Case 1: A Gong Ritual Bronze Vessel

Can a tiger and owl get along?

Gong Vessel in the Shape of a Tiger and Owl
Bronze, Shang Dynasty (1600-1046 BCE)
Harvard Art Museums, 1943.52.103

Warming Up:

This fascinating *Gong* vessel is currently exhibited in the Chinese art collection on the first floor of the Harvard Art Museums. Before we begin, why not stop by the Museums and examine it closely with the following questions in mind:

- How many animals can you locate on this vessel?
- What do you think they are doing there?

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Problem Set:

- Why on earth would you pair a tiger with an owl?
- How did the cosmology of early China relate to bronzes?
- How were bronzes made and what functions did they have?

SECTION ONE:
GONG VESSEL WITH A TIGER AND AN OWL

Figure1:
Gong vessel in Harvard Art Museums

Our exciting journey through 12 Chinese artworks begins with one of the most precious and significant pieces in the Harvard collection: a *gong* vessel from late Shang dynasty (ca. 1300-1046 BCE). A special type of ritual bronze object, it is very rare as compared to other bronzes from early China. *Gong* vessels were found only in high status burials and their production lasted for only a very short period of time. These pieces were born into the world of bronze vessels during the late Shang but disappeared by the early Western Zhou dynasty (ca.1046–771 BCE).

The *Gong* in the Harvard collection is one of the most exquisite and best preserved among the few extant in the world.[i] Judging from its special shape, it was used to serve wine in ritual banquets and religious ceremonies. As you can see, it has a large spout extending from one end of the oval body for pouring wine and a handle at the other end. It also features a removable lid that extends over the entire top of the vessel, including the spout, and could be lifted off for refilling or pouring.

Figure 2:
The tiger on the front portion of the vessel

The most significant feature of this *Gong* is its zoomorphic decorations that were harmoniously integrated into the entire body of the vessel. The spout of the lid was shaped into the head of a tiger whose elongated body extends downward to the front portion of the vessel (Fig. 2). The opposite end of the lid was made into the face of an owl with two large round eyes, erect ears, and a sharp beak (Fig. 3). Its wings and claws formed the entire rear of the vessel.

Figure 3:
The owl on the rear part of the vessel

Besides the tiger and the owl, many other animals were integrated into the decorative system. On top of the vessel, a dragon with curved horns climbs from the bottom to the peak of the lid (Fig. 4). Moreover, a pair of dragons also face outward from the body of the tiger. Even more remarkable, a pair of birds peek out between its front and hind legs (Fig. 5). Likewise, a pair of dragons and birds was cast into the neck of the owl. Behind the creature's ears, two more dragons move in the direction of the tiger.

Figure 4:
The dragon on top of the vessel

The handle of the vessel was also shaped into zoomorphic motifs. The upper portion was made into the head of a horned beast while its lower section was formed into the body of an owl—whose head in turn appears to be contained in the mouth of the beast above (Fig. 6)! The backdrop of all these larger creatures was even filled with a swirling pattern that constantly transformed into stylized dragons. In a word, the closer one looks at this *gong* vessel, the more animal motifs that can be discovered on its exquisite surface. Truly a case of lions and tigers and bears, oh my!

Figure 5:
The bird on the front of the tiger

However, the most puzzling question remains: why were a tiger and owl, two seemingly unrelated animals, combined as the primary motifs of a single vessel? To unravel this mystery and fully understand the design logic behind the animals, we should first recognize that all the decorative motifs are not simply representations of animals in nature. Instead they represent certain elemental forces—stages in the cosmological system of early China. But how on earth did the system work?

Figure 6:
Handle with a horned head and owl's body

Our next section will lead us through the significance of the tiger and owl in Chinese cosmology. As you will discover, these animals often served as the underlying system for the design of ritual vessels.

SECTION TWO:
THE COSMOLOGICAL DIAGRAM

As we have just seen in the previous section, animal motifs in ancient Chinese art were more than just representations of natural life but also carried important cosmological significance. Yet where did these meanings come from? To answer this question, we need to reconstruct the mindset of the ancient Chinese peoples; particularly, the conceptual framework through which they saw and understood the world around them. This will require discussion of abstract concepts and making some logical deductions. The end product of our efforts, a diagram that reconstructs the cosmology of the ancient Chinese people, will be a valuable tool for our study of early Chinese art as well as arts of later periods.

