

The Circulation of Jades in Early China
(Late Neolithic – Eastern Zhou, ca. 4500 -221 B.C.)

Qian Yang

A Thesis

submitted in partial fulfillment of the
requirements for the degree of

Master of Arts

University of Washington

2014

Committee:

Haicheng Wang

Robin K. Wright

Meredith L. Clausen

Program Authorized to Offer Degree:

Art History

The Circulation of Jades in Early China (Late Neolithic – Eastern Zhou, ca.4500-221 B.C.)

Abstract

Jades (nephrite) have been used and cherished by Chinese residents for more than eight thousand years. They are considered one of the most significant characters of a certain culture. In the practices of archaeology, however, jade objects whose home culture was centuries earlier and hundreds-mile away have been excavated. This kind of "interference" of date can be categorized in three groups: collection, rework, and inspired copy.

Cong tubes and *bi* disks are the two major types of jades in early China, both of which originated from the late Neolithic Liangzhu culture in east China. The physical distributions of the original and copied pieces as well as the intellectual transmissions of their shapes and decorations reveal the acquisition of earlier jades and the new users' attitudes. Other than these two types, jades from other cultures and dynasties, such as flanged plaques, hooked-cloud pendants, notched disks, and burial masks also provide informative comparisons and contradictions through which we can get a glimpse of the goods and ideas transitions in early China.

By examining archaeological facts and museum/private collections, this thesis attempts to map out the collected, reworked, and copied jades in later contexts and to clarify their relations. The intended goal of this thesis is to provide as many case studies of earlier jades used by later users as possible to see when and where the earlier pieces/ ideas influenced the jade-making in later period and other regions, and thereby to conclude their circulation patterns both chronologically and geographically.

To my grandfather and parents

Acknowledgements

I would like to express my sincere gratitude to all the people who helped me during my two-year study at the UW School of Art ahead of the thesis which is by all means teamwork.

Professor Wang Haicheng, my advisor, who introduced me to the academic world of art history in the US, and the person who always stands by my side when I confront difficulties, inspired me to develop the idea of this thesis based on my undergraduate researches and current interests. It was also him who often criticized my English writing and offered detailed comments on every paper I turned in during the two years. Though I still have a long way to go before becoming a qualified writer in academia, his endeavor in correcting my illegible sentences word by word does help tremendously. Professor Wang's great interest in object-based study corresponds with my obsession with the form-analysis of artifacts. His solid knowledge in archaeology reminds me of the importance of combining case studies with archaeological backgrounds. Aside from the methodology, I also benefit a lot from his broad knowledge and critical thinking, which influenced me to tackle problems more by asking questions than accepting given conclusions as a whole. It is of great fun to seek for possible answers to certain specific questions and to employ them in my argument.

It was during discussions with Professor Robin K. Wright in my first year on a course paper extending the skeuomorphic designs in Native American art to Chinese art that my sincere interest in the form-analysis actually developed for the first time. Her expertise in Pacific Northwest coast tribal art ignited my enthusiasm for observing universal visual phenomena in arts around the globe and exploring them as a common aesthetic standard. My sensibility to forms, traces, materials, and artistic intentions was also started from then.

My first two versions of the thesis draft were primarily with the guidance of Professor Patricia B. Ebrey during a two-quarter writing seminar. All the seminar members from different but related departments offered significant advises in terms of the ideas, structures, conceptions, and of course, writing. It was on the basis of these two widely reviewed drafts that I started adding, replacing, and reorganizing during my second year. Thank you all for the precious suggestions: Duan Xiaolin, Peyton Canary, Kevin Tahmoresi, Zhao Jing, Yuan Yi, Li Qiang, and Wang Hongzhi.

To obtain a better and fuller understanding of the early Chinese jade collections in the US, I spent six weeks last summer traveling across the country to visit museums. In this process, the curators and conservators who received me and showed me their collections also gave immeasurable help. Thank you for all your great job and reception: Dr. David Sensabaugh at the Yale University Art Gallery, Ms. Ellen Takata at the Museum of Fine Arts, Boston, Ms. Melissa A. Moy at the Harvard Art Museums, Ms. Elinor L. Pearlstein at the Art Institute of Chicago, Dr. Colin Mackenzie at the Nelson-Atkins Museum of Art, Ms. Hwai-ling Yeh-Lewis at Metropolitan Museum in New York, and etc.

Professor Meredith L. Clausen is another individual that I would like to say thanks specifically. Her tremendous insightfulness and encouragement enables me to be aware of my capability to explore multiple fields other than early Chinese arts, especially in modern and contemporary architecture. It was also with her recommendation that I was honored to receive a one-year research grant from Ms. Victoria Reed to further my study of Steven Holl's works both in the US and in China. Though contemporary architecture and early Chinese material culture are seemingly irrelevant topics, I gained a great many inspirations and experiences during my archive studies and filed works. They all reflect on this current thesis in different subjects.

My second year of study was financially supported by the Blakmore Fellowship through the Seattle Asian Art Museum. During my service as a curatorial assistant at the SAAM, I was given exposure to various fields of art and different types of museum works. Dr. Wu Xiaojin, my supervisor, not only assigns me given tasks but also encourages me to do original researches on the jade collections. Though the SAAM collections are not included in my thesis, such a golden opportunity helps me profoundly in re-thinking my draft every now and then with different entry points.

Last but not least, I would like to say thank you to my dear parents Yang Chungeng and Dong Xiaotong. I would never succeed in composing my thesis and getting my degree without your unconditional support all the time. I love you. My dear husband, Liu Bingran, spent numerous late nights with me, studying archives, typing, editing, scanning, and repeatedly revising. His engineer way of thinking helps me a lot in grasping the core of the problems. Thank you for proofreading my rough, scattered, and sometimes illegible and illogical chapters, while putting up with my blue mood and trying everything to cheer me up. I love you.

I will never forget my four year in Museology and two year in Art History study is the fruit of my passion for early Chinese art. My grandfather Yang Wenhe planted the seed in my childhood and now it becomes a tree. Thank you, grandpa, I miss you.

Art museums are my favorite places, for now and forever.

Table of contents

Abstract	ii
Acknowledgements	iii
Table of contents	vi
Introduction	1
Chapter 1 <i>Cong</i> tubes	7
Part 1 Later copy of <i>cong</i> tubes	7
1.1.1 The late Neolithic Era	7
1.1.2 Erlitou Period (ca. 1800-1500 B.C.), Erligang Period (ca. 1500-1300 B.C.), and Anyang Period (ca. 1200-1000 B.C.)	12
1.1.3 Western Zhou (1027-771 B.C.) and Eastern Zhou (771-221 B.C.)	17
1.1.4 Summary	24
Part 2 Reworked pieces of earlier <i>cong</i> tubes	27
1.2.1 The late Neolithic Era: Shijiahe culture (ca. 2600-1900 B.C.)	30
1.2.2 Erlitou Period (ca. 1800-1500 B.C.) and the late Shang (ca. 1200-1000 B.C.)	30
1.2.3 Summary	34
Chapter 2 <i>Bi</i> disks	36
2.1 The late Neolithic Era	36
2.2 Erlitou Period (ca. 1800-1500 B.C.), Erligang Period (ca. 1500-1300 B.C.), and Anyang Period (ca. 1200-1000 B.C.)	37
2.3 Western Zhou (1027-771 B.C.) and Eastern Zhou (771-221 B.C.)	44
2.4 Summary	50
Chapter 3 Other observations	51
Part 1 Flanged plaques	51
3.1.1 Late Shang (ca. 1200-1000 B.C.)	52

3.1.2 Western Zhou (1027-771 B.C.) and Eastern Zhou (771-221 B.C.)	54
3.1.3 Summary	56
Part 2 Hooked-cloud pendants	58
3.2.1 Western Zhou (1027-771 B.C.)	60
3.2.2 Summary	61
Part 3 Notched disks	63
3.3.1 Late Neolithic Era	64
3.3.2 Late Shang (ca. 1200-1000 B.C.)	65
3.3.3 Western Zhou (1027-771 B.C.)	67
3.3.4 Summary	70
Part 4 Burial masks	71
3.4.1 Late Western Zhou (8 th century B.C.): Guo state Cemetery, Sanmenxia, western Henan	71
3.4.2 Other Western Zhou examples (1027-771 B.C.)	75
3.4.3 Summary	76
Conclusion	78
Bibliography	81

Introduction

Jades (nephrite) have been cherished and sought after by the residents of China since the late phase of the Neolithic age. As early as about 8000 years before present, artisans of the Xinglongwa culture (ca. 6200-5200 B.C.) in the northeast of China managed to get the “translucent stones” from rock blocks and grind them to desired shapes. Since then, the use of and fondness for jades have not been halted. Chinese people believed and still believe that the transcendent power embedded in the “magic stone” corresponds with the moral, celestial, and psychological characters of its owner. Wearing jade is considered as a fitting symbol for a descent and wealthy man.

Beloved and sought-after by people, jades were exclusively owned by and circulated among aristocrats in early China. Getting the material and carving them into certain shapes demanded tremendous investment of manpower and time. Precious and scarce as jade material was, it was carved to various shapes whose functions are hard to understand by their appearances, such as *cong* tubes (Fig. 1.1) and *bi* disks (Fig. 2.1). They were also used for reproducing bronze weapons (Fig. 2.9). Most of the jades that are found in tombs were placed with certain order in the burial near their deceased owners, thus they were probably used for ritual ceremonies by their owners and buried with them after death to signify their extraordinary power.

In the discoveries of ancient burials from the late Neolithic to Eastern Zhou (ca. 4500-221 B.C.), there are jades with characters of other cultures found. Some of them are kept intact, some are trimmed to new shapes or given new decorations, and some are later imitations of an earlier iconic shape. In general, they are all old pieces/shapes with new uses at the hands of their new owners. The time difference between their home culture and the culture they were finally found with can be several thousand years. The geographical distance between them can be more than 1200 miles. The intrusion of earlier pieces/ shapes in later contexts provides us a window to see the later owners’ attitude to the archaic jades, such as their choices between collecting or breaking, their preference of copying, and other rework-related issues.

The earlier pieces/ shapes used in later contexts are the topic of this thesis, for their existences and locations reveal the distribution of certain types of jades from their home culture and their “lives” in later cultures. It was not only the actual pieces that were collected or

reworked/ refashioned by later owners, but also the idea of certain shapes that exerted influences. Therefore, I categorize their “new lives” in three groups:

Collection, meaning that old pieces are in the same shape and condition as they were found in their home cultures;

Rework, meaning new craftsmanship applied on old pieces, including deliberate breaking and rescue by intention; and

Inspired copy, meaning old shape made by later artisans with new fashions of decoration.

The new uses that we can discern by shapes and styles were actually decided by the accessibility of old jades in the later culture and the intention of later users. The number, condition, and quality of the acquired older pieces, and the motivation to keep, break, or rescue them can make the situation of the “new life” very different.

The kind of new use is suggested by their forms (shapes and styles), but to map out the circulation, their locations cannot be ignored. Form and location present the general picture of the circulation of certain type of jades. In other words, they are an output of the whole process of distribution and transmission that was decided by accessibility and intention.

The practices of collecting, revising, and copying older pieces in later periods are not a new topic in art history and archaeology. Several works have been published from different entry points, such as Jessica Rawson on the archaism of bronzes made in Ming and Qing dynasties¹, Jenny So on the Shang-Western Zhou style bronzes made in Eastern Zhou², Li Ling on the general archaism practices in Chinese art until Qing dynasty³, Cai Qingliang on the material-

¹ Jessica Rawson, “Novelties in Antiquarian Revivals: the Case of the Chinese Bronzes.” *The National Palace Museum Research Quarterly*, Vol.22, no.1 (2004), 1-34.

² Jenny F. So, “Antiques in Antiquity: Early Chinese Looks at the Past.” *Journal of Chinese Studies*, Vol.48 (2008), 1-34.

³ Li Ling 李零. *Shuogu zhujin: kaogu faxian he fugu yishu* 鑠古鑄今：考古發現和復古藝術[Archaeological discoveries and Archaism Art]. Hong Kong: The Chinese University of Hong Kong Press, 2005.

using strategy of Shang and Zhou jades⁴. Aside from the general analysis, scholars have discussed examples of jades in specific periods, such as Jenny F. So on a late Neolithic Hongshan jade in the Freer Gallery⁵, Yang Jianfang on the late Neolithic Shijiahe jades⁶, Yuan Yongming on the earlier jades found in Shang and Western Zhou tombs⁷, Sun Qingwei on the origin and allocation of early jades in Western Zhou⁸, Zhang Changshou on the reworking of old pieces in the Zhangjiapo cemetery of Western Zhou⁹, and Zhang Changping on the tomb of Marquis Yi of Zeng in late Eastern Zhou¹⁰. On the basis of these studies, we can know that high-class Shang and Zhou tombs yield various earlier jades in different uses, the philosophy of the reworking seemed not unified; and in Western Zhou earlier jades were acquired by looting and distributed among aristocrats as winning rewards. We can also conclude some types of reworking in Shang and Zhou practices from the case studies.

This thesis, focusing on the physical distribution and the intellectual transmission of earlier jades during early China (late Neolithic to Zhou), is an attempt to see when and where the earlier pieces/ideas influenced the jade-making in later period and other regions. To track the transmission of ideas more clearly, I also incorporate examples from museum and private collections. Aside from archaeological finds, they provide revealing facts especially on the various copies/ reworks of the old shapes.

The names and dates of the cultures and finds mentioned in this thesis are listed below, and their locations are as shown in the map:

⁴ Cai Qingliang 蔡慶良. “Guwuxue yanjiu: Yuanshengxing, cishengxing, zaishengxing yuqi de taolun 古器物學研究：原生型，次生型，再生型玉器的討論. In *Gudai wenming* 古代文明, vol.3, edited by Beijing daxue zhendan gudai wenming yanjiu zhongxin 北京大學震旦古代文明研究中心. Beijing: Wenwu chubanshe, 2004.

⁵ Jenny F. So. “A Hongshan Jade Pendant in the Freer Gallery of Art,” *Oriental Art*, no.5 (1993), 87-92.

⁶ Yang Jianfang 楊建芳, “Shijiahe wenhua yuqi jiqi xiangguan wenti” 石家河文化玉器相關問題, in *Proceedings: International Colloquium on Chinese Art History*. Taipei: National Palace Museum, 1991, 41-57.

⁷ Yuan Yongming 袁永明, “Shangdai Xi Zhou muzang zhong chutu qiandai yuqi chushi” 商代西周墓葬中出土前代玉器初識, *Zhongyuan wenwu* 中原文物, 2000, 3, 43-7.

⁸ Sun Qingwei 孫慶偉. “Fuyu yu fenqi: Zhoudai muzang zhong qiandai yuqi de lai yuan yu liuchuan” 孚玉與分器：周代墓葬中前代玉器的來源與流傳. *Gugong wenwu yuekan* 故宮文物月刊, no. 354, 2012, 9, 36-41.

⁹ Zhang Changshou 張長壽. “Xi Zhou yuqi de gaizhi xianxiang” 西周玉器的改制現象 [The Practice of Jade Reworking in Western Zhou]. In *Dongyayuyi (dierjuan)* 東亞玉器（第二卷） [East Asian Jade: Symbol of Excellence, Vol.2], edited by Tang Chung 鄧聰, 213-6. Hong Kong: Chinese University of Hong Kong, 1998.

¹⁰ Zhang Changping 張昌平. “Zenghou yimu yuqi de gaizhi” 曾侯乙墓玉器的改制. *Zhongguo lishi wenwu* 中國歷史文物, no.1 (2008), 9-14.



The late Neolithic Era:

1. Northeast China: Hongshan 紅山 culture, ca. 4500-3000 B.C.
2. Lower Yellow River region: Longshan 龍山 culture, ca. 2500-1900 B.C.
3. Middle Yellow River region: Taosi 陶寺 culture, ca. 2600-1900 B.C.
4. Upper Yellow River region: Qijia 齊家 culture, ca. 2300-1700 B.C.
- 5-7. Middle Yangzi River region: Songze 崧澤 culture, ca. 3900-3200 B.C., Lingjiatan 凌家灘 culture, ca. 3600-3200 B.C., Liangzhu 良渚 culture, ca. 3200-2200 B.C.;
8. Middle Yangzi River region: Shijiahe 石家河 culture, ca. 2600-1800 B.C.

Historic Periods:



1. Erlitou 二裏頭 period (ca. 1800-1500 B.C.): Erlitou, Yanshi, Henan;



- 2-3. Erligang 二裏崗 Period (ca. 1500-1300 B.C.): Zhengzhou 鄭州, Henan;
Panlongcheng 盤龍城, Hubei;



- 4-6. Anyang 安陽 period (ca. 1200-1000 B.C.): Fu Hao's 婦好 tomb, Anyang, Henan,;
Xin'gan 新幹 tomb, Jiangxi; Sanxingdui 三星堆 pits, Sichuan;

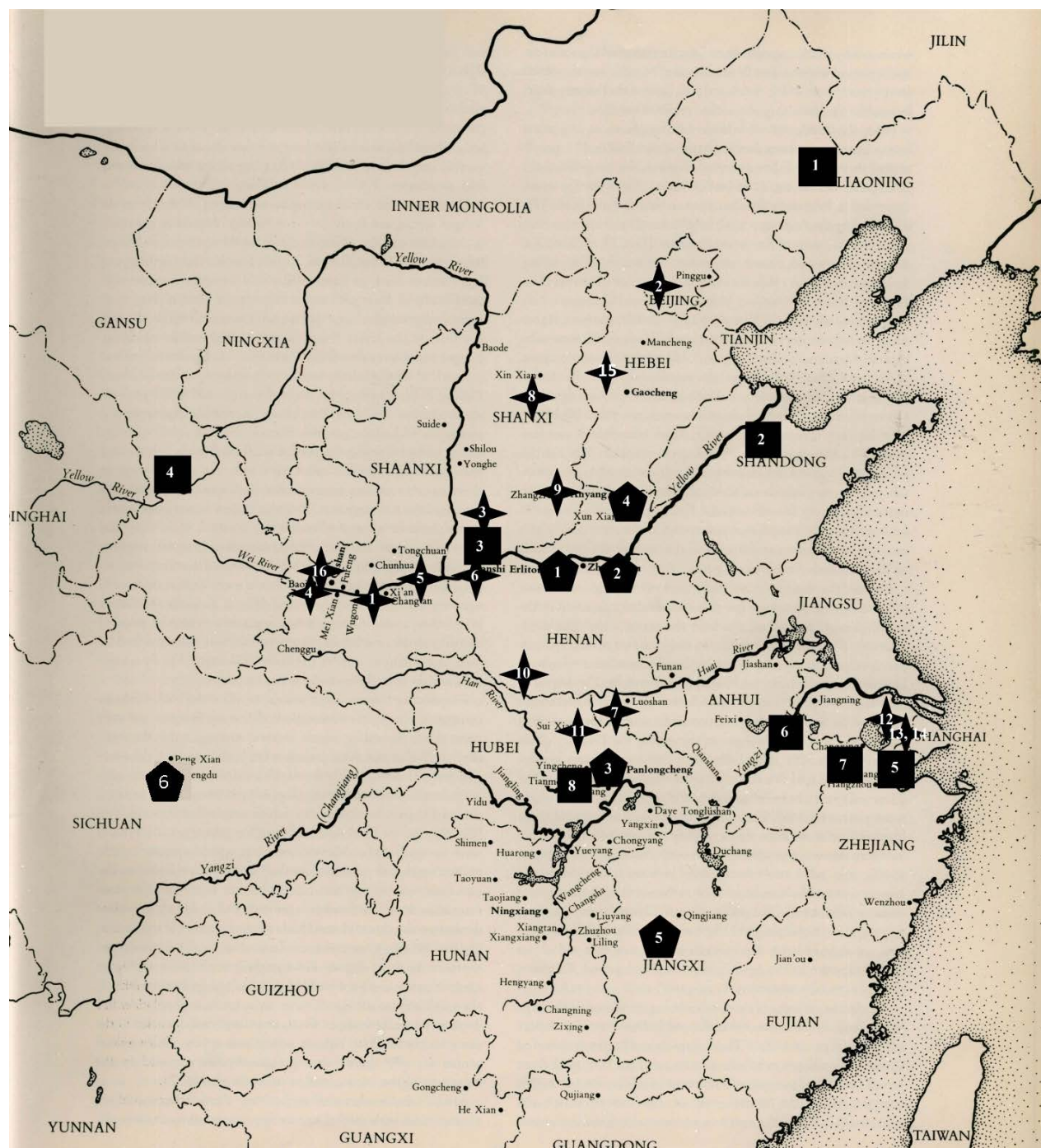


- 1-6. Western Zhou 西周 (1027-771 B.C.): Zhangjiapo 張家坡 cemetery, Chang'an, Shaanxi; Liulihe Yan 燕 state cemetery, Beijing; Jin 晉 state cemetery, Tianma-Qucun, Shanxi; Yu 弓鱼 state cemetery, Baoji, Shaanxi; Rui 芮 state cemetery, Liangdaicun, Hancheng, Shaanxi; Guo 虢 state cemetery, Sanmenxia, Henan;



7-16. Eastern Zhou 東周 (771-221 B.C.): Huang Junmeng's 黃君孟 tomb, Xinyang, Henan; Minister Zhao 趙卿 of Jin's tomb, Taiyuan, Shanxi; Fenshuiling 分水嶺 cemetery, Changzhi, Shanxi; Chu 楚 state tomb, Xichuan 淅川, Henan; Marquis Yi of Zeng's 曾侯乙 tomb, Suixian, Hubei; Hongshan 鴻山 Yue 越 state tomb, Wuxi, Jiangsu; Yanshan 嚴山 Wu 吳 state hoard, Suzhou, Jiangsu; Zhenshan 真山 Wu 吳 state tomb, Suzhou, Jiangsu; King of Zhongshan's 中山 tomb, Pingshan, Hebei; Qin 秦 state cemetery, Fengxiang, Shaanxi.

There are three chapters in total. Chapters 1 and 2 focus on *cong* tubes and *bi* disks respectively, examining these two major types' distribution, as well as the transmission of their shapes and decorations in later contexts during late Neolithic, Shang and Zhou periods. Chapter 3 deals with other types of jades in early China that interest me due to their specific shapes and their "lives" as reworked materials or transmitted ideas.



Neolithic cultures;
 Shang sites;
 Zhou sites

After Shang Ritual Bronzes, 32.

Chapter 1 *Cong* tubes

Cong tube is a type of jade ceremonial object that was firstly and mostly found in the late Neolithic Liangzhu culture (ca. 3200-2200B.C.) sites in southeast China (mostly in Jiangsu, Shanghai, and Zhejiang). It is a cylindrical tube with a squared circular cross section in the middle. A typical Liangzhu *cong* tube (Fig. 1.1) is decorated with eye motifs on its surface that is often elaborately incised by fine lines. *Cong* tube's meaning and function are unknown.

Part 1 Later copy of *cong* tubes

1.1.1 The late Neolithic Era

Unique and mysterious as it is, *cong* tube enjoyed a long life span and a broad geographical distribution. A squared bracelet (Fig. 1.2) found in Shandong Longshan culture (ca. 2500-1900 B.C.) shares the shape of circular cross section with the Liangzhu one, while it is plain in decoration. Given its scarcity in findings and unembellished surface, it is probably a mimic of Liangzhu *cong* tube¹. From the lower Yangzi River valley to the lower Yellow River valley, it is more than 500 miles in distance.



