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Half-title page: Fu Shan (1607–1684/5), *Poem in Cursive Script*. Ming–Qing. Hanging scroll. Shanghai Museum

Frontispiece: Att. to Han Gan, *Night-shining White*. Tang, 8th century CE. Handscroll. The Metropolitan Museum of Art, New York

Title page: Kneeling bowman. Qin, c. 210 BCE. Earthenware. Museum of Qin Figures and Horses, Lintong

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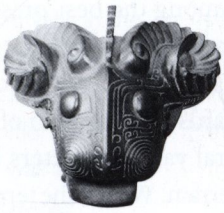


2 THE EARLY BRONZE AGE: SHANG AND WESTERN ZHOU

WHILE MODERN FIELD archaeology in China started with excavations at prehistoric sites, its theory and many of its practices took shape during two episodes related to the Bronze Age: premodern antiquarianism, starting as long ago as the eleventh century CE, and the excavations at Anyang (Henan) prior to World War II. In the Northern Song period (960–1127 CE), scholars began to investigate bronze ritual vessels with inscriptions as a means of supplementing and correcting the testimony of the Confucian classics and histories. By consulting ancient texts, scholars created a vocabulary to name these vessels and their decoration, a lexicon still used today. Scholars and emperors also began to collect and catalogue these objects in ways that presaged modern-day habits. All of these activities contributed to an expanded view of the past, the "Three Dynasties" (Xia, Shang, and Zhou). It became known that many ritual vessels had been recovered in the northern part of Henan at a locale known as Yinxu ("the ruins of Yin"), the traditional location of the last Shang capital.

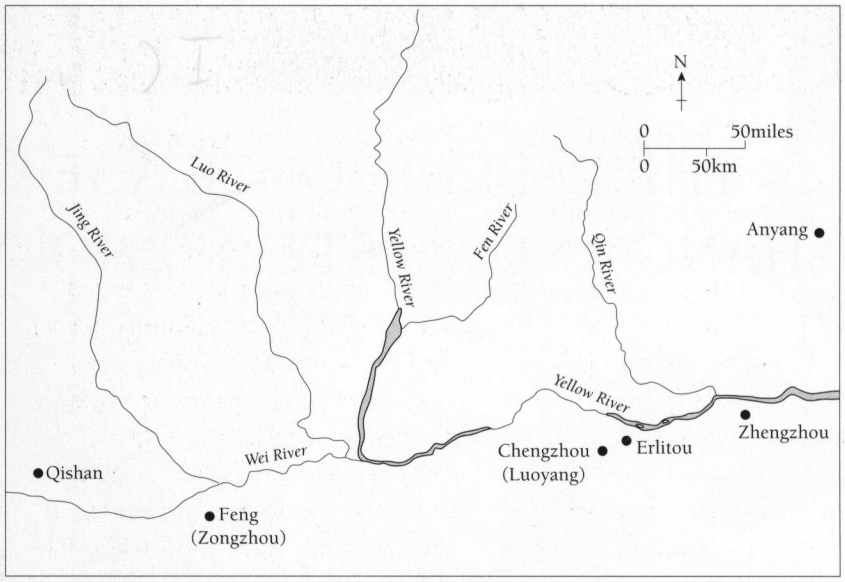
Scientific excavations at Anyang actually began as a legacy of such enthusiasms. The discovery that archaic inscriptions on shell and bone ("oracle bones"; see "Divination: Communicating with the Ancestors," page 61) emanated from a hamlet near Anyang triggered fifteen seasons of large-scale excavations (1928–1937). As work progressed, the excavators realized they were unearthing the palaces, tombs, ritual vessels, and divination inscriptions of the Shang kings. The understandings that emerged over time have yielded a many-sided portrait of what we now call the Late Shang culture. Thus, for the pioneers of Chinese archaeology, their vocation was a pursuit contiguous with the study of history in every way.

Today, most Chinese archaeologists argue that "history" begins c. 2000 BCE or even earlier. In this chapter we consider a wide range of archaeological data in relation to the received picture of ancient Chinese history: a sequence of dynasties exercising political power over portions of North China and neighboring areas. However, the present authors regard most of the second millennium BCE (until c. 1200) as in fact a protohistoric period—a prelude to proper history but not itself historical. In particular, we maintain a reserved attitude toward the historicity—the historical reality—of the first of the Three Dynasties, the Xia (c. 2000–1600?), even though today most Chinese archaeologists not only assume its existence but also believe they have found its archaeological traces at a site called Erlitou (Henan).

2-1 Owl-shaped wine container, *zun*
Shang period, Yinxu II, c. 1200 BCE. Bronze, height 18¼" (46.3 cm). Tomb 5, Xiaotun Locus North, Anyang. Institute of Archaeology, Beijing

THE EARLY STATE AND SOCIETY

Whether one consults the archaeological record or the literary canon, the human landscape of the second millennium BCE changed in fundamental



Shang and Zhou Sites in Henan and Shaanxi

ways. Changes resulted only in part from population growth; more importantly, they were the consequence of increased social complexity. Small villages—much like their antecedents at Banpo and Jiangzhai (see FIG. 1-2 above)—still existed in great numbers, but larger, more densely populated settlements also appeared for the first time. In addition to these nucleated settlements (called *yi* in the oracle-bone inscriptions), a few widely dispersed major settlements served a range of new purposes, required by a stratified social order. These major sites were the centers of chieftains or kings. Some chieftains and kings have left their traces in the literary record: possibly the Xia, most certainly the Shang and Zhou. How much before the Late Shang period (c. 1200–1050 BCE) such powerful figures could properly be called "kings," *wang*, remains debatable, but there can be little doubt that the first true states appeared in North China during this protohistoric period. By the Late Shang period, the Shang and Zhou kings engaged in both friendly and hostile relations with each other and with chiefdoms bordering their territory.

Settlements

Even if the identification of specific sites can be debated, physical traces of widespread social change are readable in the ground. Few nucleated *yi* settlements of this period have actually been reported, but many likely candidates exist, usually suggested by cemeteries for which adjacent habitation zones have not yet been excavated. Among the best preserved settlements is a site in Hebei Province called Taixi (in Gaocheng County). This site occupied at least 2400 square yards (2000 sq. m) of a raised terrace, itself several yards or meters higher than the adjoining terrain. Within the terrace were the floors and wall footings of some fourteen houses, twelve of them from a single period of occupation. The houses were mostly built at ground level with thick pounded-earth walls forming one- or two-room chambers. Excavators also recovered traces of sun-dried adobe. Wooden frames probably carried mud plaster or thatch roofs. The houses were aligned either on a north–south axis or at right angles to it. Many chambers shared common walls, and several met at neat right angles. Several of the chambers lacked one wall and thus functioned like open sheds. These may have been workshops for the pottery, bone carving, or even the lacquer wares found at this site. In addition, two deep water wells were found. The Shang oracle-bone inscriptions contain frequent references to the king commanding the construction of *yi* "settlements." Sites such as Taixi suggest what such a settlement might have been like. No traces of a surrounding wall or ditch have yet been reported at Taixi, but over a hundred graves were unearthed to the east of the houses. Of these, eighteen contained bronze vessels and weapons and thus may represent the elite segment of the local population.

During the middle of the second millennium BCE, much larger settlements also appeared in the North China macroregion. The two best known and largest lie in Henan Province: at Zhengzhou, where the Erligang type site was first investigated in the 1950s, and in Yanshi County to the west, where a site called Shixianggou has been excavated extensively since the 1980s. These walled sites enclose areas in the neighborhood of 0.95 and 0.74 square miles (2.5 and 1.9 sq. km) respectively. The Zhengzhou wall runs partially under a late (Ming-period) wall but is longer overall: about 5500–6200 feet (1700–1900 m) for each side of its roughly square plan. The wall was

Building with Pounded Earth

Archaeologists digging at Anyang in the early 1930s came upon densely packed earth which they mistook initially as flood deposits. After the recognition of the Longshan-period earthen wall at Chengziyai (Shandong), however, the excavators identified such features as the products of human labor. The term *hangtu*, an expression native to the Anyang region, was adopted for this important building technique.

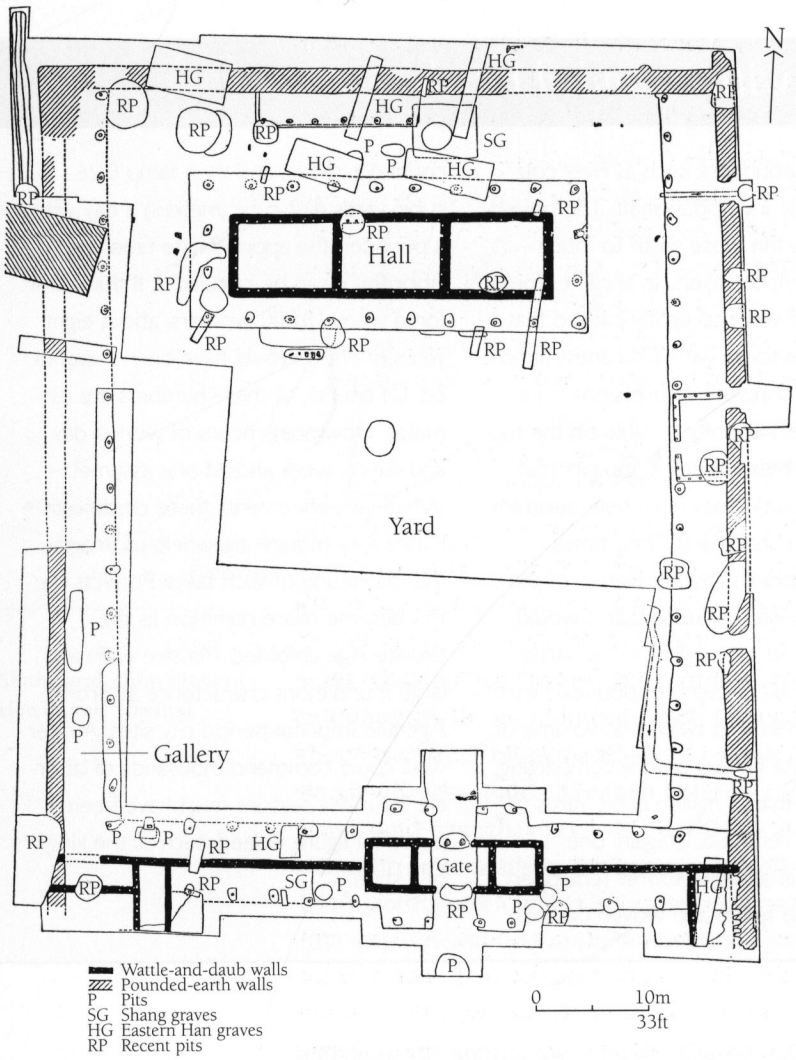
The fundamentals of the process have not changed in several thousand years, and indeed people living in the countryside of the North China loess lands still use compacted earth, *banzhu*, to make farmyard walls and houses. The technique today requires wooden forms, typically spindly tree trunks lashed together to create a simple frame. Loose soil is dumped into that frame and then made hard using pounders, such as river cobbles lifted by a wooden shaft. The pounding reduces the loose earth to much thinner, compact layers. In ancient times, these layers were so tightly packed that they survive today with a hardness almost like that of concrete. Impressions from the pounders are often visible on the top surfaces of these layers; it appears that bundles of sticks may have been used for pounding in Shang and Zhou times.

The modern-day excavators of the Zhengzhou wall calculate that it would have required 1.14 million cubic yards (870,000 cubic meters) of pounded earth. If one assumes that twice that volume of soil must first be dug before compacting, then more than 2 million cubic yards of earth were required. If, again, one assumes that a single laborer (equipped with a stone spade and woven basket) could dig, move, and then tamp 0.26 cubic yards (0.2 cubic meters) a day with a pounder, the approximate time and labor force can be calculated. If that labor force were 10,000 workers, about eight years of effort would have been expended. Of course, all these numbers are estimates. How many hours of work a day and days a week should one assume? Whatever refinements these crude estimates may require, they help us imagine the magnitude of such tasks. Projects like this became more common as the Bronze Age unfolded. Massive walls and large foundations characterize all Bronze Age and imperial-period city sites. A ruler who could command thousands of laborers for many seasons must have been a powerful figure indeed, such as the king of a state.

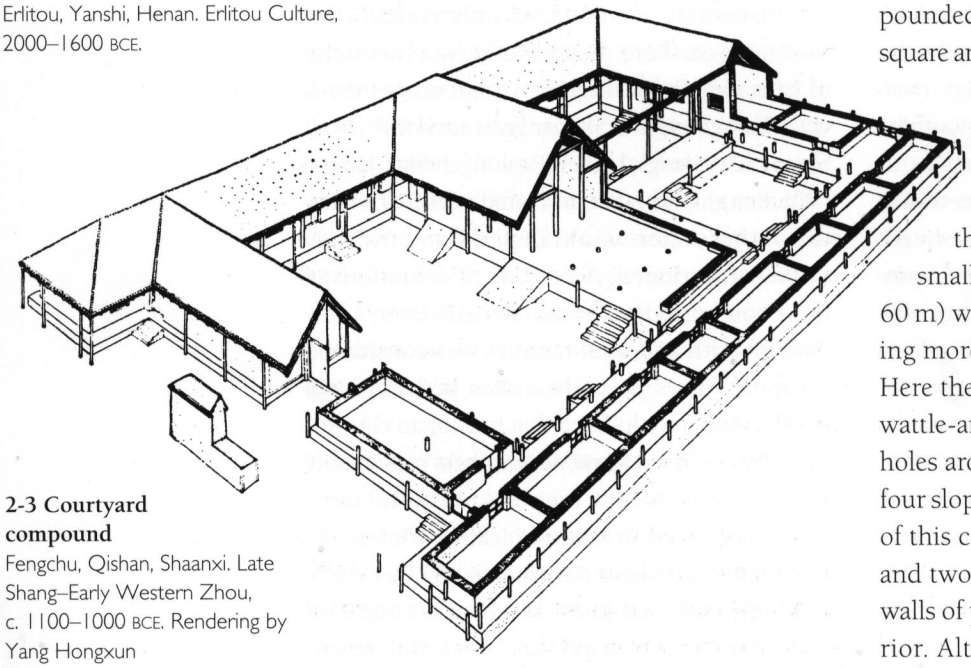
constructed from layers of pounded earth and in some stretches still rises to a height of as much as 30 feet (9 m). (See "Building with Pounded Earth", above) The base dimensions of the wall range up to 65 feet (over 20 m). By contrast the wall at Shixianggou is an irregular rectangle measuring about 5500 feet (1700 m) north–south by at most 3900 feet (1200 m) east–west. While this wall is sometimes as wide at the base as that at Zhengzhou, at present its height nowhere exceeds more than 10 feet (3 m). Both walls have a number of gaps interpreted as gates, and within each walled area are traces of roadways issuing from those supposed gates.