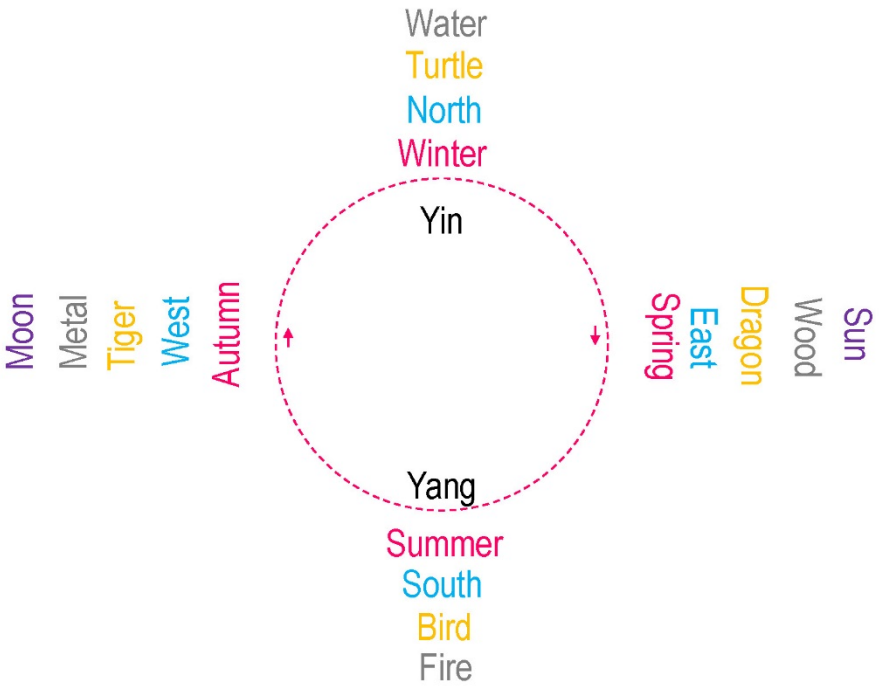

Figure 7:
General Cosmological Diagram from Early China

Yin-Yang Cosmology

From very early times, the Chinese people developed a sophisticated cosmology based on a basic concept of dualism.[ii] At the core of this cosmology was the concept of *yin* and *yang* cosmic energies, two underlying forces believed to constitute everything in the universe. On one hand, the two energies represented the opposing sides of cosmological existence. The *yin* was associated with females, night, water, earth, the moon, death, and other symbols. *Yang* represented males, day, life, sun, fire, heaven, and other related concepts. On the other hand, the two energies were also considered complementary. Their harmony was key to the well being of the universe, representing the constant interchange of energy that generated everything in the universe—including human beings! For this reason, the balance and harmonious interaction between the two energies was of utmost importance. It was believed that this harmony brought peace and prosperity to the world.

One fascinating aspect of the *yin-yang* cosmology was that it also extended to the ancient Chinese understanding of space and time. In the case of space, the sky above us—because it was associated with heaven—was perceived as the concentration of *yang* energy. The earth below was then seen as the concentration of *yin*. From there, the cardinal directions were also linked to these concepts. The north, associated with cold, was categorized as the *yin*; the south, associated with heat, was *yang*.

In the same manner, *yin-yang* cosmology was also mapped onto the concept of time and seasonal cycles. Night was *yin* because of darkness, and the day was *yang* because of light. The winter was *yin* due to the cold, and the summer was likewise *yang.* In this manner, we begin to construct our diagram of the ancient Chinese cosmology (Fig. 7 above). It should also be noted that the diagram reveals a distinct collapsing of time and space in ancient Chinese thought. For example, the direction north is a spatial denotation, but also simultaneously encompasses the season of winter. This aspect is one marvel of ancient Chinese cosmology: in a sense, all elements and dimensions of the universe were unified under one philosophy—*yin* and *yang* cosmology.

Yin-Yang, Animal Symbolism, and our Diagram

Yin-yang cosmology is crucial for our understanding of animal motifs in ancient Chinese art. In accordance with *yin-yang* cosmology, animals deities were assigned to the four cardinal directions. This resulted in the Blue Dragon of the East, the White Tiger of the West, the Red Phoenix of the South, and Black Turtle of the North.[iii] With our diagram in hand, it is immediately apparent that the matching of the turtle with the north comes from a shared association with water and thus *yin* energy. The matching of a phoenix (bird) with the south points us to the sky and *yang* energy.

Although slightly more complex, the same logic can be used to explain the symbolism of the other two directions. The east was associated with rising temperatures in spring and thus rising *yang* energy. The east takes the dragon as its symbol, because the ancients believed that dragons ascended from water into the sky during spring.[iv] The west, linked to autumn and rising *yin* energy (cold), points to withering and death, taking us to the fierce tiger.

