

Shang Musical Instruments

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Here re-organized with nine chapters as 9 pdf files;

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SHANG MUSICAL INSTRUMENTS
By
Kin-Woon Tong

Editor's note: We will be publishing the bulk of Kin-Woon Tong's doctoral dissertation [Wesleyan University, 1983], as it is a major contribution to the study of ancient Chinese music. Parts in the present issue include Chapters 1-4 with the remainder to follow in subsequent

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
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
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GLOSSARY OF CHINESE TERMS

The terms listed here include those of significance to Chinese music, as well as some related terms mentioned more than once in the text. Pronunciation is given in modern Mandarin. Words are romanized according to the Pin Yin (拼音) system, followed by the modern Chinese script. When Shang graphs are also given, the equivalent modern words will be in parentheses. In some cases, chapter, section, and/or OBI numbers are given, so that this glossary may serve in part as an index.

bian-qing	編磬	set of qing
bian-zhong	編鐘	set of bells
bin	侑侑 (賓儷)	to welcome spirits with dancing (ch. 8, IV.A); a dance to welcome spirits (ch. 2, I.C and D)
duo-bell	鐃	clapper bell with a handle ()
Er Li Tou	二里頭	a Xia site (ch. 1, note 4)
fang xiang	方相	"square mask" (ch. 8, IV.E)
feng	豐 (豐)	large-drum
ge	戣 (戣)	a kind of halberd ()
geng	鞀鞀 (庚)	clapper drum
gou diao	句鑿	Zhou bell with a long handle; the mouth faces upward () when played (ch. 5, note 3)
gu	鼓 (鼓)	drum
gu yue	古樂	"ancient music" (a combination of music, dance, and songs, ch. 8, I and V); see "yue"

guan	管(管)	double pipe (ch. 6, III)
he	和(龔和)	small mouth-organ (ch. 6, V.A)
hu	濩(濩護)	a piece of "ancient music" (ch. 8, V.A)
jian gu	建鼓	"mounted drum"; see "yong" 庸
juan	卷	a unit in Chinese books, similar to "chapter" or "section"
li	禮	ritual, rites (ch. 4, III)
ling	令(令鈴)	to order, order, clapper bell (ch. 5, II.A.1 and 2)
ling	伶	musicians, servants (ch. 5, II.A.3)
ling lun	伶倫	musician (ch. 5, II.A.3); see "lun"
lun	倫	double pipe (ch. 6, III.A); see "ling lun"
mei	美(美)	feather dance (ch. 8, IV.C)
nao-bell	鈔	Zhou bell with mouth facing up when played (ch. 5, note 3)
nuo	傩	to exorcize, exorcism (ch. 8, IV.E)
ou	欂	see "qu"
pin	品(品)	ocarina, globular flute (ch. 6, I.C); see "xun" 埙
qin	琴	7-stringed zither (ch. 7, I)

qing	𠂔 𠂔 (磬)	musical stone, pitched stone, stone chime (ch. 3)
qu = ou	𠂔 𠂔 (𠂔 𠂔 馬區)	to exorcize, exorcism (ch. 8, IV.E)
qu nuo	𠂔 𠂔	see "qu"
se	瑟	25-stringed zither (ch. 7, I)
Shang	𠂔 𠂔 𠂔 𠂔 (商)	Shang Dynasty (ch. 1), Shang people, Shang city
shang-bell	𠂔 𠂔 𠂔 𠂔 𠂔 (商)	bell of the Shang people; mouth up when played (ch. 5, II.B and C, and IV.B)
shao-music	𠂔 𠂔 (𠂔 𠂔)	a piece of "ancient music" (ch. 8, V.B)
she	𠂔 𠂔 (𠂔 𠂔)	to play bells, bell, to set up instruments (ch. 2, I.J; ch. 5, IV.A, and note 17)
sheng	聲	sound (ch. 7.II)
sheng	笙	small mouth-organ (see bronze inscription no. 2, sentence (e) in ch. 8, VI); see "he" 龠 and "yu" 竽
Tang	𠂔 (唐.湯)	the first Shang king
tao-drum	𠂔 𠂔 𠂔 𠂔	clapper drum, see "geng" 庚
tao-tie	𠂔 𠂔	a decorative pattern showing the front view of animal faces (ch. 3, note 15)