Each of these sites could well be termed a "city." Indeed the modern Chinese word for "city" is the logograph for a large wall, *cheng*. The extended meaning of the graph derives from the key role of walls as a defining attribute of major sites. Walls enclose and exclude; their gates control access. Palaces and government offices were usually located within walls. Even if we equate these walled sites with archaic cities, we have not resolved their identification. Were they early Shang capitals … cult centers … military strong points? Data now suggest there may have been a hierarchy of sites. Smaller walled sites contemporaneous with Zhengzhou and Shixianggou are known from Shanxi (Gucheng), Hubei (Panlongcheng), Jiangxi (Wucheng), and Sichuan (Sanxingdui). The status of these sites would depend on how they actually functioned. According to definitions of the Zhou period, a thousand years later, a settlement with ancestral temples was considered a "capital," *du*. Some of these sites, both large and small, could have fulfilled that role for an elite lineage that occupied them, while others presumably functioned as satellite outposts to control territories, resources, or communication routes.

The rulers of large settlements, whether chiefs or kings, exercised their authority in courtyard complexes ancestral to later palace and temple



2-2 Plan of palace–temple no. 2
Erlitou, Yanshi, Henan. Erlitou Culture, 2000–1600 BCE.



2-3 Courtyard compound
Fengchu, Qishan, Shaanxi. Late Shang–Early Western Zhou, c. 1100–1000 BCE. Rendering by Yang Hongxun

designs. In ancient texts, these courtyards, *ting*, function as the setting for rituals and gatherings that satisfied the needs of the ruler, his clan, and his polity or people. Modern scholars refer to these complexes as "palace–temples" to signify their multiple roles and the multiple roles of rulers. A main hall, *tang*, a large roofed structure on an elevated platform, occupied the heart of a courtyard. This *tang* was the stage on which rites were acted out. An encircling wall, often with a gallery, defined the space of the courtyard, especially an open area before the main hall. In ancient texts the ruler is described as addressing gatherings assembled in such spaces. A gate house, again with a roof, controlled access to this precinct. Placed opposite the main hall, it determined a central axis. In general, courtyards are symmetrical about their axis; site permitting, the axis is aligned with the northern direction, with the entrance at the south. Together the wall and gate house separate the space and activities of the courtyard from the surrounding settlement, so that whatever happened within was off limits and hence mysterious. The mysterious aura created by such spaces adheres to almost all later Chinese architectural complexes, secular or sacred.

The two earliest palace–temples known survive only as foundations at the Erlitou site (FIG. 2-2). The larger of the two occupies a raised, pounded-earth terrace roughly 330 feet (100 m) square and aligned with magnetic north. The main hall stood on a large rectangular block of pounded earth, its broad dimension facing south. Unfortunately, the surface had been scraped clean throughout this site, so details remain conjectural. The smaller site (only about 230 by 200 ft, 70 x 60 m) was better preserved in every way, revealing more about its hall, gate house, and walls. Here the main hall had three large chambers of wattle-and-daub construction. A circuit of post holes around the perimeter suggests a roof with four slopes or overhanging eaves. The gate house of this courtyard consisted of a central passage and two flanking (guard?) chambers. Perimeter walls of pounded earth had galleries on the interior. Altogether the Erlitou site may have had

as many as several dozen compounds of this kind. If they served as ancestral temples, the site could well have been a capital, *du*, as defined above. Unlike Zhengzhou and Shixianggou, however, the Erlitou site had no massive wall or other enclosing feature. In view of its proximity to the Shixianggou site, Erlitou may have been a cult center linked to that larger site.

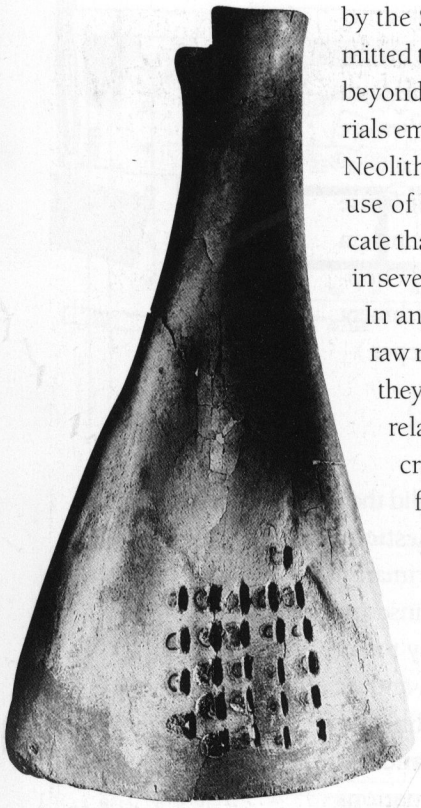
Compounds with this complex plan were not among the fifty-plus foundations partially unearthed and recorded in the 1928–1937 excavations at Anyang, nor did their condition permit careful restorations. A courtyard of Late Shang date in Qishan County (Shaanxi) shows how this basic design developed. Located near the village of Fengchu, the courtyard was built on a raised terrace in such a way that its perimeter walls and chambers were elevated above the yard (FIG. 2-3). The main hall was linked at each end to these chambers, but its floor was higher still. Behind the main hall was a divided rear yard. The gate house consisted of two large chambers connected to the sides; they frame a passageway leading into the yard. That entrance lay aligned on the central axis and was fronted by a freestanding screen wall. This courtyard was a compact, well-integrated unit, each part scaled to fit neatly with adjacent components. The overall size is significantly smaller than the two courtyards at Erlitou, merely 150 by 100 or so feet (45 by 32 m). Because of its location in Qishan County, ancestral home of the Zhou kings, Chinese scholars associate this courtyard with the royal Zhou lineage. A pit containing oracle bones reinforces this association.

The preference for certain building materials—pounded earth, mud plaster and daub, timber, thatch—largely determined the incomplete preservation of these most ancient structures. The advent of architectural pottery, roof tiles and water pipes for example, added a new, more durable ingredient into the built environment but did not materially improve the preservation of the structures themselves. It is thus quite difficult for us to understand the appearance of these sites. No pictorial art survives from this period, and ancient graphs suggest at most such generalized features as pitched roofs or two-panel doors. Almost the only evidence for the details of these elite structures comes from a few ritual vessels that incorporate "walls," "windows," and "doors." *Ding* vessels from Shaanxi, for example, suggest that doors were divided into upper and lower panels and that windows may have had latticework. A kneeling figure lacking feet is often attached to one door panel on such vessels. (Zhou penal law prescribed chopping off the feet for certain crimes; such punishment could lead to a career as a palace doorkeeper.)

The Shang Royal Cult

Who occupied these structures, and how did they dominate society? Answers to these questions depend partially on material data but primarily on the interpretation of the oracle-bone inscriptions from Anyang. Whatever we can say today about the Shang royal lineage, its kings, and its cult derives in large measure from reading the inscriptions cut into turtle shells and ox scapulas (shoulder blades) for the divinations (plastromancy, scapulimancy) that were conducted daily during the reigns of the Late Shang kings. The Shang royal cult functioned in many ways as the glue that held society together. The living king's position in the cult as a unique intermediary between the people and the spirits validated his claims to worldly as well as spiritual authority. The practice of divination and sacrifice, both conducted by the king, served the needs of the royal lineage and of the larger society. The status and obligations of one lineage to another and of non-Shang groups to the Shang were determined through cult obligations. Much of the economy was regulated for and channeled toward this purpose. Craft production for the elite (see pages 64–81 below), in particular, centered on cult needs and activities. Many physical vestiges of the Shang are traces of cult activity, from oracle-bone inscriptions to bronze vessels and royal tombs.

The oracle-bone inscriptions found at Anyang were unexpected. Although various methods of forecasting the future were known in ancient China, most famously casting milfoil stalks in consultation with the *Book of Changes* (*Yi jing*), the specific materials and process of divination as practiced



2-4 Ox shoulder blade
Shang period, Yinxu phase, 1200–1050 BCE. Height 15¾" (40 cm). Xiaotun Locus West, Anyang. Institute of Archaeology, Beijing

by the Shang kings were not recorded in transmitted texts and evidently did not continue much beyond the expiration of that dynasty. The materials employed, however, can be found in earlier Neolithic societies, especially ox scapulas. The use of both oxen and female turtles may indicate that the practices of the Shang cult had roots in several different mantic (divinatory) traditions. In any event, little is known about why such raw materials were chosen or what significance they may have had. Ox scapulas offered a large, relatively smooth and flat surface for making cracks, but the bones found at Anyang were first prepared by a tedious process of cutting and trimming (FIG. 2-4). Similarly, plastrons (the lower shells of turtles) required extensive work to cut away interior ridges and polish the surface. Notations on oracle bones suggest both oxen and turtles may have been raised for use in divination and sent to the Shang cult center at Anyang from outlying regions. Over the Late Shang period, bones and shells were used in roughly equal numbers. David N. Keightley has estimated that at least six oxen and twelve turtles were needed for this purpose during every ten-day week.

After the bones and shells had been prepared, hollows were carved on their back surfaces, usually in two parts. Columns of lentoid hollows were cut on the axis with the long dimension of the bone or shell, and smaller, round areas were cut away at right angles to them. This pair of depressions thus created two zones where the bone or shell was very thin and could easily crack when a hot point was applied. The resulting cracks, one long and vertical, and the other short and at an angle to the first, were the physical manifestation of the "oracle." The sound—something like "puk"—that issued from this process has been termed "the voice of the turtle." Interpreting these cracks, or more usually paired sets of cracks, was the arcane specialty of the king—his channel of communication with the ancestors.

Today scholars know of more than two hundred thousand "inscriptions on bone and shell," *jiagu wen*, recovered both from looting and from controlled excavations. Keightley suggests this may be some 5 to 10 per cent of the original corpus of inscribed pieces. The vocabulary of these inscriptions has been estimated at about five thousand logographs, of which perhaps 40 per cent are recognized. The remainder are undeciphered, many assumed to be names or graphs for which there is no later descendant. Within these inscriptions are many formulaic phrases, most often paired positive and negative statements. The subjects addressed in the inscriptions are remarkably wide-ranging, although a majority have to do with details of cult, especially sacrifices. Who should receive offerings? When should the rite be performed? The most common subject is the outlook for the upcoming ten-day week, but the weather, celestial events, harvests, hunting, childbirth, warfare, and many other topics also merit attention.

The Shang king and cult served a hierarchy of powers through divination and sacrifice. Supreme among these powerful spirits was Di, the High God (also sometimes called Shang Di). It is possible that Di was a deified Shang ancestor (or even originally a collective term for deceased ancestors). Di was impersonal and all-powerful but remote, accessible only through the intercession of the royal ancestor spirits. Di controlled the natural and human worlds, causing both fortuitous outcomes, such as a bountiful harvest, and calamitous ones, such as drought or pestilence. As the supreme power, Di may have been ancestral or equivalent to the Zhou deity Tian ("Heaven"). Like Di, Tian was impersonal, able to bestow both good and ill fortune, and accessible via rites performed by the king. While it is unlikely that the Shang kings addressed Di or sacrificed to him directly, the Zhou king did maintain direct regular communication with Tian and in fact ruled by virtue of Tian's sanction (the "Mandate of Heaven").

Less powerful than Di was an array of nature powers and remote ancestors. The former included the spirits of the sun and moon and the winds of the four directions. Nature spirits found in the inscriptions include He, the spirit of the river (in this instance a reference to the Yellow River), and Yue, the spirit of the marchmount (holy mountain), possibly embodied by Mount Song (between Zhengzhou and Luoyang, in Henan). These nature

Divination: Communicating with the Ancestors

2-5 Rubbing of *Bingbian* 247
Shang period, Yinxu II, c. 1200 BCE. Academia Sinica, Taiwan

Lengthy inscriptions encompass the following parts (using the terminology of David N. Keightley; see FIG. 2-5 and translation below):

(1) **Preface**. The day of divination is indicated by a two-graph combination (from among sixty pairs, the sexagenary cycle), and the diviner is named. About one hundred and twenty diviners are known.

(2) **Charge**. The topic being tested is stated, usually in antithetical, positive–negative statements. Diviners tested many charges five times by burning five pairs of cracks arrayed on opposite sides of bones or shells.

(3) **Prognostication**. The king inscribes his judgment as a restatement of the charge.

(4) **Crack numbers and notations**. Paired sets of cracks are usually numbered 1–5, and sometimes a comment like "Greatly auspicious" is noted.

(5) **Verification**. Another restatement of the charge at a later date confirming that the prognosticated result did transpire. It should be remembered, however, that most inscriptions consist only of preface and charge.

Full-length inscriptions offer a number of criteria for internal dating, and scholars have been able to place inscriptions in a relative chronology tied to the reigns of the Late Shang kings. The key element in such dating is the terminology used to refer to the royal ancestors. The use of generational terms (brother, father, grandfather) places the king conducting the divination in relation to his ancestors. Scholars have also associated diviners with certain reigns, and there are other criteria, including script style. The periodization of the inscriptions has also been correlated with archaeological phases recognized at Anyang.

Translation of *Bingbian* 247 by David N. Keightley (FIG. 2-5)

Positive Charge (right side of shell):
[Preface] Crack-making on *jiashen* [day 21], Que divined.
[Charge] Lady Hao will give birth and it will be good.
[Prognostication] The king read the cracks and said: "If it be on a *ding*-day that she gives birth, it will be good. If it be on a *geng*-day that she gives birth, it will be prolonged auspiciousness."
[Verification] After thirty-one days, *jiayin* [day 51], she gave birth. It was not good. It was a girl.

Negative Charge (left side of shell):
[Preface] Crack-making on *jiashen* [day 21], Que divined.
[Charge] Lady Hao will give birth and it may not be good.
[Verification] After thirty-one days, *jiayin* [day 51], she gave birth. It really was not good. It was a girl.

powers were the objects of specific sacrificial offerings; in the case of He, it has been suggested that offerings were made by throwing pieces of jade into the river. Remote ancestors also received cult worship. Some may have been one-time animal spirits made human or co-opted ancestors of lineages later subsumed within the Shang royal clan. Some were associated with mythical feats and attributes and later became part of the large group of culture bearers recognized in legend. The Zhou royal lineage honored a similar figure, Hou Ji, the Lord of Millet, as their own ultimate ancestor. Mythic events associated with Hou Ji form part of the earliest Zhou poetry, the *Book of Songs* (*Shi jing*).