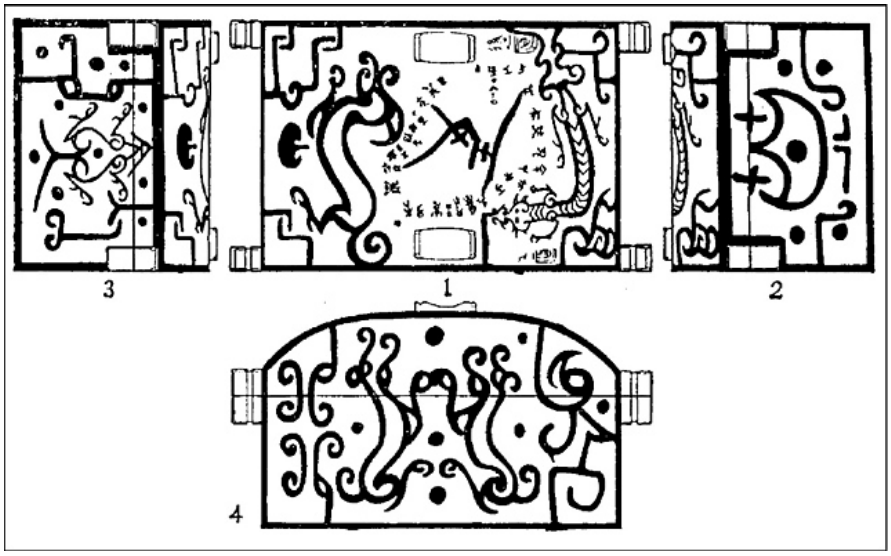

Figure 8:
Lacquer box with 28 constellations from the tomb of Marquis Yi of Zeng

The gods of the four cardinal directions were also closely associated with ancient astronomy. From a very early time, Chinese astronomers divided the night sky into four sections and used the directional gods to symbolize each section.[v] The areas each contained seven constellations, and the appearance and position of these constellations in the night sky matched the season that each god represented. For example, the Blue Dragon constellations sink below the horizon and are invisible during the winter but rise above the horizon and become fully visible during the spring. These associations for the gods of the directions have been confirmed by surviving evidence from early period tombs. A lacquer box excavated from the tomb of Marquis Yi of Zeng depicts a diagram of the twenty-eight constellations juxtaposed with a tiger to the west and a dragon to the east (Fig. 8 above).

In this way, the gods of the cardinal directions symbolized not only the four directions but also the four seasons. As the seasonal cycle was generated by the rise and fall of cosmic *yin-yang* energies, we also realize that the animal symbolism of the cardinal directions was a part of the *yin-yang* cosmology.

One potential problem is that we do not have sufficient textual evidence from the period we are studying concerning beliefs about animals. Some may even argue that the system of directional gods is completely anachronistic for the study of Shang bronzes. Unfortunately, our pieces in question date to before the emergence of the textual sources that survive today.

