The Journal of Asian Studies Vol. 66, No. 2 (May) 2007: 461–496.
 doi: 10.1017/S002191180700054X

Erlitou and the Formation of Chinese Civilization: Toward a New Paradigm

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This paper offers an alternative paradigm to dynastic history and state formation with which to understand the formation of Chinese civilization: cultural hegemony. It argues that an elite culture first crystallized in the early second millennium BCE at Yanshi Erlitou in Henan Province in which bronze was associated with a set of religious practices centered on ancestral offerings. It established a cultural hegemony over the Chinese continental region by the middle of the millennium (early Shang Dynasty). Archaeologically, its primary markers are bronze vessels with a common set of motifs and ritual forms. Although cultural diversity and local political authority remained, it was unlike the previous Neolithic cultures because it had no challenger in range or influence. Moreover, it anticipated the later common elite culture, which in Confucius's time was defined in terms of shared rites. Thus, we may legitimately call it an early stage of "Chinese civilization."

"BELIEVE IN ANTIQUITY; DOUBT antiquity; explain antiquity" (*xin gu, yi gu, shi gu*).[1] This formula, first coined by Feng Youlan in response to Gu Jiegang during the Doubt Antiquity debates of the 1930s, has recently been resurrected by Li Xueqin to suggest that we are in a new era, one in which we should begin to explain rather than simply doubt the historical records. Li notes that the "believers in antiquity" accepted the transmitted literature as historically accurate, and the "doubters" challenged their belief, but both groups used the transmitted literature to evaluate transmitted literature in a circular manner. In the last seventy years, a vast amount of archaeologically excavated evidence has accumulated, including the remains of material culture and ancient texts written on oracle bones, bronze, bamboo, and silk. The traditional literature should now be reevaluated and considered in light of this new evidence (Li Xueqin 1997, 1–19, 341–48).

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[1]I have given earlier versions of this paper at the East Asian Archaeology Seminar, Harvard University, April 25, 2003; the Workshop on Early Chinese Civilization, University of British Columbia, March 10–12, 2005; the annual meeting of the Association for Asian Studies, April 1, 2005; and the Institute of Archaeology, University College, London, June 1, 2005. I would like to thank the participants at those meetings and the anonymous *Journal of Asian Studies* readers for many helpful comments.

To "explain antiquity" is a vague admonition, open to a variety of interpretations, and the emphasis remains on how to interpret the received tradition. Nevertheless, the sheer quantity of new evidence, most of it hidden from scholars for two millennia or more, now demands the formulation of new paradigms. We are indeed in a new era. As a matter of principle, our new paradigms should have sufficient explanatory power to account for the many types of evidence—archaeological and traditional, material and written—that are now available to us. This does not mean that we should ignore the challenges to the received historical tradition posed by the Doubt Antiquity movement in China and by Western scholars such as Henri Maspero (1924), Wolfram Eberhard (1942), Bernhard Karlgren (1946), and Marcel Granet (1959) that have so dominated our thinking for most of the last century when we reevaluate the textual tradition. Indeed, even when earlier challenges to the authenticity of specific texts turn out to be groundless, we should, I believe, take care to retain the larger lesson—a self-conscious awareness that "historical" records should never be simply accepted as true. Such texts always had a purpose in their own period that was different from the purposes to which they were later put and quite unlike our own. Thus, they must always be interpreted in the context of their own history and changing meaning.

Because the Xia is the earliest hereditary dynasty in the historical records, its historicity has been an open question since that of the Shang dynasty was validated by the discovery of the last Shang capital at Yinxu in the early twentieth century and the confirmation of the list of Shang kings with oracle bone inscriptions. Late Shang writing is fully developed and must have had a longer history, but the evidence for its earlier development is still limited, and the oracle bone inscriptions of the late Shang period (ca. 1300–1050 BCE) remain our earliest texts. Unfortunately, these inscriptions are not informative about the beginning of the Shang dynasty. They record that Cheng Tang, who is traditionally regarded as the first Shang king, received offerings, but he was simply one ancestral spirit in a longer genealogy, albeit a very powerful one. Thus, there is no contemporaneous written evidence to confirm later historical accounts of the Xia.

I argued, some twenty years ago, that the Shang people had a mythical construct of the Xia as an earlier people who were their inverse—moons to their suns, dark to their light, dragons to their birds, West to their East, underworld to their sky, and so on—and hypothesized that this myth was reinterpreted as a historical dynasty by the Zhou when they conquered the Shang (Allan 1984; 1991, 57–73).[2] Myth, according to this theory, is a way of thinking that need not have any relationship to history. However, as I observed early on, "to demonstrate that there was a Shang myth about the Xia is not to prove that the Xia were

[2]To my knowledge, although numerous Western studies refer to the Xia as a myth, my own are the only ones that provide a mythic rationale for the traditional historical and literary references to the Xia.

a myth. Nevertheless, an historical reconstruction should not be based upon mythological materials" (1984, 242). In other words, if my hypothesis is correct—if the Zhou accounts of a Xia dynasty represent the historicization of a Shang myth—this means that the materials in the traditional texts associated with this myth are unreliable as historical sources. It cannot prove there were no ancient people who called themselves "Xia," but it shifts the burden of proof to those who would argue for a historical Xia dynasty.[3]

For many years, there has been increasing evidence of the complexity and sophistication of the early Bronze Age culture centered at Yanshi Erlitou in Henan Province during the early second millennium BCE. Thus, the recent multidisciplinary Xia-Shang-Zhou Chronology Project took the establishment of a correspondence between the archaeological remains and the historical literature as its primary research goal (Xia-Shang-Zhou 2000, 74–82; Li Xueqin 2002b, 331–32). Whereas my arguments assume that myth is a way of thinking that need not have any relationship to historical events, the underlying theoretical assumption of the project's research is that if the archaeological remains correspond to the historical records with regard to the stage of evolutionary development and geographic area, this is sufficient to identify the two. Thus, although there has been considerable debate about when, where, and how the Xia began, the recent trend in Chinese scholarship is to accept the Xia as a historical dynasty.

In the United States, in contrast, a radically revisionist school of thought has grown up that challenges not only the historicity of the Xia but also any attempt to relate pre-Han archaeology to the traditional texts. The use of "China" to denote the pre-Qin period is sometimes questioned. For the more extreme, even the use of contemporaneous textual material, such as oracle bone inscriptions, as evidence in assessing the material culture record may be queried. Thus, in the *Cambridge History of Ancient China*, for example, Robert Bagley dismisses oracle bone evidence on the grounds that it has been interpreted with the assumption that the Shang court had paramount political and cultural status. He goes on to state, "As archaeological finds multiply, it becomes increasingly evident that the centrality and cultural unity which are the essence of the traditional model are nowhere to be seen in the archaeological record of the time of the Anyang kings." And "the word 'dynasty' calls for special caution, since in Chinese historiography its connotations extend dangerously beyond the dictionary meaning of a ruling family. The expression 'Chinese civilization' is open to the similar objection that it represents a vague and anachronistic concept whose

[3]I have tried to establish rigorous methodological principles with which to sort historical materials. Accordingly, I give greater historical credence to materials that do not have supernatural elements or details that serve a larger mythical or ideological purpose. The later Xia king list (from Yu 予 to Jie 桀) is essentially a neutral genealogy, but the idea of a Xia dynasty appears to be a mythic construct and thus is open to doubt. So, even if we accept the later Xia king list as authentic, we do not know anything about the people listed (See Allan 1984, 253–54).

projection backward in the second millennium BCE can only mislead" (1999, 124–25).[4]

Cultural Hegemony

In the spirit of looking not only for new explanations of the same materials but also new paradigms, in the following, I will change the subject from state formation and the accuracy of historical accounts to cultural hegemony. I will argue that an elite culture, first crystallized in the early second millennium BCE and centered at Yanshi Erlitou in Henan Province, had established a cultural hegemony over the Chinese continental region by the end of the Shang dynasty. In *State Formation in Early China*, Liu Li and Chen Xingcan argue that the Erlitou remains may be appropriately designated those of a state, citing a regional settlement pattern in which the Erlitou site dominated smaller centers and villages in a "four-tiered" settlement hierarchy and the large extent of the Erlitou site in comparison to all earlier and contemporaneous remains (Liu and Chen 2003; see also Chen et al. 2003). This study is based entirely on archaeological evidence, and it refrains, in an exemplary manner, from attempting to correlate the archeological remains with traditional history. It is speculative with regard to the reconstruction of trade routes; nevertheless, the overall hypothesis that Erlitou had a state level of organization and territorial range beyond that of any other archaeologically defined culture of the period is clearly established.

Numerous detailed studies of oracle bone evidence over the last century clearly demonstrate that the Shang kings maintained an intense network of political relationships of different types over a vast geographic area (Wang and Yang 1999, 490–522, 582–91). In this regard, they were clearly unrivalled. For example, the oracle bone inscriptions give the names of at least sixty-four wives of the twenty-first king, Wu Ding (Hu Houxuan 1944, 128–29). Most of these wives are named by a character that includes the female radical and the name of a place. Because groups of people and their leaders were often called by place names, we may reasonably assume that the rulers of all of these places gave women in marriage to the Shang. Although these rulers may also have had marriage relationships with other peoples, it is difficult to imagine that any other group of people had such an extensive range of marriage relationships. Similarly, the oracle bones frequently record the receipt of goods and people, presumably for use as sacrificial offerings, from other regions.

[4]Bagley appears to be suggesting that all oracle bone studies are somehow biased. However, because he does not cite any oracle bone texts or examples of biased secondary literature, this appears to be a theoretical position intended to criticize the practices of Chinese archaeologists rather than a researched one.

Although the oracle bone inscriptions are written from the viewpoint of the Shang court and must be interpreted with this in mind, one of their advantages as historical documents is that they are contemporary records of divinations made for internal purposes. Thus, they are commonly concerned with determining the spiritual causes of the many calamities that befell the king and his court. Indeed, the primary purpose of divination is to avoid or respond to disaster with the appropriate rites (Allan 1991, 117–19). Accordingly, oracle bone inscriptions give much negative information, unlike bronze inscriptions and the documents of the *Shang shu*, which were written to glorify ancestors and make political claims. Though there were undoubtedly regional powers besides the Shang, and the nature and extent of Shang political power can be debated, only Shang cultural influence extended over the Chinese continental region.

In the following, I am concerned with cultural influence rather than political authority. I will restrict myself entirely to bronze vessels, though a more comprehensive study would include other artifacts, such as bronze ritual weapons, certain types of jade, divination by cracking bone and shell, and the architecture of major buildings, all of which are also signifiers of this elite culture. I will argue that bronze ritual vessels and related artifacts are markers of the authority of an elite culture that was common to all regions of China by the late Shang period rather than an indication of cultural diversity. The unusual feature of the Erlitou site is not that bronze was found there—bronze was widespread in Chinese excavations around the beginning of the second millennium BCE[5]—but that the earliest bronze vessels known thus far were cast there. From this period on, the use of bronze developed in association with ritual performance.

