

2000

## The 1977-1978 archaeological excavations of the Lu cemeteries at Qufu, Shandong/

James Patrick Draine  
*University of Massachusetts Amherst*

Follow this and additional works at: <https://scholarworks.umass.edu/theses>

---

Draine, James Patrick, "The 1977-1978 archaeological excavations of the Lu cemeteries at Qufu, Shandong/" (2000). *Masters Theses 1911 - February 2014*. 1470.  
<https://doi.org/10.7275/6871010>

This thesis is brought to you for free and open access by ScholarWorks@UMass Amherst. It has been accepted for inclusion in Masters Theses 1911 - February 2014 by an authorized administrator of ScholarWorks@UMass Amherst. For more information, please contact [scholarworks@library.umass.edu](mailto:scholarworks@library.umass.edu).

★

UMASS/AMHERST

★



312066 0275 8022 5

C

THE 1977-1978 ARCHAEOLOGICAL EXCAVATIONS OF THE  
LU CEMETERIES AT QUFU, SHANDONG

A Thesis Presented

by

JAMES PATRICK DRAINE

Submitted to the Graduate School of the  
University of Massachusetts Amherst in partial fulfillment  
of the requirements for the degree of

MASTER OF ARTS

September 2000

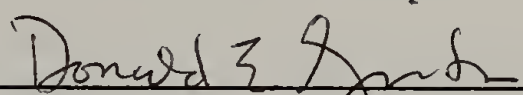
Department of Asian Languages and Literatures


THE 1977-1978 ARCHAEOLOGICAL EXCAVATIONS OF THE  
LU CEMETERIES AT QUFU, SHANDONG

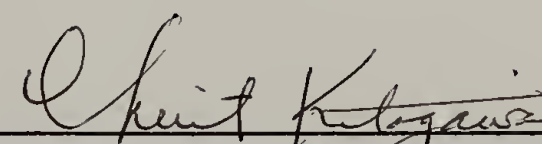
A Thesis Presented  
by  
JAMES PATRICK DRAINE

Approved as to style and content by:

  
Alvin P. Cohen, Chairperson

  
Donald E. Gjertson, Member

  
E. Bruce Brooks, Member

  
Chisato Kitagawa, Department Chairperson  
Department of Asian Languages and Literatures



## ACKNOWLEDGMENTS

I would like to express my gratitude to the members of my committee, Dr. Alvin P. Cohen, Dr. Donald E. Gjertson, and Dr. E. Bruce Brooks, for all their help and encouragement. Special thanks are due for Dr. Cohen for his endless patience, and painstaking proofreading and editing throughout the process of translating these sections of the archaeological report *Qufu Luguo gucheng*. Many thanks are also due to Dr. Brooks whose Warring States Project Seminars introduced me to new approaches to ancient Chinese texts, and further encouraged my interest in the archaeology of that period. Thanks, too, to committee member Dr. Gjertson for his comments, and encouragement throughout my years of graduate study.

Comments from many of the members of the Warring States Working Group, and the East Asian Archaeology Seminar, have also been invaluable in carrying out this project. My translation of the bronze vessel inscriptions would have been impossible without the assistance of Xu Shaohua (Wuhan University), Jiao Tianlong (Harvard University), Connie Cook (LeHigh University), and Gil Mattos (Seton Hall University).

Grateful thanks to Zhang Xuehai, principal author of the Qufu report, for granting me permission to translate the cemetery sections of the report, and to reproduce the diagrams and plates.

Last but certainly not least, I thank my wife, Barbara, and our children, Caroline and Susanna, for their encouragement and patience.

# TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS .....	iii
LIST OF TABLES .....	vii
LIST OF DIAGRAMS .....	viii
LIST OF PHOTOGRAPHS.....	xiii
Chapter	
INTRODUCTION .....	1
Textual references to the establishment of Lu .....	4
Textual reference to burial practices .....	8
<i>I Li</i> and <i>Li Ji</i> .....	9
<i>Mozi</i> .....	11
Criticism of the archaeologists' conclusion.....	12
<i>Yaokeng</i> .....	13
Chronology .....	16
Conclusions.....	18
I. SURVEY AND CORE DRILLING OF THE ARCHAEOLOGICAL REMAINS OF LU .....	24
The cemeteries .....	24
II. TEST EXCAVATIONS OF THE GRAVES AT THE CITY OF LU.....	30
General Outline of the Grave Excavations.....	30
Group A Burials.....	33
Section One, Shape and Construction of Tombs.....	33
(1) Grave pits.....	33
(2) Coffins .....	34
(3) Mortuary Customs.....	34
(4) Placement of mortuary furnishings.....	36
(5) Sacrificial victims .....	38
(6) Sacrificial dogs .....	38
Section Two, Funeral Goods.....	38

(1) Pottery .....	39
(2) Bronze Implements .....	57
(3) Items Made of Jade, Stone, Bone, Horn, Shell .....	62
Section Three, Periodization .....	64
Group B Burials .....	75
Section One, Shape and Construction of the Graves .....	75
(1) Structure of the Coffin Chamber .....	75
(2) Coffins and Accessories .....	78
(3) Form of Burials .....	79
(4) Placement of Mortuary Goods .....	80
Section Two, Examples of Burials .....	82
Example One .....	82
Example Two .....	84
Example Three .....	85
Example Four .....	88
Example Five .....	90
Example Six .....	92
Example Seven .....	95
Section Three, Chariot Pits .....	98
Section Four, Funeral Goods .....	100
(1) Pottery vessels .....	101
(2) Porcelain Vessels .....	119
(3) Bronze implements .....	120
Group 1, Containers .....	121
Group 2, Garment Ornaments .....	131
Group 3, Weapons .....	132
Group 4, Chariot Fixtures .....	134
Group 5, Miscellaneous .....	137
(4) Items made of Gold, Silver and Iron .....	139
(5) Jade and stone implements .....	140
(6) Lacquerware .....	151
(7) Fused stoneware .....	152
(8) Ivory, bone, mussel-shell implements .....	153
(9) Strung ornaments .....	155
(10) Gaming pieces .....	157
Section 5, Periodization .....	157

(1) Periodization of Western Zhou graves .....	158
(2) Periodization of Eastern Zhou graves.....	165
Brief Summary .....	171
Aspects of burial styles and customs.....	171
Pottery vessel assemblages.....	172
Vessel shape typology.....	173
Burial customs and burial systems.....	175
Developmental change of vessel forms.....	176
BIBLIOGRAPHY.....	474

## LIST OF TABLES

Table	Page
1. Comparison of Group A and B graves' characteristics.....	20
2. <i>Yaokeng</i> present beneath other Liang Zhou era burials.....	21
3. Comparative chronological table .....	22
4. Redating of Qufu phases according to Cui's Shandong reperiodization .....	23
5. Inventory of M52 jade <i>bi</i> disks.....	94
6. Inventory of M58 jade <i>bi</i> disks.....	97
7. Inventory of Group A graves.....	Pocket Material
8. Inventory of Group B graves .....	Pocket Material

## LIST OF DIAGRAMS

Diagram	Page
1     Distribution map of graves (Ancestral Terrace cemetery) .....	180
2     Distribution map of graves (Herb Garden cemetery).....	181
3     Distribution map of graves (cemetery at the northwest corner of the Qufu city wall) .....	182
4     Distribution map of graves (Cockfighting Terrace).....	183
5     Top view of M301.....	184
6     Top view of M301.....	185
7     Top view of M310.....	186
8     Top view of M320.....	187
9     Top and side views of M120 .....	188
10    Group A Grave pottery <i>li</i> .....	190
11    Pottery <i>gui</i> from Group A graves .....	191
12    Round bottom pottery <i>guan</i> from Group A graves .....	193
13    Flat bottom pottery <i>guan</i> from Group A graves .....	194
14    Pottery <i>lei</i> from Group A Graves.....	195
15    Pottery <i>hu</i> with ornamental cover, from Group A graves .....	197
16    Pottery <i>dou</i> from Group A Graves.....	199
17    Pottery <i>dou</i> with cover, from Group A Graves .....	200
18    Pottery vessels from Group A Graves.....	201



19	Rubbings of inscriptions and decorative patterns from bronze vessels excavated from Group A Graves.....	202
20	Elephant ivory comb from Group A Grave .....	203
21	Pottery mold for arrowheads, from Group A Grave .....	204
22	Comparitive chart of funerary vessels from Group A Graves .....	205
23	Diagram of the traces of boards from which the east and north walls of the M2 burial chamber were constructed.....	207
24	Horizontal view diagram of a reconstruction of the floor of inner coffin M2.....	208
25	Top view of grave M18.....	209
26	Top view of grave M30.....	210
27	Top view of grave M54.....	212
28	Top view of grave M48.....	213
29	Top view of grave M49.....	215
30	East-west cross section reconstructed view of grave M2 .....	216
31	Top view diagram of grave M2, and perspective drawing of the remnant inner inner coffin.....	218
32	Top view of grave M3 burial chamber .....	220
33	Top view of grave M4.....	222
34	Overview of M52 burial chamber .....	223
35	Diagram of the distribution of implements on the lower level within the inner coffin of grave M52 .....	225
36	Top view of grave M58 burial chamber .....	226
37	Pottery <i>li</i> from the Group B graves.....	228
38	Pottery <i>guan</i> from Group B graves .....	230
39	Pottery <i>guan</i> from Group B graves .....	232

40	Pottery <i>fu</i> from Group B graves.....	234
41	Rubbings from Group B grave pottery.....	235
42	Group B grave pottery <i>lei</i> .....	236
43	Group B grave pottery <i>hu</i> and pottery ring footed <i>hu</i> .....	237
44	Group B grave porcelain <i>guan</i> .....	239
45	Rubbings from patterns on Group B grave bronze vessels.....	240
46	Rubbings of patterns on Group B grave bronze vessels.....	241
47	Rubbings of inscriptions on bronze vessels from Group B graves.....	242
48	Rubbing of inscriptions on bronze <i>xu</i> M30: 2.....	244
49	Rubbing of inscriptions on a bronze <i>xu</i> from grave M48.....	245
50	Rubbings of inscriptions on bronze vessels from Group B graves.....	246
51	Bronze vessels from Group B graves.....	247
52	Clothing ornaments from Group B graves.....	248
53	Implements from Group B graves.....	250
54	Group B grave bronze crossbow mechanism.....	252
55	Group B grave horse and chariot fittings.....	253
56	(top) Group B grave <i>jiyue</i> and <i>taotie</i> heads.....	254
57	(bottom) Group B grave bronze finial inlaid with gold and silver.....	254
58	Group B grave bronze implements.....	256
59	Group B grave garment ornaments, patterns on gold ornaments.....	257



60	Group B grave gibbon-shaped silver ornament.....	258
61	(left) Group B grave silver garment hook.....	259
62	(right) Gold and silver inlaid iron garment hook from a Group B grave.....	259
63	Rubbing of decorative patterns on a Type I jade <i>bi</i> disk from Group B grave, M52: 40.....	260
64	Rubbing of decorative patterns on a Type I jade <i>bi</i> disk from Group B grave M52: 3.....	261
65	Rubbing of decorative patterns on a Type I jade <i>bi</i> disk from Group B grave M52: 9.....	262
66	Rubbing of decorative patterns on a Type I jade <i>bi</i> disk from Group B grave M52: 41.....	263
67	Rubbing of decorative patterns on a Type II jade <i>bi</i> disk from Group B grave, M58: 3.....	264
68	(top) Rubbing of decorative patterns on a Type II jade <i>bi</i> disk from a Group B grave, M58: 34.....	265
69	(bottom) Rubbing of decorative patterns on a Type II jade <i>bi</i> disk from Group B grave, M58: 5.....	265
70	Rubbings of decorative patterns on a Type II jade <i>bi</i> disk from a Group B grave .....	267
71	Rubbings of decorative patterns on Type III jade <i>bi</i> disk from Group B graves.....	269
72	Group B grave jade <i>huan</i> disk .....	270
73	Group B grave jade garment hooks.....	271
74	Jade horse M3: 8 .....	271
75	(top and left) Group B grave rubbing of <i>kui</i> dragon jade ornament .....	273
76	(right) Group B grave rubbing of jade pendant from grave M58.....	273

77	Group B grave jade pendant .....	275
78	Group B grave jade <i>she</i> archer's thumb rings .....	276
79	Group B grave jade implements.....	277
80	Group B grave jade knobs .....	278
81	(left) Group B grave <i>jianqiao</i> sword scabbard shaped jade ornament .....	279
82	(right) Group B grave stone implements.....	279
83	Group B grave jade <i>ge</i> dagger-axe.....	280
84	Group B grave jade implements.....	281
85	Group B grave <i>liao</i> beads .....	282
86	Group B grave ivory pieces .....	283
87	(top of page) Group B grave carved ivory <i>xiaoshun</i> back scratcher .....	284
88	(bottom of page) Group B grave ivory objects.....	284
89	Comparative chart of Group B grave Western Zhou funerary vessels.....	286
90	Comparative chart of Group B grave Eastern Zhou funerary vessels.....	288

## LIST OF PHOTOGRAPHS

Photograph	Page
1      Group A Western Zhou graves.....	290
2      Group A graves.....	292
3      Group A Spring and Autumn graves.....	294
4      Group A grave pottery vessel assemblages.....	296
5      Group A grave pottery <i>li</i> (Western Zhou) .....	298
6      Group A grave pottery <i>li</i> .....	300
7      Group A grave pottery <i>gui</i> .....	302
8      Group A Spring and Autumn grave pottery <i>gui</i> .....	304
9      Group A Western Zhou grave pottery vessels .....	306
10     Group A grave pottery <i>guan</i> .....	308
11     Group A Spring and Autumn grave pottery <i>guan</i> .....	310
12     Group A grave pottery <i>lei</i> .....	312
13     Group A Spring and Autumn grave pottery <i>lei</i> .....	314
14     Group A Western Zhou grave pottery <i>dou</i> .....	316
15     Group A grave pottery vessels .....	318
16     Group A Spring and Autumn grave pottery vessels .....	320
17     Group A Spring and Autumn grave pottery covered <i>dou</i> .....	322
18     Group A Spring and Autumn grave pottery vessels .....	324

19	Group A Spring and Autumn grave bronze vessels.....	326
20	Group A Spring and Autumn grave bronze vessels.....	328
21	Group A Spring and Autumn grave bronze <i>zhou</i> .....	330
22	Group A Spring and Autumn grave weapons.....	332
23	Group A grave implements.....	334
24	Group A Eastern Zhou grave stone <i>ge</i> dagger-axe and stone <i>gui</i> tablet.....	336
25	Group A grave ivory, bone, and shell implements .....	338
26	Group B graves .....	340
27	Group B graves .....	342
28	Group B graves .....	344
29	Group B graves .....	346
30	Group B grave and sacrificial horse pit.....	348
31	Group B Western Zhou grave pottery vessel assemblage.....	350
32	Group B Western Zhou grave pottery <i>li</i> .....	352
33	Group B Western Zhou grave pottery <i>li</i> .....	354
34	Group B Western Zhou grave pottery <i>guan</i> .....	356
35	Group B Western Zhou grave pottery <i>guan</i> .....	358
36	Group B Western Zhou grave pottery <i>guan</i> .....	360
37	Group B Western Zhou grave pottery <i>guan</i> .....	362
38	Group B Western Zhou grave pottery <i>guan</i> .....	364
39	Group B Eastern Zhou grave pottery <i>guan</i> .....	366
40	Group B Eastern Zhou grave pottery vessels.....	368

41	Group B Eastern Zhou grave pottery vessels.....	370
42	Group B Eastern Zhou grave pottery <i>hu</i> .....	372
43	Group B Eastern Zhou grave pottery <i>hu</i> .....	374
44	Group B Eastern Zhou grave pottery ring foot <i>hu</i> .....	376
45	Group B Eastern Zhou grave implements.....	378
46	Group B Western Zhou grave bronze <i>ding</i> .....	380
47	Group B Western Zhou grave bronze <i>ding</i> .....	382
48	Group B Western Zhou grave bronze <i>pan</i> and <i>yan</i> .....	384
49	Group B Western Zhou grave bronze <i>xu</i> and <i>fu</i> .....	386
50	Group B grave bronze <i>pan</i> .....	388
51	Group B Western Zhou grave bronze <i>yi</i> .....	390
52	Group B grave bronze vessels .....	392
53	Bronze <i>hu</i> from Group B Western Zhou grave, M48: 16.....	394
54	Group B grave bronze vessels .....	396
55	Gold and silver inlaid bronze finial from Group B Eastern Zhou grave, M3: 42 .....	398
56	Group B Eastern Zhou grave bronze and iron garment hooks .....	400
57	Group B grave weapons and bronze ornaments.....	402
58	Group B Eastern Zhou grave weapons .....	404
59	Group B Western Zhou grave chariot and horse fittings.....	406
60	Group B Western Zhou grave chariot and horse fittings.....	408
61	Group B grave chariot and horse fittings and stand .....	410
62	Group B grave implements .....	412



63	Group B grave implements .....	414
64	Group B Eastern Zhou grave garment hook .....	416
65	Group B Eastern Zhou gibbon-shaped silver ornament.....	418
66	Group B Eastern Zhou grave jade <i>bi</i> disks.....	420
67	Group B Eastern Zhou jade <i>bi</i> disk .....	422
68	Group B Eastern Zhou jade <i>bi</i> disk .....	424
69	Group B Eastern Zhou jade <i>bi</i> disk .....	426
70	Group B Eastern Zhou jade <i>bi</i> disks.....	428
71	Group B grave jade and stone implements.....	430
72	Group B Eastern Zhou grave jade <i>huan</i> rings .....	432
73	Group B Eastern Zhou grave agate <i>huan</i> ring and gold garment ornaments.....	434
74	Group B grave jade and stone implements.....	436
75	Group B Eastern Zhou grave jade implements .....	438
76	Group B grave jade implements.....	440
77	Group B Eastern Zhou grave <i>kui</i> dragon jade ornaments.....	442
78	Group B Eastern Zhou grave jade and stone implements.....	444
79	Group B Eastern Zhou grave implements.....	446
80	Group B grave jade implements.....	448
81	Group B Western Zhou grave jade and stone ge.....	450
82	Group B grave stone implements.....	452
83	Group B Eastern Zhou grave implements.....	454
84	Group B Warring States grave items.....	456

85	Group B Eastern Zhou grave ivory implements.....	458
86	Group B Eastern Zhou grave ivory implement .....	460
87	Group B grave ivory, bone, and shell implements.....	462
88	Group B Western Zhou grave necklaces.....	464
89	Group B Western Zhou grave strung beads .....	466
90	Group B Eastern Zhou grave strung beads.....	468
91	Group B Eastern Zhou strings of bone and stone beads.....	470
92	Group B Eastern Zhou grave <i>boju</i> gambling implements.....	472

## INTRODUCTION

Qufu, Shandong, has traditionally been identified with the Liang Zhou<sup>1</sup> era feudal state of Lu, and best known as the home of the philosophical school of Confucius. Literary and historical records, building complexes maintained in support of the “state cult of Confucius,” and the existence of ruins of *hangtu* 夯土 (rammed earth) city walls and building foundations surrounding the present day walled city of Qufu, have all contributed to these associations.<sup>2</sup> Local discoveries of bronze vessels cast with inscriptions referring to the state of Lu further corroborated this assumption.<sup>3</sup> Because of these and later occasional discoveries, the archaeological remains and historic structures in the vicinity of Qufu were declared a “Protected Important National Cultural Site” in 1961.<sup>4</sup>

---

<sup>1</sup> 两周 Liang Zhou, a term used for the entire Western Zhou through Eastern (encompassing the Spring and Autumn through Warring States periods) Zhou periods, roughly 1040 BCE —221 BCE. See Table 3 for further details on the subphases of these periods.

<sup>2</sup> Shandong sheng Qufu shi wenwu guan li wei yuan hui 山东省曲阜市文物馆. *Qufu — Kongzi de guxiang* 曲阜 孔子的故乡 [Qufu, The Native Place of Confucius]. Beijing: Wenwu Press 文物出版社, 1990; p. 141.

<sup>3</sup> Zeng Yigong 曾毅公. *Shandong Jinwen Jicun* 山东金文集存, vol. 1 (1940), no. 15.

<sup>4</sup> Brooks, E. Bruce, and A. Taeko Brooks. *The Original Analects: sayings of Confucius and his successors*. New York: Columbia University Press, 1998; p. 202.

Buck, David, et. al. “Archaeological Explorations at the Ancient Capital of Lu at Qufu in Shandong Province”. *Chinese Sociology and Anthropology* 19.1 (Fall 1986); p. 3.



Investigations by the Shandong Archaeological Department, under the direction of the National Cultural Bureau, culminated in a thorough archaeological survey of the ruins around Qufu in 1977–1978. Test core drilling and selected excavation uncovered remains of city walls, roadways, buildings (palaces, workshops, and residences), and cemeteries. Reports of these excavations were published in 1982 by the Shandong Institute of Cultural Relics and Archaeology in a volume titled *Qufu Luguo gucheng* 曲阜鲁国故城 [*The Ancient City of Lu at Qufu*],<sup>5</sup> and in two articles in the December 1982 issue of the archaeological journal *Wenwu*.<sup>6,7</sup>

The first extensive English language reference to these archaeological data occurred in 1986 with the publication of “Archaeological Explorations at the Ancient Capital of Lu at Qufu in Shandong Province” in the translation journal *Chinese Sociology and Anthropology*, where David Buck wrote an introduction to and translated the last chapter of the report (“Conclusions”), as well as the two related December 1982 *Wenwu* articles. The archaeological report and Buck’s translations were brought to my attention by Research Professor E. Bruce Brooks after I had expressed my interest in developing a thesis project which could combine my desire to carry out a translation project with my interest in the archaeology of early China. Translation of additional sections of this report would also complement Brooks’ research on the literature and history of the Warring States period, and Lu in particular.

---

<sup>5</sup> Shandong sheng wenwu kaogu yanjiusuo 山东省文物考古研究所. *Qufu Luguo gucheng* 曲阜鲁国故城. Jinan 济南: Jilu shushe 齐鲁书社, 1982.

<sup>6</sup> Tian An 田岸. “Qúfu Lucheng kantan.” 曲阜鲁城勘探 *Wenwu* 1982: 12; pp. 9-10.

<sup>7</sup> Zhang Xuehai 张学海. “Qiantan Qufu Lucheng de niandai he jiben geju.” *Wenwu* 1982: 12; pp. 13–16.

With the expectation that a complete translation of the Lu cemeteries sections would clarify some aspects of the conclusions which Buck had already translated, I decided to translate Part Five of Chapter One, which describes the cemeteries' general layout, and all of Chapter Three, which describes the cemeteries' graves and inventories their contents.

Among the archaeologists' primary conclusions was the assertion that they had verified the traditional understanding that the capital of Lu had been at the Qufu site throughout the Liang Zhou period. Their analysis of the excavated cemeteries and the contents thereof further concluded that the data indicated that two culturally distinct populations had lived side by side at Lu. The first population was labeled "Group A" (*jiazu* 甲组) and identified as an indigenous population<sup>8</sup> with Yin 殷 (Shang 商)<sup>9</sup> or Yi<sup>10</sup> 夷 characteristics who had been subjugated by "Group B" (*yizu* 乙组), the Zhou conquerors. The authors claimed this to be an unique discovery of this particular type of Liang Zhou Era social arrangement.<sup>11</sup>

My own examination of the sections which I have translated here suggests that a critical reevaluation of the report is merited. Purportedly historical accounts in traditional literature have influenced the authors' interpretation of the archaeological data, and deficiencies in the periodization

---

<sup>8</sup> The report's English abstract characterized the cemeteries as "two different types, the type peculiar to the aboriginal clan and the type peculiar to the Zhou clan. It is the first time that graves of different clans are found to have existed simultaneously in a ducal capital during the period of the Western and Eastern Zhou Dynasties." *Qufu Luguo*, pp. 1–2.

In his introduction to his translations Buck referred to the Group A people as "the conquered Yi." (Buck, *Ancient Capital*, p.5)

At the end of Tian An's *Wenwu* article "Archeological Exploration of the Lu City at Qufu" he characterizes them as Yi. (p. 26)

<sup>9</sup> Yin and Shang are alternate names of the dynasty (ca. 1700 BCE — ca. 1040 BCE) which preceded the Zhou.

may be improved by consideration of additional data from comparable sites (some of which have been published in the intervening years).

The authors of the Qufu report evaluated their archaeological findings according to the extent to which they conform or compare within two very different contexts: a) the rich literature traditionally considered to have been written throughout the period of this site's occupation, and b) the archaeological data from excavations of Shang and Liang Zhou era cities and cemeteries of comparable size and age.

### Textual references to the establishment of Lu

Some of the early Chinese texts purport to describe events of the earliest periods of the Western Zhou, and some archaeologists and historians have

---

<sup>10</sup> Yi might best be defined from the perspective of the Zhou people as “an uncivilized hostile alien group,” usually from the eastern regions. The term is more commonly translated as “barbarian,” particularly in the form of compounds Dong Yi (Eastern Barbarians) or Huai Yi (Barbarians from the Huai River region). Sometimes the four fringe ethnic groups (Man, Yi, Rong, Di) were abbreviated “The Four Yi (Barbarian Tribes)”. Some texts appear to consider the Yi as less barbaric than the others. Considerable attention is given to this subject in the first part of the sixth chapter (“Chunqiu shidai de Hua Xia yu Man Yi Rong Di” 春秋時代的華夏與蠻夷戎狄 [“The Hua Xia in relations with the Man, Yi, Rong, and Di during the Spring and Autumn Period”] ) in Pan Ying 潘英, *Zhongguo shanggu shi xintan* 中國上古新探. Taipei: Ming wen shuju 明文書局, 1985; pp. 135-141.

See also Fu Sinian 傅斯年, “Yi Xia dong xi shuo” 夷夏東西說. In *Qingzhu Cai Yuanpei xiansheng liushiwu usi lunwenji* 慶祝蔡元培先生六十五歲論文集. Nanjing: Institute of History and Philology, Academia Sinica, 1933, pp. 1093—134. Rpt. in *Zhong guo shang gu xin lun wen xuan ji* 中國上古史論選集. 2 vol. Du Zhengsheng 杜正勝, editor. Taipei: Hua shi chubanshe 華史出版社, 1979.

The term Yi or Dong Yi is also used by archaeologists as a broad term encompassing cultures which existed in the Shandong-Liaoning region from the beginning of the neolithic up through the Shang and Zhou periods. Dawenkou, Shandong Longshan, and Yueshi are examples of cultures which archaeologists may label Dong Yi.

<sup>11</sup> Buck, *Ancient Capital*, pp. 3, 26, 56—59.



accepted these descriptions as fact. “This historical-political interpretation dominated . . . two thousand years of exegesis of the *Classic of Poetry* . . . and continues today to influence much, if not most, Chinese readings of the text.”<sup>12</sup> Other scholars have taken a much more critical view of the authenticity of the descriptions in the ancient texts. Gu Jiegang’s 顧頡剛 *Gu shi bian* 古史辨 (*Debates on Ancient History*) was an influential and highly skeptical collection of studies by various scholars who raised doubts concerning the antiquity of most of the Chinese classics.<sup>13</sup> More recently, E. Bruce and A. Taeko Brooks have analyzed many of these same texts and conclude that most of the texts in question were either written or supplemented during the fourth century BCE or later.<sup>14, 15</sup>

The authors of the Qufu archaeological report cite as supporting evidence (and other Chinese and Western historians of ancient China also rely upon)<sup>16</sup> several passages in certain purportedly early Chinese texts regarding the establishment of Lu.<sup>17</sup> One example comes from the *Shi jing* (*Classic of*

---

<sup>12</sup> Shaughnessy, Edward. “How the Poetess Came to Burn the Royal Chamber.” In *Before Confucius: studies in the creation of the Chinese classics*. Albany: State University of New York Press, 1997; p. 221.

<sup>13</sup> Shaughnessy, *Before*, p. 2.

<sup>14</sup> Brooks, E. Bruce. “Review Article: The Present State and Future Prospects of Pre-Han Text Studies.” In *Sino-Platonic Papers* 46 (July 1994); pp. 1—74.

<sup>15</sup> Brooks, E. Bruce and A. Taeko Brooks. *The Original Analects: sayings of Confucius and his successors*. New York: Columbia University Press, 1998.

<sup>16</sup> Hsu, Cho-yin, and Katheryn M. Linduff. *Western Chou Civilization* (Early Chinese Civilization Series). New Haven: Yale University Press, 1988, pp. 153—154, 158, 160, 187—189.

<sup>17</sup> Zhang Xuehai, “Discussion of the Periodization and Basic Groundplan of the Lu City at Qufu,” pp. 38—41, of article pp. 35—48, trans. David Buck, “The Ancient Capital of Lu” in *Chinese Sociology and Anthropology*, 1985.

*Poetry*). Within the “Sacrificial Odes of Zhou,” Book II, “Praise-Odes of Lu,” Ode IV “Bi Gong,” the second and third stanzas assert that King Cheng appointed the Duke of Zhou’s elder son, Bo Qin, as Gong 公 (Duke) of Lu, enfeoffing him “in the east, giving him the hills and rivers, the lands and fields, and the attached States.”<sup>18</sup>

The early establishment of Lu is also cited as a historical fact in a *Zuo zhuan* passage (Fourth Year of Duke Ding),<sup>19</sup> followed by an account of the enfeoffment of the rulers of Wei and Jin. This passage states that, in addition to various items indicative of his new status, King Cheng gave the Duke of Lu six *zu* (clans) of Yin, whose clan heads were ordered “to lead the chiefs of their kin, to collect their branches in the remote as well as the near (lands), to conduct the multitude of their connections” for the sake of serving their duke. The passage indicates that the state of Lu was set up as the governing body over the people of Shangyan 商奄,<sup>20</sup> in the territory of ancient Shaohao 少昊, and that the instruction given to Kangshu (the first marquis of Wei) to govern in accordance with the Shang traditions was apparently applicable to the state of Lu as well.<sup>21</sup>

The Qufu report’s authors appear to accept these accounts as factual record, but the critical reader should consult other opinions on the utility of

---

<sup>18</sup> Legge, James. *The Chinese Classics*, vol. 4, *The She King or The Book of Poetry*. 1871; rpt. Hong Kong: Hong Kong University Press, 1960; p. 623.

<sup>19</sup> The Fourth Year of Duke Ding of Lu was 506 B.C. The founding of the feudal states was recalled in an attempt to explain rules of protocol.

<sup>20</sup> Yan is considered to have been the sixth Shang capital (moved from Bi 庇 by Nan Geng 南庚, the seventeenth king, until Pan Geng 盤庚, the nineteenth king, moved the capital to Yin), See K.C. Chang, *Shang Civilization* (Early Chinese Civilization Series). New Haven: Yale University Press, 1980.; p. 7.

<sup>21</sup> Legge, James. *The Chinese Classics*. vol. 5: *The Ch’un Ts’ew, with The Tso Chuen*. 1872; rpt. Hong Kong: Hong Kong University Press, 1960; p. 754.

their approach. Certainly some writers in the West also regard these ancient texts as authentic records. Hsu and Linduff, in *Western Chou Civilization*, make extensive use of the same texts in their reconstruction of the period. In *Early Chinese Texts*, Michael Loewe places the composition of the *Shi jing* over a broad time period, from the eleventh through seventh centuries BC (i.e. ca. 1000 through ca. 600 BCE),<sup>22</sup> and Edward L. Shaughnessy dates it to a similar range a century later (tenth through sixth century BCE).<sup>23</sup> If the "Praise-Odes of Lu" could be proven to have been written during the earliest part of this range, their value as a historic document would certainly be very high. On the other hand, if they are from the later portion of these dates (700-500 BCE), four to five hundred years after the events, their credibility as sources for late Shang and early Western Zhou history is much weaker.

The Brookses' analyses of the *Shi* material suggest that the *Shi* as a whole may have been compiled considerably later, in increments during the span from circa 460 to circa 322 BCE (six to seven hundred years after the purported establishment of Lu).<sup>24</sup> Such a compilation process does not directly impugn the authorial dates of the included material, for a process of oral transmission has been suggested by other scholars, however, it at least raises doubts about the *Shi* as an unproblematic authority for very early events.

---

<sup>22</sup> Loewe, Michael. "Shih ching." *Early Chinese Texts: A Bibliographical Guide*. Michael Loewe, ed. Berkeley: The Society for the Study of Early China, 1993; p. 415.

<sup>23</sup> Shaughnessy, "Poetess," p. 221.

<sup>24</sup> Brooks, *Original Analects*, p. 255.



### Textual reference to burial practices

There are several early texts (*I Li*, *Li Ji*, *Mozi*) in which numerous references are made to corpse preparation and burial practices (aside from mourning or ancestral worship rituals). These texts provide literary contexts for possible interpretation of the archaeological remains of burials.

The analyses of the authorship, composition, and dating of these works (*I Li*, *Li Ji*, and *Mozi*) are also controversial. Here it is sufficient to note that the claimed range of composition covers a span of over nine hundred years, for example, from the (extremely dubious) traditional belief that the *I Li* was written by King Wen at the beginning of the Zhou dynasty, to the considered opinion of many scholars that this text was written, compiled and edited from the Warring States period through the early Han dynasty.<sup>25</sup> In all probability these texts were written or compiled long after many of these Lu burials occurred, and cannot be viewed as authoritative contemporaneous statements on the nature of these burials. The authors may have had access to earlier ritual texts (now not extant) on mortuary practices, or they may have extrapolated the nature of earlier practices from their knowledge of contemporary (as late as early Han) practices. At the very least a familiarity with these passages allows the reader to more easily consider the cultural function of what now may be just shards of clay, or vague impressions or layers of ash left in the soil. It is likely that the archaeologists (some of whom

---

<sup>25</sup> Loewe, Michael, *Early Chinese Texts: A Bibliographical Guide*. Berkeley: The Society for the Study of Early China, and The Institute of East Asian Studies, University of California, 1993.

were well schooled in the pre-Qin canonical texts) have been influenced by these texts in their interpretation of the raw archaeological data.<sup>26</sup>

### *I Li and Li Ji*

The ritual texts *I Li*<sup>27</sup> and *Li Ji*,<sup>28</sup> in addition to providing extremely detailed descriptions of mourning practices, also describe preparation of the corpse (e.g., placement of tongue amulets and ear plugs), coffins, and the various objects interred with the dead such as burials shrouds, *mingqi* 明器 “spirit vessels,”<sup>29</sup> bronze vessels and weapons. The *I Li* passages, probably of an earlier date than the *Li Ji*,<sup>30</sup> are relatively concise prescriptions for burial practices. For example, the following *I Li* passage describes the final stages of the burial:

The Internment.

(a) When the procession reaches the grave enclosure, the spirit vessels are laid down on the east and west sides of the road, and graded from the north.

(b) The cushions are first put in.

---

<sup>26</sup> Chang, K. C., *Early Chinese Civilization: Anthropological Perspectives*. Harvard-Yenching Institute Monograph Series, Volume 23. Cambridge: Harvard University Press, 1976; pp. i—xi.

<sup>27</sup> Steele, John, trans., *The I li, or Book of Etiquette and Ceremonial*. 2 vol. London: Probsthain and Co., 1917. Rpt. Taipei: Ch'eng-wen Publishing Company, 1966.

<sup>28</sup> Legge, James, trans.; rpt. edited by Ch'u Chai and Winberg Chai. *Li chi: Book of Rites*. New Hyde Park, N.Y.: University Books, 1967.

<sup>29</sup> A term for items very specifically made as burial offerings, as opposed to utilitarian items which were also placed in graves. Sometimes *mingqi* may be miniature versions of utilitarian vessels, or they may be cast or fired in a manner inappropriate to everyday use, etc. Pottery vessels which are clearly modeled on bronze ritual vessels may also be designated *mingqi*.

<sup>30</sup> Boltz, William G. “I li.” In *Early Chinese Texts*, p. 234—243.



(c) Then the penthouse having been removed, the lowering-cords are attached to the coffin. . . .

(e) They lower the coffin into the grave . . .

(f) The Master of Ceremonies gives, as parting gift to the deceased, lengths of silk, black and crimson, in rolls. In putting this into the grave he kowtows and stamps as above. . . .

(i) The spirit vessels are laid at the side of the coffin, and the pall is laid over all.

(j) Then the packets of meat are placed at the sides of the coffin, and the baskets of grain also.

(k) Then the covering frame is set on, with the mats above it, their right sides being downwards. Thereafter the earth-boards are set in place.

(l) After three spadefuls of earth have been thrown into the grave, the Master of Ceremonies bares his arm and bows to the people of the district who have attended and helped at the funeral. . . .<sup>31</sup>

The *Li Ji* texts, on the other hand, are more elaborate in their descriptions, sometimes even providing anecdotes and detailed explanations of the meaning of the practices. For example, in the following passage the text presents an understanding of the meaning of *mingqi*:

Confucius said, 'He who made the vessels which are so (only) in imagination, knew the principles underlying the mourning rites. They were complete (to all appearance), and yet could not be used. Alas! if for the dead they had used the vessels of the living, would there not have been a danger of this leading to the interment of the living with the dead?'

They were called 'vessels in imagination,' (the dead) being thus treated as spiritual intelligences. From of old there were the carriages of clay and the figures of straw — in accordance with the idea in these vessels in imagination. Confucius said that the making of the straw figures was good, and that the making of the (wooden) automaton was not benevolent.—Was there not a danger of its leading to the use of (living) men?<sup>32</sup>

---

<sup>31</sup> *I Li*, pp. 90—91.

<sup>32</sup> Legge, James, trans.; rpt. edited by Ch'u Chai and Winberg Chai. *Li chi: Book of Rites*. New Hyde park, N.Y.: University Books, 1967; p. 172.

In the process of expressing its “anti-ritualist” viewpoint several passages in the *Mozi* chapter “Simplicity in Funerals” provide descriptions of funeral practices:

Mozi said: I have examined the sayings of those who uphold elaborate funeral and extended mourning. If they should be taken seriously in the country, it would mean: when a lord dies, there would be several inner and outer coffins. He would be buried deep. There would be many shrouds. Embroidery would be elaborate. The grave mound would be massive. So, then, the death of a common man would exhaust the wealth of a family. And the death of a feudal lord would empty the state treasury before his body would be surrounded with gold, jade, and pearls, and the grave filled with carts and horses and bundles of silk. Further, there should be plenty of canopies and hangings, *dings*, drums, tables, pots, and ice receptacles, spears, swords, feather banners, and hides all to be carried along and buried. Not till then are the requirements considered fulfilled. And, regarding those who were to die to accompany their lord, for the emperor or a feudal lord there should be from several hundred to several tens, and for a minister or a secretary there should be from several tens to several.<sup>33</sup>

Later in the chapter simpler burial practices are prescribed, according to “ancient edicts”:

Therefore the ancient sage-kings authorized the code of laws regarding the burial of the dead thus: The coffin shall be three inches thick, sufficient to hold the body. As to shrouds there shall be three pieces adequate to cover the corpse. It shall not be buried so deep as to reach water and neither so shallow as to allow the odor to ascend. Three feet in size shall be big enough for the mound. . . . Such are the laws of the sage-kings.<sup>34</sup>

---

<sup>33</sup> Mo Di (fl. 400 B.C.). *The Ethical and Political Works of Motse*. Yi-pao Mei, trans. London: A. Probstahin, 1929; p. 125.

<sup>34</sup> *Motse*, p. 130.

In refuting an argument that elaborate funerals had actually been “a principal of the sage-kings,” *Mozi* favorably cites the examples of the (alleged) simple burials of the great culture-heroes Yao, Shun, and Yu, and contrasts them with contemporary practices:

The way in which the present rulers are buried is quite different from this. There are the outer and the inner coffins, and then the three layers of hide and embroidered covers. When the stones and jades are all collected, there are yet to be completed the spears, swords, *dings*, pots, and ice receptacles, and ten thousand of decorated reins and yokes, and the carriages, horses, and the chorus girls. Then, there must be built the tunnel to reach under the tomb which is as high as a hill.<sup>35</sup>

The argument concludes by reiterating the modest practices which he earlier attributed to “the sage-kings”:

Outlining the rules for funerals and burials, Mozi said: The coffin shall be three inches thick, just sufficient to hold the rotting bones. Of shrouds there shall be three pieces just enough to hold the rotting flesh. The pit shall be dug not so deep as to strike water, and not so shallow as to allow the odor to ascend. The mound shall be just high enough to be identified (by the mourners).<sup>36</sup>

#### Criticism of the archaeologists' conclusion

The Shandong archaeological team carried out a thorough excavation which the report documents with detailed descriptions of the cemeteries and their contents. While an interesting case is put forward for their main hypothesis, that the Group A burials must be those of descendants of Shang or indigenous Yi peoples, and that the Group B burials were those of their Zhou conquerers, their argument has some real weaknesses. The last paragraph of Tian An's *Wenwu* article concludes with the assertion that:

---

<sup>35</sup> *Motse*, p. 130-131.

<sup>36</sup> *Motse*, p. 134.

By distinguishing the special characteristics of the Group A and B graves and comparing them with Zhou period graves from the Shandong and Shaanxi regions, we can prove these graves belong to the local inhabitants, the Yi (Type A), and Type B to the Zhou peoples.<sup>37</sup>

I had hoped to find such a proof in my translation of the “Periodization” and “Brief Summary” sections of the archaeological report, but was disappointed to discover that the internal periodization is rather convoluted, and comparison between the Qufu materials and that of other sites is very limited. To summarize their arguments Table 1 (page 14) lists six characteristics by which the Group A graves were found to contrast with the Group B graves. Below I will critically examine their approach to one of these features, and conclude by citing a recent study which revises the ceramic periodization and the relative chronology of the burials.