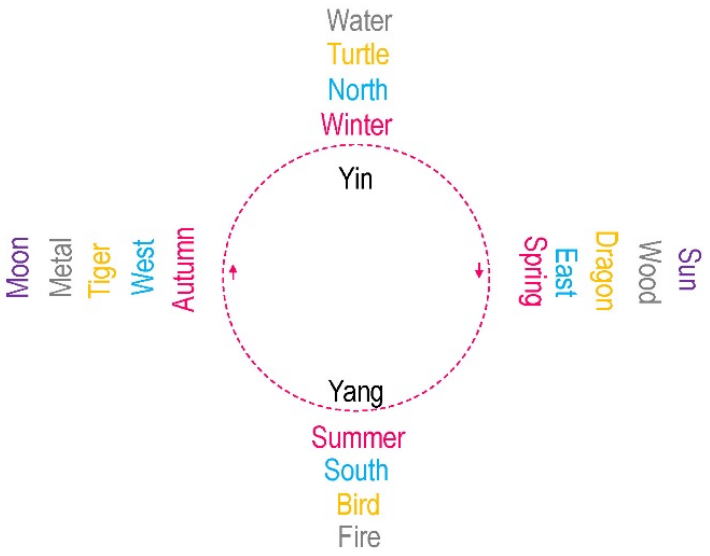

Figure 9:
General Cosmological
Diagram of Early China

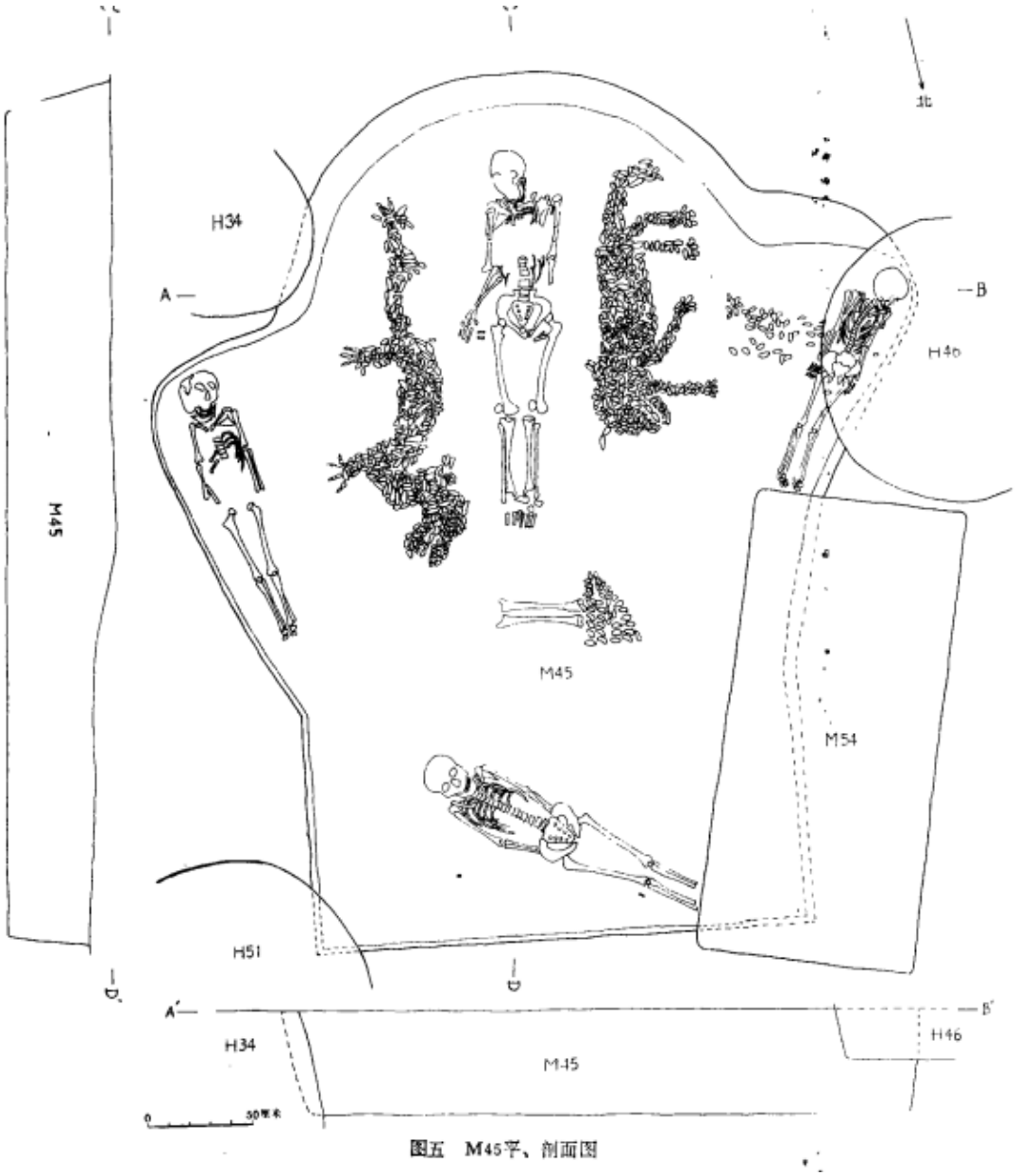

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Figure 10:
Puyang Neolithic tomb—a dragon and a tiger made of shells were found on either side of the deceased

While it is true that we lack textual evidence from the Shang dynasty, we may resort to archaeological evidence. There are indeed some surviving traces suggesting the existence of directional animal relationships in the early period. A recent excavation of a Neolithic tomb from Puyang in Henan Province yielded a burial in which a dragon of shells was situated to the east of the tomb occupant and a tiger of shells to his west (Fig. 9 above).[vi] To the north of the occupant, the Big Dipper constellation was also depicted in shells.

These motifs were likely meant to invoke the sky by referencing constellations and possibly symbolized the deceased's ascension to heaven. More important to our purposes, the representation of the tiger, dragon, and Big Dipper in the Puyang tomb were arranged similarly to depictions of the same motifs on the lacquer box from Marquis Yi's tomb discussed earlier.

The striking similarities between the two tomb depictions suggest that a system of animal-directional-seasonal relationships akin to the gods of the cardinal directions was already in place before the Shang Dynasty. As a result, we can trust our diagram showing time, space, and animal life united under *yin-yang* cosmology (Figs. 7 and 9). From here on out, we will often use it as a reference for our study of early Chinese art—including our *gong* vessel.

SECTION THREE:
FUSING ANIMALS

If animal motifs on Shang bronzes are symbolic in nature, then what did it mean to "fuse" several of them onto one vessel, like our *gong* piece? In fact, the fusion of animal motifs was one of the most common features Shang dynasty bronze decoration. The meaning of this fusion has tantalized generations of scholars—as it entices us yet today! The animal have been interpreted as different types of elemental power, as the bronze vessels onto which they were integrated often played crucial roles in the sacrificial rituals performed by shamans.[vii] Using this theory, our *gong* piece might be understood as a combination of the wind deity (tiger), the sun deity (bird), and the cloud and rain deity (dragon)—all essential elements necessary for a good harvest.

