

Decoding the Crown: Forehead Ornamentation and the Symbolism of Power in Shang Dynasty Animal-face Patterns in China

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ABSTRACT

The forehead ornamentation at the centre of the animal-face patterns on Shang Dynasty bronze has no clear anatomical counterpart. Morphological analysis reveals two main types: square and double F-shapes, alongside recurring rhombic elements. The double-F category can be further subdivided into crown-type and through-type variants. These motifs derive from Neolithic feathered helmets and “jie (介)” character shaped headdresses; they constitute abstract symbols of power. In the typical “two beasts facing the centre” composition, the forehead ornamentation invariably serves as the focal point, whilst the animal forms on either side adopt submissive postures. From the perspective of archaeological semiotics and materialization of ideology, this decoration condenses religious and political power into a single visual expression. Like the artistic traditions of other early societies around the world, Shang Dynasty animal-face patterns employ the design principle of “axial concentration” to better express power.

Keywords: Animal-face Pattern; Forehead Ornamentation; Feathered Crown; Materialization of Ideology; Cross-cultural Comparison.

INTRODUCTION

The animal-face pattern is one of the most prominent decorative patterns on Shang Dynasty bronze ware. Shang Dynasty animal-face patterns are primarily composed of several elements, including the eyes, eyebrows, horns, mouth, forehead ornamentation, body, claws, and decorative attachments. Forehead ornamentation refers to the decorative elements located on the forehead or in the central and upper parts of the face, typically found between the eyes and between the horns. As the central motif of the animal-face pattern, and not corresponding to any known part of an animal's facial features, its symbolic significance is self-evident in terms of understanding the importance of the animal-face pattern.

There are countless interpretations of the forehead ornamentation. Some suggest it refers to a badge (Hayashi 2016, 9, 17, 19; Xin 2019); others to the heavenly pillar (Qian 1998; Jin 2001, 31, 122; Wang and Wang 1997, 250; Guo 2016, 112); and still others to a feathered cap (Li 1991; Childs-Johnson and Liu 2002; Xiao 2011, 390). These debates have been fruitful, yet they share two limitations. First, none has been tested against a full formal and diachronic corpus of forehead ornamentation. Second, they have remained largely isolated from anthropological work on visual communication and the materialization of power that might help explain why this particular motif mattered so much to Shang elites.

This article addresses these gaps through three interrelated objectives: (1) to establish a comprehensive formal typology of forehead ornamentation based on systematic examination of archaeological excavations and museum collections; (2) to trace the iconographic lineage of these motifs; and (3) to analyze how these visual

forms operated as power within Shang ritual contexts.

We begin by classifying the primary forms as square, double F-shaped, and the associated rhombic ornament, documenting their occurrence on bronzes, jades, bone, and pottery. Then we trace the formal lineage of these motifs back to prehistoric feathered headdresses, especially the “jie (介)” character shaped crowns and flat-topped headgear of the Liangzhu (良渚), Longshan (龙山), Lingjiatan (凌家滩), and Shijiahe (石家河) cultures. From this evidence we argue that the forehead ornamentation began as a stylized feathered crown. In the context of Shang ritual art, it operated as a condensed emblem that religious and political authority fused into a single graphic sign.

We then turn to the ornament’s compositional role inside the Shang design system. The “two beasts facing the centre” format is especial, the forehead ornamentation sits at the exact axis, and the surrounding animals appear to bow toward it. Finally, we place the Shang case within two overlapping theoretical frameworks which are materialization of ideology and agency of images, and add brief cross-cultural comparisons with Northwest Coast, Mesoamerican, and Scandinavian art. This design logic is by no means unique. Across the globe, the forehead ornamentation may well serve as the symbolic cornerstone of the entire animal-face pattern, as well as a significant manifestation of political and religious authority.

LITERATURE REVIEW

Shang Dynasty and Prehistory Culture Tradition

Shang Dynasty (c. 1600 BCE-1046 BCE) is the second dynasty in traditional Chinese historical records and the first to be verified through written records and archaeological evidence. Shang Dynasty lasted approximately 550 years, with a total of 31 kings. The heartland of Shang Dynasty was located in the middle and lower reaches of the Yellow River and its tributaries, with its final capital at Yinxu (殷墟), in present-day Anyang (安阳), Henan (河南) Province. Shang Dynasty is typically divided into two phases: the Early Shang (c. 1600 BCE-1300 BCE), associated with the Erligang (二里岗) culture and sites such as Zhengzhou Shang City (郑州商城) and Panlongcheng (盘龙城); the Late Shang (c. 1300 BCE-1046 BCE), centered on Yinxu, a period marked by the emergence of oracle bone inscriptions, exquisite bronze casting techniques, and large-scale royal tombs (see Figure 1 for the distribution of Shang Dynasty sites).

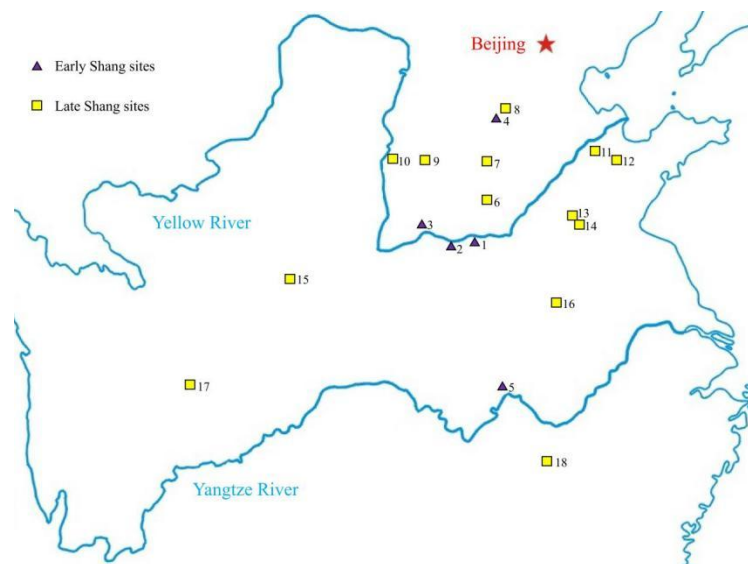


Figure 1. The Distribution of Shang Dynasty Sites. Early Shang: 1. Zhengzhou Shang City; 2. Yanshi Shang City; 3. Yuanqu Shang City; 4. Gaocheng Taixi site; 5. Panlongcheng. Late Shang: 6. Yinxu (including Fuhao tomb, Houjiazhuang Xibeigang, Xiaotun, Huangyuanzhuang East, Liujiashuang North); 7. Wu'an Zhaoyao site; 8. Dingzhou Beizhuangzi site; 9. Lingshi Jingjie site; 10. Shilou taohuazhuang site; 11. Huantai Shijia site; 12. Qingzhou Subutun site; 13. Zoucheng Nangan site; 14. Tengzhou Qianzhangda site; 15. Chenggu Baoshan site; 16. Fuyang Zhuzhai site; 17. Guanghan Sanxingdui site; 18. Xingan Dayangzhou site.

Shang Dynasty’s political system was based on theocratic rule, with the Shang king serving as the supreme political authority and simultaneously acting as an intermediary between the human and spiritual worlds. This

theocratic rule manifested in two aspects: bone divination and rites for ancestors. The king and his diviners communicated with ancestors' spirits and natural deities through a ritual by oracle bone. They would heat the shells of turtles or the shoulder blades of oxen to produce crack patterns that could be interpreted as divine responses; decisions ranging from military campaigns to the timing of agricultural planting were confirmed through this ritual. In another aspect, bronze ritual vessels were typically used in religious ceremonies. These ritual vessels were produced using mold casting techniques in specialized workshops, with the support of the royal family or the elite. Archaeological excavations have uncovered bronze artifacts exclusively in noble tombs. The quantity and quality of ritual vessels buried with the deceased reflected the deceased's social status. Take the tomb of Fuhao (妇好) as an example, the burial of this royal consort and military leader contained over 468 bronze ritual vessels and 755 jade objects (Institute of Archaeology, Chinese Academy of Social Sciences 1980, 15).

Shang Dynasty bronze vessels were typically adorned with intricate patterns, including animal-face patterns, cloud-and-thunder patterns, bird motifs, dragon motifs, and others. Among these, animal-face pattern is the primary decorative element on bronze vessels, appearing in prominent locations such as the body, neck, and top of the vessels. The animal-face pattern is a symmetrical pattern, with the central element being the forehead ornamentation—the very subject of this paper.

However, as a mature, structured pattern, Shang Dynasty animal-face pattern has origins that can be traced even further back. Therefore, this paper also examines relevant motifs from various pre-Shang cultures, primarily the Longshan Culture in the lower Yellow River region, the Shijiahe Culture in the middle Yangtze River region, the Hemudu (河姆渡) and Liangzhu Cultures in the lower Yangtze River region, and Erlitou (二里头) culture as Xia (夏) dynasty in the legends. The decorative motifs found on pottery and jade artifacts from these cultures provide crucial evidence for studying the evolution and formation of Shang Dynasty patterns (See Table 1 for the chronological sequence of these cultures).

Table 1. Cultures from Prehistory to Shang Dynasty

Culture	Chron	Region
Hemudu	c. 5000BCE-3300BCE	Zhejiang, the lower Yangtze River
Liangzhu	c. 3300BCE-2300BCE	Zhejiang, the lower Yangtze River
Lingjiatan	c. 3800BCE-3300BCE	Anhui, the middle Yangtze River
Shijiahe	c. 3000BCE-2000BCE	Hubei, the middle Yangtze River
Longshan (Shandong)	c. 2500BCE-2000BCE	Shandong, the lower Yellow River
Erlitou	c. 1850BCE-1520BCE	Henan, the middle Yellow River
Early Shang	c. 1600BCE-1300BCE	Henan, Shanxi, Hubei, etc.
Late Shang	c. 1300BCE-1046BCE	Henan, Shanxi, Shaanxi, Shandong, etc.

Previous Scholarship on Forehead Ornamentation

Scholars have extensively interpreted the forehead ornamentation on the animal-face pattern, with perspectives broadly falling into two categories: religious-theocratic and political-monarchical.

From a religious-theocratic perspective, Minao Hayashi (2016, 9, 17, 19) termed the forehead ornamentation “jue (蕚)”, as its shape resembles the oracle bone character for “she (舌) (tongue)”, and both characters share the same phonetic component. He explained that “jue (蕚)” was an ancient designation for the banner erected to mark the position of feudal lords from various states when paying homage to the Son of Heaven during the Spring and Autumn (770-476BCE) and Warring States (475-221BCE) periods. The ancestral spirits and the “jue (蕚)” on the animal-face communicated their spiritual energies through the tongue protruding from their mouths. In other writings, Hayashi (1990) also referred to the forehead ornamentation as a comb-shaped decoration, arguing that this comb-shaped ornament constitutes the core symbol of the animal-face pattern. It preserves the ancient traditions of Liangzhu culture, with animal-faces bearing the comb-shaped ornament representing the “Shangdi (上帝) (Supreme Deity)”, while those without signify “Xiadi (下帝) (Deities on earth)”. Xin Yu (2019) further contended that the “jue (蕚)” component was in fact an abstract representation of sun worship. However, these studies suffer from a serious methodological flaw: they use texts from the Spring and Autumn and Warring States periods—which date several hundred years later—to explain iconographic issues from the Shang Dynasty. Without evidence of diachronic change and intermediate stages, this line of reasoning is flawed.