Fig. 1.1 *Cong* tube, Liangzhu culture, late Neolithic
After *Liangzhu wenhua yuqi*, pl.25.
Height: 7.2cm, diameter of top: 8.6cm, diameter of bottom: 8.3cm.



Fig. 1.2 *Cong* tube, Shandong, Longshan culture, late Neolithic
After *Zhongguo yuqi quanji*, 1, no.35.
Length: 6.1-6.4cm



Fig. 1.3 *Cong* tube, Taosi culture, late Neolithic
After *Zhongguo yuqi quanji*, 2, no.1.
Diameter: 7.2-7.5cm, height: 2.6cm

¹ Though there are plain *cong* tubes with no decoration found in Liangzhu culture, they are higher and angular than Fig. 1.2. Thus, such an undecorated thin *cong* is not possible to be an import to Shandong. See *Liangzhu wenhua yuqi*, pl. 7.



Fig. 1.4 *Cong* tube, Shijiahe culture, late Neolithic
After *Shijiahe wenhua yuqi*, no.138.
Height: 7cm, diameter: 6cm



Fig. 1.5 *Cong* tube, Qijia culture, late Neolithic
After *Qijia wenhua yuqi*, no. 124.
Height: 3.7cm, width: 5.3cm



Fig. 1.6 *Cong* tube with human face, late Qijia culture, late Neolithic
After *Qijia wenhua yuqi*, no. 155.
Height: 13.6cm, width: 8cm



Fig. 1.7 Human head, Shijiahe culture, late Neolithic
After *Shijiahe wenhua yuqi*, no. 15.
Length: 2.6cm, diameter: 1.2cm



Fig. 1.8 *Cong* tube, Qijia culture, late Neolithic
After *Qijia wenhua yuqi*, no. 160.
Height: 19cm, width: 7.6cm

Another example (Fig. 1.3) is found in Taosi culture (ca. 2600-1900 B.C.) in southwestern Shanxi, the middle Yellow River valley, which was a regional center. There are four “corners” demarcated by a vertical line on either side. The four corners are simplified to four “panels” with three horizontal grooves. It is not only reduced in

decoration, but also in height. But it was created to serve as, at least to look like a *cong* tube, given its apparent presentation of the four corners².

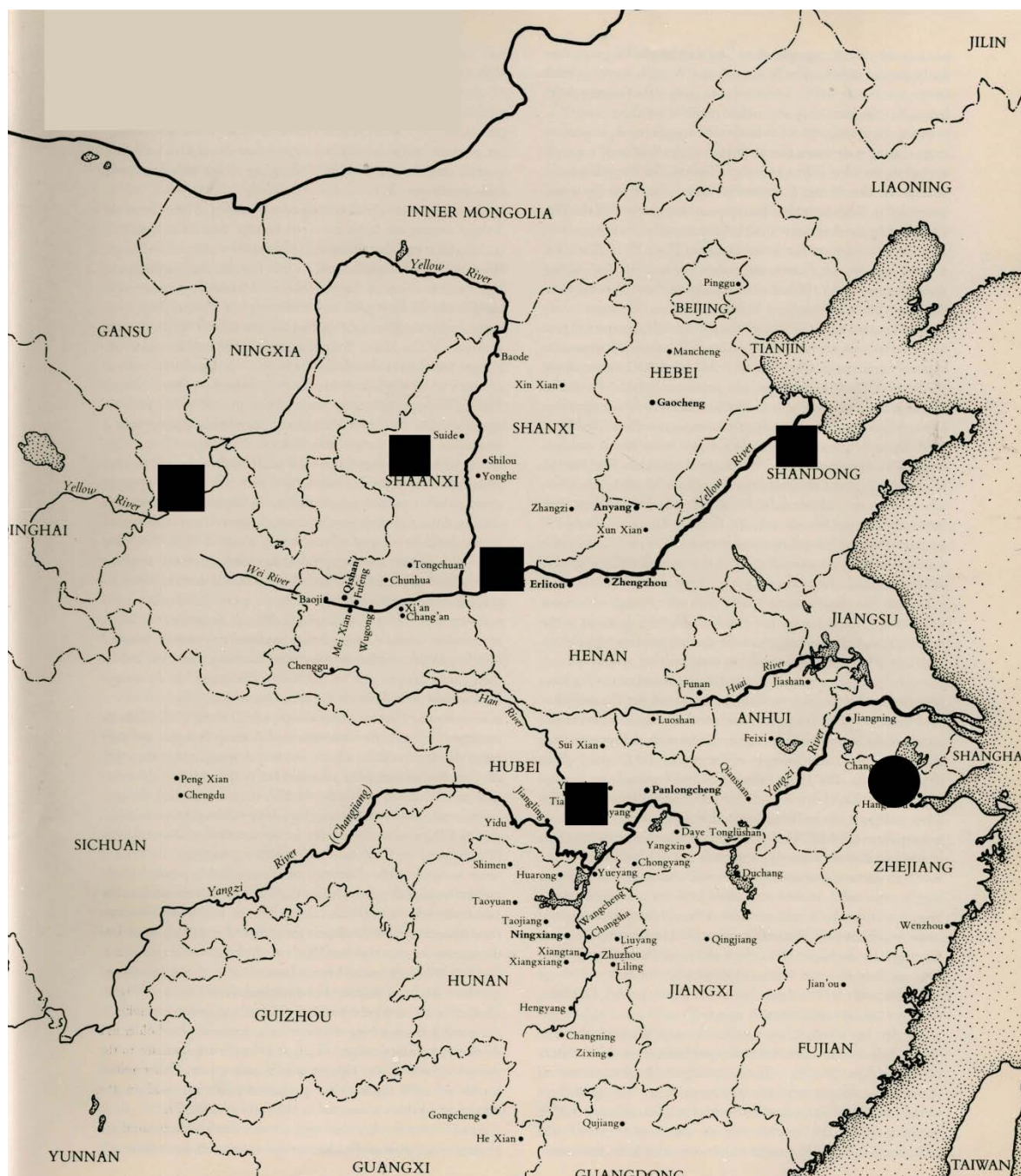
A similar but much simpler example (Fig. 1.4) found in a Shijiahe culture (ca. 2600-1800 B.C.) site in northwestern Hunan is identical in shape with the Liangzhu piece, but with no detailed decoration. The animal faces on the corners of the Liangzhu *cong* are replaced on the Shijiahe piece by four horizontal lines, and the separation between squared corners and the adjacent wall of the inside cylindrical tube is simplified to two vertical lines. The lack of characteristic motifs, however, does not prevent it from being recognized as a *cong* tube, due to clearly defined elements. It is clear that the Shijiahe artisan must have seen a Liangzhu *cong* prototype and intended to reproduce it in a simpler manner.

Qijia culture (ca. 2300-1700 B.C.), in the Upper Yellow River region, is the home of some really peculiar *cong* tubes. Fig. 1.5 shows a highly polished *cong* tube with no decoration except the two inlaid turquoise dots on one of its sides. Decorating turquoise components on the plain surface of jades is a characteristic of Qijia culture. Another example is shown in Fig. 1.6, which bears a human-head relief on one side. The human head, however, originated from a Shijiahe human head figurine (Fig. 1.7) in the middle Yangzi River valley. The surprising similarity convinces us that the artisans of this Qijia *cong* must have had a Shijiahe jade at hand. This suggests that the Shijiahe jades were imported to Qijia. The *cong* tube in Fig. 1.8 reminds us of the Liangzhu originals by the fine line incisions of faces on the corners. The facial structure, however, was far from its model (Figs. 1.1 and 1.40). This indicates that Qijia artisans must have seen a Liangzhu prototype before making this one, but perhaps vague memories only allowed them to make such a coarse copy. The other two examples (Figs. 1.12, and 1.19) replace the corners with four separate components, which can be seen in the collection of a late Shang aristocrat.

² There are examples of *cong* tubes from modern Yan'an area in Shaanxi, to the north of Taosi area that bear similar animal faces on the corner as the Liangzhu prototypes. See *Zhongguo yuqi quanji*, 1, nos. 43-45. They may be imports from Liangzhu or imitations with high resemblance. Thus, it is possible that Fig. 1.3 is modelled after the Yan'an ones and fulfilled in great simplification.

According to the above discoveries, we can roughly map out the transmission and distribution of *cong* tubes during the late Neolithic age of China (ca. 3200-1700 B.C.) (Map. 1.1). The roughly contemporaneous Longshan (lower Yellow River), Taosi (middle Yellow River), and Shijiahe (middle Yangzi River) all accepted and produced *cong* tubes, although they were at least five hundred miles from the Liangzhu culture and from each other. Several centuries later, the Qijia culture in the Upper Yellow River region also imported *cong* tubes from Liangzhu, which may not be immediate. Qijia culture had also been exposed to Shijiahe jades as well.

There are two types of transmissions during the process: from Yangzi River region to Yellow River region, which can be called “south-north” transmission; and from lower river region to the upper one, which can be called “east-west” transmission. From Liangzhu to Longshan, and from Shijiahe to Qijia are generally “south-north”; and from Liangzhu to Shijiahe along Yangzi River, and from Longshan through Taosi to Qijia along Yellow River are basically “east-west”.



Map. 1.1 The circulation of the *cong* tubes in the late Neolithic China
After *Shang Ritual Bronzes*, 32.

● Liangzhu culture; ■ other Neolithic cultures

1.1.2 Erlitou Period (ca. 1800-1500B.C.), Erligang Period (ca. 1500-1300 B.C.), and Anyang Period (ca. 1200 -1000 B.C.)

Located in north Henan on the Central Plain of China, Erlitou in modern Yanshi and Erligang in modern Zhengzhou witnessed prospering state-level cultures during the earliest historical period of early China. Though *cong* tubes had been distributed widely in the late Neolithic era, there is no *cong* found in Erlitou sites or early phase Erligang sites. Dated to the late phase of the Erligang period, a broken *cong* tube (Fig. 1.9) has been excavated in Zhengzhou together with several other “migrations” (the others will be discussed in Chapter 2). It is the first and only *cong* tube in Erligang culture. In the other Erligang culture site in middle Yangzi River valley – Panlongcheng in modern Hubei - there is no *cong* tube discovered. It seems that the spread of *cong* tubes halted during the first half of the second millennium B.C. and the only finding of *cong* tubes is, therefore, highly possible to be a migration by chance. In addition, no copy or inspired work has been discovered, meaning that *cong* tube did not attract Erlitou and early Erligang aristocrats.

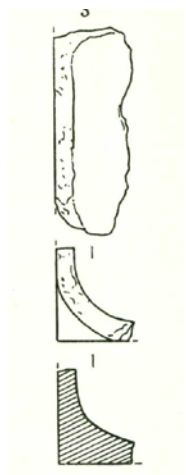


Fig. 1.9 Fragment of cong tube, Zhengzhou, Henan, Erligang Period
After *Zhengzhou Shangcheng*, 839, fig. 562, 4.
Height: 13cm, width: 6cm



Fig. 1.10 *Cong* tube, Fu Hao's tomb, late Shang
After *Yinxu Fu Hao mu*, pl. LXXXI, 3.
Height: 4.9cm, diameter: 6.5cm, thickness of tube: 0.4cm

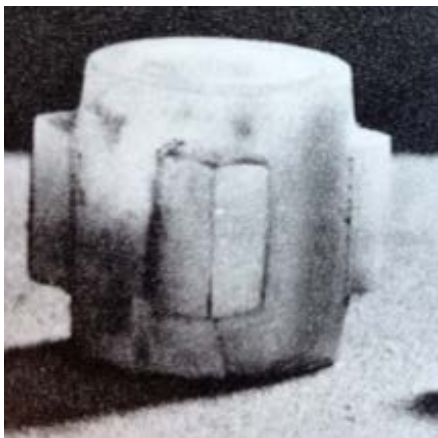


Fig. 1.11 *Cong* tubes, Fu Hao's tomb, late Shang
After *Yinxu Fu Hao mu*, pl. LXXXII, 4.
Height: 2.0cm, diameter: 1.8cm, thickness of tube:
0.4cm



Fig. 1.12 *Cong* tube, Qijia culture, late Neolithic
After *Qijia wenhua yuqi*, no. 156.
Height: 5.5cm, width: 6.8cm

The situation changed dramatically during the Anyang period, as seen in Fu Hao's tomb (ca. 1200 B.C.), the only intact royal burial found in the last capital of the Shang dynasty. Various versions of *cong* tubes have been buried with this royal lady.

In total, there are fourteen jades in the shape of *cong* tube excavated in Fu Hao's tomb. Basically they manage to retain the characteristic shape of the *cong* tube in two approaches: "building up" a rectangular box tangent to the inside tube by casing an upright rectangular "wall" on each of the four sides (Fig. 1.10); and "attaching" four separate corners to the tube (Fig. 1.11). Of course there was no glue used during the process, they are grinded to desired shape with no "adding" process. Apparently, different artisans who held different understandings of the *cong* tube made them. As we have seen in the late Neolithic Qijia jades (Figs. 1.12 and 1.19), the various copies of *cong* tubes are not inventions of the Shang carvers. The hierarchy in quality, design, and size suggest that they were not made by the same standard, and were probably collections from various places.

Some examples (Figs. 1.10, 1.11) are immediately recognizable in shape, but dramatically down in scale. In Fu Hao's tomb, the *cong* tube that is closest to the Liangzhu prototype is shown in Fig. 1.13, and for comparison a Liangzhu piece is shown in Fig. 1.14. This *cong* from Fu Hao's tomb imitates the prototype not only in shape,

scale, and composition, but also in the animal faces on the corners. The only difference is that Anyang carvers replaced the sunken eyes with bumps. It is not fair to conclude that Anyang carvers were not able to reproduce the fine lines accurately on a late Shang *cong*, their dexterity can be proved by the intricate carvings on the hairdo and garment of a figurine (Fig. 1.15). The substitution can be understood as a different fashion. We may also deduce that Fu Hao, who maybe as a representative of the Shang royal family was not fond of *cong* tube, at least was not aware of its significance, otherwise there is no reason for not seeking for the best authentic/reproduced pieces of it.



Fig. 1.13 *Cong* tube, Fu Hao's tomb, late Shang
After *Yinxu Fu Hao mu*, pl.LXXXII, 3.
Height: 2.8cm, diameter: 6.7cm, thickness of tube: 0.5cm



Fig. 1.14 *Cong* tube, Liangzhu culture, late Neolithic
After *Liangzhu wenhua yuqi*, pl.38.
Height: 3.9cm, diameter of top: 6.8cm, diameter of bottom: 6.7cm, diameter of hole: 5.3cm

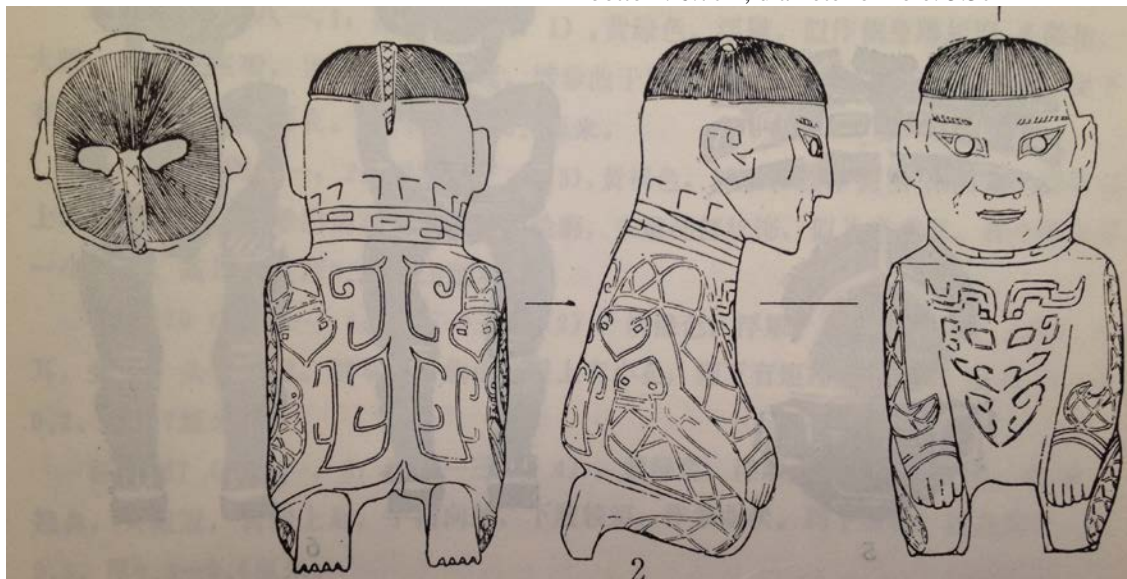


Fig. 1.15 Kneeling figurine, Fu Hao's tomb, late Shang, jade
After *Yinxu Fu Hao mu*, 153, fig. 80, 2.
Height: 8.5cm.

The carver of another *cong* tube (Fig. 1.16) in Fu Hao's tomb must have disagreed with the artisan who made the *cong* shown in Fig. 1.8. His rendering of the decoration on the corners has much more connection to a *cong* found in Xin'gan Dayangzhou (Fig. 1.17), a contemporary tomb in the Yangzi River region. They both use two horizontally symmetrical protrusions on each corner to represent the decoration, and they may be the source of inspiration of one piece in the Winthrop collection at Harvard (Fig. 1.18), whose date is uncertain. However, the idea of replacing corners with cicadas is not an invention of Shang carver, either. Fig. 1.19 shows a late Neolithic example found in Qijia culture. Fu Hao also had a collection of a similar piece (Fig. 1.20).



Fig. 1.16 Cong tube, Fu Hao's tomb, late Shang
After *Yinxu Fu Hao mu*, pl.LXXXII, 2. Height: 2.5cm,
diameter: 6.5cm, thickness of tube: 0.9cm



Fig. 1.17 Cong tube, Xin'gan, late Shang
After *Zhongguo yuqi quanji* 2, pl.131.
Height: 7.0cm, diameter: 6.3cm, thickness of tube: 0.8-
1.2cm

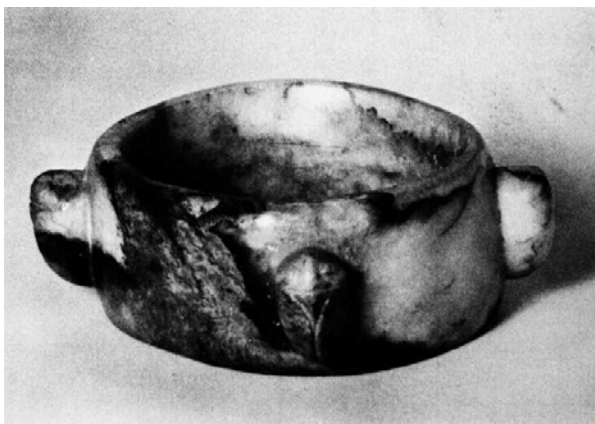


Fig. 1.18 Cicada *cong* tube, date uncertain.
After *Winthrop catalogue*, P.603.
Diameter: 5.6cm, width: 2.6cm, thickness of ring:
0.5cm



Fig. 1.19 Cicada *cong* tube, Qijia culture, late Neolithic
After *Qijia wenhua yuqi*, no. 159.
Height: 5.8cm, width: 8.2cm



Fig. 1.20 Cicada *cong* tube, Fu Hao tomb
After *Yinxu Fu Hao mu*, color pl. XVI, 2.
Height: 2.7cm, diameter: 5.2cm

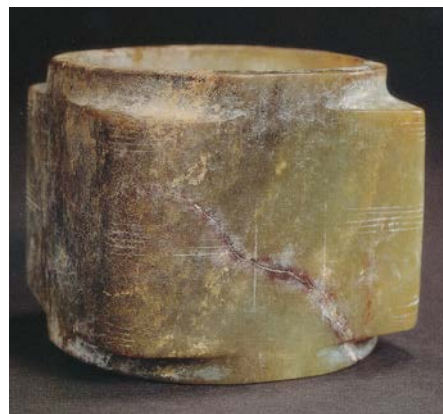


Fig. 1.21 *Cong* tube, Sanxingdui culture, Sichuan, late Shang
After *Zhongguo kaogu wenwu zhimei: Sanxingdui*, no. 65.
Height: 7.2cm

Beside the distributions in east and middle China, *cong* tubes reached as far as the Upper Yangzi River valley in Sichuan Basin during Shang time. One example from the Sanxingdui site (Fig. 1.21) is dated to late Shang, whose corners are decorated with three groups of parallel fine lines that correspond to the animal faces on Liangzhu ones (Fig. 1.1). It is also on exactly the same scale as Fig. 1.1, which further enhances the possibility that it is a close copy of the original, with simplified decorations. There is also a broken piece of *cong* tube in Sanxingdui site, which is certified to be an heirloom from early Shang³. This indicates that *cong* tubes were brought to the Sichuan area no later than late Shang. The imports include handed-down early Shang imitations as well as Liangzhu prototypes⁴. The prototype, though absent in current discoveries, became the model of Fig. 1.21.

³ It is broken and burned as other objects in the same pit. The damages are results of a certain ritual ceremony and the direct reason for the burial. See *Zhongguo kaogu wenwu zhimei: Sanxingdui*, no. 64.

⁴ Jinsha site (ca. 1200-650 B.C.) in Sichuan, considered to be a center of regional culture after Sanxingdui's decline, has yielded *cong* tubes both in original type and in copy. A ten-section *cong* tube bearing great similarity with Liangzhu prototypes may to some extent testify to the imports of Liangzhu *cong* tubes in Sanxingdui. See *Jinsha yuqi*, 41.

1.1.3 Western Zhou (1027-771 B.C.) and Eastern Zhou (771-221 B.C.)

The production of *cong* tubes with ever-changing fashions can also be seen in Western Zhou. In the Zhangjiapo cemetery in Chang'an, southern Shaanxi, a *cong* tube (Fig. 1.22) embellished with typical Western Zhou bird motif on four sides of the cube was found. An almost identical decoration can be found on a late Western Zhou bronze (Fig. 1.23). In the earlier part of the Eastern Zhou, curvilinear dragons became the major motif that not only prevailed on bronzes but also on jades, as seen in Fig. 1.24. These patterns are rendered in low relief. Diagonal striations accent the relief dragons, which alternate in their orientation on each of the four corners. Dragons with long, recurving snouts and sinuous bodies can also be seen on bronzes contemporaneous with the dragon *cong* tube (Fig. 1.25). Another delicately crafted *cong* (Fig. 1.26) is found in a Jin minister's tomb in Taiyuan, Shanxi. It follows the "attaching" method originated from Fu Hao's tomb in late Shang, while the preceding example uses the "tangent" method. *Bi* disks (Fig. 1.27) found in the same burial are carved with the same worm-like pattern, which features on all jades of this period. A fragment of *cong* tube (Fig. 1.28) unearthed in a royal tomb of Qin state in southwest Shaanxi broadens our vision of the various regional styles applied to this form. It bears identical angular fine line patterns with the *bi* disk in the same burial (Fig. 1.29), which proves to be the typical Qin-style in west China.⁵ But other than the above fully embellished singular examples found in the aristocrats' tombs, there is rarely any other simple copy of *cong* tubes in Western Zhou. This suggests that *cong* tubes had been considered as a non-functional token to play with and to show the archaistic taste of their wealthy owners.