te-qing	特磬	single qing; see "qing"
tuo	鼉魚	reptiles (ch. 4, note 5)
wan	𠄎 (万萬)	dancer, to dance (ch. 8, II)
wan-dance	𠄎 (万萬)	group dance (ch. 8, IV); see "zhi-dance," "wen wu," "wu wu," "mei," "wu"
wen wu	文舞	non-military group dance (ch. 8, IV); see "wan-dance"
wu	𠄎 (舞)	to dance (see OBI 134 in ch. 8, IV)
wu = yu	𠄎 (舞雲雨)	rain-dance, to perform the rain-dance (ch. 8, V.B)
wu chen	𠄎 (舞臣)	dance people, dance low-rank officials, dancers (ch. 8, II; OBI 126)
Wu Guan Cun	武官村	a Shang site near Xiao Tun
wu wu	武舞	military group dance (ch. 8, IV); see "wan-dance"
Xia	夏	Xia Dynasty (ch. 1, I and III); for Xia sites, see note 4 in ch. 1
xiao	簫	vertical flute, panpipes (ch. 6, II and IV)
Xiao Tun	小屯	a village where the last Shang capital is generally believed to have been located, situated in An Yang Xian (county), He Nan Province

Xi Bei Gang	西北崗	a Shang site near Xiao Tun
xun	埙	ocarina, globular flute (ch. 6, I); see "pin"
yan	簫	vertical flute; to play a vertical flute
yin	音	note, tone (ch. 6, II)
Yin	殷	another name of Shang (ch. 1, II)
Yin Xu	殷墟	"Shang ruined city" (ch. 1, I)
ying gu	楹鼓	pole drum; see "yong" 庸
yong	庸 (庸)	pole drum, two-headed barrel drum mounted on a pole; also called jian-gu and ying-gu in Zhou classics (ch. 4, V)
yong	鐘	large bell (see ch. 4, V.B, and note 13)
yong	多 (彤)	drumming continuously; to sacrifice repeatedly (ch. 4, I.A)
yu	箏 (箏)	large mouth-organ; see "sheng" and "he"
yu	敔	scraped tiger--a wooden instrument (ch. 7, IV.B)
yu = wu	雩 (雩)	rain-dance
yue	樂 (樂)	music, musicians, instruments (ch. 7, I and II); "ancient music" (=gu-yue, ch. 8, I)

yue	𦍋 (筩簫)	double pipe (see "guan"); a piece of "ancient music" (ch. 6, note 3)
zheng	箏	zither with a movable bridge under each of its 5, 12, 13 or 16 strings (ch. 7, I)
zheng-bell	鉦	Zhou bell with mouth facing up when played (𦍋); see ch. 5, note 3
zheng-cheng	鉦 鉦 鉦 鉦	=zheng-bell
zhi-dance	𦍋 (𦍋)	group dance in which dancers held flutes and ge-halberds (ch. 8, IV.D)
zhong	鐘	general name for "bell" (ch. 5, Introduction)
Zhou	田 田 田 田 (周)	Zhou Dynasty (ch. 1, I and III)
zhu	筑	zither struck with a stick (ch. 7, I)
zhu	祝	wooden-box idiophone (ch. 7, IV.A)
zhuo-bell	鐃	=zheng-bell
zu	自 (且 祖)	grandfather, ancestor

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鄒衡






1980

Xia Shang Zhou Kao Gu Xue Lun Wen Ji




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正誤表
ERRATA TO PART ONE (in Asian Music vol. XIV-2, 1983)

- Page
- 56 "Qian 5.5.5" should read "Qian 5.4.4"
- 64 In OBI no. 61, the first graph  should be .
- 158 Explanation for "duo-bell" should read:
clapper bell of larger size.
- 181 In first line, "1980" should read "1981."
- 48 OBI no. 27 (and no. 83 on page 133, chapter four, citing the same rubbing) should be cancelled. I was misled by the unclear rubbing in the reprint by the Yi Wen Press. 于省吾 pointed out that in this OBI, the problematic graph is , a later version of  (𠄎:qi, "rain stops." Yu 1979: 115-117). As a result, the graph  on page 115 (line 20), 131 (line 19), and 153 (line 2) should also be cancelled.