### *Yaokeng*

One of the archaeological features by which the Qufu report differentiates the Group A burials from Group B burials are *yaokeng* 腰坑 (“waist pits”), pits placed under the coffin, approximately beneath the waist of the human burial. Dogs were sacrificed and buried in these small pits. The meaning or function of this funerary practice is obscure; I have failed to find any references to it in early texts. I was surprised that my search of Chinese and English archaeological literature failed to find any articles focussing on this particular feature.

---

<sup>37</sup> Tian An 田岸. “Qufu Lucheng kantan” [“Archaeological Exploration of the Lu City at Qufu”]. *Wenwu* 1982: (December); p. 1—12.



Wolfram Eberhard, in his collection of legends and ethnographic references to dogs, documented traditions in which dogs are seen as exorcisers and protectors of the dead.<sup>38</sup> Rolf Stein made the following observations and ethnographic comparisons about Shang *yaokeng*:

[G]reat Shang tombs [are] shaped like a cross (*yaxing*). These tombs included a hole in the center and often, in addition, four or eight holes at the cardinal points. These holes contained a sacrificed man or animal (sometimes two). A tomb is obviously not a house, but they may be compared on the basis of the fact that the tomb represents the resting place of the dead. Human sacrifices under the central pillar, under the entrance, or under the main columns were common in many rites of house construction; the victims became the house's guardian spirits. The holes in the Shang tombs may thus be compared with the supporting pillars of houses. In the cross-shaped tomb a dog was buried in the central hole. In classical China the dog was the sacrificial animal dedicated to the main door (*men*). When one remembers that the people living in Manchuria during the Han built very deep underground houses . . . it may not be inappropriate to compare the dog buried at the center of the Shang tomb to the Manchurian psychopomp-dog who guided souls to the Mountain, the dwelling place of the ancestors. . . . Among the Koryak, sacrificed dogs, crouched on a pillar, guarded the dwelling of a great family and later became guardians of the village.<sup>39</sup>

The prevalence of *yaokeng* in elite Shang burials has been well documented in the English language survey work of Chêng Tê-k'un, *Archaeology in China: Volume Two, Shang China*,<sup>40</sup> and the more recent mainland China survey works *Shang Zhou Kaogu* 商周考古<sup>41</sup> and *Shang Zhou Kaogu Jianbian* 商周考古简编.<sup>42</sup> Sometimes the archaeological literature over

---

<sup>38</sup> Wolfram, Eberhard. *The Local Culture of South and East China*. Alide Eberhard, trans. Leiden: E. J. Brill, 1968; pp. 43—50, pp. 461—471.

<sup>39</sup> Stein, Rolf Alfred. *Monde en petit*. Phyllis Brooks trans. as *The World in Miniature: Container Gardens and Dwellings in Far Eastern Religious Thought*. Stanford, Calif.: Stanford University Press, 1990.

<sup>40</sup> Chêng, Tê-k'un. *Archaeology in China, Volume 2: Shang China*. Cambridge: University of Toronto Press, 1960.

emphasizes the occurrence of massive tombs with vast quantities of elaborate burial offerings. *Yaokeng* are also found beneath burials of the less privileged; a report on excavations to the west of the Shang city at Anyang documents a large cemetery filled with many “lesser elite” (which the report terms “commoner”) graves which contain *yaokeng*.<sup>43</sup>

Some archaeologists have asserted that *yaokeng* are generally absent in “early Zhou” sites:

The Zhou tombs in Hejiancun do not have waist pits (腰坑) and dog skeletons (*gou jia* 狗架); this probably reflects an element of Zhou culture.<sup>44</sup>

The authors of the Qufu report have made the same assumption; the presence of *yaokeng* is one of the archaeological factors which they identified as “Yin” or “Yi” characteristics differentiating the Group A burials from the Group B (Zhou culture) burials.

Other authors have disagreed; the summary of *Excavations at Fêng Hsi* (1955—1957) says:

The burial practice of the Western Zhou bears a close resemblance to that of the Yin people. For example, the Western Zhou tombs are also

---

<sup>41</sup> Beijing daxue lishixi kaogujiao yanjiushi Shang Zhou zu 北京大学历史系考古教研室商周组. *Shang Zhou kaogu* 商周考古. Beijing: Wenwu chubanshe 文物出版社, 1979.

<sup>42</sup> Yin Difei 殷涤非. *Shang Zhou kaogu jianbian* 商周考古简编. Hefei 合肥: Huangshan shushe 黄山书社, 1986.

<sup>43</sup> “1969-1977 nian Yinxu xiqu muzang fajue baogao” 1969—1977 年殷墟西区墓葬发掘报告. *Kaogu xuebao* 1979: 1; pp. 27—146.

<sup>44</sup> Xu Xitai, “Zao Zhou wenhua de tedian ji qi yuanyuan de tansuo” 早周文化的特点及其渊源的探索 [“An Investigation of the Distinguishing Features of Early Zhou Culture and their Origins”]. *Wenwu* 1979.10: 50—59. Trans. Rudolph et al. pp. 475—480.

provided with a burial pit containing the skeleton of a dog. It is often found near the waist of the dead, thus giving rise to the term “*yaokeng*”. . . . Funerary objects are usually placed near the head of the dead. On an earthen shelf called *ercengtai* (二层台) is often placed an offering of a whole leg of either a pig or ox. These . . . are apparently inherited from the Yin people.<sup>45</sup>

Jessica Rawson, in her chapter on “Western Zhou Archaeology” in *The Cambridge History of Ancient China*, makes roughly the same generalization that *yaokeng* and several other typically Shang tomb features are also present in many Western Zhou burials.<sup>46</sup>

By searching for references to *yaokeng* in tombs from the Western Zhou through the Warring States period (from the above mentioned surveys) I have compiled a list of 14 sites whose burials contain *yaokeng*, summarized below in Table 2. This certainly negates the Qufu report’s contention that the presence of *yaokeng* at this site are in any way unique for the post Shang period, an indicator of Shang or Yi ethnicity, or that the burials are necessarily relatively early.

### Chronology

In attempting to better understand, and properly critique the report’s conclusions I familiarized myself with the archaeological surveys of the period and similar site reports, but synthesizing a detailed typological comparison and analysis between the ceramic and bronze vessel assemblages at Qufu and those typical of other archaeological cultures (late neolithic cultures in the Shandong area such as Yueshi,<sup>47</sup> and Shang and Liang Zhou

---

<sup>45</sup>

*Fengxi*, p. 193.



era states) would be an extremely specialized and difficult project, well beyond the scope of the introduction to this translation.

Fortunately, the Qufu site has been included in a detailed comparative study by Cui Lequan of ceramic vessels from Eastern Zhou period sites in the Shandong area.<sup>48</sup> The data from the Qufu site are a major component of his study, in which he finds through comparison with other sites' ceramics that the proper dating for much of the Qufu pottery is actually considerably later than the original report had concluded.

Table 3 summarizes the Qufu report's relative chronologies of the Group A and Group B graves, arranged alongside Cui's new chronology, and approximate Western calendar equivalents for the various phases (within the archaeological literature references to these various subphases are seldom defined with firm Western calendar dates, or even specific reign periods). Notice that the Qufu report concludes that the Group A burials are present throughout the Western Zhou and Spring and Autumn periods but absent in the Warring States period, while the Group B burials are assigned to the Western Zhou and Warring States periods, but are entirely absent during the intervening Spring and Autumn period.

---

<sup>46</sup> Rawson, Jessica. "Western Zhou Archaeology" in *The Cambridge History of Ancient China*, p. 358.

<sup>47</sup> Fang Hui 方辉. "Yueshi wenhua de fenqi yu niandai" 岳石文化的分起与年代. *Kaogu* 考古 (April 1998) 367; pp. 55—71.

<sup>48</sup> Cui Lequan 崔乐泉. "Shandong diqu Dong Zhou kaoguxue wenhua de xulie" 山东地区东周考古学文化的序列. *Huaxia kaogu* 华夏考古. 1992: 4; pp. 72—97.



Table 4 has the same content as the previous table, but with arrows added to indicate where Cui, through comparison with other Shandong area sites' ceramic assemblages, has redated the Qufu funerary ceramics from both Group A and B to later phases, in effect substantially revising the entire original chronology. For example, the Qufu report's "early Western Zhou" materials are redated to the "late Western Zhou" phase; Group B "middle Warring States period" materials are redated to "late Warring States period." Cui's chronology presents a continuous time line from the late Western Zhou, through the late Warring States, and thereby removes the ceramic assemblage as an indicator (as hypothesized in the Qufu report) of occupation during the early or middle Western Zhou period.

### Conclusions

The main goal of this thesis has been to produce a thorough translation, along with an introduction which provides a context in which to evaluate the textual and archaeological bases of the report's conclusions. I have found some weaknesses in the report's use of ancient texts as authoritative documentation of the site's occupation at the beginning of the Western Zhou period. On the other hand, several Warring States texts are useful as sources of descriptions of burials and funerary objects. My research in the archaeological literature found that there are too many occurrences of *yaokeng* in other Zhou era sites to consider this feature to be a unique indicator of a burial's early date, or proof that they are burials of Shang descendants. The 1992 ceramic reperiodization by Cui casts doubt on the archaeological report's conclusion that the cemeteries are evidence the site had been occupied from the beginning of the Western Zhou period.

Nevertheless, distinct differences do exist between the Group A and Group B cemeteries. These may be more indicative of differences in wealth, class, and clan variation in funerary practices than the report's assertion that Shang descendants and Zhou people lived segregated lives at Qufu from the beginning of the Western Zhou through the end of the Spring and Autumn.<sup>49</sup> A better understanding of this question will only come about through further excavations and analysis of the data.

---

<sup>49</sup> von Falkenhausen, Lothar. "The Waning of the Bronze Age: Material Culture and Social Developments, 770—481 B.C." in *The Cambridge History of Ancient China*, pp. 497 - 499.

Table 1. Comparison of Group A and Group B graves' characteristics

	Group A	Group B
Number of graves	78	51
Head orientation	South end	North end
Yaokeng waist pit with dog burial	In all "W. Zhou" graves	Absent
Layout of grave goods	Between inner & outer coffins on floor near head or corpse's side	On the secondary ledge and on top of the coffin near the head
Pottery configurations during first phase	Four (or two) each of four vessel types (li, gui, dou, guan): "four-even"	Li and guan
Grave width in W. Zhou	Wide	Narrow
Grave size in later periods	Wide	Larger: a large pit was excavated and a burial chamber constructed of rammed earth

Table 2. *Yaokeng* present beneath other  
Liang Zhou era sites' burials

<i>Era</i>	<i>(specific phase if available)</i>	<i>Locality</i>
WESTERN ZHOU		
		Keshangzhuang, Shaanxi
		Zhangjiapo, Shaanxi
	WZ to early SA	Qi cemetery, Xindian, Linzi, Shandong
	late WZ to late WS	Yuejiahe, Changle, Shandong
		Puduncun, near Xian
		Luoyang
		Sanjiagou, Luliang, Shanxi
SPRING & AUTUMN		
		Zhongshan kings' tombs, Pingshan, Hebei
		Wei kings' tombs, Henanhu
		Zheng cemeteries, Xinzheng
WARRING STATES		
	early WS	Wujicheng, Wuanxian, Hebei
		Linqichu, Linxian, near
		Guo cemetery, Shangcunling, W. Henan
	late WS	Changtaiguan, Xinyang

Table 3. Comparative chronological table

<i>Rough equivalents to Western calendar</i>	<i>Qufu Report Group A Periods</i>	<i>Cui Lequan's Shandong Reperiodization</i>	<i>Qufu Report Group B Periods</i>
1040 - 950 BCE	Beginning to Early Period of the Western Zhou (A-1)	NOT PRESENT	Early Period of the Western Zhou (B-1)
950 - 860 BCE	Middle period of the Western Zhou (A-2)	NOT PRESENT	Middle period of the Western Zhou (B-2)
860 - 770 BCE	Late period of the Western Zhou (A-3)	Late period of the Western Zhou (to the beginning of the Spring and Autumn) (1)	Late period of the Western Zhou (B-3)  Last years of the Western Zhou (B-4)
770 - 670 BCE	Early period of the Spring and Autumn (A-4)	Early period of the Spring and Autumn (2)	NOT PRESENT
670 - 570 BCE	Middle period of the Spring and Autumn (A-5)	Middle period of the Spring and Autumn (3)	NOT PRESENT
570 - 475 BCE	Late period of the Spring and Autumn (A-6)	Late period of the Spring and Autumn (4)	NOT PRESENT  Last years of the Spring and Autumn
475 - 390 BCE	NOT PRESENT	Early period of the Warring States (5)	Early period of the Warring States (B-6)
390 - 305 BCE	NOT PRESENT	Middle period of the Warring States (6)	Middle period of the Warring States (B-7)
305 - 220 BCE	NOT PRESENT	Late Period of the Warring States (7)	NOT PRESENT



Table 4. Redating of Qufu phases according to Cui's Shandong reperiodization

<i>Rough equivalents to Western calendar</i>	<i>Qufu Report Group A Periods</i>	<i>Cui Lequan's Shandong Reperiodization</i>	<i>Qufu Report Group B Periods</i>
1040 - 950 BCE	Beginning to Early Period of the Western Zhou (A-1)	NOT PRESENT	Early Period of the Western Zhou (B-1)
950 - 860 BCE	Middle period of the Western Zhou (A-2)	NOT PRESENT	Middle period of the Western Zhou (B-2)
860 - 770 BCE	Late period of the Western Zhou (A-3)	Late period of the Western Zhou (to the beginning of the Spring and Autumn) (1)	Late period of the Western Zhou (B-3) Last years of the Western Zhou (B-4)
770 - 670 BCE	Early period of the Spring and Autumn (A-4)	Early period of the Spring and Autumn (2)	NOT PRESENT
670 - 570 BCE	Middle period of the Spring and Autumn (A-5)	Middle period of the Spring and Autumn (3)	NOT PRESENT
570 - 475 BCE	Late period of the Spring and Autumn (A-6)	Late period of the Spring and Autumn (4)	NOT PRESENT
475 - 390 BCE	NOT PRESENT	Early period of the Warring States (5)	Last years of the Spring and Autumn Early period of the Warring States (B-6)
390 - 305 BCE	NOT PRESENT	Middle period of the Warring States (6)	Middle period of the Warring States (B-7)
305 - 220 BCE	NOT PRESENT	Late Period of the Warring States (7)	NOT PRESENT



## CHAPTER I

### SURVEY AND CORE DRILLING OF THE ARCHAEOLOGICAL REMAINS OF LU<sup>50</sup>

#### The cemeteries<sup>51</sup>

[21]<sup>52</sup> Four cemeteries were discovered within the city by means of exploratory drilling. They were generally distributed within the range of slightly more than one third of the western part of Lu city. Cemeteries have not yet been discovered in the eastern half of Lu city.

(1) “*Terrace for Gazing at the Ancestors*” 望父台 (Wangfutai) cemetery : There is a grave mound commonly known as the “Terrace for Gazing at the Ancestors” located to the north of the modern city of Qufu, and to the west of Lindao 林道 (Grove Road) in the Konglin 孔林 (Grove of Confucius). A large number of ancient graves are scattered around the “Ancestral Terrace” (diagram 1). It is about 170 m east of Lindao, on the west about 100 m northeast of Fangshangcun 坊上村 (Above Workshops Village) on the south to the east-west ditch north of Beiguancun 北关村 (Northern Pass Village) north to the southern part of Linqiancun 林前村 (Front of Grove Village). The Ancestral Terrace, 1,200 m east-west by about 1,500 m north-south, is the largest cemetery in the city, and was used over the longest continuous period.

---

<sup>50</sup> This is the title of Part III of the original report which is translated herein.

<sup>51</sup> This is Chapter 5 of Part III of the original report.

<sup>52</sup> The numbers in brackets refer to the page number of the Chinese text being translated. They are placed at the beginning of the first new paragraph on a page (i.e. not mid sentence).

The preliminary excavation has already uncovered one hundred-six graves of various sizes (large, medium, and small). They are distributed mainly in these three locations: (a) the northeast part of Survey Area 17 southeast of the Ancestral Terrace, (b) the area around Yubeiting 御碑亭 (Imperial Stelae Pavilion) and (c) southwest of Linqiancun. Fragmentary indications of burial grounds have been found in other areas.

Comparatively detailed core testing was carried out in the northeast corner of Survey Area 17, and twenty-eight large-to-middle scale tombs and fifty-eight small scale graves were discovered. The small scale graves have already been excavated; except for several Han tombs, most of them were Western Zhou burials (diagram 1). The eight large-to-middle sized tombs which were excavated belong to the Spring and Autumn to Warring States periods (see chapter 3, part 3). Seventeen mid-sized tombs in Survey Area 26 surrounding Lindao and Yubeiting were surveyed, but not yet excavated.

These tombs were all vertical shaft pit graves. The mouths of the grave pits were generally about 0.6 meter below ground level, 5 to 7 meters square, and the graves about 1.5 to 2 meters deep. Remains of shellac and ash from wooden boards were discovered. Some also had bronze shards, bone cowries and biplane shaped bronze arrowheads. These tombs are from the Western Zhou to Spring and Autumn periods.

Four large-scale tombs were discovered southwest of Linqiancun. One of these, grave M14 in Survey Area 26, is located northwest of a water pit. The mouth of the grave was 14 square meters, 1 m below ground level; and 2.2 m from the mouth to the bottom of the grave pit. On the west side of this tomb there was also a grave, 15 m wide east-west, 40 m long north-south. It was probed 2.4 m deep without reaching the bottom of the pit; it appears there are

two graves which cut into each other. There is a large tomb to the north of the water pit which had already been severely disturbed. Before our National Liberation [1949], a large group of Warring States bronze vessels were unearthed from this tomb and the area of the water pit.<sup>53</sup> The water pit was probably originally a tomb; only after it was dug up did it become a water pit.

[22] There seems to be a definite, regular pattern in the arrangement of the large-scale tombs at the Ancestral Terrace cemetery. From the core testing we know that there were at least four rows in a north-south arrangement; the two southern rows belong to the Spring and Autumn period, and the northern rows are from the Warring States period. The numbers of graves vary in each of these rows. The largest number was five graves surveyed in Row Three (counting from the south).

One tomb is at the eastern end of the so-called “Terrace for Gazing at the Ancestors”. According to tradition this was the platform which Bo Qin would ascend to gaze out toward his father, the Duke of Zhou. It is also called “The Terrace of Bo Qin, Duke of Lu,” “Bo Qin’s Tomb,” etc. It is actually a Warring States tomb with a burial mound. Today the remains of the burial mound are no more than six or seven square meters, and a bit more than 2 m high, but according to the test drilling, there is a *hangtu* 夯土 rammed earth foundation which ranges more than 60 m north-south, and about 80 m east-west. Thus it can be seen that the original area of the burial mound was very large. Aside

---

<sup>53</sup> “In 1932 an assemblage of bronze vessels was brought to light at Linqiancun 林前村 south of the so-called Confucian Forest in Qufu. These bronzes have proved to have been cast by Yuan 元, who was Dasitu 大司徒 of Lu, thus suggesting that this place was the site of the Lu capital during the Spring and Autumn period.” Li Xueqin, *Eastern Zhou and Qin Civilizations*. K. C. Chang, trans. New Haven: Yale University Press. 1985. P. 140. Rubbings from these bronze vessels are published in Zeng Yigong, *Shandong Jinwen Jicun*, vol. 1 (1940), no. 15.

from this tomb, the remainder of the large burial mound has completely disappeared.

West of the Ancestral Terrace three large tombs were excavated; Tombs 3, 52, and 58, which are all from the Warring States period.

(2) *Herb Garden Cemetery*: Located in the northeast part of the Herb Garden in the northwest quadrant of the Lu city. The Herb Garden Housing Village is built on top of the southwest section of the cemetery. The tombs and the site ruins lie in an intricately piled-up relationship. Because test drilling was relatively difficult, the scope of the burial area was unclear. Detailed test drilling was carried out only within the small limits of 50 sq m at the northeast corner of the Herb Garden and 30 sq m north of the Herb Garden. A total of forty-four tombs was discovered, and most of them were excavated. The funerary goods within these tombs were sufficient for us to determine the dating of the tombs, which mainly belong to the early Western Zhou period and later Spring and Autumn period. They are all small scale tombs; large and middle sized tombs have not yet been discovered (see chapter 3, section 2).

[23] (3) *Cemetery at the northwest corner of Qufu*: Located in the southwest quadrant of the Lu city, outside the northwest corner of the city wall of Qufu. The location of the cemetery is as follows: its west side is 20 m east of Qu Yao Road 曲姚公路; its south side is about 10 m north of the stream which protects the present day city wall; its north side is south of Shengchandang 生产道 (Production Road) which goes toward Beiguancun; the east side has not yet been surveyed in detail, so its scope is not clear.

At this time detailed test drilling was carried out only in the range of 50-60 m in the western section. Forty-two graves and one horse pit were



discovered. Most of them were small scale burials which were 2 or more meters wide, and 3 or more meters long. There also were several mid-sized tombs which were 3 to 4 m wide, and 4 to 5 m long. All but one of the forty which were excavated had been looted (diagram 3). However, the approximate composition of the pottery assemblages may be ascertained from the fragmentary pottery vessels, which date to early and middle period Spring and Autumn (see chapter 3, section 2).

Not far northeast of the excavation area, a grave was discovered in 1970, from which a set of bronze vessels was unearthed and dated to late period Western Zhou.<sup>54</sup> Therefore the dating of this cemetery may be from the Western Zhou to the Spring and Autumn periods.

(4) *Cock Fighting Terrace Cemetery*: Located in the courtyard of the County Agriculture and Forestry Office, which is in an area southwest of the Lu city. The northern extent of the burial ground is unclear; on its south is the residential area of the Agricultural and Forestry Office north of the plant nursery; on the west it does not go past the west courtyard wall of the County Agriculture and Forestry Office; and its eastern limit is probably in the Donglinxian 东邻县 (Eastern Neighborhood County) seed-station courtyard at the Agricultural and Forestry Office.

A detailed survey was carried out within the Agricultural and Forestry Office courtyard, where forty-nine graves were discovered. Their distribution was especially dense in the northeast, east and southeast parts. Some were also discovered between the office building and the residential area. Twenty-eight

---

<sup>54</sup> Qi Wentao 齐文涛: "Gaishu Shandong jinnian chutu de Shang Zhou qing tongqi" 概述山东近年出土的商周青铜器 ["Summary of Recently Excavated Shang and Zhou Bronze Vessels"], *Wenwu*, 1972: 5 [Note in original text].

of these graves were excavated, but most of them either had no funerary offerings, or they had been looted (diagram 4). Judged on the basis of the graves which did have pottery vessels, their dates were from the early years of the Western Zhou to early period Spring and Autumn (refer to Chapter 3, Part 2).

In addition, in the area about 100 m north-west of Beiguan 北关 (North Gate), we excavated two Eastern Zhou graves which lay side by side (M401, 402). They had already been looted, but we could determine that the pottery *ding* 鼎 which remained was from the late period Spring and Autumn.

Just after Liberation, an early period Western Zhou grave (M501) was discovered when a well was dug in the Flower Garden behind the Confucian Temple (which is located in an area southwest of the Lu city wall). The styles of the assemblage of pottery vessels which were unearthed are identical to the implements which were excavated from the graves of the same time period at the Herb Garden Cemetery (which is located in the area northwest of the Lu city wall).

In 1973 at the tractor station southeast of Beiguancun, at the north bank of the Qufu city moat, a small grave from the early Spring and Autumn period was discovered. There was an inscribed bronze *ding* among the burial objects. From these two previous discoveries, viewed in relation to the placement of the cemetery located at the northwest corner of Qufu (which is located at the southwest corner of the Lu city wall within the city walls of the county seat of Qufu), it is quite likely that a cemetery from the same period exists; however we have not yet carried out detailed exploratory drilling to locate it.



## CHAPTER II

### TEST EXCAVATIONS OF THE GRAVES AT THE CITY OF LU

#### General Outline of the Grave Excavations

[89] Test excavations were carried out at four of the five or six cemetery areas which had been discovered in the western section of the city of Lu. A total of one hundred thirty-seven graves from various eras were excavated. Among those graves which yielded artifacts were fifty-one Western Zhou graves and twenty-eight Eastern Zhou graves. There were also nineteen graves with *yaokeng* 腰坑 waist pits but no artifacts, which may on the whole be assigned to the Western Zhou period. Based on the construction of their coffin chambers and funeral style, the thirty graves which had no burial articles have been determined to be graves from the Liang Zhou (Western and Eastern Zhou periods) Era. There is a total of one hundred thirty-two graves from the Liang Zhou Era. In addition, there are seven Han graves, and one Tang grave. This section gives an introduction to the Liang Zhou Era graves; the Han graves are covered in the next section.<sup>55</sup>

The one hundred twenty-eight Liang Zhou Era graves were found in burial grounds at the Herb Garden, the Cockfighting Terrace, the northeast corner of Qufu city, and the Ancestral Terrace. The thirty-four graves at the Herb Garden burial ground (which were designated M101—139)<sup>56</sup> date from the

---

<sup>55</sup> The Han section has not been translated.

<sup>56</sup> These are the serial numbers from when they were excavated. Graves from later periods are included among them. This numbering system is used throughout the report. [Note in original text]

early years of the Western Zhou to the last years of the Spring and Autumn (diagram 2). The twenty-seven graves at the Cockfighting Terrace burial ground (designated M301—32) date from the early years of the Western Zhou through the Spring and Autumn period (diagram 4). The fourteen graves at the northeast corner of the Qufu city wall (M201—214) are all Spring and Autumn graves (diagram 3). The fifty-one graves at the Ancestral Terrace burial ground (M1—58), date to the Western Zhou and late Spring and Autumn to the Warring States period (diagram 1). Two Eastern Zhou graves (M401 and M402) were excavated northwest of Beiguancun. In addition to the above mentioned graves, a grave was discovered during the early years of the founding of the People's Republic of China when a well was dug at the Flower Garden behind the Confucian Mansion. Although we only have a portion of the pottery *mingqi* 明器 burial offering vessels [originally] placed in the grave, this still may be used as a supplement to the early Western Zhou period graves [we] excavated from the Flower Garden cemetery. Therefore it has been counted among them, and named grave M501. In total there were one hundred twenty-nine graves from the Liang Zhou Era.

Through our survey of the funerary articles and mortuary practices of the Western Zhou graves from these four localities, we have found there are general similarities among the graves excavated from the three cemeteries located at the Herb Garden, the Cockfighting Terrace, and the Confucian Mansion Flower Garden. Clear differences also exist between the Western Zhou graves at these three sites and the Ancestral Terrace. The Western Zhou graves from these four localities clearly belong to two different groups. The funerary articles and mortuary practices of the Spring and Autumn period graves from the northwest corner of Qufu city have an intimate relationship with the Western Zhou graves from the Herb Garden and the Cockfighting Terrace, and

they should be assigned to a “unified system,” which we shall call the Group A graves.

The graves at the Ancestral Terrace from the last years of the Spring and Autumn period to the Warring States period, are similar to the Western Zhou graves from the Ancestral Terrace. Although they are temporally separated from one another by most of the Spring and Autumn period, the styles of all of the implements from these two periods are still identical. Moreover the aforementioned cemetery has graves from the last years of the Spring and Autumn period and the first years of the Warring States, which are similar to the graves of the latter years of the Spring and Autumn from the northwest corner of the present day city. Because the composition of the pottery assemblage and the styles of the vessel shapes found in the Eastern Zhou graves of the Ancestral Terrace are completely different, they are not designated as Group A graves. These graves and the Western Zhou graves from the Ancestral Terrace together constitute a single grave type; because of this, they should be regarded as graves of a particular system, which we call the Group B graves.

Regarding the Eastern Zhou graves from northwest of Beiguancun which had already been looted, except for the two restored pottery *ding* from grave M401, there are no other artifacts, and identification of their types has not been very clear. Pottery *ding* were not otherwise evident in the pottery vessel configurations of the Western Zhou graves at the Ancestral Terrace; therefore they have been temporarily designated as belonging to the Group B graves.

## Group A Burials

### Section One, Shape and Construction of Tombs

#### (1) Grave pits



[90] All seventy-eight Group A graves were rectangular vertical shaft pit graves. The bottom of the deepest grave pit was 3.8 m below the soil surface (M302), and the shallowest was 1 m deep (M202). Calculating their sizes based on the floor of the grave, the largest was M401 (3.58 m long, 2.72 m wide), and the smallest was M126 (1.6 m long, 1 m wide). Most of them were 2.5—3 m or more longer, and 1.4—2 m wide. Forty-six of these graves (59%) had widths at their bottom which were more than half their length. There were sixteen graves whose bottom width was just about half their length (approximately 20%); ten graves had widths less than half their length; the dimensions of the remaining six graves were unclear. Most of the burial chambers of the Spring and Autumn graves are clearly a bit wider.

Among these graves, there are fifty in which the mouth of the grave is the same size as the floor of the grave pit (about two thirds of the tombs). The mouth of the grave was larger than the floor in twenty-six graves (about one third). In one grave the mouth of the grave was smaller than the floor, and in another grave its shape and size was unclear. All of these graves have secondary platform ledges made from disturbed soil. Secondary platform ledges made from undisturbed soil have not yet been encountered. As for the condition of the soil, some of these were rammed solid, while others were not.

*Yaokeng* 腰坑 waist pits were placed in the middle of the floor of twenty-nine graves. These waist pits were dug out in a perfunctory manner: some are rectangular, some are round, and several are oval. A single dog was placed within each of these waist pits.



## (2) Coffins

All the coffins had completely decomposed, so only ash residues of their boards remained in the vicinity of the secondary platform ledge, the four walls, and the bottom of the grave pit. Based on the residual ashy remains of wood planks, we conclude that forty-six graves had an outer and an inner coffin, ten graves had an ordinary inner but no outer-type coffin, and in twenty-two graves the conditions were unclear. Most of the Western Zhou outer coffins were 2 to 2.5 m long, and 1 to 1.5 m wide; most of the Spring and Autumn outer coffins were comparatively longer and wider. Judging from the ash residue of the boards, the two short sides of the outer coffin extended outward, pressing on the two long sides, so that the shape is like . The construction of the inner coffin is opposite to the outer coffin: the longer sides extended outward pressing upon the shorter sides, in the shape of  (diagram 5).

## (3) Mortuary Customs

Some of the skeletons are well preserved, while other skeletons are incomplete, or scattered and in disarray.<sup>57</sup> There are even some graves in which the skeletons are entirely decomposed, and still other tombs that had in the past been looted and the skeletons removed. The arrangement of the skeleton is unclear in nineteen of the graves, while in the remaining fifty-nine graves, fifty-seven are outstretched supine burials, one was outstretched on its side, and one flexed and lying on its side. The outstretched supine

---

<sup>57</sup> Sophisticated physical anthropological or forensic analysis does not appear to have been carried out on the corpses' skeletons. The text is generally limited to noting the location of the skeleton in relation to grave goods, compass orientation, etc.

skeletons had their face either upward or to the left or right. Many had their hands placed on their waist. For the most part, the lower limbs were stretched out straight, while in a small number of cases they were crossed (diagrams 5, 7, 54; photographs 29: 1,3; 30: 4).

Among those graves in which the skeletons were in disarray, a small number had pottery vessels (diagram 6; photograph 1: 2; 2: 1, 2, 4), but the great majority had no funerary goods. When the remnants of some of the inner and outer coffins and grave soil fill were analyzed, no evidence could be seen that the grave had been looted. Therefore we are unable to determine whether they had been looted or that there was another cause for this situation.

In the great majority of the cases (fifty-seven) the head of the corpse was facing south; thirteen faced north, two faced east, and in six cases the position of the head was unclear. In the Western Zhou period burials the heads were facing south, while there were differences within the Eastern Zhou cemeteries. Among the Eastern Zhou graves in the Herb Garden Cemetery the heads were facing south, while in the Eastern Zhou graves in the burial grounds at the northeast corner of Qufu city the heads were all facing north.

[92] In looking at the arrangement of the graves, there are fourteen organized groups of graves (diagram 2, 3, 4). There are eight groups with pairs of graves arranged east-west (M108, 109; 110, 111; 113, 114; 132, 133; 211, 212; 301, 302; 311, 312; 323, 324); three groups of three graves arranged east-west (M121, 122, 123; 204, 205, 206; 319, 321, 325) and three groups of three graves arranged in the shape of the character *pin* 品 (M102, 103, 128; 104, 105, 106; 115, 116, 117).

Graves paired side by side appeared comparatively early; for example the pair M301 and M302 belong to the first years of Western Zhou or even earlier. None of the others have grave goods, so their dating is unclear. However, the three paired sets of M108 and 109, M113 and 114, and M323 and 324, all have waist pits with sacrificial dogs. These may be from the Western

Zhou period, or at the very latest they could be as late as the early Spring and Autumn period.

Among the three sets which consist of three graves arranged side by side, there is a grave (M205) in one of these sets which yielded two *guan* 罐 which belong to the late Western Zhou period. The other two sets lacked pottery, but each of them have a waist pit and sacrificial dog.

Those three sets which are arranged in the shape of 品 all belong to late period Spring and Autumn. In the set comprised of M115, M116, and M117, M115 is on the north side of M116, and is possibly a bit earlier than M116. M117 is on the west side of M116, its grave pit is small and shallow, and lacks grave goods, so the social position of the occupant of the grave was clearly inferior to that of M116 (photograph 3: 3). The graves arranged east-west also have this kind of condition, for example, the set of M121, 122, and 123. M121 is on the east side, and the coffin chamber is also relatively small and shallow. On its western side is M122, which is comparatively large yet shallow, and M123 forms a distinct contrast (photograph 3: 3), and the status of the interred is also different. Those graves which are members of these groups may very well reflect definite relationships of kinship or subordination.

#### (4) Placement of mortuary furnishings

Among the seventy-eight Group A graves, half had mortuary furnishings, and half did not (thirty-nine each). Among those with mortuary offerings, there were thirty-two which had mortuary pottery vessels. Thirteen of them were Western Zhou graves, and nineteen were Spring and Autumn graves. Many of the pottery vessels from these Western Zhou graves were placed between the inner and outer coffins on the outer coffin floor by the side of the corpse's head. Some were placed between the inner and outer coffins by the side of the feet and by the side of the body. Mussel shell ornaments were placed on the chest and on either side of the skeleton



(diagrams 5—9; photographs 1: 1—3; 2: 1, 2). Leg bones and shoulder blades of animals were found at a number of graves, generally placed between the inner and outer coffins on the outer coffin floor by the side of the head; several were placed in the soil fill above the outer coffin. These probably are the remains of sacrifices of meat.

The placement of implements in Group A Spring and Autumn graves is quite different from the pattern shown in the Western Zhou graves. Some pottery vessels were placed between the inner and outer coffins on the outer coffin floor by the head (like M201), some were placed between the inner and outer coffins on the outer coffin floor beside the feet (see photograph 3: 1), some are placed between the inner and outer coffins on the outer coffin floor beside the body (photograph 2: 4), and some are placed on the east secondary ledge beside the top of the outer coffin (such as M202). Some bronze implements were placed along with pottery vessels between the inner and outer coffins placed on the outer coffin floor by the foot (such as M115), some are placed in one corner of the inner coffin near the feet (such as M201), and some are placed on the secondary ledge by the side of the body (such as M202). In the relatively incomplete grave M116, bronze vessels were placed within a subterranean box (photograph 3: 4). That is to say that the inner coffin was divided into two levels: the corpse was placed on the upper level; the lower level had no floor, it covered over the implements placed on the floor of the outer coffin.<sup>58</sup> The inner and outer coffins of M116 had already decomposed; between the floor of the outer coffin and the skeleton there were six bronze vessels: a *ding* 鼎, a *dou* 豆, a *xu* 須 皿 and *yi* 匜 were among them. All the bronze *ge* 戈 were placed between the inner and outer coffins on the floor of

---

<sup>58</sup> At Xinwen County, Shandong, an intact subterranean box from the Spring and Autumn period was discovered, the contents of which are stored at the Shandong Cultural Artifacts and Archaeological Research Laboratory. [Note in original text]



the outer coffin by the side of the body. The chariot horses' implements were placed on the top of the outer coffin; the stone *g e* and stone *g u i* 圭 tablets were placed on top of the inner or the outer coffins.

#### (5) Sacrificial victims

A sacrificial victim was discovered in one grave (M 202). Placed on the north secondary platform, it lay outstretched with the head to the east and the feet to the west (the skull had already been unearthed and removed by a commune member doing some excavation). Due to the coffin chamber having caved in, the left leg was hanging down in the area above the outer coffin wall. It is possible that the corpse was placed there after he died; there are neither funerary vessels nor mortuary goods (photograph 3: 2).

#### (6) Sacrificial dogs

There were twenty-nine graves in which dogs were buried with their masters. In each case there was one dog in each grave, buried within a waist pit. In nineteen of the graves the dog's head faces south, in four they face north, in two they face east, and the direction is unclear in the remaining four. Some of the dogs' skeletons are large and sturdy, while others are very tiny skeletons of puppies (photograph 1: 4)

### Section Two, Funeral Goods

[95] The funeral goods include pottery, bronze ware, stone tools, shell implements, etc. Pottery vessels were dominant; there were very few implements made of other materials.

## (1) Pottery<sup>59</sup>

A total of one hundred sixty-five pieces of pottery vessels were unearthed from the thirty-two graves which yielded funerary pottery vessels. The great majority of them were *mingqi* 明器 “burial offering vessels”. The dominant pottery manufacturing technique was wheel turning. These pottery vessels were manufactured in a very standardized fashion; many of the molds are exquisite. A portion of the vessels are decorated with a ceramic slip coat. Most of the vessels are polished. All the utilitarian *li* 鬲 are impressed with cord marks. Many of the vessels from the late period Spring and Autumn are decorated with colored patterns. There are fifteen kinds of vessel forms: *li*, *gui* 簋, flat bottomed *guan* 罐, round bottomed *guan*, *lei* 罍, *dou* 豆, lidded *dou*, flat bottomed *hu* 壶, ornately lidded *hu* 华盖壶, *bo* 钵, *zun* 尊, *yu* 盂, *ding* 鼎, *bian* 筵, and *zhi* 卮.

(A) Pottery *li*: Twenty-six pieces (three were smashed so badly that their original shape could not be determined), divided into ten style types:

[96] Type I: The four pieces which came out of M120 are all *mingqi* burial offering vessels. The rim turns back nearly flat. The belly is relatively vertical. The crotch<sup>60</sup> is relatively flat. The pouch shapes are actually just feet<sup>61</sup>. The lip has a line of concave bowstring marks. Some *li* also have concave bowstring marks on the outer edge of the mouth rim. The belly is

---

<sup>59</sup> A brief introduction to the vessel types and manufacturing methods of Neolithic, Shang and Zhou pottery can be found in the first eighteen pages of *Chinese Pottery and Porcelain*. See Li Zhiyan and Cheng Wen, *Chinese Pottery and Porcelain* (Traditional Chinese Art and Culture). Beijing: Foreign Languages Press, 1984.

<sup>60</sup> The place where the legs or “feet” meet the underside of the vessel. This term is particularly appropriate in the case of the *li* vessel, which is (or was originally) three pouch-like vessels fused together.

crotch. The vessel has a flat, square shape; its method of manufacture is coarse and crude. Specimen M120: 3 is a gray-brown paste texture pottery (photograph 5: 1). The three feet of specimen M120: 15 are extremely crude and uneven in their workmanship. Patterns were daubed on its belly. This vessel is 9.9 cm tall and 13.3 cm in mouth diameter (diagram 10: 1; photograph 5: 2).

Type II: The three vessels which came out of M501 are all *mingqi* burial offering vessels. Sloped rim on which there is a finger pressed shallow groove. The squared lip is relatively thick. The belly bulges slightly. It is relatively flat where the legs join together. The three legs are shaped like nipples. The vessel is flat or square in shape. Specimen M501: 1 is a yellow-brown paste texture pottery vessel. Its entire body was polished. The vessel is 8.8 cm tall, and 13.6 cm in mouth diameter (diagram 10: 2; photograph 5: 3).

Type III: The four pieces which came out of M107 are all *mingqi* burial offering vessels. Angular rim, thin and rounded lip. Flat crotch; the three nipple shaped feet are fairly tall. There is a thin convex ridge on the mouth, and either finger pressed shallow grooves or *wawen* roof tile patterns<sup>62</sup> on the rim.

The rim surface of specimen M107: 5 is decorated with roof tile patterns. There are concave grooves on the neck and belly. This vessel is a red-brown paste texture pottery (diagram 40: 3; photograph 5: 4).

---

<sup>61</sup> As the previous footnote mentioned, *li* originally were three pouch-like vessels fused into one, presumably for greater efficiency in heating liquids by having a fire or coals beneath the vessel. In this case, the *li* has “evolved,” becoming rather similar to a *ding* (which has solid legs attached to a spherical pot), although residual depressions in the three corners remain.

<sup>62</sup> *Wawen* refers to the sine wave-like profile of the traditional Chinese tile roof. Also known as “hill-and-valley” grooves or patterns.

Specimen 107: 11, a gray paste texture pottery, has a rounded neck which is concave inside (photograph 5: 5).

Type IV: One *mingqi* vessel (M310: 9). The corners of the mouth are curved. There are shallow finger-pressed grooves on the outer edge of the mouth and rim. The lip is flat. The legs converge into the crotch. The feet are tapered. The vessel is decorated with fine cord marks. This gray sand tempered pottery vessel is 7.8 cm tall, 10.2 cm in mouth diameter (diagram 10: 4).