⁵ Qin-style jade is also discussed in Chapter 4 Flanged plaques.



Fig. 1.22 Cong tube, Xi'an Zhangjiapo, Western Zhou
After *Zhangjiapo Xi Zhou yuqi*, pl. 45.
Height: 5.5cm, width: 0.7cm, diameter of hole: 3.6cm



Fig. 1.23 Detail of a bronze hu vessel, late Western Zhou
After *Zhongguo qingtongqi quanji*, 6, no. 133.
Height: 58.5cm



Fig. 1.24 Cong tube and its detail, Sackler Gallery, early Eastern Zhou
After *Sackler catalogue*, no. 58.
Height: 4.2cm, width: 7.2cm, depth: 7.2cm

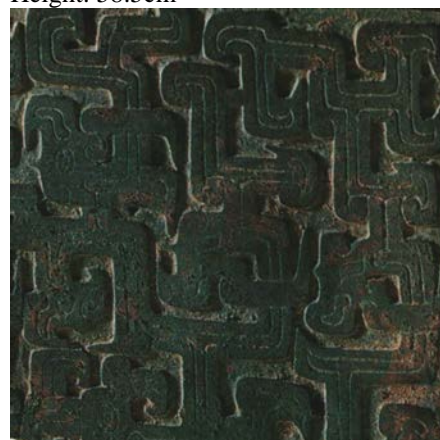


Fig. 1.25 Detail of a bronze architectural compartment, Fengxiang, Shaanxi, early Eastern Zhou
After *Zhongguo qingtongqi quanji*, 7, no.55.
Length: 31cm, width: 22cm



Fig. 1.26 Cong tube, Jin minister's tomb, Early Eastern Zhou
After *Zhongguo kaogu wenwu zhimei: Zhaoqing mu*, no.59.
Length: 4.6cm, diameter of the hole: 3.5cm



Fig. 1.27 Bi disk, Jin minister's tomb. Early Eastern Zhou
After *Zhongguo kaogu wenwu zhimei: Zhaoqing mu*, no.54.
Diameter: 8cm



Fig. 1.28 Qin-style cong tube fragment, Fengxiang, Shaanxi, early Eastern Zhou
After *Shaanxi chutu Dong Zhou yuqi*, 79, FN28
Height: 6.8cm



Fig. 1.29 Qin-style bi disk, Fengxiang, Shaanxi, early Eastern Zhou
After *Shaanxi chutu Dong Zhou yuqi*, 59
Diameter: 16.8cm, thickness: 0.5cm

There are also *cong* tubes discovered in tombs of later Eastern Zhou, with great variety in quality. Take the Fenshuiling cemetery in Changzhi, southeastern Shanxi for examples. Squatting and bulky ones (Fig. 1.30) are seen in medium-and-large-size burials.⁶ They are perforated coarsely with a small hole, and the corners are marked by two incisions on either side. There is another one (Fig. 1.31) decorated all over by a swirl-cloud pattern except the upper and bottom surface of the corners. The incisions are originally an imitation of the coiled dragon meander on bronzes (Fig. 1.32).

⁶ A late Eastern Zhou tomb in Huixian, Henan also yields similar *cong* tube. See *Huixian fajue baogao*, pl. 23, 14.



Fig. 1.30 Cong tube, Fenshuiling cemetery M5, late Eastern Zhou
After *Changzhi Fenshuiling Dongzhou mudi*, pl. 10, 1.
Length: 4.9cm, diameter of the hole: 1.45cm



Fig. 1.31 Cong tube, Fenshuiling cemetery M126, late Eastern Zhou
After *Changzhi Fenshuiling Dongzhou mudi*, pl. 16, 3.
Length: 4.3cm, width: 4.1cm, thickness: 1.6cm



Fig. 1.32 Detail of a bronze *fu* vessel, Sackler Gallery, early Eastern Zhou
After *Zhongguo qingtongqi quanji*, 8, no. 34.

A *cong* tube with an incomplete animal face, which looks to be a result of deliberate cuts (Fig. 1.33), is almost unique. The upper part of the animal face on the top row is cut off (Fig. 1.33, right). Such incomplete motifs are not seen in other examples. Its existence, however, validates the hypothesis of horizontal slicing as a type of *cong* tube rework, for the missing part atop the remaining tube was eliminated by cutting horizontally.



Fig. 1.33 Cong tube and its detail, AIC, middle Zhou
After *AIC catalogue*, P. LVIII, 1.
Total length: 4 ½ inches (11.43 cm), greatest width of pyramid: 2 ¾ inches (7.00 cm), greatest diameter of cone 1 13/16 inches (4.60 cm)

Another example in the Zeng state tomb provides us an example of new surface decoration on *cong* tubes, seen in Fig. 1.34. It was crafted in the same idea and on the same scale with the one found in Western Zhou Zhangjiapo (Fig. 1.22). The only noticeable difference between them is the dominant motif on the four sides: they are ornamented with the characteristic pattern of their own times. The buffalo-face and derivative cloud motifs can find a twin on a jade plaque (Fig. 1.35) from a Chu culture burial in southern Henan, and the origin of them is on bronzes of the same time, such as Fig. 1.36. In Fig. 1.34 and Fig. 1.22 we can see that the decoration of the *cong* tube has become part of the current aesthetic in Zhou time with barely any connection to the Liangzhu *cong* tubes.



Fig. 1.34 (above) Cong tube and detail, tomb of Marquis Yi, late Eastern Zhou

After *Zhongguo yuqi quanji*, 3, no. 170.

Height: 5.4cm, width: 6cm



Fig. 1.35 (above) Jade plaque, Xichuan tomb, Henan, early Eastern Zhou

After *Zhongguo yuqi quanji*, 3, no.66.

Length: 7.1cm, width: 7.5cm

Fig. 1.36 (right) Detail of a bronze *hu* vessel, maybe Hunyuan, Shanxi, Freer Gallery, early Eastern Zhou

After *zhongguo qingtongqi quanji*, 8, no. 67.



However, in the majority burials of Eastern Zhou, no high quality *cong* tubes were found. Considering *cong*'s marginalized status in Western Zhou, we can see they were getting scarcer in Eastern Zhou with only singular exceptions.

Other than applying new fashions, pure imitation of Liangzhu originals recurs during the transition from Western to Eastern Zhou (Fig. 1.37). Though this piece is intentionally copying the animal face, there are differences from the authentic one (Fig. 1.1). There are two bands of grooves on the forehead and one on the mouth of the animal face on Liangzhu pieces (such as Fig. 1.38), while the Eastern Zhou artisan carved one on the forehead and two on the mouth (Fig. 1.37, right). Other than the wrong facial composition, the shape of the tube is copied upside down. Multiple-section Liangzhu *cong* tubes are typically wider on the top than the bottom, while the Eastern Zhou one is wider on the bottom. However, it is the earliest continuation of the pure imitation practice, which was last seen at Sanxingdui (Fig. 1.21) and Jinsha in Upper Yangzi River Valley. Its existence convinces us that the genuine Liangzhu *cong* tubes are treasured by people living in the 8th century B.C., though other examples seem to point to the fact that after late Shang, *cong* tubes only survive as a shape, regardless of the decoration.



Fig. 1.37 *Cong* tube and detail, Winthrop collection at Harvard, late Western Zhou or early Eastern Zhou
After Winthrop catalogue, no. 359.
Height: 26cm, width of top: 6.4, width of bottom: 7.3cm

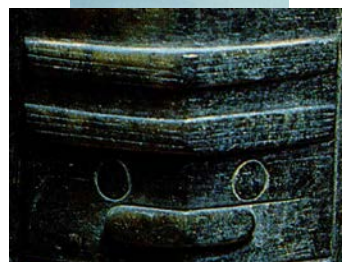
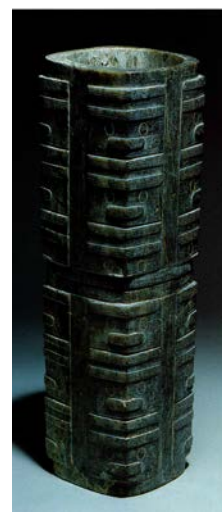


Fig. 1.38 *Cong* tube and detail, Fuquanshan M40, Shanghai, Liangzhu culture, late Neolithic
After Zhongguo yuqi quanji, 1, no. 163.
Height: 16.2cm, width of top: 6.5cm, width of bottom: 6.1cm

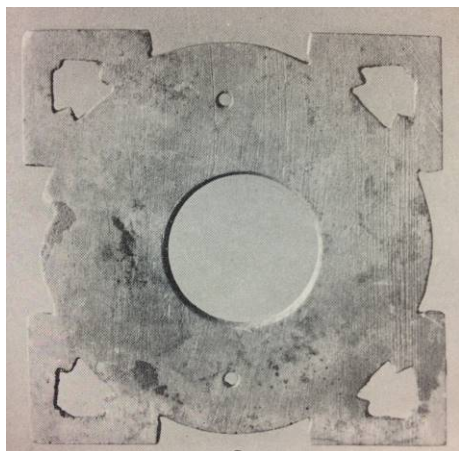


Fig. 1.39 "Mushroom pendant", AIC, late Eastern Zhou
After *AIC catalogue*, pl. XCV, 5.
Length: $3 \frac{5}{16}$ inches (8.41 cm), width: $3 \frac{5}{16}$ inches (8.41 cm), thickness: $\frac{1}{8}$ inch (0.32 cm)



Fig. 1.40 Cong tube, middle Zhou
After *Chinese jades: through the Wei dynasty*, P. XIII, 1.
Height: $1 \frac{7}{8}$ inches (4.76 cm), width: $2 \frac{7}{8}$ inches (7.30 cm), diameter: $4 \frac{5}{8}$ inches (11.75 cm).

Aside from the above examples, there are objects that could be affiliated with the *cong* tube by shape, but their way of reproduction is obscure and less common. Figs. 1.39 and Fig. 1.40 are two cases where the artisans who crafted them put emphasis on the angular corners, so that their cross section can be seen as a big circle evenly attached to four smaller squares. The squares are hollow, which is not seen in any cases before. There must be some gap between the reproductions in our knowledge and the models that they followed. In other words, the circulation and imitation of *cong* tube has not been fully unveiled by the above examples.

Based on the examples above, we can map out the circulation of *cong* tubes in Shang and Zhou dynasties (ca. 1800-221B.C.) (Map. 1.2). We can see that the Yellow River in north China and the Yangzi River in the south are still the major pathways of the circulation. Compared with the Neolithic age, the distribution reached deeper in the Upper Yangzi River region and the tributaries of the two major waterways. The lower Yangzi River area, the home to the *cong* tubes, seemed to lose their interest in making such shapes, for in the contemporaneous tomb of Marquis Yi of Zeng, the Yue state royal tomb in Hongshan, Wuxi, and the Wu state royal tomb in Suzhou, both of which are in

southern Jiangsu, no *cong* tubes have been excavated. This proves the assumption that except some personal interests in its shape and some low-quality copies used in burials, *cong* tubes had been abandoned as a type of artifact during Eastern Zhou.

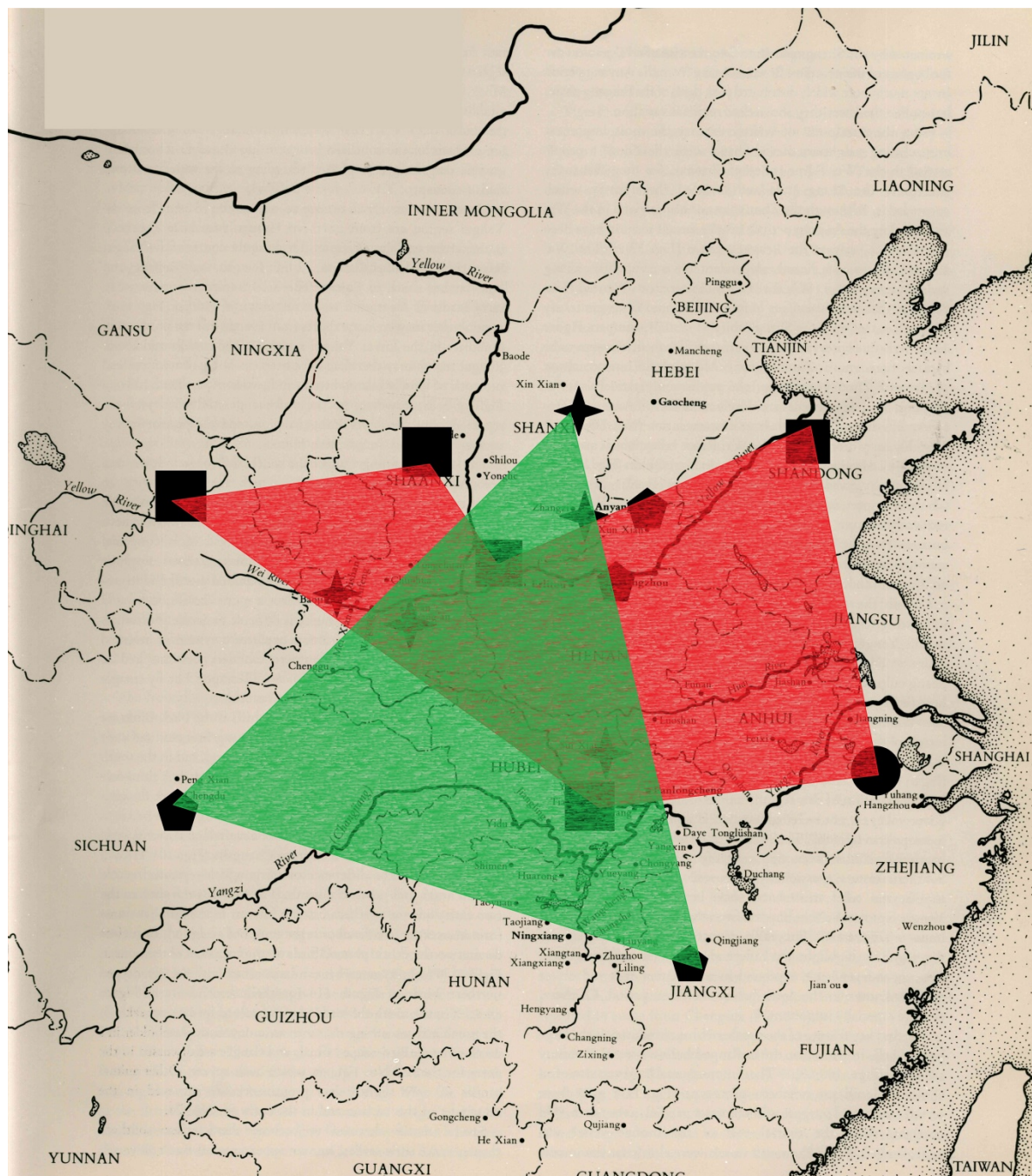
1.1.4 Summary

If we put the two maps of the *cong* tube circulation in Neolithic and in Shang-Zhou together (Map. 1.3), we can see that the regions that used *cong* tubes after the late Neolithic Liangzhu culture in the Lower Yangzi River valley had changed in the historical periods. More inland areas were introduced to this type of jade during Shang and Zhou, while the areas that had used *cong* tubes earlier abandoned them during Eastern Zhou.



Map. 1.2 Circulation of the cong tubes in Shang and Zhou dynasties (ca. 1800-221 B.C.)
After *Shang Ritual Bronzes*, 32.

 Shang sites;
  Zhou sites



Map. 1.3 Circulation of the bronze tubes in early China (ca. 3200-221 B.C.)
After *Shang Ritual Bronzes*, 32.

● Liangzhu culture; ■ other Neolithic cultures; ⬠ Shang sites; ★ Zhou sites

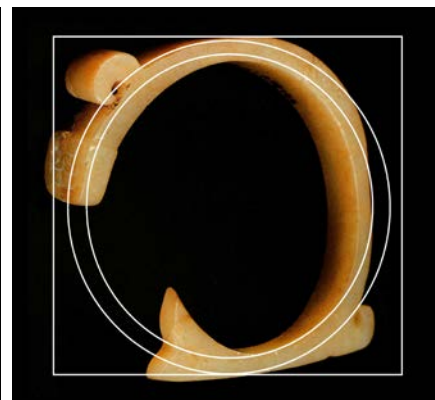
Part 2 Reworked pieces of earlier *cong* tubes



Fig. 1.41 “Square bracelet”,
tomb of Marquis Yi, late
Eastern Zhou
After *Zhongguo yuqi quanji*, 3,
no. 183.
Length: 7.2cm, height: 1.5cm,
diameter of the hole: 6.2cm



Fig. 1.42 “Dragon pendant”, Marquis Yi tomb, late Eastern Zhou
After *Zhongguo kaogu wenwu zhimei: Zeng hou Yi mu*, no. 64.
Diameter: 7.6cm



Aside from the copied *cong* tubes in different cultures and periods, some of the *cong* tubes were reworked to other shapes. In the tomb of Marquis Yi of Zeng in northern Hubei, a luxurious burial dated to the early phase of the late Eastern Zhou, a “bracelet” with squared corners and iconic motifs of the fifth century B.C. – coiling dragon and grain background, is found (Fig. 1.41). Though shaped in a bracelet, the slightly thicker walls on the corners indicate its earlier “life” as a *cong* tube. In terms of scale and composition, it is apparently affiliated with one of the late Shang *cong* tubes from Fu Hao’s tomb (Fig. 1.16). In other words, Marquis Yi’s one is made by slicing a *cong* like Fu Hao’s, evenly in a horizontal direction. In fact, there is a pair of Marquis Yi *cong* tubes found in the burial, which strengthens the connection.

Sharing the “bracelet” shape with Fig. 1.41, a C-shaped dragon pendant (Fig. 1.42) is a masterpiece made of part of a broken *cong* tube. The circular body with two swirl hooks diagonally placed, and the slightly tapering and thicker body right between the hooks remind us of the squared corners on the cross section of *cong*. The most interesting and unique modification in this piece is the treatment of the tail: it fully takes advantage

of the thicker wall on the left bottom corner from this angle, which is the square corner of the original *cong* tube but somehow got broken. The bifurcate tail is rendered in frontal view instead of the side view as the rest of the dragon. Thus, a three-dimensional visual effect is achieved by this means.⁷ From this case, we could conclude that *cong* tube has lost the significance in both meaning and form. New fashions are applied to old *cong* tubes to entertain their new users.

Other than slicing, there is another way to put fragmented *cong* tubes in new uses from the late Neolithic to the late Eastern Zhou.

A pendant that bears apparent features of a half *cong* (Fig. 1.43) is found in the tomb of Marquis Yi of Zeng. In terms of composition, it is first sliced horizontally from a *cong* with its “collar”, and two adjacent corners were cut off symmetrically (Diag. 1.1 and 1.2). Thus it is mostly a triangular shape with a semi-circle “collar” atop. In terms of decoration, the two long ends are rendered into a dragon in profile respectively, with their head end attached to the edge. The “collar” above can be seen as two pairs of animals in contour, as well as the expansion hooks from the dragons when at a distance. Due to the peculiar composition of the angular and circular shapes of the *cong* tubes, it is feasible to recognize jade objects created by such “cutting” approach from a *cong*.

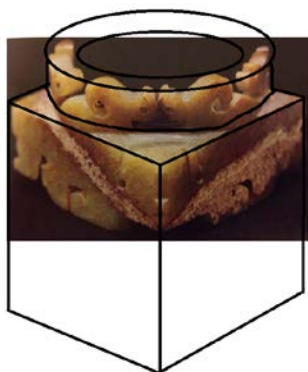
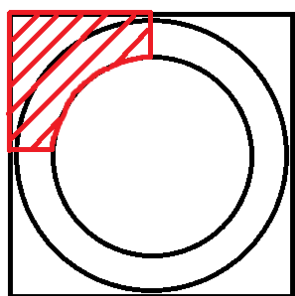
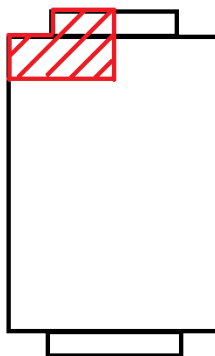


Fig. 1.43 Triangular pendant, Marquis Yi of Zeng tomb, late Eastern Zhou
After *Zhongguo yuqi quanji* 3, pl.184.
Length: 6.9cm, thickness: 0.8cm

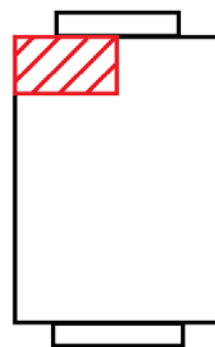
⁷ According to Zhang Changping's observation, the body of this dragon pendant is not on a plane, but swirling in spiral. Parts of the outer surface retain the square shape of the *cong* tube, which suggests its earlier form. See Zhang Changping, “Zeng hou Yi mu yuqi de gaizhi”, *Zhongguo lishi wenwu*, 2008, 1, 13.



Diag. 1.1 Triangular pendant from a *cong* tube from top



Diag. 1.2 Triangular pendant from a *cong* tube from side
Left: with collar



Right: without collar

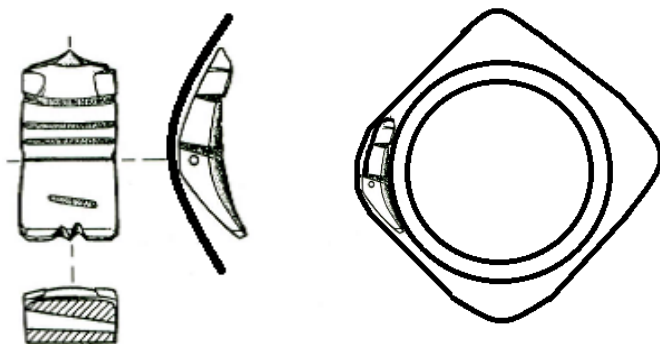
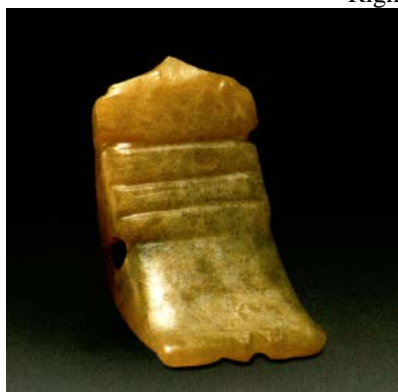


Fig. 1.44 Traingular cicada, Xiaojia wuji W17, Shijiahe culture, late Neolithic
After *Shijiahe wenhua yuqi*, no. 31.
Length: 2.05cm, width: 1.1cm, thickness: 0.5cm

Fig. 1.45 Cicada plaque, Xiaojia wuji W6, Shijiahe culture, late Neolithic
After *Shijiahe wenhua yuqi*, no. 21.
Length: 2.45cm, width: 1.9cm, thickness: 0.75cm

1.2.1 The late Neolithic Era: Shijiahe culture (ca. 2600-1900 B.C.)

Extensive research reveals more similar examples, as early as the late Neolithic era. A cicada pendant with an L-shaped back and a down-curving front of the Shijiahe culture (Fig. 1.44) indicates itself as a reworked corner piece from a *cong* tube.

As for the particular motivation of crafting a broken corner to a pendant, based on my observation, it is mostly economic. Plenty of cicada pendants made in jade plaques are found (Fig. 1.45). Putting the L-shaped and the plaque cicada side by side, there is no more advantage achieved by the former one, no matter in the sense of function or decoration. Thus, it is quite clear that this example of *cong* tube modification is a convenient recycling of material, with no specific meaning attached to the finished form.