ERRATA TO PART TWO (in Asian Music vol. XV-1, 1983)

- 113 The last sentence in the translation of the first citation (from Zhou Li) should read :
For daily affairs, the clapper would be wooden;
for military affairs, the clapper would be bronze.
- 115 In the citation from Guo Yu, the last Chinese word  should be .
- 135 Third line from bottom, "1939" should be "1239."
- 151 In the line marked "*" the missing graph is .
- 153 Eighth line from bottom, "none" should read "nine."
- 170 Sixth line from bottom, "13" should read "23."
- 170 Sixth line from bottom, "13" should read "23."

Author's Acknowledgements

Since it is not possible to include the original acknowledgement of my Ph.D. dissertation, I would like to take this opportunity to express my greatest gratitude to the following people who helped me immensely. They are Professor David P. McAllester, expert in ethnomusicology and anthropology, and my advisor at Wesleyan University; Professor Hans H. Frankel (傅漢思), professor of

classical Chinese Literature at Yale University, and who served on my Ph.D. committee; Professor Mark Slobin, ethnomusicologist at Wesleyan, and who also served on my Ph.D. committee; Professor Stanley L. Mickel (米凱樂), scholar on oracle bones, and professor of Chinese Literature at the Wittenberg University (Ohio), who kindly served as consultant on my committee.

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More pre-Shang instruments have been discovered since this book was completed in March 1983. The several large wooden drums (with heads made of crocodile skin) found with large single qing-stones in the noble (?) tombs at Tao Si, Xiang Fen, Shan Xi Province (山西省襄汾陶寺, brief report found in Kao Gu 1983 #1), are of special importance. However, since the major scope of this book is the study of instruments of the Shang Dynasty, these pre-Shang items will not be described here. They will be discussed in greater detail in the Chinese music history book (neolithic era to the Han Dynasty) that I am co-authoring with Prof. Kenneth J. DeWoskin of the University of Michigan.

CHAPTER ONE
INTRODUCTION

I. THE THREE DYNASTIES

This work seems to be the first of its type that concentrates on the study of the musical instruments of one dynasty, the Shang Dynasty, the second of the three family-dynasties in ancient Chinese history. The Three Dynasties that marked the end of legendary history and the beginning of written history in China are Xia, Shang and Zhou (夏商周).¹ In the past only Zhou history was accepted as documented by cautious scholars, but with the discovery of the inscribed Shang oracle bones since 1899, the existence of the Shang Dynasty is no longer in question.² The successful interpretation of the individual oracle bone graphs (hereafter called OBG) and the reading of the lengthy oracle bone inscriptions (hereafter OBI) have proved that the history and names of the thirty kings and even those of the "legendary" predynastic ancestors, passed down by the Zhou people, are basically correct. The fifteen official excavations carried out at "Yin Xu" ("Shang ruined city" 殷墟), at Xiao Tun, An Yang, He Nan Province (河南省安陽小屯),³ during 1928-1937, and numerous excavations at other Shang sites since 1949, have further enriched our knowledge of this dynasty which created the peak of the Chinese Bronze Age.

The Xia culture is also gradually coming to light within the last two decades. Many pre-Shang sites, with palatial structures and other objects which give carbon-14 datings of 20-16th century B.C., and which fall in the Xia Dynasty exactly, have been excavated.⁴ Though the unearthed objects do not bear inscriptions to verify that they belonged to the putative Xia people, the fact that the Er Li Tou site with palace remains is situated near the spot traditionally said to be the capital of the last Xia king strongly suggests that it is a Xia site (Zou 1980: 229). In short, the existence of all the Three Dynasties has been ascertained.

