`Asia-China-*Bi* Disk

jades with incised symbolic motifs in two forms, the bi and the Cong provide a window for seeing the importance of Neolithic shamanism in the formation of Chinese iconography. This chapter will treat the Bi first and the Cong secondly, since both originated in the Neolithic period simultaneously. Whereas the Bi disk represented the Sun as a flat circular disk with a central hole, the Cong represented the Earth as a cylinder with a central hole as well. Together the Sun and the Earth constituted the two most powerful images for the early Chinese, and this iconography was to persist for thousands of years. Therefore, these two objects are central to understanding the Chinese mind and its ancient cosmological underpinnings.

THE BI DISK

The ***Bi*** disk (璧) is a flat, circular jade ritual utensil with a central hole that rose into prominence in the late phase of the Neolithic Liangzhu Culture in southeastern China. The Liangzhu Culture has been dated to a time horizon of either between 3300-2200 BCE (Zhongguo Wenwu Jinghua *Bi*anji Weiyuanhui 1992) or between 2900 and 2100 BCE (Huang Xuanpei 1992), but which ever dating one uses the Liangzhu *Bi* disks which have been found in sites in the Anxi area, Yuhang County along the lower Yangzi River and in the Taihu region mostly date to ca. 2200 BCE.

Although most Liangzhu *Bi* disks have no imagery carved on their surfaces, a few have been discovered with important motifs that shed light on their significance in the ritual life of the Liangzhu Culture. For instance a jade *Bi* was found decorated with the image of a pig, which is now in the Lantian Shanfang Collection (Teng 1995, pl. 11). Others have avian motifs, and all are oriented with a radial axis that intersects with the central hole. The *Bi* iconography of a *Bi*rd standing on a sacrificial platform reveals itself as a Sun motif (Teng 1993a: 26-34, 1993b, and 1995: 21), with a pentangular crown on its head, spreading out its wings and carrying the sun in its flight. This is a totem spirit was venerated by tribes who anciently resided in Jiangsu and Zhejiang. The divine *Bi*rd on the sacrificial platform represents the God of Heaven. The motif of the *Bi*rd atop a high pillar, which originates from the Hemudu Culture of coastal Zhejiang, later developed into the "pigeon-scepters" (jiuzhang) that were systematically awarded during Zhou and Han times to manifest royal and spiritual power.

As carriers of the Sun symbolism in both its overall design as a disk and with its avian imagery, *Bi* were the most important jade ritual utensils, the earliest manufactured, the most widespread, and had the longest history of use (Teng 1987: 37-38). Because of the large number of extant *Bi*--including excavated and transmitted specimens--as well as of related kinds of objects, it has been possible to study and exhi*Bi*t them comprehensively (Yang 1993, 1995).

*Bi* figure prominently in archaeologically-excavated sacrificial sites where they are among the most important or even sometimes the only ritual utensil (Teng 1997). Among those sites identified with *Bi* are the following. The Late Shang period site at Anyang, Yinxu Locus III, (Shi 1980); the sacrificial pits at Houma (Shanxi) containing brush-written covenant documents inscribed on jades, from the Late Spring and Autumn period (Shanxi 1976): the three *Bi* found together with the covenant documents were inscribed with divinatory texts written in black ink; the remains of the site at Chengshan on the Jiaodong peninsula (Shandong), where the First Emperor of Qin and Emperor Wu of the Han performed sacrifices to the sun (Wang 1993); and the sites of the imperial shan sacrifices to the earth at Tai'an (Shandong) from the Tang and Song periods (Teng 1992).(n9)

Pertinent records in pre-Qin and Han texts are likewise plentiful. The Zhou li, for instance, lists *Bi* at the top of its list of the "Six Utensils" (liuqi) and states that they were used in sacrifices to Heaven.(n10) In other texts, their usage is variously specified as pertaining to sacrifices to Heaven, cosmic deities, the ancestors, the mountain spirits, and the gods of the rivers and marshes, for the purpose of obtaining good fortune and super natural assistance, as well as divine instruction.(n11)