The most powerful spirits affecting the living Shang king and his people were recent royal ancestors. The inscriptions document a genealogy starting with the dynastic founder, Cheng Tang, down through twenty reigns until the time that Anyang was occupied as a cult center. An additional eight or nine kings certainly divined at Anyang and so are taken to be true historical personages. The royal ancestors included both kings (fathers, grandfathers) and queens or consorts (mothers, grandmothers). Their ability to monitor the workings of the world of the living and to respond to human actions meant the king had to make frequent divinations so that his acts were not displeasing. The ancestors became more powerful as their generational distance from the king increased. The Zhou ancestral cult also demanded regular attention from descendants, who maintained family altars and performed scheduled sacrifices for at least a certain number of generations. This family-based cult, much modified over time, remained a feature of normative Chinese society throughout later history.

The Shang preoccupation with propitiating the ancestor spirits anticipated the Zhou practice of regular rites to Heaven, which also somehow monitored the king's conduct. Both the Shang and Zhou cults assumed that the ancestors had needs very like those of humans. The regular sustenance offered to these powerful spirits necessitated the ritual vessels that have been the focus of so much Shang and Zhou art history (see pages 69–81 below). Sacrifices were much like a meal for the living, with the exception of blood rites and human victims. Although the ancestor spirits themselves required attention and offerings, their greatest value to the king was as intermediaries to Di. The offerings were a kind of contractual bribe, in David Keightley's formulation, by which the Shang king obtained certain outcomes for himself and his people. Again, the types of Shang offerings—meat, grain, alcoholic drink, human—anticipate Zhou practices. Over the Late Shang period there was a shift from an open and flexible system of sacrifices to a rigidly scheduled and stereotyped set of rites. Early Western Zhou practices were evidently built on the Late Shang system but manifest considerable change, with less need for alcohol and human blood. The changing repertoire of Western Zhou bronze vessels attests to these changing ritual habits.

The King and the Political Order

As the head of both the royal lineage and the larger polity, the Shang king performed a variety of duties that can be separated into distinct secular/political and religious/familial categories. Every aspect of the king's duties was tied both to his family (living and dead) and to the state. In the Western Zhou period, a similar combination of roles and duties characterizes kings. Many scholars refer to the Shang king's rule as "patrimonialism." While state organization might be termed protobureaucratic, the way in which roles were assigned and the relationship between ruler and subordinates was more akin to a family structure. A powerful father or patriarch presided over an extended, multigenerational family. Service within this patrimonial organization was a matter of personal obligation to the king, and kinship figured as the key qualification for service.

The oracle-bone inscriptions describe the Shang king giving orders or commands, such as to build a new settlement or launch a punitive military campaign against an adversary. The king is continually informed of developments within Shang territory, both near and far, and he himself frequently travels through that domain, manifesting his authority by, perhaps literally, "showing the flag." He attends to the weather and harvest but also engages in large-scale royal hunts. The copious divinations about sacrifice were simply the first phase of the king's ritual responsibilities. Daily, weekly, and other, less frequent sacrifices to royal ancestors and nature spirits occupied a significant part of the king's time. In all of these activities, an elite (or nobility?) composed of members of the royal lineage and other powerful clans served him. A staff (a nascent bureaucracy) of ritual specialists, diviners, scribes, and military officers met his immediate requirements. The over one hundred and twenty diviners named in the inscriptions may have been drawn from cadet branches of the royal lineage and from other clans. The king was also aided by the royal consorts,

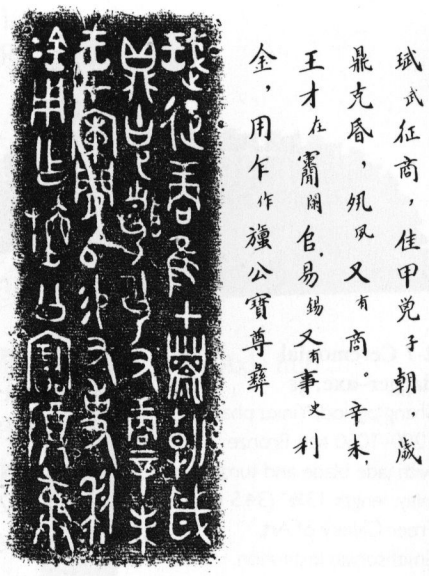
fu, who performed a number of the same duties.

The Shang king's place of residence functioned as a capital of sorts, and this location changed repeatedly during the dynasty, perhaps even from one time of year to another. The cult center where the last Shang kings were buried, and hence the site of divination and cult offerings, located near modern Anyang, may have been the center of the Late Shang domain. Other lords ruled territories surrounding the king's and probably received him when he was on hunts or circuits. They provided resources for the royal domains including grain and other commodities, as well as people when labor or military service was required. The effective area of the Late Shang king's domain was much of Henan and parts of southern Hebei, western Shandong, and southern Shanxi. A wider area ruled by lords of statelets, *fangguo*, not within the ramified Shang lineage, surrounded this zone. Some statelets were brought into the Shang state, while others maintained autonomy, and relations with them might be peaceful or hostile.

In similar ways, the Western Zhou kings presided over a structure of authority. After the conquest of Shang, the Zhou king was careful to place blood relations in key locations throughout the state in a system that has frequently been likened to medieval European feudalism. In some respects this is appropriate—obligations to the Zhou king included military service and taxes—but there were few of the explicit contractual obligations that were a feature of European feudalism. Ranks and titles were elaborated in the Western Zhou and are usually rendered in English equivalents such as Earl, Marquis, Duke. In the Western Zhou period the local nobles also interacted with outlying statelets and chiefdoms.

We know little of the rationale for the Shang king's rule except what we can infer about a king's role as the link to the ancestors and spirit world. The Zhou kings, however, left documents that more explicitly justify their rule and elaborate its ideology. Some of the texts in the *Book of Documents* (*Shang shu*) are presented as announcements made by the Zhou king to a defeated Shang people. They accuse the last Shang king of immoral conduct and claim that their deity, Heaven, had sanctioned their armed overthrow of this despicable ruler. The last Shang king's ritual excesses were part of his alleged misdeeds. Early Zhou propaganda, by contrast, proclaims a more moderate approach. Heaven has sanctioned their rule, and they must live up to its requirements.

The testimony of such sources, after several thousand years of scribal transmission, has been substantiated to some degree by a small corpus of Late Shang and Early Western Zhou inscriptions using much the same language and assumptions. For example, the traditional account of the Zhou defeat of Shang is dated to the morning of an auspicious day (*jiazi*). An Early Western Zhou *gui* vessel (FIG. 2-6) from Shaanxi unearthed in 1977 repeats that exact dating in its text, which had been composed a mere seven days after the event.



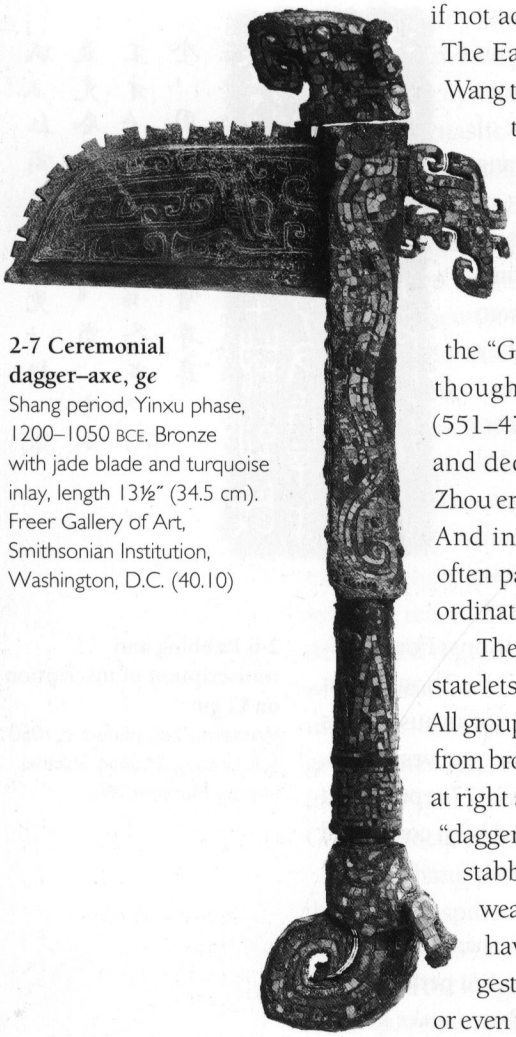
2-6 Rubbing and transcription of inscription on Li *gui*
Western Zhou period, c. 1050 BCE. Lintong, Shaanxi. Shaanxi History Museum, Xi'an

> King Wu campaigned against Shang. It was *jiazi* [day 1], in the morning. King Wu performed *su* and *ding* sacrifices and was able to make known that he had routed the Shang. On *xinwei* [day 8], the King was at Jian encampment and awarded chargé d'affaires Li metal, with which Li herewith makes for the Duke of Zhan this treasured sacrificial vessel.
>
> Shaughnessy, *Sources* (pp. 89, 105)

With the Western Zhou, we enter a historical period in which received historical accounts can be verified from excavated materials, albeit sometimes with modest qualifications.

Warfare

The Shang and Zhou kings were warriors, able to enforce their will by commanding other warriors to do their bidding. The strongest of the Late Shang kings, Wu Ding, was probably an able commander himself, and his consort Lady Hao may also have played a role in raising men at arms,



2-7 Ceremonial dagger–axe, *ge*
Shang period, Yinxu phase, 1200–1050 BCE. Bronze with jade blade and turquoise inlay, length 13½" (34.5 cm). Freer Gallery of Art, Smithsonian Institution, Washington, D.C. (40.10)

if not actually leading them in battle. The Early Western Zhou rulers, Wu Wang the "Martial King" and his brother the Duke of Zhou, likewise had military force at their disposal and employed it effectively. The martial tradition of these early kings tended to be downplayed in later writings about the "Golden Age" that the Zhou was thought to exemplify. Confucius (551–479 BCE) stresses the civil virtues and dedication to ritual of the early Zhou era rather than its martial aspects. And in later times military valor is often paired with civil virtue in a subordinate relationship.

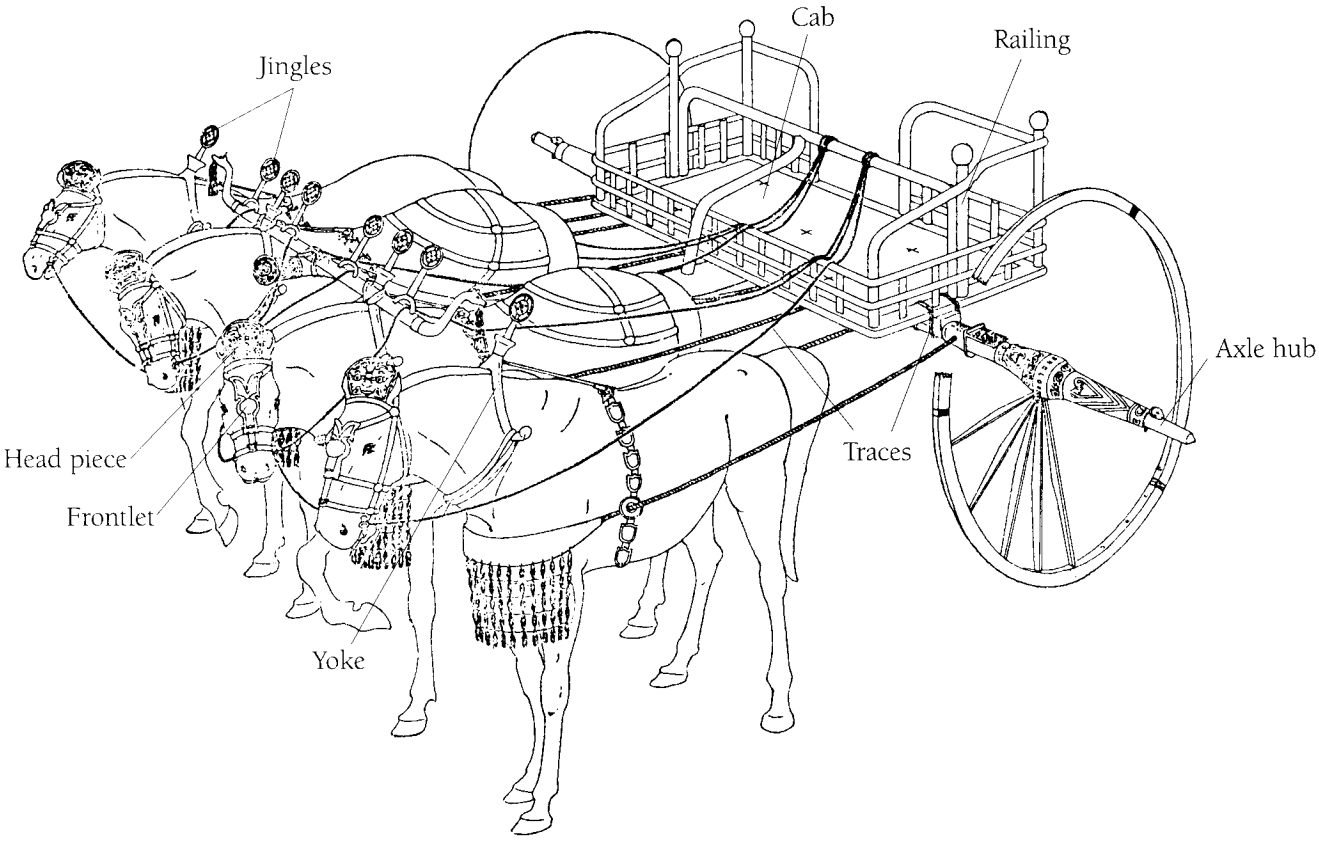
The Shang kings regularly fought statelets or chiefdoms on their borders. All groups had access to weaponry made from bronze, especially a blade mounted at right angles on a shaft (the so-called "dagger–axe," *ge*) used for hacking and stabbing. Many thousands of these weapons are known, but only a few have any special features to suggest high-ranking warriors or lords, or even the king, carried them as tokens of status. An example in the Freer Gallery of Art (FIG. 2-7) has a bronze hilt that holds a jade blade; the hilt is inlaid with small pieces of turquoise. Finials at top and bottom resemble birds or dragons. The blade itself bears double-line incised drawing, while its top margin is fretted something like the flanges on Late Shang vessels. This token of rank should be considered a descendant of the Liangzhu blade discussed in chapter 1 (see FIGS. 1-8, 1-10 above). Other weapons include wide-blade axes, *yue* or *qi*, a form known as early as the Erlitou Culture; a few axes even have meteoritic iron blades. Some *ge* and other axes were rendered in jade. Like the deluxe specimen shown here, these would have been too fragile for any use other than ceremonial display. At least some Shang and Zhou warriors may have gone into battle in bronze helmets, although these are relatively rare, and shields may have had bronze fittings. Body armor, if it existed, has not survived.