ABBREVIATIONS

- KG Kao Gu 考古
- KGTX Kao Gu Tong Xun 考古通訊
- KGXB Kao Gu Xue Bao 考古學報
- JK Ji Kan (Bulletin of the Institute of History and Philology) 集刊
- OB Oracle bone 甲骨
- OBD Oracle bone graph dictionary compiled by Li Xiaoding 甲骨文字集釋
- OBG Oracle bone graph (single graph) 甲骨文
- OBI Oracle bone inscription (sentence) 甲骨卜辭
- SHKX She Hui Ke Xue Zhan Xian 社會科學戰綫
- WW Wen Wu 文物
- WWZL Wen Wu Zi Liao Cong Kan 文物資料叢刊
- YYLC Yin Yue Lun Cong 音樂論叢
- ZGWZ Zhong Guo Wen Zi 中國文字

CHRONOLOGY

	<u>Legendary Dates</u>	<u>Revised Dates</u>
Huang Di (黃帝) (=Yellow Emperor)	2697-2597 B.C.	?
Emperor Yao (堯)	2357-2255 B.C.	?
Emperor Shun (舜)	2255-2205 B.C.	?
<u>DYNASTIES</u>		
Xia (夏)	2205-1760 B.C.	21st-16th cent. B.C.
Shang-Yin (商-殷)	1766-1122 B.C.	16th-11th cent. B.C. (?-c. 1030 B.C.)
Zhou (周)	1122-256 B.C.	11th cent.- 256 B.C.
Western Zhou (西周)	1122-771 B.C.	11th cent.- 771 B.C.
Eastern Zhou (東周)	770-256 B.C.	
<u>Special Periods</u>		
Spring & Autumn (春秋)	722-481 B.C.	
Warring States (戰國)	481-221 B.C.	
Qin (秦)	221-206 B.C.	
Han (漢)	B.C. 206-220 A.D.	
Former Han (前漢)	B.C. 206-8 A.D.	
Xin (新)	9-23 A.D.	
Later Han (後漢)	25-220 A.D.	
Three Kingdom Period (三國)	220-280 A.D.	
Jin (晉)	265-419 A.D.	

PROVINCES OF CENTRAL CHINA



As far as I know, there are only a few instruments recovered at the Xia sites, including two stone qing 磬 (Chapter Three, Section II), one small earthenware bell and one small bronze bell (Chapter Five, section I.A and B), and one ocarina (Chapter Six, section I.A). There is not yet enough information for the writing of a detailed account of the musical instruments of the Xia Dynasty.

Concerning the Zhou, however, there are perhaps more than one thousand pieces of musical instruments unearthed within this century. This vast amount of treasure, together with the lengthy descriptions of instruments in the many Zhou classics, is too much to be dealt with in one dissertation. Also, since there is a steady continuation of culture through the Three Dynasties, it does not seem appropriate to study the Zhou instruments in isolation, without understanding the earlier instruments first. For this reason I have chosen to study the instruments of the Shang period, but without ignoring their prototypes found in Xia sites and earlier neolithic sites. The instruments of the Shang are ideal for a monographic study: they are not too many in number, yet there are enough types of instruments to make possible an interesting study. The stone qing, bronze bells, bronze drums, and clay ocarinas provide solid information on the development of Shang music. The existence of wooden and bamboo instruments, though not preserved, can be indirectly verified by the OBI, which give excellent records pertaining to their use in Shang times. The above two kinds of information (unearthed instruments and OBI), together with traditional descriptions about Shang and Zhou instruments in the classics, will be the three major sources of materials for the present study.

II. WHAT IS SHANG?

In the Zhou classics and bronze inscriptions, Shang is the name of the royal house which ruled central east China, with the political power situated in the provinces now known as He Nan (河南), He Bei (河北), Shan Dong (山東), An Hui (安徽), Hu Bei (湖北), Shaan Xi (陝西) and Shan Xi (山西). In some Zhou classics and bronze inscriptions it is called Yin (殷 or 衣), for reasons yet unknown (Chen 1956 :257-260). However, the Shang people only used the name "Shang," as far as can be seen in OBI.

Nobody, including the author of the authoritative analytical dictionary Shuo Wen Jie Zi (A.D. 100, hereafter called Shuo Wen), succeeded in deciphering what the graph

shang 𠄎 (商)⁵ shows. In my opinion it depicts a bell (𠄎), with mouth up, mounted on a stand (𠄎). Recent archaeology had proven that the Shang people were fond of this type of bell, while the Zhou people usually suspended their bells with mouths down. In my opinion, the Shang people, their city, and their empire were named after this bell (see Chapter Five, section IV.B).