As carefully crafted objects, *Bi* testify to the skill and knowledge of shaman-priests. The importance of the central hole of the *Bi* was not merely of a formal nature. Logically, the nonmoving pivot in the center of a *Bi* would also have been the point of departure in designing and manufacturing such an object. At the beginning of the Zhou*Bi*, Zhou Gong inquires from Shang Gao about the method for calculating the numbers of the "cylindrical measures of the circular heaven." Shang Gao replies: "The method for calculating the numbers issues from the circle and the square. The circle issues from the square, and the square issues from the carpenter's square."(n23) As to the way of using the carpenter's square, it is: "Rotate the carpenter's square to make a circle; put carpenter's squares together to obtain a square."(n24) These elementary precepts are the basis not only for drawing the "Yellow Drawing" and the "Chart of the Seven Balances," but also for designing jade *Bi*.

Chen Zungui has pointed out that the Zhou*Bi* method of producing both the circle and the square solely with the carpenter's square (ju) is more primitive--and hence more likely to have been employed in Neolithic times--than the idea, formulated in Mengzi(n25) and in the "Kaogongji " section of Zhou li,(n26) that circles are produced by a compass (gui) and a carpenter's square is only used to produce squares (Chen 1984: 93). Chen has illustrated the methods of obtaining both a square and a circle by means of a carpenter's square with diagrams (Figures 11 and 12)(Chen 1984: 96).

Chen interprets "revolving the carpenter's square to make a circle" in the sense of revolving the carpenter's square around one of its endpoints to obtain the outline of the circle (cf. Figure 12). As drawn by him, the carpenter's square consists of two straight arms joined at a right angle; and during historical times, carpenter's squares did indeed have such a shape, as shown, for instance, by a Tang dynasty painting of Fuxi and Nuwa excavated at Astana, Turfan (Xinjiang) (Xinjiang 1975, pll. 115-116). In the oracle bone inscriptions, however, the original shape of the character ju, "carpenter's square," is (Li 1965, vol. 5: 1593-94), indicating that in Shang times, these objects only consisted of a single member. One can quite easily produce a circle by sta*Bi*lizing one end of such a single-member carpenter's square and rotating the other end, as shown in the diagram (Figure 13). Even though what is seen in the oracle bone inscriptions are the written characters in use during the Shang period, one may surmise that they may have been first devised as early Neolithic times, and it seems reasonable to suppose that Neolithic *Bi* were devised with the help of single-member rather than two-member carpenter's squares.(n27)

Superimposing two single-member carpenter's squares at a right angle yields the character wu "shaman" (Li 1965, vol. 5: 1595). This may well indicate an important conceptual linkage, illustrating how, in primitive society, shaman-priests mastered the techniques of drawing charts as well as carving jades (Wang 1992). Their control of jade manufacture was one aspect of their monopoly over the avenues of communication between Heaven and Earth. In Neolithic China, shamans were a tight-knit group of specially-gifted intellectuals, who could understand the Way of Heaven and reach the sphere where Heaven and humans commingled. By making and ritually using jade *Bi*, they manifested their empowering knowledge.

Therefore, the notion of a covering sky (*gaitian*) that revolves around a central axis, the cycle of the Ten Suns, and the use of an early form of the carpenter's square. These objects were handled by shamans who were the religious leaders of Liangzhu society and the transmitters of cosmological knowledge.