The key weapon in the Shang and Zhou arsenal may have been the *ge*, but the most awe-inspiring component of an army must surely have been chariots. Many scholars now regard these two-wheeled carts as a technology brought into North China during the Shang period. Antecedents are known in Western Asia, and considerable evidence for their use in the intermediary Siberian and Central Asian zones can be cited. The Shang and Zhou war chariot was pulled by either two or four horses. The wooden cab, axles, wheels, tongue, and yoke were complemented by bronze fittings, and considerable numbers have been recovered from burial pits at Anyang and elsewhere. A Western Zhou chariot with a team of four horses and bronze regalia must have been a most impressive sight (FIG. 2-8). The artist's reconstruction shown here derives both from literary sources and from specimens excavated in Shaanxi. Bronze inscriptions frequently describe the bestowal of such chariots and their gear on meritorious recipients, and these accounts accord with textual traditions. As command vehicles these chariots must have been very useful, but how effective they were in combat on rugged terrain is an open question.

Although scholars over the centuries have given most of their attention to ritual vessels, both as the medium for inscriptions and as art objects, bronze casting for military purposes was a major industry during the Bronze Age. As long as the Shang and Zhou kings had exclusive control over ore resources and casting technology, their power was unassailable. Bronze production thus was a key component of the security and survival of the state.

CRAFT PRODUCTION FOR THE ELITE

Jade and bronze were only two of a variety of crafts exploited for the use of the Shang and Zhou elite, especially for the king's own person and his ritual obligations. Jades and bronzes had in common the virtues of durability: consigned to royal or elite tombs, they had a better chance of survival than objects that remained above ground in the hands



2-8 Chariot and four-horse team
Western Zhou period, c. 1050–771 BCE

The plethora of technical terms for the parts of this war chariot emphasizes the complexities of this most imposing of war machines. Derived from many Western Zhou finds, this drawing displays the basic engineering of chariots and the array of bronze fittings that had developed since the Late Shang period, when the first chariots appeared.

of their users. Other craft products that did not share these traits—perishable silk cloth, fragile lacquer wares, breakable stonewares—have survived only in more limited quantities. Their attrition makes it that much more difficult to understand the achievements of their makers, the extent of their use, and their impact on the working of jade and bronze.

Artisans crafted all of these materials in workshops linked to the Shang and Zhou kings and nobility. Inscriptional data suggest a considerable range of skilled crafts during this time, but material evidence is less extensive. A late Eastern Zhou text, *The Artificer's Record (Kaogong ji)*, lists many craft specialties perpetuated among hereditary lineages, each with their own special knowledge. Similar family-based skills and knowledge may have been characteristic of Shang and Western Zhou times as well. A few actual workshop sites are known, such as a jade-carving site northwest of Xiaotun and the bronze foundry at Miaopu North, both at Anyang, but we do not know if craft workers enjoyed a social or economic status superior to other laborers. A case for favored status has been built on the discovery of a few substantial houses that seem to have been workshops for the production of pottery, jade, and even alcoholic spirits (as at the Taixi site discussed above), but the evidence is inconclusive. These crafts were apparently not available to the larger society. Craft production for the elite, however, could not have existed without a diversified and developed economic base, one regulated or controlled by the king who supplied craft workers with food and shelter and perhaps even freed them from other obligations. Houses and pits excavated around the palace–temple foundations at Xiaotun suggest some craft workshops were located in actual physical proximity to the kings. Their maintenance from royal granaries and resources would have been easily sustained.

Carving in the Shang period reached high levels, and many features of Shang style originate in the act of carving. Bone carving (not to mention the preparation of scapulas and plastrons for divination) flourished. Bone was the material of choice for pins to gather the long hair of men and women. Fragments of bone objects were recovered from

2-9 Goblet
Shang, Yinxu period, c. 1200 BCE. Ivory with turquoise inlay, height 11¾″ (30.3 cm). Tomb 5, Xiaotun Locus North, Anyang. Institute of Archaeology, Beijing

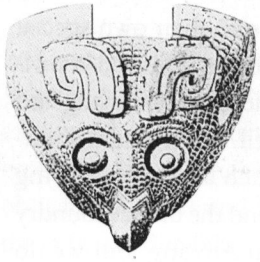
the Anyang royal tombs, but the carved ivory goblets from the tomb of Lady Hao best exemplify this aspect of Shang carving (FIG. 2-9). The entire surface was worked with designs interchangeable with those of bronze decoration (see below). Inlaid turquoise teeth, nostrils, eyes, and brows play off against the dense surface patterns, a technique seen in the ceremonial *ge* (see FIG. 2-7 above). Tusks needed for these goblets may have derived from royal elephants or may have been tribute. Elephant bones were found at Anyang in the 1930s and 1960s; tusks also figure prominently at Sanxingdui, the contemporaneous site in Sichuan (see pages 86–87 below).

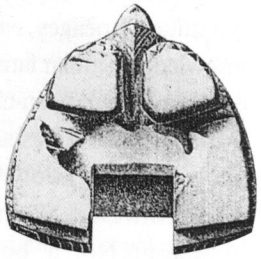
Compared to ivory, blocks of nephrite were obdurate indeed. Most Shang and Western Zhou jade carvings are small in scale. A high percentage comprise a menagerie of real-world animals of land, water, and air, with an assortment of more fantastic creatures, including the crested birds and dragons also found in bronze decoration. Several hundred of the most pleasing Shang jades, most of them easily held in the palm, were found in the tomb of Lady Hao, consort of King Wu Ding, whose unlooted tomb southwest of the palace foundations also yielded miniature human and humanlike figures (see FIG. 2-23 below). Several writers have noted the similarity of Shang jades to prehistoric predecessors. For example, the so-called pig–dragons of the Hongshan Culture (see FIG. 1-7) seem to presage coiled dragons of the Shang, although the latter are flat rather than round in section. Similarly, the ubiquitous mask motifs of Shang bronzes and other media are akin in general terms to the motifs found on Liangzhu Culture jades (see FIG. 1-10). Comparable materials and designs must make us ponder the possibility of a relationship. However, long stretches of time and space separate the Shang from each of these prehistoric cultures, and only a few examples of prehistoric objects have been found in Shang contexts.

The prewar excavations unearthed a number of marble images in the round at the Anyang royal tombs, and, more recently, the discovery of the tomb of Lady Hao has added to that evidence. A marble owl from Tomb 1001 (FIG. 2-10) represents work of the period. Only some 13 inches (34 cm) in height, this carving nonetheless ranks among the largest works of Shang-period sculpture from the north. The vertical slot in its back

2-10 Owl
Shang period, Yinxu II, c. 1200 BCE. Marble, height 13¾″ (33.6 cm). Tomb 1001, Xibeigang, Anyang. Academia Sinica, Taiwan

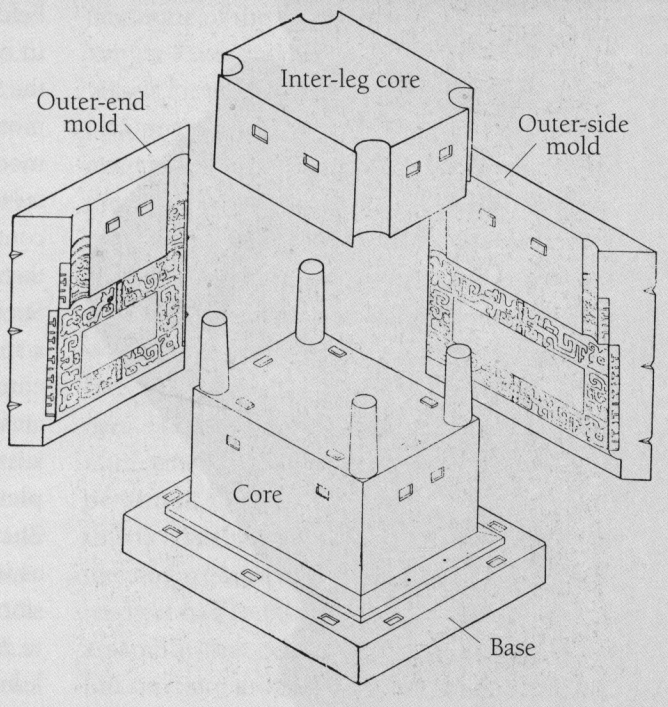
This owl and a kneeling tiger of similar size were the first large Shang stone carvings excavated scientifically. Their rear slots suggest a functional role as supports, perhaps at the entry to the burial chamber or for tomb furniture. Although masks and dragons supplement the surface decoration, they are less prominent than comparable motifs on the bronze owl wine container from the tomb of Lady Hao (see FIG. 2-1).





Piece-mold Bronze Casting

The molds used in Shang and Zhou times were ceramic, a hard gray earthenware, made from two kinds of clay: a finer clay on their interior surfaces and a coarser backing. Molds were prepared from templates or models and made in sections that could be assembled with keys or mortises to hold them in position. The molds for the largest Shang vessel yet known, the *Si mu wu fangding* (FIG. 2-11), would have consisted of multiple slabs, perhaps with several sub-sections for each of the four sides of the vessel. Vessels circular in cross section were created from two- or three-part assemblies. Making sectional or piece molds offered a great advantage. A model or template could be made once and many clay slabs impressed onto it to create identical mold sections. Individual molds could be stamped while moist, and then baked before carving. Carving could be assigned to many hands working separately; thus individual pieces vary considerably in small details. A core to occupy the intended interior space of the vessel also had to be made. Many writers have hypothesized that a positive model was trimmed down on all surfaces and then reused as a core. However, cores could also be cast from molds. Whatever the case, the space left between the core and reassembled outer piece molds determined the thickness of the vessel. Proper distance and hence thickness could be assured by carving keys into the mold sections and core (in order to support a lower core or suspend an upper core), or by introducing metal spacers (chaplets) between core and molds.



2-11 Mold assembly for the *Si mu wu fangding*

The vessel made using this (reconstructed) mold assembly remains the largest ever recovered from the Shang period, weighing nearly one ton (875 kg). The dedication to a "Mother Wu" (*mu wu*) may indicate the *fangding* was cast for a consort of King Wu Ding and contemporary of Lady Hao.

Casting must have been a laborious and tricky process. The mold assembly had to be invested with a mass of clay to hold it together. This was probably placed in a sand pit in the ground and probably was itself heated so that hot metal was not introduced into cold molds, causing cracking. Many vessels seem to have been cast upside down with a leg (or spout attached to the ring foot) used to pour in the alloy. Part of a mold assembly for a large *fangding* vessel was found in the foundry at Miaopu North (see again FIG. 2-11). A sprue—an outlet—also had to be attached to another leg or similar feature to allow hot gases and air trapped within to escape as the molten metal was poured in. The whole assembly filled with metal from bottom to top, finally topping off at the pouring spout and outlet sprue. After the whole had cooled for a short time, the assembly was retrieved from its bed of sand, and the molds were broken off the new vessel. Thousands of broken mold fragments were recovered at the Miaopu North foundry site.

The freshly cast object usually needed extensive cold working. Fins of metal that had seeped into the seams between adjoining mold pieces had to be trimmed or filed off and smoothed. Core material trapped in relief features had to be carved out, as did the core matrix filling the interior space of the vessel. Polishing and buffing would also have been needed.

2-12 Large storage vessel, *hu*
Western Zhou period, c. 1000–900 BCE. Glazed stoneware, height 7¼" (18.7 cm). Liutaizicun, Jiyang, Shandong. Shandong Institute of Cultural Relics and Archaeology, Jinan

suggests that it anchored some object inserted there. The owl is a plump bird resting on its two thick, drumstick legs and hooked tail feathers. Grooves cut across the bottom define the two claws and tail but leave a substantial base. The bird's features are compact, accentuating the prominent, curved beak. Inset circular eyes, simple C-shaped ears, and flattened horns at the top of the head are rendered in relief or incised line but do not break from the mass. Incised lines cover all surfaces: scales on the back and head, coiled serpents and dragons placed as backswept wings, and a mask motif on the chest. The design and conception are strikingly similar to a pair of bronze vessels in the shape of owls from the tomb of Lady Hao (see FIG. 2-1). Their only important differences are their projecting features—such as ears and horns—made possible by the stronger metal. The owl enjoyed a considerable vogue in the crafts of the early reigns of Late Shang, appearing often in jades and bronzes.

Shang and Zhou bronze casting was indebted in significant ways to ceramic technology. Clays that could withstand high-temperature firing were used to produce stonewares (FIG. 2-12; for the basic techiques of working clay, see page 38). Feldspathic glazing on these vessels is attested in northern and southern regions from both the Shang and Western Zhou but may have been more common in the Yangzi drainage zones of modern-day Jiangxi and Anhui provinces. Potters applied the glazes over the surfaces of large container vessels (usually *zun* and *lei*) and burned them to either a soft gray-green or chocolate brown. Such vessels are thinly potted and carry at most a sparing decoration of incised lines or stamped cordmarkings. Uneven pooling of the glaze creates dark glassy spots; while perhaps accidental, it is much admired by modern connoisseurs. Examples unearthed from such northern sites as Zhengzhou, Anyang, and Luoyang (all in Henan) as well as the Xi'an region (Shaanxi), suggest stonewares traveled regularly from southern kilns to northern consumers. The high-temperature kilns and the control over firing needed for this kind of production were analogous to the furnaces and equipment used in bronze foundries.

Bronze Ritual Vessels

Defining attributes of Shang and Zhou kingship included the abilities to exploit ore resources, to maintain foundries, and to utilize precious metal for cult ritual and state ceremony. It has even been suggested that the Shang capitals moved in order to secure the copper ores necessary for this technology. Ritual vessels employed in the royal cult were symbols of royal status and authority. The "nine *ding* tripods" utilized in the royal ancestral temple became tokens of legitimacy. In the Zhou, a new king would claim to have received the nine *ding* as positive evidence that he enjoyed Heaven's Mandate. The requirements of bronze casting (see "Piece-mold Bronze Casting," page 67) included a skilled labor force whose many separate efforts could be coordinated for high-volume production. Ore sources had to be found and mined. Laborers smelted raw ore into metal ingots that were then transported to foundries. Potters adept at model and mold making, and at firing up kilns to heat the alloy, needed their

own raw materials and fuel. The casting process itself required specific expertise so that the melt could be properly mixed, the pour carefully controlled, the furnace closely monitored. Final cold working (filing, polishing) to finish objects imposed its own requirements of skill. The products of this high technology must have elicited awe among the general population, which perhaps was complemented by rituals performed by the founders during production.