With the diagram we created in the last section, we can also try to interpret our *gong* bronze within the framework of *yin-yang* cosmology. As we discussed in the first section, the *gong* vessel includes three main animal motifs: the tiger on the beak side of the vessel, the owl on the handle side, and the dragons imbedded between (Fig. 11).

The symbolism of the tiger and dragon is fairly straightforward. The tiger represents the increase of *yin* energy/west/autumn, while the dragon points to the increase of *yang* energy/east/spring. However, the owl turns out to be a thornier matter. In Shang bronzes, it is closely associated with the notion of the "sun in the darkness."[viii] A good example is the use of the owl in the painted silk banner excavated from Mawangdui Tomb 1 (Fig. 12 and 13). Scholars generally interpreted the banner as a representation of three realms; the watery underworld on the bottom, the human world in the middle represented by a funeral ritual, and the deceased's ascension into heaven on the top. In the underground section we find two owls riding atop turtles (Fig. 13), both of which appear to be crossing the boundary between the underground realm (night) and the human realm above (day).

Figure 11: above
Gong vessel from Harvard collection

Figure 12: below
Silk banner from Mawangdui Tomb N.3

In this case, the two owls represent both the sun during the day and at night. By depicting the creatures on the boundary between the underground and human realm, the painting ingeniously captures the sun at its two transitional moments between day and night: dawn and dusk.[ix] Thus the owl is not only a sunbird (symbol of *yang* energy) but also as a visualization of the sun going into the dusk and going out at dawn. These two moments are the most crucial interchanges of *yin* and the *yang* energies within a day.

Figure 13:
Detail of the banner showing owls atop turtles

At this point, we have come to the realization that the animal motifs on our *gong* vessel are united under the theme of *yin-yang* transformation. The tiger is the transitional state from summer (*yang*) to winter (*yin*,) and represents the increase of the *yin*. The dragon balances these forces by presenting the transition from winter (*yin*) to summer (*yang*)—dramatizing the increase of *yang*. In addition, the owl points to the interchange of *yin* and *yang* energies throughout the day and night. In this sense, fusing the tiger, dragon, and owl successfully embodies both the balance and the interchange of *yin-yang* cosmic energies within our *gong*.

Lastly, it is important to note that applying other elements within the diagram to interpret the *gong* vessel could lead to the same conclusions. For example, the tiger could be understood as a representation of the west, connected with the moon. The owl could be understood simply as a symbol of the sun—again making the vessel a fusion of the sun and the moon. This is but another way of spelling out the harmony of *yin-yang* cosmic energies. Such is the layered beauty of the cosmological diagram we have constructed.

SECTION FOUR:
A FURTHER EXPLORATION
OF CHINESE BRONZES

With our cosmological diagram in mind, we can come to terms with the underlying logic of combining a tiger and owl in the same design. Now, how might we test the theory on other bronze vessels of the period?

Figure 14:
Model excavation site of the Fu Hao tomb with a large set of ritual bronzes

Let us start from an archaeological site closely related to our *gong* vessel: the renowned tomb of Lady Fu Hao (Fig. 14). To date, the Fu Hao tomb is the only Shang tomb that was scientifically excavated by archaeologists. Located in Yinxu, the present-day ruins of the ancient Shang capital of Yin,[x] the tomb was believed to be the burial site of a Shang dynasty queen and the military general Fu Hao. They were likely buried around 1200 BCE. A *gong* (Fig. 15) identical to our piece in the Harvard collection was excavated alongside over 200 ritual bronze vessels from the tomb of Lady Fu Hao. This site offers some valuable cultural and historical context for the *gong* in Harvard collection.

Figure 15:
Gong from the Fu Hao Tomb—exactly identical to the Harvard *gong*

Figure 16 :
Owl *zun* from the Fu Hao Tomb

Among the bronzes found in the Fu Hao Tomb was a strange specimen of vessel known as a *zun*. This particular *zun* was cast in the shape of an owl (Fig. 16). As you can see, the vessel was molded into a stunning beast with a horned head and winged body. However, a small owl with two staring eyes was embedded in its rear. In this fashion, the design follows the dual structure found in our *gong* vessel. Instead of a tiger and an owl, it paired a horned beast with an owl. Since ritual bronze design as always structured by the cosmology of early China, how might we interpret the pairing of a horned beast and owl? Why was the owl always situated in the rear and relegated to a minor role?

As we have discussed in previous sections, the owl often represented the "sun in the dark" or *yang* energy bound within a *yin* condition. What then of a horned beast with a winged body? Because of phallic and other associations, horns in early Chinese art were invariably tied to male energy and thus represented the *yang* state. Similar to the handle of our *gong* vessel, the head of this beast may contain an owl within its mouth (Fig.18). This method of one animal embodying another can be found in the handle designs of many early bronzes (Fig.17).

