelimbs were a generic choice used commonly. Dogs were increasingly used in Daxinzhuang elite burials, as well as in other Shang cemeteries. Although they were frequently consumed as food, those in burial context clearly represent companions for the deceased as seen by the similarity of posture and position with human retainers in more grand elite burials.

Despite significant changes from prehistoric mortuary ritual in the region, certain symbolic uses of animals in rites of passage persisted—the placement of a water deer canine in the hand of the deceased in the Late Shang burial at Zhaopu shows the

longevity of this ritual practice for several millennia. Conceptions of death and associated symbols appear to be the most conservative dimension in the human relationship with animals.

Bony Medium for Divination

The strategic role that animals played in Shang religious conceptions is further demonstrated by the practice of pyromantic divination using cattle scapulae and turtle shells as mediums, “through which the Powers and the ancestors might make their allocations of luck and fortune known to the Shang,” (Keightley 2000: 109). These divinatory rituals embodied tensions and engaged political authority in diverse ways. Besides political tensions in the living world, tensions are equally prevalent between the human world and otherworldly authority. Constant communication and engagement have to be made with the latter to secure their favor and repel harm perceived as coming from them or other sources.

As rituals are public and sequential, their forms, materials, personnel, and timing can all serve as tools of strategy (Keane 1997a: 3). Although the Shang practice of oracle divination was not itself a public ritual, the access to the premium material for ritual devices and the associated ritual offering of animals and human sacrifices, some at enormous scale, had broader consequences for the society.

Parallel to the rise of cattle in the Shang state ritual is the increasing centrality of cattle scapulae as the premium media of ritual communication. Another change taking place after the emergence of Shang was the rapid adoption of turtle shell as a new medium for religious communication. The size and quantity of turtle shells in Shang sites correlate with political hierarchy, with the royal sites in Anyang having exclusive access to the largest individual shells and the largest number of shells. The controlled redistribution of this medium indicates another dimension of state reconfiguration of the human-animal relationships aimed at placing the Shang kingship at the center of the cosmological order, in this case, creating dependency with restricted access to an essential medium of religious communication. This emphasis on the materiality of religious communication potentially enhanced the practice of “spiritual imperialism,” in which the spirits worshiped by local populations were co-opted into the Shang pantheon (Keightley 2004: 9).

Evidence for exclusion is present in a whole range of domains, i.e., premium medium, elaborate ritual protocols of the ritual device, unrivaled scale and quality of sacrificial offerings associated, and practice of writing. However, despite their claim to monopoly in some domains of sacred knowledge and ritual elaboration, the Shang kingship and its inner elite did not have exclusive access to religious communication, as Chang (1983) has argued. While the state had access to more grandiose varieties of religious communication, high culture, and core symbols, as well as to more of the profound meanings endowed in them, local access to one's own ancestral power, partial access to the high culture and its core symbols, and access to resources beyond the state control in communities like Daxinzhuang provide sources for tension between local power and the Shang states.

In conclusion, the diverse ways of cultural incorporation of animals into Shang social and political life were also the ways that meaning was constituted and transmitted through living experience by those who consumed, participated, observed, commented on, heard about, and remembered. These quotidian events were not far removed from other more grandiose display of core symbols in elite ritual contexts, which scholars have traditionally treated as domains of political negotiation, contention, and subversion.

Like all ancient states, the Shang state order was embedded as well as contested, in rituals, in its performances, protocols, symbols, materiality, in ways and things people use to structure their lives, organize experience, and celebrate meaning. As Gombrich (1979: 171) puts it, "habit establishes a frame of reference against which one can plot the variety of experience." Food and other rituals are the domains that such transformations took place in Shang. Without the frequent framing of the state order through consumption and rites of passage, which established and reinforced an internalization of state order, those more exceptional display of symbolic subversions would be rendered meaningless and lose their intended power of provocation for political action.

By looking at animal bones in their broader settlement context, my dissertation research provides new insights into ways that state expansion was conceptualized in early China—not only as an imposition of hierarchical structure, but also as a process of interaction between multiple social networks, which engaged the state control with convergent, parallel, or divergent strategies.

While the state may have introduced new ways to articulate political authority through reconfigurations of ritual order, the conquest did not succeed in erasing local practices and understandings – even in areas of intense state focus such as religious communication. Independent access to sources of religious power introduced space for agency and social negotiation within local societies. Therefore, the process of “becoming Shang” embodied on-going tensions between the state claim to supremacy and the diverse local circumstances in which it sought to express that claim. In its effort to frame these tensions with its symbols and representations, state expansion not only brought transformations to the societies it came to subjugate, but also set in motion processes that could potentially change the nature of the expanding state itself.