In the Erlitou period, bronze was used primarily for wine vessels; in the subsequent Erligang period (early Shang, ca. 1600–1300 BCE), its use expanded to vessels that denoted authority and to full sets of vessels for food and water, as well as wine, used in ritual performance. These vessels had particular ritual forms that are consistent wherever they are found. Although their style varied regionally in the Yinxu period (late Shang, ca. 1300–1050 BCE), the prevalence of a limited range of motifs, first established when the vessels began to be decorated in the Erligang period, is striking. Thus, we may take the vessels as markers of a particular set of ritual practices associated with an elite culture. By the late Shang period, such vessels were widely distributed. They have been found from regions as far-flung and distant from Yinxu as Inner Mongolia, Guangxi, Shandong, and Sichuan. Indeed, there are few regions of China where Shang dynasty bronzes have not been found (Zhongguo Kaogu 2003, 379–86; Zhongguo Qingtong 1996, vols. 1–4).

[5]Xu Lianggao (1999, 65–69, *biao* 5.1) lists of all metal finds (before Erlitou) and cites the original reports. For summaries of the finds, see Sun Shuyun and Han Rubin (1997, 75–84); Katheryn M. Linduff, Han Rubin, and Sun Shuyun (2000); Su Rongyu et al. (1995); and Beijing Keji (2003, 86–96).

Bronze Vessels as Cultural Representations

We know that bronze vessels were used for ritual offerings to the ancestors from the circumstances in which they were buried—usually in tombs and sometimes with bones, grain, or even wine still inside—as well as from the dedications cast on them from the late Shang period on. Moreover, because oracle bone divinations were primarily concerned with determining or ratifying the appropriate ritual offerings to ancestral spirits in order to satisfy their needs and prevent their curses, they provide further evidence of the rites in which the vessels functioned. In many cases, we cannot be sure whether the bronzes were cast locally or imported. Nor do we know much about the details of ritual performance, either in the Central Plains or in more remote areas. Nevertheless, the bronzes were not simply prestige goods. They were vessels used for steeping, warming, pouring and drinking wine, cooking and serving food, and holding water for ritual cleansing. The vessels had functions, and ownership implied the use thereof—that is, the owners of the vessels made offerings with them to their own ancestors and buried them in their tombs. In so doing, the elite of other cultures emulated the offering rites first associated with a culture based in the Central Plains.

Let us, then, simply look at bronze vessels as a cultural phenomenon or, in Dan Sperber's terminology, as "cultural representations." As they are defined by Sperber (1996), "cultural representations" are repeatedly communicated, that is, they are more or less widely and durably propagated and thus instantiated in a larger population.[6] Thus, a bronze ritual vessel, such as a *ding* 鼎 (a round tripodal or square four-legged food vessel), may be regarded as a cultural representation. That this is so is evident from the fact that *ding* are a repeated form. This form occurs in Shang-period excavations, wherever they may be, and we have no trouble recognizing it. We can also recognize other types of vessels—such as *jue* 爵, *gu* 觚, *he* 盉, *zun* 尊, and *yan* 甗—from their formal resemblances, and we can reasonably deduce that each of these vessels had a particular use, even though the names that we attach to them may not be accurate and the details of ritual performance are lost to us.

Although there are regional variations in the shape and decoration of the various vessel types, we can readily place almost all bronze vessels into established categories using the vessel names first established by Song dynasty antiquarians. Even vessels with unusual styles are readily classified by vessel type. This is striking evidence of their common function or conformity to a common set of ritual prescriptions. A *ding* is a *ding* is a *ding*. A *yan* is a *yan*, whether it is from Yinxu (where one was found with a human skull in the steamer

[6]Dan Sperber (1996) divides cultural representations into ideas ("mental representations") and their material expressions ("public representations"). In this division, the casting of a particular vessel is a public representation, but the idea of the vessel, a *ding*, for example, would be a mental representation.

section), Liquan Zhumacui in Shaanxi Province, or Xishui Boshixiang in Hubei Province (Zhongguo Qingtong 1996, 4:27). And a four-legged *yan* from Xin'gan Dayangzhou in Jiangxi Province, which has animals standing on the handles, is nevertheless still quite clearly a *yan* (see figure 1, a–c). A *zun* is a *zun*, whether it is from the tomb of Lady Hao, the wife of Wu Ding, who ruled at the beginning of the Yinxu period, or whether it is found at Guanghan Sanxingdui in Sichuan Province together with culturally distinctive human figures (see figure 1, d–f). Even the "man-in-tiger-mouth" *you* 卣 thought to have been found at Hunan Province and now in the Musée Cernuschi collection is still quite clearly a *you* (see figure 1, g–h). The double square *yi* 彝 found in the tomb of Fu Hao is unique because no other double *yi* have been found; nevertheless, it is simply a pair of vessels of a common ritual type joined as one (see figure 1, j–k).

The particular shapes of Shang bronze vessels reflect their roles in Shang ritual performance. As far as I have been able to determine, all of the bronze ritual vessel types found in other regions of China also occur at Yinxu. Although there are some transitional and hybrid forms, the only exceptional vessel forms are ones in which the shape of an animal dominates the vessel. These are generally classified as *zun*, a term also used for a broad wine container with an everted lip, but they are often unique in form. For example, a *zun* in the Asian Art Museum in San Francisco has the simple form of a rhinoceros, with the animal's round belly as its container (see d'Argencé 1977, 42). This formal consistency, regardless of the region in which the vessels were found, suggests that when bronze vessels were made in other regions, they were made in Shang ritual forms in order to emulate Shang practices.

The bronzes not only conform to particular ritual shapes and functions, but also the decorative motifs found on the vessels are remarkably consistent from their first appearance onward. In the Erligang period, when bronze vessels first begin to be decorated, the two-eyed motif, conventionally known as the *taotie* 饕餮 is ubiquitous wherever bronze vessels are found and shows very little variation[7] (see figure 2). By the late Shang period, there is regional stylistic variation, but the primary motifs—the *taotie*, *kui* 夔 dragon-like creatures, and bird-like forms—are omnipresent regardless of the region. The essence of these motifs is that they are continually transforming themselves and metamorphosing into one another. Moreover, one motif may sometimes be read in more than one manner. For example, a two-bodied *taotie* may also be read as two facing dragons. This interest in change and transformation rather than the depiction of real or imagined creatures makes it difficult to set defined boundaries for particular motifs, so that various attempts, such as those by Bernhard Karlgren and K. C. Chang, to comprehensively catalog subsets of

[7]For a discussion of the name of this motif, see Wang Tao (1992).

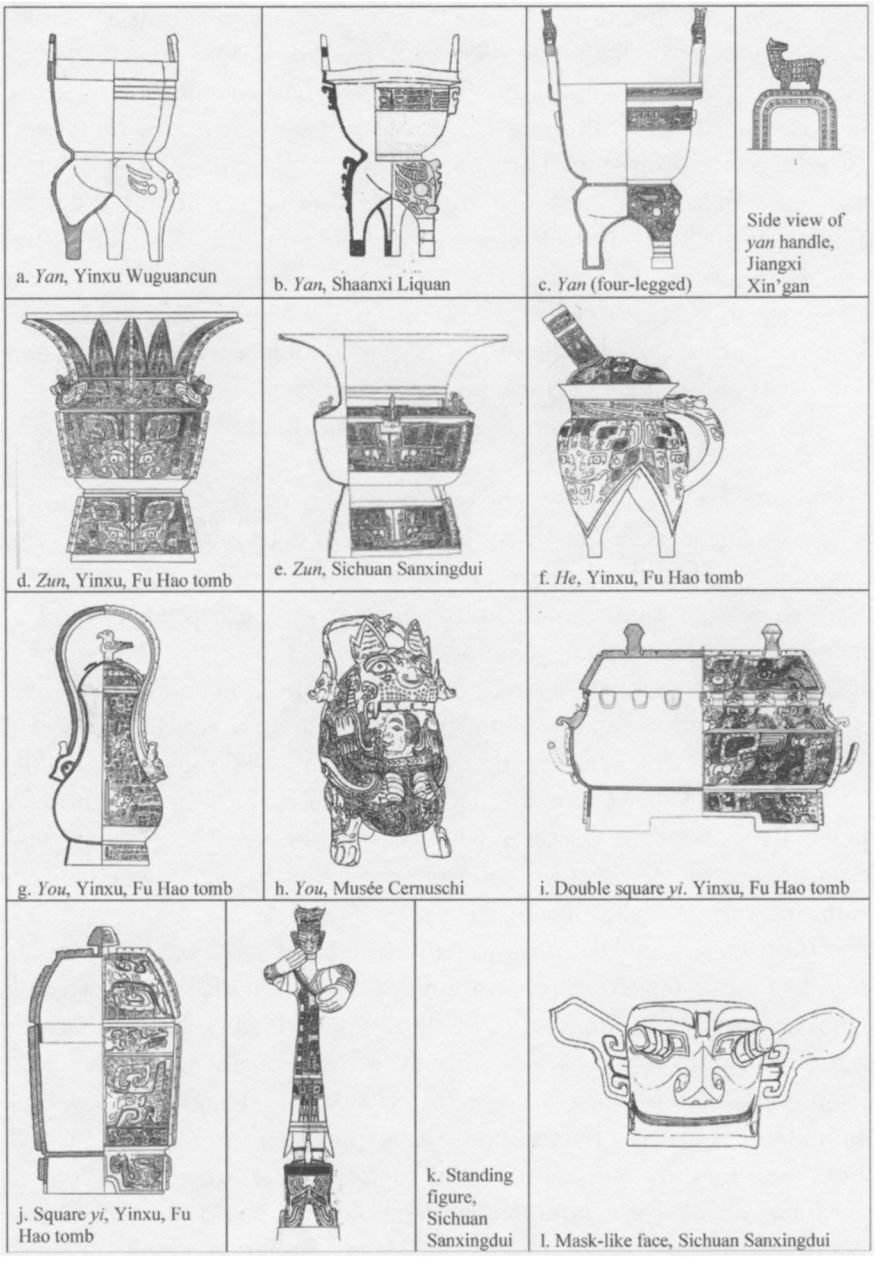

Figure 1. Late Shang bronzes. Source: a, d, f, g, i, j. Zhongguo Kaogu 1985, figs. 2, 13, 20.2, 15.1, 11, 12.1; b. Zhu Fenghan 1995, 741, fig. 10.81; c. Jiangxi 1997, 58–9, fig. 31–2; e. Sichuan Wenwu Kaogu 1999, 242, fig. 138; h. Provided by Li Jinyun; k, l. Zhongguo Kaogu 2003, 479, figs. 8, 9.

their variations have not been entirely successful (Karlgren 1936; Zhang 1973; see also Allan 1991, 138). Nevertheless, people with even minimal acquaintance with Shang bronze art have no difficulty recognizing a *taotie* or a *kui* dragon.