All aspects of bronze casting as practiced in ancient China seem to have grown from local traditions, in spite of its relatively late appearance and the best efforts of some scholars to identify it as an imported technology like the horse-drawn chariot. Early European studies of Chinese bronzes simply assumed they were made by a version of the lost-wax technique known from ancient Mesopotamia. The study of ceramic outer molds recovered from Anyang sites as early as the 1930s disproved this assumption. (We know now that a lost-wax casting procedure was used by the Spring and Autumn period; see chapter 3.) Some scholars argue in favor of a smithy stage preceding casting in the history of Chinese metallurgy, primarily because of details on some early ceramic vessels that can be interpreted as evidence for rivets and other sheet metal features. This viewpoint is not generally accepted.

Bronze is an alloy of copper and tin that does not occur in nature. In ancient China lead was almost always used as well. A ternary (three-part) alloy has several virtues directly related to the proportions of the three metals in the recipe. The addition of tin to copper increases hardness, although a high tin alloy will be brittle. Tin also lowers the melting temperature of the alloy and promotes fluidity, thus improving the ability to fill in all parts of the mold assembly. Lead, on the other hand, improves the ability of the cold metal to take finishing and also affects color, turning the casting gray. While lead is consistent in Early and Late Shang castings, it may have been present initially simply as an impurity in copper ores. All of these ores were available in central and north China. Both copper and tin were mined within 190 miles (300 km) of Anyang.

Ore was rendered into ingots at or near the mines. Ingots have been found at the Miaopu North foundry site at Anyang and at an important mine of the Eastern Zhou period near the Yangzi River in Hubei. The crucibles—large vessels for melting ingots—found at Shang sites lack pouring troughs, which suggests that the materials being heated were already reasonably pure and did not produce much slag to be poured off. Crucibles typically are made of a hard earthenware with thickened walls (and even air chambers) to retain heat. They often have solid bases shaped as plugs that could be inserted into a socket as they were heated in the furnace. Such furnaces did not differ fundamentally from ceramic kilns. In order to melt the alloy, temperatures above 1000°C were necessary, but this is less than the temperatures needed for the production of stonewares. Once the melt was ready, it had to be poured into a waiting mold assembly. Few details of this step are known, but one site at Anyang seems to have had a charcoal-lined trough in the ground leading from furnace to casting pit.

Terms of Analysis

Function

Like many ancient objects that now repose in museums, Shang and Western Zhou bronze vessels were not made simply for display or aesthetic appreciation. Many vessel types have lengthy histories in Chinese cultures before the use of bronze, and some continued long after the Bronze Age. While specific functions cannot always be determined, several large classes are represented:

(1) vessels for holding alcoholic beverages, e.g. FIGS. 2-1, 2-16, 2-18, and for heating, pouring, and drinking the same, e.g. FIGS. 2-13, 2-15, 2-17;
(2) vessels for steaming and serving grain, e.g. FIGS. 2-19 and 2-20;
(3) tripod vessels for cooking meat, e.g. FIG. 2-14;
(4) shallow basins for holding water, perhaps for ablutions, e.g. FIG. 2-22.

Moreover, as more intact assemblages have been analyzed, it is quite clear that many vessels were part of sets or ensembles of different types. Members of such sets often share a common decoration. For all of these reasons, it is misleading to analyze bronze ritual vessels as if they were individual creations.

Unfortunately, there is no direct evidence for how a group of vessels was used on a royal altar prior to the literary sources of later Zhou centuries. If the rites performed at a Shang funeral were representative, sets of vessels might be cast as a group at one time or, alternatively, might be composed of disparate pieces gathered together from different sources, sometimes of different ages and hence rather different appearance. The tomb of Lady Hao, the richest burial ever excavated at Anyang, held over two hundred ritual vessels. About half bore inscriptions naming her and hence were produced for her use (for example, FIGS. 2-17, 2-1, 2-21 below), perhaps by a single foundry at Anyang. An almost equal number of vessels, however, bear inscriptions naming other owners, which might mean that they were donated (with their contents?) at the funeral. On the other hand, some elite burials west of the Xiaotun cult center contained vessels that clearly pre-date the period of the burial. They were probably culled from ancestral altars or other sources in order to satisfy the needs of the funeral rites. A large cache of Western Zhou vessels recovered at Zhuangbai in Shaanxi consisted of bronzes made for a single family over several generations. The fact that they were cached at one time indicates the family held onto many vessels used by their ancestors. Both patterns of use and the status or wealth of the users determined ritual sets.

The names by which the various types are designated today were for the most part derived from ancient Chinese writings by antiquarian scholars of the Song dynasty (960–1279 CE). Some types—such as *ding*, *gui*, *hu*, *jia*, *jue*, *li*, *yan* (*xian*), *yu*—are also found in oracle-bone or bronze inscriptions. However, the most common terms employed in bronze inscriptions of the Late Shang and Western Zhou periods are broader phrases: for example, "precious revered sacrificial vessel," *bao zun yi*. This phrase may be found on virtually any type. Only some of the Shang- and Zhou-period terminology has been reconstructed, and clearly it did not entirely correspond to later antiquarian and archaeological usages.

Individual vessel types match different kinds of handling and use. Vessels with pod supports are an important component of Shang bronze assemblages. The earliest common type, the pouring cup, *jue* (see FIG. 2-13 below), is one of several types with a tripod base. The three legs allowed the container to be placed into the coals or flames of a fire, or onto any irregular surface, without tipping over. Surface deposits of soot attest to this use. The pouring trough and strap handle of the *jue* made it suitable for a libation or for emptying the alcoholic beverage into a goblet (such as the ivory cup, see FIG. 2-9 above). Moreover, the *jue* was differentiated from a related type called a *jia*, which has a round mouth but no modifications to facilitate pouring (see FIG. 2-15). Since *jia* are also usually larger than *jue*, we may deduce they were used to heat a large quantity of beverage, which was then ladled out. The most numerous pod type is the tripod, *ding*, used in cooking meat stews, the "main courses" of any ritual repast. Late Zhou- and Han-period ritual texts describe elaborate nine- or even eleven-course meals prepared for important ritual offerings. This actual function is reasonably well supported by discoveries of charred bones (even fossilized meat) within the bowls of Shang and Zhou *ding*. The loop handles of *ding* allowed the cooks to set them on and off the fire, but clearly these vessels were not handled as much as the smaller *jue*. The repertoire of types, and varieties within types, was finely tuned to meet the real needs of those officiating at the rites.

While Late Shang assemblages have a functional logic, a syntax that facilitated performance of a certain rite with certain offerings, it is unlikely that ritual sets were entirely stable. The most common syntax throughout the Shang period is a pouring cup, *jue*, and drinking goblet, *gu*. This in turn suggests that many rites involved individuals consuming alcoholic beverages. Next most frequent is the addition of a meat-cooking vessel, *ding*, and the larger beverage-warming type, the *jia*, to the *jue–gu* pair which allowed a meat offering and warming of the drink for *jue* and

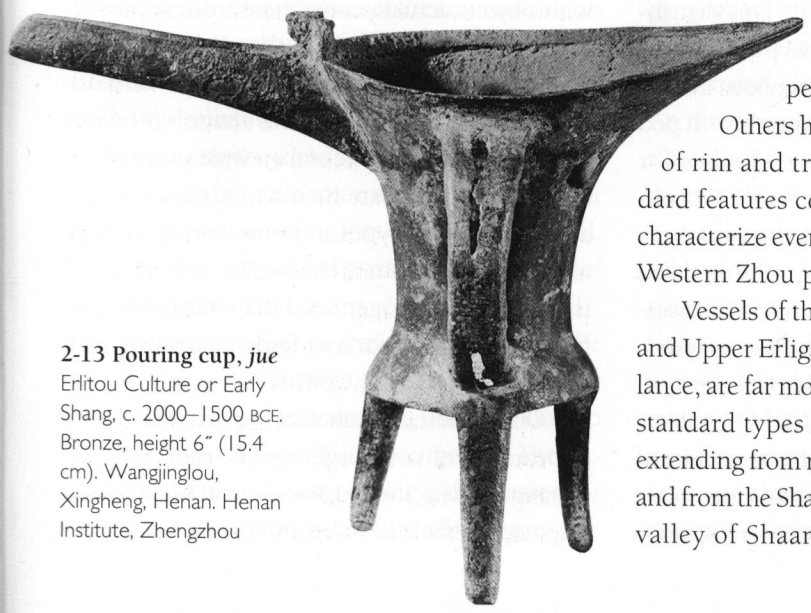
gu. An extraordinary burial like that of Lady Hao contained about fifty pairs of *jue* and *gu*. This large number was perhaps dictated by the number of mourners who attended her funeral rite. By the Middle and Late Western Zhou periods, prescribed sets of vessels correlated with noble rank were taking shape. According to ritual texts, a Zhou "Son of Heaven" was entitled to a complement of nine meat-cooking tripods, *ding*, and eight grain-serving bowls, *gui*. Lesser noble ranks were given reduced complements—seven *ding* and six *gui*, five *ding* and three *gui* etc.—as an expression of ritual and sumptuary conventions. Many Zhou excavations bear out at least these general patterns. As yet, no known Western Zhou royal burials to confirm the highest levels of this system have been discovered.

Typology and Decoration

We can learn a good deal about bronze vessels by considering their changing appearance from the Erlitou Culture (Xia?) through the Western Zhou. This lengthy period unfolds as several stages in the early history of this industry (see chapter 3 for Eastern Zhou). From a few small, thin, and simple types based on ceramics characteristic of the Erlitou Culture and early Erligang phase, we can trace a continuous record of experimentation and elaboration. Foundries revised the oldest types and created entirely new ones. An extensive repertoire of large, thickly cast, complex, and floridly decorated vessels characterized the inception of the Late Shang period, as with the vessels from Lady Hao's tomb. Many new types, especially wine containers, flourished, but only a few of them survived beyond the Early Western Zhou period. The range of types in the Early Western Zhou reigns clearly draws on mature Shang practices, but by the Middle Western Zhou one can track changes in the array of types and their relative importance. By the last reigns of Western Zhou, some long-lived types have been dropped from ritual sets, while new approaches to surface decoration have also appeared.

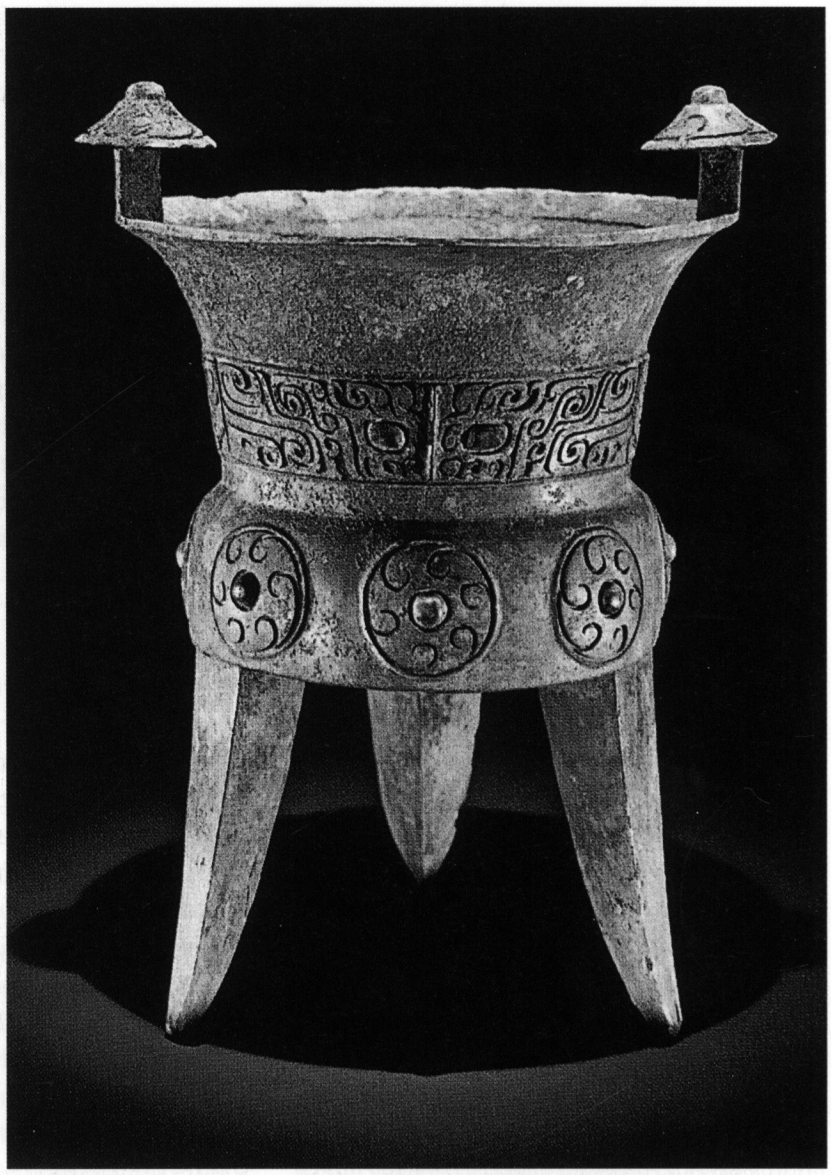
The earliest vessels, the *jue* cups from the Erlitou and a few other sites, already show the mixture of standardization and variation that would ever afterwards characterize bronze production. *Jue* cups (FIG. 2-13) were standardized: three bladelike legs; a flat-bottomed, bi-conical body; an extended trough spout balanced by an opposite lip; and a strap handle midway between trough and lip at right angles to them. These attributes define the type. Ceramic prototypes both pre-dated and coexisted with these metal renderings. At this stage, all *jue* share these attributes; all are well designed to heat and pour liquid. Yet these vessels clearly were not produced from the same molds or after one prototype. They range in size from about 5 to 10 inches (12–25 cm), and their parts differ considerably in proportions. The short legs and attenuated trough of the example shown here contrast with longer legs and shorter troughs on others. Moreover, even in this small sample, two variations appear with some regularity. About half of the vessels have perforations in their strap handles. Others have short posts near the juncture of rim and trough spout. Predictable, standard features combined with minor variations characterize every type throughout the Shang and Western Zhou periods.