Type V: One vessel (M310: 1). Angular rim, rounded lip, shoulders decorated with a beaded strip. The crotch converges somewhat high. The feet are hollow and tapered. The entire vessel is impressed with coarse cord marks. This red-brown sand tempered ceramic vessel is 13.1 cm tall, 16.3 cm in mouth diameter (diagram 10: 5; photograph 5: 6).

Type VI: One vessel (M310: 2). Contracted mouth, rim bent back almost horizontal. Angular lip, constricted neck. The hollow pointed legs are spread outward slightly. The crotch is relatively short. The vessel is decorated with medium cord marks. The shoulders have light marks from wiping. This gray sand tempered pottery vessel is 11.9 cm tall and 14.8 cm in mouth diameter (diagram 10: 6; photograph 6: 1).

Type VII: One vessel (M328: 1). Contracted mouth, rim bent nearly flat. The lip, neck, and feet are all rounded. The crotch is fairly flat. There is a tool impressed concave groove on the rim. The neck is polished, the belly decorated with medium sized cord marks. A gray-brown sand tempered pottery vessel, 18.2 cm tall, 18.4 cm mouth diameter (diagram 10: 7; photograph 6: 3).

Type VIII: Two vessels. The mouth is somewhat open, the rim narrow and flat. There is a line of bowstring patterns on the rim. The neck is short, and the vessel has shoulders. The crotch is nearly flat. The neck and shoulders are polished. The belly is decorated with coarse cord marks. Specimen M202: 1



is a gray sand tempered pottery vessel, 15.6 cm tall and 10.8 cm in mouth diameter (diagram 10: 8; photograph 6: 2).

Type IX: Four vessels. Contracted mouth, the rim tilts downward. The neck is short, and the vessel has shoulders. The crotch is nearly flat, and the three feet are somewhat restrained, nearly disappearing. The neck is pressed flat. The entire vessel is decorated with fairly shallow medium cord marks. An inner mold was used in the manufacturing process. There are thin vertical cord marks on the inner wall of the vessel. Specimen M207: 1 is a red-brown sand tempered pottery vessel, 15.6 cm tall, and 17.8 cm in mouth diameter (diagram 10: 9; photograph 6: 4).

Type X: Two vessels: Contracted mouth, sloped rim, rounded lip, flat crotch. The three feet are short and shaped like nipples. The vessel is square shaped. The belly of Specimen M209: 1 is decorated with fairly shallow medium cord marks. There are messy hand made marks dug into the base. It is a red sand tempered pottery, with a ceramic slip (diagram 10: 10; photograph 6: 4).

(B) *Gui*: Thirty items, divided into four types:

Type I: Four vessels; all are *mingqi* excavated from grave M120. Open mouth, on which there is a projecting ridge. The vessel has a short ring foot which spreads outward. There are slight projecting ridges on some of the ring feet. Specimen M120: 11 is a gray brown paste texture pottery, parts of which are gray-black. The vessel is 8.8 cm tall, 16.4 cm in mouth diameter (diagram 11: 1; photograph 7: 1).

[98] Type II: Four vessels, shaped like ring footed *dou*. The rim is tilted, or bent back almost flat. The lip is rounded. The raised ring foot is even taller. The bottom of the bowl of Specimen M501: 3 is relatively flat. The mouth and rim and the walls of the bowl are decorated with concave bowstring patterns. The vessel is a plain surfaced yellow-gray paste texture pottery,

11.6 cm tall, 17.2 cm in mouth diameter (diagram 11: 3; photograph 7: 2). The bottom of the bowl of Specimen M501: 7 is curved and relatively deep. There are finger pressed concave marks on the mouth and rim area, and cord marks where the walls of the bowl curve down toward the stem. It is a gray-yellow paste texture pottery vessel, 14 cm tall, 19.6 cm mouth diameter (diagram 11: 2).

Type III: Four vessels, excavated from grave M107. The rim flares outward. Rounded lip, bent belly. The base is curved, and the ring foot is fairly tall. Specimen M107: 14 is a green-gray sand tempered pottery vessel, 11.8 cm tall, 17.2 cm mouth diameter (diagram 11: 4; photograph 7: 3).

Type IV: Four vessels. The mouth is somewhat contracted, while the rim is wide and bent back. The bottom of the belly bulges slightly. The base is comparatively flat. The vessel has a lid. The entire body of specimen M211: 3 is polished; a black paste texture pottery vessel (red-brown in color where incompletely fired); 16 cm mouth diameter; full height 22.4 cm (diagram 11: 5; photograph 7: 4).

Type V: Two vessels. Straight mouth, on which there is a projecting ridge. Broad rim which turns back; the outer part of the rim bends upward. The bottom [of the basin] is relatively flat. Tall ring foot. The pedal disk is comparatively large. The vessel has a lid. There is a concave bowstring pattern encircling the lower part of Specimen M207: 4. The entire vessel is polished. It is made of a gray paste texture pottery; 27.2 cm tall, 18.8 cm mouth diameter (diagram 11: 6; photograph 7: 5).

Type VI: Seven vessels. There is a projecting ridge on the mouth, the broad rim is turned back. There are faint roof tile patterns on the rim. Deep belly. The bottom part of the belly gathers in slightly. The base is relatively flat. Tall ring foot. The entire body of Specimen M209: 2 is polished. Gray paste texture pottery (diagram 11: 7; photograph 8: 1).

Type VII: Two vessels. Broad rim, deep belly, relatively straight belly walls. Relatively flat basin. Ring foot. The vessel shape is rather plump. There are two lines of concave grooves on the outer parts of the mouth and rim. Round ringed subtle patterns decorate the upper rim. There is a projecting ridge on the handle. The entire vessel is polished. Made of gray paste texture pottery, the vessel is 17 cm tall and 19.6 cm in mouth diameter (diagram 11: 8; photograph 8: 3). The ring foot pedal disk of specimen M213: 15 is relatively flat (photograph 8: 2).

Type VIII: Three vessels. Round lip, angular shoulders, the interior of the lower part of the belly is tapered. Short ring foot. Decorated lid. Gray paste texture pottery. The entire vessel is decorated with colored patterns. Specimen M116: 2 is 20.8 tall, 12.8 cm mouth diameter (diagram 11: 9; photograph 8: 4,5).

[99] (C) Round bottomed *guan*: Seventeen vessels, divided into four types:

Type I: Four vessels. Flared mouth, angular shoulders, turned back belly. The rounded base is concave. There is a line of concave bowstring patterns on the lip. The shoulders are polished. The bottom of the belly is decorated with cord marks. The vessels are all gray-black paste texture pottery. Specimen M120: 2 is 14 cm tall, 12.7 cm mouth diameter (diagram 12: 1; photograph 9: 1).

Type II: One vessel (M310: 5). The mouth flares outward, angular shoulders, turned back belly. The rounded base is concave. There is a line of concave bowstring patterns on the lip. Polished shoulders. The belly is decorated with cord marks. The gray paste texture vessel is 16.8 cm tall, and 16.3 cm in mouth diameter (diagram 12: 2; photograph 9: 2).

Type III: One vessel (M119: 3). The mouth flares outward, inclined lip, bulging shoulders, restrained belly. The curved base is concave. The mouth and shoulders are polished. There are remnants of cord marks daubed on the

belly. The gray-brown paste texture vessel is 14.3 cm tall, 12.4 cm mouth diameter (diagram 12: 3; photograph 9: 3).

Type IV: One vessel (M131: 1). Flat rim, square lip, the mouth is turned back in an arc-shape. The neck is restricted, the shoulders buckle back, round base, polished shoulders. Thin cord marks decorate the belly. Gray-brown paste texture pottery vessel; 16 cm tall, 13 cm mouth diameter (diagram 54: 4; photograph 9: 4).

(D) Flat bottomed *guan*: Thirty-five vessels, divided into thirteen categories:

Type I: One vessel (M501: 4). Contracted mouth, curved neck, bulging belly, flat bottom. Two lines of concave bowstring patterns decorate the shoulders. There is a concave groove on the belly, and paring marks near the bottom section. The vessel is covered with a ceramic slip, on a gray-yellow paste texture pottery vessel; 10.6 cm tall and 10.4 cm mouth diameter (diagram 13: 1; photograph 9: 5).

[100] Type II-A: Four vessels, excavated from grave M107. Contracted mouth, thin rounded lip, curved neck, bent back shoulders. The base is flat yet slightly concave. The greatest diameter is located where the shoulders and belly converge. Specimen M107: 9 is a smooth surfaced, gray paste texture pottery vessel; 10.4 cm tall, 9.2 cm mouth diameter (photograph 9: 6).

Type II-B: One vessel (M107: 17), which was unearthed with the Type II-A vessels. Straight mouth, thin round lip, curved neck, rounded shoulders. The base is flat yet slightly concave. There is a line of concave bowstring pattern on the mouth. A plain surfaced gray-black paste texture pottery vessel; 10.3 cm tall and 9.2 cm mouth diameter (diagram 13: 2; photograph 9: 7).

Type III: One vessel (M124: 3). Outward flaring mouth, shallow groove on the rim, rounded lip, curved neck, restrained belly. The base is small and flat



yet slightly concave. Covered with a ceramic slip, the entire vessel is polished. A gray sand tempered pottery vessel; 9.5 cm tall, 8.4 cm mouth diameter (diagram 13: 3; photograph 10: 1).

Type IV-A: Six vessels. Flared mouth, rounded lip, curved neck, bent back shoulders, flat base. The entire vessel is polished, and made of a black paste texture pottery. Specimen M328: 4 is 10.8 cm tall, and 10.1 cm in mouth diameter (diagram 13: 4; photograph 10: 2).

Type IV-B: Two vessels. Basically identical to Type IV-A, but the neck is curved and relatively short, the shoulders rather sloped, and the base is flat yet slightly concave. Specimen M205: 1 is a black paste texture pottery vessel 10.8 cm tall and 9.6 cm in mouth diameter (diagram 13: 5; photograph 10: 3).

Type V-A: One vessel (M201: 18). The mouth and rim flare outward, rounded lip, constricted neck, the turned back shoulders are rather flat, the base is flat yet somewhat concave. Coated with a ceramic slip, the entire body is polished. Made of a gray paste texture pottery, parts of which are black in color, the vessel is 8 cm tall and 10 cm in mouth diameter (diagram 13: 6; photograph 10: 4).

Type V-B: Two vessels. Similar to Type V-A, but the shoulders are comparatively broad, yet short; the base is flat. A gray paste texture pottery, the entire body is polished, and covered with a ceramic slip. The vessels were made with great precision. Specimen M201: 15 is 7.4 cm tall, and 10.4 cm in mouth diameter (diagram 13: 7; photograph 10: 5).

Type V-C: One vessel (M201: 16). Contracted mouth, constricted neck, bent shoulders, ring foot. There is a shallow concave groove on the mouth; the shoulders are decorated with shallow roof tile patterns. This gray paste texture pottery, covered by a ceramic slip, was manufactured with great precision.

The vessel is 7.6 cm tall and 11.5 cm in mouth diameter (diagram 13: 8; photograph 10: 6).

Type VI: Two vessels. The mouth bends back in an arc, sloped rim, curved neck; the base is flat yet slightly concave. There is a shallow concave groove on the rim. There is a line of concave bowstring patterns decorating the lip. There are paring marks on the lower part of the belly. Gray paste texture pottery covered with a ceramic slip. Specimen M201: 13 is 8.4 cm tall, 7.5 cm mouth diameter (diagram 13: 9; photograph 11: 1).

Type VII: Two vessels. Flared mouth, rounded lip and neck, bent shoulders. The belly is fairly deep. The base is flat yet slightly concave. The entire body is polished. Gray paste texture pottery. Specimen M203: 5 is 12 cm tall and 9.4 cm in mouth diameter (photograph 11: 2).

Type VIII: One vessel (M203: 3). Flared mouth. square lip, curved neck, round shoulders, flat base. There is a line of convex bowstring pattern on the lower edge of the lip. The belly is circumscribed with several lines of impressed patterns. The entire body is polished. The method of manufacture was well planned and executed. This gray paste texture pottery vessel is 12.8 cm tall, 10.8 cm mouth diameter (photograph 11: 3).

Type IX: Three vessels. Flared mouth, curved neck, rounded shoulder. The lower belly gathers in slightly. Rounded bottom. There are concentric circular patterns on the shoulder and belly. Specimen M115: 7 is a red paste texture pottery 10.2 cm tall, 7.2 cm mouth diameter, (photograph 11: 4).

Type X: Four vessels. Wide open mouth, sloped rim, round neck. The shoulders are relatively flat. The base is flat but slightly concave. Specimen M116: 22 is a polished black paste texture pottery vessel; 8.6 cm tall, 8 cm mouth diameter (diagram 13: 10; photograph 11: 5).

Type XI: Two vessels. Turned back rim, rounded lip and shoulders, ring foot base, gray paste texture pottery. The entire vessel is polished. Specimen M104: 4 is 9.1 cm tall and 8.8 cm mouth diameter (photograph 11: 6).

[101] Type XII: One vessel (M105: 3). The mouth is somewhat broad, the rounded neck is relatively tall. Rounded shoulders, gathered- belly, a small flat base. Gray paste texture pottery, entire vessel polished, the vessel is 8 cm tall, 7.2 cm mouth diameter (photograph 11: 7).

Type XIII: Two vessels. Wide mouth, sloped lip, rounded neck, flat base (slightly concave). There are finger pressed concave pits and traces of paring on the bottom part of the belly of Specimen M105: 1. It is a gray paste texture pottery vessel, 9 cm tall, 7.9 cm mouth diameter (photograph 11: 8).

(E) Pottery *lei*: Thirteen vessels, divided into ten types:

Type I: One vessel (M120: 9). Large mouth, sloped rim, the shoulders bulge in a convex form, the belly gathers in, small round bottom. There are convex bowstring patterns on the mouth. There is a concave groove on the belly. The shallow gray paste texture pottery vessel is 8.8 cm tall, 10 cm mouth diameter (diagram 14: 1; photograph 12: 1).

[102] Type II: One vessel (M138: 2). Flared mouth, the lip and rim are relatively thin, the rounded neck is comparatively tall, broad shoulders, the lower part of the belly draws back [shrinks] to a small ring foot base. The entire vessel is polished. Traces of cord marks are faintly visible on part of the belly. This light gray-yellow paste texture pottery vessel was manufactured with meticulous precision; it is 16 cm tall, 15 cm mouth diameter (diagram 14: 2; photograph 12: 2).

Type III: One vessel (M119: 4). Flared mouth, small rounded lip, rounded neck, turned back shoulders, gathered-in belly, a flat base which is slightly concave. The mouth and shoulders are polished, the belly is wiped flat, traces

of cord marks remain on the base. This light gray sand tempered pottery vessel was manufactured with meticulous precision; it is 15.3 cm tall, 12.5 cm mouth diameter (diagram 14: 3; photograph 12: 3).

Type IV: One vessel (M113: 1). Flared mouth, rounded lip, restricted neck, turned-back shoulders, flat base. Plain surfaced, gray-black paste texture pottery, 11.5 cm tall, 9.6 cm mouth diameter (photograph 12: 4).

Type V: Two vessels. This vessel form is similar to Type II, but the shoulders are even broader, the bottom part of the belly gathers in slightly, the base is flat, the entire vessel is polished, a black paste texture pottery. Specimen M210: 14 is 13.2 cm tall, 9.6 cm mouth diameter (photograph 12: 5).

Type VI: One vessel (M305: 1). Flared mouth, rounded lip, rounded neck which is relatively tall, shoulders bent back almost flat, the lower portion of the belly is somewhat gathered in, flat base. There is a shallow concave groove on the upper part of the belly. The entire vessel is polished. This black paste texture pottery vessel is 11.2 cm tall, 10.7 cm mouth diameter (diagram 14: 4; photograph 12: 6).

Type VII: Three vessels. Flared mouth, bulging shoulders, gathered-in belly, small ring foot base, with a lid. The lid is similar to those of Type IX, which are all damaged and incomplete. There are circular subtle patterns on the shoulder of Specimen M207: 5. The entire vessel is polished, a black paste texture pottery. The vessel is 10.4 cm tall, 10.2 cm mouth diameter (diagram 14: 5; photograph 13: 1).

Type VIII: Two vessels. The mouth flares outward, rounded neck, rounded shoulders, ring foot base, gray-black paste texture pottery. Specimen M210: 1 is 11.1 cm tall, 10.1 cm mouth diameter (photograph 13: 2).

Type IX: Two vessels, excavated from M202. Straight mouth, rim bent back almost flat, rounded lip, short round neck, broad shoulders which are



relatively flat, gathered-in belly, small ring foot base. There is a lid; its rim transitions to a pointed edge. The entire body is polished. There are concentric subtle patterns on the belly. The vessel is black paste texture pottery.

Specimen M202: 3 is 27.2 cm tall, 14 cm mouth diameter (diagram 14: 7; photograph 13: 3, 4).

Type X: Two vessels, excavated from M209. The vessel form is similar to Type IX, but the shoulders are comparatively sloped, the ring foot is relatively small, the lid rim transitions into an arc. The entire vessel is polished, and the vessel is a black paste texture pottery. Specimen M209: 11 is 23.8 cm tall, 12 cm mouth diameter (diagram 14: 6; photograph 13: 5).

(F) Pottery *hu* with decorated lid: Five, divided into three types:

Type I: Two vessels. The mouth is somewhat open, the neck relatively long, bulging belly, short ring foot. The lid is shaped like a flower petal. The entire vessel is polished, and decorated with concentric subtle patterns. Gray paste texture pottery vessel, covered with colored drawings (which have already peeled off). Specimen M115: 5 has a total height of 41.8 cm, the diameter of the mouth is 14.8 cm; the maximum diameter of the belly is 26 cm (diagram 15: 1; photograph 16: 1).

Type II: One vessel. The mouth is somewhat open, the neck relatively short, bulging belly, the ring foot is relatively tall. The lid is shaped like a flower petal. The entire vessel is decorated with concentric subtle patterns, and colored drawings, and line decorations which imitate those on bronze vessels. This gray paste texture pottery vessel is 40 cm tall, the diameter of the mouth is 14.3 cm; the maximum diameter of the belly is 24.4 cm (diagram 15: 2; photograph 16: 2).

Type III: Two vessels. Unrestrained mouth, the neck is thin and long, the bottom part of the belly changes into a round globe-shape. The ring foot is

fairly tall. The lid is shaped like a flower petal. The entire vessel is decorated with concentric subtle patterns, and covered with colored drawings (which have already peeled off and are unclear). The vessel is a gray paste texture pottery. Specimen M104: 8 has a total height of 47.2 cm, the diameter of the mouth is 18.4 cm, and the maximum diameter of the belly is 22 cm (diagram 15: 3; photograph 16: 3).

[104] (G) Pottery *dou*: Fifteen vessels, divided into nine types:

Type I: Four vessels, excavated from M120, all of which are *mingqi*. Square lip. The outer wall of the dish makes a transition into an edge or rounded corner. The inner floor of the dish is curved (some are relatively flat). There are traces of paring on the exterior of the base. Short ring foot. Coarse method of manufacture. Specimen M120: 6 is a gray paste texture pottery vessel, 6 cm tall, the diameter of the mouth is 11.2 cm (diagram 16: 1; photograph 14: 1).

Type II: Two vessels. Shallow bowl, square lip, the inner and outer walls of the bowl make a transition into an arc. The outer wall of the bowl is decorated with two lines of concave bowstring patterns. Short ring foot. Gray-yellow paste texture pottery. Specimen M501: 5 is 8 cm tall, 12.4 cm mouth diameter (diagram 16: 2; photograph 14: 3).

Type III-A: One vessel (M501: 10). Shallow bowl, square lip, there is no obvious transition point between its inner and outer walls. The outer wall is decorated with a line of concave bowstring patterns, short ring foot, gray-yellow paste texture pottery, 7.8 cm tall, 12.8 cm mouth diameter (diagram 16: 3; photograph 14: 3).

Type III-B: Four vessels, excavated from M107. Shallow bowl, square lip, convex ridge on the mouth, the floor of the bowl is curved. The outer wall is decorated with a line of coarse concave bowstring patterns. The ring foot is

taller than Type III-A. Gray-yellow paste texture pottery. Specimen M107: 13 is 9.6 cm tall, 14 cm mouth diameter (diagram 16: 4; photograph 14: 4).

Type IV: Two vessels, excavated from M124. Shallow bowl, lip slants outward. There is a transition point in the inner wall of the bowl, and a tool-impressed square groove on the outer wall. The trumpet bell shaped ring foot is comparatively tall. Its upper section is fairly thin; it has a convex ridge around its circumference, and its methods of manufacture is exquisite. Specimen M124: 2 is a light gray paste texture pottery. Its kaolin clay has been washed, the vessel is covered with a ceramic slip, and polished. The vessel is 10.4 cm tall, and 16 cm mouth diameter (diagram 16: 5; photograph 14: 5).

[105] Type V: Two vessels, excavated from M119. Shallow bowl, square lip, a convex ridge on the mouth. The exterior and interior walls of the bowl have a distinct transition angle. There is an impressed concave groove made by a square shaped tool on the outer wall. A bugle mouth shaped ring feet, and a fairly large pedal disk. The upper part is relatively thin, and shaped like a bamboo joint. Covered with a ceramic slip, the entire vessel is polished. A paste texture gray pottery (a prewashed kaolin clay), meticulously manufactured. Specimen M119: 2 is 10.8 cm tall, 15.6 cm mouth diameter (diagram 16: 6; photograph 14: 6).

Type VI: Four vessels, excavated from M320. The bowl of these *dou* are shaped like a shallow *bo* bowl. The rim pulls slightly into the mouth, and there is a convex ridge on the rim. There are hand daubed concave marks on the outer edge around the area of the mouth. The upper section of the ring foot is thicker. The foot of the vessel is relatively flat. The differences between the upper and lower parts of the stem are not great. There is a vague convex ridge around the circumference of the upper part of the handle. Specimen M320: 6 is a polished gray-brown paste texture pottery, part of which is

red-brown. It is 10.7 cm tall, 16.4 cm mouth diameter (diagram 16: 7; photograph 15: 1).

Type VII: One vessel (M316: 1). Rounded lip, straight relatively thick walls. The transition area between the inner and outer walls is curved. The base is relatively flat, the stem handle of the *dou* is taller. The foot and bowl are decorated with shallow roof tile patterns. Two lines of convex bowstring patterns decorate the outer wall of the *dou* bowl. Paste texture black pottery, 12.4 cm tall, 17.2 cm mouth diameter (diagram 16: 8; photograph 15: 2).

Type VIII: Two vessels. The *dou*'s bowl is relatively deep, with a rounded lip. The bowl walls are relatively thin; the outer wall is slightly concave, with an edged transition area. The inner wall transitions to an arc shape. The base of the *dou* is relatively small, and the stem is relatively thin. Polished paste texture gray pottery. Specimen M211: 1 is 11.2 cm tall, 15.6 cm mouth diameter (diagram 16: 9; photograph 15: 3).

Type IX: Three vessels. Rounded lip, straight wall. The base is relatively flat, the outer wall transitions to an edge. A refined, tall stem, with two lines of convex ridges on its upper portion. Polished paste texture gray pottery. Specimen M207: 2 is 16.6 cm tall, 16.8 cm mouth diameter (photograph 15: 4).

(H) Pottery *dou* with lid: Nine vessels, divided in five types:

Type I: One vessel (M213: 1). The mouth of the *dou* bowl has a rim which interlocks with its lid. The shoulders bulge, and there is a ring foot. The top of the lid is relatively flat. The round shaped handles are fairly small yet tall. The transition area of the lid and rim comes to an edge. A paste texture gray pottery, a part of which is black; it had been polished, and covered with color painting (which has peeled off). The vessel is 28 cm tall, and the bowl is 19.3 cm wide (diagram 17: 1; photograph 16: 4).



Type II: Two vessels. The bowl of the *dou* has a rim which interlocks with its cover. The base is relatively flat. The top of the cover is relatively tall. The handle is relatively large, and made with a squared lip. The cover and rim come to an arc shaped transition point. A polished, paste texture gray pottery, with colored drawings which have peeled and are indistinct. Specimen M115: 3 is 24.8 cm tall, the bowl of the *dou* is 17.2 cm wide (diagram 17: 2; photograph 17: 1).

Type III: Two vessels. This vessel form is basically identical to Type II but the knob on the cover is relatively large, and the lip is rounded. The *dou* stem is relatively tall yet thin. The *zuopan* 座盤 pedestal is relatively thin, and the bottom of the base is relatively flat. The bowl and cover are relatively shallow yet flat. The entire vessel is polished, and was decorated with colored drawings (most of which have already peeled off and are unclear). A paste texture gray pottery. Specimen M111: 2 is 29.6 cm tall, and the bowl of the *dou* is 18.9 cm wide (diagram 17: 5). M110: 2 is 26.4 cm tall, its bowl is 17.7 cm wide (diagram 17: 4; photograph 17: 2).

Type IV: Two vessels. This form is relatively small. The bottom of the bowl is relatively flat. The cover is the same as Type III. The stem of the *dou* is relatively short, the attic base is relatively tall. The entire vessel is polished, and decorated with colored drawings. The belly is decorated with a band of simplified animal<sup>63</sup> patterns, and the base is decorated with cirrus cloud patterns and belt patterns. The cover is decorated with subtle concentric circle patterns, and color patterns which have peeled and are unclear. A paste

---

<sup>63</sup> *Shou* 兽 indicates “beast” or “wild animal,” rather than a domesticated animal. I have used “animal” throughout my translation.

texture gray pottery. Specimen M226: 20 is 22.6 cm tall, the bowl of the *dou* is 15.9 cm wide (diagram 17: 3; photograph 17: 3).

Type V: Two vessels. This form is relatively large, the cover and basin are similar to Type III. The base of the *dou* is relatively short, and the *dou* handle is relatively thick, the base of the bowl is relatively large. A gray paste texture pottery, polished. It is decorated with subtle concentric circle patterns, and colored patterns which have peeled and are unclear. Specimen M104: 2 is 26.4 cm tall, the bowl of the *dou* is 18.8 cm wide (photograph 17: 4).

[107] (I) Pottery *yu*: Four vessels, divided into three types:

Type I: One vessel (M310: 11). Wide, sloped rim, rounded lip, gathered in belly, flat base. There are convex bowstring patterns on the outer edge of the mouth and rim, the shoulder, and the belly. There is an indistinct convex ridge on the shoulder. The entire vessel is polished. It is made of a paste texture gray black pottery, parts of which are red-brown or gray-brown in color; prewashed kaolin clay. The vessel is 15.6 cm tall, 25.6 cm mouth diameter (diagram 18: 1; photograph 15: 5).

Type II: One vessel (M320: 1). The mouth is slightly contracted, with an sloped rim, rounded lip, and rounded neck. The belly bulges slightly, and the base is flat. The shoulder is decorated with roof tile patterns. There are paring marks on the belly. Light gray paste texture pottery (pewashed kaolin clay); the entire vessel is polished. The vessel is 9.8 cm tall, 15.2 cm mouth diameter (diagram 18: 2; photograph 15: 6).

Type III: Two vessels. Contracted mouth, rim bent back straight, rounded lip, flat base. The shoulder is decorated with roof tile patterns. There are irregular convex bowstring patterns on the belly. The entire vessel is polished. Decorated with colored patterns, the shoulder's decorative patterns are indistinct. The belly is decorated with triangular cloud patterns. Gray paste

texture pottery. Specimen M202: 2 is 16.1 cm tall, 22.8 cm mouth diameter (diagram 18: 3; photograph 18: 1).

1) Pottery *bian* 筵: One vessel (M226: 17). Straight mouth, turned-back flat rim, flat base, tall ring foot, ornate lid. Decorated with color drawings (the decorative patterns on the lid handle are unclear). The vessel is 26.4 cm tall, the bowl is 18.4 cm wide (diagram 18: 5; photograph 18: 2).

(K) Pottery *zun*: One vessel (M116: 17). Straight mouth, Turned-over mouth, thin rounded lip, rounded neck, bent shoulder. Small round base with an inward concave turn. Gray paste texture pottery, polished (diagram 18: 4; photograph 18: 4).

(L) Pottery *bo*: One vessel (M310: 1). Rim bent back nearly flat, deep belly, round base with an inward concave turn. There is a finger impressed concave groove on the outer edge of the rim surface. There is a line of vague concave bowstring pattern in the area of the mouth and lip. The neck is slightly concave, with remnants of cord mark impressions. There are finger impressed concave depressions on the inner wall just below the mouth. The vessel is decorated with medium cord marks. Gray yellow paste texture pottery, reddish brown inside (diagram 18: 6; photograph 18: 3).

(M) Pottery *zhi*: One vessel (M104: 11). Shaped like a round bamboo tube, with a flat base, and three small feet. The upper part of the feet are decorated with animal faces. There are three knobs on the lid. Gray paste texture pottery, decorated with color drawings (already peeled off) (diagram 18: 7; photograph 18: 5).

(N) Pottery *ding*: Three vessels. Straight mouth, flat rim, squared lip. Upright ear handles, shallow belly. The base is nearly flat, with three animal hove shaped feet, the upper parts of which are decorated with animals' faces. The belly is decorated with four strips of vertical ridges; two sides of the

vertical strips are each decorated with two staffs of nipple-like knobs.

Specimen M401: 1 is 32 cm tall, mouth diameter 24 cm (photograph 18: 6).

## (2) Bronze Implements

There were eight different kinds of bronze burial offering implements from the Group A burials; a total of twenty-two bronze vessels were excavated. There were seven kinds of vessels: *ding*, *pen*, *xu*, *pan*, *yi*, lidded *dou*, and *zhou*. In addition there were a small number of weapons and chariot fittings.

(A) Bronze *ding*: Four vessels, divided into two types:

Type I: One vessel (M201: 1). Flared mouth, bent rim, shallow belly, upright ears handles which spread outward, half-tube shaped hoof feet. A ring of thunder patterns circumscribe the belly. The total height of the vessel is 24 cm, the diameter of the mouth is 27 cm, and the belly is 9.5 cm deep (photograph 19: 1).

Type II: One vessel (M116: 4). The "composite" mouth (which is mated to a lid) is somewhat contracted, with ears attached below the rim. Deep belly, round bottom. The three feet are broken and missing (a similar vessel was referred to when restoring this one). There are four ring-handles on the lid, the top of which is decorated with five, and the belly with seven, round whorl-patterns. The total height is 25.5 cm, mouth diameter 29.5 cm, belly depth 14.5 cm (photograph 19: 2).

(B) Bronze *pen*: Two vessels, divided into two types:

Type I: One vessel (M201: 20). Contracted mouth, tilted rim, the neck region slightly gathered in, flat base. On the two sides of the shoulders there are handles in the form of animals' heads holding rings in their mouths. The neck is decorated with simplified cicada patterns. The belly is decorated with



bird patterns, the bird's eye made in the form of a nipple-knob. The vessel is 11 cm tall, the mouth's diameter 21.3 cm, the full breadth 26 cm (photograph 20: 1, 2).

[108] Type II: One vessel (M202: 7). Basically the same in style as Type I: contracted mouth, turned over rim, restrained neck, flat base. There are ring ears on two sides of the upper belly. The lid is in the style of a shallow bowl, with a round knob. There are three rectangular buckles on the rim of the lid. Plain surfaced, the vessel is 16.7 cm tall, mouth diameter 21.6 cm, total breadth 27 cm (photograph 20: 3).

(C) Bronze *xu*: Three vessels. The vessel is shaped like a *dou* 斗 measure. Four ring handles adorn the lid. There are ring ear handles on two sides of the vessel. Gathered in belly, flat base. Specimen M116: 1 has a total height of 16.3 cm, the mouth is 17 cm long, breadth of the vessel is 15 cm (photograph 20: 4).

(D) Bronze *pan*: Two vessels. One vessel is broken, and its original shape unclear; the remaining vessel (M202: 5) has a bent rim, attached ears, and a pair of ridges between the ears and rim. There are eight wedge shaped mortises, for the purpose of reinforcing the ring foot, placed on the inside of the ring foot. The walls of the *pan* are adorned with *kui* patterns.<sup>64</sup> The ring foot and the two ears are decorated with *clitellum* patterns, and on the base of the *pan* there are diagonal-shaped geometric patterns.

---

<sup>64</sup> *Kui wen*, *kui* pattern. "The *kui* is the most conspicuous animal motif in early bronze design. There are many variations, but common characteristics are a large head with prominent eye and gaping jaws, a crest or horns, and, since the animal is nearly always represented in profile, what appears to be a single fore-leg. It is commonly referred to as a *kui long*, *kui* dragon, but it bears little resemblance to the serpentine dragon, a familiar motif of Chinese art from the Bronze Age to modern times." Hansford, S. Howard. *A Glossary of Chinese Art and Archaeology*. 1st ed. 1954, 2nd ed. revised 1961, 2nd ed rpt. 1972. London: The China Society, 1972; p. 14.

Two lines, totaling ten characters, are cast inside the base of the *pan*:  
鲁伯者父作孟姬 女庸 媵盘, “Lu Elder Zhe Fu made [this] matrimonial *pan* vessel for Meng Ji Yong” (diagram 19: 3).<sup>65, 66</sup> The total height of the vessel is 11 cm, the diameter of its mouth is 37.8 cm, and the depth of its belly is 4.7 cm (photograph 19: 3).

(E) Bronze *yi*: Two vessels. Vessel M116: 5 is damaged; The mouth and spout of M202: 6 are decorated with *qiequ*<sup>67</sup> “broad figure band” patterns. The belly is decorated with roof tile patterns. Two eyes and a pair of horns are prominent on the dragon shaped handles. There is a flange on the dragon’s spine. The dragon’s body is decorated with repeated ring patterns, and the vessel’s four feet are shaped like dragon’s claws. The vessel is 37 cm tall, and 17 cm wide (photograph 19: 4).

(F) Bronze lidded *dou*: Two vessels, excavated from M116. The *dou* has a short base; it is otherwise similar in shape to the Type IV pottery lidded *dou*. Both of them are shattered and cannot be restored.

---

<sup>65</sup> The authors made no attempt to render the inscription in modern Chinese beyond transcribing most of the characters in simplified characters. My initial translations were aided by Harvard-Yenching Visiting Scholars Jiao Tianlong and Xu Shaohua, and final corrections were made by Gil Mattos and Connie Cook.

<sup>66</sup> Lothar von Falkenhausen notes the mid-seventh century B.C.E. tombs excavated at Shangguanggang, Guangshan, Henan (two separate tomb chambers in one tomb pit) of Huang Jun Meng 黄君孟 and his consort Meng Ji 孟姬 (“Inscriptions identify her as a princess from an unnamed polity with a ruling lineage related to the Zhou royal house.”) Could this vessel identify her as originating from Yong, or is this a mere coincidence of a shared name? See “The Waning of the Bronze Age” in *The Cambridge History of Ancient China*, Cambridge: Cambridge University Press, 1999; p. 505.

<sup>67</sup> Literally “stealthy curves”. Described as “curved and hooked forms derived from animal elements, usually in horizontal bands or border,” as well as “impoverished” or “deformed” patterns. Hansford, *Glossary*, p. 17.

(G) Bronze *zhou*: Nine vessels, divided into five types (except for two vessels whose type could not be differentiated):

[109] Type I: One vessel (M305: 1). The vessel has an elliptical shape, contracted mouth, small flared rim, bulging belly, flat base. The belly is decorated with triangular cirrus cloud patterns. The vessel is 6.1 cm tall, the mouth 9.2 cm long, 7.3 cm wide (diagram 19: 2; photograph 21: 1).

Type II: Two vessels; elliptical shape, contracted mouth, small flared rim, flat base. There are loop ear handles on each of the two longer sides of M201: 7. There is a loop ear handle on one of the long sides of M203: 8. The two short sides each have a small fastened handle. The upper part of the belly is decorated with hanging scales patterns, and the lower part with cloud-triangle patterns. The vessel is 7 cm tall, 13.5 cm long, 9.7 cm wide (diagram 19: 1; photograph 21: 5).

Type III: One vessel (M202: 4). This vessel is similar to Type II; the two long sides each have a loop ear handle, but the two short sides lack small fastened handles. The shoulders and belly are decorated with thunder patterns. The vessel is 7.2 cm tall, the mouth 18.2 cm long, 12.2 cm wide (photograph 21: 2).

Type IV: Two vessels. The vessel is nearly square in shape, contracted mouth, deep belly, rounded shoulders, gathered-in belly, flat base. There are loop ears handles on the two long sides. Plain surfaced. Specimen M103: 1 is 8.4 cm tall, the mouth is 18.2 cm long and 12.2 cm in breadth (photograph 21: 3).

Type V: One vessel (M115: 6). The vessel is nearly round in shape, contracted mouth, deep belly, bulging shoulders, gathered-in belly, flat base. Loop ear handles adorn two sides of the shoulder area. Plain surfaced, the vessel is 8.8 cm tall, the mouth 11.2 cm long, 10.5 cm wide (photograph 21: 4).



(H) Bronze *ge*:<sup>68</sup> Four implements, divided into three types:

Type I: Two implements (M201: 21, 23). The upper part of the blade is arc shaped; the lower blade is relatively flat. The tip is broken, the secondary projecting blade<sup>69</sup> is relatively broad, and the butt<sup>70</sup> is rectangular. There are two perforations on the upper part of the secondary projecting blade; the blade and the butt each have a perforation. The remaining length of M201: 21 is 20.6 cm, the blade is 12.7 cm long, the butt is 7.8 cm long, the secondary projecting blade is 5.1 cm long, the spine is 0.7 cm thick (photograph 22: 4).

Type II: One piece (M115: 8). The upper blade is relatively flat, and the secondary projecting blade is relatively broad. There is a small corner on the lower edge of the butt. There are two half round perforations on the secondary projecting blade, a square perforation on the upper blade, and a rectangular perforation on the butt. Its full length is 19.7 cm, the blade is 13 cm long, the butt is 6.7 cm long, the length of the secondary projecting blade is 6.4 cm, the stem is 0.6 cm thick (photograph 22: 3).

---

<sup>68</sup> 戈 *Ge*. Dagger-axe. The principal and distinctive weapon of the Shang-Yin and Zhou Dynasties. The early *ge* was a pointed blade, 8—9 inches long, with both edges sharpened. It was attached transversely to a wooden shaft, which either passed through a socket in the bronze, or was slotted to receive the butt end of the blade, the whole being held in position by a wedge, and in some case a thong.... A later development of the primitive *ge* had a blade widening into a base or stem which was perforated on the side adjacent to the shaft to provide for more secure thonging." These *ge* are of the later type. Hansford, *Glossary*, p. 11.

<sup>69</sup> *Hu*. 胡 The base or stem of the later *ge*, perforated for more efficient thonging (p. 11, Hansford, 1972). Alternate translations are "dewlap" (Hansford) or "necking" (Cheng Te-k'un, *Archaeology in China, Volume Three: Chou China*. p. 239).

<sup>70</sup> *Nei*. 内 The butt end of a *ge*, which passed through the slotted shaft (p. 11, Hansford). An alternate translation is "tang".



Type III: One piece (M111: 3). Similar in form to Type II, but the blade and secondary projecting blade are comparatively narrow. The secondary projecting blade extends further, the part where the blade and the secondary projecting blade are perforated and comparatively thick. In addition to a rectangular perforation through the butt there is a circular hole. The entire length is 17.2 cm, blade length 10.3 cm, butt length 6.5 cm, secondary projecting blade length 6.2 cm, spine thickness 0.5 cm (photograph 22: 2).

(I) Bronze *zu* barbed arrowhead: Ten items (M201: 9), shaped like a pair of *yi* wings. There is a spine, short and straight. They are all 6.5 cm long (photograph 22: 1).

(J) Bronze *wei* 𠄎 axle cap: Two items, excavated from M201. Shaped like a fourteen-sided prism, the hub end has a broad bent-back rim, and an attached linchpin (photograph 23: 3).

(K) Bronze *pei* bridle ornaments: Ninety items, excavated from M201. The items are small oblate-shaped rings, 0.8 cm in diameter (photograph 23: 1).

(L) Bronze *xian* curb bit and *biao* curb chain. Two items, excavated from M201. The *xian* is 21.5 cm long, the *biao* is 16.2 cm long (photograph 23: 4).

### (3) Items Made of Jade, Stone, Bone, Horn, Shell

(A) Stone *ge*: Twelve items, divided into three types:

Type I: Four items. The *ge* has a butt end, through which a hole was drilled. There is a spine on the upper blade. The tip of the blade is broken. Specimen M203: 7 is 23.1 cm long, 5.5 cm in breadth, 0.8 cm thick (photograph 23: 1).

Type II: One item (M212: 2). This lacks a butt end. The blade is perforated, the tip has a triangular shape. The full length is 16.4 cm, 6 cm breadth, 0.7 cm thick (photograph 23: 2).

Type III: Seven items. This item is narrow and long. The cutting edge is made in a triangular shape. There is a perforation on the butt end. Specimen M201: 8 is 21.9 cm long, 4.6 cm breadth, 0.9 cm thickness (photograph 23: 3).

[110] (B) Stone *gui* tablet: One item (M212: 1). Its apex is made in a triangular shape, and relatively thick. The lower part is relatively thin. There is one perforation, 21.3 cm long, 4.3 cm breadth, 1.9 cm thick (photograph 23: 4).

(C) *Yaliu* Ivory comb: One piece (M116: 15), composed of two parts: the comb's spine and the comb's body. The spine of the comb is engraved with animal forms. A tenon and mortise constitutes the body of the comb. The total height is 8.4 cm (diagram 20; photograph 25: 4).

(D) Ivory necklace: One string (M202: 13). Made from a string of oblate and tube shaped ivory beads (photograph 25: 1).

(E) Bone *xiyao* 细腰 hyperboloid: Three items, excavated from M201. They were a greenish color when excavated; 2.9 cm long (photograph 23: 2).