Qian (1998) once called the forehead ornamentation a “barcode” sitting at the bridge of the nose, linking it to the old idea of a “pillar reaching heaven”. Jin (2001, 31, 122), however, termed it the “nasal interstice motif”, suggesting that this “nasal interstice motif” signified the “heavenly pillar”, akin to the “Jianmu (建木) (heavenly pillar tree)”. He cited evidence from Sumerian culture where the nose also represented the heavenly pillar. Wang

Dayou argued that the forehead ornamentation derived from the shape of the gui (圭), originating from the gaomu (杲木) gnomon—a celestial measuring rod—representing continuity with ancient culture (Wang and Wang 1997, 250). Guo Jingyun (2016, 112) linked the forehead ornamentation to the characters “bi (鼻) (nose)” and “zi (自) (self)” in bronze inscriptions, suggesting it related to the source of the Heavenly Sovereign. The animal-face pattern with a nasal form emphasized the connection between the taotie (饕餮) deity and the Heavenly Sovereign.

Zhang Yuanshan (2019) termed the forehead ornamentation the “ancestral pattern”, categorizing it into two types: Type A featuring a single curved line on each side, and Type B with two curved lines on each side. He suggested that Type A of the ancestral pattern depicted the Heavenly Emperor’s head above, his hands in the middle, and his feet below, representing a personified image of the deity. The Type B pattern is interpreted as adding the shoulders of the Heavenly Emperor above his hands. Regarding patterns separated by two F-shaped motifs, Zhang (2020) argued they depicted the primary form of the dragon body representing “the Heavenly Emperor riding two dragons.”

From a political-monarchical perspective, Li Xueqin (1991) argued that the prototypical animal-face pattern originates from the divine human-animal face patterns of Liangzhu culture. If the elements of the animal-face pattern are interpreted in direct correspondence, then the forehead ornamentation should correspond to the feathered crown of divine figures in Liangzhu culture. Elizabeth Childs-Johnson contended that the feathers adorning the animal-face pattern’s head resemble headdresses worn by figures of authority, with the feather ornamentation tracing its origins to headdresses bearing the characteristic jade ornamentation typical of the Neolithic period (Childs-Johnson and Liu 2002). Xiao Bing (2011, 390) also espoused the feathered crown theory, suggesting that such “feathered crowns” were likely exaggerated representations of long hair. Prehistoric “jie” character shaped headdresses may have gradually “abbreviated” into taotie forehead ornaments, morphing into the “Ganhou (干侯) motif” or “comb-shaped pattern” to become distinctive identifying symbols. Wei Xiaoming (2007, 17, 19) similarly contended that the jade crown of Liangzhu culture persisted between the horns of the animal-face pattern, arguing this crown as a solar symbol.

Despite such a wealth of interpretive approaches, several gaps remain to be filled. First, no previous study has conducted a comprehensive classification of the various forehead ornamentations found on Shang Dynasty artifacts. Second, the relationship between these decorative motifs and the Shang Dynasty’s ritual system has not yet been systematically explored. Third, the theoretical significance of these motifs as active factors in the construction of authority has not yet been fully examined. The following sections will address these gaps.

METHODOLOGY

This study adopts a comprehensive approach that combines stylistic analysis, image comparison, and a semiotic analysis of material culture to examine forehead ornamentation as a system with structured visual meaning. Stylistic analysis—that is, traditional archaeological typological classification—identifies different forms of forehead ornamentations and helps us understand their diverse expressions within the same chronological framework. To trace the prehistoric origins of forehead ornamentation, it is also necessary to conduct cross-media and cross-temporal image comparisons in an attempt to elucidate their prototypes.

The central question is how to discuss the significance and function of forehead ornamentation in Shang Dynasty society. As a form of material culture created by humans, the significance and function of forehead ornamentation were naturally influenced by multidimensional factors such as politics, economics, and religion during the Shang Dynasty. However, we must also recognize that there is a two-way interaction between humans and the material culture they create; material culture is not merely a passive product of human evolution, but rather a key medium that actively participates in the construction, maintenance, and expansion of social networks (Coward and Gamble 2008). Furthermore, as the central motif of Shang Dynasty animal-face patterns, the forehead ornamentation should not be viewed as a mere decorative element, but rather as a symbol capable of actively expressing and conveying meaning. Archaeological semiotics provides a reliable theoretical framework for studying this case. Drawing on Peirce’s theory of semiotics, archaeological semiotics focuses not on language but on the process of meaning-making. Peirce’s perspective aligns with the concept of “affordances,” as his theory is grounded in the principles of “pragmatic, action-centered, material approach to meaning” (Knappett 2005, 87-88). For example, Peirce’s tripartite classification of signs—distinguishing between icon, index, and symbol—is highly useful for understanding how cultural meaning is conveyed through material forms (Preucel 2006, 3-4). In the case of Shang Dynasty motifs, visual similarity, relative position, and artificial conventions can all serve as means of expressing meaning. Therefore, this forehead ornamentation is not an abstract linguistic symbol, but rather a tangible design element: its shape, position, and internal structure all provide clues to people’s cultural perceptions and behaviors, enabling this animal-face pattern to function as a concrete visual representation that

embodies the combination of political and religious authority symbolized by the ornament.

RESULTS

Classification and Formal Grammar of Forehead Ornamentations

The majority of animal-face patterns feature a distinctly prominent forehead ornamentation. While examples without such an ornamentation do exist, such as the 𠂔 Fuyi you (𠂔 父乙卣) (Figure 2) housed in The Palace Museum, though these are exceedingly rare.

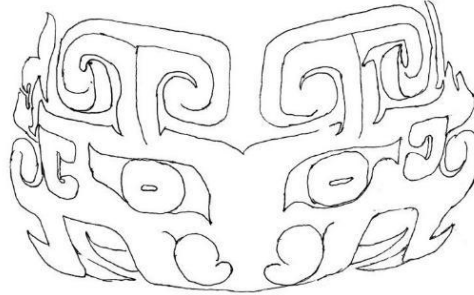


Figure 2. 𠂔 Fuyi You, The Palace Museum Collection (Drawn by the author, more details see The Palace Museum 1999, 84)

The forms of the forehead ornamentations are diverse, with two types predominating in animal-face patterns: the square forehead ornamentation and the double F-shaped forehead ornamentation.¹ The double-F category can be further subdivided into crown-type and through-type variants. Additionally, there are also deformed variants and special rhombic forehead ornaments (standard form see Table 2).

Table 2. Standard Forms of Forehead Ornamentation Variants

Category		Standard form
Square forehead ornamentation		
Double F-shaped forehead ornamentation	Crown-type	
	Through-type	
Deformed forehead ornamentation		
Rhombic forehead ornament		

Square Forehead Ornamentations

The square forehead ornamentation refers to its overall shape resembling a regular geometric square, though it does not imply that such forehead ornamentations are strictly geometric squares. In the early Shang period, the forehead ornamentation of the animal-face pattern was a flat elongated rounded-cornered square, tapering at the base to connect with the animal-face (Figure 3a). Between the animal-face's eyes, two F-shaped motifs facing each other on the reverse were also visible (Figure 3b), coexisting with the square forehead ornamentation. Slightly later, the forehead ornamentation featured additional decoration on or around its surface. For instance, the square forehead ornamentation was adorned with short lines internally, their bases embellished with inward-curling motifs (Figure 3d). A pair of opposing F-shaped motifs can be seen on either side of the square forehead ornamentation, with the bases of these F-shapes also featuring inward-curling motifs (Figure 3c). This F-shaped motif could be further simplified, with only interlaced lines forming the decoration on either side of the square forehead ornamentation (Figure 3e).

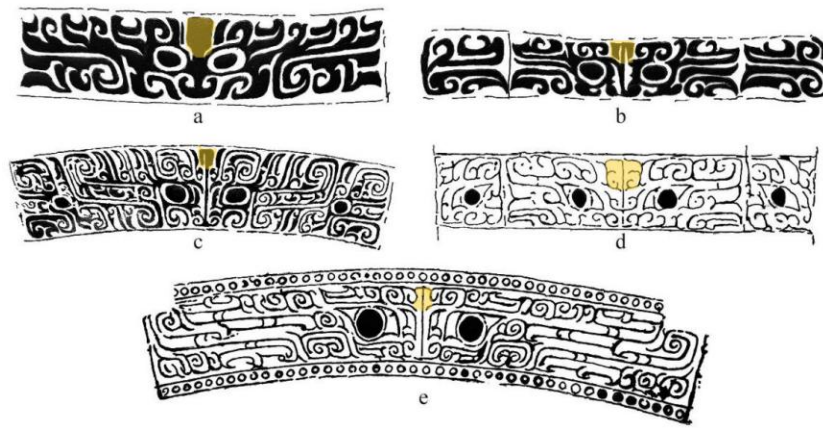


Figure 3. Square Forehead Ornamentations in the Early Shang Period. (a) Excavated Lijiazui (李家嘴) Panlongcheng Phase V conical-footed ding (鼎) PLZM1:2, motif height 4.3cm; (b) Excavated Lijiazui Panlongcheng Phase V folded-rim jue (爵) PLZM1:17, motif height 2.5cm; (c) Excavated Yangjiawan (杨家湾) Panlongcheng Phase VII bronze zun (尊) PYWH6:21, motif height 5cm; (d) Excavated Erligang Upper-layer Phase I Duling Zhangzhai (杜岭张寨) South Street square ding DLH1:1 side view, motif height 12cm; (e) Excavated Erligang Upper-layer Phase I Xiangyang Hui ethnic group Food Factory (向阳回族食品厂) bronze zun XSH1:3, motif height 5cm (Drawn by the author, more details see Hubei Provincial Institute of Cultural Relics and Archaeology 2001, 192, 201, 285; Henan Provincial Institute of Cultural Relics and Archaeology 2001, 795, 816)

By the late Shang period, we still observe undecorated square forehead ornamentations (Figure 4a), and alongside square forehead ornamentations featuring simplified F-shaped motifs on both sides (Figure 4b). This simplified form also appears where the F-shaped motifs on either side merge with the square forehead ornamentation to form a unified whole (Figure 4f). Additionally, a small number of square forehead ornamentations on animal-face patterns lack F-shaped motifs on the sides, instead featuring symmetrical T-shaped motifs at the base (Figure 4c). The main body of the square forehead ornamentation may also vary, such as adopting an inverted trapezoidal shape in response to stylistic changes in the animal-face patterns (Figure 4g).