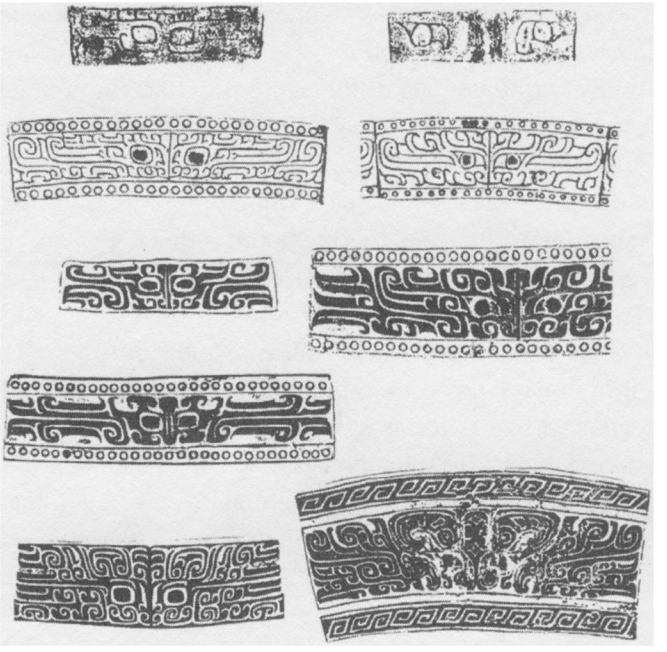

Figure 2. *Taotie* motifs, Erligang period. Source: Shanghai 1984, 222, 223, 63, 64, 62, 154, 153, 4, 3.

I have argued that these motifs derive their meaning not as representations of any particular creatures or gods but as more generalized allusions to the consumption of sacrificed animals and humans, the passage to the other world, and those who inhabit it. The *taotie* is characterized by two eyes, and it is made up of changing combinations of animals, including humans, all of which were used in sacrifice. It has an open mouth, which may be missing the lower jaw, and frequently has two bodies. These resemble dragon motifs, which also stand alone as primary vessel motifs. The two eyes and constant transformations, according to this theory, allude to the other world and powers that can see but cannot be not seen or known by the living; the open mouth suggests both eating and the passage to that world. I have also argued that the relatively unusual motif of the man-in-animal mouth, found most prominently on Southern vessels (but also on Yinxu vessels) is a more literal rendering of the theme of eating and sacrifice that is also implicit in more common forms of *taotie* (Allan 1991, 141–57). However, even if this argument is not accepted, even the most unusual examples, such as the Cernuschi *you*, still conform to conventional vessel types and are decorated with other motifs—*taotie*, *kui* dragons, etc.—that belong to the standard repertoire; thus, they are simply provincial versions of a Central Plains vessel. What is surprising is not that there is some stylistic variation in vessels produced outside the Central Plains, but how seldom unusual motifs—or even very unusual renderings of common ones—occur.

Sperber uses epidemiology as a metaphor by which to understand the transmission of such cultural representations. He suggests that the human mind is subject to cultural representations in the same way that the human organism is subject to disease—noting, however, that whereas diseases mutate only rarely, cultural transmissions are usually transformed in the process of communication. Like diseases, cultural representations may have quite different ad hoc explanations in different contexts. The advantage of this metaphor is that it allows us to understand how cultural representations, which do not convey any technological advantage, such as bronze *ding* or jade axes, may be found over a wide geographic range without defining the reason for or mechanism of their diffusion. The usefulness of the metaphor of disease, however, is limited because it suggests that all cultures are equally infectious. My hypothesis is that in ancient, as in modern times, cultural representations tend to pass from the powerful to the weak much more often than the other way around. Moreover, although cultural forms of a dominant culture are subject to mutation, such mutation will be limited by the desire to conform to the perceived norms of the "infecting" culture.

Let me make an analogy to the role of McDonalds in East Asia, based on the studies of James L. Watson and his anthropologist colleagues (Watson 1997, 2005; Yan 2005). When people in East Asia eat at McDonalds, they do not do so because they prefer the food to their local cuisine (or even necessarily like it). Nor do they eat there for economic reasons, as many Americans do; McDonalds in East Asia is relatively expensive. They eat at McDonalds because it is American, and they wish to participate in the modern globalized world. American cultural forms, whether McDonalds or Levis, are imitated throughout the world because the United States is the most economically wealthy and powerful country in the world, not because its products are inherently preferable to local equivalents—or because they are better than products from other economically advanced but less powerful countries. The smorgasbord, delicious and convenient as it is, remains largely confined to Scandinavia.

By emulating American cultural forms, people may somehow gain a share of its wealth, power, and cachet. If you take your child to McDonalds, he or she might eventually study at Harvard (as one person interviewed stated) or at least might have a better chance later in life. Thus, although some variance in restaurants is allowable according to local conditions (e.g., no beef in India), it is important that the McDonalds restaurants look a certain way—more or less the way they do in America. The food must be purchased in a particular manner and taken on trays. It cannot be served by a waiter at a table, as in other restaurants. It must be eaten by hand or with special (disposable) utensils and should, ideally, be thrown away by the consumers themselves. This repertoire of formalized behavior and its experience, not the food, is the point, and so that experience must be recognizable as a copy of the American original.

Just as an archaeologist finding the Golden Arches in Beijing two millennia from now could not assume that the United States exercised political authority

in China, we cannot assume from the discovery of Shang-style ritual vessels in Anhui, Guangxi, or Guangdong that the political reach of the Shang extended so far. However, their spread does suggest a cultural hegemony that follows from wealth and political power. Bronze ritual vessels are not like weapons or agricultural implements, which confer obvious technological benefits. Ritual weapons in bronze were decorated with the same set of motifs and were part of the same ritual complex as the vessels, apparently marking status. *Yue* axes, which were used for mutilating sacrifices rather than in warfare, were especially important. Some actual weapons, especially arrowheads, were also made in bronze. However, the weapons and tools that have been discovered tend to be technologically simple, and the development of bronze-casting technology in ancient China was clearly driven by a desire for bronze vessels rather than the practical advantages of metal weaponry and tools.[8] The bronze vessels did not confer any technological advantage upon their owners, but they did have a function—to make ancestral offerings.

By acquiring bronze ritual vessels, people could worship their own ancestors in a manner that emulated the elite culture of the Central Plains. Thus, although there are certain regional styles and occasionally regional motifs, the vessel forms and decoration are remarkably consistent wherever bronzes are found. The people who used these vessels may not have shared many of the beliefs of the Shang. Moreover, they may not have understood the ancestral offering rites in precisely the same way in Anhui as in Yinxu, for example, or always used the vessels in precisely the same manner as the people of the Central Plains. They might still have retained their local styles of pottery. But to effectively emulate the people of the Central Plains, the elites of other regional cultures needed to make their offerings in the same type of bronze vessels. Such vessels had to take certain ritual forms, and they had to be decorated with the motifs that were characteristically associated with bronze ritual vessels in the Central Plains, that is, *taotie*, dragon, and bird motifs.

In 1986, two pits holding numerous artifacts of bronze and other materials that had never been seen before were unearthed at Guanghan Sanxingdui in Sichuan Province. These included three-dimensional standing figures, enormous mask-like faces with projecting eyes and ears, bronze heads (some with gilt masks), and other artifacts that were completely different than the ritual vessels found elsewhere in China (Sichuansheng Wenwu 1987, 1989; Sichuansheng Wenwu Kaogu 1999; Bagley 1988) (see figure 1, e, k, l). The importance of Sanxingdui is not that it demonstrates diversity but that it throws the commonality of the Chinese bronze tradition into clear relief: It is

[8]Bronze agricultural tools have not been found in large numbers, with the exception of those found at Xin'gan, Dayangzhou, in Jiangxi Province (see Jiangxi 1997, 114ff.) However, the decoration on the Xin'gan tools suggests that they were for ritual rather than functional purposes. Though the relative paucity of bronze weaponry and tools discovered by archaeologists can be misleading, there is no doubt that the technological complexity of the early bronze industry developed in line with the complexity of vessel casting. Functional tools and weapons do not require the same complexity.

the *only* place where bronze was used to cast a totally different type of artifact, ones that reflected a local belief system. No other regional culture had yet discovered or used bronze to express their own local traditions in this manner, though many other places where bronze vessels were found had regional styles of pottery and other artifacts not found in the Central Plains. Nevertheless, even at Sanxingdui, alongside these unusual artifacts were Shang-style bronze vessels in conventional forms with *taotie* motifs.

Another site frequently mentioned as evidence of diversity is Dayangzhou Xin'gan in Jiangxi Province, a region where the discovery of Shang dynasty bronzes was also totally unexpected. The vessels found in the Xin'gan tomb have a number of stylistic oddities, such as animals standing upon vessel handles (figure 1, c). There is also an unusual number of tiger motifs and a shield-shaped border pattern not found outside the region. Some standard vessels types have unusual variations; for example, a square *ding* has a removable tray below the base, and a square *you* has inner walls with a cruciform-shaped opening. There are also some bronze artifacts not found in other regions, including ritual agricultural tools. Nevertheless, the primary objects found in the tomb are offering vessels that are in easily recognizable ritual forms and decorated with motifs belonging to the same repertoire as those found on Central Plains vessels (Jiangxi 1997).

In sum, by the late Shang period, bronze vessels cast in a limited repertoire of ritual types and decorated with common motifs are found throughout continental China. Only at Guanghan Sanxingdui was bronze used to explore an entirely different set of religious ideas. In some regions, particularly along the Yangzi River, there is evidence of local beliefs in the preference for certain types of ritual vessels, such as *zun* and *lei*, which were sometimes filled with jades rather than wine, and for more flamboyant and naturalistic decorations than on the Central Plains. Thus, we may suppose that in these regions, the cultural forms of the Central Plains were less well known or less powerful and more readily challenged by local ideas. In more remote regions, the vessels may simply have had magical associations with no real knowledge of how they "should" be used. Nevertheless, the overwhelming dominance of the ritual forms and motifs established on the Central Plains may be taken as marking the hegemony of a common elite culture.

It is beyond the limits of this essay to trace the development of the elite culture in any detail. However, in the following, I will examine its origins and argue that it first crystallized in the early second millennium BC, when bronze came to be associated with a particular set of ritual practices at Yanshi Erlitou in Henan Province.