This cosmology was rooted in a concept of the numinous. The Zhou*Bi* notion that "squareness belongs to the earth, roundness belongs to the sky" and that "the sky is round, and the earth is square," though oft-repeated in ancient texts, does not mean that the ancients really believed the sky and the earth to have these specific shapes. Instead, they believed that roundness and squareness were essential attributes pertaining, respectively, to the sky and the earth--the modes, or principles (dao, [道](http://en.wiktionary.org/wiki/道);) that they followed. This point is clearly made by Zhao Shuang's comment on the just-quoted Zhou*Bi* statement: "This means that they complement each other like yin and yang, and it is not tantamount to the actual physical shape of the sky and the earth. The sky cannot be perceived in its entirety, and the earth cannot be exhaustively observed. How could anyone determine whether they are either square or round?"(n28)

Likewise, Zhao Shuang's commentary on the "Blue Drawing" states: "When the sun enters into the inside of the 'Blue Drawing,' this is called the sun coming out, and when it issues to the outside of the 'Blue Drawing,' this is called the sun going in, [but in fact] all that is inside and outside the 'Blue Drawing' is [part of] the sky."(n29) And the Da Dai liji records the following saying of Zengzi: "If the sky were round and the earth were square, then the four corners would not be covered."(n30) In other words, the round sky would not be able to cover the four corners of the square earth. Zengzi therefore continues: "I once heard from the Master that the principle of the sky is round, and the principle of the earth is square." Similar arguments may be seen in Lushi chunqiu(n31) and Baihutong.(n32)

Here, the meaning of the term "principle" (dao) is metaphorically extended from the word's original meaning of "path" to mean the modes of manifestation followed by Heaven, Earth, and all things. The circular *Bi* disks owe their shape to the belief, held by their makers, that the sun in the sky followed a circular path. Texts and objects mutually corroborate each other in showing that, in using ritual utensils based on this shape, they expressed the ultimate cosmological principles that were inherent in it.

Therefore the original function of the *Bi* was to transmit cosmological knowledge of a heavenly symbol linked to the Sun, and this numinous symbol was to accompany the dead into the after world along with the second most important ritual utensil of the afterlife, the *Cong,* which was meant to connect the deceased with the earth.Both *Bi* and *Cong* were placed ceremonially with the deceased of high social status and indeed *Bi* are sometimes found near the stomach and chest in Neolithic burials.

The ancients considered jades to be "numinous objects."(n33)They valued the material for its durability and incorruptibility; to them, it symbolized eternity and endurance. Jade and silk--both richly imbued with the aura of refined excellence--were deemed particularly suitable as offerings to the spirits and ancestors, and were therefore referred to as the "two refined substances" (*erjing*).(n34)

The people of antiquity strongly believed that substances of similar categories possessed magically corresponding efficacies (ganying). For ritual utensils, they therefore chose especially beautiful and enduring materials, fashioned them into special shapes, added elaborate decoration, and incised or painted special symbolic motifs onto them. It was hoped that such a conjunction of substance, shape, ornament, and symbol would bring about a correlative efficacy through which the spirits could be contacted. That jade was widely used in rituals is indicated, for instance, by the fact that the character used for writing the word li "ritual" is a pictograph that illustrates "offering jade to the spirits."

*Bi* has its origin in a cosmological diagram like the "Chart of the Seven Balances" now preserved in the Zhoubi. It expressed the two important concepts of Heaven and the sun. The jade *Bi* is the most important circular-shaped object in late Neolithic onward, and its ritual importance inherent in its shape endured for several millennia.

## References

Baihutong shuzheng. Edited by Chen Li. New edition in 2 vols., Beijing: Zhonghua, 1994.

Chen Zungui (1984). Zhongguo tianwenxueshi, xulun bian: Gudai tianwenxueshi bian,: (History of Chinese astronomy, introductory volume: history of ancient astronomy). Taibei: Mingwen.

Cullen, Christopher (1993). "Chou pi suan ching." In Michael Loewe (editor), Ancient Chinese Texts: A Bibliographical Guide, pp. 33-38. Berkeley: Institute of Asian Studies, University of California, and Society for the Study of Early China.

Da Dai liji jiegu. Edited by Wang Pinzhen. New edition, Beijing: Zhonghua, 1983.