(F) Bone *biao* bridle bit: Two items, excavated from M209, shaped like a bronze bridle bit, but somewhat crude; 15 cm long.

(G) Sea Cowries: Twenty-six items (M120:21). There is a round hole on the back side; 2.1 to 2.4 cm long (photograph 25: 2).

(H) Fish shaped shell ornaments: Five strings, made from cutting freshwater mussel shells into fish shapes, and strung. The head end has a hole which looks like the fish's eye. They are generally 12 to 14 cm long (photograph 25: 3).

(I) Pottery arrowhead mold: One set (M138: 2). A pottery mold made up from two identical pieces. The mold is elliptical in shape; its inner surfaces are each incised with eleven short erect arrowheads molds shaped like a pair of wings on a staff. There is a casting mouth on one end, below which there is a thin channel. The spine of the mold is uneven, with small pits of varying dimensions. Along its outer edge there are "bundled" concave furrows. Made of sand tempered gray brown pottery, 19.9 cm long, 14.2 cm in breadth (diagram 21; photograph 23: 5).

### Section Three, Periodization

[111] There are no stratigraphic relationships between the Group A graves; therefore we have mainly depended upon the developmental changes of vessel shapes within the pottery assemblages, in correlation with the stratigraphic relations revealed in the ruins of the ancient city. Among the seventy-eight Group A graves, there are thirty-two graves which yielded burial articles. Although some of these graves had been looted we may still observe the approximate situation in the configuration of their graves.

Their assemblages and the graves with which they are associated are as follows:

(1) *li*, *gui*, *dou*, round bottomed *guan*, *zun*, and *lei*

M120: Type I *li* (4), Type I *gui* (4), Type I *dou* (4), Type I ring footed *guan* (4), *zun* (1), Type I *lei* (1);

(2) *li, gui, dou, guan*

M501 (remnants): Type II *li* (2), Type II *gui* (4), Type II *dou* (2), Type III-A *dou* (1), Type I *guan* (1);

M107: Type III *li* (4), Type III *gui* (4), Type III-B *dou* (4), Type II-A *guan* (4), Type II-B *guan* (1);

(3) *dou, round bottomed guan, lei*

M119: Type V *dou* (2), Type III ring-footed *guan* (1), Type III *lei* (1);

(4) *dou, guan*

M 124: Type IV *dou* (2), Type III *guan* (1);

(5) *li, yu, round bottomed guan*

M310: Type IV *li* (1), Type V *li* (1), Type II ring-footed *guan* (1);

(6) *li, yu, dou*

M320: Type VI *li* (1), Type II *yu* (1), Type VI *dou* (4);

(7) *li, guan*

M328: Type VII *li* (1), Type IV-A *guan* (4);

(8) *guan, lei*

M305: Type IV-A *guan* (1), Type VI *lei* (1);



(9) *li, yu, dou, guan, lei*

M202 (fragmentary): Type VIII *li* (2), Type III *yu* (2), *dou* (2), *guan*?  
(1), Type IX *lei* (2);

(10) *li, guan, dou, lei*

M207 (fragmentary): Type IX *li* (3), Type V *gui* (2), Type IX *dou* (2),  
Type VII *lei* (2);

M209 (fragmentary): Type IX *li* (1), Type X *li* (2), Type ? *li* (1), Type VI  
*gui* (4), Type ?*dou* (1), Type X *lei* (2);

M210 (fragmentary): *li* (1), Type VI *gui* (1), *dou* (fragment) (1), Type  
VIII *lei* (2);

(11) lidded *dou, guan*, ornate lidded *hu*

M115: Type II lidded *dou* (2), Type IX *guan* (2), Type I ornate lidded *hu*  
(2)

(12) *gui*, lidded *dou, guan*, ornate lidded *hu, bian*

M110 (fragmentary): *gui* (fragment) (2), Type III lidded *dou* (1), Type  
IX *guan* (1), Type XI *guan* (1), ornate lidded *hu* (fragment) (1), *bian*  
(fragment) (1);

M111 (fragmentary): Type VIII *gui* (fragment) (1), Type III lidded *dou*  
(1), *guan* (fragment) (1), ornate lidded *hu (fragment)* (1), *bian* (fragment)  
(1);

M116 (fragmentary): Type VIII *gui* (2), Type IV lidded *dou* IV (2),  
Type X *guan* (1), Type II ornate lidded *hu* (1), *bian* (1);

[112] (13) lidded *dou*, *guan*, lidded *hu*, *zhi*

M104: Type V lidded *dou* (2), Type X *guan* (3), Type XI *guan* (1), Type III ornate lidded *hu* (2), *zhi* (2);

Those graves whose pottery did not comprise a set, or which had been looted to the extent that their set configuration cannot be determined, are: M301, (1) *bo*; M105, (1) *guan* of Type XII, and two of Type XIII, three pieces in all; M113, one (1) Type IV *li*; M131, one (1) round bottomed *guan*; M138, one (1) Type II *lei*; M203, one (1) Type IV-A *guan*, (2) Type VII *guan*, one (1) Type VIII *guan*, four (4) pieces in all; M205, two (2) Type IV B Type *guan*; M213, one (1) *li*, one (1) Type I lidded *guan*, one (1) Type IX *dou*, one (1) Type VI *gui*, two (2) Type VII *gui*, six (6) pieces in all; M316, one (1) Type VII *dou*.

Graves M120 and M107, which are from the first and second assemblages described above, are comprised of four *li*, four *gui*, four *guan*, and four *dou* (M120 also had one *zun* and one *lei*, M107 also had one *guan*). These assemblages are basically similar, but there are relatively large differences in the shapes of the vessels (diagram 32: 1, 2). The style of work in the *gui*, *guan*, and *dou* from M120 are very close to that of late Yin pottery vessels, but the shape and manufacture of the [M120] *li* is not similar to a Shang *li*. Because of this, the dating of M120 may belong to a relatively early stage of the early Western Zhou period. The dating of M107 is later than that of M120; its *dou* is very close to the Type III *dou* found in the archaeological remains [of Lu (in contrast to the cemetery remains)] (early period Western Zhou), and its *gui* is the *dou*-style *gui*, which obviously developed from the bowl-shaped *gui* from M120. Nevertheless, the differences between the two are relatively large. Moreover, the M120 *gui* is even closer to those of the first period

(early period Western Zhou) at the Western Zhou ruins of the Handan<sup>71</sup> *Gui Tai Si* [Platform-Temple], but the dating clearly must be a bit later.<sup>72</sup> The *gui* from M107 is a form ancestral to the *dou*-style *gui* from the Group A Spring and Autumn graves, but there still is a relatively large developmental difference which separates them. Thus M107 is dated to early Western Zhou period, possibly to the later stage of that early period.

M501 was discovered when a well was dug in 1953, and the vessels are broken and incomplete. There were a total of four whole and broken *gui*, and a lesser number of *li*, *dou*, and *guan*. But based on [the examples of] M120 and M107 it is very likely that this grave also had an assemblage consisting of four pieces each of four types of pottery vessels. The Type II *dou* from this grave directly follows the Type I *dou* from M120 (diagram 42: 1, 2), and possesses the same style as the *dou* from the early period Western Zhou site on the two banks of the Feng River.<sup>73</sup> Type II *gui* are then earlier than the Type III *gui* from M107 (diagram 35: 2, 3); thus the grave should date to a relatively late stage of the early Western Zhou period.

M124 and M119 both belong to the third and fourth groups, both of which have two *dou*, with one *guan* in addition, and M119 also has one *lei*. The pedestals of the *dou* from these two graves have a trumpet-bell shape

---

<sup>71</sup> Handan is a city in western Hebei Province.

<sup>72</sup> “Xia Shang Zhou kaoguxue lunwenji” 夏商周考古學論集, Section Two, diagram one. [Note in original text]

<sup>73</sup> “Fengxi’an fajue baogao” 沔 西安发掘 报告 [“Fengxi’an Excavation Report”], pp. 97—100. “1961—1962 年陕西沔东试掘简报” [A Brief Report on the 1961—1962 Test Excavations at Dongfengng, Xianxi”. *Kaogu* 考古, 1963: 8, 409—411. [Note in original text]

(photograph 14: 5, 6); from the fourth section of the previous chapter we know that this style of *dou* was current in the first and second periods of the pottery from the occupation site, and vanished after the third period. Because there still is a lack of continuity between the later stage of the second period and the third period, thus the [most accurate dating we can assign are that the] lower limits of [the dates of] these two graves are at the latter part of the second period of the pottery from the residential site or a bit later, to the early stage of the middle period of the Western Zhou or slightly later. The *dou* from these two graves are similar to the *dou* from M320 which is analyzed (below) and assigned to the middle period of the Western Zhou (photograph 15: 1). [However,] their differences are very great, thus the dating of M124 and M119 may even be earlier than the earlier half of the middle period Western Zhou. The Type III *guan* from M124 (photograph 10: 1), seems to have developed from the Type I *lei* (photograph 12: 1) found in M120; thus M124 is close to M120, and may be dated to the early period of the Western Zhou. The difference between the Type III round bottomed *guan* from M119 and the Type I round bottomed *guan* from M 120 is relatively large (photograph 9: 1, 3). The style of the *dou*'s pedestal is identical to the *dou* pedestal from the later stage of the second period pottery from the residential site ruins. Therefore M119 may be dated to the early part of the middle Western Zhou period.

[113] The style of the Type IV *li* (diagram 10: 4) from the fifth assemblage (M310) is similar to the same kind of *li* from the late Shang culture of the Yinxu site. The Type V *li* hollow pointed foot *li* and somewhat tall continuous crotch has the style of an early period Western Zhou *li*, but the *li*'s body had already become flat and square shaped, so its dating may be comparatively late. At the same time, there still was a Type I *yu* wide mouthed



jar (photograph 15: 5) within the grave, with an inclined rim, a deep belly, and a small flat bottom, so based on the shape of the vessel it should be earlier than the Type I *li* from the archaeological remains [of Lu (in contrast to the cemetery remains)]. The latter was approximately from the late Western Zhou period, or it could be from the middle period, so therefore M310 is from the middle Western Zhou period or earlier.

M320 belongs to the sixth kind of assemblage, which is subsumed under the Type VI pottery *li* (photograph 6: 1). As previously, it has the pointed foot style, which is different from the rounded foot style of the late Western Zhou period, so its dating seems to belong to the middle period Western Zhou. However there is a great difference between the Type II pottery *yu* (photograph 15: 6) and the Type I pottery *yu* in the above mentioned grave M310. On the pedestal of the *dou* there has also already appeared a *dou* handle with a similar quality of workmanship as that which was common after the late Western Zhou period, yet it is differentiated from the *dou* pedestal with a big bottom and a small top, and a mouth with a flared edge (or “bamboo joint”) (photograph 15: 1). Thus M320 may already be close to late period Western Zhou.

The pottery assemblage of M328 is comprised of one *li* and four *guan*. The *li* (photograph 6, 3) may have a developmental relationship with the type VIII *li* from the later stage of the second period of the pottery vessels from the residential site. The turned-over mouth-rounded lip style of the *li* and the *guan* from the M328 grave, is an important characteristic of the third period implements from the archaeological remains [of Lu (in contrast to the cemetery remains)]. Thus the dating of the grave is the same as the third

period pottery vessels from the residential site, which is late Western Zhou period.

The *guan* from the eighth assemblage all possess the turned-over mouth rounded lip style, which should date it close to M 328. Both M305, and M201, which comprise this assemblage, have bronze implements. There is a Type I bronze *zhou* (photograph 21: 1) from M305, and M201 has a Type I *ding*, a Type I *pan*, and a Type II *zhou* (photograph 19: 1; photograph 20: 1, 2). All of these have the form of early period Spring and Autumn, thus these two graves belong to the early period Spring and Autumn. Also the Type I *zhou* from M305 is the earliest form of bronze *zhou*, so this grave may be earlier than the final phase of the Western Zhou period.

The ninth assemblage which comes from M202, has pottery vessels and bronze vessels. At the time when an underground telephone cable was being laid out in 1975, they dug up a bronze *pan* (M202:5) and a bronze *yi*. The pottery was completely shattered, and could not be reconstructed. The group was comprised of two *li* (Type VIII), two *yu* (Type III), two *dou*, two *lei* (Type IX), and one *guan*. The *dou* is actually a vessel lid, but we have not yet seen a corresponding vessel, so it cannot be determined whether or not the vessel lid represents a *dou*. The bronze vessels in this grave are one Type II *pan*, one Type III *zhou*, one *yi*-ladle (photograph 20: 3; 49: 2; 47: 3, 4). They are all shapes from the early Spring and Autumn period, so the grave should be dated to the early Spring and Autumn period.

The tenth group, comprised of M 207, M209, and M210, had all been dug up and looted, but the kinds of funerary vessels still may be roughly

determined, although the numbers of each kind of vessel cannot be determined. The *li* from these three graves (Type IX and X) were found in the residential site during its fourth period; they were later than the Type VIII *li* from M202. The *dou* are different from the pottery from the fourth and fifth periods of the residential area, thus the date of these three graves are from the middle Spring and Autumn period.

There are five graves (M115, M110, M111, M116, M104), which belong to the eleventh, twelfth, and thirteenth groups. They all have lidded *dou* and ornately lidded *hu*, and while each of these graves' dates are in successive order, they all should be placed in the late phase of the Spring and Autumn period. Within M104 there was a *chi* whose style was prevalent during the Warring States period, so it may be dated between the final phase of the Spring and Autumn and the beginning phase of the Warring States.

In addition, the pottery *bo* from M301 is of the Shang dynasty style, but its rim is a bit flatter than the later Shang period *bo* unearthed in the area to the north of Lu. Its dating may be a bit later, placing the date of the grave in the early years of the Western Zhou or slightly earlier. There is one Type II *lei* from M138, which is close in style to the later stage of the second period of the pottery from the residential site, which date to the middle period Western Zhou. There is one Type IV round bottomed *guan* in grave M131, whose form is close to the vessels from the fourth period of the pottery from the residential site, so it dates roughly to the early period of the Spring and Autumn. There is a Type VII *dou* from M316, with the same shape as the Type V pottery *dou* from the third period of the pottery from the residential site, dated roughly to the late Western Zhou period. There is one Type IV *lei* from grave M113 whose

style, with a turned-over mouth and rounded lip, is identical to the style of pottery from the third period of the main residential site. Grave M113 also has a waist pit, which dates it to the late period of the Western Zhou. Grave M203 had four *guan* (one of Type IV A-1; two of Type VII; and one of Type VIII) (photograph 4: 3), some of whose shapes are identical to the *guan* from the early Western Zhou grave M305. Moreover M203 also has an early Spring and Autumn period Type II bronze *zhou*; thus M203 dates to the early Spring and Autumn period. In grave M205 there were shards of two Type B *guan*, which resemble the shape of the *guan* from grave M305, and should be close in date, belonging to the early Spring and Autumn period or the last stage of the Western Zhou. *Dou* and lidded *dou* coexisted in grave M213, but here were no *hu* with decorated lids. The lidded *dou* was Type I, and has primitive characteristics, so it is certainly the very earliest form of lidded *dou*. They are a bit earlier in comparison with the graves with funerary style lidded *dou* and ornate lidded *hu* which came from graves M110, 111, 116, 104, etc., and so may date to the middle Spring and Autumn period. There were no pottery vessels in M103, but there was one Type IV bronze *zhou*, which should be dated to the late Spring and Autumn period.

[114] Based on an analysis of the above, the Group A graves comprise thirty-two graves which have funerary pottery vessels and one grave with bronze vessels but no pottery vessels. Aside from graves M320 and M313 whose dating was unclear, the remainder could be divided into six periods running from the first years of the Western Zhou through the last years of the Spring and Autumn (diagram 22).



Period One, five graves: M301, 120, 501, 107, and 124. The first years of the Western Zhou to the early Western Zhou period.

Period Two, four graves: M119, 138, 310, and 320. The middle Western Zhou period.

Period Three, four graves: M328, 316, 317, and 113. The late period of the Western Zhou.

Period Four, seven graves: M305, 201, 202, 131, 203, 205, 211. Roughly dated to the early period of the Spring and Autumn.

Period Five, four graves: M207, 209, 210, and 213. The middle period of the Spring and Autumn.

Period Six, seven graves: M115, 110, 111, 116, 104, 103, and 401. The later period of the Spring and Autumn.

Besides these, there are nineteen graves (M101, 108, 109, 113, 114, 122, 129, 303, 304, 306, 208, 313, 318, 322, 323, 326, and 327) which had waist pits but no grave goods; the majority of these are Western Zhou graves, and some may be as late as the early period Spring and Autumn.

Also, grave M302 was arranged side by side with the Period One grave M301; M102 was arranged side by side with the Period Six grave M103; and grave M117 was arranged side by side with the Period Six grave M116, so each should be from the same time period.

## Group B Burials

### Section One, Shape and Construction of the Graves

#### (1) Structure of the Coffin Chamber

The fifty-one Group B graves can be divided into two periods, the Western Zhou and the Eastern Zhou. There were thirty-nine Western Zhou graves, and twelve Eastern Zhou graves.

All of the Western Zhou graves are rectangular vertical shaft pit graves. Calculating the size of the grave pits according to the floor of the grave pit, the largest one was M48, 3.6 m long by 2.72 m wide, and the smallest was M33, 2.3 m long by 1.1 m wide. The deepest grave, M44, had its pit floor 2.9 m below the current soil surface, and the shallowest, M29, was 1.64 m below the current soil surface. In general, the floor of the graves were about 2.5 m long, and 1 to 1.5 m wide.

When the lengths of the graves were compared to their widths, the graves where the width was (a) larger than, (b) smaller than, or (c) equal to half the length of the grave; each constituted about one third of the total. All the graves in which the mouth of the grave pit and the floor of the grave pit are basically the same size, have secondary platforms (ledges) made of previously disturbed soil; we have not found secondary platforms made from undisturbed soil.

[116] There were twelve Eastern Zhou graves, the majority of which were large sized graves. There were seven large sized graves (M1, 2, 3, 28, 51, 58) the grave pits of which were all more than 10 meters square. M28 was the smallest, being 11.5 m long east-west, and 10.4 m wide north-south.

The largest was M2, which was 15 m long north-south, and 13 m wide east-west. M1 and M2 have both already been taken apart and analyzed. The mouths of their pits were larger than the pit floor. The upper part of the walls of the pit had been repaired and straightened up; in addition there was discarded gravel nearby. The lower part had not been dressed and maintained; there were clear marks from the tools employed on its upper section. These marks were 12 cm long and 5.5 cm wide.

The layout of a large number of the grave pits were broader east-west than north-south. A standardized coffin chamber was constructed out of rammed earth in the middle of the grave pit of each of the tombs. First of all, a foundation was rammed to a specific thickness at the floor of the pit, the thickest being 0.6 m, and the thinnest 0.1 m. The coffin chamber and the grave pit are both rectangular pits (oriented in different planes), varying from 5.6 to 7.8 m in length north-south, and from 4.4 to 6.4 m wide east-west (photograph 26: 1). On the four walls of the coffin chamber there are clear marks from the wood used in its construction. From these traces it could be seen that there had been poles set up in the four corners to support the boards. As can be seen from the traces in M1, the remains of the frame poles at the ends of the northern and southern walls were 0.1 m wide, and the remains of the poles at either end of the east and west walls were 0.2 m wide. Thus it can be inferred that there had been planks (with cross sections of 0.2 to 0.1 m square) set up for ramming at the four corners of the coffin chamber. Practically all the ramming planks were well-shaped boards. There was only

one which had been made up from two separate pieces of wood, between which there was a trace of a joint. The ramming planks were about 0.2 m wide (diagram 23; photograph 26: 1). From the analysis of M3 which has already been carried out, we have learned that the rammed earth layers of the four sides of the coffin chamber are linked together, but they do not crisscross. This means that the entire coffin chamber was built at the same time by *hangtu* rammed earth construction. The construction method of the other large graves' coffin chambers are all roughly similar to this. The rammed earth layers of M1 and M2 were about 10 cm thick. In grave M1, twenty-seven rammed earth layers still remained from the floor of the pit to the mouth of the pit. The depressions made by the ramming poles in both graves are round with arced bottoms, spanning 3—4 cm in diameter; in some cases seven [poles were bound together to] make up one group. The rammed earth layers of graves M3, 28, 51, and 58 were a bit thicker, and the round rammed earth post holes had a flat bottom, which generally were 5—6 cm in diameter.

117] The three mid-sized graves (M4, 43, 47) had coffin chambers which were between 4.5 to 5 m in length; M 43 and M47 were 3.45 and 3.8 m wide, respectively. M4, which was 3.1 m wide, was the only grave of all the Group A and Group B graves in which two people had been buried together in a pit grave.

The two small sized graves are both rectangular vertical pit graves. One of them, M18, has a wall chamber, which is located on the western wall above the top of the outer coffin. The chamber is 0.24 m high, 0.94 m wide, and 0.16 m deep. The base of the chamber is 0.98 m above the floor of the grave (diagram 25). The secondary platform of the Eastern Zhou graves were all made of undisturbed soil. The secondary platforms of the large sized graves were all



made by rammed earth construction, and the secondary ledges of the small and mid-sized graves were made of backfill pounded solid.

## (2) Coffins and Accessories

The inner and outer coffins had already decomposed; only gray ash traces of the wooden planks remained. Judging by the plank ash, among the forty-four small to mid-sized graves, twenty-nine had an inner and an outer coffin, eleven had an inner but no outer coffin, and the situation was unclear in four graves. In seven of the large sized graves, there were four graves (M1, 2, 52, 58) which had one outer and two inner coffins. In the remaining three graves it could not be determined whether there was a single inner coffin or multiple coffins.

The outer coffin of the graves which had both inner and outer coffins were slightly smaller than the coffin chamber, and exemplified the Type II form, in which the inner coffin is placed exactly in the middle of the outer coffin. Some graves had only inner coffins but no outer coffins, similar to those graves which had an inner and outer coffin, but the coffin chamber was relatively smaller.

The outer coffin of the large scale graves was placed in the middle of the coffin chamber. Support beams were placed vertically on both sides under the floor of the outer coffin, on top of them was placed The floor boards of the outer coffin was placed horizontally on top of the support beams; some exceptional support beams are in two layers (see burial Example Four). For example in M2, the support beam was 24 cm wide by 18 cm thick, and the planks at the bottom of the outer coffin were about 20 cm wide. The four walls of the outer coffin were made up of thick wooden planks stacked up on one

another, the length of the boards were the same as the lengths of the four sides of the coffin chamber. There were no traces of pillars in the center sections of the walls of the outer coffins (diagram 24).

The outer coffin was painted with red lacquer, cinnabar red on a black background. The area of the smallest outer coffin chamber is 4.3 by 2.98 m, with a height to the current surface level of 1.7 m; the largest was 5.6 by 4.2 m, with a height to the current surface level of 1.7 m.

118] The inner coffin of all the large sized graves are placed to one side of the outer coffin. The outside coffin of a double inner coffin grave is about 2.6 to 2.8 m long, and 1.6 m wide. The inner coffin is 2.2 m long and about 1.2 m wide. The size of the inner coffin of the single-inner coffin graves are unclear. The single inner coffins, as well as the double inner coffins, all are painted in lacquer.

In graves M3, 52, and 58, we discovered a pattern of round-capped bronze nails spaced at 10 cm intervals along the upper part of the wall of the outer coffin, which had probably been used to tack up a curtain.

### (3) Form of Burials

The head of the occupant of the grave faced north in forty-one tombs. Thirty-five of these were Western Zhou graves, and six were Eastern Zhou graves. In one Western Zhou grave the head was oriented to the south (at 200 degrees). Most of the north facing heads were oriented between 2 to 30 degrees, while just two were oriented at 358 degrees. In nine graves the skeletons were missing, so the orientation of the head is unknown.

Most of the human skeletons were well preserved. There were thirty-eight lying on their backs with their limbs outstretched, facing upward or to the side. While most of their lower limbs were outstretched, there were some with crossed legs (diagram 26, 27; photograph 27: 1, 2; 57: 1). In twenty-seven of the burials both hands were placed on the abdomen, in four burials they were on the chest, in two they were by the side of the body, with the face either toward the left or the right, with the lower extremities slightly bent. The situation was unclear in the remaining eleven graves which were badly decomposed or looted.

There were three outstretched burials (M11, 29, 56), and one in which the body was outstretched on its side, in which the interred held rounded tube shaped stone ornaments at their two hands, on the abdomen. The one buried in M48 held a blade shaped jade ornament in its left hand, and its right hand had a stick-like long jade ornament.

120] Among the twelve corpses which had something held in their mouths, eleven, which had pebbles placed in their mouths, were from the Western Zhou (M14, 15, 16, 17, 19, 22, 26, 45, 50, 53, 56). These were all naturally rounded pebbles, except for M26, in which the stone had been crafted into the shape of a cowrie shell, and a *qing* chime stone shaped pebble in M22.

There was one Eastern Zhou grave (M54), in which there was a cicada shaped stone placed in the mouth.

#### (4) Placement of Mortuary Goods

Most of the pottery and bronze implements in the Western Zhou graves were placed on the secondary platform or on the cover of the outer coffin near the head or feet of the corpse. Very few of the mortuary goods were

placed on both sides of the secondary platform or between the inner and outer coffins (diagram 26, 28, 29; photograph 26: 3, 4; 55: 2).

Bronze *ling* bells, bronze fish, and mussel shell fish, etc. were discovered all around the outer coffin chamber. There may have been decorations on the walls of the outer coffin.

Many weapons were placed between the inner and outer coffins, and many chariot implements were placed on the outer coffin cover in the vicinity of the feet or side of the body.

Many jade and stone ornaments were placed on the body. There were seven graves in which there was a necklace in the vicinity of the neck. In eleven graves there were jade and stone pieces in the vicinity of the ears, and in M49 there was a string of beads on the body.

The pottery, bronzes, chariot accessories, and weapons from the Eastern Zhou graves were placed all around the outer coffin. In large graves many pieces of shell and charcoal were laid out on the cover of the coffin. Bronze bells may have been hanging around the outer coffin covers of M1 and M2 (bronze bells and bone nails were discovered all around the coffin chamber from the top to the bottom). Perforated bronze bells were discovered all around the coffin chambers of graves M3, 52, and 58. Strings of bone and stone beads were discovered around the outer coffin chamber of each of the coffins. These strings of beads were placed on the top of the cover of the outer coffin, but whether they had been hung above the outer coffin lid or had been placed all around the bottom of the outer coffin is still unclear. There were many stone *ge* blades, stone tablets, and bone and stone strings of beads on the inner coffin lid.

Jade *bi* disks, jade *pei* pendants, agate *huan* rings, translucent beads made of agate or amethyst, etc. were all within the inner coffin. Around the




outer coffin chamber there were also placed jade *bi*, jade *huan* rings, and several other small precious items, such as jade garment hooks, a gibbon-shaped silver ornament, a jade horse, etc. These small items may have originally been placed in a box (see the section on “Examples of Burials”) (diagram 31, 32, 34—36).

## Section Two, Examples of Burials

In order to best explain the structure of the Group B graves, we have selected graves M48, 49, 2, 3, 4, 52, and 58, as examples, and give a detailed introduction to them.

### Example One

M48, approximately dating from the Western Zhou middle period, was located in the northeast section of the area which was excavated. The grave pit was a vertical shaft pit, whose mouth was slightly larger than its bottom, and rectangular in shape with a 2 degree orientation. At its bottom the grave was 3.6 m long, 2.72 m wide, and 2.85 m deep; the mouth of the grave was 1.2 m below ground. The inner and outer coffins had both decomposed, but ashy traces of the boards remained clear. From the remains of the boards it has been inferred that the outer coffin chamber was 3.1 m long north-south, and 2.15 m wide east-west. The inner coffin had been right in the middle of the outer coffin. Its northern end was relatively wide, and the southern end relatively narrow,<sup>74</sup> with a horizontal shape like . The inner coffin was 2 m long, and 0.92 to 0.65 m wide; the two long sides exceeded the two short ends by about 0.1 m.<sup>75</sup> While part of the human skeleton had decomposed, the head was

facing north, the face slightly turned to the west. The body was outstretched with limbs extended, with the two hands placed on the abdomen (diagram 28; photograph 26: 3, 4).

Among the mortuary objects there were bronze vessels, pottery vessels, and jade and shell items, etc., which were differentiated by their placement in upper strata and lower strata. Those in the upper strata were placed on the lid of the outer coffin. On its northern end there was one bronze *ding* (with an inscription), two bronze *xu* food containers (with inscriptions), a bronze *zhou*-boat, a bronze *yi* -ladle, one pottery *guan*, one jade *bi*-ladle. On the southern end there were placed a group of chariot items: *xian* 銜 curb bit, *biao* 鑣 curb chain, a *huan* ring, *luanling* bell, *ling* bell, *wei* axle endpiece, *jieyue* 节约,<sup>76</sup> etc.). The lower strata implements were placed between the inner and outer coffins on the floor of the outer coffin, and inside the inner coffin. Between the north side and the northwest corner of the inner and outer coffins, there were placed a bronze *ding*, a bronze *fu* cauldron, a bronze *yi*, a bronze *pan* (the preceding all were inscribed), a pottery *li*, six pottery *guan* (four of which were placed inside the bronze *ding*, and one in the *yi*). Placed between the inner and outer coffins in the southeast corner were a bronze *ding*, a bronze *yan*, a bronze *hu* (the preceding all had inscriptions), one bronze *ge*, and three pottery *guan*. Surrounding the outer coffin were a round bronze bell, a bronze fish and a mussel shell fish (the last two items were all placed together). They were found all around, but not all

---

<sup>74</sup> In Diagram 74 the north and south ends appear equal in width.

<sup>75</sup> This measurement does not accord with Diagram 74.

<sup>76</sup> *Jieyue* are bronze decorative ornaments placed on a horse muzzle (cf. Chêng, *Shang*, p. 268).

were on the floor of the outer coffin, so they may have been ornamentation on the lid or walls of the outer coffin. Between the southeast and south sides of the inner and outer coffins we also discovered a few animal headed nails. A number of small jade ornaments were on the body. Beside the left ear there was a *jue* 玦 penannular jade ring, on the neck there was a necklace made of jade and stone, by the left side of the chest and left hand there is a jade ornament in the shape of a *jianqiao* 劍鞘 scabbard, at the abdomen there were a jade *ge* spear, a jade *bi* disk and a jade *huan* circlet. By the side of the right hand there was a square shaped *biyu* jasper ornament.

[122] There was an order to the sizes of the three *ding* in this grave, but they were placed in three separate locations: one each on the north end, the northeast corner, and the south end of the outer coffin lid. Whether or not this is a set of *ding* is still unclear.

### Example Two

Grave M49, dated to the late Western Zhou period, was situated in the eastern section of the area which was excavated. The grave pit was a vertical grave earth pit, a rectangle at a 20 degree orientation. The mouth of the grave was slightly smaller than the floor of the grave. The floor of the grave was 3.15 m long, 1.95 m wide, by 2.3 m deep. The mouth of the grave was 1.05 m deep [below the ground surface]. The inner and outer coffins were completely decomposed; ash remnants of the planks were clear. Inferring from the plank ashes, the outer coffin was 2.8 m long, and 1.6 m wide. The position of the inner coffin was slightly to the north side, about 1.9 m long, and 0.7 m wide. The upper part of the skeleton was severely decomposed, while the lower limbs

were still in good condition. The head faced north, and it appears the corpse was outstretched with limbs extended (diagram 29).

The funerary implements were bronze vessels, pottery vessels, and jade, stone, and shell items. The bronze vessels were one *ding*, two *gui*, one *pan*, one *yi*. They were all sacrificial vessels, placed between the inner and outer coffins on the south side. Between the inner and outer coffins on the north side there placed one pottery *li*, and three pottery *guan*. Between the inner and outer coffins on the west side there were placed three pottery *guan*, and in various places around the floor of the outer coffin there was a ring of bronze *ling* bells, bronze fish and "mussel-fish". The bronze *ling* bell may have been hanging above the top of the outer coffin. The bronze and mussel shell fish probably were decorations on the walls of the outer coffin. At the neck and chest of the skeleton there were several jade stone pieces, and on the body there was a string of jade stone beads.

### Example Three

Grave M2, dated to the last part of the Spring and Autumn. It was situated in the west part of the area which was excavated, arranged east-west with grave M1. The southwest part of the grave was destroyed by ash pits from the Warring States and Han Dynasty, and the east side was destroyed by two horse pits. The grave had already been severely plundered, and in the west and south walls a total of three grave robbers' holes were discovered. The grave pit was rectangular, oriented at 10 degrees, the mouth was large and the floor was small, the plane of the mouth of the pit was slightly rectangular in shape, 15 m north-south in length, and 13 m east-west wide. The floor of the grave was 14.5 m long north-south, and 12.6 m wide east-west, and 2.4 m deep. The



mouth of the grave was 0.3 m below ground surface. The four walls of the grave pit were flat and regular, nearby there was a layer of discarded gravel, the lower portion had not yet been repaired and dressed, still preserving tool markings (diagram 31, top).

[124] A burial chamber was created in the middle of the grave pit by rammed earth construction. First, at the bottom of the pit they constructed a foundation approximately 0.3 m thick, and afterwards left out a space in the middle for a burial chamber, building up the four sides with earth fill, in successive layers of rammed earth. The rammed earth layers were about 10 cm thick, the rounded circular shape of the ramming pole pits was 3 to 4 cm in diameter. There were seven ramming poles which comprised a unit, one placed in the middle and six arranged around it. There were twenty-two rammed earth layers remaining from the bottom to the top of the grave; the rammed earth was vertically hard. There were clear traces of the ramming planks, about 0.2 m wide, on the grave walls. The burial chamber was 7.8 m long north-south, by 6.4 m wide east-west, and 1.8 m deep below the present ground level (diagram 30).

The inner and outer coffins had already decomposed; from the remains of the plank ashes we know there were an outer coffin and two inner coffins. The wooden outer coffin was situated right in the middle of the grave chamber, 5.6 m long north-south, 4.2 m wide east-west, and with a remaining height of 1.7 m. On the floor of the outer coffin on both the east and west sides there was placed one pillowing board, 0.22 m wide, on top of the pillowing board was placed the horizontal bottom board planks of the outer coffin; the planks were about 0.2 m wide. A number of bone wedges, which may have been used to reinforce the planks of the outer coffin, were discovered around the coffin chamber (diagram 24).

The inner coffins were situated on the west side of the outer coffin. The “outer” inner coffin had completely decomposed; according to its remains it was 2.8 m long, 1.6 m wide, and about 1.4 m in height, painted in black lacquer. The “inner” inner coffin was 2.2 m long, the south end was 1.2 m wide, and the north end 0.92 m wide, approximately 1 m in height. Vestiges of the bottom part of the inner inner coffin (with a remaining height of about 0.5 m), were still visible at the time it was discovered. The interior of the inner inner coffin was painted with lacquer, red on a black background; the four were wrapped in triangular bronze strips, the bronze pieces were 8 cm wide on each surface. On the bottom of the outside of the inner inner coffin there were two lines of animal-face shaped bronze nails. There were 6 cm between the upper and lower lines, with a horizontal space of about 10 cm between them (diagram 31, below).

There were no skeletal remains in the inner coffin; on the west and south sides of the “outer” inner coffin there were scattered bone fragments, which may have been the bone fragments of the corpse strewn about by the grave looters.

The majority of the funerary objects were looted; not one of the bronze vessels remained, but several remaining pottery vessels were still set in their original positions. In the northeast corner of the floor of the outer coffin there was a *fu*, and in the northwest corner there were two pottery *fan*, there was a set (sixteen pieces) of pottery *guan* close to the southern wall and southeast corner. There were twenty-two bronze bells, most of which were spread all around the coffin chamber. Some of the bells were unearthed 1.3 m over the floor of the outer coffin, so it can be inferred that these bells may have been hanging above the outer coffin lid. There were more than ten strings of horn, stone, and beads all over the outer “inner” coffin. Aside from

those, there were various small items such as a pottery vessel lid, a bronze *jieyue* harness ornament, a gold leaf gilded bronze *pao* 泡,<sup>77</sup> and a bone pipe (diagram 31, top).

#### Example Four

Grave M3, which belongs to the early Warring States period, was located northeast of graves M1 and M2, and about 100 m east of the Ancestral Terrace. The coffin chamber had a 10 degree orientation. The grave pit had a slightly inclined rectangular shape, 13.5 m long east-west, 12.5 m wide north-south, the mouth of the grave was 0.3 m deep, and the bottom of the grave 2.8 m deep. The dimensions of the mouth and the bottom of the grave were basically the same. The walls of the pit had not been repaired and dressed, and there were tool (pick axe) markings on top, 28 cm long, and 6.5 cm wide (photograph 28:2). At the south end of the east wall, the opening has a there is a rammed earth construction flight of stairs which faces east, 3.8 m wide north-south. The two remaining steps are each 1.5 m wide, and 0.3 m tall. This may have been the entrance (and exit) during the construction of the tomb, but it certainly was not a tomb passageway. The coffin chamber was slightly north of the center of the grave pit, 6.4 m long north-south, 5.7 m wide east-west, and 2.8 m deep. During its construction, a 0.4 m thick foundation was made by rammed earth construction at the bottom of the pit; then on its top the coffin chamber was made by rammed earth construction (photograph 28: 1). The rammed earth was extremely hard; the layers of rammed earth were 11 to 12 cm thick. The ramming pole was round shaped with a flat bottom, 5 to 6 cm in

---

<sup>77</sup> A sphere shaped vessel.

diameter (photograph 28: 3). Thirty two layers remain from the bottom to the top of the grave. There were clear traces of construction planks on the four walls of the coffin chamber. The construction planks were about 0.4 m wide, and in the four corners there were traces of the posts which held up the construction planks. The four rammed earth layers on the exterior of the burial chamber are all identical, with no signs of interlocking. The explanation is that the entire coffin chamber was built up by rammed earth in continuous layers at the same time.

The inner and outer coffin had completely decomposed. Between the walls of the burial chamber and the walls of the outer coffin there was a yellow-brown earth fill, which had been rammed in. On the bottom of the outer coffin there were spread out two layers of pillowing boards. The lower layer had three horizontally laid out beams, 4.6 m long, 0.4 m wide, 0.2 m thick, which had still not yet completely decomposed. In the lower layer, at the two ends was a beam 5.4 m long, 0.2 thick, on which the bottom boards of the outer coffin, which had completely decomposed, had been placed. The traces of the planks from the walls of the outer coffin were all lined up horizontally; we have not yet seen traces of upright pieces of wood. Wood charcoal and mussel shells were found all around the top of the outer coffin and in the fill of the coffin chamber, which may have covered the lid of the outer coffin. The inner coffin was located on the west side of the interior of the outer coffin. It had already decomposed, judging by the remnants it was nearly 3 m long, and about 1.3 m wide. It is not yet known whether or not there was an additional inner coffin. The inner coffin was painted with red lacquer, and decorated with a gilded bronze *pao*. The skeleton of the deceased was already disturbed; only a scattering of bone fragments was visible, and the style of its burial was unclear.



[127] The grave had already been disturbed and looted. The implements which had been within the inner coffin and between the inner and outer coffins on the south side, were no longer preserved, but the east west, and north sides had not yet been disturbed. All around these walls of the outer coffin a large number of articles were placed. On the west side from the south to the north were placed a small pottery *hu*, a pottery *guan*, two carved ivory walking stick ornaments, a bronze *ge*, a *nu* crossbow trigger, an arrow, three bronze loop-handled *hu*, one bronze food case (within which was packed six small square boxes, which all had bird bones), etc. In the north part, from west to east there were pottery vessels, one bronze food case (within it was packed four small square boxes, which all had bird bones), a jade horse, a jade garment hook, inlaid turquoise silver belt buckle (photograph 30: 1), a gibbon-shaped silver ornament, an inlaid gold and silver garment hook, a bronze *jing* mirror, a carved ivory back scratcher, and there also were several pottery vessels. In the northeast corner there was a pottery *fu*, *hu*, small *hu*; in the east part there was a pottery *hu*, two bronze loop-handled *hu*, one arrow, one lead *ge* (partly destroyed), a jade *bi* disk, a lacquer item (partly destroyed, of which only a decoration remains). In addition all around the coffin chamber there were many pieces of bone, stone, strings of beads, and bronze nails (diagram 32).

#### Example Five

Grave M4, approximately dated to the early Warring States Period. Located about 10 m northwest of grave M3, at a 15 degree orientation, is the sole pit grave in which a pair of people are buried. The dimensions of the mouth and the bottom of the grave were basically the same, the bottom of the

grave is 4.1 m east-west, 3.45 m north-south, 2.6 m deep; the mouth of the grave is 0.8 m deep. Two people were buried in the pit, each with an inner and outer coffin. There was with a separating ridge of "disturbed soil" between them, and secondary ledges of "disturbed soil" surrounding them. The inner and outer coffin had already decomposed; it was inferred from the ash remains of the boards that the east outer coffin was 2.35 m long by 1.25 m wide; the west outer coffin was 2.88 m long by 1.6 m wide, larger than the east outer coffin. The sizes and forms of the inner coffins were unclear. The heads of both of the corpses faced north, while the skeletons were in disarray, and severely decomposed (diagram 33; photograph 26: 2).

[128] The grave had already been disturbed and looted, there were very few burial articles. On the west side there were a pottery *hu*, a bone *zan* hairpin, a bronze *pao* and an iron belt buckle; on the east side of the head there were fragments of animal bones. On the east side there was a piece of bronze, a jade *huan* ring, fragments of pottery vessels and bone hairpins. There was also a string of rock crystals and jade "marrow"<sup>78</sup> which had not been previously disturbed, placed within the inner coffin in front of the left foot (photograph 90: 1, 2, 3). There were also small animal bone fragments on the west side of the body.