Dengfeng

The early technological history of Chinese bronze casting remains somewhat vague, and the technical possibilities of metal for making weapons and tools were

not fully explored and developed in China until relatively late. The importance of bronze at Erlitou is not that it was the first archaeological culture to make use of bronze, but that it was the first to use bronze to cast ritual vessels. From that time on, the development of bronze casting was intimately associated with ritual forms.

Objects made of copper or bronze are commonly discovered in Chinese archaeological sites from the beginning of the second millennium BCE. The largest concentration of sites in this period is in the northwest and north, associated with the Qijia culture and its successor, the Huoshaogou (Gansu and Inner Mongolia). The objects discovered in this period are small—trinkets, simple pieces of metal, bodily ornaments, and small utilitarian objects, such as fishhooks and knives (Beijing Keji 2003). The only exceptions that I have been able to identify are two mirrors belonging to the Qijia culture of Gansu Province in the northwest and a small copper bell found at Taosi in Shanxi Province (Li Huhou 1980; Zhongguo Shanxi 1984). Significantly, these forms reappear at Erlitou.

Although the earliest bronze vessels found thus far are from the upper strata of the Erlitou Culture, there is some evidence of a longer history. A Qing dynasty catalog, the *Xi Qing Gujian*, printed in the reign of the Qianlong emperor of the Qing dynasty (r.1736–95 CE), includes a drawing of a bronze vessel in the imperial collection. The vessel is no longer extant, but it is very similar in appearance to a type of pottery pouring vessel with bulbous legs of the Dawenkou culture of Shandong Province in the third millennium BCE, called a *gui* 鬶 by some scholars and a *he* 盉 by others (these two vessel types were not clearly differentiated until later). Gao Guangren and Shao Wangping trace the ancestry of this vessel type to the fourth millennium BCE in eastern and central China (1981, 450–51) (see figure 3, a).

The earliest material evidence of a bronze vessel is a fragment with a width of 5.7 centimeters, length of 6.5 centimeters, and depth of 0.2 centimeters found at a late third millennium site, which many scholars take to be the first Xia capital—Dengfeng Wangchenggang, Henan Province (Henan Wenwu and Li Bo 1983, 13, pl. 1; 1992, 99, 327–28; Sun Shuyun 2000). On October 20, 2002, I examined the fragment at the Henan Provincial Museum. The fragment is slightly rounded, which suggests that it is the fragment of a good-sized vessel, but I could not find any features that would indicate what type of vessel it was.

The site at which this fragment was found is of some interest. Dengfeng was originally explored because of textual associations with the Xia dynasty. A walled complex that encloses an area of less than 10,000 square meters and dated to the end of the second millennium BCE was discovered there in the late seventies. Warring States remains have also been discovered, including pottery stamped with the characters *yang cheng* 阳城 ("City of the Sun") (Xu Xusheng 1959; Henan Wenwu and Li Bo 1983, 1992; Shao Wangping 2005, 91–92). According to traditional history, Yangcheng was the name of the "capital" of Yu, the great

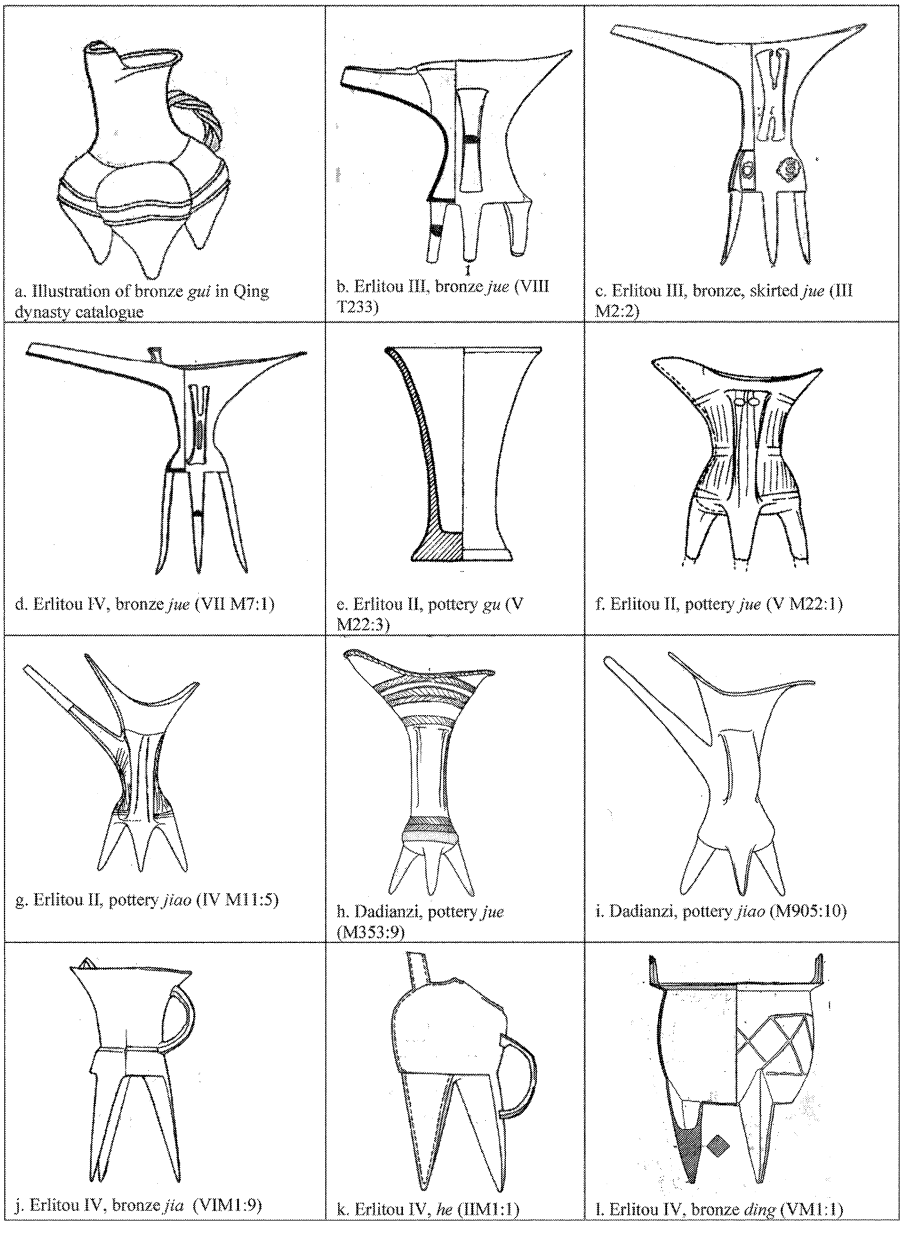

Figure 3. Early vessel forms. Source: a. Gao and Shao 1981, 450; b. Zhongguo Erlitou 1983, 203, fig. 9.4; c. Zhongguo Erlitou 1975, 305, fig 4.3; d–g. Zhongguo Kaogu 1999, 243, fig. 240, 136, figs. 81.3, 81.5, 81.9; h, i. Zhongguo Kaogu 1996, 84, fig. 42.3, 42.1; j. Zhonguo Erlitou 1986, 320, fig. 4; k. Zhongguo Kaogu 2003, 105, fig. 2; 1; Zhongguo Erlitou 1991, 1138, fig.1.

flood hero and founder of the Xia dynasty. Thus, the Xia-Shang-Zhou Chronology Project has taken the upper strata of this site as marking the beginning of the Xia dynasty (Xia-Shang-Zhou 2000). The small size of the Neolithic wall, even by the standards of the late Longshan period, was puzzling for a "city" site. Recently,

however, archaeologists have discovered an outer city wall, enclosing an area of about 300,000 square meters. Its period is also "late Longshan," with calibrated radiocarbon dates ranging from 2132 to 1965 BCE (Fang Yanming 2005). Excavations are ongoing. Nevertheless, unless writing is found, there is no means of determining whether the people who lived at Dengfeng at the end of the third millennium BCE—or at Erlitou at the beginning of the second—called themselves, or were known by others, as the "Xia."

That the Dengfeng site is in the foothills of Songshan is also significant. Rich archaeological finds have been made in this region, beginning with the Cishan-Peiligang culture some 7,000 years earlier, and they continue without interruption through the Shang and Zhou dynasties (Zhongguo Erlitou 2005b; Zhou Kunshu 2005). Moreover, in Han dynasty imperial ritual, Songshan was the Central Peak (*Zhong Yue*) of the five mountains. I have argued previously that Songshan was the "Peak" worshipped by the Shang in oracle bone inscriptions, together with the "River" and the highest ancestors (1991, 99–101). If, as I have argued in this same work, the Shang identified themselves with the ten suns, then the Warring States name is testimony to that tradition. Moreover, it was in the foothills of the mountain that was probably already considered the center of the world. Thus, regardless of whether Dengfeng was a "Xia" capital, the area was populated and held unusual ritual significance from a very early period.

Erlitou

Although the fragment found at Dengfeng suggests the possibility that bronze vessels were already being cast at the turn of the second century BCE, the earliest discoveries of complete ritual vessels thus far are from Yanshi Erlitou in Henan Province. The site has been dated to ca. 1860–1545 BCE by calibrated carbon-14 dating (Xia-Shang-Zhou 2000, 79). In the following, I will discuss the bronzes found at Erlitou in some detail to establish the context in which the bronzes were used, that is, whether they were associated with a particular set of religious practices. The bronzes of this period are not decorated (or only in a very rudimentary manner). There is, however, evidence that the primary motifs found on bronze in the Erligang and Yinxu periods—the *taotie* and spiral pattern—already occurred at Erlitou, though on perishable media such as lacquer or wood. Thus, Shang bronze decoration continues a decorative tradition found at Erlitou.

Erlitou is the type-site for Erlitou culture, centered in Western Henan and Southern Shanxi, or of the Western phase of that culture, with Dengxiafeng, also in Henan Province, taken as the type-site of the Eastern phase. First discovered in 1953, Erlitou has undergone decades of excavation, including systematic survey and selective excavation since 1999 (Du Jinpeng 1994; Han Weizhou 1954; Thorp 2006, 21–61; Xu Hong 2004; Xu Xusheng 1959; Xu, Chen, and

Zhao 2004; Yanshi 1978; Yin 1982; Zheng Guang 1996; Zhongguo Erlitou 1974, 1975, 1976, 1983, 1984, 1986, 1991, 1992, 2001, 2004a, 2004b, 2005a, 2005b; Zhongguo Kaogu 1999). The Erlitou site, including remains in the adjacent villages of Gedangtou and Sijiaolou, is huge. The full extent of the site is still not clear, but the main area of excavation covers some 300 hectares. The settlement was not walled, but it was well protected by its position between the Yi and Luo rivers, and traces of a boundary ditch to the north and west have been discovered (Xu, Chen, and Zhao 2004).