III. THE SHANG DYNASTY

The Xia, Shang and Zhou people theoretically coexisted. Although they succeeded one another as dynasties, their predynastic history overlapped. Thus it is not accurate to think that when one tribe was ruling the major part of central China, the other tribes had not yet appeared, or that they were extinct. The Zhou classics and Han texts clearly state that these three tribes are descendants of the Yellow Emperor (see Shi Ji, Juan 2-4, "History of Xia, Shang, Zhou"). This perhaps explains why the Shang and Zhou people used the same writing, and why the bronze and pottery vessels of Xia, Shang and Zhou show signs of direct inheritance in typology, technology and decoration.

By about the 16th century, B.C., the Shang leader Tang (唐 or 湯) overthrew the Xia empire and founded the Shang empire. The subsequent Shang kings were said to have moved their capitals four times, before the 19th king Pan Geng (盤庚) settled down at their last capital at Xiaotun (ca. 1300 B.C.). Here the Shang house ruled for about another 273 years⁶ until the empire came to a sudden end on the morning of a cyclical day Jia-zi (甲子). On this day king Wu Wang (武王) of the Zhou state attacked the Shang capital, and the 30th Shang king committed suicide (Shi Ji, Juan 3, "History of Shang" 史記 殷本紀 ; Chang 1980:3-15). This famed attack on a Jia-zi day, frequently mentioned in the Zhou classics, has recently been verified by the newly unearthed Zhou bronze "Li Gui" (利簋). This vessel was made on the eighth day after the conquest, and it clearly mentions the attack "on morning of Jia-zi day," but unfortunately not the year (KG 1978.1:58-59; WW 1977.8:2; Fang 1980:203).

IV. CHRONOLOGY

The chronology of Shang has been a problem, as the Shang records in the Zhou classics are fragmentary. Many Shang events are mentioned, but the exact years are not available. For Shang history the following four important dates are now known: (a) the year of King Tang's conquest of Xia; (b) the total length of the Shang Dynasty; (c) the length of each of the thirty Shang reigns; and (d) the year of the Zhou conquest of Shang.⁷

Based on traditional Zhou texts and other sources which are now lost, Si-ma Qian (145-86 B.C. 司馬遷) wrote a reliable and systematic chapter "History of Shang" in his voluminous Shi Ji, the first official history in China (Shi Ji, Juan 3). As court historian-archivist, he had special access to old records, perhaps including bamboo books, silk manuscripts and other ancient inscriptions no longer extant. Although his chapter on Shang history is only a few pages, it is basically complete and correct as concerns the names and order of the Shang ancestors and kings, as verified by the OBI. However, Si-ma could not give precise information on Shang chronology either.

What is known of the length of the Shang Dynasty is that it lasted "about six hundred years" (Zuo Zhang, 3rd year of Duke Xuan "載祀六百"), or "more than five hundred years" (Meng Zi, "Jin Xin" 2: "五百有餘歲"), or "496 years" (Gu Ben Zhu Shu Ji Nian 古本竹書紀年). The traditional chronology of Shang--1766-1122 B.C., suggested by Liu Xin (46 B.C.-23 A.D. 劉欽)--is not reliable (Chang 1980:16-18; SZKG 1979:1; JK #50.1: 30-34). The recent consensus is that the closing year of the Shang kingdom, 1027 B.C., mentioned by the Bamboo Annals (Zhu Shu Ji Nian, compiled 3rd century B.C.), is more likely correct because it coincides with carbon-14 dating of unearthened late Shang objects. Besides, if 600 years are added to this number, the date 1627 B.C. basically coincides with the carbon-14 dating of unearthened early Shang objects: ca. 1620 B.C. (Zou 1980:117). For this reason, and also based on other archaeological discoveries, scholars nowadays agree on setting Shang chronology from the 16th century to 1027 B.C., or more cautiously as ca. 16-11th century B.C. (Fang 1980:xv; Zuo 1980:117; SZKG 1979:1).

Taking this as a standard, and adding 273 years to the year 1027, we have the year 1300 B.C., in which the 19th king, Pan Geng, was said to have moved to the capital at Xiao Tun. This explains why in the later chapters of this work the instruments unearthened at Xiao Tun will simply be dated to the 13th-11th century B.C., if more definite dates are not available.