Feng Shi (1990). "Henan Puyang Xishuipo 45 hao mu de tianwenxue yanjiu 45 (Astronomical research on tomb 45 at Xishuipo, Puyamg, Henan)." Wenwu 1990.3: 52-60, 69.

Feng Shi (1993). "Hongshan wenhua sanhuan shitan de tianwenxue yanjiu--jianlun Zhongguo zuizao de huanqiu yu fangqiu (Astronomical research on the three stone ring altar in Hongshan Culture--and a discussion on China's earliest round and square mounds." Beifang wenwu 1993.1: 9-17.

Gieseler, G. (1915) "La tablette tsong du Tcheou-li." Revue Archéologique, 5e serie, 2: 126-54.

Guo Moruo (1982). "Zuchuwen kaoshi." In Guo Moruo, Shiguwen yanjiu Zu Chu wen kaoshi, pp. 277-341. Kaoguxue zhuankan, Series I, no. 11 (new edition). Beijing: Kexue.

Hayashi Minao (1990). "Ryosho bunka to Daibunko bunka no zuzo kigo (Iconographic signs of Liangzhu and Dawenkou Cultures)." Shirin 73.5: 116-34.

Hou Han shu. New edition in 12 vols. Beijing: Zhonghua, 1965.

Huang Xuanpei (1992). "Lun Liangzhu wenhua de fenqi (On the periodization of Liangzhu Culture)." Shanghai Bowuguan jikan 6: 70-88.

Li Xiaoding (1965). Jiaguwenzi jishi. Taibei: Zhong-yang Yanjiuyuan Lishi Yuyan Yanjiusuo.

Li Xueqin (1993). "Haiwai fanggu xuji (ba) (Continued records of visits to overseas antiquities [8])." Wenwu tiandi 1993.6: 12-14.

Lin Huadong (1991). "Lun Liangzhu wenhua yucong (On Liangzhu Culture jade cong)." Dongnan wenhua 1991.6 135-46.

Lushi chunqiu jiaoshi. Edited by Chen Qiyou. 4 vols. Shanghai: Xuelin, 1984.

Murray, Julia K. (1983) "Neolithic Chinese jades in the Freer Gallery of Art." Orientations 14.11: 14-22.

Shanghai Museum (1996). Shanghai Museum: Ancient Chinese Jade Gallery. Shanghai: Shanghai Bowuguan.

Shanhaijing jiaozhu. Ed. by Yuan Ke. Shanghai: Shanghai guji, 1980.

Shanxi Sheng Wenwu Gongzuo Weiyuanhui (1976). Houma mengshu. Beijing: Wenwu.

Shi ji. New edition in 10 vols. Beijing: Zhonghua, 1959.

Shi Zhangru (1980). "Yindai tanyi yiji (Yin Dynasty altar remains)." Zhongyang Yanjiuyuan Lishi Yuyan Yanjiusuo jikan 51.3: 413-54.

Shisanjing zhushu. Edited by Ruan Yuan. New edition in 2 vols., Beijing: Zhonghua, 1981.

Suanjing shishu. Edited by Qian Baocong. 2 vols. Beijing: Zhonghua, 1963.

Teng Shu-p'ing (= Deng Shuping)(1987). "Gugong Bowuyuan suocang xinshiqishidai yuqi yanjiu zhi yi--bi yu yabi (Research on Neolithic jades in the collections of the Palace Museum: bi and ivory bi." Gugong xueshu jikan 5.1: 1-56.

Teng Shu-p'ing (1992). "Tang Song yuce ji qi xiangguan wenti (Jade ce of the Tang and Song and related issues)." Gugong wenwu yuekan 9.10: 12-25.

Teng Shu-p'ing (1993a). "Zhongguo xinshiqishidai yuqishang de shenmi fuhao (Mysterious symbols on Chinese Neolithic jades)." Gugong xueshu jikan 10.3: 1-49.