Recent excavation has revealed a large, neatly laid out city, including a central walled "palace" precinct that enclosed the tamped earth foundations of large-scale wooden buildings. This precinct occupies an area of about 10.8 hectares and is enclosed by a grid of wide roads (10–20 meters across) on all four sides. The roads, which reveal the traces of carriage wheels, were built in the second period and continued to be used through the fourth. At least eight foundations of large structures have already been identified or excavated. The first two discovered are still the most extensively reported; the larger is 100 × 108 meters (Foundation 1), and the smaller (Foundation 2) is 58 × 73 meters. Foundation 2 is aligned on a central axis with the more recently discovered Foundation 4 and must have been contemporaneous with it. The shape of the precinct is a vertical rectangle, and it is cosmologically oriented along a north–south axis, as are the building foundations (Zhongguo Erlitou 2004a, 2004b, 2005b). These large-scale buildings are conventionally called "palaces" because of their size and because they are arranged in the courtyard architectural style that is characteristic of later Chinese palaces and temples. Some of them may have been used as temples or for other ritual purposes rather than as residences. Most significantly, from the point of view of this study, is that the structure of the city, with its palace precinct and cosmological orientation, as well as the courtyard architectural style of the major buildings, had already taken on the form that characterized "capitals" (political and ritual centers) and palaces and temples (elite architecture) in traditional China through the ages.

Other remains include numerous middle-sized and smaller dwelling foundations, craft workshops, pottery kilns, and a great many tombs. The remains of bronze workshops have also been discovered, evidence that the vessels were cast in situ (Zheng Guang 1996, 67). While there is considerable argument about the chronological division of the Erlitou site remains, they are usually divided into four periods, with many scholars grouping the two lower strata (Periods I and II) and the two upper strata (Periods III and IV). The earliest bronze vessels have been found in the upper strata, but small bronze bells and a bronze plaque inlaid with turquoise stone have been found in Period II tombs.

The great majority of the bronze vessels of the Erlitou culture excavated thus far are from Erlitou itself. All of the vessels were cast by the segmented (piece) mold method, which is unique to the Chinese bronze-casting tradition. Therefore, whatever the ultimate origin of bronze in China, the bronze vessels found at

Erlitou were cast using indigenously developed metallurgical methods. With the exception of a single *ding* found in a Period IV tomb, the Erlitou culture bronze vessels were used as wine vessels. The term "wine" is used loosely here to mean fermented beverages. The earliest fermented beverages in China, according to molecular archaeological evidence from residue in pottery, are from Wuyang Jiahu in Henan Province and date to the seventh millennium BCE. Rice was the main constituent, but wild grape was a possible ingredient (McGovern 2003, 314–15). Extensive molecular archaeological analysis of pottery from the middle Longshan period (2400–2200 BCE) site at Rizhao Liangchengzhen in Shandong Province has also revealed a fermented beverage of rice, honey, and fruit (hawthorn or grape) that was consumed from special forms of pottery vessels. Shang dynasty oracle bone inscriptions mention at least three types of wine. Moreover, archaeologists have excavated Shang-period bronze wine containers in which wine still remained (Mai Gewen et al. 2005).

That bronze was first used not simply for casting vessels, but for casting *wine* vessels, is significant. Wine is, after all, a mind-altering substance, and it was associated with religious performance throughout the ancient world (McGovern 2003). The bronze vessels from Erlitou include more than a dozen *jue*, at least four *jia*, a *gu*, and a *he*.[9] The characteristics common to bronze *jue* found at Erlitou are a spout, pointed tail, inverted waist, ribbon-shaped handle at the side (sometimes with openwork), flat bottom, and three narrow, usually triangular legs. Many have two small protrusions or posts at the points at which the spout joins the vessel, especially in the fourth period. In this period, the spout also becomes very elongated (see figure 3, b–d). The *jue* are quite small; the largest example is only 22 centimeters in height. They are all cast in a complex manner, using several molds. One vessel (figure 3, c) has a skirt below its base with holes to allow a heat source to breathe when warming the wine.[10] This level of technological complexity suggests a longer period of development, but the walls of the vessel of the *jue* are still very thin, inhibiting the development of decoration. Only one *jue* found at Erlitou has any decoration, and it is very simple—small, rounded bosses between parallel lines, raised in slight relief.[11]

The origin of the *jue* vessel is unclear. The earliest examples of bronze *jue* are from the upper strata at Erlitou. However, pottery *jue* with short spouts have also

[9]Zhu Fenghan (1995, 596, chart 9.1) contains a convenient list of vessels found at Erlitou with references to the excavation reports. He includes eleven *jue*. Zhongguo Shehui (1999, pl. 120, 142) include three further *jue* that do not appear to correspond to any of those on Zhu's list. Zhu includes two *jia*; two further *jia* are illustrated in Zhongguo Shehui (1999, pl. 169) and Zhongguo Qingtongqi Quanji (1996, 13). There are, of course, a number of other Erlitou-style vessels that were not excavated in foreign and Chinese museums.

[10]Zhongguo Erlitou (1983, 203, fig. 9.6, pl. 1.1). A similar vessel was reputedly found at Shangqiu (traditionally the homeland of the Shang) in Henan Province. See Li Xueqin 1987.

[11]From Tomb M7 in Sector VII, Period IV (see Yanshixian 1978). This example was apparently not scientifically excavated.

been found in the lower strata. Many scholars assume that the bronze *jue* copy the earlier pottery versions, but it is also possible that the pottery *jue* of the lower strata are copying bronze vessels even though none dating to that period have been discovered yet. As far as I have been able to determine, the *jue* is a new pottery vessel form first found at Erlitou; there are no clear prototypes in earlier Neolithic cultures. The upper section of pottery *jue* have some resemblances to *gui* 鬶 pottery pouring vessels of the Dawenkou and Longshan Neolithic cultures, but these vessels have pouched legs and are very different from *jue*.[12]

In the Shang period, bronze *jue* form a set with *gu*, wine vessels used for drinking or pouring libations. Sets of pottery vessels found in lower-strata tombs at Erlitou also include *gu* together with *jue* (See figure 3, e, f). Louisa Fitzgerald-Huber has argued that both the *jue* and the *gu* forms may derive ultimately from the Bactrian Margiana complex. To this end, she has assembled a set of artifacts that appear to have a relationship with that region, including mirrors with six-pointed star and cruciform designs, knives, etc. Their similarity suggests influence, which she traces through the Qijia culture (Fitzgerald-Huber 1995; see also Li Xueqin 2002a). The Bactrian Margiana spouted cups have flat bottoms and no legs, though we may readily imagine them as a prototype for the *jue*, to which three legs have been attached. However, the possible route of transmission remains vague, and the evidence for such transmission is sparse. Moreover, the spouted cups from Shahdad, Iran, which she illustrates, have elongated spouts, but the spouts on the pottery *jue* from the lower strata at Erlitou are not elongated.

Although both *jue* and *gu* made of pottery are common at Erlitou from the first period on, only one bronze *gu* has been excavated at Erlitou from a fourth-period tomb (Sector V, Tomb M1). Unfortunately, it was stolen soon after it was excavated, so details are unavailable (Zhongguo Erlitou 1991, 1138–39). Traces of what was probably the lacquer skin of a *gu* were found in the eastern wall of M57, a relatively large fourth-period tomb that also yielded a bronze *jue* (Zhongguo Erlitou 1992). This tomb will be discussed further later. Traces of a lacquer *gu* were also found in a third- or fourth-period tomb (M9) in Sector VI, from which a bronze *jue* and *jia* were both excavated (Zhongguo Erlitou 1986). This suggests the possibility that bronze *jue* were paired with lacquer *gu* in the Erlitou period.

An Erlitou-period bronze *jiao* 角 with a tubular spout beneath an upturned point has been found in Luoning Wangjialou in Henan Province (Zhongguo Qingtong 1996, 1:11). Another example is in the Shanghai Museum collection.[13] Pottery examples of this vessel form are common at Erlitou from the second

[12]Louisa Fitzgerald-Huber (1995, 22 n. 8) cites a small Longshan culture *guil* found at Sanliqiao (see Zhongguo Kexue Kaogu 1959a, pl. 88) as the only precedent she was able to discover, but it is neither consecutive chronologically nor close formally. See also Gao and Shao (1981) for a discussion of *guil* as a possible origin of the *jue*. Pottery *jue* are also found at Dadianzi (Zhongguo Shehui 1996, 84, fig. 42), but these appear to be contemporaneous with Erlitou.

[13]The Shanghai example has a pierced skirt, like the *jue* discussed earlier (see Zhongguo Qingtong 1996, 1:12; Zhu Fenghan 1995, 603ff.).

period on, and some scholars classify it as a *jue* (see Zheng Guang 1995a). Similar pottery *jiao* and *jue* are also found at the Dadianzi site, Aohan Banner, Inner Mongolia (Zhongguo Kaogu 1996, 84–85), a site with a close relationship to Erlitou. (See figure 3, f, g, h, i). The tubular spouted *jiao* form appears to have died out after the Erlitou period in both pottery and bronze. It provides a clue to the development of the late Erlitou *jue* with an elongated spout: Possibly the long tubular spout and the upturned point were contracted to make the long, narrow, open spout of the *jue*. If this hypothesis is correct, then the bronze *jue* form would be an indigenous development. Worth noting, however, is that the legs of the Luoning *jiao* are appended to the outside of the flat base; this tends to support the idea that *jue* evolved from a flat-based cup.

At least four examples of bronze *jia* have been excavated at Erlitou, all from fourth-period tombs. *Jia* are formally similar to *jue*, except that the cross-section is round and there is no spout (see figure 3, j). Some examples have small protuberances on the rim, which later develop into posts in a parallel development to *jue*. However, the handle of the *jia* is directly opposite the posts, whereas the *jue* handle is always on the side. This suggests that *jia* were used somewhat differently in ritual performance than *jue*. The discovery of both bronze *jia* and *jue* (together with lacquer *gu*) in Tomb M9 also suggests that they had distinct functions in ritual performance (Zhongguo Erlitou 1986). One example is ornamented with three bands of small circles, and a very similar vessel has been found at Zhengzhou (Zhongguo Erlitou 1999, 342–43; Henan Wenwu 1983). Bands of small circles are a common decorative motif in the Erligang period. Because this motif first occurs at Erlitou, it is further evidence of cultural continuity (see figures 5, a–b).