1.2.2 Erlitou Period (ca. 1800-1500 B.C.) and the late Shang (ca. 1200-1000 B.C.)

To discover reasons for the recurring phenomena of reworking a broken *cong* tube corners, a more intensive comparison is called for. One piece of human-head pendant housed at the Museum of East Asian Art in Bath, England (Fig. 1.46) provides a new example. It is dated to the Erlitou period (ca. 1800-1500 B.C.). What interests me most, however, is the way it converts a broken corner to a human head with headdress and neck. The composition fits in the given shape and space perfectly, as if it was like this by nature. The contour is slightly trimmed in service of depicting the human's profile, but not much imagination is needed to figure out its earlier life as a *cong* tube corner. Other than subject matter, its suspension orientation is different from the Shijiahe cicada (Fig. 1.44). The Bath pendant is thinly sliced compared with the bulky cicada though they share the triangular cross section. It is at this point that their specific designs for new uses depart. Based on this comparison, we could see such *cong* tube corner reworking is implemented on a case-by-case basis.



Fig. 1.46 Human head pendant, Erlitou period, Shang
After *Bath catalogue*, no. 74.
Height: 3.3cm, width: 2.0cm, thickness: 0.4cm



Fig. 1.47 Bird pendant, Sackler Gallery, Shang
After *Sackler catalogue*, no. 40.
Height: 3.2cm, width: 8cm, depth: 5cm



Fig. 1.48 Bird pendant, Anyang, late Shang
After *Anyang Yinxu chutu yuqi*, no. 87.
Length: 3.67cm, width: 3.87cm, thickness: 0.44cm

Another Shang example diversifies the scenario even more, which is a flying bird seen from above (Fig. 1.47). It actually reproduces one of the most common subjects in late Shang pendants (Fig. 1.48). There are some minor adjustments when working on the given angular shape in converting a flat bird to a three-dimensional one. Other than the rigid outlines of triangular wings and the recurving beak beneath the surface on Fig. 1.47, the two pieces are almost identical in composition and decoration. It is a successful attempt to make a prevailing subject matter more visually powerful and solid. The above two Shang examples, though centuries apart, resolve the same type of modification problem on different bases. It strengthens the assumption that the rework of *cong* tube corners is a case-by-case practice.

Fu Hao tomb in late Shang that has made great contribution to the example pool of this thesis also yields a reworked *cong* corner (Fig. 1.49). It is converted in a sitting bird with uprising head, whose posture is not common⁸. Its beak, forelegs and tail correspond to the three pointed angles of the corner shape, and its flattened head is made from the inner surface of the original tube.

⁸ Animals in standing or reclining postures are the majority of jade objects in Fu Hao's tomb. Several standing bird pendants with almost the same decorations as Fig. 1.49 have been found. See *Yinxu Fu Hao mu*, pls. CXXXIV, CXXXVII.

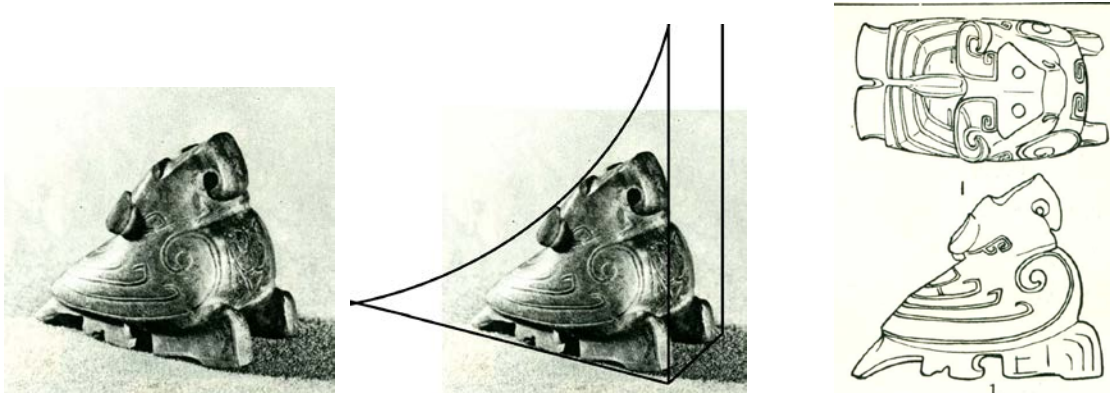


Fig. 1.49 Bird Pendant, Fu Hao's tomb, late Shang

Left: after *Yinxu Fu Hao mu*, pl. CXXXIV, 2.

Right: after *ibid*, 165, fig. 85, 1.

Height: 5.3cm, length: 6cm

Aside from the immediate example, Fu Hao's tomb also has some arguable objects (Fig. 1.50). It is tentatively named "L-shaped ram-head" with unknown meaning and function. Based on the analysis above, it is a straightforward case of the same type as Figs. 1.43, 1.44, 1.46, and 1.47. Whether it is correct to associate it with a ram can be testified by the ram head sculpture unearthed in the same burial (Fig. 1.53). The ram head is virtually a V-shaped pendant with a prominent mouth and a pair of inward swirling horns reaching out from the back of the head. The L-shaped object that we are talking about is not a perfect material for making a vivid ram head as described, but it could be attached to other components that decayed, since there are traces of binding on its surface.



Fig. 1.50 "Ram head" pendant, Fu Hao tomb, late Shang

After *Yinxu Fu Hao mu*, pl. CLXV, 2.

Length: 6.2cm, thickness: 1.8cm



Fig. 1.53 Ram head pendant, Fu Hao tomb, late Shang

After *Yinxu Fu Hao mu*, pl. CXXXV, 3.

Height: 4.8cm



Fig. 1.51(above) "Ram head" pendant, Kwan's collection, late Shang
After *Guanshi suocang zhongguo guyu*, pl.86.
Height: 1.8cm, length: 4cm, thickness: 0.5-1.2cm



Fig. 1.52 (right) Triangular pendant (two sides), Kwan's collection, late Shang
After *Guanshi suocang zhongguo guyu*, pl.117.
Height: 2.4cm, length: 4.6cm, width: 1.8cm



According to the same principle, another late Shang L-shaped pendant (Fig. 1.51) in the collection of Mr. Kwan in Hong Kong is no more likely to be a ram head than its counterpart from Fu Hao. The pointed beak, rounded eyes, and unfolding wings with an uprising tip all point to its affinity with bird pendant such as Fig. 1.47. Apparently, the artisan working on this piece was not provided with ample space on the jade block to present the stretching body of the bird in full as the one made in Fig. 3.5. Thus he put emphasis on the vertical surface of wings and signified the bifurcate tails by carving a short groove in the middle of the part that extends from the back of head. The head, by close observation, is shorter than the attaching wings and tail, which suggests some part of the "collar" on the original *cong* tube is converted to the body, especially the tail and upper portion of wings. In this sense it is homogeneous with the one from Marquis Yi tomb (Fig. 1.43).

Mr. Kwan holds another piece of reworked *cong* corner, seen as Fig. 1.52. It is identical with the Shijiahe cicada (Fig. 1.44) in the way of reworking. The only difference is the decorated surface on the back, which echoes the motif on front. This

double-surface decoration is a giant leap from the Shijiahe one, for it multiplies the presentation space that is allowed by the special shape of given material.

1.2.3 Summary

Considering all of the examples above were given the same material before applying the new design on a *cong* tube corner, we could group them by the way of design. Figs. 1.43 and 1.51 are in the same pattern, for they are a “collared” corner that enables more features atop. This is also their advantage over other examples. Figs. 1.44 and 1.52 should be in a group, as discussed above. The presentation idea is the only factor that differentiates them in design quality. Figs. 1.46 and 1.50 are aligned with each other in not only the highly polished surface texture, but also in their shear thickness that led the artisans to take full usage of the material on surface decoration instead of on shape. Thus they are probably an extension of fitting that attached to other materials. Figs. 1.47 and 1.49 are another group that share the idea of presenting a common subject with given uncommon material.

We could see from the above groups that the same idea could apply to objects made centuries apart. With no direct finds of earlier L-shaped pendants in later contexts, it is not safe to conclude that there are several distinct patterns in reworking the *cong* tube corners. But it is certain that *cong* tube segments were re-used to meet the needs of later users as early as late Neolithic in Shijiahe culture, and lasted till late Eastern Zhou in the tomb of Marquis Yi. Geographically, it travelled from southern Hubei to northern Henan. No later examples are found than late Shang; meaning that such types of rework are exclusively conducted before 1000 B.C..

After studying several broken *cong* tubes (such as Fig. 1.28), I cannot tell whether the breaking is a result of deliberate breaking by visually inspecting their shapes. However, a logical explanation can be drawn. If the triangular jade blocks are deliberately segmented from a whole *cong* tube right before they were going to be

reworked, typically there should be more than one (two, or even four) angular pendants found from the same burial. In fact, from the examples above, not one of them is found in groups or in pairs. In addition, other than the bird pendant shown in Fig. 1.47, none of them employed extra features than their counterparts made in plaques. This means there is no motivation to look for such triangular shapes from breaking a whole *cong* tube. Thus, it is rather convincing to say the triangular pendants are a rescue from broken pieces than they are designed works. This assumption does not contradict the fact that they are scattered finds with case-by-case designs. The broken *cong* corners were probably obtained by later artisans by accident.

Chapter 2 *Bi* disks

The *Bi* disks are one of the earliest forms in the history of jade in China. As early as the late fourth millennium B.C. in Liangzhu culture there are numerous plain disks produced and buried¹ (Fig. 2.1). Another type of disk is first found in the Erligang phase (ca.1500-1300 B.C.). With an upright short wall raised along the inner rim, it is named “collared disk” (Fig. 2.2).

2.1 The late Neolithic Era

During the late Neolithic age, disk-shaped jades are found in different regions. Simple as the shape is, it is unclear whether they were migrations or separate inventions. However, reworked disk pieces (Fig. 2.9) have been found in Qijia culture in modern Gansu, the Upper Yellow River valley. They were converted to axes to reproduce bronze weapons, and were exclusively used in ritual ceremonies. It is interesting to see that Qijia culture also has its own *bi* disks produced, while quite a number of the disks were trimmed to axes. This contrasting combination indicates the *bi* disks were not inventions of Qijia culture, and its local productions of disks were probably out of its aspiration of Liangzhu originals. The conversion to other objects, however, can be explained as a material-saving strategy.²

By contrast, the disk-shape jades found in Lingjiatan culture in modern Anhui (Fig. 2.3) must be associated with more specific meanings than its later counterparts in Gansu. The bridge-shaped arcs with a flattened bottom (Fig. 2.4) were probably not from a segment of a disk³. Lingjiatan’s axes (Fig. 2.5) were not made from disks either, judging by their shapes. In short, disks, arcs, and axes are separate items both in use and production in Lingjiatan culture. Qijia culture’s way of converting *bi* disks to other

¹ Earlier late Neolithic cultures in the Lower Yangzi River region had produced disk-shape objects in jade, such as Songze culture (ca. 3900-3200 B.C.) and Lingjiatan culture (ca. 3600-3200 B.C.). But the disks are smaller and thicker than Liangzhu’s ones. They also have jades arcs and axes, which were not reworked pieces from disks. See the discussion on Figs. 2.3, 2.4, 2.5.

² Artisans in Qijia culture also converted *bi* disks to notched disks. See *Qijia wenhua yuqi*, no. 128. They were making the most from finished *bi* disks in reworking them to be new objects.

³ Arcs in the similar shape have also been found in Songze culture.

possible shapes was not developed when bi disks were designed as a separate type of jade, but invented by other users during the transmission process. Thus, we can see as early as the late Neolithic era, bi disks had been used to make other objects, which were adopted by later users in the historic periods.

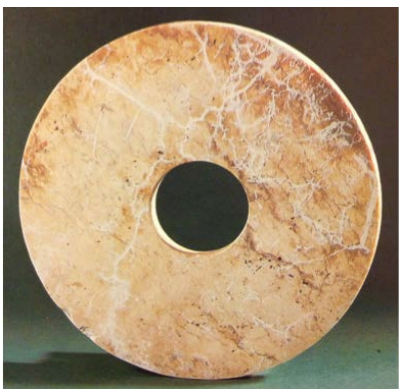


Fig. 2.1 *Bi* disk, Liangzhu culture, late Neolithic
After *Liangzhu wenhua yuqi*, pl.25.
Height: 7.2cm, diameter of top: 8.6cm, diameter of bottom: 8.3cm.



Fig. 2.2 Collared disk, Shang
After *Gugong bowuyuan cangpin daxi*, 2, no. 88.
Diameter: 15.3cm, height of interior rim: 1.2cm

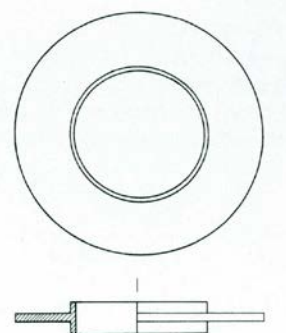


Fig. 2.3 *Bi* disk, Lingjiatan culture, late Neolithic
After *Lingjiatan yuqi*, no. 100.
Diameter: 4.7cm, thickness: 0.6cm

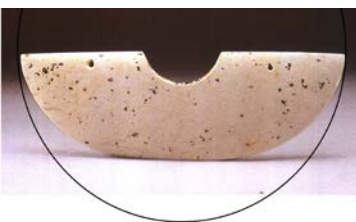


Fig. 2.4 *Huang* arc, Lingjiatan culture, late Neolithic
After *Lingjiatan yuqi*, no. 61.
Bottom arc: 15cm, inner arc: 3.5cm, width: 5.6cm, thickness: 0.4cm



Fig. 2.5 *Yue* axe, Lingjiatan culture, late Neolithic
After *Lingjiatan yuqi*, no. 11.
Length: 24.2cm, width: 13cm, thickness: 0.7cm

2.2 Erlitou Period (ca. 1800-1500 B.C.), Erligang Period (ca. 1500-1300 B.C.), and Anyang Period (ca. 1200 -1000 B.C.)

Like the absent *cong* tubes in Erlitou and early Erligang periods, *bi* disks have not shown up during the first half of the second millennium in China. However, in the late

Erligang, four of them are found in Zhengzhou (Fig. 2.6). Compared with the Liangzhu ones, they have larger perforations, which may prove they were not made by Liangzhu carvers in east China. But it is not certain if they are local products of Henan. Together with the disks, there are six arcs excavated at the same time. They were decorated with animal faces or perforated to serve as pendants (Fig. 2.7). Judging by their curves and dimensions, they could be made from segments of *bi* disks. Their variant sizes and decorations suggest that the original segments were not unified. Therefore, the breaks of *bi* disks were not deliberate practices. In other words, these arcs were a rescue of fragmented disks.



Fig. 2.6 *Bi* disk, Zhengzhou, Henan, late Erligang Period
After *Zhengzhou Shangcheng*, pl. CCXL, 1.
Diameter: 10.2cm, thickness: 0.4-0.6cm

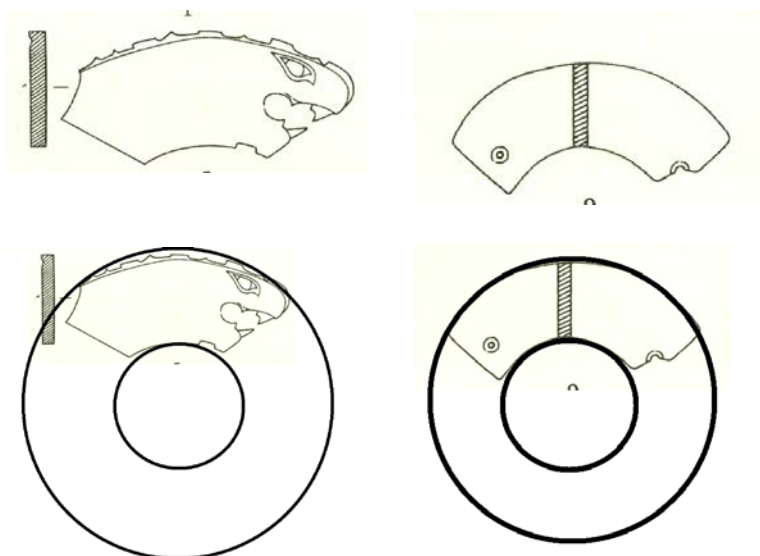


Fig. 2.7 Arc pendants, Zhengzhou, Henan, late Erligang Period
Left: after *Zhengzhou Shangcheng*, 839, fig. 562, 5.
Outer arc: 9.5cm, inner arc: 4.3cm, width: 4cm, thickness: 0.5cm
Right: after *Zhengzhou Shangcheng*, 839, fig. 562, 9.
Outer arc: 6.4cm, inner arc: 3.4, thickness: 0.3cm

Another major Erligang Period site is Panlongcheng, in modern Hubei, where a single jade axe⁴ reworked from a *bi* disk has been excavated (Fig. 2.8). Such method had been employed by jade carvers in Upper Yellow River valley – Qijia culture in the late Neolithic (Fig. 2.9). They are ritual objects used in ceremonies to represent bronze axes (Fig. 2.10). Apparently, in these two cases, *bi* disks had no individual meanings but a

⁴ It is named notched disk (Xuanji) in the excavation report, with which I don't agree.

material for the reproductions. We can deduce that *bi* disks were not invented by these two cultures but imported products.



Fig. 2.8 Jade axe, Panlongcheng, Hubei, late Shang
After *Panlongcheng*, color pl. XLV, 3.
Diameter: 7.6cm, thickness: 0.3-0.4cm



Fig. 2.9 Jade axe, Qijia culture, late Neolithic
After *Qijia wenhua yuqi*, no. 116.
Height: 12.5cm, width: 12cm



Fig. 2.10 Bronze axe, Panlongcheng, Hubei, late Shang
After *Panlongcheng*, color pl. LI.
Height: 17.2cm, width: 8.8cm

The situation is more complicated in the late Shang Fu Hao's tomb in Anyang (ca.1200 B.C.), where intact disks (Fig. 2.11) and reworked ones are also found together. But the types of reworking are not as simple as the Erligang. To explore whether the modification is a deliberate breaking or a rescue, we shall first categorize them by form.

There are four types of modification in the examples from Fu Hao's tomb in general: cutting a whole disk in halves/triples (Figs. 2.12, 2.13), cutting off a portion (Fig. 2.14), eliminating the plate (Fig. 2.16), and refashioning the plate (Fig. 2.17). The first two types are fairly straightforward for the reworked pieces retain much visual affiliation to the original shape, but they are not the invention of late Shang artisans. As early as the late Neolithic Qijia culture, in the Upper Yellow River valley, artisans had segmented whole *bi* disks into two/five/six parts. Each part has one small perforation on one short end, and two on the other⁵. Thus, unlike the Erligang broken-disk-rendered pendants (Fig. 2.7), they were not supposed to be used separately but to be stitched together. Qijia artisans also made a dragon pendant (Fig. 2.15) from a disk which is identical with the one found in Fu Hao's tomb (Fig. 2.14). The C-shaped silhouette, serrated patterns, and

⁵ Qijia culture in late Neolithic See *Qijia wenhua yuqi*, nos. 125, 152, and 184.

every detail on the dragon are telling us these two pieces are closely related. Given that they are nearly a-thousand-years apart in the timeline, Fu Hao's is probably an heirloom from the Neolithic that was brought to the Lower Yellow River region from the Upper region.



Fig. 2.11 Collared disk, Fu Hao tomb, late Shang
After *Yinxu Fu Hao mu*, pl.XV, 1.
Diameter: 10.3cm, diameter of hole: 5.3cm, height of collar: 1.3cm, thickness: 0.2cm

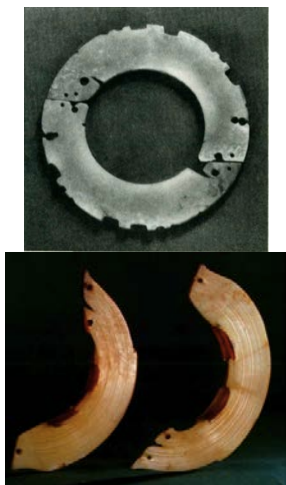


Fig. 2.12 *Bi* disks in halves, Fu Hao tomb, late Shang
Top: after *Yinxu Fu Hao mu*, pl. C, 4.
Diameter: 11.3cm, width: 2.4cm, thickness: 0.5cm.
Bottom: after *Zhongguo yuqi quanji*, 2, pl.104.
Length: 10.5cm, width: 2.4cm, thickness: 0.3cm

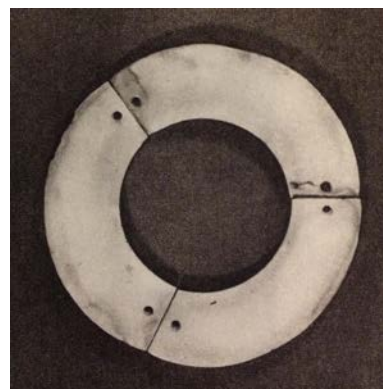


Fig. 2.13 *Bi* disk in triples, Fu Hao tomb, late Shang
After *Yinxu Fu Hao mu*, PL. XCVI, 2.
Length: 9.2cm, width: 2.5cm, thickness: 0.4cm



Fig. 2.14 C-shaped pendant with collar, Fu Hao tomb, late Shang
After *Yinxu Fu Hao mu*, color pl. XVI, 1.
Diameter: 9cm, height of the collar: 1.2cm, thickness of edge: 0.2cm

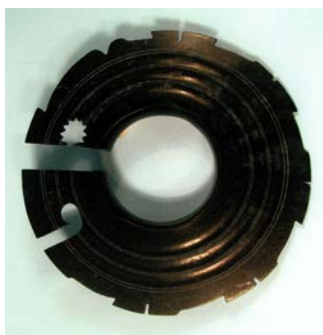


Fig. 2.15 C-shaped pendant with collar, Qijia culture, late Neolithic
After *Qijia wenhua yuqi*, no. 208.
Diameter: 14.6cm, height: 2.1cm



Fig. 2.16 "Rings/bracelets", Fu Hao tomb, late Shang
After *Yinxu Fu Hao mu*, pl. CXLIX.
Top: diameter: 7.0cm, diameter of hole: 6.3cm, width: 1.5cm
Bottom: diameter: 6.2cm, diameter of hole: 5.7cm, width: 1.4cm

The remaining two types need some explanation. Seen in Fig. 2.16, the two bracelets are peculiar in shape – they are either concave or convex in the middle. Their uneven surface and size suggest that they were made from the collars of the collared disks.

Refashioning the plate (Fig. 2.17) unsurprisingly introduced the most new fashions. Fig. 2.17 is the result of a skillful artisan's rescue of a broken collared disk, whose resolution is to render the remaining plate into a pair of back-to-back birds in profile. Such motif can also be seen in a jade pendant found in the same burial (Fig. 2.18), which is merely embellished with more incisions on the bodies. Similar composition is applied to a palette (Fig. 2.19) from the same tomb, which has a drilled hole on the animals' back. Through the above examples from Fu Hao tomb, we could see that *bi* disk has lost the meanings sustained by the completeness of its form and become the material source for new decorations.