Teng Shu-p'ing (1993b). "Jiuzhang--jiantan gu Yue suzhong de niao chongbai ('Pigeon-scepters' and a discussion of bird worship in the customs of ancient Yue)." Gugong wenwu yuekan 10.10: 98-123.

Teng Shu-p'ing (1997). "You kaogu shili lun Zhongguo chongyu wenhua de xingcheng yu yanbian (A discsussion of the formation and evolution of Chinese jade worshipping culture based on archaeological examples)." In Tsang Cheng-hwa (Zang Zhenhua)(editor), Zhongguo kaoguxue yu lishixue zhi zhenghe yanjiu (Comprehensive research on Chinese archaeology and history), vol. 2, pp. 793-837. Zhongyang Yanjiuyuan Lishi Yuyan Yanjiusuo yilun wenji, No. 4. Taibei: Academia Sinica.

Teng Shu-p'ing (1995). Lantian Shanfang cangyu baixuan (Numerous examples of jades of Shanfang, Lantian). Taibei: Nianxi wenjiao jijinhui.

Tiansheng mingdao ben Guo yu. New edition, Taibei: Yiwen, 1974.

Wang Mingda (1992). Comments in "Zhongguo wenming qiyuan yantaohui jiyao (Summary of the symposium on the origins of Chinese civilization." Kaogu 1992.6: 537-39.

Wang Yongbo (1993). "Chengshan yuqi yu rizhuji--jianlun taiyangshen chongbai de youguan wenti (Jades of Chengshan and sacrifices to the sun god, with a discussion on issues related to sun god worship)." Wenwu 1993.1: 62-68.

Watt, James C. Y. (1988-89). "Neolithic jade carving in China." Transactions of the Oriental Ceramic Society, 53: 11-26.

Wilson, Ming S. (1995-96). "Liangzhu jades rediscovered." Oriental Art, winter issue.

Wu Hung (1985). "Bird motifs in Eastern Yi art." Orientations 16.10: 30-41.

Xinjiang Weiwu'er Zizhiqu Bowuguan (1975). Xinjiang chutu wenwu (Cultural relics excavated in Xinjiang). Beijing: Wenwu.

Yang Meili (1993). Zhonghua wuqiannian wenwu jikan: yuqipian er (Five-thousand years of China's cultural relics: Jades volume 2). Taibei: Zhonghua Wuqiannian Wenwu Jikan Bianjiweiyuanhui.

Yang Meili (1995). Gugong huanxing yuqi tezhan tulu (Illustrated catalogue of the special exhibition of ring-shaped jades in the Palace Museum). Taibei: Guoli Gugong Bowuyuan.

Yuejueshu. Xiaowanjuanlou congshu edition, in Baibu congshu jicheng, Taibei: Yiwen, 1966, ser. 66, vols. 6-7.

Zhang Minghua (1995). Liangzhu guyu (Ancient jades of Liangzhu). Taibei: Dujia Chubanshe.

Zhongguo guyu jinghua (Quintessential ancient Chinese jades). Shijiazhuang: Hebei Meishu, 1995.

Zhongguo Wenwu Jinghua Bianji Weiyuanhui (1992). Zhongguo wenwu jinghua (Gem's of China's cultural relics). Beijing: Wenwu.

Zhou li zhengyi. Edited by Sun Yirang. New edition in 14 vols., Beijing: Zhonghua, 1987.

Zhou Nanquan (1996). Gugong Bowuyuan cang wenwu zhenpinxuan, vol. 3: Yuqi (Complete collection of cultural relics treasures of the Palace Museum, vol 3., jades). Beijing: Sanlian.

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cong tubes that are now in the collections of the Musee Guimet, Paris; the Capital Museum and the Museum of Chinese History, both in Beijing; the Shanghai Museum; and the National Palace Museum, Taibei (Teng 1993). On the basis of their shape, those objects can be confidently assigned to the late phase of the Liangzhu Culture.