The other type of bronze wine vessel discovered at Erlitou is the *he*. By analogy to later tradition, this type of vessel is considered a wine vessel (for mixing water and wine). The one found at Erlitou was in a fourth-period tomb (Sector II, Tomb M1) (Zhongguo Kaogu 2003, 103–5) (see figure 3, k)

A *ding*, from a fourth-period tomb (Sector V, Tomb M2) that also yielded a *jia* and the *gu* mentioned previously, is the only food vessel cast in bronze from this period yet discovered. Indeed, it is the only bronze vessel not associated with wine yet found from the Erlitou period. It is decorated with a rudimentary pattern of crossed lines. Traditionally, *ding* are regarded as the archetypical bronze ritual vessel. They are also among the earliest and most widespread vessel types. In this region, pottery examples were found as early as the Cishan-Peiligang Culture (ninth to seventh millennia BCE) (See figure 3, l).

The bronze vessels of the Erlitou period are mostly undecorated, presumably because of technological limitations. However, small turquoise-inlaid bronze plaques and a lacquer fragment with a *taotie* motif very similar to those found on Erligang-period bronzes provide evidence that an early form of the two-eyed animal face, conventionally known as a *taotie*, was already present, even though it was not yet used to decorate bronze vessels. The small bronze plaques, from

10 to 16.5 centimeters in length, depict a rudimentary *taotie*. They are slightly concave and their shape is broadly oval, with an inverted waist and two loops on each side. The two eyes may resemble those of humans (with canthus) or animals (round). As Li Xueqin has observed, these two forms of eye are found first on jades of the southeastern Liangzhu culture (ca. 3300–2000 BCE), and both forms occur in the Shang *taotie* motif (Li Xueqin 1993, 1994) (See figure 4, a).

In the three tombs at Erlitou from which plaques have been scientifically excavated, the plaques have been found on the chest position of the deceased, so they were probably sewn onto clothing or tied to a perishable object placed on the corpse. Some sixteen such plaques, including those now in collections abroad, are known. Three have been found at Sanxingdui in Sichuan Province, two from a sacrificial pit at Zhenwu, and one at Gaopian. The dates and origins of these examples are uncertain, but the different type of stone and more abstracted style suggests that they probably were not imported from Erlitou (Wang Qing 2004; Ye and Li 2001) (see figure 4, b–d).

An elaborate dragon-like figure, some 65 centimeters long and made of more than 2,000 small turquoise pieces, has also been found in a tomb at Erlitou. The turquoise pieces were glued to a backing material that has now perished. Like the bronze-inlaid plaques, they were found on the chest of the deceased, stretching across the body from shoulder to thigh. There are traces of red lacquer all around the "dragon." Its head is trapezoidal, mounted on a base 13.6–15.6 centimeters wide and 11 centimeters long. It has round white stone ("jade") eyes. Three groups of green and white semicircular pieces of jade form the ridge of the nose, surmounted by a round piece of green stone. If this stone represents a nose, then the body, which winds like that of a snake, is attached to the back of the head. A separate horizontal strip of turquoise pieces was found below the dragon figure, perhaps another piece of the same artifact. The horizontal strip and tail are in the region of the right hand (Xu Hong 2005; Zhongguo Erlitou 2005b). It seems possible that the dragon was mounted on something hard that was placed in the hand of the deceased. The tomb, excavated in 2002 (02V M3), will be discussed again later. It belongs to the second period. The position of the dragon on the corpse suggests that it had a similar function to the turquoise-inlaid bronze plaques that were found in the chest region. The plaques had two loops on each side and were slightly concave (as is the dragon), so they were probably attached to something placed upon the corpse. Thus, the dragon may have been a forerunner of the bronze plaques.

Erlitou pottery is usually impressed or incised with simple patterns, if it is decorated at all. I noted earlier that pottery *jue* similar to those found at Erlitou have been excavated at Dadianzi, a site of the Lower Xiajiadian culture, contemporaneous to Erlitou culture. The site is of particular interest because, although only relatively simple metal objects have been excavated there, it includes numerous objects that clearly reflect a relationship of cultural

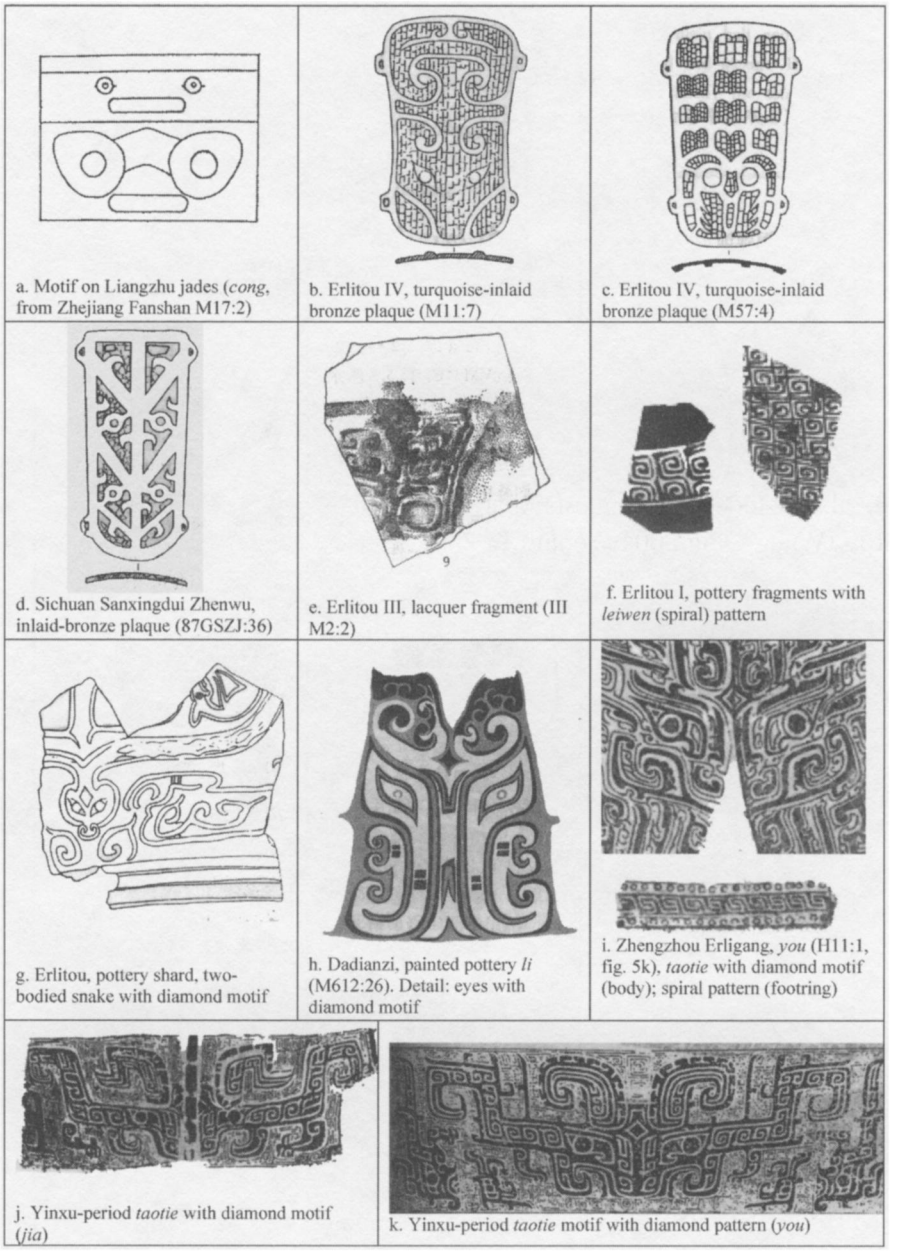

Figure 4. Development of the *taotie* motif. Source: a. Li Xueqin 1993, 61; b–d. Wang Qing 2005, 66–67, fig. 1.3, 1.6, 2; e. Zhongguo Erlitou 1983, 203, fig. 9.9; f. Zhongguo Kaogu 1999, 48, fig. 22; g. Ye Wansong 2001, 43, fig. 8; h. Zhongguo Kaogu 1996, 105, fig. 54.5; i. Henan Wenwu 1983, 54, fig. 15; j–k. Zhu Fenghan 1995, 419, fig. 5.2.6, 5.2.5.

influence from Erlitou culture.[14] Besides the pottery *jue* and *jiao* mentioned previously, a relatively well-preserved lacquer *gu* was found (Zhongguo Kaogu 1996,

[14]For analysis of the metal artifacts at this site, see Li, Gu, and Zhu (2003).