Vessels of the Early Shang period, the Lower and Upper Erligang phases in archaeological parlance, are far more numerous. More than a dozen standard types are found over a wide territory extending from northern Hebei to central Hunan, and from the Shandong peninsula to the Wei River valley of Shaanxi (the North and Northwest



2-13 Pouring cup, *jue*
Erlitou Culture or Early Shang, c. 2000–1500 BCE. Bronze, height 6" (15.4 cm). Wangjinglou, Xingheng, Henan. Henan Institute, Zhengzhou

2-14 Cooking vessel, *fangding*
Shang period, Erligang phase, 1600–1400 BCE. Bronze, height 32½″ (83 cm). Zhengzhou, Henan. Zhengzhou Institute of Cultural Relics and Archaeology



2-15 Wine warmer, *jia*
Shang period, Erligang phase, 1600–1400 BCE. Bronze, height 11⅞″ (30.1 cm). Panlongcheng, Huangpi, Hubei. Hubei Museum, Wuhan

macroregions and Middle Yangzi). This distribution of find spots contrasts sharply with the narrow range of find spots in the previous Erlitou Culture period (Henan, Shanxi). Vessels with pod bases were elaborated into several types for heating and pouring liquid (*jue*, *jia*, *he*), cooking meat stews (*ding* and *li*), and steaming (*yan* or *xian*). Vessels with ring bases, again modeled closely on ceramic forms, vary mainly in the treatment of their bodies, from shallow basins (*pan*), to deeper bowls (*gui*), to shouldered containers (*lei*, *zun*, *pou*, *hu*, and *you*). Drinking goblets (*gu*) are also ubiquitous. Within this repertoire of types, many features—legs, necks, rims, handles—are common property. If we make an analogy with objects actually assembled from separately made parts kept on a shelf, then Erligang-phase foundries needed only a few basic parts in different combinations to create this array of specialized forms. Moreover, in spite of their wide geographical distribution, there are no obvious regional variations. Almost all types and varieties are found in all macroregions. In archaeological perspective, this kind of homogeneous distribution would be strong evidence for a widespread cultural horizon, the Early Shang Culture.

One notable innovation of this period is the first appearance of very large vessels, especially the rectangular *ding*, the *fangding*. Several pairs of these imposing vessels have been recovered from pits

and may have been sacrificial offerings (FIG. 2-14). In the case of several pairs found at Zhengzhou the rendering of the type is consistent, but dimensions vary (32–39 inches; 80–100 cm). Four thick, cylindrical legs support the large, rectangular box. The walls of the box angle slightly outward and the lip is sharply everted. Large hollow loop handles rise from the two short ends. The surface decoration blends bands of typical "zoomorphic" motifs (see pages 77–81 below) with bands of raised bosses, which frame an undecorated central panel but leave a bare register under the lip on each face. This formulaic approach to covering the four broad faces of such *fangding* was to have a long life, surviving into the Western Zhou period. Scholars refer to such conventional approaches to decoration on types as "orders" of decoration.

Most vessels produced in the Erligang phase have one or more bands of decoration on a prominent segment of the body (FIG. 2-15). This decoration was produced as motifs either carved or stamped into outer mold segments. Thus, a typical vessel with a circular section like the *jia* shown here will have a band in three segments corresponding to the three outer molds needed for casting. The rendition of these motifs ranges from a thin relief line (requiring incised lines in the outer molds) to wider ribbons against intaglio areas (requiring carved or stamped relief on the outer mold to hold the space for intaglio passages). In fact, the actual renderings of the common motifs constitute a spectrum of variations, rather than two, dichotomized renderings. Many vessels have both thin relief lines and wide ribbons on their surfaces. From the standpoint of the artisans carving the molds, the choice was largely a matter of introducing more or less carving and detail. Vessels of the Erligang phase share a repertoire of established motifs.

Elaborate surface treatments characterize the transitional period bridging the height of activity at such Erligang-phase centers as Zhengzhou and the first reigns of the Anyang occupation. The settlement at Taixi (Gaocheng, Hebei), discussed for its surface houses above (see page 56), represents this period well. Several vessels at Taixi exhibit surface coverage more extensive than narrow bands, with a more complex rendering of Erligang-phase motifs. A kind of quill, filling densely packed areas that surround the elements of the mask motif, characterizes this stage of decoration. An unprovenanced wine container, *pou*, now in the collection of the Palace Museum, Beijing, represents this decoration (FIG. 2-16). Supported by a relatively high ring base, the body of this vessel is divided by a sharply carinated (keel-like) shoulder into rising, swelling surfaces and the slanting ledge below the cylindrical neck. Large rams' heads placed equidistantly on the shoulder overlap the edge. Finely drawn and crisply cut patterns cover most of the vessel. Plain bands separate the several stacked zones of decoration, while three raised lines ("bowstrings") encircle

2-16 Wine container, *pou*
Shang period, 1400–1200 BCE. Bronze, height 20½" (52 cm). The Palace Museum, Beijing

the neck. The five different bands are exercises in manipulating spirals and quills punctuated by relief "eyes" (or bosses). This patterning is so dense that it becomes difficult to discriminate between motifs. During this same transitional period other innovations in decoration appear. On some vessels an undulating relief separates select elements from the dense quills, perhaps to enhance their readability. The first recognizable animal motifs (turtles, fish, cicadas) appear on vessels, and a small percentage of vessels display fields of bosses or other geometric patterning. From this stage forward, several trends in decoration coexist.

Few discoveries have affected studies of bronze vessels as much as the undisturbed tomb of Lady Hao at Anyang. This assemblage offers a window through which to observe the range and quality of bronze casting produced for a royal patron at the beginning of the dynastic occupation (c. 1200 BCE). While some eight hundred to a thousand vessels have been scientifically excavated at Anyang sites since the 1928–1937 campaigns, about a quarter of that number come from this one tomb. As a result, we have a far better idea of all aspects of Shang bronze production and usage at this time (the period archaeologists call Yinxu II) than at any other. In Lady Hao's tomb assemblage alone, archaeologists recovered virtually every type and variety known for this period, as well as others not seen before.

Refinements and considerable experimentation characterize this phase. The tall *jia* (*fangjia*), one of a pair from Lady Hao's tomb, bears an inscription with her name (FIG. 2-17). While the basic components of the *jia* type had been stable since the Erligang phase (compare FIG. 2-15), here the form is rendered as a container with a square (*fang*) cross section, including each of its four legs. The artisan refined the silhouette to accentuate a concave arc ascending from the point of each leg to the everted lip. Flanges on the legs, body, and neck emphasize this continuous, taut profile. Incised line decoration on the two outer surfaces of each leg contrasts with relief motifs on the body and neck. An animal head surmounts the strap handle. Two large caps on posts rise from the rim and echo, in reverse, the trumpetlike mouth and profile of the vessel body. This

jia is one of many types rendered for Lady Hao in daring new ways. The assemblage also held *fangding*, *fanglei*, *fangzun*, *fanghu*, and unusual renderings of the *fangyi* wine container and the steamer, *yan*. Each of these innovative varieties derives from an established type. This interest in square- and rectangular-section bronze vessels may demonstrate a new bronze aesthetic in which foundries emphasized qualities specific to bronze vessels and downplayed the debts to ceramic prototypes.

Another striking innovation of this period is animal sculptures in bronze that also served as usable vessels. Most impressive is an owl-shaped container, one of a pair (owl *zun*; see FIG. 2-1), also inscribed with the name of Lady Hao. These two birds share much in common with the carved marble owl (see FIG. 2-10 above) retrieved from Tomb 1001 at the royal cemetery. (Some scholars believe this tomb was that of King Wu Ding.) In the bronze owls, the design exploits the greater strength of metal to lessen the bulk of the legs and tail feathers and to realize horns standing atop the head. Like the marble owl, the bronze vessels play host to a variety of animal and zoomorphic motifs, including a bird and bottle-horn dragon in the round on the lid, coiled serpents as the wings, and an owl mask over the tail feathers. Animal-shaped vessels continued to appear within Late Shang and Western Zhou bronze casting but never became very numerous. The animal shape of the vessel and the more or less real animals applied to the vessels are styled as precisely as the zoomorphs (masks and dragons) that also characterize this period but at the same time establish a connection to the natural world.

The architectonic forms and carefully orchestrated, boldly rendered decoration of the vessels from Lady Hao's tomb foretell a longlasting tradition. This tradition continued during the late reigns at Anyang and flourished into the Western Zhou period. A fine example, possibly from a foundry at Luoyang, where some of the Shang populace were resettled after the Zhou conquest of the mid-eleventh century, is a *fangyi* in the Freer Gallery of Art, Washington, D.C. (FIG. 2-18). Known as the "Ling *fangyi*" after the individual named in its lengthy inscription, this square, boxlike vessel on a low base has a bulging silhouette and a convex lid similar to a hipped roof. A thick flange with prominent, undercut hooks accentuates each corner and marks the midline of each face. Large masks with hooks similar to the silhouettes of the flanges decorate each face, while on the lid this same mask is oriented upside down. Small animal heads with split bodies cover the band under the lip. Vessels with a comparable debt to a Late Shang aesthetic are attested at find spots in the Wei River valley as well. Like this example from Luoyang, these vessels take the earlier style several steps further toward bold, assertive statements and even baroque ornamentation.

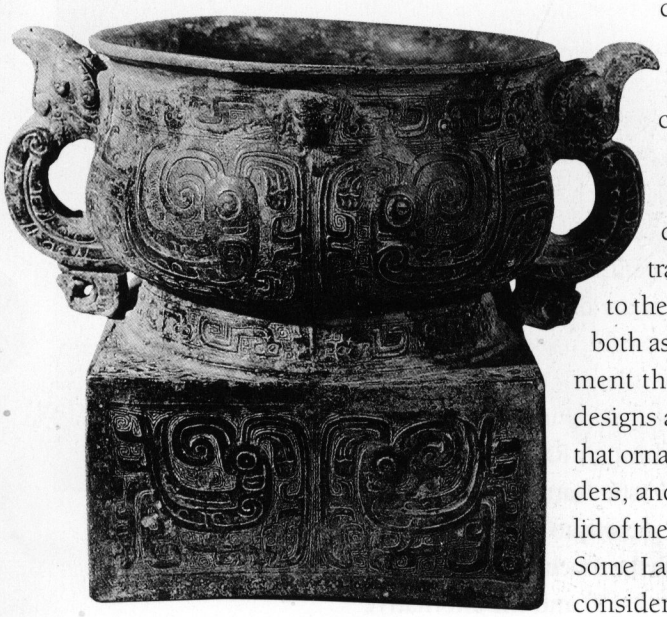
This tradition of bronze vessel decoration, certainly the most privileged in modern art-historical writings, was by no means the only current within Early Western Zhou bronze casting. Even as early as the tomb of Lady Hao, a small percentage of vessels perpetuated a more restrained manner and body forms more obviously tied to ceramic prototypes and Erligang-phase bronze types. A goblet, *gu*, excavated from the rich cache of Western Zhou vessels at the village of Zhuangbai (Fufeng County, Shaanxi) features a remarkable, uncorroded, copper-colored surface, as well as archaistic decoration. The term "archaistic" is invoked here because the shape of the goblet is itself late in the overall development of *gu*, while the motifs on the foot quote earlier decoration. The motifs combine raised bosses and a squared-spiral ground pattern to bracket a wider band with a flower-petal motif in relief lines. A number of vessels from late contexts at Anyang and from Early Western Zhou finds have a decoration that appropriates earlier styles. Their designers had thus jumped back over some generations of bronze production in search of a stylistic model.

Most studies of Western Zhou bronze vessels and their inscriptions employ a three-part periodization. While there are disagreements about how exactly to assign some vessels and inscriptions, there is also considerable consensus. Early Western Zhou vessels (made in the first reigns from the kings Wu through Kang or Zhao) are notably diverse in stylistic features. This is generally interpreted as testimony to several coexisting casting traditions. Both the much-praised "Anyang style" (again, see FIG. 2-18) and the alternative

2-17 Wine warmer, *fangjia*
Shang period, Yinxu II, c. 1200 BCE. Bronze, height 26¼" (66.8 cm). Tomb 5, Xiaotun Locus North, Anyang. Institute of Archaeology, Beijing

2-18 Ling *fangyi* wine container
Early Western Zhou (King Zhao, c. 977/975–957 BCE). Bronze, height 14″ (35 cm). Freer Gallery of Art, Smithsonian Institution, Washington, D.C. (30.54)

taste of the *gu* from Zhuangbai are part of this diversity. Significant changes begin to appear in the following several reigns, usually called Middle Western Zhou (King Mu through the kings Yi or Xiao). These include the demise of some long-lived types (such as *jue*), greater emphasis on *ding* and *gui*, the modification of certain types and varieties (such as *zun* and *you* wine containers), and the appearance of new decoration, principally bird motifs.



2-19 Meng *gui* grain vessel
Middle Western Zhou, c. 950–850 BCE. Bronze, height 10″ (25 cm). Zhangjiapo, Chang'an, Shaanxi. Institute of Archaeology, Beijing

Birds are part of Shang-period bronze decoration from the transitional period prior to the Anyang occupation, both as motifs that complement the mask and dragon designs and as relief features that ornament handles, shoulders, and rims (compare the lid of the owl vessel, FIG. 2-1). Some Late Shang vessels give considerable prominence to large-scale profile birds, for example on the bellies of *you* wine containers. The elaboration of these bird motifs is what distinguishes Middle Western Zhou vessels. The birds are now grand creatures with profuse crests and tail feathers that sweep from head and rump in extravagant cascades (as, for example, in FIG. 2-19). Paired birds may confront or turn away from each other, their plumage ribbons that overlap and curl back to fill the surface. At the same time, these Middle Western Zhou vessels as a rule have smooth shapes and flowing profiles. Art historian Jessica Rawson has characterized the changing assortment of vessel types as part of a "ritual revolution." Changes in shape and decoration, on the other hand, would seem to register pronounced differences in the tastes of patrons and new demands on foundries.

By contrast, more striking developments occurred in the Late Western Zhou period, the reigns from King Yi to King You. The Hu *gui* shown here (FIG. 2-20) bears a lengthy inscription in the voice of King Li (r. 857/853–842/828). In addition to its considerable size, the vessel impresses with vertical fluting on both the square base and round bowl. The bands that encircle the foot and neck are composed of repeated hooked curls derived from the evolution of earlier dragon and bird motifs. Impressive statements in themselves, the vertical handles display curls and ribbons that allude to animal tusks or horns and crests. Only the eyes and jaws of the animal heads retain a naturalistic quality.