So then, it is likely that the front part of the *zun* was fashioned as a horned beast swallowing an owl or, from a cosmological perspective, the *yin* potential contained within *yang* energy. In turn, the rear portion was crafted as a small owl mask, highlighting the "sun within the dark" aspect of the creature—*yang* potential within a *yin* state. Therefore, the front and rear of the vessel offer two opposing stages in the *yin-yang* transformations of the cosmos that are constantly transforming into one another.

Figure 17:
Handles of Ritual Bronzes from Shang and Zhou Dynasties

Figure 18:
Fu Hao *zun*—horned creature with the body of an owl

Figure 19:
Ding vessel from 11th-14th c. BCE in the Harvard collection

Figure 20:
Dou vessel from 3rd c. BCE in the Harvard collection

Figure 21:
Fu vessel from 8th-12th c. BCE National Gallery of Australia

That being said, the *yang* state, pointing to the day, warmth and life, was always preferable to early Chinese people than the *yin* state of night, cold, and death. It is precisely for this reason that the owl in the rear of the *zun* was situated in a subservient position to the larger *yang* inspired beast.

Having sifted through the cosmological connections outlined above, how might you interpret the miniature bird and dragon also found moving along the top of this vessel? What role do they play in the transformations of the *yin-yang* cosmology?

Other types of Chinese ritual bronzes

Chinese ritual bronzes are usually found as sets in ancient burials. They were used in sacrifices and rituals conducted by the ruling elite. Upon the death, bronzes were buried as both a symbol of power and to provide ritual equipment for the deceased in the afterlife. Apart from the *gong*, there were a number of other types of vessels. They varied in shape and served different purposes, but their designs all followed the same cosmological framework outlined above. The subsequent section is designed to provide an introduction to the basic functions and various types of bronzes. Explore on your own by going to the Harvard Art Museums and testing yourself on vessel types and how cosmology was embedded in each work.

Food Containers

***Ding*:** *Ding* tripods were the single most important type of bronzeware. They were originally used as a cauldron for cooking and storing meat. The size of a family *ding* was considered an important measurement of power for the owner. The number of *ding* buried in a tomb can also help determine the status of the owner. The tomb of an emperor could contain nine *ding*—showing his dominion over each of the nine regions of ancient China.

Dou: *Dou* were flat, covered bowls situated on a foot or stem. The shape was designed as a storage container for food and was used in this fashion for ritual sacrifices.

Fu: Rectangular food dishes or trays made up of two parts: a base and identically shaped lid. Interestingly, they were cast so that they had a triangular shape when viewed in cross-section.

Pan: A flat dish or basin used to contain and present water or food.

Figure 22:
Zun vessel from 10th-11th c. BCE
In the Harvard collection

Figure 23:
Early *pan* vessel from the Shanghai Museum

Figure 24:
Jue vessel from the 15th-16th c. BCE in the Harvard collection

Figure 25:
Gu vessel from the 11-12th c. BCE in the Harvard collection

Wine vessels

Zun: Like our *zun* from the tomb of Lady Fu Hao, these vessels were used to hold rice wine during ceremonies. They generally were made with a round or square vase-like form and a wide lip to facilitate the pouring of wine. As we have seen, in rare cases, they took the shape of animals.

Jue: This shape was the most prevalent type wine cup. The cups were cast with three legs, a handle, a long spout, and a pointed extension balancing out the rear of the vessel.

Gu: A tall and slim wine cup with no handles.

Gui: Tall wine cup with no handles, the mouth larger than its base.

You: Covered pot with a single looping handle attached on opposite sides of the mouth of the vessel.

Figure 27:
You vessel from the 11th-14th c. BCE in the Harvard collection

Figure 26:
Gui vessel from the 8th-11th c. BCE in the Harvard collection

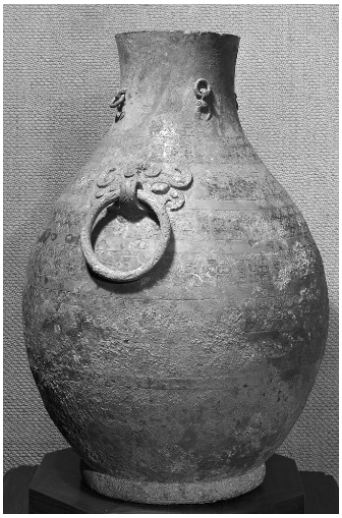

Figure 28:
Hu vessel from the 5th-6th c. BCE in the Harvard collection

Hu: An important type of vessel used to contain wine. These pieces were generally made with a pear-shaped cross-section and a ring attach to either side of its neck for gripping.

He: A wine vessel traditionally shaped like a teapot with three legs. Similar to ancient Greek *kraters*, scholars believe that the *he* was used as a mixing vessel to dilute wine with water.