V. FIRST SOURCE OF MATERIALS FOR THIS WORK: ZHOU CLASSICS

The most important sources of information of this work are archaeological reports and the OBI, but the fragmentary records of Shang and Zhou events in the Zhou classics are still vital to the study of the Shang. Here the word "classics" does not refer merely to the special

Confucian "Five Classics," "Six Classics," or the "Thirteen Classics." It refers to any received Zhou record dating from before 256 B.C. If the book cited is later than this date, it will be specified, to ensure that the texts cited are as close to the Shang period as possible. All translations are made by the present author.

VI. SECOND SOURCE OF MATERIALS FOR THIS WORK: UNEARTHED INSTRUMENTS

Between 1928 and 1937, fifteen official excavations were made by the Academia Sinica at Xiao Tun, the last Shang capital, and at Xi Bei Gang (西北崗), a Shang graveyard situated near Xiao Tun. At Xi Bei Gang ten Large Tombs, perhaps of the royal family, plus more than 1000 small tombs were opened (Hu 1955 :74-97); beautiful instruments including qing, bells, ocarinas and the relics of a wooden drum were found. They are depicted in later chapters in this work. Since 1949, several thousand archaeologists have been digging constantly in many parts of China. Their field reports, together with photos, drawings, rubbings and other information on the discovered objects, are currently published in several official archaeological periodicals in China. These are the second source of information for this work.

VII. THIRD SOURCE OF MATERIALS FOR THIS WORK: ORACLE BONE INSCRIPTIONS

The Shang kings were very religious. They believed in a supreme being whom they called upper-king (= God上帝), capable of controlling nearly everything, including rainfall, wind, and disasters. They also worshipped other natural spirits, including the gods of the four directions, the sun and mountains. They thought that their ancestors lived with God, and could also send them good fortune or disasters. For this reason, the Shang kings divined about nearly every event before doing it, to ascertain whether it would be auspicious. Afterwards, the piece of bone used in the divination process was inscribed, recording the inquiry or sometimes other matters. It is perhaps not correct to say that all Shang oracle bones found belonged to the royal family, but most of the inscribed ones did. Therefore, the OBI can be regarded as first-hand glimpses of Shang history, giving information about their wars, crops, hunts, sacrifices, musical instruments and many other subjects. Some OBG are quite pictorial and show the shapes of instruments; thus the existence of some wooden and bamboo instruments can be indirectly verified by the graphs.

Divining by interpreting cracks caused by heat on a piece of bone was perhaps not invented by the Shang people, but the diviners of the second half of the Shang period

made it a complicated process (for details, see Keightley 1978:3-27). In brief, the diviner, occasionally the king himself, took out a piece of bone and asked a question such as: "Today is Jia-zi; if the king goes hunting tomorrow, will he encounter rain?"⁸ Then he heated a precut (or drilled) pit or groove on one side of the bone, and because of the unequal expansion from the heat caused by the uneven thickness of the bone, some cracks would appear near the pit. The diviner or the king would then prognosticate by studying the shapes and direction of the cracks, which supposedly represented an answer to their question. Each event could be divined many times, either on the same piece of bone or on other pieces, and a large piece of bone could be used many times.

We have not ascertained what shape of cracks were considered auspicious by the Shang people. Perhaps they had a "book," made of slips of bamboo, wood or pieces of bone, to help interpret the meaning of the cracks. The Zhou people did have a "book" for this purpose, mentioned in the Shang Shu (chapter "Jin Teng" 尚書·金縢: "倍篇見書"). It is interesting to note that even nowadays some minority tribes that live in the mountains of south China, in Yun Nan Province, still divine by cracking animal shoulder blades. Some of these people still use pictographs and have a "book" to interpret the shapes of the cracks (KG 1963.3:164).

After the bones were inscribed, they were stored, perhaps considered as a form of historical record. During the thirteenth excavation at Xiao Tun in 1936, 17,096 pieces were found in a cache (Hu 1955 :101).

How are people today able to read the inscriptions of Shang times? The so-called "modern" words have been in use since about the third century A.D., without much change. The bronze graphs of the Zhou period can be learned from the Shuo Wen dictionary (A.D. 100), and with this as a step, there is little difficulty in the general reading of OBI.