Appendix 1

Daxinzhuang 2005: Inventory of Shang Flotation Heavy Fractions

Featr.	Layer	Vol. Liters	Debris gm.	Daub Ct./gm	Sherds Ct./gm	Bone gm	Pebbles Ct./gm	Frac.Stn. Ct./gm.
H1001	_	8.0	115c	_/_	_/_	0.1	7/ 11.4	2 / 0.1
H1005	3	12.0	422	_/24	3/5	38.0	29/34	6 / 6.0
H1005	3	8.5	126	3 / 1.4	6/0.8	8.5	26/5.5	6 / 0.8
H1005	3	8.0	238	27/13.5	4/10.3	9.0	21/18.1	9 / 2.7
H1007	1	4.5	221p	_/_	2/1.8	1.0	175/120	15/ 3.0
H1007	Lo	6.0	75p	_/_	_/_	0.1	12/ 0.3	15/ 0.6
H1008	_	8.0	251p	34/15	2/1.8	2.1	186/252	7/ 2.4
H1012	1	8.0	175p	8/2.8	6/3.6	5.1	142/ 71	8/2.2
H1012	2	12.0	860	27/32.4	2/5.5	7.3	162/206	20/36.2
H1012	Ash	8.0	2	_/ 60	_/_	0.8	5/ 1.3	3/ 3.3
H1013	3	11.0	494	6/ 3.8	_/_	4.4	98/52.2	14/ 6.2
H1013	5	8.5	440	_/_	1 /9.2	0.9	113/ 62	9/ 1.1
H1013	Lo	5.5	119p	_/_	_/_	0.7	185/ 45	26/ 2.0
H1013	Brnt	11.0	88pd	2 /3.6	_/_	0.4	27/ 22	11/ 1.1
H1014	3	9.0	929	83/46	2/ 5.0	3.0	33/32	13/ 3.0
H1014	4	12.0	370	11/ 3.1	6/ 2.6	0.7	145/98	9/ 3.0
H1014	Ash	12.0	374	_ /42	12/14	8.1	78/43	12/ 0.6

H1014 Ash other inclusions: 1 cowrie 1 oracle bone

General debris: c: Many concretions; p: Many small pebbles; d: Much burned debris

Appendix 2

Quantity and frequency of five major mammals from major sites in Shandong

Site and Date	Feature	Cattle	Pig	Sheep Goat	Deer	Dog	Sum*
Daxinzhuang (Middle and Late Shang)	H690	189 (27%)	303 (42%)	82 (12%)	102 (14%)	37 (5%)	713
	H1012	88 (33%)	99 (37%)	17 (6%)	13 (5%)	51 (19%)	268
	H1014	80 (38%)	73 (35%)	20 (10%)	18 (9%)	18 (9%)	209
	Others combined	70 (13%)	321 (58%)	42 (8%)	57 (10%)	63 (11%)	553
Tangshan (Late Shang)	H122	75 (23%)	196 (61%)	1 (0.3%)	7 (2%)	42 (13%)	321
Qianbu (Late Shang)	H129	20 (16%)	82 (67%)	3 (2%)	8 (7%)	10 (8%)	123
Liwu (Late Shang)	H24	5 (11%)	20 (43%)	0	17 (36%)	5 (11%)	47
	H20	7 (5%)	45 (32%)	1 (0.7%)	73 (52%)	14 (10%)	140
	H31	5 (4.5%)	22 (20%)	1 (0.9%)	47 (43%)	35 (32%)	110
	H12	7 (9%)	36 (46%)	0	29 (37%)	6 (8%)	78
Yinjiacheng (Longshan to Yueshi)	Longshan	1 (0.5%)	57 (30%)	1 (0.5%)	125 (66%)	5 (3%)	189
	Yueshi	14 (10%)	65 (44%)	0	68 (46%)	0	147
Qianzhangda (Shang to Zhou)	Late Shang	407 (28%)	785 (54%)	112 (7.7%)	93 (6.4%)	59 (4%)	1456
	Early Zhou	431 (30.5%)	715 (50.5%)	88 (6%)	130 (9.2%)	51 (3.6%)	1415

*Percentage is calculated against the sum of five major mammals, not the whole assemblage, which could easily be skewed by small animals, such as rodents.

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