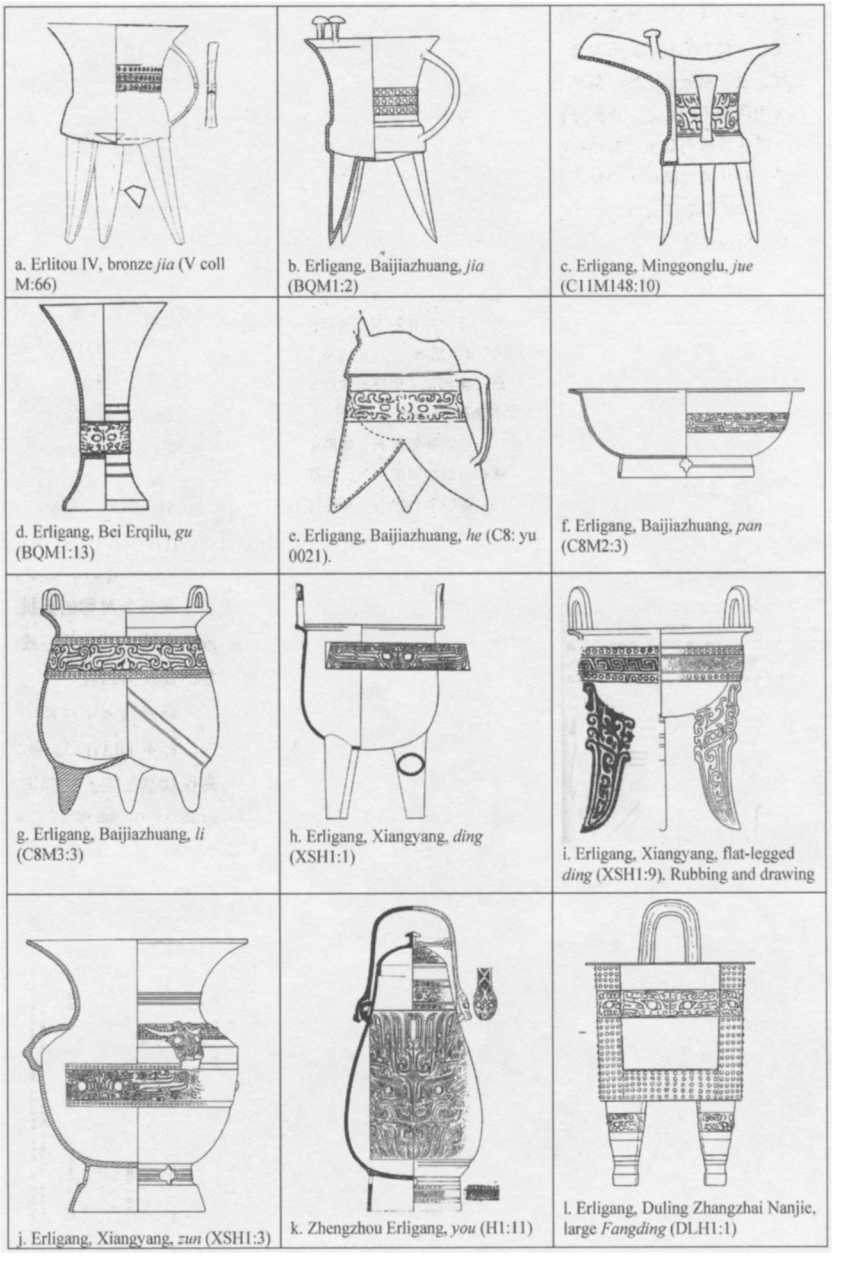

Figure 5. Erligang period vessels. Source: a. Zhongguo Kaogu 1999, 343, fig. 240; b–g, i, j, l. Henan Wenwu 2001, 804, fig. 542.7, 810, fig. 545.8, 814, figs. 547.7, 547.13, 823, fig. 554.2, 802, fig. 541.6, 801, fig. 540, 816, fig. 549, 795, fig. 536; h. Yang Yubin 2002, 321, fig. 18; k. Henan Wenwu 1983, 54, fig. 14; l. 350, pl. 20.1). The pottery of the Lower Xiajiadian culture found at Dadianzi is painted in striking red, white, and black designs, and it may provide some clues about Erlitou decoration in perishable media. As Fitzgerald-Huber has already pointed out, "the patterns of C curves in interlocking arrangements,

organized so that the primary units comprising the patterns are each the mirror image of the two adjacent ones" (1995, 22) are similar in pattern to the turquoise-inlaid bronze plaques found at Erlitou (see figure 4, h).

If the Dadianzi painted pottery was influenced by Erlitou motifs, then one possibility is that their prototypes were in lacquer or wood that has perished in the archaeological record (see also Fitzgerald-Huber in Yang 1999, 155–58). Very little of the lacquer materials from Erlitou have survived, except as red dust, but a lacquer fragment with a motif that is strikingly similar to Erligang-period *taotie* was excavated from the same Period III tomb, which contained a *jue* with the pierced skirt (Zhongguo Erlitou 1983) (see figure 4, e). This suggests that the *taotie* motif that appears on Erligang bronze vessels derives from a motif found on lacquer at Erlitou and was transferred from lacquer when metallurgical techniques developed sufficiently to allow complex decoration.

Further evidence of continuity may be found in the persistence of a diamond pattern between two eyes. The occasional pottery shards with incised motifs at Erlitou also provide evidence of a more complex decorative vocabulary—for example, a two-bodied snake with a diamond-shaped motif on its forehead (Ye and Li 2001). The two bodies suggest the later two-bodied *taotie*. A diamond motif is also found in association with various two-eyed motifs on painted pottery in the contemporaneous Dadianzi culture, and it is found on *taotie* motifs in the later Erligang and Yinxu period (figure 4, g–k).

In the Yinxu period, the conventional background pattern for bronze ornament is a spiral pattern (*leiwen* 雷文), and it has generally been assumed that this was an innovation of the late Shang period. However, Erlitou pottery is often impressed with a spiral pattern (figure 4, f). Moreover, in the Erligang period, spirals are often found as bands of ornament or border patterns (figure 2, lower right; figure 4, i, which is a detail of figure 5, k). Thus, the innovation of the late Shang period may simply have been the use of spirals as a background motif rather than as a band or border (figure 4, j–k).

A more detailed examination of the tombs in which the turquoise dragon and turquoise-inlaid bronze plaques were found reveals the context in which bronze casting developed. Tomb M3 from Sector V, excavated in 2002, was one of a group of second-period tombs that were discovered in the courtyard of Palace 3. The tomb measured 2.2 meters in length, about 1.2 meters in width at the mouth, and one-half meter in depth. The deceased was a male, thirty to thirty-five years of age, buried with his head to the north. There were no traces of a coffin, but there were traces of cinnabar (*zhu sha*) on the floor. The mortuary artifacts, other than the turquoise dragon that lay over the chest, included a bronze bell with a jade clapper found at the waist of the deceased and a jade artifact with a bird head, found to the east of the head of the corpse. The skin of a red lacquer vessel (or other artifact) and the remains of textile were found adhered to the bell. Three small white pottery pieces, shaped into conical bamboo-hat shapes, and beads were found above the head. The pottery pieces were pierced, which

suggests that they were originally sewn onto headgear worn by the deceased. The tomb also held numerous lacquer objects, including *gu*, bowls, and containers with handles. Some of the *gu* had pottery bases. The precise number and details are not reported, presumably because of their poor state of preservation. Ten pottery vessels were found, including *gu*, covered *he*, spouted *he*, *ding*, *dou* 豆, *zun*, and flat-based *pan* 盤 basins (Zhongguo Erlitou 2005b; Xu Hong 2005).

The turquoise-inlaid plaques that have been scientifically excavated at Erlitou come from three tombs. Tomb M4, in Sector V at Erlitou, is a second- (or possibly third-) period tomb and included a pottery *he* as well as the remains of lacquer vessels, including a *gu*, *bo* 鉢 (bowl), etc.[15] The remains of a lacquer drum were also found. The tomb measured 2.5 meters × 1.16 meters, and it was the largest and most carefully constructed—as well as the richest—of the six tombs excavated in this sector in 1981. There was a thick layer of cinnabar at the bottom of the pit, as much as 8 centimeters in places, and the coffin had been coated with red lacquer (Zhongguo Erlitou 1984). The tomb did not have any bronze vessels, but there was a bronze plaque in the chest region and a small bronze bell with a loop on top near the waist of the deceased (Zhongguo Erlitou 1983).[16] Moreover, it included a shaft-shaped (*bing xing* 柄形) jade artifact finely carved with face motifs, similar to those in the earlier Shijiahe culture. The purpose of these shaft-shaped artifacts, which also resemble batons, is unclear. They are mostly undecorated, but the elaborate decoration on this example suggests a ritual purpose. The shape of the bird-headed jade artifact in Tomb M3, excavated in 2002 from Sector V, is roughly similar (long and thin but round rather than square), and it may have had a similar function. Small turquoise and jade tubes (*guan*) and tube-shaped objects were also found.

The other two tombs are both from the fourth period and include bronze vessels. Tomb M57, excavated in 1987 from Sector VI, measured 2×1.05 meters and was the largest of a group of nine tombs. Tomb M11 from Sector VI, excavated in 1984, is similar in size, measuring 2 × 0.95 meters. As in the earlier tomb (M4), the turquoise-inlaid plaques were found in the chest region of the deceased, and small bronze bells were found near the waist. M57 also had a jade clapper for the bell. M57 included a bronze *jue*; M11 had a *jue* and a *jia*. M57 included two jade shaft-shaped artifacts, and M11 had three. Both tombs also included various jade artifacts, pottery, and cowry shells. There was a rich layer of lacquer on the floor of Tomb M57, and the remains of a lacquer container were found in Tomb M11 (Zhongguo Erlitou 1986 [M11], 1992 [M57]; see also Ye and Li 2001).

[15]Ye Wansong and Li Defang (2001, 40), argue that the tomb should be classified as third period on the basis of its pottery forms.

[16]An earlier bell, smaller but of similar shape, was found in a tomb of the late Neolithic period in Shanxi Province, Xiangfen Taosi (M3296) (see Zhongguo Shanxi 1984; Shao Wangping 2005, 91, fig. 4.7).

That the earliest vessels cast in bronze were wine vessels is significant. Alcohol has been used in religious ceremonies throughout the world. Moreover, the similarity of these three tombs—the bronze plaques on the breast, the bells at the waist, the jade shaft-shaped artifacts, and bronze wine vessels—suggests that the people buried in these tombs had a special role as a priest, shaman, or other religious interlocutor. Thus, bronze was closely associated with religious ritual at its earliest stages of development.

The Erligang Period

The most important sites of this period in the Central Plains are the walled settlements discovered at Zhengzhou (Henan Wenwu 1983; Henan Wenwu Kaogu 1999, 2001, 2003) and Yanshi (Du Jinpeng 2004). The walled area at Zhengzhou is enormous—almost 25 square kilometers; that at Yanshi, about 22 kilometers away, is about one-third its size. The name *Erligang* derives from the type-site discovered at Zhengzhou Erligang in the early 1950s that yielded tombs, a large number of bronzes, and bronze and other workshops (Zhongguo Kexue Kaogu). Erlitou culture, often labeled "Xia," is distinguished from Erligang culture, which is usually designated "early Shang." However, when Erlitou culture remains were first discovered at Yucun in Henan Province, they were regarded as an early stage of the Erligang culture (Han Weizhou 1954). It was only with the introduction of radiocarbon dating that the site began to be discussed as "Xia" (see Chang 1986, 341–45).[17] In my opinion, the question of the relationship of Erlitou and Erligang cultures—as rupture or continuation—still requires further research based on a full range of archaeological evidence without reference to historical documents.

One of the many contributions of the Xia-Shang-Zhou Chronology Project has been the commissioning of advanced scientific tests of carefully selected samples using a variety of dating methods. However, there is still no easy chronological match between the archaeological record and the historical records. The fourth period of the Erlitou site ends in the middle or late sixteenth millennium BCE—that is, after the beginning of the Shang dynasty, around 1600 BCE, as determined by historical records. Thus, some archaeologists classify this late period as "Shang" (Zhang, Qiu, and Cai 2005). However, there is no evidence of rupture or material decline between the third and fourth periods. Also of interest is the newly discovered walled settlement at Xingyang Dashigu in Henan Province (Zhengzhoushi 2004). This site, located about 22 kilometers southeast of Zhengzhou, is the first Erlitou culture settlement with a wall to

[17]K. C. Chang (1986) proposed that the names *Xia, Shang*, and *Zhou* should be understood as cultures with different geographic cores rather than strictly sequential. This theory has not been developed by archaeologists, presumably because it does not fit well with more recent evidence.

be discovered, but the moat that surrounded the wall was built in the Erligang period, indicating that it bridged the two periods.. The brief excavation report leaves many unanswered questions, but this discovery suggests that it may be impossible to determine a strict boundary that separates Xia and Shang sites.