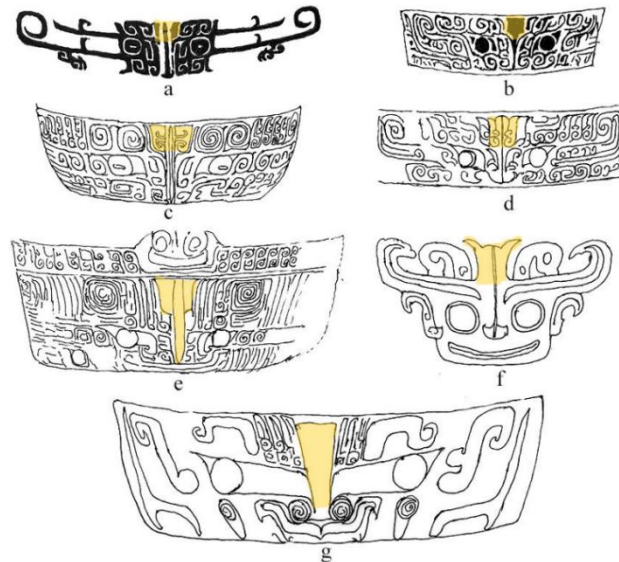


Figure 4. Square forehead ornamentations from the late Shang period. (a) Excavated Qingzhou (青州) Subutun (苏埠屯) Rong gui (融簋), M8:12, vessel height 18 cm; (b) Excavated Gaocheng Taixi (藁城台西) bronze jia (斚), vessel height 25.8 cm; (c) Lei gui (来簋), collection of Asia Civilizations Museum, Singapore, vessel height 14.8 cm; (d) Bronze you, excavated from Longtoucun (龙头村), Chenggu (城固), Hanzhong (汉中), vessel height 33.4 cm; (e) Bronze zun, excavated form Zhaoyao (赵窑), Wu'an (武安), vessel height 21 cm; (f) Excavated Sanxingdui (三星堆) beast mask, K2③:228, vessel height 21.6 cm; (g) Excavated Gaocheng Taixi bronze bu (甗), vessel height 26.3 cm (Drawn by the author, more details see Li 2018c, 39; Li 2018a, 5, 29, 36; Li 2018f, 28; Li 2000, 57; Li 2018e, 25)

Further variations lie in the number of F-shaped motifs flanking the square forehead ornamentation. Some feature two or three pairs of F-shaped motifs (Figure 4d), while others display rows of F-shaped motifs alongside the forehead ornamentation, supplemented by vertically arranged F-shaped designs (Figure 4e). This demonstrates that the forehead ornamentation of the animal-face pattern is intrinsically linked to the surrounding F-shaped motifs.

The interior of square forehead ornamentations could be decorated with motifs, typically composed of curved and interlaced lines resembling symmetrical “又” characters. In Shang Dynasty script, “又 (you)”² was depicted as “𠂇”, resembling human hands supporting or grasping an object (Figure 5f). Yuan Dexing (1974) suggested that the ornamentation on the forehead ornamentation should be interpreted as the character “卯 (mao)”. He based this on the common oracle bone inscriptions “𠂇 牛 (sacrificial ox)” and “𠂇 羊 (sacrificial sheep)”, interpreting their meaning as “presenting” and “sharing”. He argued that all characters derived from “𠂇” denoted the act of presenting with both hands, conveying reverence, indicating a significant connection to ritual activities. Wang Lei (2007) likewise contended that the motifs on square lintel decorations related to ritual, embodying reverence and rectitude. *Shuowen Jiezi* (说文解字) states: “𠂇, meaning to raise one’s hands (𠂇, 竦手也)” signifies respectful service (Xu 1963, 59).

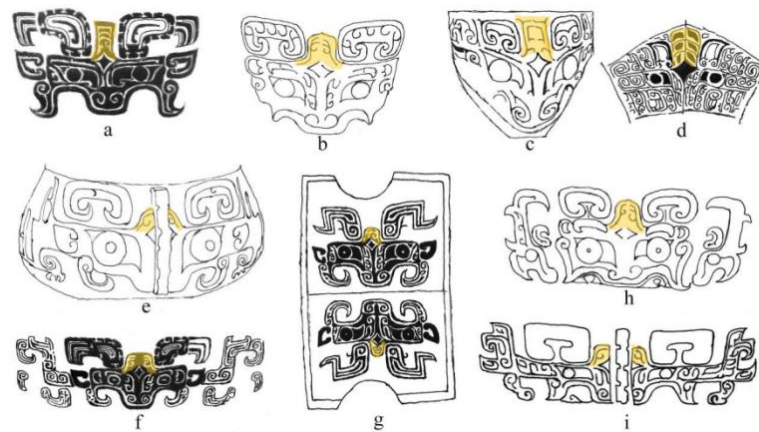


Figure 5. Ornamentation on the Square Forehead Ornamentations. (a) Square yi (彝) M5:791 excavated from Fuhao tomb, Yinxu, motif height 12.5 cm; (b) Round ding excavated from Beizhuangzi (北庄子), Dingzhou (定州), vessel height 21 cm; (c) Bronze li (鬲) excavated from Longtou Village, Chenggu, Hanzhong, vessel height 23.2 cm; (d) Bronze round ding excavated from Dayangzhou (大洋洲), Xinggan (新干) XDM:3, vessel height 44.9 cm; (e) Bing you (丙卣) excavated from Tomb M1, Hejiacun (何家村), Qishan (岐山), Baoji (宝鸡), vessel height 21.6 cm; (f) Bronze round ding M5:804 excavated from Fuhao tomb, Yinxu, motif height 7 cm; (g) Animal-face patterned tube-wrapped yin ornament R015263 excavated from chariot pits 1136 and 1137, Xibeigang (西北岗), Yinxu, vessel height 9.6 cm; (h) Divided-leg bronze ding 04ASM303:82 excavated from Dasikong (大司空), Anyang; (i) Round bronze ding excavated from East Huayuanzhuang (花园庄), Yinxu M54:240, vessel height 48.6 cm (Drawn by the author, more details see Institute of Archaeology, Chinese Academy of Social Sciences 1980, 23, 25; Li 2018a, 7; Li 2009, 116; Li 2018e, 17, 82; Institute of Archaeology, Chinese Academy of Social Sciences and Anyang Institute of Cultural Relics and Archaeology 2008, 133, 317; Li 2018g, 4)

Evidently, the above interpretations are based solely on observing one form of decoration within the square forehead ornamentation. The first problem is this. The so-called “卯(mao)” character do show bilateral symmetry, and there is a clear gap down the middle. Yet the gap may not belong to the decoration itself; it looks more like an artifact of the manufacturing process. The block mould casting technique employed for bronze vessels commonly divides the mould along the central axis of the animal-face pattern, where a raised ridge often disrupts the original decoration along this axis. Examination of certain bronze vessels reveals that the animal-face pattern can become asymmetrical due to casting constraints (Figure 5b). Observing animal-face patterns unaffected by casting techniques reveals that the central section of the square forehead ornamentation actually lacks a gap. The upper and middle lines of the so-called “卯(mao)” character form are joined, while the lower line curves inward and upward (Figure 5g).

Secondly, the “卯 (mao)” character-shaped motif is not invariably fixed. Some square forehead ornamentations feature asymmetrical patterns—either lacking a segment of line (Figures 5e, 5i) or incorporating an additional segment (Figure 5a). Others exhibit asymmetry, with one side displaying the “又” pattern while the

opposite side lacks a segment, resulting in mismatched designs (Figure 5h).

Thus, the decoration on the square forehead ornamentation is neither the character “又” nor “卯”, but rather a motif capable of adapting to variations in the size and form of the forehead ornamentation. Minao Hayashi (2016, 35) also noted this phenomenon, concluding that interpreting the ornamentation as the character “升” was untenable. He proposed that the “升” character-shaped motif represented an abbreviated or corrupted form of fish-scale motifs, suggesting the ornamentation symbolized a sun pillar adorned with scales. Certain square forehead ornamentations on animal-face patterns do indeed exhibit layered patterns (Figure 5d). However, others feature non-layered designs, such as small rounded squares within the ornamentation (Figure 5c), which cannot be interpreted as scales. The motifs on square forehead ornamentations are highly variable and their precise meaning remains uncertain. What is certain, however, is that these patterns constitute an integral part of the ornament’s symbolic function, rather than deliberately added characters bearing specific meaning.

Double F-shaped Forehead Ornamentations

The so-called double F-shaped forehead ornamentation refers to a forehead decoration appearing to be formed by two opposing F-shaped motifs. The double F-shaped forehead ornamentation resembles a jade zhang (璋) overall, with a forked top; some feature a flat top, while the middle section has a small downward hook on each side (Figure 6b). Given that a pair of opposing F-shaped motifs frequently adorned the space between the eyes on animal-face patterns—a feature present since the early Shang period—it is reasonable to hypothesize that the double F-shaped forehead ornamentation evolved from such paired F-shaped motifs. However, the F-shaped motifs between the eyes on animal-face patterns coexisted with both square and double F-shaped forehead ornamentations, suggesting a morphological connection but not identity.

The double F-shaped forehead ornamentation primarily appears in the late Shang period, manifesting in two forms: the crown-type and the through-type. The crown-type is positioned atop the animal-face pattern’s head, aligned horizontally with its horns. The double F-shaped motif is typically divisible into upper and lower sections. The lower part forms a bifurcated shape, while the upper section may either curve inward at the fork (Figure 6f) or feature a flat top (Figure 6a). The upper section of the double F-shaped forehead ornamentation may be inverted trapezoidal or of comparable width to the lower section (Figure 6c). However, most ornamentations feature a wider top and base with a narrower waist (Figure 6h). A minority exhibit a widened ridge at the top, internally decorated with short parallel lines (Figure 6g).

The interior of double F-shaped forehead ornamentations is typically decorated with patterns, with plain examples being rare. The interior decoration can be further divided into upper and lower sections. The lower section, connected to the upward-curving sides, is primarily adorned with F-shaped motifs (Figure 6d). The upper section’s decoration more closely resembles that of square forehead ornamentations, featuring T-shaped motifs, inward-curling designs, and symmetrical “又” character-shaped motifs (Figure 6e).

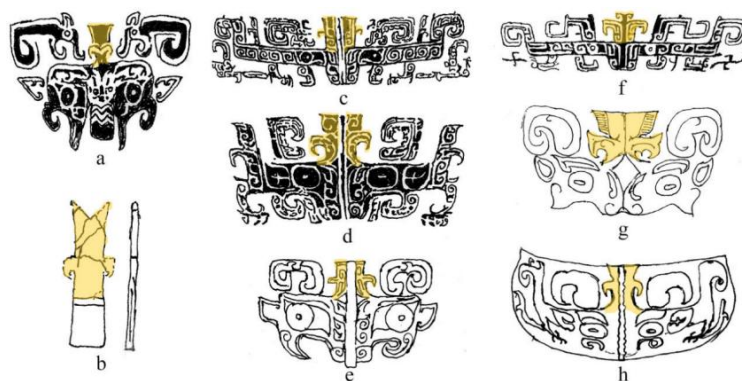


Figure 6. Double F-shaped Forehead Ornamentations. (a) Bronze you excavated from Dasikong, Anyang; (b) Bone inlay fragment R5022 from the Centre of animal-face ornament, excavated from Houjiazhuang M1001; (c) Animal-face hu (壺), collection of Taipei Palace Museum, vessel height 39.5 cm; (d) Animal-face yu (盂), collection of Taipei Palace Museum, vessel height 33.5 cm; (e) Bronze you from private collection, vessel height 29.5cm; (f) Animal-face bu, collection of Taipei Palace Museum, vessel height 26.2 cm; (g) Bronze zun excavated from Qianzhangda (前掌大), Tengzhou (滕州), vessel height 26 cm; (h) Zigeng gui (子庚簋), collection of Xinxiang Museum, vessel height 15.2 cm (Drawn by the author, more details see The Palace Museum 1999, 56; Deydier 2016, 91; Liang and Gao 1962, plate 188; Chen 1998, 371, 392, 473; Chen 2001, 20; Editorial Committee of Complete Collection of Chinese Bronzes 1997b, 95; Li 2018c, 77; Institute of Archaeology, Chinese Academy of Sciences 1962, 272)

The through-type double F-shaped forehead ornamentation constitutes the central axis traversing the entire animal-face pattern, a form emerging within the segmented animal-face patterns. The overall shape of this through-type design differs not from the crown-type variant, featuring short, hook-like projections on either side of the centre (Figure 7e), curving downward. The junction between upper and lower sections exhibits distinct narrowing. Most tops are flat, though forked variants also occur (Figure 7d). However, their bases extend independently, projecting laterally with occasional slight inward curling, likely connecting to the animal-face pattern's nose (Figure 7f).