Fig. 2.17 Double-bird pendant with collar, Fu Hao tomb, late Shang
After *Yinxu Fu Hao mu*, pl. XCIII, 3.
Diameter: 12.7cm, diameter of hole: 6.0cm,
height of collar: 1.6cm, thickness: 0.2cm



Fig. 2.18 Double-bird pendant, Fu Hao tomb, late Shang
After *Yinxu Fu Hao mu*, 166, fig. 86, 1.
Height: 8.1cm, thickness: 0.3cm



Fig. 2.19 Top of a double-eagle palette, Fu Hao tomb, late Shang
After *Zhongguo Yuqi quanji*, 2, no.49.



Fig. 2.20 Fragment of a Collared *bi* disk, Winthrop collection at Harvard, late Shang or Western Zhou
After *Winthrop catalogue*, no. 104.

Height: 11.8cm, width: 6.5cm

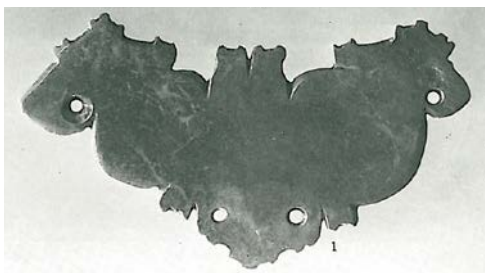


Fig. 2.21 “Bat pendant”, AIC, early Western Zhou

After *AIC catalogue*, P.XLVII, 1.

Length: 2 ½ inches (6.35 cm), width: 4 7/8 inches (12.00 cm), thickness: 1/8 inch (0.32 cm)

Length: 7.6cm, width: 7.0cm, diameter of perforation: 5.7cm



Fig. 2.22 Double-bird pendant, Huixian Jia tomb, Henan, National Museum of History, Taiwan, early Eastern Zhou

After 5,000 years of Chinese jades, no. 32.

Height: 4.0cm, width: 7.3cm

Aside from the four types of reworking exemplified by Fu Hao tomb objects, another common approach – breaking disk to arcs is revealed by a segmented collared disk at Harvard (Fig. 2.20). This is such a revealing example that it tells us the large numbers of various arcs in late Shang and Zhou were probably made from breaking whole *bi* disks. This also suggests that there were abundant earlier *bi* disks circulated in historical period, for Shang and Zhou owners would definitely not have newly made disks to be broken and in other use.

Before tracing the motif of the double-bird, I would like to summarize my opinions on the motivations of the above four types. The first two types are straightforward purposely reworking, given the breakages are highly unified and controlled. The last two are rescued from previously broken parts. According to Fig. 2.20, the segmentations were probably results of an intention to get arcs from disks. This trend corresponded to the popularity of jade-pendant sets (Fig. 2.23) in Western Zhou, the majority of whose components were arcs.

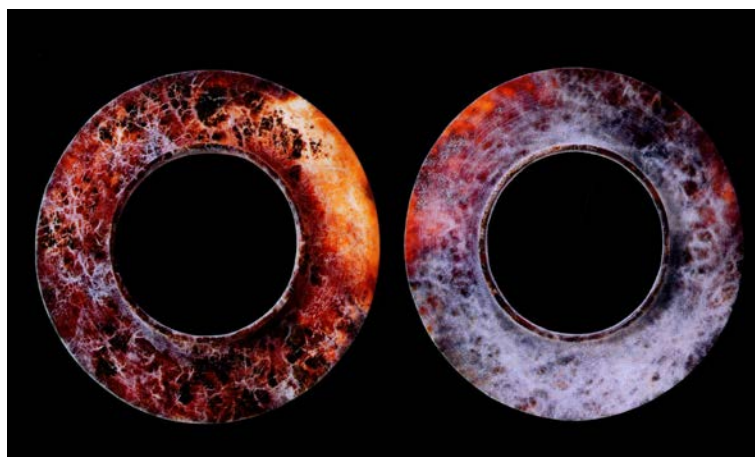


Fig. 2.24(above) Collared disks, Jinsha , Sichuan, late Shang
After *Jinsha yuqi*, no. 56.
Diameter: 11.7cm, height of the collar: 1.2cm

Fig. 2.23(left) A set of jade pendants, Guo state cemetery M2001, Western Zhou
After *Sanmenxia Guoguo mu*, color pl. XVII.

Examples dated to Western and Eastern Zhou tell us that the double-bird on Fu Hao's pendants is a common subject in rendering a segmented disk to a pendant. See an intriguing piece in the Sonnenschein's collection at the Art Institute of Chicago (AIC) (Fig. 2.21). It was named by Salmony, the editor of AIC's jades catalogue as "bat pendant," mostly for when turning it upside down, it has a triangular head with two holed eyes, a pair of feet standing upright, flanked by a pair of unfolding wings ending with a recurring hook. With the advantage of a better knowledge of new discoveries, we could easily recognize it as a counterpart of the two double-bird pendants in Fu Hao tomb (Figs. 2.17, 2.18), instead of an awkward bat. The "feet" of the bat, in this sense, may be the reminiscence of a drilled hole, just like the one on Fig. 2.19. Given the symmetrical shape, same idea, and comparable size with the Fu Hao's pendants, the AIC pendant is highly likely to be a reworked portion of a broken *bi* disk. A closer observation could tell us that from Fu Hao pendants to the AIC pendant, the formal features remained the same but with case-by-case variations. For example, the leg and tail may not be evident if the given

space does not allow; and the contour got more circular and bulging and became a standard pattern in later reproductions. The adjustment of a typical motif will be discussed with the examples in Eastern Zhou.

In the era of Eastern Zhou, carving technique became more sophisticated, which gave rise to the number of fine lines and precision of shaping. One piece in the collection of the National Museum of History in Taiwan (Fig. 2.22) reminds us of the AIC pendant mentioned above. It is made with an arc, whose middle part is perforated to a ring that connects the two heads. The heads share the recurving beak, prominent eye, flying feather and bulging chest with the AIC one, though they are several centuries apart. It is clear that the double-bird motif and its iconic features emerged as early as late Shang, and evolved gradually to meet the needs of different cases in decorating arcs until early Eastern Zhou.

Let us go back to focus on the circulation of the *bi* disks. In the Upper Yangzi valley, Sanxingdui and Jinsha, which are roughly contemporary with late Shang, there have been excavated *bi* disks and collared disks. The Jinsha ones, with unique stone colors are considered local products (Fig. 2.24). However, unlike Anyang and other earlier findings, there is no reworked disk found in Sichuan area, which can be seen as a signal that the *bi* disks were considered as significant objects and were used in special occasions by Sichuan owners.

2.3 Western Zhou (1027-771 B.C.) and Eastern Zhou (771-221 B.C.)

The *Bi* disk as a type of jade also survived during the Zhou dynasty. Like the *cong* tubes of the same time, they were decorated with new fashions while retaining the original shape, such as the ones shown in Figs. 1.27 and 1.29⁶. But in most of the cases, we find the pendants made from broken disks with few or even no whole *bi* since the early Western Zhou Yan state cemetery in north China, middle Western Zhou Yu state

⁶ Other similar examples can be seen in the Yue state tomb in Wuxi in southern Jiangsu, east China, and the king of Zhongshan state in Hebei, northern China. See *Hongshan Yuemu yuqi*, and *Zhongguo kaogu wenwu zhimei: Zhongshanguo wangmu*.

cemetery in southwest Shaanxi, late Western Zhou Guo state cemetery in West Henan, early Eastern Zhou Rui state cemetery in southeast Shaanxi. Even they have a few *bi* disks found, they are small and in bad condition.

While the whole *bi* disks lost their attractions to Zhou aristocrats, the breaking of the circular *bi* disk into arcs gave ideas to Western and Eastern Zhou artisans in creating new jade types. A broken bird pendant (Fig. 2.25) from a Western Zhou burial in Beijing Liulihe shows a similar silhouette with a roughly contemporaneous example in the Minneapolis Institute of Arts (Fig. 2.26). To some extent, the Liulihe one looks like the Minneapolis one if its head was not lost. Both of Liulihe and Minneapolis ones are reworked from arcs, judging from their curving body. The one that is not made out of part of a broken *bi* disk should be like Fig. 2.27, whose legs stay aligned with the bottom of its tail.



Fig. 2.25 Bird pendant, Liulihe tomb, Western Zhou
After *Liulihe Xi Zhou mudi*, 234, fig. 143, 3.
Length: 6.5cm



Fig. 2.26 Bird pendant, Minneapolis Institute of Arts, early Western Zhou
After *Minneapolis catalogue*, no. 68.
Length: 3 5/16 in (8.41cm)



Fig. 2.27 Bird pendant, Minneapolis Institute of Arts, early Western Zhou
After *Minneapolis catalogue*, no. 69.
Length: 2 1/2 in (6.35cm)

From the royal tombs of Jin state in Western Zhou, in the southwest of modern Shanxi, jades reworked from arcs are also discovered. Figs. 2.28 and 2.29 show two types: in one piece and in a pair respectively. No matter what the subject matter is, they are

common in one feature: a line linking the top points of the finished shape can draw a smooth curve. The curve indicates the former rims of the *bi* disk.



Fig. 2.28 Tiger pendant, Jin State cemetery M8, Western Zhou
After *Jinhou guyu*, no. 3.
Length: 8.4cm

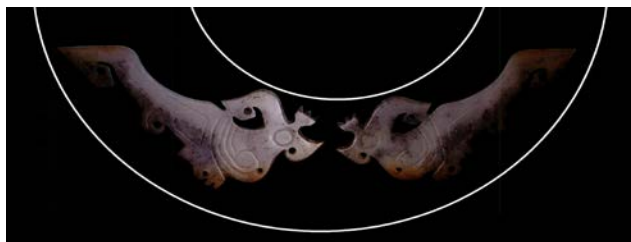


Fig. 2.29 A pair of bird pendants, Jin State cemetery M63, Western Zhou
After *Jinhou guyu*, no.21.
Height: 5.1-5.2cm, length: 10.8-10.9cm

The idea of reworking an arc to a certain shaped pendant has not changed at least until the latter part of Eastern Zhou, as seen on a tiger (Fig. 2.30) in Minneapolis. This one has nothing special if not compared with some of the other pendants in the shape of a tiger (Fig. 2.31) that derives directly from its bronze model crouching on the handles of late Shang bronzes found in southern China, mostly Hunan and Jiangxi (Fig. 2.32). The smooth back and uprising tail, as well as the exceedingly long rear leg indicate its “past life” as an arc. On the other hand, the tapering and sharp tail actually facilitates its service as a knot-opener.

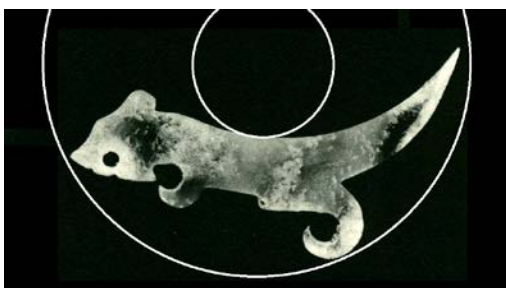


Fig. 2.30 Tiger pendant, Minneapolis Institute of Arts, late Eastern Zhou
After *Minneapolis catalogue*, no. 137.
Length: 2 5/8 in (6.67 cm), width: 1 3/4 in (4.45 cm), thickness: 0.48cm



Fig. 2.31 Tiger pendant, British Museum, late Shang or early Western Zhou
After *Chinese Jades: from the Neolithic to the Qing*, no. 12:8.
Height: 1.9cm, length: 5.4cm



Fig. 2.32 Tiger on handles of a bronze *ding* vessel, Xin'gan, late Shang
After *Zhongguo meishu quanji, gongyi meishu bian*, vol.4, no. 104.



Fig. 2.33 Tiger pendant, Fu Hao tomb, late Shang
After *Yinxu Fu Hao mu*, pl. 135, 2.
Length: 11.7cm, height: 4.3cm

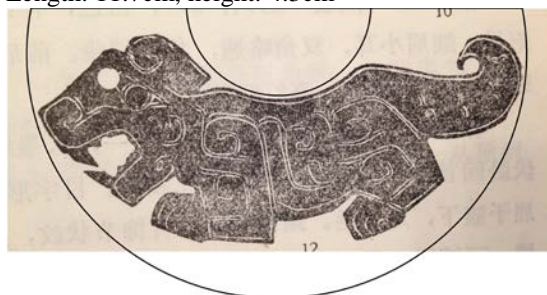


Fig. 2.35 (above) Bronze tiger with a bird, Xin'gan
Dayangzhou, Jiangxi, late Shang
After *Xin'gan Shangdai damu*, color pl.XXXVIII.
Length: 53.5cm, height: 25.5cm, width: 13cm,
thickness: 0.35cm

Fig. 2.34 (left) Tiger pendant, Fu Hao tomb, late Shang
After *Yinxu Fu Hao mu*, 161, fig. 84, 12.
Length: 13.3 cm, height: 0.5 cm

Based on the analysis above, it is intriguing to notice that there are some tiger pendants in both sculpture and relief excavated from Fu Hao tomb (Figs. 2.33, 2.34) that are very similar with Fig. 2.31. Apparently it is unfair to deny their immediate connection with southern bronzes such as Figs. 2.32 and 2.35. Figs. 2.31 and 2.33 are faithful imitations of Figs. 2.32 and 2.35 respectively with minor simplification. Fu Hao's tiger in relief (Fig. 2.34) could be seen as a two-dimensional derivation from the three-dimensional sculpture, which is shaped in a curve due to given material (it is a reworked piece from an arc).

What can be deduced from the observation above is that the artisan who made the tiger sculpture (Fig. 2.33) must have a southern bronze tiger at hand to model from. Since there are not any southern bronzes found in Fu Hao tomb, it is possible that the tiger-shaped jades are imports from south rather than that they are products of Anyang Shang artisans. But there is still possibility that southern bronzes reached the territory of Anyang during or earlier than Fu Hao's time, only with no discoveries to prove this up to now.

Examples of the type of tiger pendant exemplified by Fig. 2.33 are found in Western Zhou Yu state burial in southwest Shaanxi, as shown in Fig. 2.36 and Fig. 2.39 respectively. Fig. 2.36 generally follows the pattern of Figs. 2.33 and 2.34, but with distinct craftsmanship. Legs are depicted stronger while body and tail are getting thinner. The claws are the significant point in dating, for they are in apparent difference from the Shang ones. They are rendered in a half-brace shape, which combines the deer hoof (Fig. 2.37) and bird tail (Fig. 2.38).

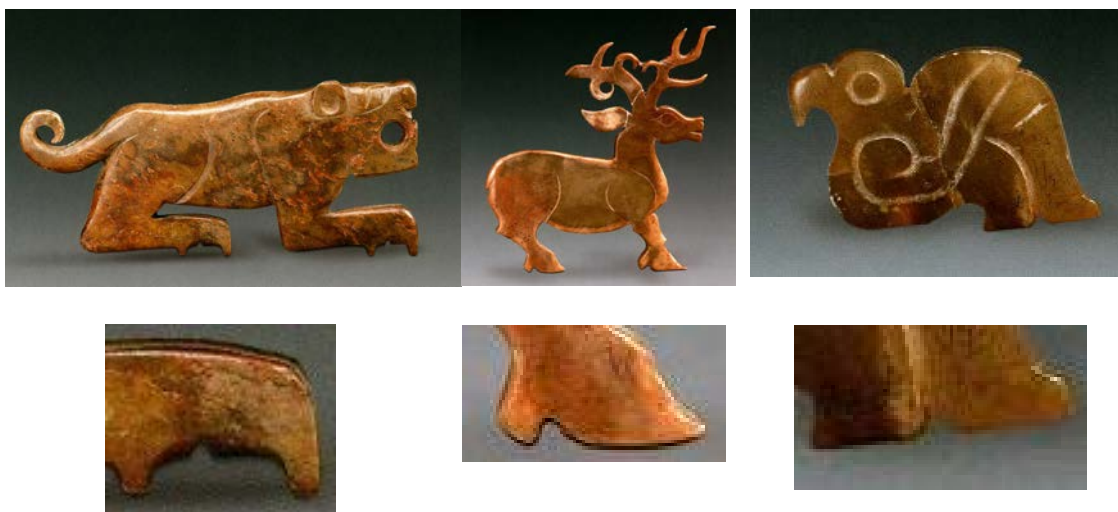


Fig. 2.36 Tiger pendant and detail, Yu state tomb, Western Zhou
After *Yuguo yuqi*, 150.
Length: 6cm, width: 2.4cm, thickness: 0.5cm

Fig. 2.37 Deer pendant and detail, Yu state tomb, Western Zhou
After *Yuguo yuqi*, 140.
Length: 7.2cm, width: 8.8cm, thickness: 0.4cm

Fig. 2.38 Bird pendant and detail, Yu state tomb, Western Zhou
After *Yuguo yuqi*, 139.
Length: 2.6cm, width: 1.4cm, thickness: 0.4cm



Fig. 2.39 Tiger pendant, Yu state tomb, Western Zhou
After *Yuguo yuqi*, 46.
Length: 6.9cm, width: 2.6cm, thickness: 0.2cm



Fig. 2.40 Detail of the nose on two sides
Left: Shang craftsmanship
Right: Western Zhou craftsmanship
After *Yuguo yuqi*, 389, fig. 24 A, B.

Another tiger pendant in the same burial (Fig. 2.39), however, is in a more complicated situation. It bears much resemblance to Fig 2.23 in design and spirit, though in a much smaller size. Also it is a reworked piece from an arc, given its curving body. It is dated to Western Zhou rather than Shang, however, for one side of it bears trace of incision that is typical of Western Zhou craftsmanship on the tiger's nose (Fig. 2.40, right). Thus, it has Shang typical shape and angular carving on most of its surface, while one part of it is reworked with Western Zhou curvilinear carving.⁷ Thus, it is safe to say that late Shang tiger pendants that derive from the sincere imitation of bronze tiger figures in jade, reached the hands of Western Zhou artisans. They are either modelled after or retouched in a new style of their new owners.

Other than using whole arcs from fragmented *bi* disks, halves of arcs were also used as material for pendants, such as the one shown in Fig. 2.41. It is carved on a triangular material that was half of an arc from a *bi* disk. The dimensions of it correspond with the typical *bi* disks of Shang and Zhou. Together with the arcs, they are major types of objects for which Zhou artisans broke *bi* disks.

⁷ Cai Qingliang thinks Western Zhou artisan deliberately applied new craftsmanship over the Shang one, but it is unknown why there was only one part gets reworked. See Cai Qingliang 蔡慶良, “Yuansheng xing, Cisheng xing, Zaisheng xing yuqi de taolun: yi Yuguo mudi chutu yuqi weili” 原生型、次生型、再生型玉器的討論：以弓魚國墓地出土玉器為例, *Yuguo yuqi* 弓魚國玉器, 388.

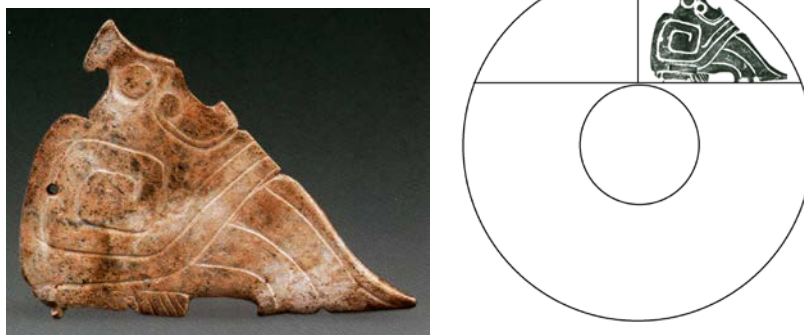


Fig. 2.41 Bird pendant, Yu state cemetery BRM1, middle Western Zhou
After *Yuguo yuqi*, 132.
Length: 6.5cm. width: 4.6cm, thickness: 0.4cm

2.4 Summary

From the above examples, we can conclude that the disk as a shape has been made in different cultures since late Neolithic to the Zhou dynasty. But it seems the significant meaning of the *bi* disk was not invented or accepted by all the cultures that produced them. Qijia culture, for example, converted a large number of disks to axes and other possible shapes. They seemed to have a conflicted attitude toward the *bi* disks, for they were making and breaking them at the same time.

The idea of reworking disks to other shapes was adopted by late Erligang owners, but their reworked pieces are a kind of rescue by motivation. They also initialed the practice of carving segmented disks to arcs, which may also have been started as a way to rescue acquired broken disks. Anyang artisans had all the methods that earlier carvers had invented, and incorporated Shang fashions no matter that they were deliberately making new objects or recycling broken pieces to new uses. Western and Eastern Zhou artisans followed the path of Shang predecessors, and were involved in more interactions within jades and with other media, such as bronze.

While there are examples where aristocrats had special interest in making *bi* disks and decorating them with the latest fashion of their time, such as the Minister Zhao of Jin state in early Eastern Zhou, the Marquis Yi of Zeng state in late Eastern Zhou, and the Lower Yangzi River tombs such as Yue state, the whole disks lost its attraction to the aristocrats in general.

Chapter 3 Other observations

Part 1 Flanged plaques

There is a cylindrical tube (Fig. 3.1) in the Late Shang Fu Hao's tomb, whose four ridges on the four corners of the middle square body are considered by archaeologist as a way of representing a *cong* tube. However, its considerable height, three parallel grooves on the upper and bottom body of the tube, as well as the thin and ridge-like “corners” suggest that it is not a *cong* tube, but a component of a multiple-media fang *gu*, with other parts perished. Fang (square) *gu* is a common bronze vessel type in late Shang (Fig. 1.8), and there is evidence showing that bronze shapes were sometimes reproduced in other precious materials, like jade and lacquer. There are numerous flanged jade plaques (Fig. 3.3) in the same burial that are probably jade imitations of bronze flanges, as seen in Fig. 3.2. Another tomb of the late Shang period -Xin'gan Dayangzhou in Jiangxi, finds two similar sets of jade plaques, which are thought to be appendages (legs) to a lacquer *ding*¹.

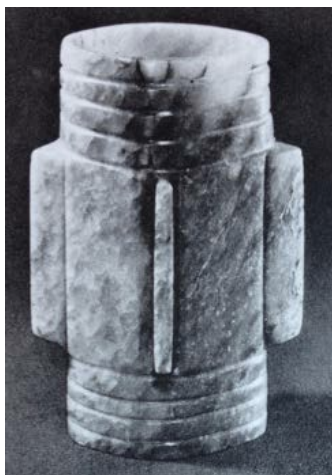


Fig. 3.1 *Cong* tube, Fu Hao's tomb, late Shang.
After *Yinxu Fu Hao mu*, pl.LXXXI, 1.

Height: 10.4cm, diameter: 4.2-4.5cm, thickness of tube: 0.2-0.4cm



Fig. 3.2 Square *gu* vessel and its detail, Anyang, late Shang
After *Zhongguo qingtongqi quanji*, 2, no.128.
Height: 30 cm



¹ *Qingtongqi quanji*, 2. Nos. 133, 142.

The above example provides us with a possibility that jade objects could be used as components in a set that altogether reproduce bronzes². There are several other similar examples in the history of jade circulation in early China. They are all in the shape of flanged plaques.

3.1.1 Late Shang (ca. 1200-1000 B.C.)

The rectangular jade plaques with hooks on one of the long sides of the contour found in the same tomb (Fig. 3.3) further convince us the above assumption could be right, for their shape, scale, and number are compatible with the flanges on the bronze such as *zun*, *pou*, or *you* vessels of the same time (Fig. 3.4³). Jade plaques that share the same features with the ones from Fu Hao tomb can be seen both from excavations and in collections.