Jia: A small cauldron for warming wine. These pieces were generally made with either three or four legs and two column-like protrusions on the rim.

Li: These vessels were also three-legged cauldrons. They appear similar to *ding* except that the legs blend organically into the body and bulge outward where they connect with the cauldron.

Figure 29:
He vessel from the 11th-14th c. BCE in Harvard collection

Figure 30:
Jia vessel from the 11th-14th c. BCE in the Harvard collection

Figure 31:
Li vessel from the 10th-11th c. BCE In the Harvard collection

Water Vessels

Yi: Bronzes in the shape of a ewer with a spout. *Yi were* used during the ritualized cleansing process for religious ceremonies.

***Jian*:** These vessels were made as large water basins.

Figure 32:
Jian vessel form the 5th-8th c. BCE
in the Harvard collection

Figure 33:
Yi vessel from the 8th-11th c. BCE
in the Harvard collection

How were the bronzes made?

Having analyzed the function and cosmology of our *gong* vessel and seen other types of early bronzes, we should also consider for a moment the manner in which they were made.

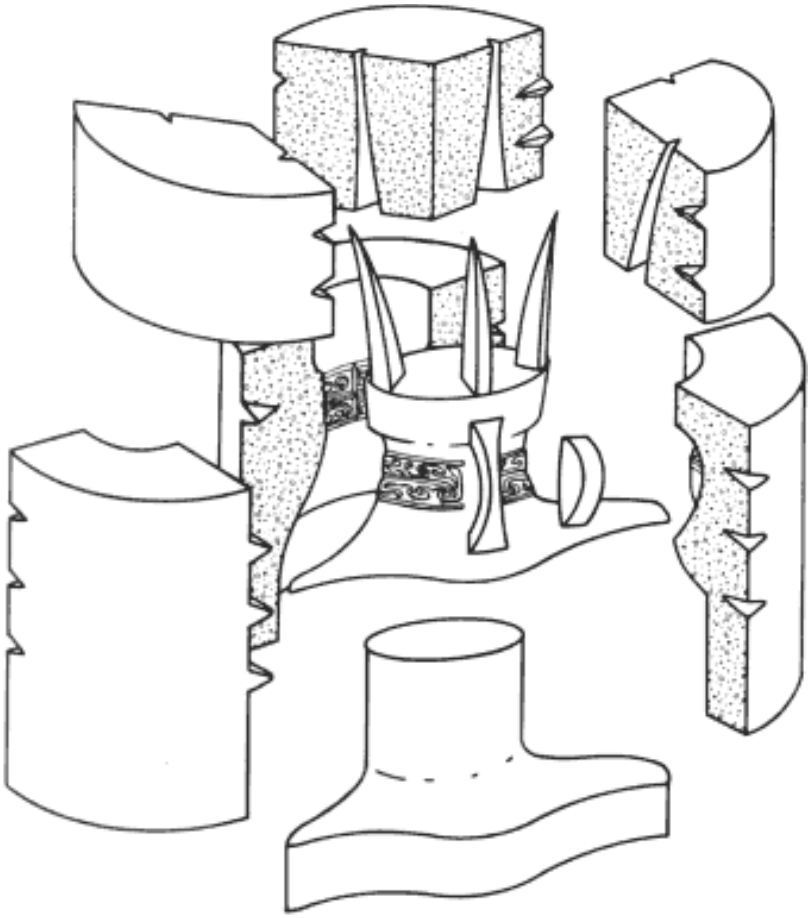

Figure 34:
Diagram of the piece-mold method of bronze casting

Piece-mold Method

Compared with the rest of the ancient world, China developed a singular casting method known as “piece-mold.” This process was closely associated with the highly developed ceramic technology of early China. Unlike the “lost-wax” casting technique (discussed below) used elsewhere, in the piece-mold process, clay was used for both the core casting model and to create removable mold sections necessary for firing the piece.

Figure 35 :
Clay Piece Molds excavated from Houma, Shanxi Province

To make a bronze vessel, the desired shape was first fashioned in clay (the central core of Fig. 34). After this clay core hardened, another layer of soft clay was pressed against it, taking on the impression of both its shape and decoration. After these clay pieces dried, they were cut into sections to form a piece-mold (Fig. 35). The original clay model was then shaved down to create the interior core. Whatever thickness was removed would be equal to the thickness of the walls of the final bronze vessel. Following this step, the mold sections were reassembled around the clay core to make the outer walls during casting.

When cast, the space between the core and outer molds was filled with molten bronze (a copper and tin alloy). After cooling, the mold pieces were removed. Before casting, exterior appendages were often inserted into the core-mold. When the vessel was made, they locked into place as the metal was poured. The joins between mold sections also often appeared as raised ribs on the exterior of finished bronzes. After the bronze cooled, the clay molds were broken and removed. Finally, the vessel was polished to remove flaws and metal that had seeped into gaps between the mold.