The decoration of through-type shares no distinction with the crown-type's, with the unadorned variety being more prevalent (Figure 7c). Among ornamented through-type ornamentations, the lower section is frequently decorated with F-shaped motifs; if the upper section is bifurcated, it may also bear F-shaped ornamentation. The upper section may further feature T-shaped motifs (Figure 7a), or dense parallel arrangements of short horizontal lines, occasionally adorned with flanges on the outer edges (Figure 7b).



Figure 7. Through-type double F-shaped Forehead Ornamentation. (a) Animal-face split-leg ding, collection of Singapore Asian Civilizations Museum, vessel height 20.2 cm; (b) Bronze gui M1:35 excavated from Lingshi Jingjie (灵石旌介), vessel height 18.1 cm; (c) Bronze jue (爵) excavated from Shijia (史家) site, Huantai (桓台), Zibo (淄博), vessel height 18cm; (d) Bronze gu excavated from Nanguan (南关) site, Zoucheng (邹城), vessel height 27.2cm; (e) Bronze jue (爵) 04ASM303:90 excavated from Dasikong, Anyang, vessel height 20.4 cm; (f) Gu-shaped zun 99ALNM1046:7 excavated from Liujiashuang (刘家庄) north, Anyang, vessel height 25.5 cm (Drawn by the author, more details see Institute of Archaeology, Chinese Academy of Social Sciences and Anyang Institute of Cultural Relics and Archaeology 2008, 329, 403; Li 2018c, 45, 61; Li 2000, 45; Li 2018b, 36)

The lower section of the through-type ornament features F-shaped motifs, while the upper section resembles a square forehead ornamentation. This combination bears a striking resemblance to the early animal-face patterns, where a square forehead ornamentation was paired with F-shaped motifs positioned between the eyes. The placement of the F-shaped motifs on the through-type ornamentation also aligns precisely between the eyes of the animal-face design. It is therefore reasonable to hypothesize that the double F-shaped forehead ornamentation may have evolved from the combination of a square forehead ornamentation and the F-shaped motif positioned symmetrically on either side of the facial centre within the animal-face pattern. However, I am unable to say whether the segmented animal-face designs appeared first or whether the crown-type forehead ornamentation did. Without firmer chronological evidence, any earlier guess remains just that guess.

Other Forms of Forehead Ornamentations

Bronze was never the only medium. Animal-face patterns also turn up on Shang artefacts made from bone, jade, ivory, and pottery. These materials deserve equal attention. While sharing many elements with bronze ritual vessels, these patterns exhibit slight variations in the forehead ornamentation. For instance, a bone gu (觚) excavated from Houjiashuang M1001 displays an animal-face pattern at its apex, with F-shaped motifs visible on either side of the head. These two F-shaped motifs are connected by an upward-curving zigzag line, forming a simple forehead ornamentation (Figure 8a). A bronze tongue-shaped ornament from Gaocheng Taixi site also displays a similar forehead ornamentation, featuring curved lines flanking a central horizontal line with a subtly pointed protrusion at its midpoint (Figure 8c). The animal-face on the ivory cup with a kui (夔)-shaped handle

from Fuhao tomb features opposing, stylized F-shaped motifs atop the head. These F-shaped motifs incorporate interlaced patterns, with additional adornments alongside. Near the forehead, a downward-pointing arrow-like motif is positioned centrally (Figure 8b). A similar forehead ornamentation appears on the animal-face of a white pottery xun (埴) from Xiaotun (小屯) M333, though the central base is connected by a zigzag line (Figure 8e).

Animal-face patterns on jade artefacts also exhibit varied forehead ornamentations. For instance, the jade end ornament excavated from Sanguancun (三官村), Anji (安吉), Zhejiang (浙江), features an animal-face design where the double F-shaped forehead ornamentation has had its downward-curving sides removed, accentuating the upper bifurcation (Figure 8f). Similarly, the animal-face jade ornament excavated from Qianzhangda, Tengzhou, Shandong (山东), features a forehead ornament or headdress resembling a trident atop the head (Figure 8d).



Figure 8. Other Forms of Forehead Ornamentations. (a) Bone gu R4137, excavated from Houjiazhuang M1001; (b) Ivory cup with Kui-shaped handle M5:101, excavated from Fuhao Tomb, Yinxu, vessel height 30.5 cm; (c) Bronze tongue-shaped ornament M113:14, excavated from Gaocheng Taixi, vessel height 13.7 cm; (d) Animal-face jade ornament, excavated from Qianzhangda, Tengzhou, vessel height 3.5 cm; (e) White clay animal-face patterned xun R000490 excavated from Xiaotun M333, vessel height 6.6 cm; (f) Jade end ornament excavated from Sanguancun, Anji, vessel height 7.8 cm (Drawn by the author, more details see Liang and Gao 1962, plate 206; Hebei Provincial Institute of Cultural Relics 1985, 136; Institute of Archaeology, Chinese Academy of Social Sciences 1980, 216; Li 2009, 277; Gu 2005b, 149; Gu 2005a, 153)

Moreover, the forehead ornamentation of animal-face pattern can undergo transformation, though unlike the horns which morph into dragon or fish forms, it takes the shape of a cicada. On the lid of a bronze gong (觥) from the Huayuanzhuang East, Yinxu, the animal-face pattern features an upward-pointing trident-shaped forehead ornamentation, with its base curling inward on both sides, forming a triangular outline. Below this are a pair of circular eyes, possibly derived from the nose of the animal-face pattern, with a pointed snout beneath the eyes. The upper and lower sections of decoration combine to form a cicada motif occupying the centre of this animal-face (Figure 9c). On an animal-face patterned ge (戈) in the collection of the Palace Museum, the top of the animal-face head features a three-dimensional, protruding image of an upward-facing cicada (Figure 9b). On a bronze you vessel excavated from Taohuazhuang (桃花庄), Luocunzhen (罗村镇), Shilou (石楼), Shanxi (山西), the animal-face decoration lacks the forehead ornamentation, replaced instead by a cicada figure. Here, the cicada is depicted with not only a body and head, but also slender legs and wings (Figure 9a).

Among the diverse artistic traditions of the Shang Dynasty, cicada imagery is generally interpreted as symbolizing the deceased's resurrection and ascension. Whether this symbolic association relates to the nature of the forehead ornamentation remains inconclusive. This is because the transformation of the forehead ornamentation into cicada motifs follows the same principle as the metamorphosis of animal-face pattern's horn into dragon motifs—both involve stylistic adaptation through shape similarity rather than semantic connection.

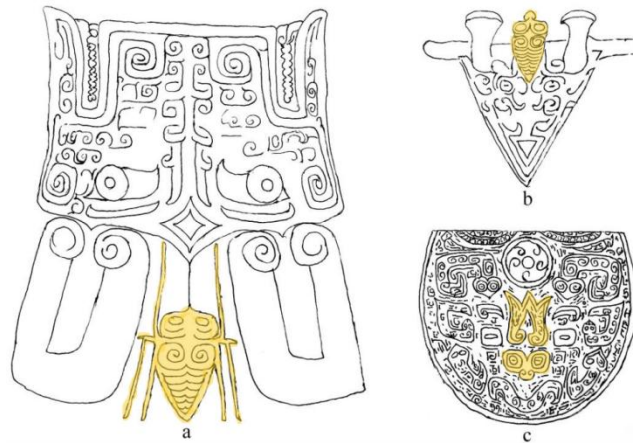


Figure 9. Deformed Forehead Ornamentations. (a) Bronze you excavated from Taohuazhuang, Luocunzhen, Shilou, Shanxi, vessel height 34.8 cm; (b) Animal-face patterned ge, collection of the Palace Museum, vessel height 24 cm; (c) Lid of bronze gong M54:195 excavated from the East Huayuanzhuang, Yinxu, vessel height 18.7 cm (Drawn by the author, more details see Institute of Archaeology, Chinese Academy of Social Sciences 2007, 123; The Palace Museum 1999, 119; Li 2018b, 80)

Rhombic Forehead Ornament

Another noteworthy element within the forehead ornamentation of animal-face pattern is the rhombic ornament. This refers to a diamond-shaped decoration commonly found at the exact centre of the animal-face's forehead, typically featuring four angles of equal measure. The lines forming the rhombic ornament may exhibit slight curvature, creating a four-pointed star shape (Figure 10b), or appear in three-dimensional form as a protruding cross motif (Figure 10d). The rhombic ornament frequently coexists with the central forehead ornamentation, occupying its centre and seamlessly integrating with the decorative lines of the latter (Figure 10c). The rhombic forehead ornament also appears independently on animal-face patterns lacking a forehead ornamentation, positioned at the centre of the forehead between the eyebrows (Figure 10a). However, its location is not fixed; it may depart from the frontal decoration's domain, such as being placed above it (Figure 10f). In numerous other animal motifs, the rhombic forehead ornament is not placed on the animal's forehead (Figure 10e).

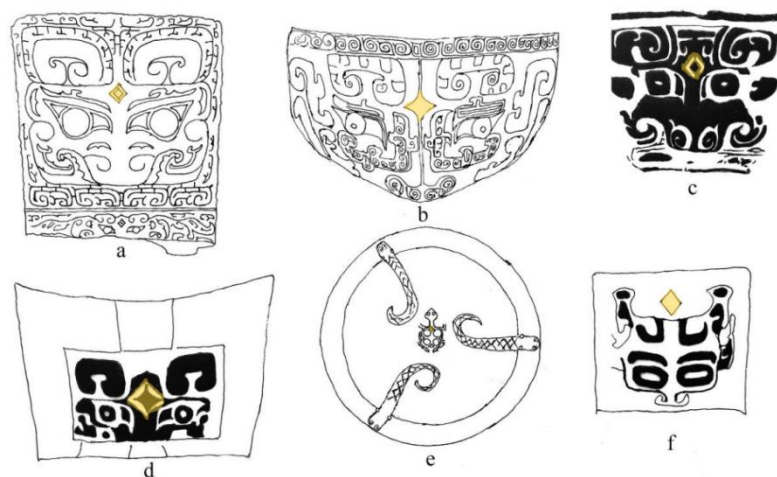


Figure 10. Rhombic Forehead Ornaments on Animal-face Patterns. (a) Stone tiger-face architectural ornament excavated from Houjiazhuang M1001; (b) Liding (鬲鼎) excavated from Xibeigang Tomb 2020, Yinxu, vessel height 20 cm; (c) Square ding M8:13 excavated from Qingzhou Subutun, vessel height 21.5 cm; (d) Bronze nao (饒) M8:26 excavated from Qingzhou Subutun, vessel height 18.2 cm; (e) Turtle-fish patterned pan (盤), collection of the Palace Museum, vessel height 19.1 cm; (f) Bronze ge excavated from Hourenjiagoucun (后任家沟村), Yulin (榆林), vessel height 27 cm (Drawn by the author, more details see Li 2009, 7; Li 2018c, 33, 98; Liang and Gao 1962, plate 85; Li 2018e, 115; Du 2007, 203)

Scholars offered differing interpretations of the rhombic ornament's significance. You Rende (2001, 108) argued that rhombic motifs symbolized the taotie pattern, asserting that only taotie figures adorned with rhombuses qualify as such. Jin Zhilin (2001, 182) contended the rhombus represented the source of life, linking it to fertility. Zhang Chi (1997) noticed that rhombic perforations in Liangzhu "dragon-headed" motifs appear mainly on women's ornaments like huang (璜) pendants and circular plaques, so he drew a connection to femininity. Qian Zhiqiang (1998) took a different tack, pointing to the oracle-bone character for "粟 (millet)" and suggesting the rhombus might allude to grain, or perhaps to the four cardinal directions. Wang Lei (2007) believed that the rhombus, like the forehead ornamentation, symbolized integrity. Han Ding (2018) believed that the diamond shape of the rhombus symbolizes the connection between heaven and earth, serving as a symbol of the link between the earthly realm and the divine. Wang Renxiang (2021) likewise viewed the rhombic forehead ornament as a fixed divine emblem for prehistoric animal spirits and human deities.