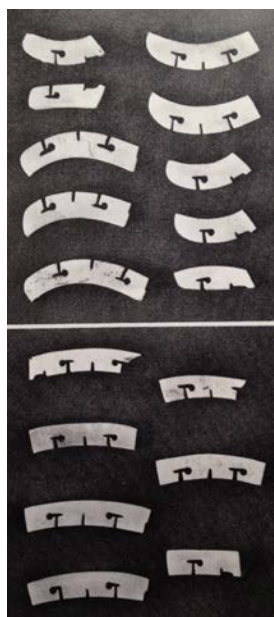
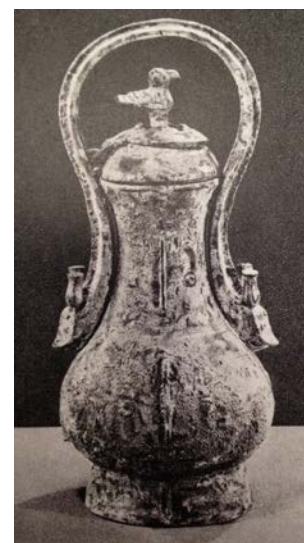


Fig. 3.3 (left) Flanged plaques, Fu Hao tomb, late Shang
After *Yinxu Fu Hao mu*, pls. CLXIII, 3, 4.
Length: 2.8-5cm,
width: top group: 0.2cm, bottom group: 2cm

Fig. 3.4 (right) *Zun* (top left), *pou* (bottom left), and *you* vessels, Fu Hao tomb, late Shang
Top left: after *Yinxu Fu Hao mu*, pl. XXII, 2.
Height: 33.2cm, diameter of mouth: 31cm
Bottom left: after *ibid*, pl. XXIX, 2.
Height: 33cm, diameter of mouth: 21.8cm
Right: after *ibid*, pl. XXX, 2.
Height: 36.4cm, diameter of mouth: 8.8cm



² Some Shang and Zhou examples of painted jades with lacquer have been found in Gansu. Some of the jades are in the shape of bronze vessels. See *Qijia wenhua yuqi*, nos. 253-276. They prove the practice of reproducing bronzes in jade and lacquer were actually carried out in SHng and Zhou dynasties. But it is different from making the body of vessel in lacquer and attaching jade flanges.

³ According to the composition of curve and length, only shapes with bulging belly could be possible. Also, the object attached with jade flanges is supposed to be fully embellished, which means the jade flanges would not be less than the possible bronze flanges on bronze vessels of the same shape. Thus, shapes with flaring-out contour are not possible either, such as *jue*, *gong*, and *gu*.

Another major discovery of late Shang material culture is Xin'gan Dayangzhou in Jiangxi. There are two sets of flanged plaques found (Figs. 3.5, 3.6) whose features connect to the flanges on bronzes immediately. However, a closer observation could tell us they are different in function, even with great similarity in form. The four-plaque set (Fig. 3.5) is a replica of hooked flanges that protrude from the body of bronzes (Fig. 3.7), but in a larger scale by comparison. The three-plaque set, on the other hand, must serve as legs supporting a *ding* vessel⁴ (Fig. 3.8), but is slightly smaller in dimensions. Figs. 3.5-3.8 are all from Xin'gan Dayangzhou site, so that their partnership is more revealing and evident. It is quite clear that late Shang wealthy families (both in north and south based on discoveries in Anyang and Xin'gan) carried out reproducing bronzes with various material, the rest of which other than jade perished during thousands-year of burial.⁵



Fig. 3.5 Flanges, Xin'gan Dayangzhou, late Shang
After *Zhongguo yuqi quanji*, 2, no. 133.
Length: 7.5 cm, width: 2.2 cm, thickness: 0.3 cm



Fig. 3.7 Bronze *dou* vessel with flanges, Xin'gan Dayangzhou, late Shang
After *Zhongguo qingtongqi quanji*, 4, no. 5.
Height: 13.4cm, diameter of mouth: 15cm

⁴ Kyle Steinke proposes this assumption briefly. See "Erligang and the Southern Bronze Industries," in *Art and Archaeology of the Erligang Civilization*, Princeton University Press, 2014, 156.

⁵ Majority of archaeologists believe the vessels are made in lacquer and jade.



Fig. 3.6 Flanged leg (one of three), Xin'gan Dayangzhou, late Shang
After *Zhongguo yuqi quanji*, 2, no. 142.
Length: 18 cm, width: 5.5 cm, thickness: 1.5 cm



Fig. 3.8 Bronze *ding* vessel with flanges, Xin'gan Dayangzhou, late Shang
After *Zhongguo qingtongqi quanji*, 4, no. 18.
Height: 38.2cm, diameter of mouth: 26.4cm

3.1.2 Western Zhou (1027-771 B.C.) and Eastern Zhou (771-221 B.C.)

No immediate counterpart has been found in Western Zhou or early Eastern Zhou. In late Eastern Zhou, Marquis Yi of Zeng's tomb yields a single flanged plaque (Fig. 3.9) of the same type with previous examples. Its characteristic Eastern Zhou fashion is revealed by the meandering swirl-cloud patterns and the short grooved border, which echoes with Figs. 1.26 and 1.24 respectively. The bronze legs in late Eastern Zhou, however, have nothing like the jade plaque⁶. Such flat shape of legs with pointed foot is exclusively cast in bronze during early Shang in Henan (Fig. 3.10). Thus, the flanged leg in the late Eastern Zhou tomb in Hubei is probably the reminiscence of an archaic bronze *ding* copied in lacquer some time during Eastern Zhou. The multiple perforations and the cropped top of this single find out of a set further

⁶ Eastern Zhou bronze legs are in bottle or animal-leg shapes, not in plaque. See *Zhongguo qingtongqi quanji*, 8.

convey the fact that it was not used as a *ding* vessel leg when buried in the current tomb, but as an adorable souvenir of an earlier archaist reproduction of an early Shang bronze. Judging from the perforations, it probably ended up as a pendant.



Fig. 3.9 Flanged pendant, Marquis Yi of Zeng tomb, late Eastern Zhou
After *Zhongguo yuqi quanji*, 3, no. 190.
Length: 9.3cm, width: 2.9cm, thickness: 0.4cm



Fig. 3.10 Bronze ding vessel, Zhengzhou, Henan, early Shang
After *Zhongguo qingtongqi quanji*, 1, no. 40.
Height: 31.7cm, diameter of mouth: 19cm

There are some similar objects in museums that are no less revealing than the ones above. The British Museum houses one such piece from the Qin state in western China (Fig. 3.11), dated to Eastern Zhou. Its upper part retains the characteristic notches, but the tiny size leads us to believe it is not a functional leg from any set, but a pendant. What make it different from others are the angular single-line incisions on the surface, which is a typical feature of Qin state art of the time (Fig. 3.12). Another almost identical piece is in AIC (Fig. 3.13), which in this case is highly possible to be a product of Eastern Zhou Qin art. Thus, though we could not pin point the starting point of its loss of reproducing-related function, it is clear that not later than the end of the Eastern Zhou flanged plaques have become a stylized pendant.



Fig. 3.11 Flanged pendant, British Museum, Eastern Zhou
After *Chinese Jades: from the Neolithic to the Qing*, 61, fig. 43.
Length: 4.7cm



Fig. 3.12 Qin-style openwork pendant, Fengxiang, Shaanxi, Eastern Zhou
After *Shaanxi chutu Dong Zhou yuqi*, 75, FN22 (b).
Length: 7.5cm, width: 3cm, thickness: 0.35cm

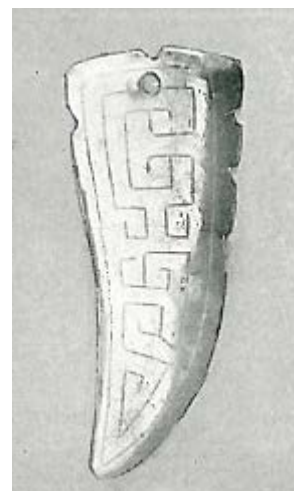
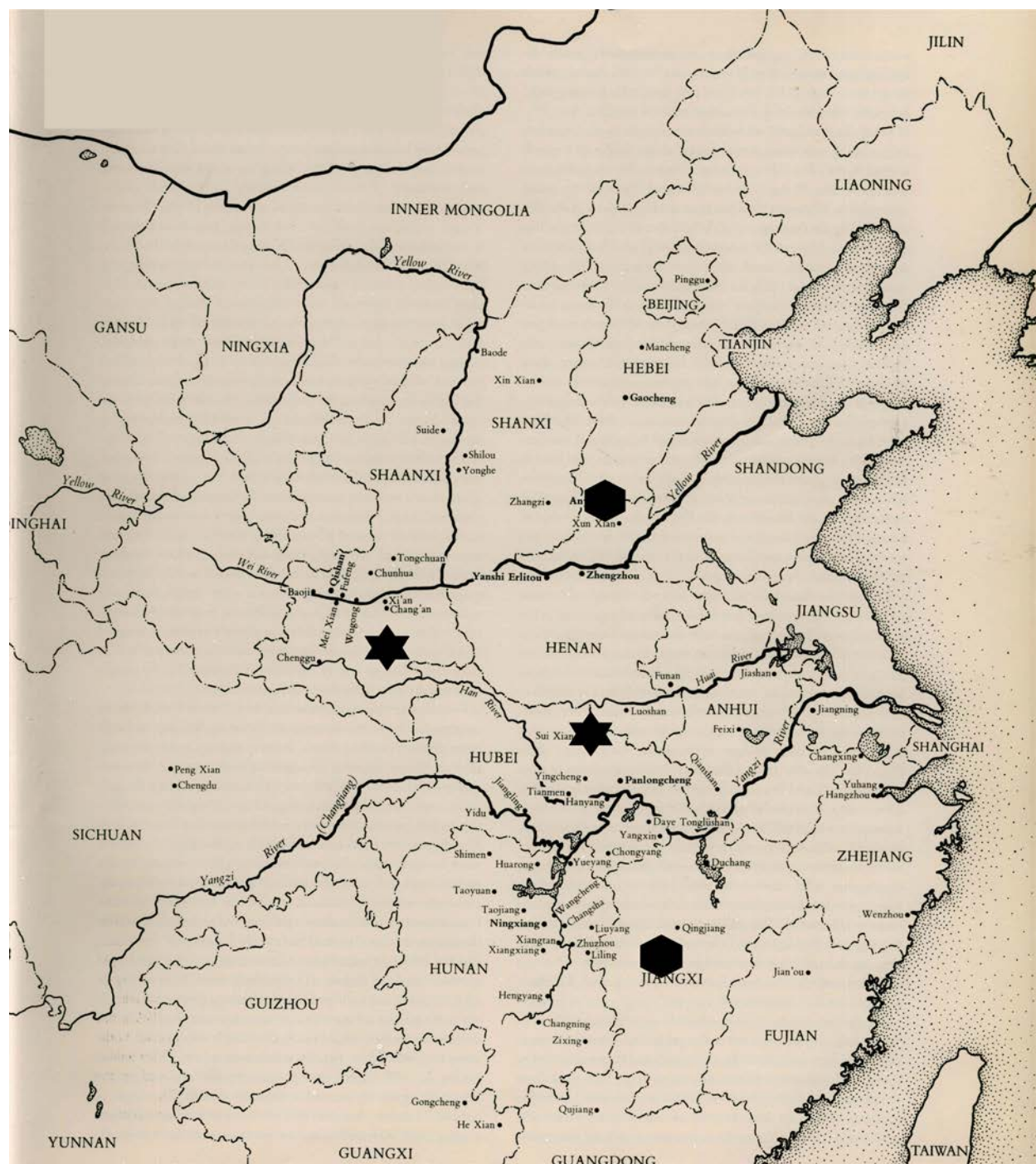


Fig. 3.13 Flanged pendant, AIC, late Eastern Zhou
After *AIC catalogue*, pl. XCV, 1.
Length: 2 ½ in (6.35cm),
width: 1 in (2.54cm),
thickness: 3/16 in (0.48cm)

3.1.3 Summary

From the discussion above, we could conclude that flanged plaques have been kept as a subject of jades until Eastern Zhou. Its geographical distribution covers from northern Henan to central Jiangxi, and reaches as far as modern Shaanxi (Map. 3.1). Its original functions of reproducing bronzes with other materials diminished since the beginning of late Eastern Zhou, which is probably a result of the disappearance of early Shang bronzes in people's life as time goes. The transmissions from east China to the west that was considered barbaric seem to tell us that the interactions between regions and states were more frequent and fuller than they appeared to be.



Map. 3.1 Circulation of flanged pendants in late Shang (ca. 1200-1000 B.C.) and Eastern Zhou (771-221 B.C.)



Shang sites;



Eastern Zhou sites

Part 2 Hooked-cloud pendants

From the rich collections in Fu Hao's tomb, we can see that the Fu Hao/ Shang royal family held quite a few sincere imitations of the C-shaped dragon pendant (Fig. 3.14) for which the Neolithic Hongshan culture in northeastern China is famous¹ (Fig. 3.15), which suggests that the Shang royal family at Anyang had ample collections of earlier jades and were willing to imitate some of them with late Shang fashion.

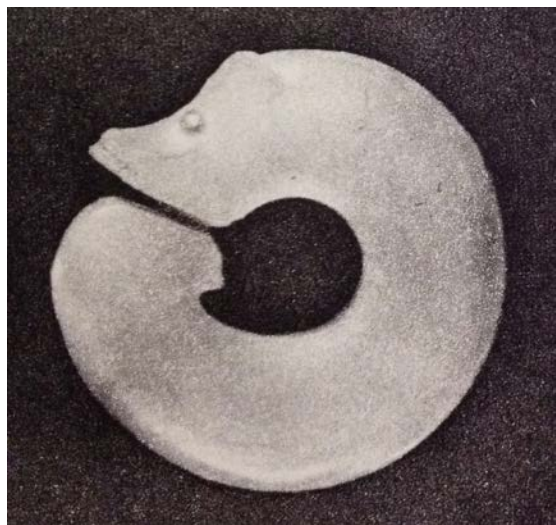


Fig. 3.14 C-shaped dragon pendant, Fu Hao's tomb, late Shang
After *Yinxu Fu Hao mu*, pl. CV, 2. Diameter: 4.9cm, thickness: 0.8cm.



Fig. 3.15 C-shaped dragon pendant, Niuheliang Zone2 Cemetery 1M4, Liaoning, Hongshan culture, late Neolithic
After *Zhongguo kaogu wenwu zhimei: Hongshan*, no.3.
Height: 7.9cm, width: 5.6cm

One of the other types of jades originated in the late Neolithic Hongshan culture - the toothed “comb-like” jade pendant such as Fig. 3.16 is one of its most iconic jades, paralleled with C-shaped pig-dragon pendant (Fig. 3.15), and sickle-shaped pendant. It features the oblong shape with paired-eye-like curves and drills open work in the middle, swirl opening on each corner, and teeth-shaped protrusions on bottom.

¹ Aside from these, at least a broken hooked pendant (*Yinxu Fu Hao mu*, pl. CLXII, 1) and a sickle-shaped pendant (*ibid*, pl. CLXIV, 1) both from Hongshan culture are found in the burial.



Fig. 3.16 Teethed pendant, Freer Gallery, Hongshan culture, late Neolithic
After *A Hongshan jade pendant in the Freer Gallery of Art*, pl. 1.
Length: 17.2cm



Fig. 3.17 Hooked cloud pendant, Aurora Musuem, Hongshan culture, late Neolithic
After *Hongshan yuqi*, pl. 117.
Length: 17cm, width: 6cm, thickness: 0.6cm



Fig. 3.18 Hooked cloud pendant, Mr. Fu's collection, Hongshan culture, late Neolithic
After *Guyu jingying*, no.7.
Height: 6.4cm, width: 13.7cm, thickness: 0.75cm

In majority of the cases, however, we see examples like Figs. 3.17 and 3.18, which derive from the prototype (Fig. 3.16) while retaining the core ideas. The general shapes are all oblong, though it turns increasingly circular; there are projections from all corners reaching out in curving tips or paired teeth; the swirl open work is always the major character with its bolder and bolder open space; they are all highly polished and the surface texture is less grooved and getting smoother. On the other hand, the teeth are less and less prominent, while contours are embellished with more and more tips, and curves of the openwork are getting more conspicuous. In general, the fact such such type of object gets its name from the teeth to the hook transition,

which could to some extent reveal their developing formal characters: from thin and sharp to bold and smooth.

3.2.1 Western Zhou (1027-771 B.C.)

In historic periods, hooked-cloud pendants not only became a mysterious antique to later owners, but also enabled later artisans to make new objects out of them. In fact most hooked-cloud pendants found in later contexts are broken.² Figs. 3.19 and 3.20 dated to Western Zhou are two typical examples. Their formal features especially the outlines suggest their former life as a hooked-cloud pendant, compare with Figs. 3.17 and 3.18. Their new looks are the fashion of their own time, as seen in Figs. 3.21 and 3.22 respectively. The bird in Fig. 3.19 imitates the popular flying bird pendant faithfully, but it cannot get over limitations of the given material. Thus, as a compromise, the reworked piece turns out to have a gangly body, longer neck, and thinner wings than its model. The bird in Fig. 3.20, on the other hand, is equipped with stretching tail and longer jaws in compliance with the irregular material.



Fig. 3.19 Bird pendant, AIC, early Western Zhou
After *AIC catalogue*, pl. XLVI, 5.
Length: 2 5/8 inches (6.67 cm), width: 1 3/8 inches (3.50 cm),
thickness: 1/8 inch (0.32 cm)



Fig. 3.21 Bird pendant, Anyang, late Shang
After *Anyang Yinxi chutu yuqi*, no. 87.
Length: 3.67cm, width: 3.87cm, thickness: 0.44cm

² There is evidence proving that as early as the late Neolithic Hongshan culture, segments of broken hooked-cloud pendants are drilled for suspension. Reworking of broken pieces started as early as they are invented. See *Hongshan yuqi*, pl. 301.

Fragments of toothed pendant excavated in the Western Zhou Liulihe Yan state tomb in Beijing (Fig. 3.23) and Liangdaicun Rui state cemetery in southeast Shaanxi (Fig. 3.24) enhance the likelihood of the above connections established by visual comparison.

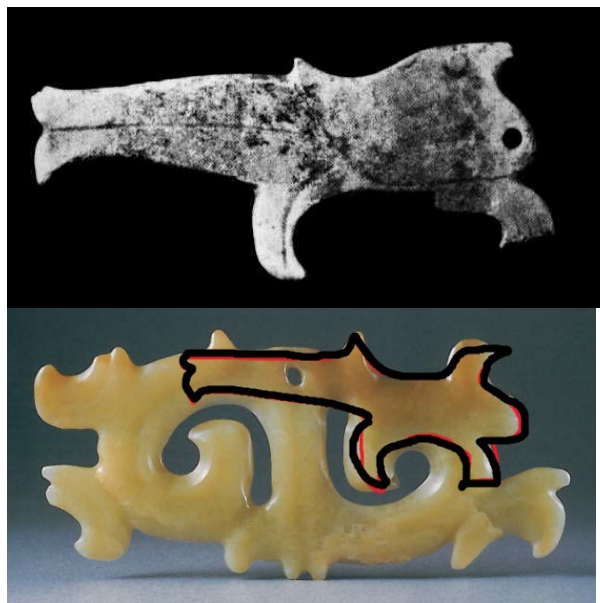


Fig. 3.20 Bird pendant, Harvard Fogg Museum, late Western Zhou
After *Winthrop catalogue*, no. 248.
Height: 1.8cm, length: 4.2cm, thickness: 0.2cm



Fig. 3.22 Bird pendant, Anyang, late Shang
After *Anyang Yinxi chutu yuqi*, no. 111.
Length: 5.6cm, thickness: 1.2cm



Fig. 3.23 Teethed pendant fragment, Liulihe tomb, Western Zhou
After *Liulihe Xi Zhou mudi fajue jianbao*, pl. 4, 1.
Length: 5.5cm



Fig. 3.24 Hooked-cloud pendant fragment, Liangdaicun Rui state tomb, Western Zhou
After *Liangdaicun fajue baogao*, color pl. 163, 1.
Length: 3.4cm, width: 2.6cm, thickness: 0.2cm

3.2.2 Summary

In short, given the examples above, we could see that the hooked-cloud pendant (including the preceding toothed pendant) lost its significance and its reminiscence became the source of material for later users no later than early Western Zhou. Due to inadequate discovery of this type of rework, we could not be able to trace the historical steps of the transition in spirit and further in function. There are quite a few Western Zhou and Eastern Zhou finds of Hongshan jades, some of which include hooked-cloud pendants. The majority of them are kept in their original shape, mostly broken. Examples of reworking like the above ones (Figs. 3.19 and 3.20) are not common. Lacking excavation locations, the reworked examples cannot tell us more about

which part of Western Zhou artisans did such modifications. We can deduce that artisans carried out such reworking practices were not aware of the significance of the hooked-cloud pendant, but took them as regular broken pieces and used them to make new objects. Thus, it is quite clear that the acquisition and recognition of Hongshan jades did not always overlap in early China.

Part 3 Notched disks

The notched disk, named “xuanji” in traditional literature, refers to a type of disk with evenly placed multiple (typically three) protruding arms that turn in the same direction. It is first found in the late Neolithic Longshan culture (ca. 2500-1900 B.C.) in modern Shandong, east China. There are three types of notched disk: rounded contour with an outward tip on the inner perimeter (Fig. 3.25); a thin disk with a few irregular concave and convex tips on the outline of arms (Fig. 3.26); and a disk with patterned serrations on the outer rim of arms (Fig. 3.27). Though lacking of plausible explanations, there are always three arms on the Longshan pieces without exception. Thus, we shall take it as an easy standard to distinguish authentic pieces from imitations.



Fig. 3.25 Xuanji (notched disk), Longshan culture, late Neolithic
After *Zhongguo yuqi quanji*, 1, pl.52.
Length: 4.3cm, maximum thickness: 0.4cm



Fig. 3.26 Xuanji (notched disk), Longshan culture, late Neolithic
After *Zhongguo chutu yuqi quanji*, 4, pl.30.
Maximum diameter: 22.5cm, thickness: 0.5cm

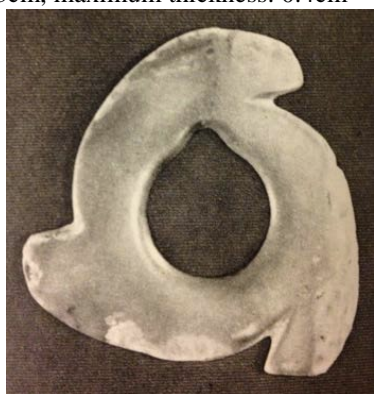


Fig. 3.28 Xuanji (notched disk), Fu Hao's tomb, late Neolithic
After *Yinxu Fu Hao mu*, pl.LXXXXVI, 4.
Maximum diameter: 6.1cm, diameter of hole: 2.3cm, thickness: 0.3cm



Fig. 3.29(a) Fragment of a notched disk, Fu Hao's tomb, late Shang
After *Yinxu Fu Hao mu*, pl.CLXII, 1.
Length: 10.8cm, width: 3.3-4.2cm, thickness: 0.7cm

3.3.1 Late Neolithic Era

The Neolithic imitations of Longshan notched disks are rarely seen, except the ones from Qijia culture (ca. 2300-1700 B.C.) in modern Gansu, northwest China, such as the one shown in Fig. 3.30. It is a faithful copy of the third type of the originals in shape and size. The serrations, however, differentiate it from an authentic piece. On the Longshan ones, the serrations are located in the middle part of the arms, and are made in three-tip groups. On the Qijia ones, by contrast, the serrations lie on the front part of the arms, and are composed of several two-tip protrusions. What is clear from this case is that notched disks reached the Upper Yellow River region very soon after they were invented in the Lower Yellow River valley and became a model to be copied there. No Neolithic counterpart has been discovered in other parts of China.