Many scholars have debated how the Erlitou, Zhengzhou, and Yanshi Shangcheng sites can be identified with the Xia and Shang capitals mentioned in the historical records. However, from the point of view of the elite culture signified by bronze vessels, Erligang culture seems to be a simple continuation. The primary innovations at Erligang are the introduction of decoration on bronze vessels and the expansion of bronze vessel types. The bronzes found at Erlitou are largely undecorated, but their simple motifs, such as bands of small circles, are continued at Erligang. Bands of small bosses are another simple motif found at Erlitou that continues in the Erligang period. Most important, however, is the *taotie* or "two-eyed" motif, which is ubiquitous on Erligang-period bronzes (see figure 2). This motif usually appears in a band, sometimes enclosed by rows of small circles. It is formally consistent as soon as it appears: two eyes (either round or with canthi), the suggestion of a nose, C- or comma-shaped ears or horns, and undefined bodies to each side. This consistency suggests that the bronze motif was taken over from some perishable medium in which it was already prevalent, probably lacquer, as on the fragment discussed earlier (see figure 5).

The bronze vessel types found at Erlitou—*jue*, *jia*, *he*, *gu*, and *ding*—are also found at Zhengzhou in the Erligang period, but there is now a larger repertoire, with wine storage vessels (*zun*, *lei* 罍, *you*, and *hu* 壺), more cooking vessels (*li* 鬲, *yan*, and *gui* 簋), and *pan* and *yu* 盂 for ritual ablutions with water (Yang and Sun 2002, 319–24: Li Boqian 2004, 192). An early innovation in the Erligang period is the casting of sets of enormous square *ding*. Although there are a few small square pottery *ding* among the Erlitou remains, square and straight-sided shapes are natural for wood, but not for pottery. The large square *ding* at Zhengzhou were achieved by precasting sections, including the large flat sheets of the sides. These were then joined together. Thus, it seems likely that the square shape was the result of technological limitations and a desire to make very large vessels. For example, Hoard 1, found at Nanshunchengjie, includes a set of four *ding* in graded sizes, two *jue*, two *jia*, and a large water vessel (Henan Wenwu 1983, 1999). The large *jue* have bands of decoration, including both the simple *taotie* and rows of bosses. This boss pattern is also found on drum-shaped pot from Erlitou, where it seems to imitate rivets or nails used to attach a skin to the wooden drum (Zheng Guang 1995a, 144). Possibly, strips of golden bronze were riveted as decoration onto wooden or lacquer vessels before it became possible to cast entire vessels in bronze (figure 5f).

These large *ding*, with their impressive size and number, suggest that by the Erligang period, bronze had come to be associated not only with ritual efficacy

but also power and authority. Such vessels were not, however, restricted to the Central Plains, or to the king himself. For example, the tomb at Dayangzhou Xin'gan held six square *ding*. One of them, weighing 49 kilograms, is very similar in ornamentation to the Erligang example illustrated in figure 5 (l), except that it has tigers standing on the handles (Jiangxi 1997, 32–33, pl. 8). A large square *ding* from Ningxiang in Hunan Province uses a human face with added horns and claws as the *taotie* motif (Zhongguo Qingtong 1996, 4:24). And at Yinxu, a large square *ding* was buried with the royal wives of Fu Hao (Zhongguo Kaogu 1985, pl. 3). In this early period, however, the casting of a number of similarly decorated *ding* vessels, each larger than the other, appears to be confined to the Central Plains. These sets of *ding* may well have connoted political authority.

There are many sites outside this central region that have yielded bronzes from the Erligang period similar to those found in the Central Plains, including Panlongcheng in Hubei Province, Chenggu in Shaanxi, and Liu'an in Anhui Province. Indeed, vessels from the early Erligang period are so similar wherever they are found that even though there is evidence that metal was mined and smelted in other regions besides the Central Plains, the question of when bronze vessels began to be cast beyond the confines of the Central Plains is still a major issue for research.[18] From the point of view of the present study, however, the important point is not when vessels began to be cast outside of the Central Plains, but that all bronze vessels—wherever they may be found, from the beginning of the Erligang period onward—may be regarded as the cultural descendants of those first cast at Erlitou.

By the beginning of the Yinxu period, bronzes were clearly being cast in many different regions. Some of these have local styles; nevertheless, as I noted at the beginning of this paper, they conform to the ritual prescriptions of the Shang, both in their forms and, with rare exceptions, in their decoration. This conformity was not required by the technology—the possibility of development in other directions, as at Sanxingdui, was always open. Rather, bronze had come to be associated with the particular ritual practices in the Erlitou period. From then on, it was associated with the ritual of the Central Plains and symbolic of their power and prestige.

[18]Liu Li and Chen Xingcan (2003) present a strong case for Zhengzhou as a casting center, with ores undergoing preliminary smelting in regions with rich mineral before being sent to the core. However, the hypothesis that no vessels were cast outside of the core, even where there is evidence of smelting, is based on a lack of discovery of molds and casting workshops, which may be attributable to the limitations of the excavated evidence. For example, they argue that the vessels found at Panlongcheng in Hubei were all cast at Zhengzhou. It is noteworthy, however, that the vessels found at Panlongcheng generally have higher lead content, in contrast to northern finds (see Hubai Wenwu 2001, 529–32). I suspect that a careful analysis of their forms and decoration will reveal minor differences, suggesting that at least some of the vessels were locally cast in emulation of Zhengzhou prototypes.

When the Zhou conquered the Shang, they had no religious ideology that clearly separated them from the Shang, and their ritual practices were similar to those of the Shang for the first hundred years (See Liu Yu 1989; Cook 1997, 289; see also Allan, forthcoming)—that is, they adopted the high culture of the Shang as their own. An important difference between the Shang and the Zhou, however, is that whereas the Shang network of political relations revealed in the oracle bone inscriptions is somewhat haphazard, suggesting that the relationships had developed gradually and pragmatically, the Zhou took over an existing political structure. Thus, they were able to establish a much more systematic network of relationships and political authority. Bronze ritual vessels were critical in this system, and the use of inscriptions on vessels to sanctify such relationships was a Zhou innovation. The Zhou kings established a system in which local authority was given by "mandate" or "charge" (*ming* 命) to the head of a lineage. These charges were recorded on bronze vessels. As Constance Cook has observed, the memorial feast became a primary forum for sanctifying and recording these relationships. She states, "A bronze vessel represented knowledge and history to its owner. Its manufacture and use in sacrifices to the ancestral spirits by gift recipients represented participation in Zhou control over geography and time…While the king never gave away his own vessels, his gift giving included the power to reproduce copies of his treasure for use in similar sacrifices" (1997, 257).

It is beyond the purview of this study to trace the development of bronzes as markers of elite culture in later times. However, it is worth noting Lothar von Falkenhausen's observation that just as the extent of centralized power exercised by the central states in earlier times may have been exaggerated, the vaunted fragmentation of Zhou political authority in the spring and autumn is not reflected in the cultural patterns, as is his demonstration of the close similarity of preimperial Qin practices and those of the Zhou (von Falkenhausen 1999, 542–43; 2004). Essentially, the effect of Zhou revisions to the sumptuary rites in the middle of the Western Zhou, rather than diminishing the importance of rites associated with ancestral offerings in bronze vessels, was to provide a more flexible and all-encompassing ritual system.

In sum, the elite culture first established at Erlitou expanded in the Zhou and eventually became a more general marker of what was considered civilized behavior. In the Spring and Autumn period, this behavior was called *li*, conventionally translated as the "rites," but was widely recognized as extending beyond ancestral reverence and other formal rituals to matters of etiquette, especially the care of one's parents. Confucius took the correct performance of *li* as the true marker of a gentleman (*junzi*). Concomitantly, he defined a gentleman as one who practiced the *li*. In this manner, the ritual practices of the elite culture at Erlitou laid the foundations for the cultural practices that were commonly accepted as signifying "civilization" to people in China throughout later history.

Conclusion

Since the Doubt Antiquity debates of the early twentieth century, the historicity of the traditional Chinese records has been avidly debated. Moreover, since the discovery of the "Remains of Yin" near Anyang in the 1920s confirmed the historicity of the Shang dynasty—or at least its last capital—scholars have discussed whether the records of a Xia dynasty are accurate and how—or whether—they may be matched to the archaeological evidence. Because Erlitou culture corresponds, at least roughly, to the Xia period in the historical texts, many archaeologists take Erlitou culture—or some of its phases—as representing the Xia. As I have argued previously, much of the material in the traditional historical texts is mythical in character and thus unreliable as the basis of historical reconstruction. Moreover, there is no contemporaneous written evidence to confirm this identification, so this question cannot, as yet, be resolved. However, from the point of view of the elite culture, as seen in bronze ritual forms, which has been my concern here, there is continuity between the Erlitou and Erligang cultures, as indeed there is between the late Shang and Zhou.

Archaeologists such as Liu Li and Chen Xingcan (2003) have argued that the remains at Erlitou represent those of a "state." The level of social and political complexity implicit in state formation is frequently associated with "civilization," even by scholars who reject evolutionary schemes (Yoffee 2003, 15–19; see also Trigger 2003, 40–52). *Civilization* is a slippery term. Because it often denotes a sense of cultural superiority and because of its particular associations with European imperialism, many scholars prefer not to use it at all. However, the idea that the conventional patterns of behavior in one's own culture are uniquely human, superior, or more "civilized" than those of other peoples is not especially European. Indeed, it is probably universal. Moreover, in complex societies, there are conventional patterns of behavior associated with elite groups that are thought to reflect social superiority.

While I accept that Erlitou may be considered a state, in this paper, I have proposed a paradigm of cultural hegemony to explain the significance of Erlitou beyond its immediate borders and its role in the formation of Chinese civilization. Thus, I have argued that an elite culture crystallized at Erlitou in the first half of the second millennium and came to dominate the Chinese continental region by the end of the Shang dynasty. This culture grew up in association with a particular set of religious practices centered around ancestral offerings. Key to its formation was the association of bronze with ritual practice. Archaeologically, its primary markers in the Shang dynasty are bronze vessels and ceremonial weapons with a common set of motifs and ritual forms.

The ritual practices associated with bronze at Erlitou had earlier histories in regional Neolithic cultures, but Erlitou is significantly different from the cultures of the late Neolithic period because those cultures were limited in their

geographic range and competed with one another for regional status and influence. In the Erlitou period, regional cultural diversity and local political authority remained, but the ritual practices of the elite at Erlitou were emulated far beyond any possible political boundaries and no other contemporaneous culture had a similar range of influence. Moreover, the particular form of these elite practices set a trajectory for the shared, common culture that was described by Confucius in terms of shared rites. Regional customs, including different languages, were maintained throughout later history, but the idea of an elite culture—superior patterns of behavior—that transcended regional cultures was formed early on. This study has been limited to a very early period, but my hypothesis is that the acceptance of this elite culture as a shared social and political ideal is the key to understanding the relative coherence of China in later periods, in spite of regional diversity and frequent political division. If my argument is correct, this process began with Erlitou. Thus, Erlitou culture was not only an ancient civilization in China, it was an early form of "Chinese civilization."

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