In our view, among the aforementioned theories, the divine symbolism proposed by Han and Wang appears most plausible. As a motif frequently appearing alongside the forehead ornamentation on animal-face patterns, the rhombic forehead ornament may be intrinsically linked to the nature of either the animal-face pattern or the forehead ornamentation. It is highly probable that the rhombic forehead ornament similarly serves to enhance the divine aura of the animal-face pattern, possessing certain religious connotations.

The Prototype and Meaning of the Forehead Ornamentation

Reflection on Theories about the Meaning of the Forehead Ornamentation

In our view, among the aforementioned theories, the "heaven-reaching theory" and "feathered crown theory" hold considerable merit, suggesting the forehead ornamentation may have held significance in both religious and political contexts.

However, before elaborating, two interpretations must be dismissed. Firstly, some scholars have observed that certain dragon motifs feature protruding tongues forming a double F-shape as the forehead ornamentation (Figure 11). This phenomenon can be explained by the principles of stylization. As one possible prototype for the dragon was the serpent, whose tongue is forked, the dragon's tongue was similarly depicted as bifurcated. In Shang Dynasty art, such similarities could be stylized. Thus, the serpent within the dragon's mouth evolved into a similar element within the animal-face pattern: the double F-shaped forehead ornamentation. The theory that the double F-shape represents a dragon's tongue, while visually plausible in some late motifs, confuses a stylistic adaptation for an origin. The forked tongue of a serpentine dragon was likely incorporated into the established formal language of the forehead ornamentation, not its source.



Figure 11. Double F-shaped Tongue on the Footrim of the Tri-goat Zun with Animal-face Decoration, collection of Kunstmuseum Stuttgart, Germany, vessel height 23.5 cm (Drawn by the author, more details see Li and Allan 1995, 89)

Secondly, concerning the pair of F-shaped motifs positioned between the eyes on animal-face patterns. Previous scholars have devoted limited attention to this feature. Sang Yongfu (1987) argued that the elements flanking the nasal bridge represent nasal ridges. However, their F-shaped form frequently appears in animal-face patterns as a coherent combination with the forehead ornamentation and rhombic forehead ornament. The gap between the two F-shaped motifs is filled by a rhombic forehead ornament, immediately followed by the forehead ornamentation. However, the relationship between this motif and the forehead ornamentation may be tenuous, as it appeared alongside animal-face patterns as early as the Shang Dynasty's formative period. It is present in animal-face patterns featuring various forehead ornamentation forms, and even in those without any forehead ornamentation. Consequently, this pair of F-shaped motifs may relate to the animal's facial features themselves. Given their F-shape, they could represent an animal's fur. Beyond facial down, the most prominent animal facial hair is the beard. The pottery tiger excavated from Erligang, Zhengzhou, features a beard rendered with curved lines (Figure 12a). Conversely, the bronze tiger from Dayangzhou, Xinggan, employs a pair of F-shaped motifs as

its beard ([Figure 12b](#)), though these are positioned horizontally beneath the eyes. Dragon motifs similarly exhibit whisker characteristics, though the observed dragon whiskers also appear as horizontally placed F-shaped motifs flanking the mouth ([Figure 12c](#)). Clearly, this depiction differs from the vertically oriented F-shaped motifs between the eyes and cannot be interpreted as whiskers. While the nature of this motif remains unclear, it should be excluded from analyses of forehead ornamentation to prevent misinterpretation.

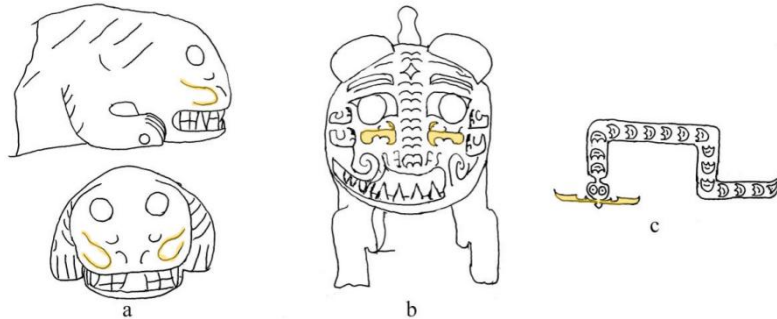


Figure 12. Beard Motifs on Animal Faces. (a) Excavated Zhengzhou Erligang pottery tiger H1:52; (b) Excavated Xingan Dayangzhou copper reclining tiger with bird and twin tails, vessel height 25.5 cm; (c) Motif on dragon-shaped gong excavated from Taohuazhuang, Shilou (Drawn by the author, more details see Henan Provincial Cultural Bureau Cultural Relics Work Team 1959, plate 20; National Museum of China and Jiangxi Provincial Department of Culture 2006, 245)

Feather Crown: From Prehistoric Headdresses to Shang Forehead Ornamentation

If these interpretations are insufficient, what then is the true prototype of the forehead ornamentation? A crucial clue lies in its frequent companion, the rhombic forehead ornament. This motif frequently appears alongside forehead ornaments on animal-face, positioned at or below the base of square forehead ornamentations or crown-type double F-shaped forehead ornamentations. In the case of through-type double F-shaped forehead ornamentations, the rhombic forehead ornament is often centred within the forehead ornamentation. The two ornaments are not inseparable; one often appears without the other. Yet whenever they do appear together, their patterns interlock so tightly that some deeper connection seems undeniable. The rhombic ornament is actually the elder of the two. Rhombic shapes turn up on animal motifs well back in prehistory. Take the Longshan jade falcon in the Tianjin Museum, the bird spreads its wings, and there on its abdomen sits a neat rhombus ([Figure 13b](#)). Shandong Longshan culture has produced many such birds. The Taipei Palace Museum owns a jade gui with a bird in almost exactly the same pose, wings and body rendered identically, but this time the abdomen carries a “jie” character crown-shaped ornament instead ([Figure 13a](#)). The crown curls inward on both sides and sends out extensions at its base. Two birds, identical in every other respect, yet carrying two different abdominal emblems. We would hesitate to call these interchangeable; the distinction was surely deliberate. Nevertheless, the rhombic motif and the “jie” character shaped crown ornament share commonalities in nature, meaning, or other aspects. Thus, in prehistoric times, rhombic motifs and “jie” character shaped crown ornaments were closely linked; during the Shang Dynasty, rhombic forehead ornaments and forehead ornamentations shared a tight connection, both constituting facial adornments. It is reasonable to hypothesize that the prehistoric “jie” character shaped crown and Shang Dynasty animal-face forehead ornamentations bear significant affinity. Regarding this point, Han Ding has already published scholarly work, arguing that the “jie” character shaped crown was a crucial symbolic identifier for deities in the late Neolithic period (Han and Cui 2024). The incorporation of animal-face patterns into prehistoric divine facial decorations led to elements of the “jie” character shaped crown being integrated into these animal-face patterns (Han 2022).

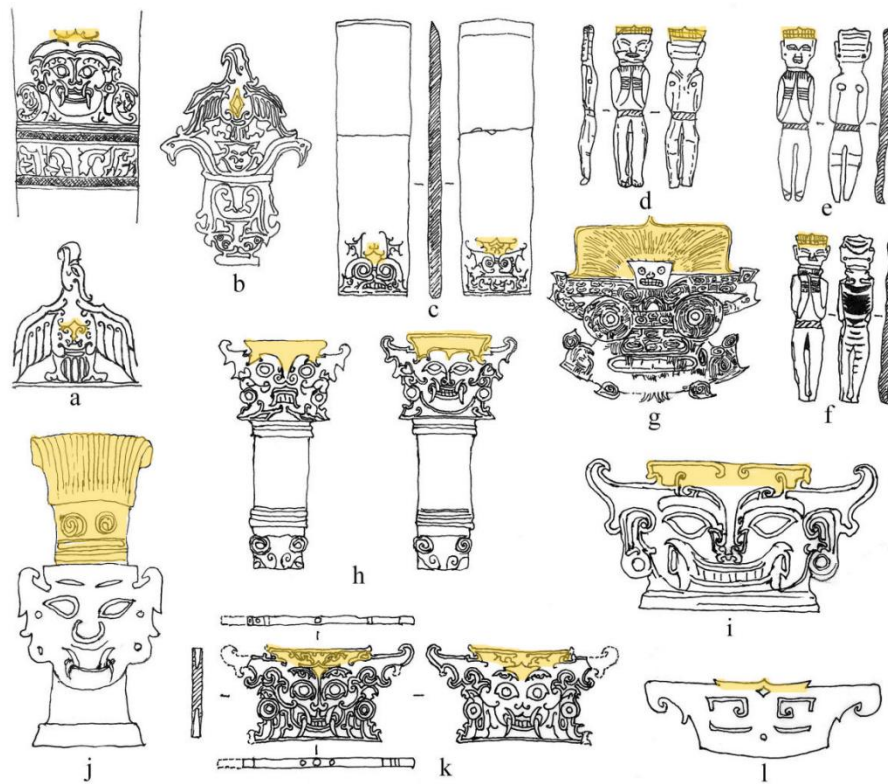


Figure 13. Prehistoric “jie” Character Shaped and Flat-topped Crown Ornaments. (a) Jade gui, collection of Taipei Palace Museum (front side and back side); (b) Jade falcon, collection of Tianjin Museum; (c) Jade gui excavated from Liangchengzhen (两城镇), vessel height 18 cm; (d) Excavated Lingjiatan jade figure 87M 1:1, vessel height 9.6 cm; (e) Excavated Lingjiatan jade figure 87M1:2, vessel height 9.3 cm; (f) Excavated Lingjiatan jade figure 87M1:3, vessel height 9.8 cm; (g) Decorative pattern from excavated Fanshan jade column-shaped object M12:87, motif height 2.5 cm; (h) Double-sided carved human-faced beast-headed jade ornament, collection of Sackler Museum, USA, vessel height 7.9 cm; (i) Small Double-Sided Carved Human-Faced Jade Plaque, collection of Sackler Museum, USA, vessel height 3.7 cm; (j) Double-sided carved human-faced jade plaque, collection of Sackler Museum, USA, vessel height 7.7 cm; (k) Excavated Sunjiagang (孙家岗) fangs-adorned divine mask plaque M149:1, vessel height 4.7 cm; (l) Openwork carved human-faced jade plaque, collection of Sackler Museum, USA, vessel height 6.1 cm (Drawn by the author, more details see Sun 1998; Jingzhou Museum 2008, 19; Liu 1972; Childs-Johnson and Gu 2009, 148-150, 153; Anhui Provincial Institute of Cultural Relics and Archaeology 2006, 38; Zhejiang Provincial Institute of Cultural Relics and Archaeology 2005, 37; Hunan Provincial Institute of Cultural Relics and Archaeology and Li County Museum 2020)