Other than immediate copies, Qijia artisans also incorporated the intriguing shape with more factors, such as Figs. 3.34 and 3.37, which will be discussed in later sections.



Fig. 3.27 Xuanji (notched disk) and detail, Longshan culture, late Neolithic
After *Zhongguo yuqi quanji*, 1, pl.42.
Diameter: 8cm



Fig. 3.30 Xuanji (notched disk) and detail, Qijia culture, late Neolithic
After *Qijia wenhua yuqi*, no. 186.
Diameter: 9.5cm

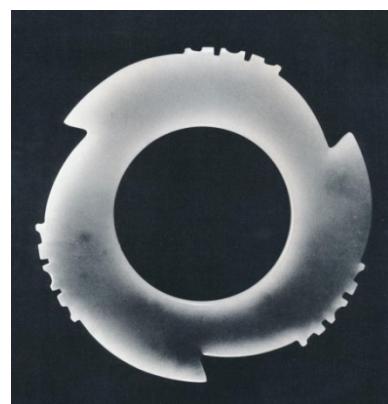


Fig. 3.31 Xuanji (notched disk) and detail, Winthrop collection at Harvard, late Shang or Western Zhou.
After *Winthrop catalogue*, no. 106.
Diameter: 13.2cm, thickness: 0.6cm



3.3.2 Late Shang (ca. 1200-1000 B.C.)

The notched disks with their iconic form can be recognized in quite a few Shang contexts (Figs. 3.28, 3.29(a), and 3.31) that are centuries apart from its origin. Fig. 3.28, found in late Shang Fu Hao tomb (ca. 1200 B.C.), for example, is almost a twin with Fig. 3.25, which suggests that it was an heirloom. Though Figs. 3.29(a) and 3.31 also bear resemblance to the authentic objects, they are products of the Longshan culture as Fig. 3.28.

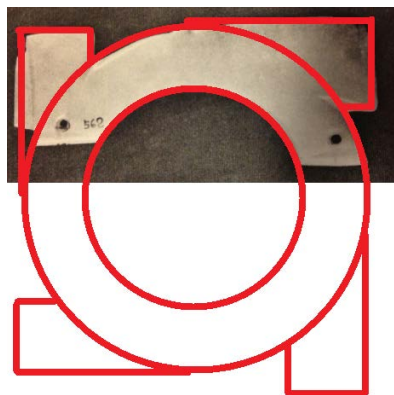


Fig. 3.29(b)



Fig. 3.32 (a) Xuanji (notched disk),
Winthrop collection at Harvard,
Shang (?)
After *Winthrop catalogue*, no. 105.
Diameter: 15.2cm, thickness: 0.8cm



Fig. 3.32(b) Xuanji (notched disk),
Anyang Yinxu, late Shang
After *Anyang Yinxu chutu yuqi*, no.
3.
Diameter: 3.55cm, thickness: 0.5cm

Fig. 3.29(a) shares the protruding arms and the tip with Fig. 3.26, while its composition on the given segment (such as Fig. 3.29(b)) does not allow it to be imagined as a part of Fig. 3.26. Another Shang piece (Fig. 3.32(a)) is by comparison more relevant to the shape of Fig. 3.29(a). The piece shown in Fig. 3.32(b) from Anyang also has four arms. All of the three four-arm notched disks suggest that the fragment from Fu Hao's tomb was probably a Shang copy of the Longshan notched disk, but for some reason the Shang artisans equipped "xuanji" disks with an additional arm. The invented four-arm notched disks include all the three types of the Longshan originals: the Yinxu one (Fig. 3.32 (b)) belongs to "rounded contour" type as Figs. 3.25 and 3.28; the Fu Hao's tomb one (Fig. 3.29) is modelled after the type exemplified by Fig. 3.26; and the Winthrop one (Fig. 3.32(a)) is an idiosyncratic copy of the type of Fig. 3.27. Judging from the high similarity of the Shang copies with the originals, we can deduce that the Shang owners must have Longshan notched disk collections of all the three types.

By contrast, Fig. 3.31 is a faithful imitation of the original (Fig. 3.27), except that every serration on the outer rim is composed of two protrusions, instead of three as Fig. 3.27 shows. The paired hook is borrowed from the flanges of Shang bronzes (Fig. 3.39). Though the imitations in Gansu (Fig. 3.30) and this object have much in common, there is no direct affiliation between them. They copied the originals from different entry points with different emphasis.

The above three comparisons tell us that the interest in the form of notched disk did not diminish in late Shang, during which time all types of originals are collected or copied, though Shang artisans probably have no clear idea of their meanings.



Fig. 3.33(above) Collared tube, Fu Hao's tomb
After *Yinxu Fu Hao mu*, color pl. XXXVII, 1.
Height: 4.8cm, diameter of hole: 6.7cm, thickness:
0.1cm



Fig. 3.34(right) Collared tube (two views), Qijia
culture, late Neolithic
After *Qijia wenhua yuqi*, no. 209.
Diameter of collar: 17.2cm, diameter of hole: 8.4cm

Fu Hao's tomb also yields another peculiar jade piece (Fig. 3.33) whose collar can be seen as a type of "notched" disk from overhead. A very similar piece (Fig. 3.34), however, has been found in the late Neolithic Qijia culture. They share the collared tube shape, parallel

grooves on the tube surface, and the protruding tips on the ring collar¹. The Fu Hao's one is shaped in slightly biconical silhouette for its middle part is narrower and its top and bottom are flaring out. The Qijia one is simpler in shaping. The numbers of the protruding tips are different, Fu Hao's one has five, while Qijia's one has four. The shapes of tips are in slight variation: Fu Hao's one looks like a rectangular with the one side serrated, while the Qijia one is more like a pair of unfolding wings. Given there is no other example that can be used as a comparison, and Qijia culture is centuries earlier than Fu Hao's tomb, we can say that the idea of the collared tube was invented by Qijia artisans in late Neolithic. And the Fu Hao's one is highly possible to be an heirloom, for Fu Hao had great interest in seeking after jades from various cultures and copying them, as seen in the preceding chapters.

The idea of the collar may be inspired by the notched disks that were brought to northwest China from the east origin during the late Neolithic age. Qijia artisans combined the grooved tube² with notched disk based on two given shapes. The evenly placed protrusions and the desired overhead view are inherent with the idea of notched disks in Longshan. Such variation in the number of tips may be influential to the Shang four-arm copies.

3.3.3 Western Zhou (1027-771 B.C.)

In later contexts, notched disks can also be found, but with greater variations in decoration. Fig. 3.35 shows an example in Western Zhou, which has five arms. It is probably used as a component for a necklace. Another example from Tianjin art Museum (Fig. 3.36) is a more illustrative one, for its arms are replaced by three typical late Shang-Western Zhou bird pendants (such as Fig. 2.27). The combination of archaic notched disk shape and the earlier prevailing bird pattern can be seen as a practice of archaism. But replacing arms with animals is not an invention of Western Zhou artisans. As early as late Neolithic, Qijia artisans in northwest

¹ There is another piece of the same type of shape as Figs. 3.33 and 3.34 found in Qijia culture, which has no protruding tips on the collar. See *Qijia wenhua yuqi*, no. 165.

² The highly polished groove surface has much affiliation to Hongshan hoof pendants and the reworked "armband" from them. See *Zhongguo kaogu yuqi zhimei: Hongshan*, nos. 6, 7, and 31 (top). Though there is no Hongshan jades found in Qijia culture, the technique, shape, and spirit of the Qijia jades have revealed immediate connections with Hongshan. It is deduced that Hongshan migrants moved westward to modern Gansu and Shaanxi region because of climate changes. See *Qijia wenhua yuqi*, 55-6.

China had such practices, like the one shown in Fig. 3.37. Three cicadas³ in profile take the place of the three arms.

The third example in Western Zhou (Fig. 3.38(a)) looks like a *bi* disk at first sight, while the slight difference in the height of its hooks suggests its earlier shape (Fig. 3.38(b)). The idea of the hooks originated from hooked flanges on bronzes like Fig. 3.39. In this case, the features of notched disk are eliminated to present new fashions. There is no example of a jade notched disk later than Western Zhou.



Fig. 3.35 Xuanji (notched disk) pendant, Zhangjiapo cemetery M129, Western Zhou
After *Zhangjiapo Xi Zhou yuqi*, colot pl. 280.
Diameter: 4.3cm, thickness: 0.7cm

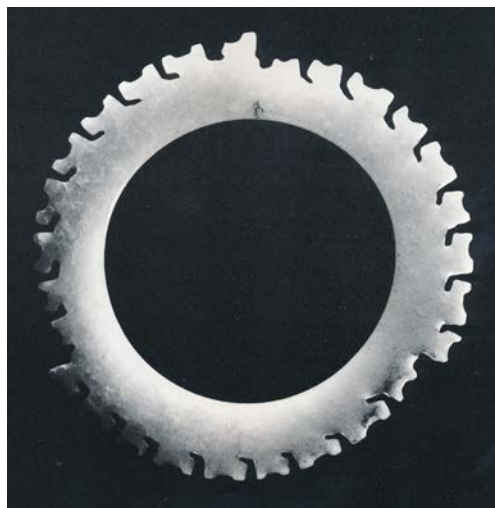


Fig. 3.39 Detail of a bronze you vessel, Fufeng Zhuangbai Hoard, Shaanxi, early Western Zhou
After *Zhongguo qingtongqi quanji*, 5, no. 170.



Fig. 3.38(a) (b) Xuanji (notched disk), Winthrop Collection at Harvard, Western Zhou
After *Winthrop Catalogue*, no. 233.
Diameter: 10.1cm, thickness: 0.5cm

³ The grooves on the back of the cicadas are in association with the late Neolithic Hongshan jades.

A set of ten bronze notched disks (Fig. 3.40) have been found in an Early Eastern Zhou Rui state burial in Liangdaicun, southeast Shaanxi. Having four arms, they are in the same size and shape. Judging from the burial context, they were apparently used as ritual objects for they were placed evenly along the outer rim of the coffin (Fig. 3.41). There are no jades found in this top-class burial, meaning that the bronze notched disks are probably metal reproductions of jades. No other example has been discovered in Eastern Zhou tombs, suggesting that notched disks as a type of funeral ceremonial object had been diminished.



Fig. 3.36 Xuanji (notched disk) with bird and detail, Tianjin Art Museum, Western Zhou
After *Tianji yishu bowuguan catalogue*, no. 75.
Diameter: 7.6cm

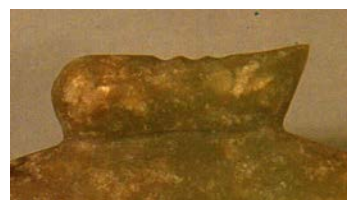
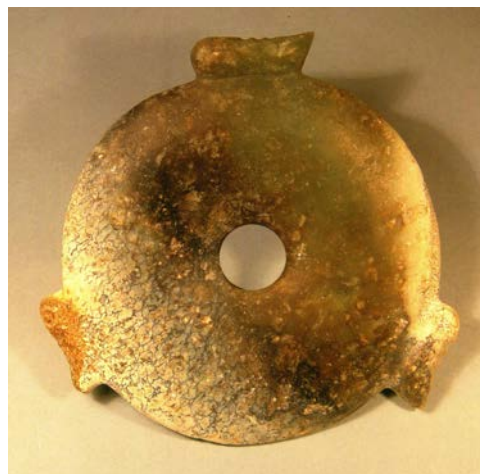


Fig. 3.37 Xuanji (notched disk) with cicada and detail, late Qijia culture, late Neolithic
After *Qijia wenhua yuqi*, no. 185.
Diameter: 11.2cm

From the above examples we can see that the idea of notched disk shape survived to early Eastern Zhou, about two centuries after the decline of the jade form. Probably we can take Figs. 3.38 and 3.40 as a hint that notched disk lost its attraction to artisans and owners gradually during Zhou dynasty.



Fig. 3.40 Bronze notched disk, Liangdaidun Rui state cemetery M28, early Eastern Zhou
After *Liangdaicun Ruiguo mudi*, color pl. 144, 2.
Diameter: 15.6cm, thickness: 1cm



Fig. 3.41 Burial context of the bronze disks, Liangdaicun Rui state cemetery M28, early Eastern Zhou
After *Liangdaicun Ruiguo mudi*, color pl. 144, 1.

3.3.4 Summary

During the late Shang and Western Zhou ages, notched disks have survived in several manners: collected by later owners, copied by later artisans, and inspiring works decorated in later fashions. What attracts most attention, according to my observation, is the combination of disk and the attached turning arms. The number, shape, and detail of the arms changed with fashions of different periods. It is quite certain that no matter what meaning is associated with the notched disks when they were invented, late Shang and Western Zhou owners preferred to use such an attractive form of jade to present their own understandings.

Part 4 Burial masks

Jade was associated with moral, celestial, and psychological significance in early China, as it was used for burial and ritual purpose from its emergence in late Neolithic era. During Western Zhou (1027-771 B.C.), a fashion of covering a mask made of jade plaques on the deceased in the tomb was developed among the aristocrats. The jade components trimmed in desired shapes to fit the coverage of face were stitched with fine strings. Such a luxurious practice demands great number of jades, which in fact were only used for one-time show and would be hidden under earth soon after their completion. Given such an imbalance between high cost and transitory utility, this kind of burial show is more prone than other daily uses to be completed with reworked jades.

3.4.1 Late Western Zhou (8th century B.C.): Guo state Cemetery, Sanmenxia, west Henan

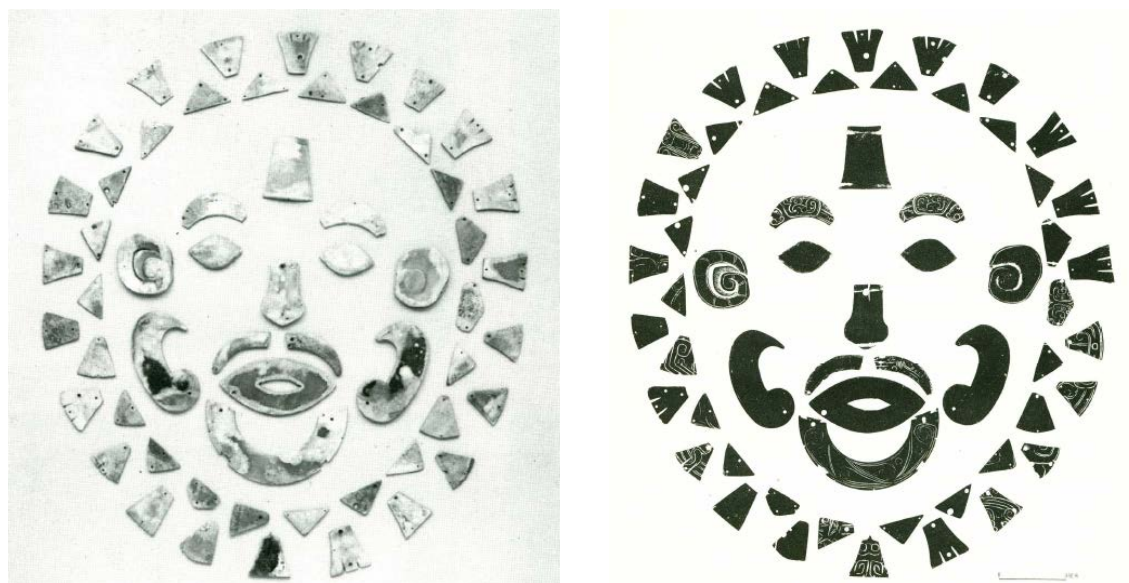


Fig. 3.42 Burial mask and its rubbing, Guo state cemetery M2001, late Western Zhou

Left: after *Sanmenxia Guoguo mudi*, 2, pl. LXXI, 1.

Right: after *Sanmenxia Guoguo mudi*, 1, 173, fig. 134.

Let us look at one of the most complete finds of Western Zhou burial masks, which is in the largest tomb of the Guo state cemetery (Fig. 3.42), western Henan. The mask is made up by 142 components grouped in several shapes. It has two rims of trident and triangular plaques. Their shapes are designed to cover the edge of face properly when pieced together. Inside of the

rim, there are recognizable plaques representing facial parts. Most of the components are in angular or irregular shapes. Close observation shows that some of them are reworked jades from earlier pieces.



Fig. 3.43 Component in irregular shape
After *Sanmenxia Guoguo mudi*, 2, pl. LXXI, 2.



Fig. 3.44(top and left)
Double-bird motif on
jade and bronze,
Western Zhou
Above: after *Gugong
cangpin daxi, yuqi
bian*, 2, no. 256.
Left: after *Qingtongqi
quanji*, 5, no. 161.

One of the parts on the triangular plaque rim is cropped in an irregular shape (Fig. 3.43). It stands out among others not only due to its shape, but also to the embellished decoration. Though fragmented, it is still clear that two birds facing each other are depicted, which can also be seen on a jade plaque housed at the Palace Museum, Beijing (Fig. 3.44). Such bird motifs emerged and prevailed on bronzes (Fig. 3.44) during middle Western Zhou for a short time and got replaced by other fashions. The jade plaque in Fig. 3.43 is a faithful replica of the birds on bronze, which suggests it is a middle or late Western Zhou piece. The owner of the M2001, Guo Ji, lived during late Western Zhou, thus, this piece could be a current object or slightly earlier in Guo's time. It is trimmed not like the other plain plaques in straight triangles, but in an obtuse

angle on bottom with two rounded corners on top. This is probably due to its delicate decoration: the artisan would like to retain as much decorated space as possible in cropping this piece.

Another piece (Fig. 3.45) is a more straightforward fragment of a Western Zhou *bi* disk or *huang* arc with intertwined dragons, such as the one shown in Fig. 3.46. There is one piece (Fig. 3.47) that may be also a fragment of a Western Zhou jade. The curvilinear incisions ending with a circular spiral and the hoof-shaped decoration are signatures of Western Zhou jades (Fig. 3.48).



Fig. 3.45 Component in trident shape
After *Sanmenxia Guoguo mudi*, 2, pl. LXXII, 5.



Fig. 3.46 Rubbing of a *bi* disk in detail and whole, Palace Museum, Beijing, Western Zhou
After *Gugong cangpin daxi, yuqi bian*, 2, no.249.



Fig. 3.47 Component in trapezoid
After *Sanmenxia Guoguo mudi*, 2, pl. LXXII, 1.



Fig. 3.48 Detail of a jade figurine, Jin state cemetery M63, Western Zhou
After *Jinhou guyu*, no. 12.

However, there are some examples that require elaborated comparisons to trace their origin. One trapezoidal plaque (Fig. 3.49) decorated with paired eyes and ears/ horns remind us

of animal head pendant in Western Zhou (Fig. 3.50). Its angular ears/horns and pointed tip below the eyes point to an earlier comparison (Fig. 3.51). Their composition, facial details, and most significantly the pointed beak resonate with the other. But apparently Fig. 3.49 is not an immediate imitation of Fig. 3.51, for there is still a gap between their looks. The late Shang bird pendant found in a Western Zhou burial (Fig. 3.52) could possibly fill the gap. Figs. 3.49 and 3.52 share not only the contour, but also the angular ears with a raised outline and the chevrons between eyes. This could lead us to believe that the Shang bird pendants like Fig. 3.52 are the immediate model in making the original piece of Fig. 3.49 in Western Zhou. But for some reason, the imitation is poorly fulfilled and the piece gets cropped for burial service.



Fig. 3.49 Component in trapezoid
After *Sanmenxia Guoguo mudi*, 2, pl. LXXII, 3.



Fig. 3.50 Animal head pendant, Yu state cemetery BZM6, Western Zhou
After *Yuguo yuqi*, 257.
Length: 2.45cm, width: 2.1cm, thickness: 0.9cm



Fig. 3.51 Bird pendant, Kwan's collection, late Shang
After *Guanshi suocang zhongguo guyu*, no.98.
Length: 4.6cm, width: 3.8cm, thickness: 0.25cm



Fig. 3.52 (left) Detail of a bird pendant, Jin state cemetery M63, late Shang
After *Jinhou guyu*, no. 36.

3.4.2 Other Western Zhou examples (1027-771 B.C.)

The components of burial masks were mostly made around the time of burial, but in various qualities and conditions. Master pieces, moderate works, and clumsy imitations are all included, which could to some extent testify that the mask was made in haste. It is interesting to notice that artisans prefer to keep the delicate motifs or facial features complete, while breaking less prominent decorations when trimming them to desired pieces. All of these happen to Rui state cemetery in Liangdaicun, southeast Shaanxi. Series of tiny jade pendants are found in M586, which must have been used as components of burial mask to judge by their shapes and sizes¹. What about other burial masks found in Western Zhou?



Fig. 3.53 (above) Burial mask, Zhangjiapo cemetery M303, Western Zhou
After *Zhangjiapo Xi Zhou yuqi*, color pl. 207.



Fig. 3.54 (right) Components of a burial mask, Zhangjiapo cemetery M157, Western Zhou
After *Zhangjiapo Xi Zhou yuqi*, color pls. 8, 9, 12.
Top: length: 5.8cm, width: 3.6cm, thickness: 0.6cm
Middle: length: 5.8cm, width: 3.6cm, thickness: 0.6cm
Bottom: length: 5.1cm, width: 3.8cm, thickness: 0.6cm



¹ *Liangdaicun Ruiguo mudi fajue baogao*, color pls. 85-87.

The Zhangjiapo cemetery is another major find of Western Zhou jades, where several sets of burial masks have been excavated. Take the ones from M303 (Fig. 3.53) and M157 (Fig. 3.54) for example. Though some parts are missing, it is in substantially higher quality than the ones of the Guo state and the Rui state, for each facial part is rendered in its actual shape, and decorated with lines accordingly. All parts are highly polished and no pattern from previous usage is found. Judging from shape and condition, they are probably specifically carved for burial use instead of reworked from other pieces. There are only a few jade pieces in Zhangjiapo that are not in their original shape. In other words, Zhangjiapo owners wouldn't allow reworked jades in their sets used for daily adornment or burial rite. This essentially reflects the well-to-do economic condition of this region, especially the abundant source of raw jade.

3.4.3 Summary

Different from the reworked types discussed in other chapters, burial masks stand for a new type of second-time craftsmanship on jades: breaking in. Components used for masks are cropped immediately from bigger original pieces with rare attention to its given patterns. What matters at this moment of rework is not surface but shape, not decoration but number. Thus, it is not surprising to see various patterns are on the same shape of parts, with no relation to each other or the burial, such as Fig. 3.42. Such practice can also be seen in an early Eastern Zhou case (Fig. 3.55), whose border cuts off the surface decoration abruptly. This suggests that it is a reworked piece with intrusion to the original pattern. Its shape corresponds to one of the eye brows (Fig. 3.56) on a jade burial mask found in Zhenshan tomb, near Yanshan hoard. Given the nature of the burial, an emergency hoard, this piece may be prepared for some funeral service in the future. But due to some unexpected upheaval, it ends up buried in a hoard that did not get unearthed until about 2,500 years later.