According to an initial investigation, the body on the west side appears to be male, and the one on the east side to be female, so this may have been a joint burial of husband and wife.

---

<sup>78</sup>

According to the photograph captions this is agate.

### Example Six

Grave M52, dating approximately to the early Warring States period, is located to the west of grave M3 and side by side with grave M58 (the grave pit of M58 breaks into the east wall of its grave pit). The grave had a ten degree orientation, and the structure of the grave pit and coffin chamber is identical to that of M3. The technique of its rammed earth construction is also similar. The mouth of the pit was 12.5 m long east-west, 12 m wide north-south, and the mouth of the grave was 0.4 m deep, and the floor of the grave was 3.05 m deep. The coffin chamber was slightly displaced to the east side, 6.2 m long north-south, 5.4 m wide east-west. The inner and outer coffins had already decomposed, according to the ash remains of the boards it was an outer coffin with two inner coffins. The outer coffin chamber was 5 m long north-south, 4 m wide east-west. The boards of the outer coffin were about 0.22 m wide and 0.15 m thick. Wood charcoal and pieces of mussel shell were laid on top of the outer coffin cover. On the upper part of the outer coffin walls there were rows of round-capped bronze nails, 0.25 m apart; these probably had been used to attach a curtain-canopy. The inner coffin was situated in the middle of the inner coffin chamber, slightly to the north side. The outer inner coffin was about 2.1 m long, and 0.88 m wide. The inner inner coffin was about 1.92 m long by about 0.64 m wide. The inner and outer inner coffins both were painted with red lacquer, and were bound with bronze strips at the four corners. On both sides of the bronze strips there was a line of round bronze nails, with 10 cm between the bronze nails. On top of the inner coffin cover (it was unclear whether it had been the inner or the outer inner coffin) a stone *gui* tablet and a corroded bronze *jian* sword had been placed. The skeleton

was still well preserved; the head faced north, the body was supine and outstretched with the hands at the side and the thighs crossed (photograph 29: 2, 4).

Burial articles were placed all around the outer coffin chamber and within the inner coffin. In the northeast corner of the outer coffin chamber there were placed a bronze *guan* (broken and not restorable), in the southwest corner there was a bronze *pan*, at the west wall on the north of the head there was a bronze *jiao hu*,<sup>79</sup> at the north side of the outer coffin there was a silver belt buckle, a bronze belt buckle, a fragment of a jade *bi* disk, a crossbow trigger, a *kui* dragon jade ornament, and four pottery *guan*. On the west side of the outer coffin there were nine pottery *guan*, an implement made of lacquer wood (of which there only remained three bronze feet), one bronze *huan* ring, a *kui* dragon jade ornament, one *ge bi* 戈秘 dagger-axe handle. The south side of the outer coffin had a bronze *chan* 铲 shovel (fragment), a bronze *fu* axe (fragment), two porcelain *guan*, two pottery *guan* (smashed), a bronze *mao* halberd. On the east side of the outer coffin there were a set of implements for the game *bo*<sup>80</sup> (six square jade *chou* 筹 “chips,” twelve square stone *chou* “chips,” chopstick shaped ivory and silver counters, one each), a bronze *huan* ring, an arrow, a bone tube, a bone tool, five pottery *guan*, three *kui* dragon-style ornaments. All around the inner coffin there were scattered many strings of bones, stones, and beads (diagram 34).

---

<sup>79</sup> *Jiao* 鑊: A three footed, handled, wine heating utensil.

<sup>80</sup> There are two articles which discuss ancient gaming pieces and game boards: Yang Lien-sheng, “A Note on the So-Called TLV Mirrors and the Game Liu-Po 六博, *HJAS* 9.3—4 (1947); pp. 202—206. And “An Additional Note on the Ancient Game Liu-po”. *HJAS* 15 (June 1952); pp. 124—39.



Table 5. Inventory of M52 jade *bi* disks

Item number	Type	Full diameter	Hole diameter	Thickness	Matrix width	Location (relative to the body)
1	II	19.9	6.9	0.4	6.5	above
2	III	20.1	6.9	0.5	6.6	above
3	I	31	10.7	0.6	10.2	above
4	III	21.9	7.7	0.8	7.1	above
5	II	18.9	7.7	0.4	5.6	above
9	I	31.1	10.1	0.5	10.5	above
11	III	19	6.7	0.45	6.65	above
15	III	19	9	0.8	5	above
16	III	15.9	5.3	0.6	5.3	above
17	III	14	5.2	0.3	4.4	below
40	I	32.8	11.6	0.7	10.6	below
41	I	29.3	8.7	0.6	10.3	below
65	III	17.7	6.6	0.6	5.6	below
69	III	16.6	5.7	0.5	5.4	below
70	III	16.7	6.2	0.3	5.3	below
71	III	13.4	4.4	0.4	4.5	below
72	III	13.4	4.4	0.4	4.5	below
82	III	13.1	6.2	0.6	3.5	outer coffin chamber

There was a layer of jade *bi* disks in the inner coffin from head to foot over the body of the corpse. Below the body there was a layer of *bi* disks (see Table 5 on the previous page). There were also three bronze scrapers, thirteen jade *huan* rings, two jade *she*<sup>81</sup> 韃, two jade pieces, one group of jade *pei* 佩 waist pendants, one group of gold belt ornaments, two inlaid stones, four ivory ornaments shaped like fangs, an ivory implement (in the area of the chest; the implement was damaged and its form unclear), a red agate *huan* ring, a carved ivory cloud dragon inscribed *pai* tablet, one roof tile pattern jade tube (diagram 81; photograph 29: 3, 4).

#### Example Seven

Grave M58, which is dated approximately to the early Warring States period, was located on the west of grave M3, and broke into the east wall of the grave pit of grave M52. This grave had a 10 degree orientation. The structure of this grave is identical to that of pit grave M52. The grave pit was 11.6 m long east-west, 10.7 m wide north-south, and the mouth of the grave 0.4 m deep below the surface of the cultivated land. The bottom of the grave was 2.75 m deep. The ramming pole was round and flat bottomed, with a diameter of 6—7 cm. There were nineteen rammed earth layers extant from the bottom of the grave to the mouth of the grave. The foundation of the grave pit floor was 0.1 m thick. The coffin chamber was 6.25 m long north-south, and 5.4 m wide east-west. The inner and outer coffins had already decomposed. Based on the traces of ash which remained from the planks, the outer coffin chamber was

---

<sup>81</sup> *She*, a kind of jade thumb ring used by archers to protect the thumb and help pull the bowstring.

about 4.98 m long north-south, 3.8 m wide east-west, and the remaining height about 2.55 m. The outer coffin lid was covered with river mussel shells and wood charcoal; the upper portion of the outer coffin walls had a row of round capped bronze nails, separated by 0.15 m. The inner coffins were very close to the east wall of the outer coffin; based on its traces, the outer inner coffin was about 2.6 m long, 1.22 m wide; the inner inner coffin was 2.15 m long and about 0.68 m wide, all painted with red lacquer, and with the four corners wrapped with bronze strips. On two sides of the bronze piece there were two rows of bronze rivets, with round head nails and animal-face head nails facing with each other in rows, 0.1 m apart. The skeleton had already decomposed, the head faced north, but the burial style was unclear.

The burial articles were placed all around the outer coffin and within the inner coffin. On the east side of the outer coffin there was a group of bronze vessels (a *ding*, two *hu*, a *guan*, and a *fou* urn), four pottery *guan*, two porcelain *guan*, one iron garment hook, a bronze garment hook, one ivory back scratcher, a jade tube, two jade *huan* rings, and a red and a green agate huan ring (photograph 27: 4).

On the south side of the outer coffin there were eight pottery *guan*, one pottery *yi* mold, one pottery mold, one bronze *bo* basin, two *kui* dragon jade ornaments. On the west side of the outer coffin there was one bronze *jian* sword (a fragment), a bronze *mao dui* 矛鏃 spear endpiece, nine pottery *guan*, and one *kui* dragon jade ornament. On the north side of the outer coffin there was a string of turquoise beads, a group of four wing-shaped ivory and jade items, and such small items as a bronze *huan* ring, a bone cudgel, and a tube made of *liao* jade 料管. There was a stone tablet placed on the outer coffin lid, which was similar in form to the one found in grave M52.

Table 6. Inventory of M58 jade *bi* discs

Item number	Type	Full diameter	Center hole diameter	Thickness	Matrix width
2	III	14.6	6	0.5	4.3
3	II	27.7	9.1	0.5	9.3
4	III	16.6	6.1	0.25	5.2
5	II	22.5	6.8	0.45	7.8
12	III	16.3	5.6	0.3	5.4
34	II	24.3	8.9	0.35	7.7
39	III	22.2	7.1	0.6	7.6
43	III	16	3.6	0.45	6.2
46	III	15.8	6	0.4	4.9
51	III	15.2	4	0.5	5.6
52	III	12.4	4	0.5	5.6
53	III	12.1	4.1	0.3	8
54	III	12.3	4.4	0.4	3.9
55	III	12.4	4.6	0.4	3.9
56	III	12.3	4.5	0.55	4.4
57	III	12.6	4.4	0.25	4.1



[131] Above and below the corpse in the inner coffin there was a layer of jade disks (sixteen pieces in all; because the skeleton was decomposed, it cannot be determined how many were above and how many were below ((Table 6 on previous page)) ). In addition there were four jade huan rings, two *kui* dragon ornaments, three round jade pieces, one jade garment hook, and three jade *huang* semi-annular jade pendants. On the floor of the inner coffin there were one group of jade waist pendants (including a pierced jade disk worn on the belt, four round tube shaped jade ornament, three square jade pearls, two long drum-shaped jade pearls, a *kui* dragon ornament, etc.). In addition there were small items such as *liao* jade 料珠, a jade *huan* ring, jade pieces, etc. (diagram 36; photograph 27:3).

### Section Three, Chariot Pits

[132] In the Wangfutai cemetery we also excavated six chariot pits, designated Pits One through Six, which were concentrated in the southwest part of the area which we excavated (diagram 1). The shape and structure of the pits are basically the same; they all are rectangular earth pits, oriented between 10 and 30 degrees (based on the walls of the pit). Pit Six was the largest in area: 3.58 m long north-south, 3.05 m wide east-west, 1.7 m deep. Pit Three was the smallest: 2.98 m long north-south, 2.7 m wide east-west, 0.9 m deep. The pits were filled with rammed earth, and there were no burial goods discovered.

Except for Chariot Pit Six, no traces of chariots were discovered in the pits. The number of horses in each pit varied: there were six horses in Pit Six, there appeared to be three horses in Pit Two, and there were two horses each

in the remaining pits. The majority of the horses' heads face south, but their posture within each pit is not the same. The two horses in Pit One were placed side by side, lying on their sides back to back. The two horses in Pit Three were side by side, lying on their sides facing the same direction (photograph 30: 2). The two horses in Pit Four were placed side by side, lying on their sides facing one another. In Pit Five the two horses are arranged north-south; one lies on top of the other, and their heads face south. The east part of Horse Pit Two which was destroyed by grave M1 appeared to have three horses. One horse whose head faced south, lay on its side facing the west. The second horse's head faced south, and its body lay on its side facing the north. The third horse was supported only by its forelegs, its head stretched to the back of the head of the first horse.

Horse Pit Six was situated to the northwest of Grave M2, and is the largest of the horse pits. The six horses in the pit were divided into three groups: the group in front has two horses, the group in back consists of four horses. Some of them had decorative ornaments: two bronze *huan* rings, five bronze *pao*, two bronze *jiyue* harness ornaments, two butterfly-shaped bronze tube ornaments, two bronze *jiaoju* 绞具 reamers (photograph 59: 4).

Behind the horses there appeared to be a *zhou* 轴 chariot axle. At its two ends there were bronze chariot *wei* axle caps. The two axle caps were 2.4 m apart; no traces of chariot wheels were seen. It is possible that they just placed the chariot axle to represent a war chariot. The pit behind the horse is very small in area, and it would not be able to accommodate a war chariot. There was a dog skeleton in the northeast corner of the pit; with a bronze *ling* bell beneath the dog's neck (photograph 30: 3).

[133] In addition to Chariot Pit Six, Horse Pits One and Three each had a dog (with a *ling* bell below its neck) placed in their northeast corner.

The chariot axle end excavated from Chariot Pit Six (photograph 59: 3) is identical in shape and form with the one from Grave M48. Pit Six dates to the same (or nearly the same) time period as grave M48, namely middle period or late period Western Zhou. None of the remaining pits had implements, and their dating was unclear, but Horse Pits One and Two are distinguished by their having been cut into by graves M1 and M2 (which date from the end of the Spring and Autumn period to the beginning of the Warring States period), so their dates must be earlier than graves M1 and M2. Moreover the arrangement of the horse pits was well-laid-out; the dating of Pit Six and the other horse pits do not appear to be far off; it is possible they are all from the Western Zhou period.

#### Section Four, Funeral Goods

The great majority of Western Zhou Group B graves are whole and without losses. There is only a single grave which had been cut into by the floor of a later period grave, so that a portion of the burial articles were already missing. Otherwise the majority of the burial articles of the Western Zhou Group B graves are simple; among them a good many graves had only one or a few pottery sacrificial funerary vessels. The situation in the Eastern Zhou Group B graves was just the opposite; there is only one complete grave, and the remainder were all looted. However a number of pottery vessels and small jades which are worth examining remained in several large graves. In all there were nearly one thousand seven hundred items made from pottery, porcelain, bronze, gold, silver, iron, jade, stone, agate, rock crystal, ivory, bone, mussel shell, etc. (counting strings of beads and ornaments as separate items). Below we have explicated them in ten categories: pottery vessels,

porcelain vessels, bronze vessels, gold, silver, and iron vessels, jade and stone items, lacquer items, “fused stoneware,”<sup>82</sup> items made from bone, ivory, and shell; strung decorations, gaming pieces, etc. The strings of beads and gambling items both included several kinds of materials; it is not convenient to list each material, so therefore we have listed each implement by shape.

### (1) Pottery vessels

There was a total of forty-eight graves which had pottery burial vessels, from which a total of two hundred fifty-seven pottery vessels were unearthed. The majority of which were *mingqi* burial offering vessels; there were only a very few utilitarian vessels. The main method of manufacture of the pottery vessels was by wheel-turning. The main pattern was cord marks, carried out on the surface of *li* and *fu*. Next there were concave bowstring patterns, which for the most part occurred on the surface of *guan* from the late Western Zhou period. In addition there were “subtle” patterns and incised patterns, many of which are seen in *hu*, small *hu*, and other vessels of the Warring States period. There were seven varieties of vessel forms: *li*, *guan*, *lei*, *fu*, *jian* “mirror,”<sup>83</sup> *hu*, and ring-footed *hu*.

---

<sup>82</sup> *Liaoqi* 料器: objects made from a glass-like substance. Sometimes referred to as “glass frit.” In a short chapter on “Glass of the Chou and Han Periods” Hansford describes beads similar to those referred to in this report. “Although a feldspathic glaze was used in China in Shang times, the knowledge of this glaze did not lead to the production of glass or frit in any form. The earliest glass is dated to the late Chou period, the fourth or third century B.C., when it was used to make beads and other small objects.... The most varied glass objects from ancient China to which a definite provenance is assigned are those found in tombs of the late Chou date at Chin Ts’un near Loyang in Honan. The tombs were of varying age, beginning as early as the middle of the sixth century B.C. but belonging for the most part to the fourth and early third centuries B.C.” Hansford, *Glossary*, pp. 78-80.



(A) Pottery *li* : Thirty-five vessels. Almost all of these pottery *li* were modeled on bronze *li*. For example, all but one of the vessels have *fei* flanges on the “belly” above the three feet. There is one vessel whose shape is unclear; the remainder are divided into twelve types:

Type I: One vessel (M44: 1). Rising at an inclined sloped, it divides relatively high into a crotch, with relatively short foot posts. The belly section directly above the three feet is decorated with a pattern of cock’s comb-like clumps (冠状堆纹). The surface of the vessel is plain, while the bottom section shows traces of cord mark daubing. This sand tempered gray pottery vessel is 13.2 cm tall and 15 cm in mouth diameter (diagram 37: 1; photograph 32: 1).

Type II: Five vessels. The rim is bent back to the horizontal, or at an oblique angle. Along the inside and outside of the rim there are rows of concave “bowstring” decorative patterns. The crotch area is connected and slightly shrunken. The belly is comparatively deep. There is a relatively small distance between the three feet. The neck area is wiped smooth. The belly is decorated with coarse cord marks. There is a ring of square-shape impressed patterns or fingertip-pressed concave indentations on the shoulder. For example, M57: 4 has a bent rim and is a sand tempered red pottery (diagram 37: 3; photograph 32: 3).

Type III: One vessel (M35: 1). The vessel has a restrained mouth, with a wide inclined rim, and a restricted neck. The crotch is comparatively high and yet slightly shrunken. The inside and outside of the mouth rim is decorated above and below with a line of concave bowstring pattern depressions. The

---

<sup>83</sup> *Jian* 鉴, a pottery vessel in which water is poured, to function as a mirror.

shoulder area has a circular impressed pattern. The belly area has cord marks which are comparatively refined. The "cock's comb" flange is relatively small yet the pattern is sparse. This gray paste texture pottery vessel is 13.1 cm tall, and the mouth diameter is 16.9 cm (diagram 37: 9; photograph 32: 2).

[134] Type IV: One vessel (M11: 2). The rim flares out at a wide angle. The crotch is relatively flat, and the feet are post-like. The inside and outside surfaces are each decorated with a line of concave bowstring depressions. The neck area is wiped smooth; the shoulder has a ring of finger-pressed concave pits. The belly is decorated with relatively shallow "medium" cord marks. This sand tempered gray pottery vessel is 14.1 cm tall and the mouth diameter is 18.3 cm (diagram 37: 4; photograph 32: 4).

Type V: Seven vessels. The rim is bent back to the horizontal, or at an oblique angle. The inside and outside surfaces are each decorated with a line of concave bowstring depressions. The legs are bunched together at the slightly shrunken crotch area. The belly is comparatively deep, and the three feet relatively short. The neck area is smooth polished; the shoulder area has a ring of incised patterns; the belly is decorated with coarse cord markings. In Specimen M23:2 the feet are cast outward slightly. This sand tempered red-brown pottery vessel is 13.5 cm tall and the mouth diameter is 16.7 cm (diagram 37: 2; photograph 32: 6).

Type VI: One vessel (M30: 67). The mouth is slightly restrained; the rim bends back nearly horizontal. The belly is relatively shallow yet broad, the lower belly bulges outward. The crotch is flat, the neck area has traces of cord marks which had been rubbed out. The belly is decorated with coarse cord marks. The shoulder area has a ring of impressed patterns. This is a sand tempered gray-black and red-brown pottery, 13.8 cm tall, and the mouth diameter is 17.8 cm (diagram 37: 5; photograph 32: 5).

[135] Type VII: One vessel (M49: 11). A straight mouth, inclined rim, shallow belly and flat bottom. Its awl shaped feet are relatively tall. The outside rim is decorated with a line of concave bowstring pattern. Below the rim and neck there are traces of cord marks which had been wiped over. The belly is decorated with shallow cord marks. The flanges on the belly above the three feet had already fallen off. The fine grit tempered red-brown pottery vessel was 13.3 cm tall and the mouth diameter is 15.3 cm (diagram 37: 6; photograph 33: 3).

Type VIII: One vessel (M26: 3). A relatively small vessel, with broad obliquely angled rim. Its three feet are relatively tall and slightly turned outward. The neck is smoothly polished. There are no flanges on the belly; it is decorated with cord marks. The vessel is 12.3 cm tall and the mouth diameter is 13.3 cm (diagram 37: 7; photograph 33: 1).

Type IX: Nine vessels. The mouth is restrained. The rims are either folded back nearly horizontal or slightly angled. The lips are either fairly wide and gathered in or rounded. The belly is relatively broad; the crotch is flat, and the feet post-like. Both the inside and outside edges of the mouth and rim are decorated with a strip of concave bowstring pattern. The shoulder is decorated with a pattern of ring impressions; some decorations are finger impressed concave pits. The belly is mostly decorated with relatively fine cord marks. Specimen M19: 3 is a gray-brown fine grit tempered pottery (photograph 33: 2).

Type X: Four vessels. Restrained mouth; the rim is either folded back nearly horizontal or slightly angled. Restricted neck; tall crotch; the shoulders are polished smooth. The belly is decorated with coarse cord marks. Specimen M15:3 was a red-brown fine grit-tempered pottery, 14.6 cm tall, and the mouth diameter is 15.2 cm (diagram 37: 8; photograph 33: 4).

Type XI: Two vessels. The thin rim is bent nearly horizontal; rounded lip; the belly is relatively straight; the crotch is connected. On the inside and outside of the rim there is a strip of concave bowstring pattern. The neck area has traces of cord mark impressions which had been rubbed out. The shoulder area has a circle of impressed patterns, and the belly is decorated with fine cord marks. Specimen M56:5 is a red-brown paste texture pottery (photograph 33: 5).

Type XII: One vessel (M14: 4). The rim is comparatively narrow. The belly is relatively straight; on its underside the crotches blend together and so that it is relatively flat. The three feet are relatively short. There is a line of concave bowstring pattern around the mouth. Below the rim and in the neck area there are traces of cord mark impressions which had been rubbed out. On the shoulders there is a circle of incised patterns of vertical segments. The belly and the bottom are decorated with cord marks. This gray fine grit-tempered pottery is 13.4 cm in height and the mouth diameter is 17.2 cm (diagram 37: 10; photograph 33: 6).

(B) Pottery *guan*: One hundred fifty-five (155) vessels, divided into twenty-nine (29) types:

Type I: One vessel (M57:5). [This vessel] has a small mouth which is slightly restrained; the rim is flat. The shoulders turn back. While the bottom is flat, there are marks of concave scraping. The rim and collar are each decorated with a line of concave bowstring pattern. This gray paste texture pottery vessel is 8.8 cm tall and its mouth is 6 cm in diameter (diagram 38: 1; photograph 34: 1).



Type II-A: One vessel (M57: 9). This vessel form is short and small. It has a flat rim, short neck, bulging shoulders, and a slightly concave flat bottom. This gray-brown grit-tempered pottery vessel is 6 cm tall and its mouth diameter is 6.3 cm (diagram 38: 2).

Type II-B: One vessel (M29: 4). This vessel is taller than Type A. With its taller neck section, this black pottery paste texture vessel is 7.8 cm tall and its mouth diameter is 7.8 cm (diagram 38: 6; photograph 34: 7).

Type III-A: One vessel (M57:6). Flat rim, angular shoulders. There is no division between the neck and shoulder. The bottom is flat. A gray-brown paste texture pottery, the vessel is 6.6 cm tall and its mouth diameter is 6.6 cm (diagram 38: 3; photograph 34: 2).

Type III-B: One vessel (M11:1). This vessel has a relatively distinct neck section and bent-back shoulders, and is made of a gray paste texture pottery (photograph 34: 3).

Type III-C: Two vessels. The mouth is fairly large, flat rim, bent shoulders. The bottom is flat yet slightly concave. The lower section of the belly is decorated with a concave groove. The vessel is made of a gray-brown fine grit-tempered pottery. Specimen M30:59 is 7.8 cm tall and the mouth diameter is 8.6 cm (diagram 38: 8; photograph 35: 2).

Type IV: Five vessels. Flat rim, short neck, the upper part of the belly bulges outward. The lower part gathers in, and the bottom is flat. Specimen M11:3, a gray-brown paste texture pottery, is 6.5 cm tall and the mouth diameter is 6.9 cm (diagram 38: 4; photograph 34: 5).

Type V-A: One vessel (M24: 2). Flat rim, short neck, rounded shoulder, gathered-in belly, flat bottom. There is a thin concave groove on the circumference near the bottom part of the belly. This gray paste texture vessel is 7 cm tall and the mouth diameter is 7.8 cm (photograph 34: 4).

[136] Type V-B: Five vessels. Large mouth, short rounded neck, bulging shoulders, restrained belly. The small flat base is slightly concave. The lower part of the belly has marks from scraping. Specimen M29:5 is 7.3 cm tall and the mouth diameter is 8.6 cm (diagram 38:5; photograph 34: 6).

Type VI: One vessel (M38:2). The mouth is relatively large, flat rim, rounded neck, bent back shoulder, and the lower part of the belly is gathered in slightly. The base is flat yet slightly concave. The shoulders are decorated by incised strokes with a simplified rectangular spiral design. The belly is decorated with a triangular pattern. This gray-black paste texture pottery vessel is 8.6 cm tall and 7.8 cm in mouth diameter (photograph 34: 8).

[137] Type VII: Two vessels. Large mouth, the surface of the rim is slightly concave, short and rounded neck, bent shoulders. The bottom is flat yet slightly concave. The belly of specimen M38: 3 is decorated with roof tile patterns<sup>84</sup> (diagram 38: 7; photograph 34:1).

Type VIII: Two vessels. Straight mouth, short neck, rounded shoulders, flat bottom. There are a shallow bowstring patterns on the mouth and rim. There are scraping marks on the belly. The shoulders and belly are polished. A pottery slip was applied to this red paste texture pottery vessel. Specimen M49: 21 is 8.8 cm tall and the mouth diameter is 7.2 cm (diagram 38: 12; photograph 35: 6).

[138] Type IX-A: Ten vessels. Straight mouth, flat rim, curved neck. The shoulders are rounded and bulge outward, the belly gathers in, and the base is flat. The shoulders are polished, the lower part of the belly has scraping marks. A pottery slip was applied to this gray-brown paste texture pottery. The

---

<sup>84</sup> "Hill-and-valley" seems appropriate here; the lower belly has four "peaks" and four "valleys" in the illustration.

vessel shape is very standardized. Specimen M48: 31 is 8 cm tall and the mouth diameter is 8.3 cm (diagram 38: 9; photograph 35: 3).

Type IX-B: Twelve vessels. The mouth is slightly [more] open; the rim is flat. The curved neck is taller, and the curved shoulders bulge outward. The belly is restrained, resting on a small flat base. Some of the flat bases are slightly concave. The location of the largest diameter of the vessel has shifted lower. The entire vessel is polished, has a pottery slip, and was manufactured with precision. Specimen M8: 2 is a red-brown paste texture pottery, 9.3 cm tall, and the mouth diameter is 8.7 cm (diagram 38: 13; photograph 35: 7).

Type IX-C: Three vessels. The shape and style of Type C is similar to type A, but are different by being larger. There is a shallow concave groove along the mouth and rim of Specimen M32: 5. The neck, shoulders and belly are each decorated with concave bowstring markings. The entire vessel is polished, covered with a ceramic slip, and made of a gray paste texture pottery. It is 11 cm tall and the mouth diameter is 8.9 cm (diagram 38: 14; photograph 35: 8).

Type X-A: One vessel. Wide mouth, restricted neck, bent-back shoulders, restrained belly, flat base. Specimen M48: 13 has finger-pressed concave grooves on its upper belly area; its lower part has evidence of trimming. This gray-brown paste texture pottery vessel is 7.8 cm tall, and the mouth diameter is 7.8 cm (diagram 38: 10; photograph 35: 4).

Type X-B: One vessel. The mouth is large and somewhat spacious. The rim is flat, the shoulders rounded. The belly is restrained, and the base flat. A convex ridge rings around the angled neck. The shoulder area is polished, and there are traces of paring on the lower part of the belly. A pottery slip covers this gray-black paste texture pottery vessel which is 9.6 cm tall, and the mouth diameter is 9.6 cm (diagram 38: 15; photograph 36: 1).



Type XI-A: Four vessels. The mouth is somewhat broad, the rim relatively wide, short rounded neck, the bent-back shoulders relatively wide, restrained belly, flat base. On the top of the rim there is a finger-impressed shallow concave groove. The shoulders and belly are decorated with minute concave bowstring marking-patterns. These vessels are gray-brown paste texture pottery. Specimen M49: 10 is 8.6 cm tall, and the mouth diameter is 8.3 cm (diagram 38: 11; photograph 35: 5).

Type XI-B: One vessel (M32:14). The mouth is somewhat broad, the rim is flat, the neck is rounded. The rounded shoulders are relatively wide and flat. The belly is restrained, the base is flat. The area above the belly is decorated with a finger-impressed shallow concave groove. This gray-black paste texture pottery vessel is 9.6 cm tall, and the mouth diameter is 8.4 cm (photograph 36: 2).

Type XII: One vessel (M56: 2). Outward turned mouth; rounded lip; fairly tall rounded neck. Broad shoulders, round belly, round bottom. The mouth area is decorated with a line of coarse concave bowstring markings. The shoulders and belly are decorated with eleven lines of shallow concave bowstring markings. The entire vessel is polished. This gray paste texture pottery has a ceramic slip, and is 12.5 cm tall, and the mouth diameter is 9.4 cm (diagram 38: 16; photograph 36: 3).

Type XIII-A: Two vessels. The mouth is somewhat broad and comparatively large. Flat rim, rounded neck; rounded shoulders bulge outward; restrained belly which is slightly concave where it approaches the base. The small flat base is slightly concave. The neck, shoulder, and belly sections are decorated with fine concave bowstring patterns. This is a gray paste texture pottery, with a ceramic slip; it was manufactured with great



precision. Specimen M32: 2 is 10.8 cm tall, and the mouth diameter is 10.1 cm (diagram 8: 17; photograph 36: 4).

Type XIII-B: One vessel (M27: 6). The mouth is relatively small, the round neck fairly tall. The belly bulges, and the inner section of the base of the belly is constrained. The base is flat but slightly concave. The shoulders and belly are decorated with five lines of symmetrical bowstring patterns. This is a gray paste texture pottery with a ceramic slip. The height of the vessel is 14.4 cm, and the mouth diameter is 9.2 cm (diagram 38: 19; photograph 36:5).

Type XIV: One vessel (M27: 1). The mouth fans outward, the neck is restrained. The round shoulders bulge outward. The belly is constrained. The flat base is slightly concave. There is a line of shallow concave grooves on top of the rim. The neck and belly are decorated with a line of bowstring patterns. The vessel is a gray paste texture pottery, covered in a ceramic slip. The height of the vessel is 13.7 cm, and the mouth diameter is 10.8 cm (diagram 38: 18); photograph 37: 5).

Type XV: One vessel (M27: 5). The mouth fans outward; short and round neck; rounded belly and base; the shoulders are decorated with five lines of bowstring patterns. The entire body is polished, and covered in a ceramic slip. The height of the vessel is 11.8 cm, and the mouth diameter is 9.5 cm (diagram 38: 20; photograph 37: 1).

Type XVI: One vessel (M7: 2). A small slanted rim, short rounded neck, round shoulders, restrained belly. The base is flat but slightly concave. The shoulders are decorated with four lines of concave bowstring patterns. This red paste texture pottery is polished, with a ceramic slip. The height is 15.2 cm, and the mouth diameter is 10.8 cm (diagram 39: 1; photograph 37: 2).

[139] Type XVII: One vessel (M7: 3). The mouth is somewhat open; angular rim, short neck, and the shoulders buckle back. The base section of

the belly is inwardly restricted. The base is flat but slightly concave. Several lines of concave bowstring patterns decorate the juncture of the belly and shoulders. This is a gray-brown sand tempered pottery, part of which is gray-black in color. This polished vessel is 8.7 cm tall, and the mouth diameter is 6.9 cm (diagram 39: 2; photograph 37: 4).

Type XVIII: One vessel (M22: 2). Contracted mouth, angular rim, short neck, constrained belly, flat base. The entire body is polished. The vessel is a red-brown paste texture pottery, 20 cm tall, and the mouth diameter is 10.8 cm (diagram 39: 3; photograph 37: 5).

Type XIX: One vessel (M50: 1). The mouth is somewhat restrained, flat rim, rounded lip. The round neck is fairly tall. The round shoulders bulge outward. The belly is constrained. The base is flat. The shoulders are decorated with two line of deep bowstring patterns. The belly section has a line of shallow bowstring patterns. There is a ceramic slip on this red-brown paste texture pottery, which is 15.2 cm tall, and the mouth diameter is 10.8 cm (diagram 39: 4; photograph 37: 5).

Type XX: One vessel (M10: 2). The vessel's shape resembles a *pan*. Contracted mouth, the rim is small and slanted. Rounded lip, restrained neck. The shoulders buckle back. The base is round. The entire vessel is polished. This red paste texture ceramic is 10.5 cm tall, and the mouth diameter is 12.3 cm (diagram 39: 5; photograph 38: 1).

Type XXI: One vessel (M10: 1). Contracted mouth; angular rim. The neck is restricted. The shoulders are broad and flat. The base is rounded and concave. The shape of the vessel is flat and small like a *fu*. The entire body is polished. This gray-brown paste texture pottery vessel is 7.7 cm tall, and the mouth diameter is 8.3 cm (diagram 39: 6; photograph 38: 2).

Type XXII-A: One vessel (M15: 4). The mouth is small yet open, while the rim is flat. The neck is short and angled. The shoulders are rounded and bulge outward. The belly is restrained. The base is small and flat. The vessel, whose entire body is polished, is fairly tall. This red paste texture pottery vessel is 12.4 cm tall, and the mouth diameter is 6.8 cm (diagram 39: 7; photograph 38: 3).

Type XXII-B: One vessel (M15: 5). This vessel is smaller than Type A yet the base is comparatively large. Its height is 10.4 cm, and the mouth diameter is 7.1 cm (diagram 39: 8; photograph 38:4).

Type XXIII-A: One vessel (M15: 4). The mouth is turned over. The rim is flat. The neck is tall and rounded. The base is round. The body of the vessel is fairly tall. The neck and shoulders are decorated with ten lines of concave bowstring patterns. The vessel, whose entire body is polished, is covered with a ceramic slip. This gray sand tempered pottery vessel is 17.9 cm tall, and the mouth diameter is 13.3 cm (diagram 39: 10; photograph 38: 5).

Type XXIII-B: One vessel (M14: 6). The vessel is very close to that of type A, but the rounded neck is comparatively short. The neck and shoulders are decorated with twelve lines of concave bowstring patterns. The vessel is covered with a ceramic slip, and is polished. This gray-brown paste texture pottery vessel is 18 cm tall, and the mouth diameter is 13.8 cm (photograph 38: 6).

Type XXIV: Three vessels. The mouth is upright, and the neck is short and rounded. The shoulders are rounded; the base is flat but slightly concave. There are subtle patterns on the polished shoulders. Cutting marks remain on the base. These are gray paste texture pottery. Specimen M18: 5 is 9.5 cm tall, and the mouth diameter is 8.2 cm (diagram 39: 9; 67: 3).



Type XXV: Sixteen vessels. The mouth flares outward, restricted neck, rounded shoulders. The bottom part of the belly gathers in slightly, and the base is flat. The surface is plain. The vessel is made of gray paste texture pottery. The vessel shape is fairly plump. Specimen M2: 7 is 14.7 cm tall, and the mouth diameter is 10.2 cm (diagram 39: 11; photograph 39: 2).

Type XXVI-A: Eleven vessels. Upright mouth, rounded lip. The neck is upright, and the rounded shoulders bulge outward. The belly is restrained, and the base is flat. The entire body was polished. This gray paste texture pottery vessel is 15.2 cm tall, and the mouth diameter is 10 cm (diagram 39: 12; photograph 39: 1).

Type XXVI-B: Eighteen vessels. This vessel type is similar to Type A, but the shoulders are comparatively small yet fairly tall. The vessel form is rather obviously thin and tall. The vessels are covered in a ceramic slip. There are gray-black paste texture pottery vessels and gray paste texture pottery vessels. Specimen M3: 39 is 14.3 cm tall, and the mouth diameter is 8.7 cm (diagram 39: 13; photograph 39: 4).

[140] Type XXVII: Nine vessels. This vessel type is similar to the type described above, but the neck is comparatively short, and the shoulders relatively narrow. There are roundish paring marks on the outside of the base. On the inner base there are marks from the process of applying spiral shell-whorl patterns. There are concentric circular subtle patterns on the shoulders. The lid is shaped like a "ring footed bowl". The entire body of these gray-black paste texture pottery vessels are polished. Specimen M47: 9 has a lid which is fairly tall (diagram 39: 14); Specimen M51: 2 is 15.8 cm tall, and the mouth diameter is 9.5 cm (photograph 39: 5, 6).

Type XXVIII: Two vessels. Their lips are round, and their necks are short and round. The shoulders are rounded, and the base is flat. The vessels are



relatively short, are coated with a ceramic slip, and are a gray paste texture pottery. Specimen M47: 3 is 12 cm tall, and the mouth diameter is 10.5 cm (diagram 39: 15; photograph 50: 1).

Type XXIX: Sixteen vessels. Open mouth rounded neck; bulging shoulders; restrained belly; flat base. The entire vessel is polished. There are subtle patterns on the shoulders. The bases have circular marks from paring. The vessels are gray-black paste texture pottery. Specimen M58: 87 is 17.4 cm tall, and the mouth diameter is 10.1 cm (diagram 39: 16; photograph 40: 4).

The above pottery *guan* types XXIII and earlier belong to the Western Zhou period. Type XXIV and later belong to the Eastern Zhou period.

(C) Pottery *fu*: Seven vessels, divided into four types.

Type I: One vessel (M2: 1), has an upright mouth, its rim rolls downward. The neck is short, the base has three “nipple nub” feet. There are marks carved on the shoulder (diagram 41: 1). The entire vessel is impressed with coarse cord markings. Made of gray sand tempered pottery, the vessel is 31.2 tall, and the mouth diameter is 21 cm (diagram 40: 1; photograph 41: 1).

[141] Type II-A: Two vessels. The mouth and neck are upright. The belly bulges. The base is round. The entire vessel is decorated with cord marks. The neck section has remnants of cord markings which were blotted out. This is a gray-black sand tempered pottery. Specimen M52: 104 has an obliquely angled rim, and has a hand-like character on its neck (diagram 41: 4). The shoulder section is decorated with a line of pressed patterns. The vessel is relatively large (diagram 40: 2). Specimen M47: 2, which has angled lips, is fairly large (photograph 41: 2).

Type II-B: Two vessels. The mouth is upright; the lips are angled. The neck is upright, and the belly is round. There are three “nipple nubs” on the

upper part of the round base. The neck is decorated with two lines of concave bowstring patterns. The entire vessel is decorated with fine cord marks. There was a line of decorative patterns which are interrupted by an impressed pattern. The vessels are gray-black sand tempered pottery. There are round marks on the shoulder of Specimen M3: 49 (diagram 41: 2). There are impressed marks on the shoulder of M58: 110, which are similar to those of Type II-A from M52: 104 (diagram 41: 7). The vessel is 22.8 cm tall, and the mouth diameter is 18 cm (diagram 40: 4; photograph 41: 3).

Type III: One vessel (M54: 1). The mouth is somewhat open, and the rim is slightly rolled back. The neck bulges outward, and the belly and base are round. The shoulders are polished, and the vessel is covered in a ceramic slip. The lower belly is decorated with medium cord marks. The vessel is a gray-yellow paste texture pottery, 25.2 cm tall, and the mouth diameter is 22 cm (diagram 40: 5; photograph 41: 5).

Type IV: One vessel (M54: 2). The mouth is turned over and outward. The lips are round, the neck is curved and short. The belly and the base are round. The shoulders are polished and covered with a ceramic slip. There are paring marks on the belly. Cord marks decorate the lower belly. This gray paste texture vessel is 16 cm tall, and the mouth diameter is 15.8 cm (diagram 40: 3; photograph 41: 4).

(D) Pottery *lei*: Eight items, divided into three types:

Type I: Three vessels. The mouth is nearly upright, the rim is angled. The neck is short and curved. The shoulders bulge, and the belly is restrained. The base is small and round. There is a convex ridge on the mouth. The lid is shaped like a “ring footed bowl”. The entire vessel is polished, and made of a

gray paste texture pottery. Specimen M1: 6 is 22.6 cm tall, and the mouth diameter is 8 cm (diagram 42: 3; photograph 40: 5).

Type II: Two vessels. The mouth is upright, the rim is narrow and angled downward slightly. The lips are square, and the neck is upright. The belly bulges. The vessel base has a ring foot. This is a gray paste texture pottery. Specimen M47: 1 has marks on the shoulders (diagram 41: 3), and is 21.8 cm tall, and the mouth diameter is 12 cm (diagram 42: 2; photograph 40: 3).

Type III: Four vessels. The mouth is cast outward slightly. The lips are angled. The neck is upright. The shoulders bulge. The vessel is ring footed, and made of gray paste texture pottery. Specimen M51: 3 is 13.6 cm tall, and the mouth diameter is 12 cm (diagram 42: 1; photograph 40: 2).

(E) Pottery *hu*: Thirty-six vessels, divided into six types.

Type I: Three vessels. The mouth is upright, the rim is concave. The lips are curved and the neck is upright. The shoulders are rounded. The base is flat. There is a shallow finger impressed groove on the lower part of the rim. There are subtle patterns on the neck and shoulders. This is a gray paste texture pottery, covered with a ceramic slip. Specimen M18: 9 is 16 cm tall, and the mouth diameter is 11.5 cm (diagram 43: 1; photograph 42: 1).

Type II: Five vessels. The mouth is upright, and the rim is flat. The lips are rounded and the neck is upright. The shoulders are round and the lower part of the belly is slightly restrained. The base is flat, with evidence of paring marks. The vessel is covered with a ceramic slip. Specimen M4: 7 is a black paste texture pottery (photograph 42: 2). Specimen M47: 4 is a gray-black paste texture pottery, 14.4 cm tall, and the mouth diameter is 10 cm (diagram 43: 2; photograph 42: 3).