Lost-wax Casting

Outside of ancient China, the lost-wax method was a much more common method of casting bronzes. It was developed around 1500 BCE or even earlier. However, it was of less interest to Chinese craftsman because of their familiarity with ceramic piece mold casting. However, during the Warring States period, there grew a fascination with intricate openwork design that was impossible to achieve with the piece mold process. A *pou* vessel exhibited in Harvard Art Museums shows how lost-wax casting could achieve the desired effect. It has a complex surface pattern cast with many small openwork snakes.

Figure 36:
Pou vessel from the 3rd-5th c. BCE in the Harvard collection

Figure 37:
The complete lost-wax casting process for a bronze incense burner

Lost-wax casting also started with a clay core in the basic shape of the object (Fig. 37). The clay core was then covered with wax, upon which the details of the object were sculpted. It was then "sprued" or connected with a treelike structure of wax that provided channels for molten bronze to flow into the interior of the mold. Wax vents were also added so that gases could rise while the liquid bronze was poured. The wax model with its system of sprues was then painted with very thin clay to pick up the finely sculpted details. Thereafter, it would be covered with a coarser mantle of clay. This covering was attached to the inner core using iron or bronze pins. The clay was dried and slowly fired in a ceramic kiln—melting the wax and leaving a space where the molten metal could be poured. Only the negative space surrounding the original object remained, as it had been previously filled with wax inside the ceramic shell. Larger or more complicated sculptures were divided into multi-section molds and cast in several pieces.

RECOLLECTING WITH SOME FINAL QUESTIONS

In this case, we have explored the cosmological framework generated by the minds of early Chinese people. We have seen this dynamic system in action on the *gong* vessel in Harvard collection. The zoomorphic decoration reveals the dynamism of the *yin-yang* cosmological system embedded in the vessel. This mode of thinking dominated the design systems of early Chinese artwork and remained influential throughout Chinese history.

In considering what you have taken away from this case, could you answer the following questions?

1 Could you draw out our cosmological diagram starting from the basic concepts of *yin* and *yang*?

2 Since the *gong* was made as a wine vessel, how do you think alcohol was related to the transformative process embedded on the vessel?

3 Pick another bronze vessel in Harvard collection—could you provide an overall interpretation of its cosmological design?

Tools for Further Discoveries

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Endnotes

[i] Apart from 57 *gong* mentioned in ancient texts or handed down from antiquity, only 45 *gong* have been archaeologically excavated. See Liu Yingying in her dissertation, *Research on the Gong from Shang and Zhou Dynasties* (Shaanxi Normal University, 2011).

[ii] For an introduction of dualism in Shang dynasty cosmology, see K.C. Chang, "The Animal in Shang and Chou Bronze Art," 551-554.

[iii] The colors attributed to the animals were determined by the cosmology of the Five Phases that developed later around the 3rd-4th c. BCE. The Five Phases cosmology used the five basic elements of metal, wood, water, fire, and earth to denote different states of *yin-yang* interactions. It was believed that the five elements determined the nature of everything in the world. Each of the five elements was given a color: metal is white, wood is green, water is black, fire is red, and earth is yellow. The Five Phases were also superimposed onto the four directions and the seasonal cycles. Metal matched with the west/autumn, wood with east/spring, water with north/winter, and fire with south/summer. Therefore, the gods of the cardinal directions also assumed the colors of their respective direction.

[iv] See K.C. Chang, "The Animal in Shang and Chou Bronze Art," 531-532.

[v] See "Introduction to Ancient Chinese Astronomy," in Wang Li, *Gudai Hanyu„*Vol. 3, 833-843.

[vi] For more details about the tomb site, please refer to the excavation report, Sun Dexuan et al. "Henan Puyang Xishuipo yizhi fajue jianbao," *Wenwu* 3 (1988): 1-6.

[vii] See Alan Priest, "Owl in Shang and Chou Bronzes," and K.C. Zhang, "The Animal in Shang and Chou Bronze Art." The general consensus is that animal motifs and their fusion in Shang bronzes pertained to ritualistic and shamanistic functions. There are also approaches that focus more on the formal evolution of the motifs. See Robert Bagley, *Shang Ritual Bronzes in the Arthur M. Sackler Collections*.

[viii] For Chinese language sources on the symbolism of owls in early Chinese art, please see Wang Xiaodun and Ye Cheng, ""Chu zongmiao bihua chigui yexian tu— jianlun shanggu shidai de taiyang chongbai he shengming chongbai," *Zhongguo wenhua,* 1 (1993): 49-59.

[ix] Ibid., 49-52. Wang explains that the combination of owl and turtle symbolizes the journey of the sun into the underground at night.

[x] Yinxu is located in present day Anyang in Henan Province, China.