Presently more than 4,000 different graphs (different versions of one graph, such as 鼓, 鼓, 鼓 = drum, are counted as one) are listed in the oracle bone graph dictionaries (Sun 1965). Less than half of them are correctly equated with their modern words (if any). Those which are not yet equated with any modern words usually do not cause much of a problem in the reading of OBI. Many of them are just names of persons or places which perhaps do not have any modern equivalent. This means that although their pronunciations are not known, their meanings are understood to some extent.

It would be simplifying things too much to say that anyone who knows modern Chinese can read old inscriptions easily, but with some basic training and a good dictionary, it is possible to learn and memorize several hundred OBG within a few months, and understand the general meaning of OBI. However, to be able to understand graphs not interpreted, to read rubbings which are dark and not complete, and to use the OBI in a historical study, requires a considerable background in classical Chinese and history.

The exact number of oracle bones unearthed since 1899 is not known. Those recovered before the first official excavation in 1928 were passed from one collector to another, and often published repeatedly. In 1956 Chen Meng-jia estimated about 98,000 pieces exist in public and private collections in China, Taiwan, Europe, North America, and Japan (Chen 1956:47). Oracle bones are usually available to scholars in the form of rubbings, photos or drawings. The total number of unearthed oracle bones keeps growing (Keightley 1978:57). The recent major increase includes the 4,589 pieces unearthed in 1973 (Tun Nan 1980), the c. 17,000 pieces unearthed at the Zhou capital at Qi Shan, Shaan Xi Province (陝西省岐山) in 1977 (only about 200 pieces inscribed, WW 1979.10:38), and an additional 413 pieces unearthed at the same site in a later excavation (Kao Gu Yu Wen Wu 1982.3:10). The two lots found at the Zhou capital are of special interest. Some were taken from the Shang capital after the Zhou people conquered the Shang, and some were inscribed by the Zhou people afterwards.

Actually the number of "pieces" does not really represent a fixed amount of information. Before or after unearthing, a large piece could have been broken into two to thirty or more pieces; and in some cases many fragments have been carefully rejoined into one piece. Besides, the size of a piece need not be in direct proportion to its importance. A large piece with only a few graphs merely showing names of days, or with ten repeated inquiries ("will there be rain?") is not as important as a small piece which records a particular event. Chen Meng-jia estimates that the total number of 100,000 fragmentary pieces could originally have been several thousand large pieces (Chen 1956:48). However, the above number still does not represent the total number of oracle bones ever unearthed. Before oracle bones were known and much sought after by collectors since 1899, the villagers at Xiao Tun had long been using them as fertilizer, or selling them for medical uses. Even after that year, the villagers usually sold only larger pieces to collectors, while the smaller pieces and those with few inscriptions were destroyed.

It may be true to say that the total number of oracle bones destroyed is greater than the number of bones preserved. Nevertheless, even with the present limited information, our knowledge of Shang history and Shang culture has increased immensely.

For some reasons yet unknown, oracle bones relating to the 19th and 21st Shang kings have not yet been found at Xiao Tun or other sites, though they were said to have ruled at the same capital as the later kings.⁶ The inscribed oracle bones found belong to the 22nd to the 30th kings. The inscriptions can usually be ascribed quite accurately to the different reigns based on the names of the diviners, grammatical construction, style of inscribing and other evidence. However, in this work, detailed dating is generally not at issue.

A typical lengthy OBI usually includes the "preface" (序辭) giving the cyclical date and the name of the diviner, the "inquiry" or "charge" (命辭), the question asked, the "prognostication" (占辭), the interpretation of the cracks, and the "verification" (易、占辭), a statement inscribed later, when the prognosticated event proved correct. In this work, the preface part will generally be omitted in order to save space, unless it has something to do with the understanding of the text. The prognostication and verification part usually occur in OBI concerning military and special events. The OBI inquiring about the use of musical instruments generally do not have these two parts. All translations of OBI and bronze inscriptions are made by the present author. An example of a lengthy OBI is found in Chapter Four, section I.A, OBI 70. Reading horizontally, the upper line is the OBI (or bronze inscription, in Chapter Eight), the second line is the translation into modern words. The third line is the English translation. Words in parentheses are implied in the original.