Motifs and Meanings

Art historians working outside of China have devoted most of their energy to understanding the history of rendering decoration. Some scholars, by no means all, have posited this decoration as "pure ornament," one without an ascertainable meaning. Questions about meaning are assumed here to be interesting and sometimes pertinent to other topics. At the same time these questions are not simply problems of isolating a specific motif and then linking it to a specific spirit or deity. Habits integral to casting vessels governed decoration. With the exception of water basins, *pan*, the decoration was placed on the exterior

where it was most readily seen by users and their associates. (If *pan* held water, even a full basin would have had readable decoration; see FIG. 2-22 below). Relatively narrow bands characterize early decorated vessels (as in FIG. 2-15 above). The major developmental trend over time was the addition of registers over ring bases, bodies, shoulders, and necks. In coordinating these superimposed bands, some now quite tall in their own right, the mold makers observed the divisions between outer mold segments and generally repeated the same motif in each mold segment. By aligning these motifs on common vertical coordinates, parallel to the edges of mold segments, the designers created a powerful organization of the surfaces. The *pou* from the Palace Museum is a fine example (see FIG. 2-16). Expenditure of energy made such vessels special, akin to more perishable objects of high value such as ivory carvings and lacquer wares.

The definition of an elaborate mask motif distinguished from ground patterns marked a watershed in the history of bronze decoration. The motif (FIG. 2-21; see also FIG. 2-17) was common to other media and objects (compare FIGS. 2-7, 2-9, 2-10). The mask could be realized by true relief, by inlay, or by graphic renderings with a dense ground pattern (usually squared spirals) for contrast. The inception of this motif roughly coincides with the early dynastic occupation of the sites at Anyang, the reign of Wu Ding and Lady Hao. Vessels inscribed with the latter's name carry both graphic and relief renditions of a repertoire of mask motifs. Since the functional context of these objects was always offerings linked to the ancestors, the royal cult would be the best place in which to discuss possible meanings.

The cult must have changed over time (and varied across space), just as Shang-period society itself did. With the exception of the large *fangding* from Zhengzhou (see FIG. 2-14), it is unlikely that we have any royal vessels prior to the time of Lady Hao. On the other hand, from the Late Shang, we have examples of royal castings and non-royal elite castings, as well as vessels made outside the Anyang cult center. Likewise, only with the

2-20 Hu *gui* grain vessel
Late Western Zhou (King Li, c. 857/53–842/28 BCE). Bronze, height 22¾" (58 cm). Qicun, Fufeng, Shaanxi. Shaanxi Historical Museum, Xi'an

"Although I am but a young boy, I have no leisure day or night. I always support the former kings, in order to match August Heaven; I broadly embroider my heart so that it drops down to the four quarters..." Thus begins the inscription of this vessel, transmitting the voice of King Li himself. (Shaughnessy, *Sources*, p. 171)

2-21 Mask motif, *taotie*, from a *fangding* vessel
Shang period, Yinxu II, c. 1200 BCE. Tomb 5, Xiaotun Locus North, Anyang. Institute of Archaeology, Beijing

oracle-bone texts can we begin to talk in specifics about Shang religious beliefs and sacrificial practices associated with the kings who utilized the cult center at Anyang. The discussion below focuses on Late Shang materials (c. 1200–1050 BCE) in relation to contemporary inscriptions and archaeological contexts from Anyang. (For different traditions of imagery and cult, see pages 81–87 below.)

Three groups of motifs can be distinguished on the thousands of Late Shang vessels: (1) imaginary, animal-like motifs (zoomorphs); (2) motifs that may be real animals; and (3) human motifs.

The great majority of motifs fall into the first broad category, in which frontal masks and profile renderings dominate. The former (again, see FIG. 2-21) were usually displayed on prominent surfaces, while profile creatures may flank them or fill bases, shoulders, and necks. One could easily subdivide both groups into many subcategories. One obvious subcategory is renderings of the mask with different horns or other secondary features linked to real-world animals. For example, a pair of *fangding* from Tomb 1004 at the Anyang royal cemetery have well-defined masks on their four faces, one with a deerlike rack of tined antlers, the other featuring bovine horns. In each case a single graph cast in the interior wall represents the same animal. Variations of the profile creature are less pronounced, but two large groups are abundant: birdlike motifs, so called because of their beaks, plumes, or tail feathers; and dragonlike motifs with "bottle horns," sinuous bodies, and sometimes diamond backs or curling tails.

In pursuing this kind of classification, some scholars attempt to match these groups of animal-like creatures with graphs from textual sources. The graph *long*, now conventionally translated as "dragon," appears in oracle-bone texts and bears a strong visual resemblance to one of these motifs is (FIG. 2-22). But even if Shang-period viewers used this word for these motifs, we are no closer to understanding the meaning of "dragons" in the

2-22 Dragon, *long*, motif interior of a water basin, *pan*
Shang period, Yinxu II, c. 1200 BCE. Tomb 5, Xiaotun Locus North, Anyang. Institute of Archaeology, Beijing

Shang cult. Later literary sources, while much richer in concepts and terminology regarding dragons, cannot be applied to the Shang period. Song antiquarians favored the term *kui*, a kind of one-legged, dragonlike creature from mythology, for this same motif, but that association cannot be validated since the sources in which the term is found long postdate Shang times. There may be other terms in the oracle-bone inscriptions that might similarly be linked to mask or bird motifs, but none of these associations is as strong as that between the graph *long* and the dragonlike creatures featured on bronze vessels.

The mask motifs would seem to have very ancient roots in prehistoric traditions, most notably the Liangzhu Culture of the Lower Yangzi macroregion (see FIG. 1-10). We cannot yet draw a clear line of descent from Liangzhu imagery to the earliest Shang-period motifs, much less to the mature motifs considered here. Shang burials have yet to reveal more than a few Liangzhu objects, so we cannot even be confident that Late Shang people actually knew much about this artistic tradition. On the other hand, masks were common in many cultures. Masks have the property of being animated or made powerful by the fixed stare of their eyes and the ferocity of open jaws and wicked fangs (see FIG. 2-21). Representations of ferocious real animals do appear in Late Shang art, especially tigers or other large felines, but the variation inherent in the mask imagery argues against its simple derivation from any one natural animal. On the contrary, the mask had a lengthy development. Only in the Late Shang period does it share some details, such as specific renderings of horns, with real-world animals.

As consistent, favored choices, mask images must have played a role in the minds of makers and users alike, perhaps as "markers." This is not a claim for a specific, iconic identity. Rather, the realm and role of the spirits—both ancestral spirits and nature powers—may have been evoked by well defined designs made a part of ritual objects and their settings. Access to these spirits was limited to a small group of specialists, notably the king, diviners, and other officiants, but knowledge of them and awe inspired by them must have been widely acknowledged, even pervasive. Masks invoked the realm of the powers and the king's circle. They reinforced the fundamental social and political gulf between those who could communicate with the spirits and those who could not. In this interpretation, mask imagery played a role in validating the definitions, practices, and social consequences of royal authority. Ideological justification of this sort is a commonplace function of art making.

The second group or fund of imagery, while less extensive, was by no means confined to the cult center at Anyang in the Late Shang period. Real animals or birds populate many objects, including stone and jade carvings (see FIG. 2-10) and bronze vessels (see FIG. 2-1). This attention to the natural world contrasts with evidence for the Erlitou Culture (Xia) and the Early Shang period, when such references are notably lacking. It coincides once again with the transitional period prior to the royal occupation of Anyang, the definition of distinctive mask imagery, and the epigraphic and cult practices exemplified by the evidence from Anyang. Recognizable as these real animals sometimes are, they are rendered in such a way that they are stylistically consistent with the imaginary, zoomorphic creatures that otherwise dominate Shang decoration. We know that animals played important roles in Shang cult, for example the ox shoulder blades and turtle shells for divination and the animals, including oxen, offered in ritual repasts for ancestors.

A scholarly vogue for totemism in the early twentieth century linked these motifs to animal spirits in Shang and Zhou origin myths. Oxen, rams, elephants, tigers, cicadas, birds, and turtles and tortoises have all been considered as possible clan totems. Unfortunately, oracle-bone inscriptions hardly justify this approach. Divinations and cult offerings seem not to be addressed to animal spirits or made for such spirits. Moreover, the myths associated with the origins of the Shang and Zhou people are known only through much later texts; it is difficult to establish their antiquity. A second way of interpreting these motifs may have some merit but must be applied with care. It is possible that certain real animals were selected on the principle of the rebus, in this case a punning reference to a concept using a thing

with a name having a similar pronunciation. Thus a depiction of a ram (modern *yang*, ancient pronunciation *ziang*) might as a pun invoke the concept of auspiciousness (modern *xiang*, ancient pronunciation *dziang*). This kind of punning association is quite common in later periods, both in lexicons and decoration. Since Shang graphs often incorporate animal forms as markers of either meaning (significs) or sound (phonetics), the general principle would seem to have been in use by this early period. It is intriguing to consider vessels, such as *pan* basins (see FIG. 2-22), that orchestrate a selection of real and imaginary animals. Could the repetition of several motifs in a particular sequence (such as fish–bird–tiger) have carried a linguistic charge or symbolic code?

The third fund of imagery, the smallest, incorporates humans (compare FIGS. 1-22 and 1-23). Like real-world animals, human faces and complete figures appear only in the Late Shang period.

2-23 Kneeling figure
Shang period, Yinxu II, c. 1200 BCE. Hardstone, height 2¾" (6.9 cm). Tomb 5, Xiaotun Locus North, Anyang. Institute of Archaeology, Beijing

2-24 "Man and beast" motif on ceremonial axe
Shang period, Yinxu II, c. 1200 BCE. Tomb 5, Xiaotun Locus North, Anyang. Institute of Archaeology, Beijing

This axe may have been both a token of rank and an instrument of death for human sacrifice. The innocent face flanked by a pair of animals, usually identified as tigers, seems blissfully unaware of any unhappy outcome, and the tigers, most ferocious of beasts, are surprisingly benign. The great *Si mu wu fangding* (compare FIG. 2-11) had a similar motif on its loop handles.

In bronze decoration, they are at present more commonly found outside of Anyang (see pages 81–87 below). Small stone and jade carvings from Tomb 5 at Anyang are important examples of figural subjects (FIG. 2-23). All but one of these carvings in the round are shown kneeling. They vary in attire: one is well clothed, another seemingly nude, a third perhaps tattooed, while a fourth standing figure may be male on one face and female on the reverse. Within the field of bronze objects, only human faces are seen at Anyang find spots. These include a bronze face mask from a royal tomb and two instances of the motif of a face flanked by two rather benign tigerlike creatures (FIG. 2-24). A *fangding* from Hunan is a well known example found outside Anyang, each flat side carrying a large, well-modeled face (see FIG. 2-25 below). There is not enough evidence from Anyang to argue that human imagery was of great consequence in the Shang royal cult.

Recent discoveries in the southwest (the Upper Yangzi macroregion; see pages 86–87) place this discussion in a new context. The large-as-life human figure cast in bronze (see FIG. 2-28 below) and the many masks and heads with human features from the Sanxingdui site make quite the opposite argument for the cultic needs and practices of this culture, which seems to have flourished contemporaneously with the Late Shang period at Anyang. Unlike the Anyang cult, in the Upper Yangzi macroregion human actors (shamans?) or anthropomorphic recipients of offerings (deities, ancestors?) may have been quite significant. One should ponder the possibility that similar imagery may once have existed at Anyang but was not rendered in durable materials, excepting the small stone and jade carvings.

Unlike the prehistoric cultures surveyed in chapter 1, we understand the Late Shang period in part through contemporaneous documents created for the Shang kings. There is an implicit challenge to harmonize the evidence of these texts with the manifold archaeological data, including the visual properties of objects. Questions about ideology and world view documented in the divination records (the existence of the High God, the role of ancestors) can be further investigated through a careful analysis of visual culture. If Shang society and its world view were imbued with the values of hierarchy, order, and balance, it is not surprising that vessels and their decoration share these qualities. It is tempting to see the symmetries of decoration as analogues to the symmetries of living and dead hierarchies, or positive and negative charges on oracle bones. If spirits and nature powers preoccupied the king and his divinations, it is surely not out of bounds to consider the spirits and powers in relation to the powerful visual culture of ritual vessels.

BEYOND SHANG AND ZHOU

Two models govern most discussions of the early Bronze Age, especially the Shang state and its relations with surrounding peoples. In the received historiographic model, that of the "Three Dynasties," the Shang kings held power over a wide territory following the demise of the Xia and prior to their conquest by the Zhou. Other, culturally less advanced peoples existed on the margins of these three states, sometimes in conflict, sometimes peacefully. This Three Dynasties model prefigures power relations in historic periods, projecting traits of much later times onto the earliest states. It also posits a large measure of cultural homogeneity among the people of Xia, Shang, and Zhou. Most discussions of the Erlitou Culture within China today assume it represents the culture of the Xia. The archaeological continuities between Erlitou and Erligang, between Erligang and Anyang, and between Anyang and Western Zhou therefore constitute an important argument for long-term cultural unity.

More modern interpretations apply a center and periphery model, often expressed in terms of "metropolitan" and "provincial" cultures. Much of the archaeological activity of the last five decades has surveyed cultures in the regions surrounding North China in the period contemporaneous with the Shang occupation of Zhengzhou and Anyang. Finds in other macroregions are generally described as offshoots or parallel developments with regional characteristics. One liability of this model is the implicit assumption of cultural superiority

2-25 Cooking vessel, *fangding*
Late Shang period, 1200–1050 BCE. Bronze, height 15″ (38.5 cm). Ningxiang, Hunan. Hunan Museum, Changsha

assigned to the cultures in Henan, the initial "metropolitan" center. In this model, many features of the regional cultures are explicitly or implicitly denigrated by comparison to sites in Henan. Another limitation to the center/periphery model is the nature of the Shang capitals and the activities of the Shang kings. The "capitals" moved with some frequency, and the king himself moved around his domains regularly.