Type III: Four vessels. The mouth is upright, and the lips are square. The neck is upright, and the rounded shoulders bulge outward. The base is flat. There are convex bowstring patterns on the upper rim. There are concave bowstring patterns of varying degrees of workmanship on the neck, shoulders, and belly. The shoulders are divided into three sections, each of which are decorated with wave-like subtle patterns. This is a gray paste texture pottery. Specimen M52: 92 is 20 cm tall, and the mouth diameter is 14.2 cm (diagram 43: 3; photograph 42: 4).

Type IV: Sixteen vessels. The mouth is upright, the lips rounded. The neck is upright, and the shoulders rounded. The belly is restrained, and the base is flat. The entire vessel is polished, and covered with a ceramic slip. There are "hill and valley" patterns on the shoulders and belly. The vessels are gray paste texture pottery. Specimen M52: 101 was 19.2 cm tall, and the mouth diameter is 10.6 cm (diagram 43: 4; photograph 42: 5).

[142] Type V: Four vessels. Capacious mouth; obliquely angled rim; square lips; tall neck. The rounded shoulders bulge outward. Restrained belly; flat base. The neck and shoulders are each decorated with two lines of coarse concave bowstring patterns. The shoulders are decorated with four groups of subtle patterns. Each of these groups include a small tree and a concentric half-circle. The entire vessel is polished. The vessel is a gray paste texture pottery, decorated with a ceramic slip. Specimen M3: 19 is 22.6 cm tall, and the mouth diameter is 12.5 cm (diagram 43: 5; photograph 43: 1).

Type VI: Four vessels. The mouth is somewhat spacious. The rim is flat, and the neck is tall and upright. The shoulders are rounded, and the base is flat. There are traces of cord marks which were daubed out on the neck. The entire vessel was polished. There are a pair of circular stamp impressions on the bottom (diagram 41: 5, 6). The vessel is a gray paste texture pottery.



Specimen M58: 89 is 21.2 cm tall, and the mouth diameter is 11.5 cm (diagram 43: 6; photograph 43: 2).

[144] (F) Pottery ring footed *hu*: 16 vessels, divided into 2 types.

Type I-A: Two vessels. Small mouth; tall and straight neck; oblate shaped belly. It has a tall ring foot. Its foot-pedestal is relatively large [in diameter] yet short. It has a lid. The belly is decorated with two lines of concave bowstring patterns. The vessel is a gray paste texture pottery. Specimen M3: 66 is 23.2 cm tall, and the belly diameter is 14.8 cm (diagram 43: 9; photograph 43: 1)

Type I-B: Two vessels. The ring foot is shorter than that of Type I-A; the foot-pedestal is relatively small yet tall<sup>85</sup>. The knob and rim of the lid, and the shoulder area, are decorated with coarse concave bowstring patterns. There are subtle patterns on the shoulders; they are already peeling off and indistinct. The vessel is a gray paste texture pottery covered with a ceramic slip. Specimen M3: 59 is 22.2 cm tall, and the belly diameter is 14.7 cm (diagram 43: 10; photograph 43: 2).

Type I-C: Five vessels. Basically similar to Type I-B, but there is a coarse convex ridge at the bottom of the belly. The foot-pedestal and the vessels' walls are decorated with two lines of concave bowstring patterns. The lid, shoulder, and belly are all decorated with subtle patterns, and polished. The vessels are gray paste texture ware. Specimen M3: 55 is 23.7 cm tall, and the belly diameter is 15.9 cm (diagram 43: 11).

Type II-A: Two vessels. The mouth is somewhat open; rounded belly. The belly makes a curved transition into the base section. The vessels have short

---

<sup>85</sup> The preceding comparison between Type I-A and I-B seem opposite to their appearance in Diagram 89.

ring feet, and have lids. The juncture where the shoulder and belly join is decorated with a line of concave bowstring patterns. The lid and shoulders are decorated with concentric half circle subtle patterns. These are gray paste texture pottery, covered with a ceramic slip. Specimen M54: 3 is 20.8 cm tall, and the belly diameter is 14.3 cm (diagram 43: 7; photograph 43: 3).

Type II-B: Five vessels. Basically similar to Type II-A, but smaller. Specimen M54: 4 is 18.6 cm tall, and the belly diameter is 12.2 cm (diagram 43: 8; photograph 44: 4).

(G) Pottery *jian*:<sup>86</sup> One vessel (M1: 18). The mouth is restrained, the rim turns back nearly horizontal. The lips are square. The neck is restrained. The upper part of the belly has a convex ridge around its circumference. The shoulders are decorated with triangular markings. The base is flat. The vessel is a gray paste texture pottery, 17.6 cm tall, and the mouth diameter is 28.4 cm (photograph 41: 6).

In addition there are several pottery molds, all of which collapsed after firing, and took on a red-brown color. Specimen M58: 84 is a 10 cm long inner mold for an *yi* (photograph 45: 1).

## (2) Porcelain Vessels

Four porcelain *guan*, divided into two types.

Type I: Two vessels, which came from grave M52. The mouth is restrained, and the lips are obliquely angled. The round shoulders bulge outward. The belly is gathered in, and the bottom is flat. On two sides of the

---

<sup>86</sup>

Water poured in this vessel was used as a mirror.

shoulders there are *huan* ring style handles decorated with animals' heads. The lid has a flat topped circular knob-handle; its upper part is decorated with two lines of concave bowstring patterns. The lid and shoulders are decorated with yellow glaze. There is no glaze on the bottom of the belly. Specimen M52: 99 is 18 cm tall, and the mouth diameter is 16 cm (diagram 44: 1; photograph 45: 5).

[145] Type II: Two vessels. The mouth is somewhat open, and the neck is extremely short. The rounded shoulders bulge outward. The belly is restrained. The bottom is flat. The vessel is decorated with a bright yellow glaze, in which there are tiny crackles. The "roughcast" parts<sup>87</sup> are red-brown in color. Specimen M58: 105 is severely peeled. Two sides of the shoulder area have "S"-shaped corrugated patterns. Specimen M58: 105 is 13.6 cm tall, and the mouth diameter is 12.8 cm (diagram 44: 2; photograph 45: 4).

### (3) Bronze implements

There were twelve Group B graves which included funerary bronze implements. These included containers, items of personal adornment, weapons, chariot accessories. There were forty-six bronze containers of twelve kinds: *ding, yan, xu, gui, fu, hu, pan, yi, fou, guan, jiao* 鑊<sup>88</sup> *hu, bo*. Many of the Eastern Zhou bronze containers had plain surfaces. Decorations on the Western Zhou bronze containers included *taotie* motifs, curved and hooked forms, continuous hook-curved and hooked forms, ragged

---

<sup>87</sup> *Tai* 胎 here indicates those surfaces which are not covered with glaze.

<sup>88</sup> A three footed, handled, wine heating utensil.

curves, hanging scale patterns, *kui* dragon patterns, roof tile patterns, etc. (diagram 45, 46).

## Group 1, Containers

(A) Bronze *ding*: Twelve vessels, divided into seven types.

Type I: One vessel (M23: 1). Upright mouth, bent rim, upright ears slightly tilted outward, the lower part of its belly bulges outward, flat bottom, half-rounded pillar shaped feet. The belly is decorated with *taotie* motifs consisting of three groups of *kui* dragons. The body of this vessel is relatively flimsy. When this was unearthed it was seriously damaged, but it has now been repaired and restored. It is 22.1 cm tall, and the mouth diameter is 17.4 cm (photograph 46: 1).

Type II: One vessel (M11:12). Upright mouth, bent rim, upright ears, round bottom. The bottom was molded and cast from three pieces. The three feet are half tube forms made in the form of animals' feet. The inside of the feet are at an inclined plane, with no trace of the inner mold. There are two lines of concave bowstring patterns decorating the entire rim-edges of the two handles. The neck area is decorated with continuous hook-curved and hooked forms. The decorations were filled and leveled up with black lacquer. The belly area has a convex strip around it. The base has traces of soot. It is 19.3 cm tall, the mouth diameter is 22 cm, and the belly is 10.1 cm deep (photograph 46: 2).

[146] Type III: One vessel (M20:1). Straight mouth; bent rim. The handles are upright with a slight outward angle. The bottom of the vessel is



round. The bottom was cast from three molds. The three feet which are half-tubes in the shape of animals' hooves are splayed outward slightly. The insides of the feet are flat, they do not reveal their inner mold. The upper part of the feet are sturdy; inside they are very thin. There are no decorations on the two handles. The neck area is decorated with a ring of repeated interlocking patterns. These decorations are filled with black lacquer. The belly area has a line of protruding ridges. The bottom has traces of smoke. It is around 19.5 cm tall, the mouth diameter is 24.5 cm, and the belly is 11.3 cm deep (photograph 46: 3).

Type IV: Four vessels. The belly is relatively shallow; the mouth is vertical; the rim is turned-back. The handles are upright. The rounded bottom was cast from a one piece mold. The three feet are half tubes in the shape of animals' hooves. The inner side of the feet have a concave shape; they do not show their inner mold. The rim of Specimen M30: 1 is relatively thin. The two handles are cocked slightly outward. The rounded bottom is comparatively flat. The ears are decorated with concave bowstring patterns. The circumference of the neck is decorated with repeated interlocking patterns. The belly and the upper part of the three legs are decorated with a hanging fish scale pattern (photograph 46:4). The neck section of Specimen M46: 1 is decorated with repeated interlocking patterns. There is a convex ridge around the circumference of the belly. The overall height of the vessel is 22 cm, the mouth diameter is 24.5 cm, and the depth of the belly is 11.3 cm (photograph 47: 1).

Type V: Three vessels, from M48, which are identical in shape and structure. Their sizes are in sequence, and would appear to have been ordinarily arranged as a row of *ding*, but they are placed separately on the north and south ends of the top of the outer coffin floor. As for the shape of

the vessels, the mouth is slightly restrained, the rim bent, and the handles upright. The rounded bottom is slightly flat. The three feet are shaped like animals' hooves; the inner side of the feet have a concave shape yet do not show their inner molds. The bottom was cast from a one piece mold.

The outer sides of the two handles of Specimen M48: 23 are decorated with concave bowstring patterns. The neck section is decorated with repeated interlocking patterns; the belly section is decorated with hanging fish scale patterns. Black lacquer was used to fill the decorative patterns. Three lines of twenty-two characters were cast on the inner wall of the belly: "Zhong Qi of Lu commissioned the manufacture of this sacrificial Shang-*ding* for his august deceased father. May he enjoy myriad years of longevity! May his sons' sons and grandsons' grandsons forever treasure and use [it] in performing sacrifices" (diagram 47: 1).<sup>89</sup> This vessel has a total height of 28.7 cm, a mouth diameter of 29.5 cm, and the depth of the belly is 14.3 cm (photograph 47: 2).

Specimen M48: 3 has two ears decorated with *kui* dragon patterns, and legs which are comparatively tall. Its inscription is the same as the one described above. The total height is 26.2 cm, mouth diameter 26.6 cm, and the belly was 12.6 cm deep (photograph 47: 3). M48: 18 was damaged when it unearthed, but it has now been restored. The handles are decorated with two lines of concave bowstring patterns. The neck section is decorated with a repeated interlocking pattern. The total height is 24.5 cm, the mouth diameter is 24 cm, and the belly is 11 cm deep (diagram 51: 1).

[148] Type VI: One vessel (M14: 3). The mouth is upright, the rim bent, the handles are upright but slightly cocked outward. The bottom is round. The

---

<sup>89</sup> "Lu Zhong Qi zhao zuo huang kao Shang ding, qi wan nian mei shou, zi zi sun sun yong bao yong xiang" (鲁中齐肇作皇考將鼎其万年眉寿子子子孙永宝用享)

three feet, half tubes in the shape of animal hooves, are relatively short. Their inside surfaces have no evidence of their inner molds. The bottom of the vessel was cast from a single mold. The two ear handles have a pair of lines of concave bowstring patterns. The neck region has two lines of concave bowstring patterns. The total height is 21.5 cm, the mouth diameter is 24.5 cm, and the belly is 11.4 cm deep (photograph 47: 4).

Type VII: One vessel (M58: 95). Opening with a matching lid is close fitting. The mouth, which has a *zimukou* fitted lid,<sup>90</sup> is slightly contracted. The ear handles are attached to the side, and the bottom is flat. The lower part of the belly bulges outward slightly. The three tall chisel-shaped feet are slightly splayed outward.

The lid is decorated with three ring-knobs. It has three rings of convex bowstring patterns. It has a smooth surface. The total height is 14.5 cm, the mouth diameter is 12.5 cm, and the depth of the belly is 5.5 cm (photograph 45: 2).

(B) Bronze *yan*: One vessel (M48: 15). Made from a combination of the *zeng* 甬 and the *ding*. The *zeng* section has a open mouth, a curved neck, and a restrained belly. On two sides of the neck section there are attached ear handles. There are nine cross-shaped holes on the bottom of the *zeng*. The neck section is decorated with a repeated interlocking pattern. The belly is decorated with a “broad-figure band”. Encircling the base of the *zeng* there are convex ridges; below there is a notch-shaped attachment [to go into the *ding*]. On the inner wall of the belly there are eighteen characters in four

---

<sup>90</sup> A cross-section of the mouth, rim, and cover may be seen as a bent child's arm (mouth-rim) meeting the bent arm of a protecting mother.



lines: “Zhong Qi of Lu made this display *yan*. May he enjoy myriad years of longevity, and his sons’ sons and grandsons’ grandsons eternally treasure and use [it]!” (diagram 47: 2).<sup>91</sup> The mouth of the *ding* part was made as a notch shaped receptacle mouth. It has a restricted neck, attached ears, bulging belly, and a round bottom. The “animal hoof” feet are half tubes in form. The bottom was made from a one piece mold. Its total height is 41.1 cm, and the mouth diameter is 31 cm (diagram 51: 2; photograph 48: 3).

(C) Bronze xu: Three vessels. The vessel is shaped like a rectangle with rounded corners. On two sides there are handles in the form of animals’ heads holding rings in their mouths. The lid has a rim. The mouth rim and ring foot are decorated with curved and hooked patterns. The belly is decorated with roof tile patterns. The underside of the lid bears thirty-six characters in six lines, which read: “Yu, Elder of Lu, openly and respectfully commissioned the production of this display *xugui* for his august deceased father and august mother. Rising early, Yu will thereby use it to express filial devotion and use it to pray for numerous blessings. May Yu enjoy myriad years of longevity and eternally treasure and use [it] in performing sacrifices” (diagram 48). The total height of M30: 2 is 19.2 cm, 23.5 in length, 15.2 cm in width, and 8.7 cm deep (photograph 49: 1, 3).

The top face of the lid to M48: 2 is decorated with *kui* dragon patterns and roof tile patterns. The bottom of the lid bears four lines of twenty-eight characters, which read: “Zhong Qi, Overseer of Land at Lu, commissioned this feasting *xugui* for his august deceased father Bo Zou Fu. May he enjoy myriad

---

<sup>91</sup> “Lu Zhong Qi zuo lü yan qi wan nian mei shou zi zi sun sun yong bao yong” (鲁中齐作旅簋其万年眉寿子子孙孙永宝用).



years of longevity, and his sons' sons and grandsons' grandsons forever treasure and use [it] in performing sacrifices." (diagram 49: 1, 2; photograph 49: 2). M48:1 and M48:2 are identical, except that the *sun* 孙 character is not repeated (diagram 49: 3, 4).

[149] (D) Bronze *gui*: Five vessels, in two types:

Type I: Three vessels. The mouth is restrained, the shoulders bulge out. On two sides there are grab-handles in the form of a ring held in the mouth of an animal's head. The vessels have lids. Specimen 46: 2 has ear handles below the grab-rings. There are four flat feet shaped like animals' faces above the ring foot. There are repeated interlocking patterns decorating the lid rim, the mouth rim, and the ring foot. The belly is decorated with roof tile patterns. The total height is 24.4 cm, the mouth diameter is 18.5 cm, and total breadth is 35.7 cm (photograph 52: 1). M48: 9 is a *mingqi* burial offering vessel. The body of the vessel and its lid were cast as one piece. They are decorated with roof tile patterns, and simplified wave patterns. There are grab-handles in the form of a ring held in the mouth of an animal's head. There are no ears. There are three flat feet below the ring foot. An inner mold remains in the vessel (photograph 52: 3).

[150] Type II: Two items. *Mingqi* burial offering vessels, whose body and lid were cast in one piece. It is decorated with roof tile patterns and interlocking ring patterns. It has grab-handles shaped like animals' heads, and a ring foot. There are remnants of an inner mold. Specimen M49: 2 has a total height of 14.5 cm, and a breadth of 20.5 cm including the ears (photograph 52: 2).

(E) Bronze *fou*: One vessel (M48:28). Rectangular *fudou* (reduplicated “peck” container) shape. The two sides have handles decorated with animals’ heads holding rings in their mouths. The top of the lid is decorated with *kui* patterns. The four sloping sides are decorated with elephant head patterns and curved and hooked patterns. On the side of the lid is a three line inscription of twelve characters, which reads: 載中作甫媵朕固子子孫永寶用 “Zai Zhong made for Fu [X] this matrimonial *fu* vessel. May her sons’ sons and grandsons’ grandsons eternally treasure and use it in performing sacrifices!” The total height is 9.5 cm, the length of the mouth 28.2 cm, and the breadth of the mouth 24 cm (diagram 47: 3; photograph 49: 4).

(F) Bronze *pan*: Five vessels, in five types:

Type I: One vessel (M30: 3). A *mingqi* burial offering vessel. The belly is relatively deep. The rim is bent, the ear handles are close to one another. There are three flat feet below a ring foot. An inner mold remains in the bottom of the *pan*. The belly is decorated with repeated ring patterns around its circumference. Its total height is 8.5 cm, mouth diameter 20.4 cm, and depth 4.2 cm (photograph 50: 1).

Type II: One vessel (M48: 8). The *pan* is shallow, with a bent rim, and with attached ears bent outwards. It is decorated on top with crouching oxen. The ox holds its head up and faces outward, as if it were bellowing. Three human figures are squatting above the ring foot. On each of them their five organs, a pair of nipples, and a navel are clearly visible. The tops of their heads are at the base of the *pan*, their backs leaning against the ring foot, and their pairs of hands in the act of lifting the *pan* up. The outer wall of the *pan* is decorated with curved and hooked patterns. The ring foot is decorated with hanging fish scale patterns. There are ridge shaped patterns on the outer base

of the *pan*. There is a three line fifteen character inscription on the inner base, which reads: “Zhong Qi, Overseer of Land at Lu, commissioned the making of this *pan* vessel. May [it] for ten thousand years be treasured and used in performing sacrifices” (diagram 50, left). Its total height is 10.3 cm, mouth diameter 38.6 cm, and 6.4 cm depth (photograph 48: 1, 2).

Type III: One vessel (M48:5), a *mingqi* burial offering vessel. Bent rim, shallow dish, attached ears, ring foot. The wall of the *pan* is decorated with a repeated ring pattern around its circumference. An inner mold remains at the base. The total height is 7.8 cm, the mouth diameter is 30 cm, and the depth is 5.1 cm (photograph 50: 2).

Type IV: One vessel (M49: 3), a *mingqi* burial offering vessel. Bent rim. The ears are upright and relatively tall. The belly is relatively deep. The ring foot is relatively small. The vessel is plain surfaced. Its total height is 11.5 cm, 22 cm in mouth diameter, and 5.5 cm deep (photograph 50: 3).

[151] Type V: One vessel (M52: 98). This vessel form is relatively large. The rim is bent slightly upwards. The belly is bent; the vessel has a ring foot. There are four rings-handles on the belly. The vessel is plain surfaced. The vessel was in pieces when it was excavated, but it has now been restored. Its total height is 20 cm, and its mouth diameter is 62.5 cm (photograph 50:4).

(G) Bronze yi: Four vessels. Their shapes and forms are basically identical. The body of M48: 11 (photograph 51: 3) is shaped like an ellipse. The spout is relatively narrow. It has dragon shaped handles, and four flat feet in the form of animals' hooves. The mouth section and below the spout are decorated with curved and hooked patterns. The belly is decorated with roof tile patterns. The handles are decorated with repeated ring patterns. There are five lines of text in twenty-five characters inscribed on the inner base of the *yi*, which reads: “Zhong Qi, Overseer of Land at Lu, commissioned the making



of this precious *yi* for his deceased father Bo Zou Fu. May [Zhong Qi] enjoy myriad years of longevity, and his sons' sons and grandsons' grandsons eternally treasure and use it in performing sacrifices" (diagram 50, right). Its full height is 19 cm, its length 36 cm, and its width 17 cm. M48: 4 (photograph 51: 4) is a *mingqi* burial offering vessel. The circumference of the mouth section is decorated with a repeated ring pattern. The belly is decorated with roof tile patterns. The base is decorated with lozenge patterns. The belly section of M30: 4 (photograph 51: 2) is decorated with repeated ring patterns and roof tile patterns. The vessel has twisted ring-style handles and flat feet. There are lozenge patterns on the base. M49:5 (photograph 51: 1) is a *mingqi* burial offering vessel. Its spout is crude and short. There are chisel-shaped feet.

(H) Bronze *hu* : Nine vessels, in three types:

Type I: Two vessels. M48: 16 is a bullet-shaped vessel. Small mouth, upright neck, ring foot. There are four fasteners on two sides. The upper two fasteners are made as a ring shape grasped in the mouth of the head of animal. The decorations on the body of the *hu* are divided into four areas. The top part is decorated with *kui* patterns, triangular patterns are next, elephant's trunk patterns are third, and there are triangular patterns on the lowest section. The ring foot is decorated with hanging scale patterns. The lid is made in the shape of a coiled dragon. There is a fastener on each of the two sides of the rim of the lid. There is a circle of fifteen characters facing the lid rim and the neck of the *hu*, which read: "The Marquis' wife made this military *hu* for the Marquis, to be used on military expeditions. May he use it to beseech for unlimited blessings" (diagram 47: 4, 5). The vessel is 38 cm tall, the diameter of the mouth is 10.2 cm, the diameter of the belly is 28 cm (photograph 53). M30: 32 is a *mingqi* burial offering vessel; the lid and the body of the vessel



are cast as one piece. The entire vessel was decorated with triangle patterns. The inner mold remains in the vessel (photograph 52: 4).

Type II: Five vessels. Small mouth, relatively tall neck, circular belly, ring foot. The vessel has a lid, and a chain handle. On the shoulders there are rings, held in the mouth of “spread out” heads.<sup>92</sup> The vessel is plain surfaced. Specimen M3: 31 is 37.5 cm tall, the mouth has a 8.6 cm diameter, and the belly has a diameter of 20.5 cm (photograph 54: 3).

Type III: Two vessels. They have a small mouth, a round belly, a ring foot. On the shoulders there are two rings borne in the mouths of spread out heads. The lid is decorated with three ring-knobs shaped like animals. Specimen M58: 108 is 33 cm tall, 10.8 cm in diameter at the mouth, and 20 cm in diameter at the belly (photograph 54: 4).

[152] (I) Bronze *jiao hu*: Two vessels. The belly is oblate. There are three feet in the form of six ridged hooves. There is a handle, and a chain on the lid, which is fastened to the handle. The vessel is plain surfaced. Specimen M58: 98 has a handle with animals’ heads at both ends. The mouth of the *hu* is shaped like an animal’s head. Its overall height is 16 cm, the mouth has a diameter of 10 cm and the diameter of the belly is 20 cm (photograph 54: 2).

(I) Bronze *guan*: Two vessels. Straight mouth, bent rim, square lip, straight neck. The shoulders are nearly flat. The lower part of the belly gathers in slightly; the bottom is round. Specimen M58: 99 has a full height of 20.8 cm, a mouth diameter of 14 cm, and a belly diameter of 21.5 cm (photograph 52: 5).

---

<sup>92</sup> This is an aspect of the *tao tie* motif. A front view of a face also includes two profile views of an animal.

(K) Bronze *fou*: One vessel (M58: 100). Vertical mouth, rounded shoulder, round bottom. There are six ridges on the three short hoof-shaped feet. The mouth and belly sections each have a line of projecting ridges. There are spread out heads each bearing a ring in its mouth on either side of the shoulders. The vessel is plain surfaced. The lid is decorated with three ring-handles. Four wedge shaped ridges are on the lid's knob. The full height is 23 cm, and the mouth diameter is 22 cm (82: 1).

(L) Bronze *bo*: One vessel (M58: 91). The vessel is relatively small, with square lips, and a curved bottom which is relatively flat. The vessel is plain surfaced. The full height is 4.8 cm, and the diameter is 13.7 cm at the mouth (photograph 52: 6).

## Group 2, Garment Ornaments

(A) Gold and silver inlaid bronze garment hooks: Two items. Because M52: 83 is severely corroded, its decorative patterns are unclear. Its full length is 9.4 cm (photograph 63: 8). The shape and structure of M51: 8 is flat and wide, its end section is round, the hook part is made in the shape of an animal head, and its surface is inlaid with gold and silver pieces in a coiled *hui* snake pattern. The back side and knob-handle are decorated with coiled clouds made of gold and silver inlaid pieces and threads. It is 12 cm in length (diagram 52: 1; photograph 56: 1, 2).

(B) Fine gold inlaid jade and bronze garment hook: One item (M58: 116). The item looks like a flying winged animal. Its entire body is covered with fine gold. The middle of the garment hook is inlaid with a jade bird and turquoise round bubble. The hook section is made in the form of an animal's head, and has a round knob. This item is 11 cm long (diagram 52: 2; photograph 63: 7).

(C) Bronze *jing* mirror: Two items. They have a round knob as its base, and plain edges. There are patterns of feathers and coiled hydras constitute the background decoration, on which four *shan* (山) mountain characters are superimposed. Patterns of grass and leaves fill in all around the knob-base and plain surfaced edges. M3: 6 is relatively large; when it was unearthed it was broken into small pieces, and the knob was fragmentary (photograph 83: 1). The mirror from M58 is relatively small, and so badly corroded it could not be restored.

(D) Bronze garment ornaments: Seven items, excavated from M30. Among these are six which are round and engraved with animal mask designs; two animals turning around in a circle, each holding the other's tail in its mouth. The remaining one is triangular. Specimen M30: 46 is 5.2 cm in diameter (photograph 63: 6).

### Group 3, Weapons

(A) Bronze *ge*:<sup>93</sup> Seven items, divided into three types:

Type I: Five items. No *hu* secondary projecting blade. There is a rectangular perforation on the *nei* butt. Specimen M20: 4 has a thin convex ridge on the spine of the *yuan* blade. The entire length of the *ge* is 12.1 cm; the blade is 8.4 cm, the butt is 3.8 cm long, the spine is 0.6 cm thick (diagram 53: 2; photograph 57: 1). Specimen M31: 2 has a full length of 16.6 cm, the *yuan* blade is 12.1 cm long, the *nei* butt is 4.5 cm long, the spine is 0.4 cm thick (diagram 53: 1; photograph 57: 2).

---

<sup>93</sup> Obviously, only the bronze "heads" for these hafted weapons remain.

Type II: One item (M30: 56). The blade edge is triangular, and there is a thin convex ridge on the spine of the blade. The back part of the lower cutting edge of the blade gathers inward. The short secondary projecting blade has two perforations. There is a rectangular perforation on the butt. Total length 19.7 cm, blade length 13.7 cm, butt length 5.8 cm, spine 0.6 cm thick (diagram 53: 3; photograph 57: 3).

Type III: One item (M3: 1). The blade is relatively narrow. The secondary projecting blade is long, and has four perforations. There is one perforation on the butt. The top and bottom of the blade and the butt have edges. Full length 28.3 cm, blade length 17.8 cm, butt length 10.5 cm, secondary projecting blade length 10.5 cm, spine thickness 0.8 cm.

When it was excavated vestiges of the *ge* handle still remained. On its top section there is an elephant ivory cap; on its tail end there is a bronze *zun* butt-end shaped like a duckbill (diagram 53: 4—6; photograph 58: 1, 3).

(B) Bronze *zun* butt-end:<sup>94</sup> Three items. The top part is thick, the bottom end is thin. Duckbill shaped socket;<sup>95</sup> there are remnants of rotten wood in the socket. The entire item is inlaid with gold and silver. Due to rust and corrosion the decorative patterns are unclear. Specimen M52: 102 is 14.5 cm tall (photograph 58: 2).

---

<sup>94</sup> "The cone-shaped bronze butt-end of a spear." P. 3462, *Chinese-English Dictionary*, Vol. II. *Han Ying Cidian* 汉英大辞典, Shanghai jiaotong daxue chubanshe 上海交通大学出版社. Shanghai Jiao Tong University Press. 2 vol. Wu Guanhua 吴光华, compiler. 1993; rpt. 1996.

<sup>95</sup> *Qiong* 銎. The socket in a tool or weapon for the shaft or handle. Hansford, p. 12.



[154] (C) Bronze *dui* halberd handle:<sup>96</sup> One item (M52: 105). Shaped like a round tube. There is a convex ridge on its top part, and its lower section is comparatively thin. There is rotten wood in its socket. It is 17.3 cm tall (photograph 58: 4).

(D) Bronze *zu* barbed arrowheads: Sixty-three items, in two types. Type I is long and shaped like a circular cone (diagram 53: 8); Type II is short and has three ridges (diagram 53: 7). The full length of Specimen M3:60 is 21.7 cm (photograph 57: 4-left); the full length of Specimen M3: 71 is 10.5 cm (photograph 57: 4-right).

(E) Bronze crossbow mechanisms: Two items. There is a step shaped bronze support under the mechanism of M3: 61, which is 14.3 cm long (diagram 54: 2; photograph 57: 6). Specimen M52: 75 is 12.2 cm long (diagram 54: 1; photograph 57: 5).

#### Group 4, Chariot Fixtures<sup>97</sup>

[155] (A) Wei Axle caps: Six items, divided into three types:

Type I: Two items. Round tubular shape; the middle section is relatively thick, the outer ends are fairly thin. The outer portion is shaped like an eleven sided column. Smooth surfaced, on its top there is attached a flat, square-shaped linchpin. M46: 4 is 13.1 cm long, the thick portion is 5.6 cm in diameter, and the thin portion is 4.3 cm in diameter (diagram 55: 2; photograph 59: 2).

---

<sup>96</sup> *Dui* 镞 矛戟柄末的平底金套. "Flat metal cover for a lance or spear [halberd] handle." *Hanyu da cidian*, vol. 11:1394, 1994.

<sup>97</sup> Cheng, pp. 265—273, "Horse and Chariot Fittings," illuminates the development of chariot and horse fittings, from Shang to Zhou periods.

Type II: Two items, basically similar to Type I in shape, but the outer portion is shaped like a round column, and the upper part is decorated with *qiequ* broad figure band patterns. M48:33 is 11.3 cm long, the thick end is 5.2 cm in diameter, the thin part is 3.9 cm in diameter (diagram 55: 1; photograph 59: 1).

Type III: Two items, excavated from Horse Pit Number Six. Shaped similar to Type II. One has two holes drilled through it. The middle hole is drilled through the body of the axle cap, while the outer hole does not go all the way through. The other item has one hole, which does not pass all the way through. The outer surface is decorated with broad figure band patterns (photograph 59: 3).

(B) Youhuan floating ring:<sup>98</sup> Four items (M30:45), 6.1 cm in diameter (photograph 60: 4).

(C) Taotie heads: Twenty-nine items, in two types:

Type I: Fifteen items, excavated from M48. Some have a rectangular hole drilled through the top of the animal-head, while others lack such a hole. There is a horizontal perforation on the back side. They are 4.5 cm wide (diagram 56: 5; photograph 61: 3).

Type II: Fourteen items, excavated from grave M30. These items are relatively small. There is a crossbeam on the back side. These are 2.4 to 2.8 cm in width (diagram 56: 2; photograph 61: 7).

(D) Luan bells: Four items, excavated from M48. Its top part is a round *ling* bell. Its obverse side has an engraved hole with spokes radiating from it. The lower part is a rectangular *luan* chariot bell. There are round holes on both sides. These have all been broken and cannot be restored (diagram 55: 6).

---

<sup>98</sup>

游环 part of the horse's bridle gear.

(E) Tube-ornament with attached animal head: One set of three pieces (M48: 54). An animal's head is attached on one side of the half-circle tube. There is a fender on one section of two of the tubes, the other one is linked up without a fender. They are 4.1 cm long (diagram 55: 5, photograph 61: 1).

(F) Jieyue 节约<sup>99</sup>: forty-six items. There are three kinds: large and small cross-shaped, and butterfly shaped. The front side is decorated with either an animal face or a cicada pattern (diagram 56: 1, 3, 4). Specimen M48: 48 is 2.6 to 3 cm long (photograph 61: 2).

(G) Sheathed awl: One item (M48: 61). A perforated round tube, beneath which is a square awl. Full height of 4.7 cm (photograph 57: 7).

(H) Pei 轡 bridle ornaments: One hundred twenty items (M48: 46). Round tube shape, 2 cm long (photograph 61: 5).

(I) Xian curb bit: Four items (M48: 50), 20.9 cm long (photograph 60: 5).

(J) Biao curb chain: Ten items. Specimen M48: 49 is 10 cm long (photograph 60: 5; Specimen M30: 52 is 11 cm long (photograph 61: 4).

[156] (K) Xiyao hyperboloid: Five items. (M30: 13), 3.5 cm long (diagram 55: 3, 4; photograph 61: 6).

(L) Bronze ling bell: Seventy items. Variable in size, they all have clappers, and the great majority are perforated. They are all plain surfaced except for one item.

M48: 32 is relatively large, gravely rusted and corroded, and decorated with interlaced hydra designs. Its full height is 27.3 cm (photograph 60: 1). Specimen M48: 41 has a full height of 7.3 cm (photograph 60: 3); M2: 2 has a full height of 9.2 cm (photograph 60: 2).

---

<sup>99</sup> *Jieyue* are decorative bronze pieces attached to horses' bridle. There does not seem to be a standard English term for such pieces. See the following footnote on bridle ornaments.

## Group 5, Miscellaneous

(A) Bronze staff head inlaid with gold and silver: One item (M3: 42). The lower part of the implement is a round tube shaped socket, within which was some rotten wood. Crouching on the upper socket is a dragon-like animal, with its head held high above a long and twisting tail. The animal has open eyes and a long jaw, with an animal held in its mouth. The animal (the body was fragmented, and has been restored) has a snake's body and a bird's beak. It is engaged in a struggle, with its head turned around and its eyes open wide. There is also a snake shaped animal, whose mouth is biting an animal's head, coiled above the dragon-like animal. The mouth of the animal head holds the tail of the bird, attached above the snake-like head.

The conception of this implement's form is peculiar, yet vivid and exquisite in its modeling. The entire item is inlaid with gold and silver slivers, the brilliance of which dazzles the eyes. Its casting is refined, and may be rated a masterpiece of fine craftsmanship in ancient metal technology. This item is 20.5 cm tall (diagram 57; photograph 55).

[158] (B) Bronze stand: One set (three items) (M52: 90). Square shaped, with a square socket, decorated with animal patterns on its four sides and base. There are three feet on the base, made in the shape of animals' claws. There are remnants of rotten wood inside. The item is 7 cm tall (photograph 61: 8).

(C) Bronze *ben* adze: Two items. Square socket, Specimen M57: 1 has a total height 14.2 cm, 4.1 breadth (diagram 58: 5; photograph 62: 2).

(D) Bronze *chan* shovel: One item (M52: 100). Square socket, rounded shoulders, total height 17 cm (photograph 62: 4).



(E) Bronze xiao scraper: Fourteen items, none of which are complete. They are 10.7 cm tall; the remnants of Specimen M52: 127 is 26.7 cm (diagram 58: 1; photograph 62: 5).

(F) Bronze dao blade: One item (M52: 43). Its remaining length is 17 cm (diagram 58: 2; photograph 62: 3).

(G) Bronze fish: Ninety items. Variable in size, some are plain surfaced, some have decorative patterns. Specimens M30: 14, M34: 11, M15: 6, are 6.5 to 8.4 cm long; M49: 6 is 12 cm long (photograph 63: 1 to 5).

(H) Outer coffin nails: Twenty eight items, in three types: Type I is shaped like a conical awl; there is a rectangular perforation at its top. Specimen M3: 75 is 10.2 cm long (diagram 58: 4; photograph 62: 1). The Type II nail head is shaped like an animal's head, and the spike is triangular in shape (diagram 58: 6, 7). The Type III nail head is shaped like a round bubble, the spike is triangular in shape (diagram 58: 3).

#### (4) Items made of Gold, Silver and Iron

[159] (A) Circular gold belt ornaments: There are two varieties, large and small.

There are nine of the large items, whose gold core are gilded with gold leaf. The back side is shaped like a shallow bowl. The front bulges slightly, is decorated with impressed coiled serpent patterns, and has a pair of perforations on either side on its edge. Specimen M52:57 is 6.7 cm in diameter.

There are four small items, similar to those described above, but comparatively small. They are decorated with a molded vortex motif. Specimen M52: 50 is 4.5 cm in diameter (diagram 59: 1, 2; photograph 73, left).

(B) Triangular gold belt ornaments: Three items. These items are made in the shape of isosceles and right angled triangles. The surface of M52: 52 is convex, rising into three ridges, with two sides decorated with two birds face to face and looking at each other. The lower surface is adorned with two matching animals. These decorations were made by mold casting. The triangles each have a pair of perforations. These are 10.1 cm tall (diagram 59: 6; photograph 79: 7 middle).

M52: 51, decorated with two birds standing back to back, is 6 cm long (diagram 59: 4; photograph 79: 7 upper left). M52: 63 is adorned with a cloud dragon lying down with its head turned around. It is 7 cm tall (diagram 59: 5; photograph 79: 7 lower right).

Each of the above items were excavated from beneath the waist of the skeleton interred on the floor of the inner coffin in grave M52. The circular gold belt pendants were arranged east-west, their bottom sides facing up. The triangular gold belt pendants had their top sides facing up.

(C) Gold leaves: Two items. M52: 54 is decorated with flying birds looking forward, 7 cm long, 3.8 cm wide (diagram 59: 3; photograph 79: 7 top right). M52: 53 is shaped like a step, whose decorations appear to be an insignia (photograph 79: 7 bottom left).

(D) Gibbon-shaped silver ornament: One item (M3: 4). The implement is made in the shape of a gibbon. Its arm is raised and head turned around in an active posture. Its two eyes, bright and piercing, are inlaid with blue beads. The gibbon's body is slightly arched.

There is a round knob, or a kind of garment hook, on its back. The gibbon's body is covered with gold leaf. Its full height is 16.7 cm (diagram 60; photograph 65).

[160] (E) Silver garment hook inlaid with turquoise stones: One item (M3: 10). The surface of the roughcast silver is inlaid with small rectangular pieces of turquoise, which were still firmly attached when the garment hook was unearthed. It is 18.5 cm long (diagram 61: 1; photograph 64: 2).

(F) Silver garment hook: One item (M52: 81). The hook part is made in the shape of an animal's head; the tail end is decorated with an animal's face. The top side has two lines of fine convex ridges, and there is a round knob on the back side. It is 15.9 cm long (diagram 61: 2; photograph 64: 1).

(G) Silver *chou* counter sticks: One bundle, which were excavated separately within M52 and M3. They are shaped like square ended chopsticks. When they were unearthed they all had already been broken and corroded. They were unearthed together with elephant ivory counter sticks, and jade and stone cube counters (photograph 92: 2 top left).

(H) Iron garment hook inlaid with gold and silver: One item (M58: 117). The body of the hook is somewhat wide, and the hook part is made in the shape of an animal's head. The end section is nearly square, and there is a round knob. The top surface has gold and silver pieces and threads inlaid in flowing cloud patterns. The patterns which decorate the back side are corroded and unclear. It is 13.5 cm long (diagram 62; photograph 56: 3).

#### (5) Jade and stone implements

The quantity of jade and stone implements which have been excavated is quite impressive; the majority was excavated from graves M48, M52, M58, M3, etc.

[161] (A) Jade *bi* disks: Thirty-six items, the majority of which were excavated from graves M52 and M58 (photograph 66: 1). They are divided into three types according to their decorative patterns:

Type I: Four items, relatively large. The decorative patterns on the ornamental matrix<sup>100</sup> are divided into three rings. The inner and outer rings are decorated with a pattern of pairs of tailed dragons. There are three groups of decorations on the inner ring which are separated by partitions. The outer ring is decorated with five groups; some have partitions, some have no partitions. The middle ring is decorated with “rice pattern” protuberances.<sup>101</sup> The three rings of decoration are separated by boundary lines (diagrams 63 to 66). Specimen M52: 40, crafted from green jade, has a maximum diameter of 32.8 cm and the diameter of its hole is 11.6 cm. There are no partitions between the decorations on the outer ring of Specimen 52: 3. It is made of green jade, with an outer diameter of 31 cm, and the diameter of its hole is 10.7 cm (photograph 68).

Type II: Five items, comparatively small. The matrix is divided into two rings. The outer ring is decorated with four groups of pairs of tailed dragons, framed face to face. The inner ring is decorated with rice grain pattern. The two rings of decorative patterns are separated by “outline pattern” borders, “bamboo joint” borders, or plain surface borders (diagram 67). These *bi* are all manufactured from green jade. The outer ring of Specimen M58: 3 has no partitions, and is decorated with four groups of pairs of tailed dragons

---

<sup>100</sup> *Rou* 肉, “flesh,” a special term for the surface of the disk, differentiated from the *hao* 好 center hole.

<sup>101</sup> *Gu wen* 穀纹, “rice-grain pattern; the pattern of small, rounded equidistant protuberances, sometimes surmounted by engraved curls, and covering the surface of certain ritual jades.” Hansford, p. 25.



intertwined with four animals which have the head of a bird on the body of a snake. It is also decorated with smooth, flowing lines. Outer diameter is 27.7 cm, inner diameter 9.1 cm (photograph 69). Specimen M58: 5 has double-tailed dragons with long beards; outer diameter 22.5 cm, inner diameter 6.8 cm (diagram 69; photograph 70: 1). There are partitions between the double-tailed dragons of M52: 1; outer diameter 19.9 cm, inner diameter 6.9 cm (diagram 70, bottom; photograph 70: 2).