Fig. 3.55 Tiger pendant, Yanshan hoard, Jiangsu, early Eastern Zhou
After *Zhongguo yuqi quanji*, 3, no. 94.
Length: 11.9cm, width: 3.8cm, thickness: 0.1-0.3cm



Fig. 3.56 Burial mask, Zhenshan tomb, Jiangsu, early Eastern Zhou
After *Zhongguo chutu yuqi quanji*, 7, no. 54

Conclusion

Through the lens of the physical distribution and intellectual transmission of earlier jade pieces/ideas in early China, we can get some clue about the circulation of jades of that time.

First, the *cong* tubes and *bi* disks are the Neolithic jades that survived longer than others. They were copied and reworked since their transmission to other cultures in the Neolithic age. *Bi* disks have a simpler shape and higher versatility in cropping, which allowed them to be reproduced and reworked in a larger quantity than *cong* tubes in later periods. In Zhou dynasty, *bi* disks were used mostly for burial, seen from their low quality, and *cong* were made delicate and fashionable to please the owners.

Second, the popularity of *bi* disks brought new ideas to the arcs. Arcs were initially invented and carved separately with disks before Erligang artisans managed to rescue some of the broken disks to arc pendants. And since then, breaking *bi* disks became a regular practice and arc pendants were mostly made from the segmented *bi* disks.

Third, the interaction between jades and other materials was more and more prominent during early China. In late Neolithic cultures, some jades were used to reproduce bronzes, and in Shang and Zhou periods, bronze decorations were largely applied to jades, from motifs to hook patterns. The original motifs on the Neolithic jades were replaced by the new fashions of later periods, though there were a few pure imitations of the Neolithic prototypes found. Though lacking concrete evidence on lacquer, the combination of jades and lacquer in reproducing bronzes was practiced at least in late Shang.

Fourth, the stability of shapes is much higher than motifs, for shapes are the most recognizable and reliable factor to define a collection/ reworked piece/ inspired copy. However, there are two exceptions: notched disks and burial masks. Though the notched disks from Longshan culture also survived during Shang and Zhou, their shapes were changed with new fashions. Burial masks were made only to meet the requirement on number and shape, thus the previous shapes of jade materials were demolished with barely any respect to the decorations, except some really delicately embellished pieces.

Fifth, the life span of jades in other cultures was much shorter than the ones from Liangzhu that is exemplified by *cong* and *bi*. Several types of Hongshan jade were collected and copied by Fu Hao in late Shang. Other finds of Hongshan jades in later contexts were scattered and small. Hooked-cloud pendants from Hongshan and notched disks from Longshan lost their original shapes as a result of reworking and copying respectively. When *cong* were still used as burial objects or delicate toys by the aristocrats in middle Yangzi and middle Yellow River regions, the descendants of its inventors in Lower Yangzi River turned their interests to new types of jades and were not using *cong* in late Eastern Zhou. This gives us a hint that in the history of *cong* during early China, lower Yangzi River was the source of fashion and the rest regions were following.

Sixth, the waterways were the major path to transit jades in late Neolithic ages for all the cultures used *cong* tubes then were in the valley of either the Yellow River or Yangzi River. In Shang and Zhou, the jades and ideas reached deeper along the Rivers and their tributaries. Aside from natural pathways, there is another way indicated by the Fu Hao's tomb. The rich collection of jades from almost all major Neolithic cultures in Fu Hao's tomb envisions the map of frequent and broad circulation of jades during late Shang. The Xin'gan tomb, roughly contemporary with the Fu Hao's, had no collections of jades from earlier cultures. This could lead us to deduce that the earlier jades were probably obtained from looting the defeated regions in wars, for Fu Hao was a general according to traditional literature.

Seventh, Shang and Zhou seemed to be very coherent in the way of reusing jades, which were different from the Neolithic. The rare finds of *cong* and *bi* in Erlitou and Erligang suggest that the circulation of jades was not a continuous accumulating process. It was pre-decided by the accessibility and location. Due to limited finds, we cannot conclude that there was no relation between the Erlitou and Erligang people and the former Neolithic residents. But based on given materials, we cannot draw their connections by their ways of using jades.

And the last, jade users' attitude toward the earlier pieces was complicated in early China. On one hand, they copied heirlooms, and fashioned the copies with the decorations of their times, which suggests they were accepting earlier pieces and blending them in their existing decoration system. On the other hand, they were sometimes deliberately breaking whole pieces to meet their own needs (such as the triangular pendants, the arcs, and the burial masks), which suggests they

were rejecting earlier and imported pieces. I would like to explain it as a result of the relations between current demand and existing supply. When the older pieces/shapes were in need due to actual use or archaist taste, they were reproduced; when the new demand for different shapes were dominant, the older pieces were converted to desired shapes and the idea of older shapes were abandoned. In other words, motivations were driven by demands.

The travels of earlier jade pieces and the idea of their shapes unveil a small part of the interregional circulation and transmission of goods and ideas during the fifth millennium to the third century B.C. in China. Seen from a bigger picture, as one of the most durable and precious objects that survive from the Neolithic age to today, jades can also shed light upon the general interactions and relations between cultures and regions in early China when written texts are not as reliable and informative as archaeological finds are.

Bibliography

Anhui sheng wenwu kaogu yanjiusuo 安徽省文物考古研究所 ed., *Lingjiatan yuqi* 凌家滩玉器[Jade Unearthed from *Lingjiatan*]. Beijing: Wenwu chubanshe, 2000.

Appadurai, Arjun ed., *The Social Life of things: Commodities in Cultural Perspective*. Cambridge: Cambridge University Press, 1986.

Bagley, Robert ed., *Shang Ritual Bronzes in the Arthur M. Sackler Collections*. Cambridge, Mass.: Harvard University Press, 1987.

Baoji shi bowuguan 寶雞市博物館 ed., *Baoji Yuguo mudi* 寶雞弓魚國墓地[Yu State Tombs in Baoji]. Beijing: Wenwu chubanshe, 1996.

Beijing daxue Zhendan gudai wenming yanjiu zhongxin etc. 北京大學震旦古代文明研究中心等 eds., *Yuguo yuqi* 弓魚國玉器[Yuguo Jade Wares]. Beijing: Wenwu chubanshe, 2010.

Beijing shi wenwu yanjiusuo 北京市文物研究所 ed., *Liulihe XiZhou Yanguo mudi, 1973-1977* 琉璃河西周燕國墓地 1973-1977. Beijing: Wenwu chubanshe, 1995.

Chen Xu 陈旭. *Xia Shang kaogu* 夏商考古[Archaeology in Xia and Shang]. Beijing: Wenwu chubanshe, 2001.

Chengdu wenwu kaogu yanjiusuo 成都文物考古研究所 ed., *Jinsha yuqi* 金沙玉器. Beijing: Kexue chubanshe, 2006.

Childs-Johnson, Elizabeth 江伊莉, Gu Fang 古方. *Yuqi shidai: Meiguo bowuguan cang Zhongguo zaoqi yuqi* 玉器時代：美國博物館藏中國早期玉器[The Jade Age: Early Chinese jades in American Museums]. Beijing: Kexue chubanshe, 2009.

Civic and Municipal Affairs Bureau of Macau 澳門特別行政區民政總署 ed., *Jin hou guyu: Shanxi Jinhou mudi guyu jingpin zhan* 晉國古玉：山西晉侯墓地玉器精品展精萃[Jades of Jin's empire: relics of Jin's empire]. Macau: Gallery of the Civic and Municipal Affairs Bureau, 2003.

Deng Shuping 鄧淑蘋 ed., *Jingtian gewu: Zhongguo lidai yuqi daodu* 敬天格物：中國歷代玉器導讀. Taipei: National Palace Museum, 2011.

Flad, Rowan, “Xinglongwa Jades and the Genesis of Value”, in *Yuqi qiyuan tansuo: Xinglongwa wenhua yuqi yanjiu ji tulu* 玉器起源探索：興隆窪文化玉器研究及圖錄 The Origin of Jades in East Asia: Jades of the Xinglongwa Culture, edited by Yang Hu 楊虎 etc. Hong Kong: Chinese University of Hong Kong, 2007, 225-231.

Fong, Wen ed., *The Great Bronzes Age of China: an exhibition from People's Republic of China*. New York: The Metropolitan Museum of Art, 1980.

Forsyth, Angus, and Brian S. McElney eds., *Jades from China: the Museum of East Asian Art*. Bath, England: The Museum of East Asian Art, 1994.

Fu Zhongmo 傅忠謨. *Guyu jingying* 古玉精英[The Art of jade carving in ancient China]. Hong Kong: Zhonghua shuju, 1989.

Gu Fang 古方 ed., *Zhongguo chutu yuqi quanji* 中國出土玉器全集. Beijing: Kexue chubanshe, 2005.

Gugong bowuyuan 故宮博物院 ed., *Gugong bowuyuan cangpin daxi 故宮博物院藏品大系, Yuqi bian 玉器編*. Beijing& Hefei: Zijincheng chubanshe& Anhui meishu chubanshe, 2011.

Guoli lishi bowuguan 國立歷史博物館 ed., *Yu: Zhongguo chuantong meide de xiangzheng 玉：中國傳統美德的象徵*. Taipei: Guoli lishi bowuguan, 1990.

Hebei sheng wenwu kaogu yanjiusuo 河北省文物考古研究所 ed., *Zhongguo kaogu wenwu zhimei: Hebei Pingshan Zhongshangguo wangmu 中國考古文物之美：河北平山中山國王墓*. Beijing&Taipei: Wenwu chubanshe, Guangfu shuju, 1994.

Henan sheng wenwu kaogu yanjiusuo 河南省文物考古研究所, Sanmenxia shi wenwu gongzuodui 三門峽市文物工作隊 ed., *Sanmenxia Guo guo mu 三門峽虢國墓* [Tombs of *Guo* state in Sanmenxia]. Beijing: Wenwu chubanshe, 1999.

Henan sheng wenwu kaogu yanjiusuo, 河南省文物考古研究所 ed., *Zhengzhou Shangcheng: 1953-1985 nian kaogu fajue baogao 鄭州商城：1953-1985 年考古發掘報告*. Beijing: Wenwu chubanshe, 2001.

Henan Xinyang diqu wenguanhui 河南信陽地區文管會, Guangshan xian wenguanhui 光山縣文管會. *Chunqiu zaoqi HuangJunmeng fufu mu fajue jianbao 春秋早期黃君孟夫婦墓發掘簡報* [Brief excavation report of the Early Eastern Zhou Tombs of Huang Junmeng and his wife]. *Kaogu*, no.4 (1984), 302-48.

Hubei sheng bowuguan 湖北省博物館, Zhongguo shehui kexueyuan kaogu yanjiusuo 中國社會科學院考古研究所 ed., *Zeng hou Yi mu 曾侯乙墓* [Tomb of Marquis Yi of Zeng State]. Beijing: Wenwu chubanshe, 1989.

Hubei sheng bowuguan 湖北省博物館 and Hubei sheng wenwu kaogu yanjiusuo 湖北省文物考古研究所 eds., *Zhongguo kaogu wenwu zhimei 5: Hubei Suixian Zenghou Yi mu* 中國考古文物之美 5：湖北隨縣曾侯乙墓. Beijing & Taipei: Wenwu chubanshe & Guangfu shuju, 1994.

Hubei sheng wenwu kaogu yanjiusuo 湖北省文物考古研究所 ed., *Panlongcheng: 1963-1994 nian kaogu fajue baogao* 盤龍城：1963—1994 年考古發掘報告 [Panlongcheng: 1963-1994 Excavation Report]. Beijing: Wenwu chubanshe, 2001.

Jiangxi sheng bowuguan etc. 江西省博物館等 eds., *Xin'gan Shangdai damu* 新幹商代大墓. Beijing: Wenwu chubanshe, 1997.

Jingzhou shi bowuguan 荊州市博物館 ed., *Shijiahe wenhua yuqi* 石家河文化玉器 [Jade Objects of the *Shijiahe* Culture]. Beijing: Wenwu chubanshe, 2008.

Johnston, John, Chan Lai-Pik, and Lin Shuxin eds., *5,000 years of Chinese Jade: Selections From the National Museum of History, Taiwan and the Arthur M. Sackler Gallery, Smithsonian Institution*. San Antonio, Tex: San Antonio Museum of Art, 2011.

Lawton, Thomas. *Chinese Art of the Warring States Period: Change and Continuity, 480-222 B.C.* Washington D.C.: Freer Gallery of Art, Smithsonian Institution, 1982.

———. *Asian Art in the Arthur M. Sackler Gallery: the inaugural gift*. Washington D.C.: Arthur M. Sackler Gallery, 1987.

Lesure, Richard. "On the Genesis of Value in Early Hierarchical Societies." In *Material Symbols: Culture and Economy in Prehistory*, edited by John E. Robb,

Carbondale: Center for Archaeological Investigations, Southern Illinois University, Occasional Paper No. 26, 1999.

Li Ling 李零. *Shuogu zhujin: kaogu faxian he fugu yishu* 鑠古鑄今：考古發現和復古藝術[Archaeological discoveries and Archaism Art]. Hong Kong: The Chinese University of Hong Kong Press, 2005.

Liaoning sheng wenwu kaogu yanjiusuo 遼寧省文物考古研究所 ed., *Zhongguo kaogu wenwu zhimei 1: Liaoning Hongshan wenhua miao tan zhong* 中國考古文物之美 1：遼寧紅山文化廟壇冢. Beijing & Taipei: Wenwu chubanshe & Guangfu shuju, 1994.

Lin Si NaiFu 林巳奈夫[Hayashi Minao], Yang Meili 楊美莉 trans., *Zhongguo guyu yanjiu* 中國古玉研究[A Study on Ancient Chinese Jades]. Taipei: Yishu tushu gongsi, 1999.

Liu Li, Chen Xingcan. *The Archaeology of China: From the Late Paleolithic to the Early Bronze Age*. Cambridge: Cambridge University Press, 2012.

Liu Yunhui 劉雲輝 ed., *Shaanxi chutu DongZhou yuqi* 陝西出土東周玉器. Beijing& Taipei: Wenwu chubanshe& Zhongzhi meishu chubanshe, 2006.

Loehr, Max. *Ancient Chinese Jades from the Grenville L. Winthrop Collection in the Fogg Art Museum, Harvard University*. Cambridge, Mass: Fogg Art Museum, Harvard University, 1975.

Nanjing bowuyuan etc. 南京博物院等 eds., *Hongshan Yuemu chutu yuqi* 鴻山越墓出土玉器. Beijing: Wenwu chubanshe, 2007.

Rawson, Jessica. "The Ancestry of Chinese Bronze Vessels." In *History from Things: Essays on Material Culture*, edited by Lubar, Steven D. and Kingery, W. David, 51-73. Washington D.C.: Smithsonian Institution Press, 1993.

———. *Chinese Jade: From the Neolithic to the Qing*. London: British Museum Press, 1995.

———. "Gudai yuqi de zailiyong" 古代玉器的再利用. In *Zhongguo gudai de yishu yu wenhua* 中國古代的藝術與文化. Beijing: Beijingdaxue chubanshe, 2002, 194-218.

———. "Novelties in Antiquarian Revivals: the Case of the Chinese Bronzes." *The National Palace Museum Research Quarterly*, Vol.22, no.1 (2004), 1-34.

Sachs, Samuel, Na Chih-liang, and Harold Peterson . *Chinese Jades: Archaic and Modern From the Minneapolis Institute of Arts*. Minneapolis: Minneapolis Institute of Arts, 1977.

Salmony, Alfred. *Archaic Chinese Jades from the Edward and Louise B. Sonnenschein Collection*. Chicago: Art Institute of Chicago, 1952.

———. *Chinese Jades: through the Wei dynasty*. New York: Ronald Press, 1963.

Shanghai Museum 上海博物館 ed., *Jinguo qizhen* 晉國奇珍. Shanghai: Shanghai renmin meishu chubanshe, 2002.

Shanghai shi wenwu baoguan weiyuanhui 上海市文物保管委員會 ed., *Songze: Xinshiqi shidai yizhi fajue baogao* 崧澤:新石器時代遺址發掘報告. Beijing: Wenwu chubanshe, 1987.

Shanghai shi wenwu guanli weiyuanhui 上海市文物管理委員會 ed., *Fuquanshan: Xinshiqi shidai yizhi fajue baogao* 福泉山:新石器時代遺址發掘報告. Beijing: Wenwu chubanshe, 2000.

Shaanxi sheng kaogu yanjiuyuan etc. 陝西省考古研究院等 eds., *Liangdaicun Ruiguo mudi: Erlinglingqi niandu fajuebaogao* 梁帶村芮國墓地:二零零七年度發掘報告. Beijing: Wenwu chubanshe, 2010.

Shanxi sheng kaogu yanjiusuo etc. 山西省考古研究所等 eds., *Changzhi Fenshuiling Dong Zhou mudi* 長治分水嶺東周墓地. Beijing: Wenwu chubanshe, 2010.

Shanxi sheng wenwu kaogu yanjiusuo 山西省文物考古研究所 ed., *Taiyuan Jin guo Zhao qing mu* 太原晉國趙卿墓[Tomb of Jin State Minister Zhao Near Taiyuan]. Beijing: Wenwu chubanshe, 1996.

———, *Zhongguo kaogu wenwu zhimei 4: Shanxi Taiyuan Jinguo Zhaoqing mu* 中國考古文物之美 4: 山西太原晉國趙卿墓. Beijing & Taipei: Wenwu chubanshe & Guangfu shuju, 1994.

So, Jenny F. “A Hongshan Jade Pendant in the Freer Gallery of Art.” *Oriental Art*, no.5 (1993), 87-92.

———. “Antiques in Antiquity: Early Chinese Looks at the Past.” *Journal of Chinese Studies*, Vol.48 (2008), 1-34.

Sun Qingwei 孫慶偉. “Fuyu yu fenqi: Zhoudai muzang zhong qiandai yuqi de lai yuan yu liuchuan” 孚玉與分器：周代墓葬中前代玉器的來源與流傳. *Gugong wenwu yuekan* 故宮文物月刊, no. 354, 2012, 9, 36-41.

Tianjin shi yishu bowuguan 天津市藝術博物館 ed., *Tianjin shi yishu bowuguan cangyu* 天津市藝術博物館藏玉. Beijing & Hong Kong: Wenwu chubanshe & Liangmu chubanshe, 1993.

Wu Tanghai 吳棠海 ed., *Hongshan yuqi* 紅山玉器 [Jades of Hongshan culture]. Taipei: Zhendan wenjiao jijinhui, 2007.

Yang Boda 楊伯達. *Guanshi suocang zhongguo guyu* 關氏所藏中國古玉 [Chinese Archaic Jades From the Kwan Collection]. Hong Kong: Art Gallery The Chinese University of Hong Kong, 1994.

Yang Jianfang 楊建芳. *Zhongguoguyuyanjiulunwenji* 中國古玉研究論文集 [Treatises on Ancient Chinese Jades]. Taipei: Zhongzhimeishuchubanshe, 2001.

Yuan Yongming 袁永明. “Shangdai Xi Zhou muzang zhong chutu qiandai yuqi chushi” 商代西周墓葬中出土前代玉器初識. *Zhongyuan kaogu*, 2000, 3, 43-7.

Yue Longshan 嶽龍山 ed., *Qijia wenhua yuqi* 齊家文化玉器. Beijing: Zhongguo shudian, 2006.

Zhang Changshou 張長壽. “Xi Zhou yuqi de gaizhi xianxiang” 西周玉器的改制現象 [The Practice of Jade Reworking in Western Zhou]. In *Dongyayuyi (dierjuan)* 東亞玉器 (第二卷) [East Asian Jade: Symbol of Excellence, Vol.2], edited by Tang Chung 鄧聰, 213-6. Hong Kong: Chinese University of Hong Kong, 1998.

Zhang Changping 張昌平. “Zenghou yimu yuqi de gaizhi” 曾侯乙墓玉器的改製. *Zhongguo lishi wenwu* 中国历史文物, no.1 (2008), 9-14.

Zhao congchang 趙從蒼 etc. *Liang Zhou kaogu* 两周考古[Archaeology of Zhou dynasties]. Beijing: Wenwu chubanshe, 2004.

Zhejiang sheng wenwukaoguyanjiusuo 浙江省文物考古研究所, Shanghai shi wenwu guanli weiyuanhui 上海市文物管理委員會, and Nanjing bowuyuan 南京博物院 eds., *Liangzhu wenhua yuqi* 良渚文化玉器[Jades of *Lingzhu* culture]. Beijing & Hong Kong: Wenwu chubanshe & Liangmu chubanshe, 1989.

Zhongguo kexueyuan kaogu yanjiusuo 中國科學院考古研究所 ed., Huixian fajue baogao 輝縣發掘報告. Beijing: Kexue chubanshe, 1956.

Zhongguo shehui kexueyuan kaogu yanjiusuo 中國社會科學院考古研究所[The Institute of Archaeology, Chinese Academy of Social Science] ed., *Yinxu Fu Hao mu* 殷墟婦好墓[Tomb of Lady Hao at Yinxu in Anyang]. Beijing: Wenwu chubanshe, 1980.

———., *Yinxu yuqi* 殷墟玉器. Beijing: Wenwu chubanshe, 1982.

———., *Anyang Yinxu chutu yuqi* 安陽殷墟出土玉器[Jades from Yinxu]. Beijing: Kexue chubanshe, 2005.

———., *Zhangjiapo Xi Zhou yuqi* 張家坡西周玉器[Western Zhou jades in *Zhangjiapo*]. Beijing: Wenwu chubanshe, 2007.

———., *Zhongguo kaoguxue. Xinshiqi shidai juan* 中国考古学新石器时代卷 [Chinese Archaeology. Neolithic volume]. Beijing: Zhongguo shehui kexue chubanshe, 2010.

Zhongguo shehui kexueyuan kaogu yanjiusuo 中國社會科學院考古研究所, Beijing shi wenwu gongzuodui 北京市文物工作隊. *1981-1983nian Liulihe XiZhou Yanguo mudi fajue jianbao* 1981-1983 年琉璃河西周燕國墓地發掘簡報[Brief excavation report of Western Zhou Tombs in *Liulihe*, Beijing, 1981-1983]. *Kaogu*, no.5 (1984), 405-16.

Zhongguo meishu quanji bianji weiyuanhui 中國美術全集編輯委員會 ed., *Zhongguo meishu quanji*, Arts and Crafts Section Vols. 4”Bronze”, and 9 “Jade” 中國美術全集工藝美術編第四卷 “青銅器” , 第九卷“玉”. Beijing: Wenwu chubanshe, 1986.

Zhongguo qingtongqi quanji bianji weiyuanhui 中国青铜器全集编辑委员会 ed, *Zhongguo qingtongqi quanji* (vols. 6-8) 中国青铜器全集 (6-8 卷) . Beijing: Wenwu chubanshe, 1996.

Zhongguo yuqi quanji bianji weiyuanhui 中國玉器全集編輯委員 ed., *Zhongguo yuqi quanji* 中國玉器全集[The Complete Collection of Chinese Jades]. Shijiazhuang: Hebei meishu chubanshe, 1993.