The relationship between the “jie” character shaped crown and the forehead ornamentation is evident in certain animal-face patterns from the early Shang period. The square forehead ornamentation features a pointed protrusion at its top, precisely resembling the “jie” character (Figures 8a, 8c). For instance, the animal-face patterned zun excavated from Yueya (月牙) River, Zhuzhai (朱寨), Funan (阜南) County, displays an upward-pointing pointed protrusion on both its square forehead ornamentation and the concentric ring motifs within it (Figure 14e). A horse-face ornament collected from Panlongcheng, presenting an overall animal-face form, features a square forehead ornamentation atop the head flanked by a pair of F-shaped motifs. This square forehead ornamentation possesses a pointed protrusion at its top (Figure 14f). This resembles the divine human-faced “jie” character shaped headdresses of the Longshan culture in Shandong (Figure 13c) and the Shijiahe culture (Figure 13l), bearing even closer resemblance to the human-faced headdresses of the Lingjiatan culture (Figures 13d, 13e, 13f) and the divine human headdresses of the Liangzhu culture (Figure 13g). The Shijiahe culture also features a type of divine figure face ornament lacking a pointed protrusion at the top, instead presenting a flat, straight profile with inward-curving motifs on both sides that taper downwards (Figures 13h, 13i, 13j, 13k). This ornamental style is also observable in Shang Dynasty bronze vessels bearing animal-face patterns. A zun with animal-face decoration in the Palace Museum collection features a forehead ornamentation with a straight, elongated top tapering downwards, resembling an inverted trapezoid with curved sides (Figure 14a). Early animal-face patterns from the upper layer of Erligang, discovered at the Yuanqu Shang City site, show a similar forehead ornamentation with a straight top, flanked by inward-curling motifs that taper downwards to

connect with the rhombic forehead ornament (Figure 14c). Later examples also feature similar flat-topped forehead ornamentations, such as the bronze zun excavated from the Xihuanggu'an (西皇姑庵) site in Jiaozhou (胶州), where the forehead ornamentation has inward-curling motifs on both sides that taper at the base to connect with the animal-face (Figure 14d). Meanwhile, the circular ding excavated from Siguocun (寺沟村), Molianzhen (磨连镇), Xinzhou (忻州) features an animal-face patterned forehead ornamentation with a flat upper section and downward-curling inner scrolls on both sides below (Figure 14b), its form gradually approaching the double F-shaped forehead ornamentation.

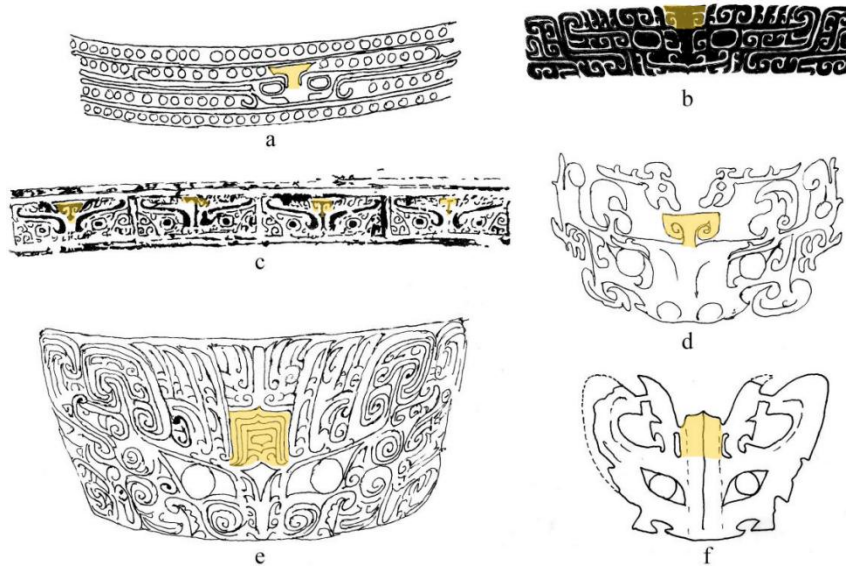


Figure 14. Flat-topped and “jie” Character Shaped Forehead Ornamentations. (a) Animal-face patterned zun, collection of the Palace Museum, vessel height 32.4 cm; (b) Round ding excavated from Siguocun, Molianzhen, Xinzhou, vessel height 25.7 cm; (c) Upper layer pottery shard H793:9 excavated from Erligang, Yuanqu Shang City, motif height 3 cm; (d) Bronze zun excavated from Xihuanggu'an site, Jiaozhou, vessel height 25.2 cm; (e) Animal-face patterned zun excavated from Yueya River, Zhuzhai, Funan; (f) Horse-face ornament collected from Phase VII, Panlongcheng P:015, vessel height 15 cm (Drawn by the author, more details see Hubei Provincial Institute of Cultural Relics and Archaeology 2001, 428; The Palace Museum 1999, 34; Field Archaeology Research Centre of the National Museum of China, Shanxi Provincial Institute of Archaeology and Yuanqu County Museum 2014, 489; Li 2018c, 79; Li 2018b, 5)

Through the above analysis, we observe that certain early Shang Dynasty animal-face pattern forehead ornamentations share identical forms with prehistoric headdresses. Though they constitute a small proportion of all bronze animal-face patterns, this demonstrates that Shang Dynasty forehead ornamentations were influenced by various prehistoric cultures. The evolutionary trajectory from the “jie” character shaped crown to various forehead ornamentations appears discernible. Might we then suggest that the prehistoric “jie” crown served as the prototype for forehead ornamentations? This requires further morphological analysis of such ornaments.

Beyond the central element, the forehead ornamentations of animal-face patterns frequently feature F-shaped motifs on either side, with double F-shaped forehead ornamentations bearing such F-shaped decorations. This F-shaped motif appears indispensable to the forehead ornamentations, often forming an integral whole with them. The most simplified form features a central square with lines extending along its lateral walls (Figure 15a). Internal lines within the ornamentation divide it horizontally into three segments, revealing a square central element flanked by F-shaped motifs (Figures 15d, 15e). When curved lines are added to the inner patterns, they delineate double F-shaped forehead ornamentation flanked by F-shaped motifs (Figure 15c). Through-type double F-shaped forehead ornamentations also appear, sometimes accompanied by F-shaped motifs on either side, as seen on the bronze hu in the British Museum, where the F-shaped motifs adorn the area above the eyes of the forehead ornamentation (Figure 15b).

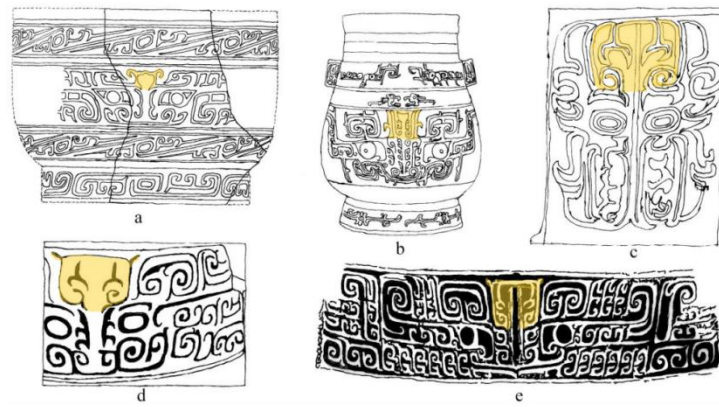


Figure 15. Forehead ornamentation and flanking F-shaped motifs. (a) Fragmentary stone bowl excavated from Houjiazhuang M1004; (b) Bronze hu, collection of the British Museum; (c) Animal-face patterned ben (簋) excavated from Xingyang (荥阳) Stadium, vessel height 13.5 cm; (d) Bronze jia, collection of the Meiyintang (玫茵堂); (e) Animal-face pattern vessel excavated from Yinxu, Anyang (Drawn by the author, more details see Liang and Gao 1970, 71; Deydier 2016, 111; Chen 2001, 13; Editorial Group of Henan Excavated Shang and Zhou Bronze Ware 1981, 75; The British Museum website. <https://www.britishmuseum.org/collection/image/760549001>)

As seen in the animal-face patterned forehead ornamentation on the bronze hu from the British Museum collection, the upper section of the double F-shaped forehead ornamentation was treated as a square forehead ornamentation within the overall animal-face pattern. Indeed, in certain Shang Dynasty animal-face patterns, square forehead ornamentations and double F-shaped forehead ornamentations can coexist. For instance, the Yayi (亚矣) square you in the Hakutsuru Art Museum collection features a square forehead ornamentation on its body, above which is a double F-shaped forehead ornamentation (Figure 16b). The animal-face pattern on the foot of the nipple-knob motif bronze square ding excavated from the Nanshuncheng (南顺城) Street hoard features a double F-shaped ornamentation above the square ornamentation, flanked by F-shaped motifs (Figure 16c). The “most complex” forehead ornamentation features a double F-shape ornamentation above and a square one below, forming a single unit. The height of the flanking F-shaped motifs equals the combined height of two kinds of forehead ornamentations (Figure 16a). Should the upper forehead ornamentation be removed, followed by the F-shaped ornamentation, the result would be a square forehead ornamentation. Thus, the so-called “most complex” forehead ornamentation may in fact be the “most complete” form, with other variations representing simplified or abbreviated versions thereof.

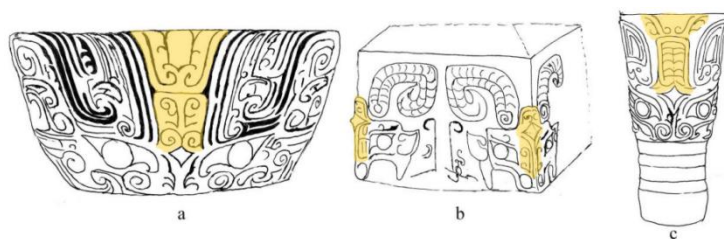


Figure 16. Integrated Forehead Ornamentations. (a) Animal-face patterned lei (罍), excavated from Longtouzhen, Chenggu, vessel height 36.9cm; (b) Yayi square you, collection of Hakutsuru Art Museum, Japan; (c) Foot of bronze square ding with animal-face and nipple-shaped decorations, excavated from a hoard at Nanshuncheng Street, vessel height 39.5cm (Drawn by the author, more details see Editorial Committee of Complete Collection of Chinese Bronzes 1997c, 135; Editorial Committee of Complete Collection of Chinese Bronzes 1997a, 128)

Regardless of how the forehead ornamentation evolves, the F-shaped motif remains inextricably linked as its primary element. What, then, is the F-shaped motif surrounding the forehead ornamentation? It may relate to animal feathers or fur (Luo 2026). Shang Dynasty bronze vessels also feature identical double F-shaped ornamental motifs, such as the bird design on the 父乙 (Fuyi) gong housed in the Shanghai Museum. The tail feathers of this bird are depicted as a pair of opposing F-shaped motifs joined together (Figure 17). The tail feathers of a bird form a cluster of upright plumes, thus the double F-shaped forehead ornamentation may be interpreted as a tuft of feathers. The F-shaped motifs flanking the square forehead ornamentation also represent

feathers. The so-called square thing at the centre of the ornamentation may symbolize the crown securing the feathers, with the entire forehead ornamentation signifying a headdress worn upon the head.