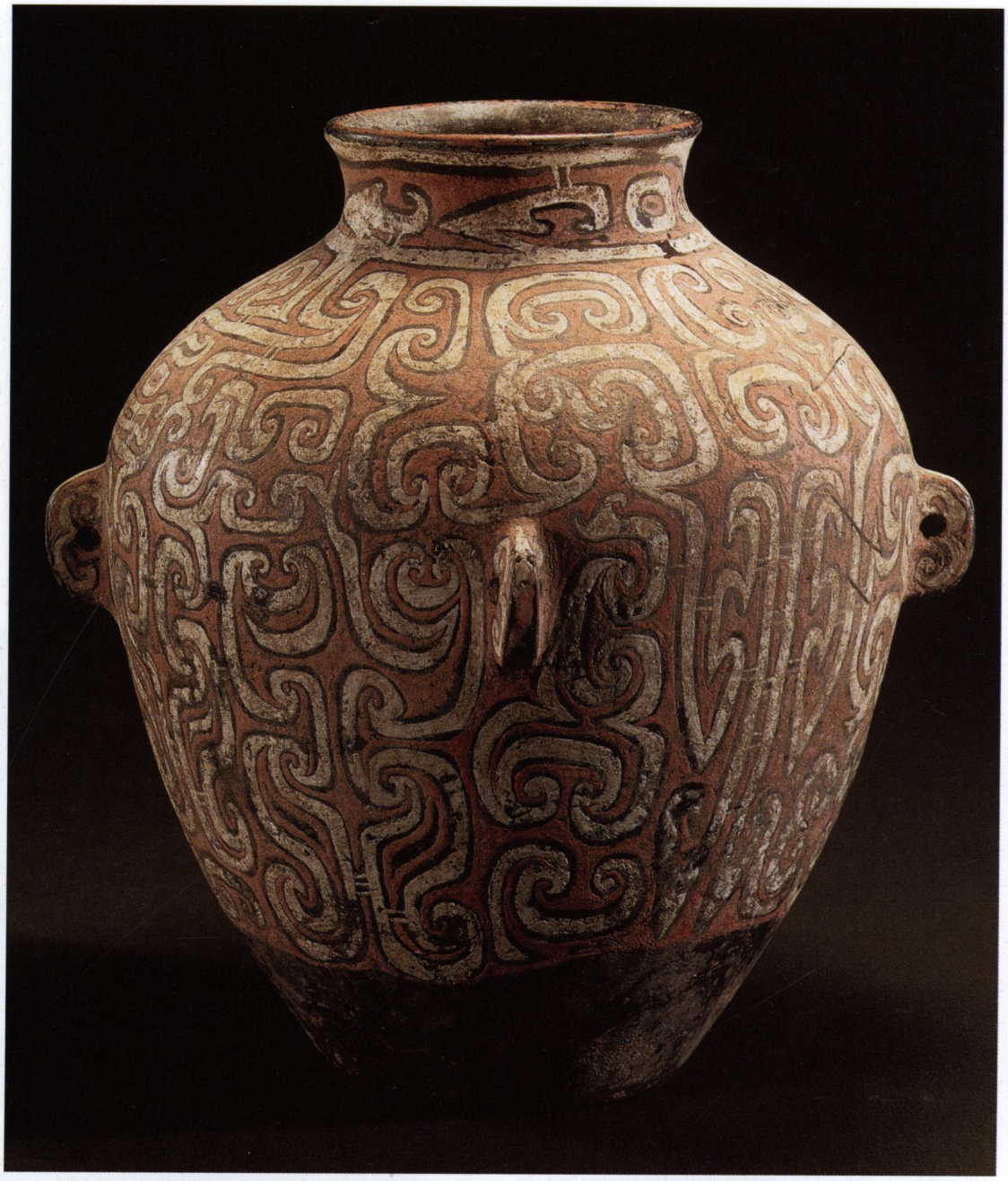
A third model, adopted here, posits large geographical regions, the macroregions already described in the Introduction. Each macroregion has boundaries determined by physiographic features; river systems within regions tie them together, and prehistoric and protohistoric archaeological cultures in fact tended to cluster along river systems. During the middle and late second millennium BCE, bronze-using cultures flourished in the Upper and Middle Yangzi, the Gan Yangzi, and the Northwest, in addition to the North China macroregion. It may well be that the Shang state known from Zhengzhou and Anyang sometimes actively expanded into adjacent macroregions, notably the Middle Yangzi and the Wei River valley of the Northwest. But it seems very unlikely that, even at its most expansive, the Shang state actually controlled much territory outside the North China macroregion and its margins. The

oracle-bone inscriptions refer to many non-Shang statelets across the north and in nearby zones. These qualifications are especially germane to some of the most important discoveries in recent archaeology.

On present evidence, the most extensive traces of advanced cultures are documented in the Northwest (modern Shanxi and Shaanxi), the Upper Yangzi (modern Sichuan), the Middle Yangzi (modern Hubei and Hunan), and Gan Yangzi (modern Jiangxi) macroregions. How should these cultures be viewed? Since both oracle-bone texts and received histories name the people of the Wei River as the Zhou, some of the archaeological cultures of the Northwest contemporaneous with Late Shang must represent that group. But what of the finds at Sanxingdui in Sichuan (see, for example, FIG. 2-28), or in the Yangzi River lake country of modern Hunan (see FIG. 2-26)? Here neither oracle-bone inscriptions nor traditional historiography give us identifications. Moreover, the material record is complex. Many features of material culture as known at Anyang and other northern sites are found, but so too are bronze vessels, weapons, and sculptures that are exceptional or unknown in North China. In the discussion below, these regional bronze-using cultures are interpreted as the products of interaction both within and across macroregions. The process involved the interaction of local traditions with new technologies and the interaction of local cultures with more distant ones. In this interaction model, we do not assume the priority of one region over all others. Nor do we assume that effects flow in one direction only, or necessarily move from one advanced center outward to all others. In fact evidence is mounting for a variety of interaction patterns: between North and Northwest, between Northwest and Upper Yangzi, between Middle and Upper Yangzi, and so on.

On the northern margins of the North China macroregion the local culture exhibits some of the technologies of their Shang neighbors without, however, a comparable social structure. The oracle-bone inscriptions attest to a variety of names for non-Shang peoples and some may be ancestral to the groups known in later texts as the Hu, Di, and Rong. The people of the Xiajiadian Culture probably did not depend on a pastoral economy at this early date, in as much as they built walled settlements and permanent houses out of unfired adobe and stone. A weapon kit notable for its daggers, socketed axe heads, and small knives distinguishes their archaeological traces. The daggers, many with animal heads worked into their pommels, are best known. Such daggers have been found in Late Shang contexts at Anyang sites but are intrusive there. In fact both the weapons known from Anyang and those found in these northern sites exemplify a complex process of interaction: the exchange of goods, mutual borrowing of features from each tradition, and selective imitation of one tradition by the other. These processes are also represented by pottery from the Dadianzi site

2-26 Bell, *nao*
Shang period, 1400–1200 BCE. Bronze, height 17½" (44.5 cm). Baijiacun, Liuyang, Hunan. Changsha City Museum



2-27 Container vessel, *lei*
Lower Xiajiadian Culture, c. 1500 BCE. Painted pottery, height 11¾″ (30 cm). Dadianzi, Chifeng, Inner Mongolia. Institute of Archaeology, Beijing

The Lower Xiajiadian Culture occupied the northern frontier contemporary with the Shang. Its pottery is a mix of local shapes and decoration and a few types (such as *jue* and *gui* pouring vessels) that call to mind the Erlitou Culture. This *lei* carries painted decoration that reworks familiar Shang mask motifs in bold red and white pigments.

in Aohan Banner near Chifeng City in the Inner Mongolian Autonomous Region (FIG. 2-27). The large shouldered container vessel (similar to a Shang *lei*) was painted over most of its surface with designs delineated in black lines and infill in red and white pigments. Upon close inspection, the motifs include clear quotations from the mask motif and profile creatures known on Late Shang bronzes. More than on bronze objects found in the southern macroregions (compare FIG. 2-26), however, here Shang motifs are radically reworked, abstracted into conventional forms such as connected C-shaped hooks. To anyone familiar with Shang motifs the allusions are perceptible, but the vocabulary has been remade.

Excavators have recovered many bronze vessels, bells, and weapons from a variety of contexts in the middle of the Yangzi River, the marshy lake country of Hubei and Hunan. Several walled sites are known; the best reported is a site at Panlongcheng north of modern Wuhan that flourished in the Early Shang period. Late Shang-period deposits with bells or vessels in apparent isolation from habitation zones

2-28 Standing figure
Late Shang period, 1200–1050 BCE. Bronze, height 8′7″ (2.62 m). Sanxingdui Pit No. 2, Guanghan, Sichuan. Sichuan Institute of Cultural Relics and Archaeology, Chengdu

or cemeteries are common. Many of these objects might have been carried over long distances and could in fact have emanated from a northern foundry. A striking number of unusual vessels are also reported, such as the *fangding* with a human face on each side from an undocumented context in Ningxiang County, Hunan (FIG. 2-25). The vessel's shape and proportions would place it into the Late Shang or even early Western Zhou period. Its decoration, however, blends habits well known in northern foundries, like the crisp squared-spiral ground pattern, with other features that are rarely, if ever, seen elsewhere. The softly modeled faces are akin to the face on the lid of a pouring vessel, *he*, said to come from Anyang and to a bronze mask recovered at Anyang during the pre-World War II excavations. On the other hand, the raised motifs—claws, ears, and horns—have smooth surfaces without inset lines or other embellishment. For those who investigate meanings associated with cult, the faces also pose an important question. If here the cult vessel functioned quite well without a conventional mask motif, what does that imply about requisites for ritual vessels in general and the needs of the local cult in particular?

The large bells, *nao*, of Hunan are even more distinctive (FIG. 2-26). Many of the most impressive have been found in groups in a shallow deposit on the slope of a mountain. *Nao* are known from Anyang sites, but only as small-scale objects in sets of three. As hand-held bells meant to be struck on their upturned lips, *nao* presage the chimes of suspended bells that developed in the Western Zhou period. This example from Hunan, like many of its cousins, is of considerable size, fully 17 inches (45 cm) in height. It must have required a considerable stand for support and can hardly have been carried around easily. The striking of this *nao* would have been an awe-inspiring part of ceremonial displays or rites. The main field of the bell is given over to assertive relief that is only tenuously readable as a mask. Thick ribbons trace out the rudiments of a pair of eyes, crest, jaws, and displayed body against the plain recessed ground. Pronged spirals fill the surrounding surfaces.

In the Upper Yangzi macroregion another recent discovery has challenged previous expectations even more seriously. Two large sacrificial pits found near a walled site called Sanxingdui, north of Chengdu in Guanghan County, Sichuan, have yielded a rich harvest of bronze objects, jades, gold, and even elephant tusks. All were seemingly consigned to the pits as part of rites that involved a large conflagration, which consumed many of the offerings. The bronze vessels taken from these two pits have close relations discovered at sites in several parts of the downstream Middle Yangzi macroregion. The pits also contained over fifty nearly life-sized bronze heads, more than twenty bronze masks, and a variety of figures, one of them as large as life on a high pedestal (FIG. 2-28). This sculpture from Pit No. 2 is a frontally posed standing figure atop a base nearly a yard or meter high. A plain block serves as a pedestal, but the figure actually stands on a smaller square plinth carried by four heads with long noses, bulging eyes, and horns that meet the four corners of the plinth. The figure, erect and static, is cloaked in a long gown with pointed hem at the rear, long sleeves, and a lapel that crosses from right to left. A second inner garment like a skirt is visible at the front, and there are designs on both garments that suggest motifs in the cloth. Thick arms extend from the shoulders and terminate in oversized hands that form circles, presumably to hold something, now absent, such as an elephant tusk.

The figure's head and face share many features with other bronze heads and masks. The head seems to be surmounted by headgear, with petals rising from a band. The square chin and straight mouth are parallel, but without expression or visible teeth. The nose and cheeks are sharply defined; the are eyes bulging, almond-shaped slits. The brows resemble knife blades over the eyes. Large ears stick out from each side of the head, with holes for ear rings in each lobe. Most of the bronze heads are similar in essential features, but most lack head band or headdress. Their necks extend downward to points in front and back but do not form complete cylinders. Several heads had gold foil applied to their surfaces. Most of the masks are also similar in their facial details. They differ in that they were cast as sheets shaped to represent only the sides and front. Otherwise they are incomplete, without necks and headgear.

If the evidence from North China were still the only data available for protohistoric China, we could comment on the relative insignificance of human imagery in general, and the total lack of large-scale figural images in particular (compare the diminutive jade figure from Tomb 5, FIG. 2-23). The images, heads, and masks from Sanxingdui force a fundamental revision in our thinking, but our comprehension of why they were made remains minimal. If, as seems plausible, the heads and masks were themselves mounted on figures or stands made of perishable materials, one can imagine a temple or ritual precinct with a host of large effigies or icons. This is contrary to all of our expectations about Shang and Zhou temples, but akin to other cultures. Even if this speculation is accepted, we still have no means as yet to identify the figures. Are they one image, repeated, or are they a cast of divine, mythological characters? The quantities of jade and ivory consigned to the sacrificial pits where these images were recovered suggests rites not known from the Shang oracle-bone texts or from the earliest Zhou documents. This culture, and its cult, are "foreign" to received notions of nascent "Chinese" civilization.

Like the finds in Inner Mongolia or Hunan, the materials from Sichuan testify to the transfer of material culture. The best datings for the Sanxingdui evidence would make most of it contemporary with the transitional period and early Anyang occupation. Its local roots are still not well documented, but the walled site was certainly occupied long before the sacrificial pits. Only at relatively high levels of generalization do the cultures discussed in this section have much in common. If we use a term such as "Shang civilization" to designate all of these cultures, it becomes imprecise and less useful. If instead we reserve that term for the dynasty of kings attested at Anyang, as recommended at the beginning of this chapter, then we must create a new terminology for the other bronze-using peoples of today's China. Even though this terminology can be wordy (the Upper

Yangzi Sanxingdui culture), the benefits to clearer thinking pay off.

In selecting topics and images for this chapter, we have worked within a conceptual framework that blends traditional Chinese and European historiography (the Three Dynasties, the Bronze Age) and contemporary archaeological approaches (macroregions, interaction models). The picture evoked is not an inevitable one, but rather a consequence of these choices. The selection of particular figures has been driven by the need to illustrate characteristic objects and styles that in turn complement general ideas about how to interpret them. Any single illustration could be replaced, but, given our goals, the textual commentary would not vary greatly. Readers are encouraged to take the "lessons" laid out here and to apply them to other, similar objects that are more readily accessible. Certainly we have not exhausted ways of describing or interpreting these classes of objects, any more than we have discussed all relevant aspects of the cultures that made them.

Even with all appropriate words of caution well in mind, by the time of the Late Shang and Early Western Zhou kings a "Chinese" culture had taken shape in the north. In addition to the striking phenomena of a writing system ancestral to later Chinese script, scholars have detected the germs of many key concepts and social practices that would inform human society in this part of Asia for millennia to come. The origins of Chinese civilization can never be pinpointed to one particular time. At the same time, by the end of the second millennium BCE a critical conjunction of elements exists in the Bronze Age cultures of North and Northwest China. These cultures can be seen as the progenitors of Chinese civilization.