Type III: Twenty-seven items, variable in size. The large ones are similar to Type II. The small ones have a diameter of about 10 cm. The matrix is decorated with rice-grain pattern protuberances (diagram 71). The majority are made from green nephrite; individual items are made of *bi yu* 碧玉 jasper,<sup>102</sup> white jade, and *huayu* 花玉 “flower jade”. Specimen M52: 72 is made of a greenish-white flower jade; outer diameter 13.4 cm, inner diameter 4.4 cm (photograph 66: 3). Specimen M52: 82 is made of jasper, maximum diameter 13.1 cm, inner diameter 6.2 cm (photograph 66: 3). Specimen M58: 39 is made of green jade, outer diameter 22.2 cm, inner diameter 7.1 cm (photograph 71: 1).

[169] (B) Jade *huan* rings: Twenty-three items, divided into four types, according to their shape:

Type I: One item (M52: 14). The *bi* “rim walls”<sup>103</sup> of this *huan* are relatively tall. Crafted from yellow-black flower jade, without decoration; its outer diameter is 7.4 cm, and hole diameter 6.7 cm. The matrix is 0.7 cm wide, the walls are 2 cm tall (photograph 72: 6).<sup>104</sup>

---

<sup>102</sup> *Bi yu*, also known as dark green nephrite. The word *bi* is used to denote a rich green or blue color. It is not applied to jadeite or to *qing yu*. Hansford, p. 28.

<sup>103</sup> *Bi* 壁 here indicates the usually slightly raised edge along the rim of the disk. In this case the *rou* matrix was carved more deeply than is usual.

Type II: Three items. Decorated with rice-grain pattern, they have an oblate shape; the diameter of the hole is relatively large. Specimen M3: 35 is crafted from white jade; rice-grain pattern in the middle, with interlaced hydra designs in between. The outer diameter is 10 cm (photograph 72: 3); the walls of M52: 28 are relatively thin (photograph 72: 4).

Type III: Eighteen items. Oblate shape, with a relatively small diameter hole in the middle. In some of them the width of the matrix is larger than the diameter of the *hao* center hole, as in *bi* disk. They are decorated with rice-grain patterns. Outer diameter of Specimen M52: 8 is 8.4 cm; outer diameter of M52: 26 is 4.8 cm; outer diameter of M52: 57 is 5.8 cm (photograph 72: 1, 2).

Type IV: One item (M52: 13). Partially oblate, with the appearance of a braided rope. Outer diameter 4 cm, hole diameter 3.1 cm (photograph 72: 5 ).<sup>105</sup>

(C) Agate *huan* rings: Three items. There are two red agate *huan*, one large and one small. White flaws intermingle in the midst of the red; with veins like flowing clouds winding around, its luster dazzles the eyes. M52: 6 has been restored; its diameter is 9.2 cm, and hole diameter 7.5 cm (photograph 73: 2). M58: 114 is comparatively small: 6.3 diameter, 3.3 cm hole diameter (photograph 78: 5). The other piece (M58: 97) is a *zacao* 杂草 “weedy” agate *huan*, green in color, with veins like sea grass winding around. Outer diameter 10.6 cm, hole diameter 6.6 cm (photograph 73: left).

(D) Jade *jue* disk: Twenty items, in two types:

Type I: Eighteen items. Oblate, most are plain surfaced, a few are decorated. Specimen M30: 47, diameter 2 cm; Specimen M24: 7, diameter 3 cm;

---

<sup>104</sup> The text indicates photograph 72: 5, but it appears it should have read 72: 6.

<sup>105</sup> The text indicates photograph 72: 6, but 72: 5 is clearly being described here.

M11: 10, diameter 4 cm; M48: 58 is engraved with cloud patterns, 4 cm diameter; M49: 20, 4.1 cm diameter (diagram 72: 2—4; photograph 76: 7).

[170] Type II: Two items (M52: 19). Oblate shape, decorated with rice-grain patterns, 3.3 cm diameter (diagram 72: 1; photograph 76: 8).

(E) Jade garment hooks: Two items.

M3: 9 is made in the shape of a dragon. The tail end is adorned with a dragon's head, and the hook end with an animal's head. This item is made from nine pieces of white jade. There is a hole in the middle, which the belt presumably ran through. On the back there is a silver knob. The entire piece is decorated with rolling cloud patterns; the workmanship is exquisite. Its length is 19.7 cm (diagram 73: 1; photograph 75: 3).

M58: 31 is shaped like a *chan* shovel. The hook is made in the form of an animal's head, and the body is shaped of like an animal's face. The back is decorated with rolling cloud patterns, and there is a round shaped jade knob handle. This piece was made from a single piece of yellow jade material, 8.3 cm long, 6.8 cm wide (diagram 73: 2; photograph 75: 2).

(F) Jade horse: One item (M3: 8), carved from green jade. It is posed with head held high and ears erect, with eyes wide open looking forward. The horse's mouth is slightly open, nostrils flaring, and mane rising high. The horse's tail is coiled up, and its leg muscles clearly defined. The horse's hooves are sharply contoured, the forelegs perpendicular, the rear legs somewhat askew, as it stands upright on top of a square stand. Its lines are terse, painstakingly carved and ground. Since this is such a lively figure of a horse and also the result of the fine art of sculpture, it can be rated as a treasure of ancient jade carving artistry. The item is 5.7 cm tall (diagram 74); photograph 75: 1).

(G) Jade *kui* dragon ornaments: Sixteen items. Divided into three types:

Type I: Eight items. The characteristic shape is with the head turned back, tail curled, and body bent. The head, tail, foot, or back each have a perforation, and are decorated with rice-grain patterns. Specimen M58: 7 is 15.4 cm long; Specimen M58:30 is 11 cm long; Specimen M58: 60 is 16.9 cm long (diagram 75: 1); M52: 124 is 11 cm long; M52: 122 is 15.5 cm long (photograph 77: 2 to 5, 7).

Type II: One item (M52: 94). Drooping head, gathered-in tail, bent body, one perforation on the belly, decorated with rice-grain patterns, 17.3 cm long (photograph 77: 1).

Type III: One item (M3:13). Arched body, tail held high, wide open eyes looking forward, rice-grain pattern decoration (photograph 77: 6).

Type IV: Two items (M52: 64, 66). Deformed *kui* dragon shape, possessing an intense patterned effect. Plain surfaced, perforated (photograph 79: 2).

Type V: One item (M52: 121). This item has a carving of two dragons intertwined, made up of a half round shaped decorations. The dragons' bodies are adorned with S-patterns and feathers; 7.8 cm wide (diagram 75: 3; photograph 79: 3 left).

Type VI: One item (M52: 12). The jade *huang*<sup>106</sup> is decorated with two dragons facing and looking at each other out. The dragons' bodies have scales. There is a perforation on the back of the *huang*. The width is 8.7 cm (diagram 75: 2; photograph 79: 3 left).

Aside from these there are also two broken pieces, which have rice-grain patterns (photograph 79: 1).

---

<sup>106</sup> *Huang* 璜, semi-annular jade pendant.



[171] (H) Jade *pei* pendants: One set, unearthed from the chest area of the skeleton from grave M58. Consisting of eleven items such as jade *huan*, oblate jade beads, “long drum” shaped jade *guan*, cylindrical jade *guan*, *kui* dragon jade ornaments, etc. Aside from the oblate jade beads, they all have rice-grain pattern decorations (diagram 76; photograph 78: 3).

[173] (I) Jade pendants: Two items. The middle is a jade *bi*; the top is square and the two sides have fastened ears. The two sides of M58: 122 are decorated with animals’ ears facing outward. The outer diameter is 4.4 cm, the hole diameter is 1.5 cm (diagram 77; photograph 78: 1); the two sides of M52: 25 are adorned with outward facing bird ears, which are fragmentary (photograph 78: 2).

(J) Jade *she* 𦉳 archer’s thumb-ring: Three items. M52: 30 is elliptical in shape, the front section slopes, decorated with inscribed line animal face pattern, the base is decorated with grass roll patterns. The upper wall of the back section has a horizontal hole, one side has an “ear handle” (diagram 78: 1; photograph 76: 9 middle). The front part of M52:29 is fragmentary, the ear handle has an engraved hole (diagram 78: 3; photograph 76: 9 right). M28: 3 is round, fairly tall. Its back section has a square knob, and horizontal hole on top. One side has an ear on the top and the bottom. The top has a vertical hole, and the wall is decorated with a protruding ridge (diagram 78: 2; photograph 76: 9 left).

(K) Jade tubes: Six items, varying in shapes and sizes.

Both ends of M58: 128 are comparatively thick; the walls of the tube are relatively thin. It is decorated with roof tile patterns on top. At the time it was excavated there was a small *huang* next to the thick end. It is 3.6 cm long, 2 cm in diameter (diagram 79: 3; photograph 76: 2 middle).

The walls of the remaining tubes are fairly thick, decorated with rice-grain patterns and animal face patterns. These are probably parts of a jade *pei* pendant (photograph 76: 2 right, 3).

The waist section of M52: 31 is relatively thin, while the two ends are comparatively thick. The *rou* matrix of the thick ends are decorated with scrolled cloud patterns. It is 3.6 cm long (diagram 79: 1; photograph 76: 2 left).

[174] (L) Jade knobs: One item (M58: 123). Consists of three parts: a *xihuan* 系环 fastener ring, a *maoxiao* 卯销 mortise pin, and a knob base. There is a partial opening low on the fastener ring. On two sides of this partial opening there is a round tenon. The top part of the mortise pin is relatively thick, like a nail head. Its top is decorated with a roof tile motif, and both sides are level. There is a tenon-slot which accepts the fastener ring's tenon. The lower part has a round straight pin. The *tingduan* 筴端 "runner" piece is perforated, to accommodate the *qianshuan* bolt, in order to fix the mortise pin on top of the handle base. The handle base is round, and its two sides have peach shaped ears. Inside the lower ears there is a groove shaped round tenon which fixes the handle base on the upper part of this mechanism. There is a round hole in the knob base to hold the mortise pin straight. Each part is mounted on the back. The fastener ring can move about independently. Its exquisite manufacture shows great ingenuity. The diameter of the ring is 2.4 cm (diagram 80; photograph 79: 5, 6).

[175] (M) Tablet shaped jade ornaments: Four items, from the inner coffins of graves M52 and M58. Rectangular in shape, there are square notches all around. Two sides are decorated with rice grain patterns. The shapes and forms of M52:21 (diagram 79: 2; photograph 80: 8) and M58:44 (photograph 80: 7) are similar; the middle of the tablet is perforated, the holes are approximately 0.2 mm in diameter; the length of the tablet is 5.9 cm all

squeezed together. The items are 6.1 cm long, 2.5 cm wide, and about 0.5 cm thick. M58:41 is comparatively long, and there are three perforations on the face of the tablet (diagram 79: 4; photograph 80: 4).

(N) Four wing shaped jade and ivory ornaments: There are twenty or more items, which came out of grave M58. In the middle of the implement is a round post. Jade pieces are inlaid on all four sides of the post which are in the shape of four wings. The jade pieces were all made in a narrow and long parallel quadrilateral shape. There were no intact specimens, so we do not know what their original appearance was like. Specimen M58: 112 is a piece of jade 5 cm long (photograph 79: 8).

(O) Scabbard-shaped jade ornaments: Two items. The implement is long and narrow in shape, and looks like a scabbard. There are decorative patterns on M48:58, which is 11.4 cm long (diagram 81: 2; photograph 80: 2). There are no decorative patterns on M48:59, which is 14.9 cm long (diagram 81: 1; photograph 80: 3).

(P) Stone sword: One item (M30:39). There are three concave grooves in the body of the implement, which is 29.9 cm long, 3.5 cm wide, and 1.5 to 3 cm thick (photograph 82: 4).

[176] (Q) Jade *bi* spoon: One item (M48: 6). Made from green jade, one end has a round hole, one side has a half-round shaped notch; 19.9 cm long, 4.4 cm wide, 0.15 cm thick (photograph 80: 1).

(R) Stone *zao* 凿 chisels: two items (M15: 9). The front part has a blade edge. The full piece is 15.1 cm long, 2.4 cm wide, 0.6 cm thick (diagram 82: 2; photograph 82: 5,6).

(S) Grindstones: two items (M52: 10, 67). Shaped like a piece of brick, this probably is a device for grinding. It is 9.7 cm long, and 4.5 cm wide (photograph 62: 6).

(T) Cylindrical stone ornaments: Ten items. The middle of this implement is fairly thin, while the two ends are fairly thick. There are perforations at the two ends of some of these, while some lack any perforation at all. They were placed in the hand of the corpse. Specimen M11: 7 is gray, and 8.9 cm long (diagram 82: 1; photograph 71:4). M46: 11 is made from white *fangjie* stone, 8.5 cm long (photograph 71: 5).

(U) Tongue amulets:<sup>107</sup> All of these are pebbles, in various shapes: round, triangular, shaped like utensils and *qing* musical stones.<sup>108</sup> They vary in shape, and their colors and lusters include blue, white, brown, etc. (photograph 83: 2, 3).

(V) Jade ge: Three items. M42: 8 is 25.8 cm long, 4.3 cm wide, 0.5 cm thick (diagram 83: 1; photograph 53: 6). M48:57 is 17.5 cm long, 5 cm wide, 0.5 cm thick (diagram 83: 3; photograph 53: 3). M14:2 is 14.5 cm long, 2.9 cm wide, 0.25 cm thick (diagram 83: 2; photograph 53: 4).

[177] (W) Stone ge: Twelve items, divided into three types:

Type I: Eight items. Some had butt ends and some did not. Some of the butt ends were perforated, and some were not. The front ends are flat and even, without a sharp point. Specimen M46:10 is 18.7 cm long, 3.5 cm wide, 0.3 cm thick (photograph 53: 1 top). M42: 11 is 13.3 cm long, 3.5 cm wide, 0.2 cm thick (photograph 53: 1 bottom).

Type II: One item (M30: 62). This has neither butt end nor perforation; its front end is flat and even. The form of this implement is short and thick. It is 12.1 cm long, 4.1 cm wide, 0.2 cm thick (photograph 53: 5).

---

<sup>107</sup> *Kou han* 口含, defined as “objects placed in a corpse’s mouth”.

<sup>108</sup> *Qing* 磬, a kind of musical instrument (made by hollowing out a hard sonorous stone, etc.); a musical stone.



Type III: Three items. Neither butt end nor perforation; reinforced by a rising spine, but some had no rising spine, the front blade point is a single sided blade edge. Specimen M49:12 is 23 cm long, 3.6 cm wide, 0.4 cm thick (photograph 53: 2).

(X) Stone *gui* tablets: Six items, divided into three types:

Type I: One item (M57: 2). Comparatively short, there is a round hole near the middle of the tablet; 12.2 cm long, 3.7 cm wide, 0.2 cm thick (photograph 82: 3).

Type II: Two items. Narrow and long, there is a perforation on the lower end. Specimen M2:40 is 19.1 cm long, 3.3 cm wide, 0.7 cm thick (photograph 82: 2).

Type III: Narrow and long, comparatively tall, Specimen M58: 1 is 24.8 cm long, 5.8 cm wide, 1.25 cm thick (photograph 82: 1).

[178] Aside from those listed above there are also:

One bronze scraper set in a jade *huan* semicircular ring, decorated with whirlpool patterns (diagram 84: 8; photograph 62: 7).

One piece of jade inscribed with an animal face, two sides are each decorated with an animal face pattern, its upper edge has a pair of holes (diagram 84: 2; photograph 79: 4);

A fragment of an animal head jade ornament (diagram 84: 5); three jade *huang* (photograph 71: 2, 3).

Two jade *bang* posts (photograph 78: 4 left).

Two jade tubes with roof tile pattern ornamentation. One is an oblate pillar shape, one is elliptical; each are decorated with spiraling roof tile pattern, and were crafted with great regularity (diagram 84: 4, 7; photograph 76: 1, 4).

A long piece of jade: there is a notch in the edge of the circumference, which is decorated with coiled dragon patterns (diagram 84: 3; photograph 80: 6).

One jade pendant with an arch shaped raised spine. There are flanges on two sides, and a notch at two ends. The surface of the implement is decorated with geometric cloud patterns, and the interior with a circle of cloud patterns (diagram 84: 1; photograph 80: 5).

One square pillar shaped jade tube; the base is large and the top is small, the corners are rounded off (diagram 84: 11; photograph 76: 5 right).

One peach shaped jade pendant, with bulging sides and a flat base (diagram 84: 6; photograph 78: 4, 2 right).

Two rectangular small jade pieces, surface decorated with angled-line patterns (diagram 84: 9,10).

One square jade bead (photograph 78: 4, 2 left).

One long drum shaped jade bead (photograph 78: 4 right).

Three round jade pieces, smooth surfaced (photograph 76: 6).

#### (6) Lacquerware

Two food cases, made of a wood core covered with black lacquer. The core had already decomposed when this was excavated; only the lacquer skin remained. One of the cases had four square food containers packed inside, the other had six. The food containers all had a bronze core painted in black lacquer. The lid was in the style of a *luding* 盨顶<sup>109</sup> with a knob in the middle.

---

<sup>109</sup> The case lid was similar to that of a *luzi* 盞子, a traditional Chinese toiletry case for storing incense, jewelry, etc. *Hanyu da cidian* 汉语大词典. Hong Kong: Joint Publishing (H.K.) Co, 1992. Vol. 7: 1443.

When it was excavated, the lacquer skin had already come off. There were bird bones inside. Specimen M3: 65 is 11 cm tall, 11.5 cm long, 11.3 cm wide (photograph 45: 3).

#### (7) Fused stoneware

There is a total of twenty-five pieces of fused stoneware, which were excavated from within graves M52 and M58. These are divided into four types:

Type I: Two pieces (M58: 65). Shaped like a rounded tube, one end is slightly thick. There is a hole in the middle. One bead has a cover on its thin end. Deep blue in color, it is as transparent as window glass. Its top part is decorated with three circles of white line patterns. 2.1 cm long (photograph 83: 5 middle and right).

Type II: One bead (M58: 27). Deep blue, divided into hexagonal sections, 2.4 cm long (photograph 83: 5 left).

Type III: Nineteen beads: Spherical fused stoneware beads, perforated, deep blue. The top is decorated with white “dragonfly’s eye” patterns. Some of the eye patterns are set off by brown geometric patterns. Ten beads were excavated from M58, nine from M52. The largest was 2.7 cm in diameter, the smallest was 1.5 cm in diameter (diagram 85: 2, 3; photograph 84: 1, 2 left and right).

Type IV: Three beads, excavated from M52 and M58. Fish eye green in color, translucent. They were all broken at the time that they were unearthed.

One of them is a previously repaired elliptical sphere modeled in the shape of a drum. There are lines and decorations, using the four colors of white, reddish-brown, ultramarine, and blackish green, in the form of rings

of circles, vertical lines, cross marks, round dots, etc. (diagram 85: 1; photograph 84: 2 middle).

(8) Ivory, bone, mussel-shell implements

[179] (A) Ivory tablet inscribed with cloud dragon decorations: One item. Narrow and long in shape. A square tenon rises from the middle of the back side, with a gold handle attached. The surface of the tablet is inscribed with cloud dragon patterns, which are evocative with a vivid symmetry. It came from below the waist of the skeleton within the inner coffin of grave M52. It was facing downward when it was unearthed. Its right upper corner had been broken and previously repaired. The item is 15.7 cm long, 3.5 cm wide, and the handle sticks out 6 cm (photograph 84: 3).

(B) Carved ivory *qimao* caps: Two items, placed about 1.5 m apart north-south on the west wall of the outer coffin of grave M3. Possibly this is a kind of “cap” or “tip” for the ends of implements. M3: 52 is a piece of jewelry, shaped like a decorated shaft head. Its top is carved with flower petal decorations. It is decorated all over its body with a ring of cloud patterns and geometric patterns, and is 6.3 cm tall (diagram 86: 1; photograph 85: 4). M3:40 is a staff tip shaped like a bottle gourd. Its upper part is inscribed with an “eternal knot” pattern. It is 5.1 cm tall (diagram 86: 3; photograph 85: 3).

(C) Engraved ivory *xiaoshun* back scratcher: Two items, made in the shape of a man’s hand, were excavated from graves M3 and M58. The hand part of M3: 5 is adorned with cirrus cloud patterns. Triangular cloud patterns decorate the handle, and the tip of the handle was made in the form of an animal head. Its extant length is 40 cm (diagram 87: 4; photograph 40: left and



right). Only the hand portion of M58:111 remains; it is 3.6 cm tall (diagram 87: 1; photograph 85: 2).

(D) Ivory *she* 髀 archer's thumb-ring: One item (M58: 124). Elliptical in shape, one end sloping outward, one side has a knob. The maximum diameter is 4.5 cm, the smaller diameter is 3 cm (photograph 85: 1).

(E) Ivory tusk shaped pendants: Four items, in two groups of two. The head part is fairly thick, made in the shape of a dragon's head, gradually tapering down to a pointed tail. Specimen 52: 68 is 11.6 cm long (diagram 86: 2; photograph 83: 4).

In addition to the above, there are the following miscellaneous items:

Three carved ivory object stands, which are similar to bronze object stands.

Four hooked tooth *qimao* 器冒 tool sheaths or crossbow tip ornaments (diagram 88: 2; photograph 87: 4).

Two ivory tubes (diagram 88: 3, 4; photograph 5 middle).

An ivory *huan* ring with a handle (diagram 88: 1; photograph 85: 5 left).

One ivory *ji* 笄 hairpin shaped like tweezers, 22.1 cm long (photograph 87: 5 bottom).

Two bone hairpins (photograph 87: 5 top).

A carved ivory animal's head ornament (diagram 87: 2, 3).

Six mussel shell *pao* (photograph 87: 2).

Eighty-five "fish" made from mussel shells, variable in size (photograph 87: 3); many of them discovered together with bronze "fish" all around the coffin chamber.

More than two hundred clam shells (photograph 87: 1).

Large quantities of river mussels, which had covered the outer coffin lid.

#### (9) Strung ornaments

[181] Over eighty strung ornaments were unearthed. The qualities and characteristics of these articles of personal adornment are fairly complex; they include jade, stone, agate, *yusui* 玉髓 jade pith, bone, ivory, shell, and various other materials.

(A) Necklaces: Seven strings, which were each excavated from around the necks of the human skeletons in seven of the graves. There was great variation among their shapes. The necklace from M30: 66 includes animal heads, *kui* dragons, and cicada forms made from soft jade, as well as oblate beads made of red Shou Shan stone,<sup>110</sup> crafted in the shape of a two-headed dragon (photograph 74: 1). Necklaces M46: 12, M24: 8, and M11: 9 were made from quartz beads, fused stone beads, agate beads, etc. (photograph 88: 1, 4, 5). Necklace M48:55 is made up of soft jade *kui* dragons, agate beads, soft jade animals' heads, turquoise beads, and jadeite beads (photograph 87: 3). Necklace M39:10 is made from quartz beads (photograph 88: 2).

(B) String of stone and ivory beads: One string (M49:25). Discovered in the vicinity of the chest and abdomen of the human skeleton in grave M49, it was made up of quartz beads and rectangular elephant ivory beads. A portion of the beads had already decomposed (photograph 89).

---

<sup>110</sup> Shou Shan: A locality sixty li north of Min Hou Xian, Fujian, well known for the precious and semiprecious stones mined there. *Zhongguo gujin diming dacidian*, p. 1084.2.

(C) Strings of pendants made of crystal and agate: Two strings, made out of crystal rings, yellow quartz (citrine) rings, a fourteen sided rock crystal bead, a long drum shaped rock crystal bead, water chestnut shaped rock crystal bead, rock crystal shaped like a ball, purple rock crystal, white agate silkworm shaped pendants, white agate *huang* 璜 shaped ornaments, etc. M4:10 (A) is comprised of a pair of strands which hang below a ring. M4:10 (B) is made up of a single strand, which was in front of the left foot of the human skeleton on the east side of grave M4. It has already lost its original appearance; based on the composition of its decoration it was restored as two strings (photograph 90: 1—3).

(D) Strings of bone and stone beads: Sixty-eight strings, all of which were discovered all around the burial chamber and inner coffin. There were basically two kinds.

The first variety is composed of round stone beads and flat bone beads; some of them also have one or two clam shells (photograph 91: 1). The other variety is made up of round stone beads and oblate bone beads. These beads are much larger than the first variety, and also date somewhat later than the first variety (photograph 91: 3).

(E) String of turquoise beads: One string, made from more than a thousand round and oblate turquoise beads. The beads are extremely small; the smallest has a diameter of only one mm, some are like a small grain of rice. They were excavated from the north-east corner of the floor of the outer coffin of grave M53 (photograph 91: 2).

#### (10) Gaming pieces

There are three sets, each of which respectively excavated from the coffin chambers of the three graves M3, M52, and M51. Set M3:53 (which includes M3:57) includes six square jade counter chips, six square ivory counter chips, one chopstick shaped ivory counter chip, and one chopstick shaped silver counter chip (photograph 92: 2). Set M52: 106 is comprised of six white stone and six green jade square counter chips, one chopstick shaped ivory counter chip, and one chopstick shaped silver counter chip (photograph 92: 1).

#### Section Five, Periodization

The Group A burials and Group B burials are similar in that they both lack stratigraphic relationships. In order to differentiate different “stages” we have mainly relied upon the process of developmental change among the shapes of the funerary vessels. Because on the one hand the majority of graves have Western Zhou pottery *li* which were manufactured as copies of bronze vessels, and on the other hand a portion of the graves have Eastern Zhou style pottery *fu*, we may therefore easily take these graves and differentiate them as Western Zhou graves and Eastern Zhou graves. Both can also be further divided into several stages.



### (1) Periodization of Western Zhou graves

None of the thirty-nine Group B Western Zhou graves (except for the few that were intruded upon by graves from later periods) had been previously disturbed. Moreover they all had funerary goods, and all had pottery *mingqi* burial offering vessels. The main vessel forms were *li* and *guan*. However other vessel types for which we presently can offer no explanation have been included within the *guan* vessel category. Therefore it is still difficult to determine the pottery assemblages of these Western Zhou graves.

In addition, while the pottery *li* in almost each and every one of these graves have differences in shape and form, we still are not yet able to discover an obvious rule of developmental change from early to later stages. This is the real difficulty in determining the periodization of these Western Zhou graves.

In our analysis below, we have mainly relied on bronze vessels, especially the shapes and forms of the bronze *ding*, in conjunction with developmental changes of pottery *guan* and other vessels' shapes. We have divided these Western Zhou graves into four stages.

[182] Among the Western Zhou graves, there is the following sequence for nine graves according to their funerary bronze sacrificial vessels:

M23 One Type I *ding*

M11 One Type II *ding*

M20 One Type III *ding*

M30 One Type IV *ding*, One Type I *xu*, One Type I *pan*, One *yi*, One Type I *hu*

M42 One Type IV *ding*

M46 One Type IV *ding*, One Type I *gui*

M48 Three Type V *ding*, Two Type I *xu*, Two Type I *gui*, One Type II *pan*, One Type III *pan*, Two *yi*, One Type I *hu*, One *fu*, One *yan*

M49 One Type IV *ding*, One Type IV *pan*, One *yi*, Two Type II *gui*

M14 One Type VI *ding*

All of the above graves have *ding*, for a total of twelve *ding*. According to the changes of the vessels' shapes, decorative patterns, and artisanry of casting, they have been divided into six types:

The Type I bronze *ding* (M23) is similar in shape and manufacture to the *Xi Cao ding* from the King Gong period.<sup>111</sup> Its decorative patterns are completely identical, so its dating should be the same, belonging to the early part of the middle period of the Western Zhou.<sup>112</sup>

The form and manufacture of Types II through V bronze *ding* date approximately to the middle and late Western Zhou periods. Among these is the Type II *ding* (M11): it had continuous hook "broad-figure bands," and atypical animal hoof shaped half-tube feet. It lacked indications of inner molds on the inside surfaces of the feet, and the belly and base of the *ding* were cast by the three piece mold method, so this vessel may be dated somewhat early.

The design of the Type III *ding* (M20) is very close to that of the Type II *ding*; and the casting technology is the same, so their dating may be similar. However this *ding* is decorated with the repeated ring pattern, and the upper part of the three feet are thick, which is already similar to the upper portion

---

<sup>111</sup> Chen Mengjia 陈梦家: "Periodization of Western Zhou Bronze Vessels" "西周铜器断代," *Kaogu xuebao* 考古学报, 1956, No. 4. [Note in original text]

<sup>112</sup> Shaughnessy, *Sources of Western Zhou History*. P. xix. In his chronology, King Gong reigned from 917 or 915 to 900 BCE.

of feet of the Type IV and V *ding*. Therefore it is possible that it is slightly later than the Type II *ding*.

The design of Type IV and Type V bronze *ding* (M30, M42, M46, M48, M49) are similar, so their dating should be similar. Their three feet had already changed to the typical animal hoof style in which both ends were thick and the middle part was thin; the interior sides of the feet had already changed from a flat plane to a concave surface, but there was still no evidence of an inner mold. The belly and base of the *ding* changed from a one piece mold. Some bellies were decorated with hanging fish scale patterns, so the dating should be later than the Types II and III *ding*. However the upper limit for the Types IV and V bronze *ding* is in the middle period Western Zhou, as can be verified by the pottery vessels from grave M48.

There are a total of fifteen Types IX-A and X-A pottery *guan* from grave M48. These *guan* are very similar to those found in the early period Western Zhou graves in the report *Luoyang Zhong Zhou Lu (Xi Gong Duan)*.<sup>113</sup> The Type X-A *guan* is also very similar to the pottery *lei* (which is missing its lid) from the Chang Fu grave from the middle Western Zhou period at Puducun, Changan<sup>114</sup>. Therefore those vessels from M48 which are identified as Type V bronze *ding* should be dated to the middle period Western Zhou. Types IV and V bronze *ding* must be later than the Types II and III *ding*, which can be verified from grave M49.

There is one Type IV bronze *ding* in grave M49, one Type IV bronze *pan*, two Type II bronze *gui*, and in addition there is a Type XI-A pottery

---

<sup>113</sup> *Luoyang Zhong Zhou Lu (Xi Gong Duan)* 洛阳中州路 (西工段), p. 56, diagram 30: 4, 8. [Note in original text]

<sup>114</sup> *Kaogu xuebao* 考古学报, 1957: 1, diagram 5: 3. [Note in original text]

*guan*. The design and manufacture of these bronze *ding* are identical to those of the M46 and M48 bronze *ding*. On the other hand, the bronze *pan* and bronze *gui* both had changed from forms having three small feet below the ring foot, as is present in M46 and M48, to a style in which there is just a ring foot.

The Type XI-A pottery *guan* from this grave M49 developed from the Type X-A pottery *guan* from grave M48 (photograph 35: 5, 4), but its change is already rather remarkable. On the *guan* there appeared the concave bowstring pattern which was popular in the late period Western Zhou, but was not seen in the early and middle periods of Western Zhou. Therefore we understand that M49 should be a bit later than the M46, M48, and other such graves, and so should be assigned to the late period Western Zhou. But from observation and study through the perspective of the vessel typology, the two graves M48 and M49 ought to be linked together. The former dates approximately to the latter part of the middle period Western Zhou, while the latter dates to the early part of the late period Western Zhou. Thus we know that the Types IV and V bronze *ding* are later than the Types II and III bronze *ding*, and the Type II *gui* which lack three small feet below its ring foot are also later than the Type I *gui* which had three small feet.

[183] The manufacture of the Type VI bronze *ding* dates to the end of the Western Zhou or beginning of the Spring and Autumn period, but Western Zhou pottery *li*, which date to the last years of the Western Zhou, were unearthed along with them.

From this we can see that these nine graves which yielded bronze implements encompass the following three time periods: (a) middle period Western Zhou, (b) late period Western Zhou, and (c) the last years of the Western Zhou:



Seven graves date to the middle period Western Zhou: M23, M11, M20, M30, M42, M46, and M48.

One grave dates to the late period Western Zhou: M49.

One grave dates to the last years of the Western Zhou: M14.

Based on the dating of the stages of the graves with bronze implements described above, if we look at the developmental change of the pottery *li* and pottery *guan*, we may divide the graves with pottery vessels into four stages.

One *li* (Type II) and three *guan* (one each of Types I, II-A, and III-A) came out of M57. There are finger impressed concave grooves on the outer edge of the mouth and rim of the *li*, which possesses the style characteristics of the first and second stage pottery *li* vessels excavated from the main archaeological site. The shape of the vessels seems to have a relationship with the *li* from the early period Western Zhou at the Wei River valley in Shaanxi Province.<sup>115</sup> The Type I *guan* is similar to the Type II *guan* excavated from the first period Western Zhou grave reported in the “Fengxi fajue baogao”,<sup>116</sup> it is very likely that they are the same kind of vessel shape. The Type II *guan* from the Western Zhou grave at Fengxi is assigned to the first years of the Western Zhou, so the dating of grave M57 may be close to it. There is also a plain surfaced *li* (photograph 32: 1) excavated from grave M44, which is the only plain surfaced *li* from this group of Western Zhou graves. The design of this manufactured good is also different from that of the other cord marked *li*. It possesses the archaic style of divided crotch-pouch feet, whose dating

---

<sup>115</sup> “Changan Puducun Xi Zhou muzang fajue ji” 长安普渡村西周墓葬发掘记, 考古学报 1954 Vol. 8, p. 116, diagram 9. 1954. [Note in original text]

<sup>116</sup> *Fengxi fajue baogao* 沔西发掘报告 “Report on Excavations at Fengxi”. p. 124, photograph 80: 6. [Note in original text] [Trans. note: biblio info: *Excavations at Feng Hsi* (1955-1957) Beijing: Wen Wu Press, 1962.]

should be earlier than these cord marked *li* ; it may be assigned to the early period Western Zhou. One Type III *li* which was excavated from grave M35 is similar in design of manufacture to bronze *li* from the early period Western Zhou unearthed at Puducun, Shaanxi (after the ear handles have been removed),<sup>117</sup> so the dating of the grave should be assigned to early period Western Zhou.

There were four *guan* (three Type IV, one Type V-A) unearthed from grave M24. There were also two Type IV *guan* (photograph 34: 4, 5) in grave M11 (which contains middle period bronze vessels). There were four *guan* in M29, and two *guan* in M39; these were all either Type II-B or Type V-B vessels (photograph 34: 6, 7). The Type II-B *guan* assemblage developed from the Type II-A *guan* found in the early period grave M57 (diagram 38: 2). There were four *guan* in grave M38 (one Type VI, two Type VII, one Type X-A) (photograph 34: 8; 63: 1), which have the same style as the *guan* assemblage (Types IX-A, and X-A) in the middle period bronze vessel laden grave M48 (which also contains middle period bronze vessels); the two graves both have Type X-A *guan*. These pottery *guan* found in graves containing middle period bronze vessels have the same style or nearly the same dating as the graves with only pottery vessels, which therefore should be identical to that of the middle period bronze vessel laden graves.

The dominant style of the pottery *guan* in graves M55, M26, M8, and M56 is the Type IX-B pottery *guan*, so the dating of each of these graves should be very close. The Type IX-B *guan* have a somewhat open mouth, a flat rim, a rounded neck which is fairly tall, a round belly, and a small flat base

---

<sup>117</sup> “Changan Puducun Xi Zhou muzang fajue ji” 长安普渡村西周墓葬发掘记, in 考古学报 1954 Vol. 8, photograph 1: 6. [Note in original text]

(photograph 35: 7). They may have a developmental relationship with the Type IX-A *guan* from the middle period graves (photograph 35: 3), but their dating must be later. Aside from the two Type IX-B *guan* in M56, there is also one Type XII *guan* (photograph 36: 3), whose shoulder and belly are already decorated with neat concave bowstring patterns, which is definitive proof (it was previously pointed out that the concave bowstring pattern was current during the later period Western Zhou) that the dating of these grave should be to the later period Western Zhou. In addition, M19 has two *guan* (Type IX-C, one large and one small), M32 has three *guan* (Types IX-C, XI-B, and XIII-A), and both have Type IX-C *guan* (photograph 35: 8). The Type IX-C *guan* may have developed from the Type IX-B *guan*, and it is also decorated with concave bowstring patterns, whose date should be close to that of M56 (and the others associated with it).

The dating for the *guan* from the graves M27, 7, 50, 10, 15, and 22 should be even a bit later. The Type XIX *guan* from M50 (photograph 37: 3), is already approaching the *lei* from the Group A early period Spring and Autumn graves (photograph 13: 5). The Type XX red pottery *guan* from grave M10 (photograph 38: 1) is also similar to the Type V-C pottery *guan* from the Group A early period Spring and Autumn grave M201 (photograph 10: 6). Thus, the dating of these two graves may already be in the last years of the Western Zhou.

[184] According to the above analysis, the stages and “definitive dating” of these groups of Western Zhou graves is summarized below:

Stage One, three graves: M57, M44, M35, which date approximately to the early period Western Zhou.

Stage Two: Twelve graves: M23, M11, M20, M24, M29, M30, M31, M38, M39, M42, M46, and M48, which date approximately to the middle period Western Zhou.

Stage Three, eleven graves: M49, M55, M26, M8, M56, M32, M19, M22, M27, M7, and M15, which date approximately to late period Western Zhou.

Stage Four: three graves: M50, M10, and M14, which date approximately to the last years of the Western Zhou.

Because the developmental change among the pottery *li* is not clear, no differentiation of stages could be determined among the eleven graves M13, M16, M17, M21, M25, M33, M34, M36, M45, and M53, because there were only pottery *li* and no pottery *guan* present (or their pottery *guan* forms and styles were unclear).

## (2) Periodization of Eastern Zhou graves

The twelve Eastern Zhou graves include seven large scale graves (M1, M2, M3, M28, M51, M52, and M58) and three middle scale graves (M4, M43, and M47). All of these had been looted, yet, except for M28 and M43, a fair amount of pottery vessels remained. Although some of the pottery vessels could not be restored, we have been able to determine the vessel forms of practically all of them. Therefore we have been able to achieve a rough understanding of the composition of the pottery vessel assemblages within the majority of the graves. The remaining vessels in each of the middle and large scale graves are as follows:

M2: one Type I *fu*, twelve Type XXV *guan*, two (only the lids remain) *lei*, one (small) Type XXVIII *guan*



M1: one (fragmentary) Type I *fu*, eleven Type XXVI-A *guan*, two Type I *lei*, one *jian* (“mirror”)

M47: one Type II-A *fu*, five Type XXVII *guan*, two Type II *hu*, two Type II *lei*, one (small) Type XXVIII *guan*

M52: one Type II-A *fu*, sixteen Type III-B *hu* (*guan*?),<sup>118</sup> four Type III-A *hu*, two Type I porcelain *guan*, one Type I *jiao hu*, one Type V bronze *pan*.

M3: one Type II-B *fu*, eighteen Type XXVI *guan*, four Type IV *hu*, two small Type I-A ring footed *hu*, two small Type I-B ring footed *hu*, five small Type I-C ring footed *hu*, five Type II bronze loop handled *hu*.

M51: four Type XXVII *guan*, four Type III *lei*.

M58: one Type II-B *fu*, sixteen Type XXIX *guan*, four Type V *hu*, two Type II porcelain *guan*, one Type VII bronze *ding*, two Type III bronze *hu*, one Type II *jiao hu*, one bronze *guan*, one bronze *zun*, one bronze *bo*, a fragment of a bronze *pan*, a fragment of a bronze *yi*.

After grave M51 was cleared out it became submerged in water, so except for the several whole and complete vessels, none of the remnant shards could be removed, so its assemblage is unclear.

There are three types of pottery assemblages among the other six graves:

- |   |                 |
|---|-----------------|
| (1) <i>fu, guan, lei</i> :                                | (M2, M1)        |
| (2) <i>fu, guan, hu, lei</i> (or porcelain <i>guan</i> ): | (M47, M52, M58) |
| (3) <i>fu, guan, hu</i> , small <i>hu</i> :               | (M3)            |

---

<sup>118</sup> The Type III-B *hu* and the Type III-A *hu* are identical, but occupy the same position within this pottery assemblage as do *guan*; i.e., they hold the relative position of *guan*. However, to alter the influential position of the *guan* would have been a very great change, and for this reason the status of the *guan* has not been altered. Moreover later in the text, the analysis of the assemblage and the periodization tables all depend upon the *guan* in their methodology, particularly in making their explanations. [Note in original text]

Among these three assemblages, all of them have one *fu*, and there are four groupings of eleven (M1), twelve, sixteen, and eighteen *guan*. Grave M1 was looted rather extensively, so it may be that one of the *guan* is missing. We postulate that in all of these cases the number of *guan* would have been even; moreover we consider that there were differences and disparities in status among the occupants of the graves. *Hu* are only found among the first and second type assemblages. Among these four graves there were three which had four pieces, and one which had two pieces. The *hu* are also clearly found in even numbers. The first and second assemblage types all have *lei*: each grave has two pieces, and those graves which lack pottery *lei* have two porcelain *hu* in their place. It is obvious that the *lei* are also matched up in even pairs. There are nine of the small *hu* which belong to the third assemblage, and in addition there is a small scale grave which yielded five small *hu*. They appear to match up in odd numbered groups. From the conditions described above it may be seen that among these large and middle-sized graves from the Eastern Zhou period, there is a relatively fixed assemblage of burial offering pottery vessels. Based on the developmental change of vessel shapes within the assemblages, the above described graves may be divided into three periods.