Figure 17. 𠄎 Fuyi Gong Lid (left) and F-shaped Motif on the Side (right), vessel height 29.5 cm (Drawn by the author, more details see Editorial Committee of Complete Collection of Chinese Bronzes 1997d, 84; Chen 2004, 340)

The ornamentation located between the eyes of the animal-face pattern resembles a feathered headdress, discernible in certain examples such as the engraved white-pottery ding excavated from Houjiazhuang M1001, where the rhombic forehead ornament appears to bear a small blossom (Figure 18a). Coincidentally, a bronze ding in the collection of the Asian Art Museum of San Francisco features a distinctive forehead ornamentation on its animal-face pattern. Above the head is a rectangular frame, hollow within, topped by a floral-like form. A “stem” rises from this, flanked by two pointed protrusions angled upwards. The apex bears five pointed projections: the central three pointing directly upwards, while the outer two slope diagonally upwards (Figure 18b). This forehead ornamentation evokes comparable motifs from prehistoric cultures, such as the incised motifs on pottery shards from the Hemudu culture. These too feature a rectangular, hollowed-out base frame, topped by five leaf- or feather-like elements: the central one vertical, the lateral ones inclined outwards. These “leaflets” themselves bear incised linear patterns within their surfaces (Figure 18c). A similar incised symbol appears on a pottery vessel excavated from the Lingyanghe (陵阳河) site in Shandong. It features a rectangular or inverted trapezoidal “base” at the bottom, with five protrusions above. The central protrusion is thickest, divided into two layers, with the uppermost section forming a “jie” character shaped structure. The curved lines extending outward on either side resemble the shape of grass leaves (Figure 18d). Li Xueqin cited *Liji-Wangzhi* (礼记·王制), which states: “The Youyu clan wore ceremonial headdresses for sacrifices and deep robes for honouring the aged (有虞氏皇而祭, 深衣而养老).” Zheng Xuan’s commentary explains: “The ceremonial headdress features a crown adorned with painted feathers (皇, 冕属, 画羽饰焉).” (Zheng and Kong 2009, 2914) Li (1987) argued that the engraved symbol on the pottery vessel represented precisely this “huang (皇)” — a feather-decorated crown. The bronze script character for “huang (皇)” appears as “𡩊” or “𡩋”, bearing striking resemblance to the forehead ornamentation between the animal-face pattern on the M1001 white pottery ding from Houjiazhuang. Therefore, we consider Li’s interpretation to be highly plausible.

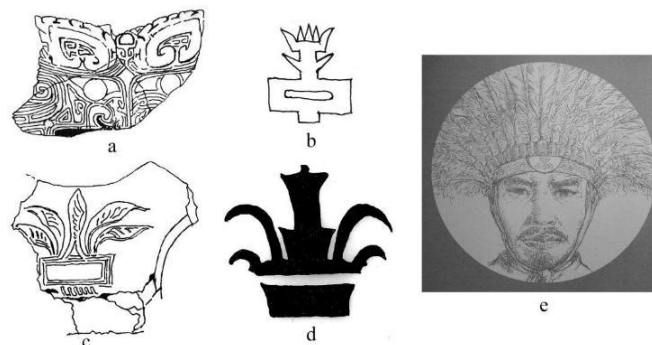


Figure 18. Feathered Headdress in Animal-face Patterns. (a) Excavated Houjiazhuang M1001 white pottery ding; (b) Bronze ding, collection of the Asian Art Museum, San Francisco, USA; (c) Pottery block T213(4A):84 excavated from Hemudu Phase I; (d) Engraved symbols on a pottery zun excavated from Lingyanghe M17; (e) Schematic diagram of Liangzhu culture headdress ornaments (Drawn by the author, more details see Liang and Gao 1962, plate 267; Qin 1988, 8; Zhejiang Provincial Institute of Cultural Relics and Archaeology 2003, 67; Li 1987; Fig. 18e was photographed by the author at Liangzhu Museum)

Guo Moruo (1962) once remarked: “I believe the feather-adorned crown depicted in paintings is also a later development. The ancients would have simply placed feathers upon their heads and termed it ‘*huang* (crown)’”. The headdresses of primitive tribal chieftains were often similar.” The crown ornaments worn by deities in Liangzhu culture, radiating outward in all directions, resemble heads adorned with feathers all around (Figure 18e). The double F-shaped forehead ornamentations can be interpreted as abstract representations of numerous feathers. In square forehead ornamentations, aside from the F-shaped feathers on either side, the central and base positions likely served as platforms for inserting feathers or as crown decorations. For instance, the jade hairpin excavated from the Xizhufeng (西朱峰) site in Linqu (临朐), Shandong, may have formed part of a feathered headdress. Shao Wangping (1993) argued that this jade hairpin, bearing an animal-face pattern, akin to the crown-shaped ornaments of the Liangzhu culture, also constituted head wear for the local “king” or upper-class figures of the time. Circular and semi-circular ornaments within the Liangzhu culture likewise served as adornments attached to feathered headdresses.

The Forehead Ornamentation in Compositional Context

The animal-face ornamentation adorning the forehead, modelled on prehistoric feathered headdresses, naturally inherits to a greater or lesser extent the religious and political connotations associated with such headdresses. Prehistoric depictions of crowned figures are often interpreted as divine beings, some depicted crawling atop ferocious beasts, others bearing tusks, vividly reflecting the religious beliefs of diverse regional communities. Those adorned with feathered headdresses appear to be individuals wielding religious authority within their communities. By the late Neolithic period, this religious power gradually transformed into political authority. It is therefore reasonable that feathered headdresses were worn by chieftains, tribal leaders, or kings of a community. Consequently, the forehead ornamentation modelled on the feathered headdress not only signified political power and status but also expressed, in religious terms, a conquest over nature and a belief in deities. This concept persists in Shang Dynasty bronze ornamentation, where the forehead ornamentation frequently appears independently from animal-face within decorative bands, forming a “two beasts facing the centre” motif. Positioned centrally, the forehead ornamentation is flanked by symmetrical animal motifs—dragons, tigers, birds, etc.—all uniformly oriented either towards or away from it (Figures 19a, 19b, 19c, 19d). By dissecting the decorative bands of a single bronze vessel, we observe that the animals flanking the central motif may face not only the forehead ornamentation but also the animal-face patterns themselves, albeit in smaller, more abstract forms (Figure 19g). This revelation indicates that animal-face patterns and forehead ornamentations share the same fundamental nature; in other words, the forehead ornamentation can serve as a simplified substitute for the animal-face pattern. Moreover, whether depicted as animal-face or forehead ornamentations, the animals on either side consistently adopt a posture conveying reverence. For instance, the prominent bronze round tripod from the Xiaohucun (小胡村) burial site in Xingyang shows tigers on both sides bowing their heads towards the forehead ornamentations (Figure 19f); similarly, on the ox-patterned you housed in the Palace Museum, the oxen flanking the small animal-face kneel with their forelimbs on the ground, presenting an overall posture of prostration (Figure 19e).

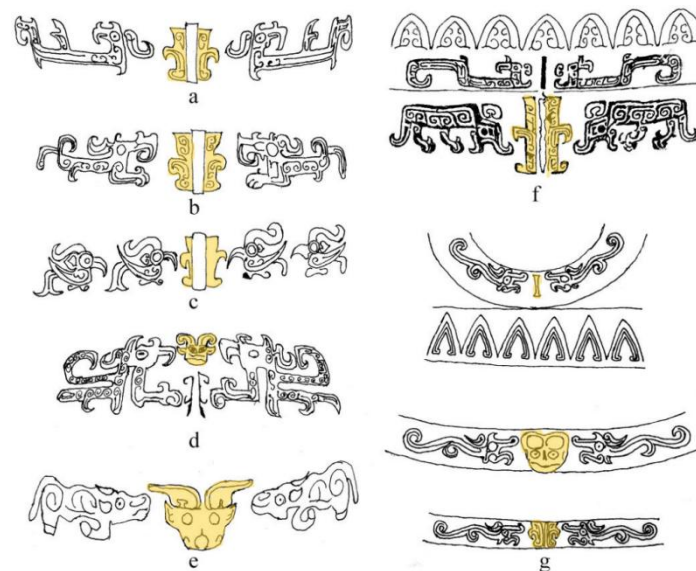


Figure 19. Relationship between the Forehead Ornamentation and Animal Motifs. (a) 𪚩 ding, collection of Shanghai Museum, vessel height 22.8 cm; (b) Ding with triangular cicada motifs, collection of Sackler Museum, USA, vessel height 23.1 cm; (c) Fuwu (父戊) square ding, collection of Shanghai Museum, vessel height 22.4 cm; (d) Square lei with bird motifs, excavated from Baoshan (宝山), Chenggu, vessel height 51 cm; (e) Ding with ox motifs, collection of the Palace Museum, vessel height 29.5 cm; (f) Round ding M22:1 excavated from Xiaohucun, Xinyang, vessel height 23.6 cm; (g) You 94ALNM637:7 excavated from Liujiashuang North, Anyang, vessel height 30 cm (Drawn by the author, more details see Editorial Committee of Complete Collection of Chinese Bronzes 1997b, 32, 36, 49; Editorial Committee of Complete Collection of Chinese Bronzes 1997d, 109; Institute of Archaeology, Chinese Academy of Social Sciences and Anyang Institute of Cultural Relics and Archaeology 2008, 287; Li 2018d, 85; The Palace Museum 1999, 87)

DISCUSSION

The Crown on the Animal-Face Pattern in Ritual Practice

There are various theories regarding the prototypes of the animal-face patterns found on Shang Dynasty bronze ware, including theories that they represent dragons, tigers, oxen and so on (Ma 1984; Hayashi 1990; Li 2009, 37; Yang 2008, 219, 371). By comparing Shang Dynasty animal-face patterns with dragon motifs, nine similarities can be identified: body ornamentation, tail design, a single head with two bodies, the number of legs, the shape of the mouth and lower jaw, the presence of ears and eyebrows, varied horns, and their frequent combination with clan emblems in decorative arrangements. Therefore, it is highly probable that the prototype of the Shang Dynasty animal-face pattern was the dragon (Luo 2024, 220-221). However, the most significant distinction between the animal-face pattern and the common side-view dragon motif is that the former features a prominent forehead ornamentation, whereas the latter does not. Similar to the “two beasts facing the centre” composition, when the animal-face pattern and the side-view dragon motif appear together, the dragon motifs are typically positioned on either side. As a form of dragon motif adorned with a prominent forehead ornamentation, the animal-face pattern held a higher status than ordinary dragon motifs; this, in turn, reflects the political status and power symbolized by the forehead ornamentation.