NOTES

1. In this work the pronunciation of Chinese words is given in modern Mandarin, romanized in the Pin Yin (拼音) system designed in the People's Republic of China. However, in the bibliography other systems will occasionally be observed if the author of a certain book is well known by another spelling. In the Pin Yin system special terms with more than one word are often linked up as one, theoretically to help the reader to grasp the terms faster. However, for people who do not know Chinese, it may result in a misunderstanding instead of a faster reading.

Therefore in this work the Chinese words are usually spelled one by one (except for very well-known names such as Beijing 北京 = Peking). For example, 河南 Province will be given as "He Nan Province" instead of "Henan Province" so that it will not be mistaken as "Hen An Province."

2. Oracle bones were brought to the attention of Chinese scholars around A.D. 1898-1899, but traditionally the villagers at Xiao Tun, where the last Shang capital is believed to have been located, had been using the oracle bones they found for at least two purposes: as fertilizer in their fields, and as medicine (Chen 1956:2-3; Chang 1980:38). The bones used were mainly scapulae of domestic cattle, mainly water buffalo, and plastrons (occasionally the carapaces) of turtles. For species, see Keightley 1978:160. In this work they are all referred to as "bone," unless there is a need to specify whether the piece cited is bone or turtle shell. In making divinations with oracle bones, the bone is heated until cracks appear, and the shapes of the cracks are studied to interpret the will of the gods.
3. For reasons yet uncertain, the name Yin is sometimes used instead of Shang, in some Zhou texts. The word Xu means "ruined city." Traditionally the vicinity of Xiao Tun (a small village) about 3 kilometers northeast of the town wall of An Yang (a city) is where the last Shang capital is believed to have been located. The term Yin Xu ("ruined Yin city") or Shang Xu ("ruined Shang city") has been in use since the Shi Ji by Si-ma Qian (d. 86 B.C. 司馬遷). However, there is no proof that Xiao Tun is the exact and only location of the last Shang capital (see Keightley 1978:29, note 2; Chang 1980:69-76).
4. These include the Er Li Tou site at Yan Shi, He Nan Province (河南省偃師二里頭) and the Dong Xia Feng site at Xia Xian, Shan Xi Province (山西省襄縣東下馮). These sites were at first dated as early Shang sites or predynastic Shang sites. However, recent carbon-14 dating shows that they are ca. 1900-1600 B.C., which falls in the Xia Dynasty. Thus the recent consensus, based on more archaeological discoveries, is that they are Xia sites (Chang 1980:344-345; Zou 1980:104; Fang 1980:xv and p. 2). However, to avoid drawing premature conclusions, the term "pre-Shang" will be used in this work when referring to instruments unearthed at these sites.

5. In this work the modern equivalent for OBG or bronze graphs will be given in parentheses directly following the graph concerned. If necessary, modern Mandarin pronunciation and meaning will be given within the parentheses, signified by the signs : and " " respectively. For example:

 ( :shan, "hills")

If an ancient graph is pictorial, it will be called a "pictograph"; otherwise it will just be called a "graph." The "modern equivalent" forms, which have actually been in use since ca. 3rd century A.D., will be called "words."

6. It has not been verified that Xiao Tun is in fact the capital to which the 19th king, Pan Geng, moved, because no oracle bones found at or near Xiao Tun can be firmly dated to the reigns of the 19th to 21st kings. All oracle bones found there belong to the 22nd through 30th kings. If it were only the latter kings who ruled at Xiao Tun, then the estimated 273-year span of their capital would have to be changed to (about) 223 years. See note 3.
7. For discussions of Shang chronology, see SZKG 1979:1-6; Zou Heng 1980:108, 116-117; Chang 1980:15-19; Fang 1980:xv and p. 2.
8. Some scholars think that the charge in a divination should not be posed as an interrogative, and that it should be translated as a prayer, prediction, or statement of intent (see Keightley 1978:29). Whether the charge is interrogative or not is not too important in this work, since the OBI are only a means of verifying that certain musical instruments existed in Shang times. Whether the OBI asks about or describes their use makes little difference.