Furthermore, bronze vessels served as important ritual objects in Shang Dynasty religious ceremonies. The Shang people worshipped the supreme deity Shangdi, as well as lesser natural deities and ancestral spirits. They believed that deities possessed the power to influence the real world—for instance, by bringing rain, ensuring bountiful harvests, or inflicting calamities. However, the will of Shangdi was difficult to sway directly, and the Shang people never offered sacrifices to him directly. Ancestral deities, however—typically the direct ancestors of the Shang kings—were believed to stand at the side of Shangdi and could influence his will. Consequently, the Shang people offered sacrifices to their ancestors, entrusting their earthly needs to them in the hope that these ancestral deities would bestow blessings or influence Shangdi to do so. These ritual ceremonies were conducted by using bronze vessels to hold or cook sacrificial animals and wine; the bronze vessels served as the medium through which the offerings ascended to heaven. The motifs on bronze vessels can be regarded as serving the functions of carrying sacrificial offerings and communicating between heaven and earth. The principal motifs on bronze vessels—animal-face patterns, dragon motifs and bird motifs—are all considered to be creatures capable of

flying to the heavens. Oracle bone inscriptions record the dragon's ability to ascend to the heavens and descend to the depths, and also describe the phoenix as a messenger of Shangdi (Karlgrén 1951). Archaeological discoveries of Shang Dynasty jade artefacts also feature motifs of dragons and birds flying together to the heavens (Institute of Archaeology, Chinese Academy of Social Sciences 1980, 158). We believe that the motifs on Shang Dynasty bronze vessels are intrinsically linked to their ritual functions. Consequently, in the Shang religious worldview, the animal-face pattern represents a high-ranking deity capable of travelling between heaven and earth; when depicted on bronze vessels, it embodies the ritual process of "ascension to heaven" and manifests the power to "communicate between heaven and earth". This is precisely the embodiment of religious authority.

Materializing Authority: Forehead Ornamentation as a Technology of Power

The stylistic and compositional evidence presented above supports the interpretation that the forehead ornamentation encoded fused religious and political authority. To give it firmer theoretical footing, we want to place the forehead ornamentation inside two overlapping frameworks: the materialization of ideology, and the agency of images.

The forehead ornamentation is a prime example of the materialization of ideology. In plain terms, this is the process by which abstract ideas like values, stories, myths, harden into physical form: a ceremony, a monument, a symbolic object, a script. Without such concrete form, abstract notions of authority and cosmological order cannot be broadly shared, controlled, or extended. An ideology composed solely of freely accessible ideas has little efficacy as an instrument of power, precisely because it cannot be monopolized (DeMarrais, Castillo, and Earle 1996). In the contrast, the forehead ornamentation was a highly standardized and formally conservative graphic formula placed at the most structurally central point of the most important Shang ritual vessels. Through this process, it transformed the abstract concepts of Shang elite power and divine connection into a compact, recognizable, and reproducible visual symbol. Earle developed the same argument, stating that materialization is the transformation of ideas into a physical reality. It is the process by which culture is created, codified, and contained. Ideas and objects unite and are inseparable; ideas, unconnected to the objective world, have no means of being communicated, experienced, used, and owned. Control over ideology thus became possible because it was embedded in the productive process of manufacturing bronze ritual vessels (Earle 1997, 151-152). By controlling the production of these instruments of political-religious ceremony, the Shang elite controlled the very medium through which the ideology was broadcast, continuously reasserting and naturalizing the hierarchical order.

Second, the forehead ornamentation can be analyzed not merely as a passive representation of authority, but as an active agent that exercised it. As Gell's argument, art objects are to be studied as indexes of social agency within relational networks, not "self-sufficient" agents, but only "secondary" agents in conjunction with certain specific (human) associates (Gell 1998, 17). The forehead ornamentation, as an index of the fused agency of the Shang elite, ancestors, and possibly deities, occupied the apex of the animal-face pattern. In the "two beasts facing the centre" arrangement, this decorative motif not only occupies the central position but also plays a dominant role. The primary significance of the forehead ornamentation lies not in its language or symbolism, but in its function. Precisely because it occupies the geometric centre, this ornament dominates the entire decorative arrangement. It dictates the orientation of the surrounding animals and stares directly at the viewer with an intense gaze that almost compels the viewer to bow their head. Consequently, this ornament is by no means a mere embellishment, but rather a part of the ritual mechanism that constructs and reproduces the hierarchical order.

This motif gives concrete form to abstract authority, transforming it into a symbol that can be replicated, controlled and disseminated. It was engraved on bronze vessels and designed for communication with ancestors and deities, placing the Shang king or the ruling class at the apex of the sacred order. This perspective may alter our interpretation of the animal-face pattern as a whole. If the forehead ornamentation carries profound symbolic significance, then the eyes, horns and mouth serve to reinforce the central symbol. The face, with the forehead ornamentation at its core, thus becomes a framework for the expression of power.

Comparative and Cross-Cultural Perspectives

My argument draws on examples from Shang Dynasty China, but the logic underpinning it is by no means unique to China. The practice of concentrating power at the centre of a forehead ornament, making it the focal point of a symmetrical animal composition, is a common one. A brief comparison with other visual traditions not only highlights the broader significance of the Shang Dynasty examples but also demonstrates that such ornamentation stems from shared structural principles.

We can find similar motifs in the remains of the Americas, such as those of the indigenous Americans of the Northwest Coast, the Kwakiutl, the Olmec, the prehistoric Peru, and the late Nazca cultures (Figure 20).

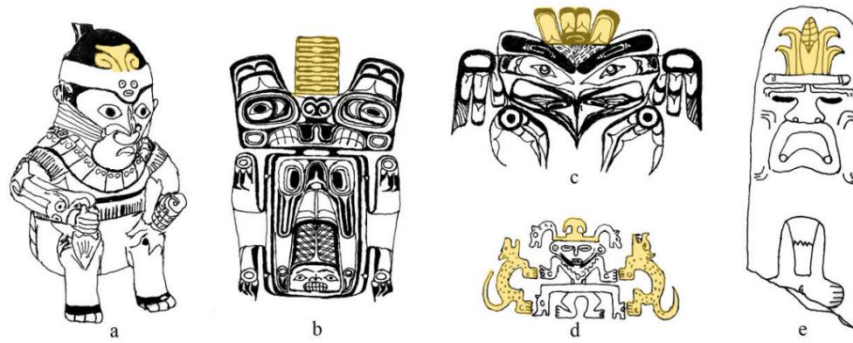


Figure 20. Related Relics of the Americas. (a) Eagle and Tiger Sun God Pottery, Late Nazca, 300 AD, the collection of the Institute of Ethnology, University of San Marcos, Lima; (b) Indian bear man totem from the Northwest Coast region; (c) Painting for a house-front representing a thunder-bird, Kwakiutl; (d) Prehistoric Peruvian designs; (e) Olmec statue excavated from the site of San Marcos, Guatemala (Drawn by the author, more details see Wang and Song 1998, 274, 315, 453; Boas 1955, 35, 242)

For example, Northwest Coast painting and relief carving is governed by a rigorous, rule-based visual grammar centred on a continuous, swelling and diminishing primary formline that defines the principal motifs. The most characteristic unit of this system is the ovoid, which typically serves as the eye or joint of the represented creature and always occupies a structurally central, free-floating position within the design field (Holm 2015, 29-30, 35-37). Holm (2015, 20) argued that the decorative tendency prevailed to a large degree, and the highly formalized box and blanket designs subordinated the original meaning of the crest to the overarching logic of visual organization. The composition, centred on the forehead and eye area, bears a striking resemblance to the Shang Dynasty motif of “two animal faces facing the centre”. Through this visual grammar, clan identity and the supernatural authority are made tangible.

In early Mesoamerican art, Olmec supernatural figures from the Formative period always carry a pronounced cleft in the forehead. Scholars have read this cleft as a supernatural portal, a sign of shamanic transformation, or simply a badge of chiefly rank (Coe 1965). Typically the cleft-headed figure crowns the composition, flanked by smaller attendants or mask-like profiles that turn inward toward it. The layout is strikingly similar to the Shang “two beasts” format. The cultures have nothing to do with one another, of course. Still, the repeated use of an exaggerated forehead mark as the seat of spiritual and political authority in both Shang China and Formative Mesoamerica suggests that “axial concentration” is a visual strategy that different societies can hit upon independently when they need to represent sovereignty.

In the Germanic animal interlace of the 5th-7th centuries CE (Salin’s Styles I and II), symmetrical compositions frequently resolve into a centralized node that functions as the visual anchor of the design. Central face-masks often serve as the organizational focus of symmetrical schemes. On the Faversham bracteate, for example, a face-mask is placed at the centre of a ring-chain of eight biting creatures, so that the human head becomes the pivot of the entire animal field (Speake 1980, 70). Such motifs were more than ornament. Hedeager (2011, 66) observed that the same motifs and compositions were maintained for centuries and that the animal style was therefore heavily loaded with meaning rather than merely perpetuated by habit. Indeed, the style was an inseparable part of the elite’s material identity and it conveys an intentional mythological message of a shared identity and destiny (Hedeager 2011, 61). The Scandinavian animal interlace thus encoded relational ontologies in which human, animal, and divine boundaries were fluid. Men and women imbued with supernatural powers could transform themselves into animals. And fluidity, hybridity and metamorphosis were considered as simple facts of nature (Hedeager 2011, 98). One of the most pointed expressions of this fusion is the “split-representation” motif, where two symmetrical animal profiles unite to form a human face at the centre of the composition (Hedeager 2011, 71). In these designs, the central node is in fact constituted by the animals surrounding it, representing a thoroughly relational construction of authority. As I discussed earlier in relation to Shang Dynasty bronze ware, the visual centre is not merely a symbol of power. It is an active force that both organizes the cosmic order and demands that the creatures facing it bow down in submission.

I am not suggesting that there are any historical links between these regions. What I am proposing is a shared visual strategy, which I call “axial concentration”. It means that authority arises from the compression of symbolic weight into a centralized element which dominates and organizes the space around it. In societies where political power is inextricably linked to cosmic order, this strategy appears to have been reinvented time and again, simply because it resolves the problem of how to visually represent the Shang people’s place within the cosmos.

CONCLUSION

This paper presents the first systematic analysis of the forms and historical development of Shang Dynasty forehead ornamentation, combining this description with anthropological theories on how visual imagery embodies authority.

The forehead ornamentations on Shang Dynasty bronze vessels featuring animal-face patterns can generally be divided into two types: square and double F-shaped forehead ornamentations. The double F-shaped forehead ornamentations can, in turn, be subdivided into two forms: the crown-type and the through-type. In addition, there are a few more unusual ones, some of which are composed of simplified lines, whilst others are stylized into other motifs such as cicada patterns. The rhombic ornaments on the animal-face patterns are closely related to the forehead ornamentations; as symbols of divinity, their nature is intrinsically linked to that of the forehead ornamentations.

The forehead ornamentations can derive from the feathered headdresses and “jie” character shaped crowns of prehistoric China. The F-shaped motif is best interpreted as an abstracted feather; the central square block pattern, meanwhile, represents the base of the crown into which these feathers were set. The forms found on early Shang Dynasty artefacts—with their pointed or straight, tapering tops—directly echo the flat-topped headdresses of the Liangzhu, Longshan, Lingjiatan and Shijiahe cultures. The forehead ornament was not a random invention, but a visual formula with a long history, which brought a specific symbol of religious and political authority from the ritual sphere of the Neolithic era into the realm of bronze ritual vessels.

This inherited form serves as an extremely effective symbol of power. In the “two beasts facing the centre” composition, the forehead ornamentation occupies the supreme central position, with paired dragons, tigers, birds or oxen all facing it in a submissive posture. It carries ideology, transforming abstract power into standardized, reproducible visual symbols. Similar designs also appear in artworks from the Northwest Coast, the Olmec, and Scandinavia. This “axial concentration” compositional design was adopted by various peoples in early societies, reflecting a commonality in human civilization when political order and cosmic order converge. This conclusion may offer new insights into the interpretation of the laws governing the development of human civilization.

Notes

1. The F-shaped motifs are all decorative motifs resembling the capital letter “F”. For detailed analysis of F-shaped motifs, see Luo 2026.

2. Character 又(you) in inscriptions of Shang Dynasty means right (adj.) or right hand (n.).

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