[185] First Period: M2 and M1. The Type I *fu* from the graves had a square lip and straight neck. In addition, above its round base there were three somewhat convex nipple shaped feet, in the fashion of *li*. The entire body of the vessel is crude and decorated with deep bowstring patterns, which is also a style customary before the Spring and Autumn (photograph 41: 1). The mouth and rim of the Type I *lei* is made with a triangular slanted rim, and had a vessel mouth with a style typical of the end of the Spring and Autumn

period. Therefore the dating of the graves M2 and M1 may be determined to be the last years of the Spring and Autumn or the transitional period between the Spring and Autumn and the Warring States periods. The tamping marks in these two graves have a rounded arc shaped base, indicating a small tamping rod. This also indicates that the dating of these two graves is earlier than the other large and mid-sized graves which used metal rammers in their rammed earth construction. There are comparatively great differences between the styles of the *guan* from these two graves; it appears one is ancestral to the other. The shape of the *guan* from M1 is close to that of a later period, so its date may be a bit later. However these two graves are side by side, and appear to have a kinship relationship, so their separation in time could not be very great.

Second Period: Four graves: M47, 52, 3, and 51. The first three graves all have Type II-A *fu*. The *guan* from M51 are of the same type as the *guan* from M47 and M3, so the dating of these four graves should be relatively close. The Type II-A *fu* had already changed from the square lip of Type I to an angled lip, and its bowstring patterns are relatively refined. Shards of this kind of *fu* were often seen within the Warring States early period of the main archaeological site (photograph 41: 2). The Type II *lei* had already changed from the Type I's triangular slanted rim to a small squared rim current during the Warring States period (photograph 40: 5). The Type II bronze *hu* from M3 (photograph 54: 3), and the Type I bronze *jiao hu* and bronze *pan* from grave M52 (photographs 82: 2; 78: 4), are all forms characteristic of the early period Warring States. Therefore the dating of the Second Period Graves should be assigned to the early Warring States period, dovetailing with the First Period Graves.

Third Period: The pottery *hu*, porcelain *guan*, bronze *hu*, and bronze *jiao hu* from grave M58 (the grave which cut into grave M52) are all later than the same kind of vessels in the Second Period Graves. Still, the differences between the vessel shapes of the bronze *jiao hu* and pottery *hu*, etc. are very close, moreover the two graves also appear to have been placed together side by side. Therefore the graves may be roughly dated to the middle Warring States period or slightly later, and dovetailing with the Second Period Graves.

Besides the three middle and small scale Eastern Zhou graves, grave M18 had three Type XXIV *guan* and three Type I *hu* (photographs 67: 3; 70: 1). The *guan* appear to have a developmental relationship with the Type XIII *guan* (photograph 11: 8) from the Group A group of graves. The latter date to the late Spring and Autumn period. Therefore the dating of grave M18 should be assigned to the First Period. There are three Type II *hu* from grave M4 (photograph 42: 2), which are very closely related to the Type I *hu*, and are from the First Period. There is one Type III *guan* and one Type IV *fu* from grave M54 (photograph 41: 4, 5). The style of their decorations date to the latter part of the sixth period of pottery vessels at the main archaeological site (Warring States Period), which obviously must be earlier than the Type II *fu*. In the grave there are also Type II-A and II-B tall ring footed small *hu* (photograph 44: 3, 4); their vessel-shapes have a developmental relationship with the Type I ring footed small *hu* from the Second Period grave M3, and it is comparatively later. Therefore grave M54 should be later than the Second Period Graves, i.e., during the same time period as the Third Period Graves.

According to the above analysis, except that the time period of graves M28 and M43 are unclear, the “relative stages” and “definitive dating” of the remaining ten Eastern Zhou graves are:



First Period Graves: M18, 2, 1, and 4 date to the last years of the Spring and Autumn Period and the beginning of the Warring States Period.

Second Period Graves: M47, 52, 3, and 51, date to the beginning years of the Warring States early period.

Third Period Graves: M58 and 54, which date to the middle Warring States period or slightly later.

### Brief Summary

[188] The two different kinds of graves from the Zhou Era period at the city of Lu have been presented separately in the preceding section, from which one may see the obvious differences which exist between the two groups of Western Zhou graves.

#### Aspects of burial styles and customs

Head orientation: The heads of the corpses in the Group A Western Zhou graves basically face south; those facing north are an isolated phenomenon. The Group B Western Zhou graves in contrast basically face north; those facing south are the exception.

Yaokeng waist pits with sacrificial dog burials (prevalent in the Group A Western Zhou graves): While some small burials lack funerary utensils, all of them have sacrificial dog waist pits, so one may see the prevalence of this practice. On the other hand, the Group B Western Zhou burials are completely devoid of this practice of sacrificial dog waist pits; one simply does not see this phenomenon within these thirty-nine Western Zhou burials. Even graves M48 and M49, medium sized tombs from which complete sets of bronze vessels were unearthed, do not have sacrificial dogs in waist pits. Thus one can see that those buried in Group B Western Zhou graves have nothing to do with the practice of sacrificial dogs and waist pits.

The placement of implements within the graves: The Group A graves basically place them on the floor of the outer coffin between the inner and

outer coffins, either near the head or by the side of the body. The majority of the Group B burials place them on the secondary ledge and on top of the outer coffin, generally placed near the head.

### Pottery vessel assemblages

The vessel shapes within the Group A graves' pottery vessel assemblages are relatively numerous. There is one group which consists of even numbers of vessels, such as four *li*, four *gui*, four *guan*, four *dou*, and one to two other vessels. The principle of this kind of pottery vessel assemblage appears to have already taken shape before the Western Zhou, and continued directly into the Spring and Autumn period. Grave M202, for example, which dates to the early Spring and Autumn period, has a pottery assemblage of two *li*, two *yu*, two *lei*, two *dou*, and one *guan*. Grave M209 which dates to the middle period Spring and Autumn has four *li*, three *gui*, one *dou*, and two *lei*. Because these graves suffered from extensive looting, the numbers of these *gui*, *dou*, and *lei* are merely those which remained, and are not the original numbers of vessels in this assemblage. Because the *gui* and *dou* vessels are generally in pairs, but M209 has only one of each, it must be that they are missing because the grave had been looted. Thus the original assemblage of this grave may very possibly have been four *li*, four *gui*, four *dou*, and four *lei*, which is a continuation of the Western Zhou period assemblage of four each of four vessel forms.

In contrast to the Group A graves, the vessel classes in the pottery vessel assemblage of the Group B Western Zhou graves are comparatively simple; in general they only have two kinds of *li* and *guan*. In the majority of cases each grave has one *li*, and only the exception has two or three *li*.

Those graves which each have two or four *guan* constitute the majority, although there are graves which each have three or six *guan*, and a few graves have as many as fifteen *guan*. As for the *guan* in the same grave, almost none of them are identical in shape and structure. When a grave has two *guan*, it is not that the vessel shapes are not the same, but rather that there are differences in their sizes. In graves which have four *guan*, they are generally arranged according to a one to three proportion, namely three *guan* are identical and one *guan* is different. The fifteen *guan* in M48 also belong to two kinds of vessel styles, divided into seven and eight items. These *guan* which have differences in size and shape possibly belong to different vessel shapes, but because they all are *mingqi* burial offering implements, they are very difficult to differentiate.

This kind of situation also exists within the Group A graves. For example, grave M201 has five *guan*, and M203 has four *guan*; each are comprised of three types. However these are only a few graves, and they are not the main assemblage style, and do not resemble those which are common in the Group B Western Zhou graves. Despite this being the case, the assemblages in Group A graves which mainly consist of even numbers have not been seen within the Group B Western Zhou graves.

### Vessel shape typology

#### [Group A Graves]

Ring footed vessels such as *gui* and *dou* were prevalent in the Group A graves.

There were two kinds of *li*. The first variety was not very uniform in manufacture; the vessel forms were very small *mingqi* burial offering



vessels, dated to a comparatively early time period. The other *li* were all cord marked *li*, and comprised both *mingqi* and utilitarian vessels. The manufacture of these pottery vessels was rather elegant.

[Group B Graves]

Neither the ring footed *gui* and *dou* vessels, nor *yu*, were present in the Group B Western Zhou graves.

All of the *li* were flanged *li* made as copies of bronze vessels, and the manufacture of the pottery vessels was comparatively crude.

From the above three points it may be seen that the differences between the Groups A and B Western Zhou graves are completely obvious.

[189] The Group B Eastern Zhou graves are mainly mid- to large-scale graves dating from the latter part of the Spring and Autumn to the middle Warring States periods. The main assemblage of pottery vessels is *fu*, *guan*, *lei* or *fu*, *guan*, *hu*, and *lei* (or porcelain *guan*). In the majority of the burials, each grave had a single *fu*; a few graves had two *fu*. The *guan* consisted of three different especially distinctive groups: sets of twelve (e.g., M2 and M1; eleven remained within M1, lacking one piece), sixteen (M52, M58), and eighteen (M3). There were generally four *hu*, two vessels of *lei* or porcelain *guan*, one small *guan*. Except for the *fu* and small *hu*, there were even numbers of the rest of the vessels.

The Group A graves dated from the early Western Zhou period to the late Spring and Autumn period; there were no materials from the Warring States period. Dates for the Group B graves include two periods: the Western Zhou, and from the latter part of the Spring and Autumn to the middle and late

Warring States periods. They were basically lacking in materials from the Spring and Autumn period.

Both grave groups have “missing links” [noncontinuous chronological stages];<sup>119</sup> thus we have not been able to properly differentiate their respective processes of developmental evolution, nor the relationship between the two of them. Despite this being the case, we still may observe several circumstances of developmental change in funerary implements and burial systems.

### Burial customs and burial systems

The Group A waist pit with sacrificial dog was prevalent in the Western Zhou period, and there were still a few surviving examples in the early Spring and Autumn. It disappeared completely thereafter.

Graves arranged side by side had already appeared within the Group A graves during the Western Zhou period. The most obvious [examples] are graves M301 and M302, but single person burials are the main trend. Side by side burials rose in frequency in the late Spring and Autumn period.

Obvious side by side arrangement of graves has not yet been observed within the Group B graves in the Western Zhou period. The burial of husband and wife within the same pit grave appeared within the Group B graves at the end of the Spring and Autumn and the beginning of the Warring States.

---

<sup>119</sup> Refer to Tables 3 and 4 in the Introduction for clarification, and comparison with Cui's newer chronology

### Developmental change of vessel forms

The change in the Group A graves' cord marked *li* is identical to the *li* from the archaeological remains [of Lu (in contrast to the cemetery remains)]. No *li* have been found in the several graves from the late Spring and Autumn period. *Li* made in funerary vessel style appear to have already disappeared in the late Spring and Autumn period.

Pedestaled *gui* were prevalent from the early Western Zhou to the middle Spring and Autumn periods; their changes were that the belly of the *gui* went from shallow to deep, and their ring feet changed from short to tall, and then short again. In the late Spring and Autumn period pedestaled *gui* disappeared, and the ornately lidded *gui* with round body and short ring foot appeared. Some of them still had a square base, but there were very great differences between it and the pedestaled *gui*, and the two seem to have no developmental relationship.

*Dou* were prevalent during the same time period as the pedestaled *gui*, but they were even more common. Their developmental pattern was that the cup of the *dou* went from shallow to deep, and from a curved bottom to a flat bottom. The walls of the *dou* went from being inconsistent in either having a sharp transition point or not, to consistently having a transition point. The base of the *dou* went from short to tall, and from having a trumpet bell shape with a stem which is vaguely smaller on top and larger at the bottom, to a base in which there was an obvious stem section above the Attic base. In the Western Zhou period there was a kind of trumpet bell style base with a protruding ridge, which was identical in style with that of *dou* found in the archaeological remains [of Lu (in contrast to the cemetery remains)] during the same period, which disappeared after the late Western Zhou period. In the

Spring and Autumn period there was a convex, fairly thin ridge on the upper *dou* stem, and many had two lines of them, which are different in style from those in the early Western Zhou period. By the late Spring and Autumn period, those *dou* which were made to be funerary implements had already disappeared, while the lidded *dou* appeared. However the lidded *dou* and the *dou* may possibly be two separate kinds of vessels which may not have a developmental relationship, and their position within the pottery assemblages may possibly be different. There is a kind of *bian* with an ornately decorated lid from a late Spring and Autumn period grave, which appears to have an even more intimate relationship with the *dou*.

Lidded *dou* were prevalent in the late Spring and Autumn period. They may possibly have appeared in the middle Spring and Autumn period; there is the occurrence of *li*, pedestaled *gui*, *dou* and lidded *dou* which were excavated at M213. The *gui* and *dou* found within it are all in the latest styles, while the lidded *dou* is in the earliest style. This kind of phenomenon of both the very latest styles of early period funerary ware being unearthed together with the very earliest styles of late period funerary objects, may very possibly reflect an alternation between the early and late vessel types within the same pottery vessel assemblage.

*Lei* are not seen in the late Spring and Autumn period Group A graves, but they all have *hu* with decorated lids; the *hu* with decorated lid may have replaced the *lei* within the pottery vessel assemblage of the Group A graves. Just like the lidded *dou*, the *hu* with decorated lid may possibly have appeared in the middle Spring and Autumn period. The Type I *hu* with decorated lid excavated from grave M115 is very close in shape and manufacture to that of the bronze *hu* excavated from the Number Two grave containing bronze vessels at Liujiadian, Yishui, Shandong. Grave Number Two at Liujiadian is



dated to the early Spring and Autumn period,<sup>120</sup> with the result that M115 may possibly be placed in the middle Spring and Autumn period.

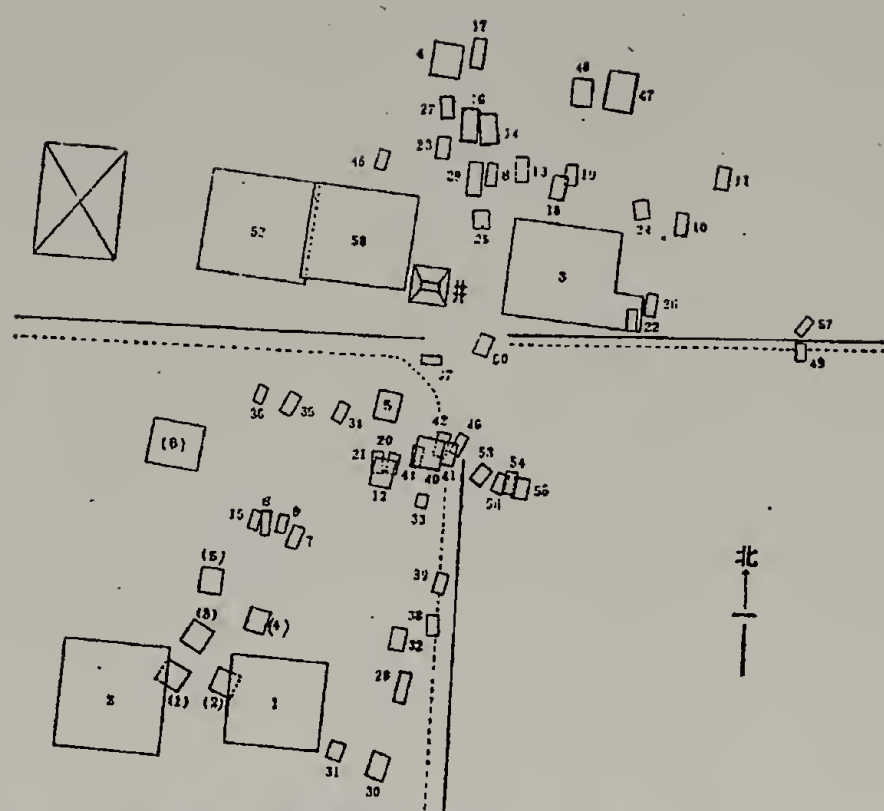
[190] Changes to the bronze *zhou* were in the vessels' ear handles, decorations, and vessel body. The bronze *zhou* were earless from the beginning of the Spring and Autumn; afterwards the single ear handled *zhou* appeared, and in the middle and late Spring and Autumn period they all had paired ear handles. The bronze *zhou* of the early and middle Spring and Autumn periods were all decorated, and the vessels ellipsoidal in shape. In contrast, in the late Spring and Autumn period they were plain surfaced, without decoration, and the vessels nearly round in shape. Single eared pottery *bei* cups which were often seen in the archaeological remains [of Lu (in contrast to the cemetery remains)] dating from the late Spring and Autumn period possibly were copied from the bronze *zhou* of that same period.

There is a gradual change in the funerary implements of the Group A graves from the early period Western Zhou to the middle period Spring and Autumn, and then there seems to be a comparatively large change in the late Spring and Autumn period. Vessel forms like *li*, pedestaled *gui*, and *dou* disappeared, while lidded *dou*, *bian*, *gui* with round bodies and square bases, *hu* with decorated lids, *zhi*, etc. appeared. The majority of these are new vessel forms made in imitation of bronze vessels. Painted color decorations were universal, and most of the painted decorations are [the same as] the decorative patterns of the bronze vessels such as triangular patterns, *qiequ* broad band patterns, etc.

---

<sup>120</sup> Materials excavated by the Shandong Provincial Museum in 1978. [Note in original text]

The colored patterns which are seen in the pottery of Group A Spring and Autumn graves, particularly the late Spring and Autumn period graves, have not been seen in the Group B Eastern Zhou graves. Concave bowstring patterns are prevalent in the pottery vessels of the Group B late Western Zhou period graves; subtle pattern decorations are prevalent in the Group B Eastern Zhou Second and Third period graves. Some of the pottery vessels during this time period have marks stamped on them.

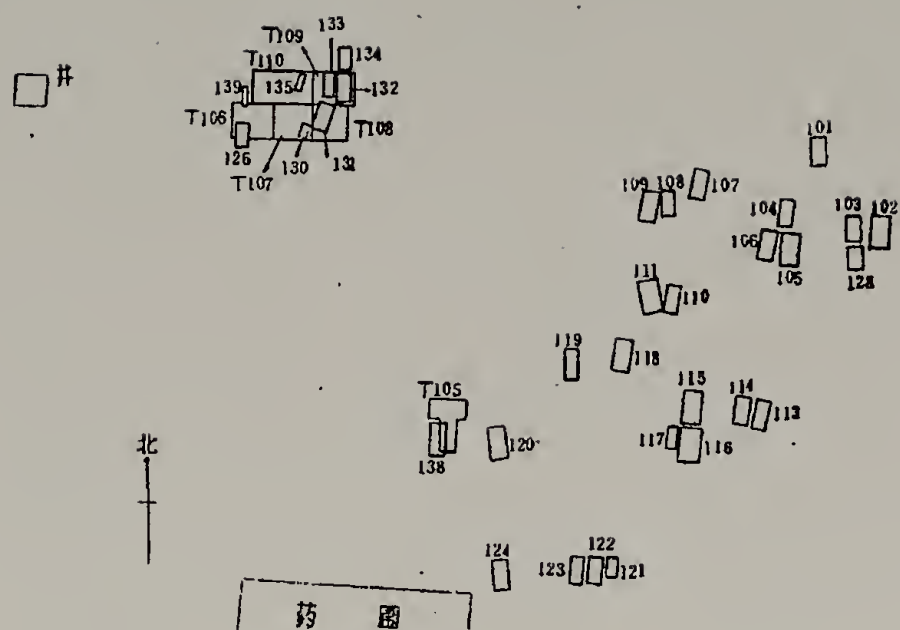


图一一 “望父台” 墓地墓葬分布图 (约 1/1000)  
(加括号者是马坑, 加×者未发掘)

# Diagram 1

Distribution map of graves (Ancestral Terrace cemetery)

(1:1000 scale) (parentheses indicate horse pits; graves with “X”s not yet excavated).



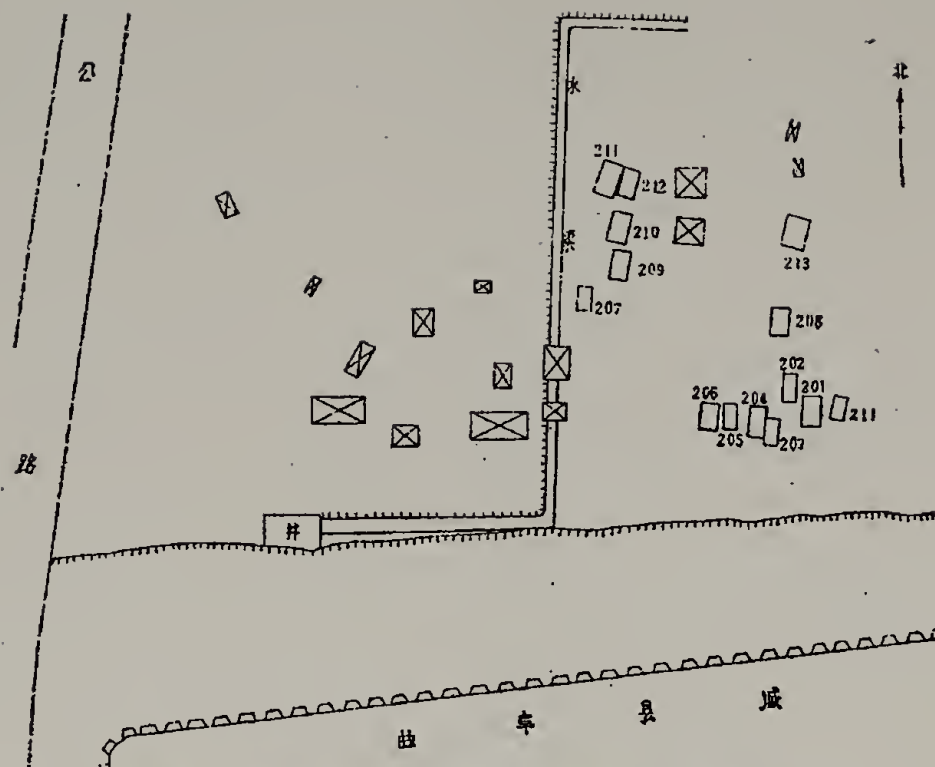
图一二 药圃基地墓葬分布图（约 1/1000）

## Diagram 2

Distribution map of graves (Herb Garden cemetery)

(1:1000 scale).



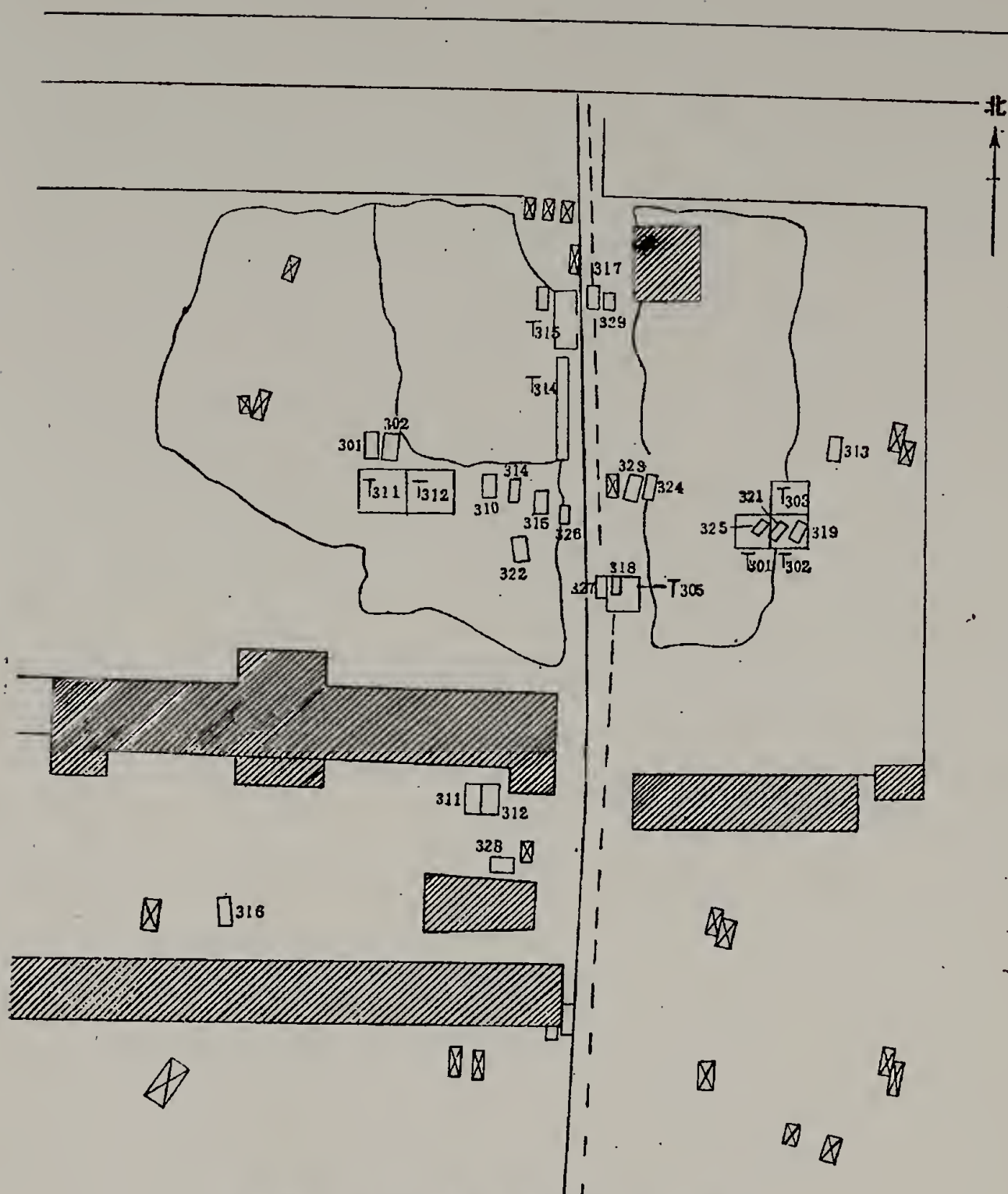


图一三 县城西北角墓地墓葬分布图（约 1/1000）  
（有×者未发掘）

### Diagram 3

Distribution map of graves (cemetery at the northwest corner of the Qufu city wall)

(1:1000 scale) (graves with "X"s not yet excavated).

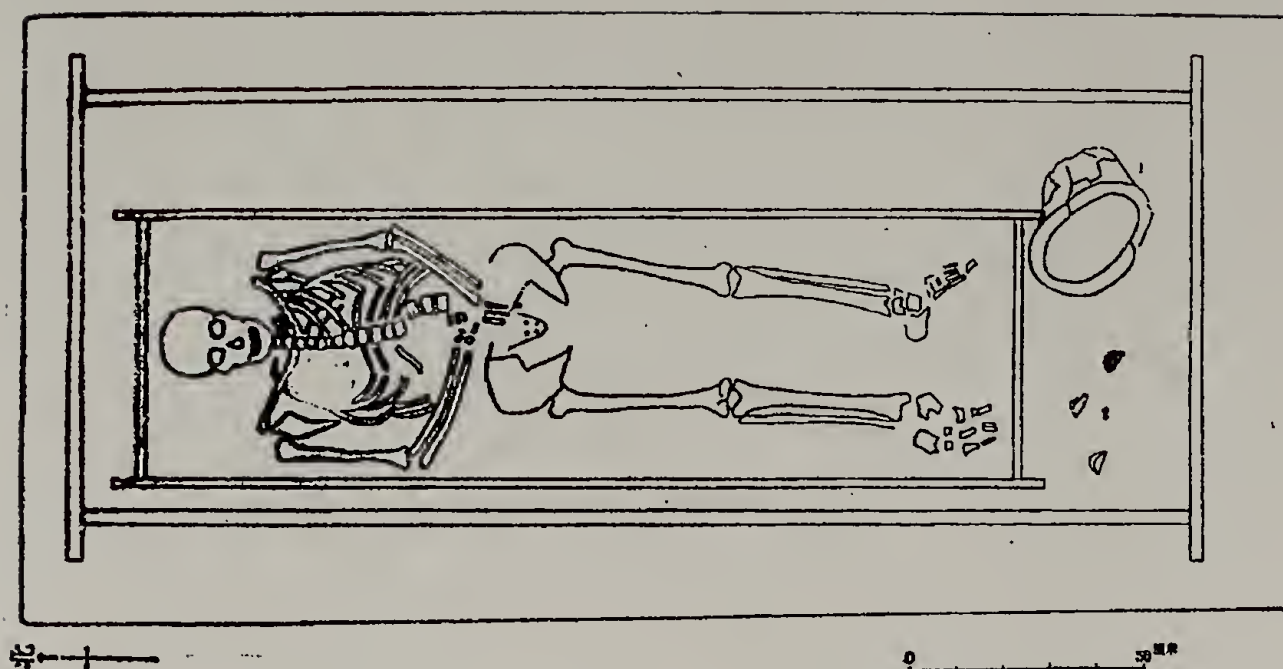


图一四 “斗鸡台” 墓地墓葬分布图 (约 1/1500)  
(有“X”者未发掘, 打斜线者是建筑。)

Diagram 4

Distribution map of graves (Cockfighting Terrace)

(1:1500 scale) (graves with “X”s not yet excavated; shaded areas are structures).

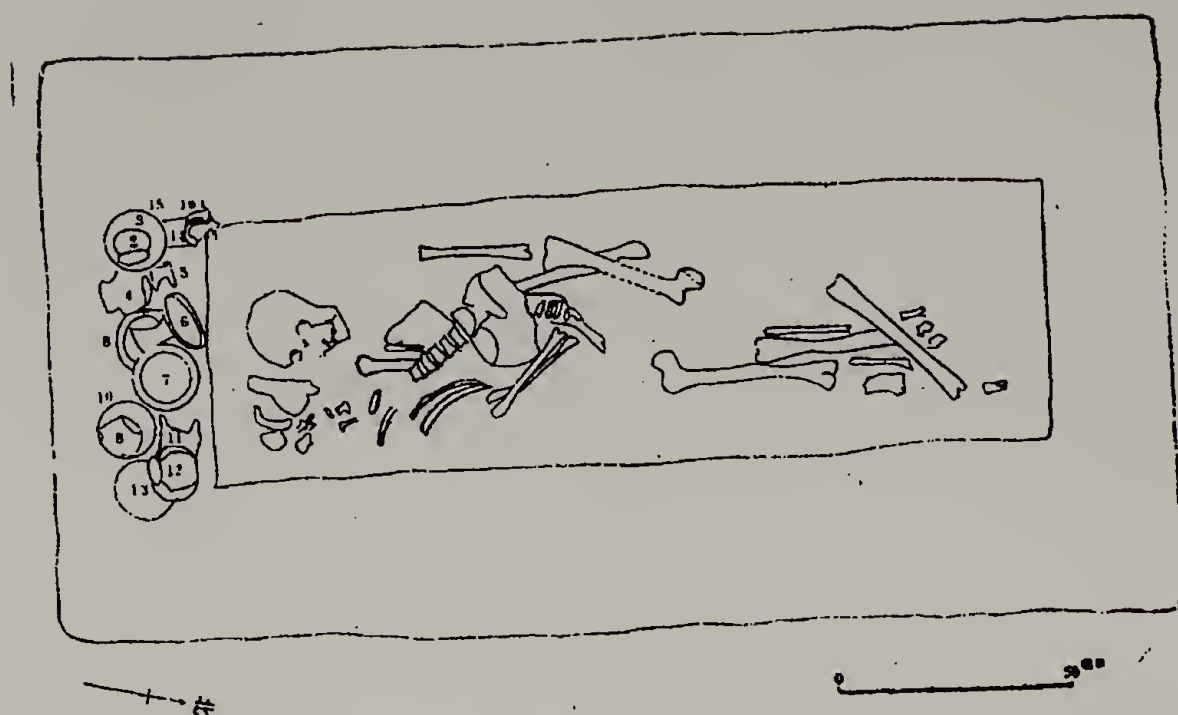


图五一 M301平面图  
1. 陶钵 2. 蚌器

Diagram 5

Top view of M301

1. Pottery *bo*.
2. Mussel shell implements.



图五二 M107平面图

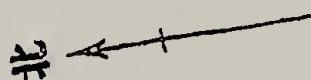
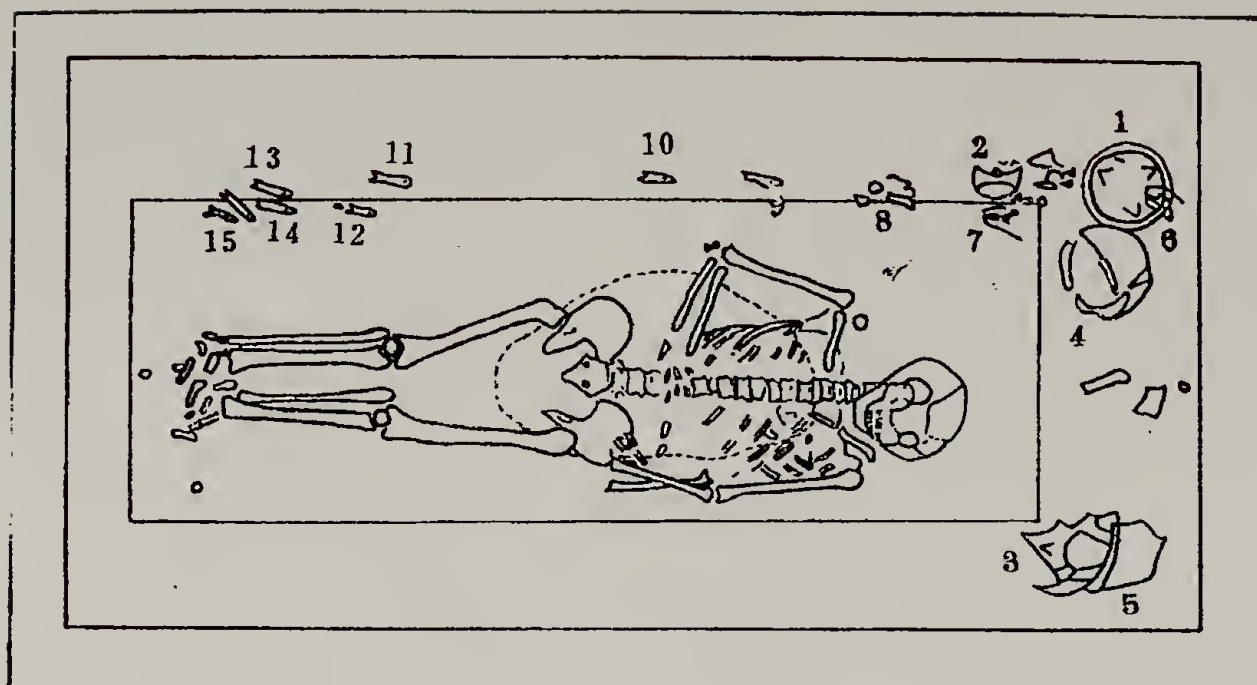
1、5、11、14. 陶甬    2、4、9、12. 陶罐    3、6、10、13. 陶豆    7、8、15、16. 陶吸

## Diagram 6

Top view of M301

1, 5, 11, 14. pottery *li*.  
 2, 4, 9, 12. pottery *guan*.  
 3, 6, 10, 13. pottery *dou*.  
 7, 8, 15, 16. pottery *gui*.





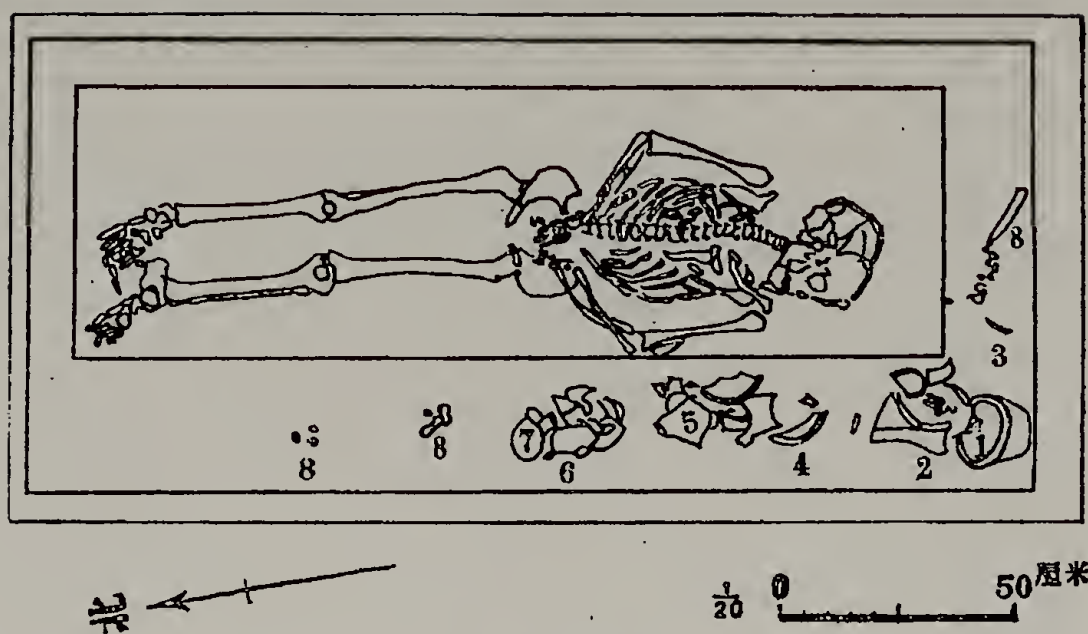
图五三 M310平面图

1—3. 陶鬲 4. 陶罐 5. 陶盆 6—15. 蚌鱼

## Diagram 7

Top view of M310

- 1 to 3. Pottery *li*
- 4. Pottery *guan*
- 5. Pottery *yu*
- 6 to 15. Mussel shell crafted into "fish"



图五四 M320平面图

1. 陶盆 2. 陶鬲 3. 兽骨 4—7. 陶豆 8. 蚌鱼

## Diagram 8

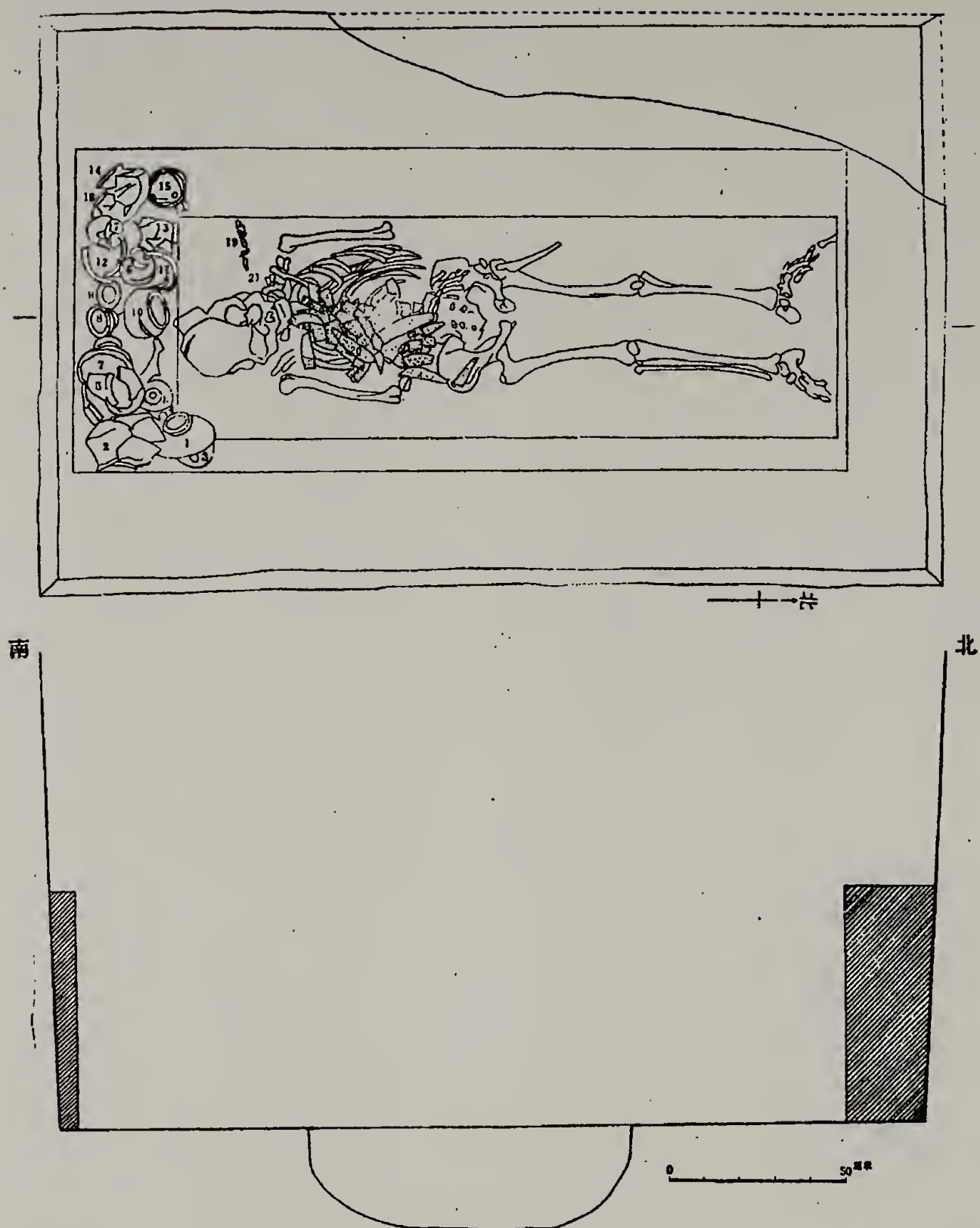
Top view of M320

1. Pottery *yu*
2. Pottery *li*
3. Animal bone
- 4 to 7. Pottery *dou*
8. "Fish" carved from mussel shell

## Diagram 9

Top and side views of M120

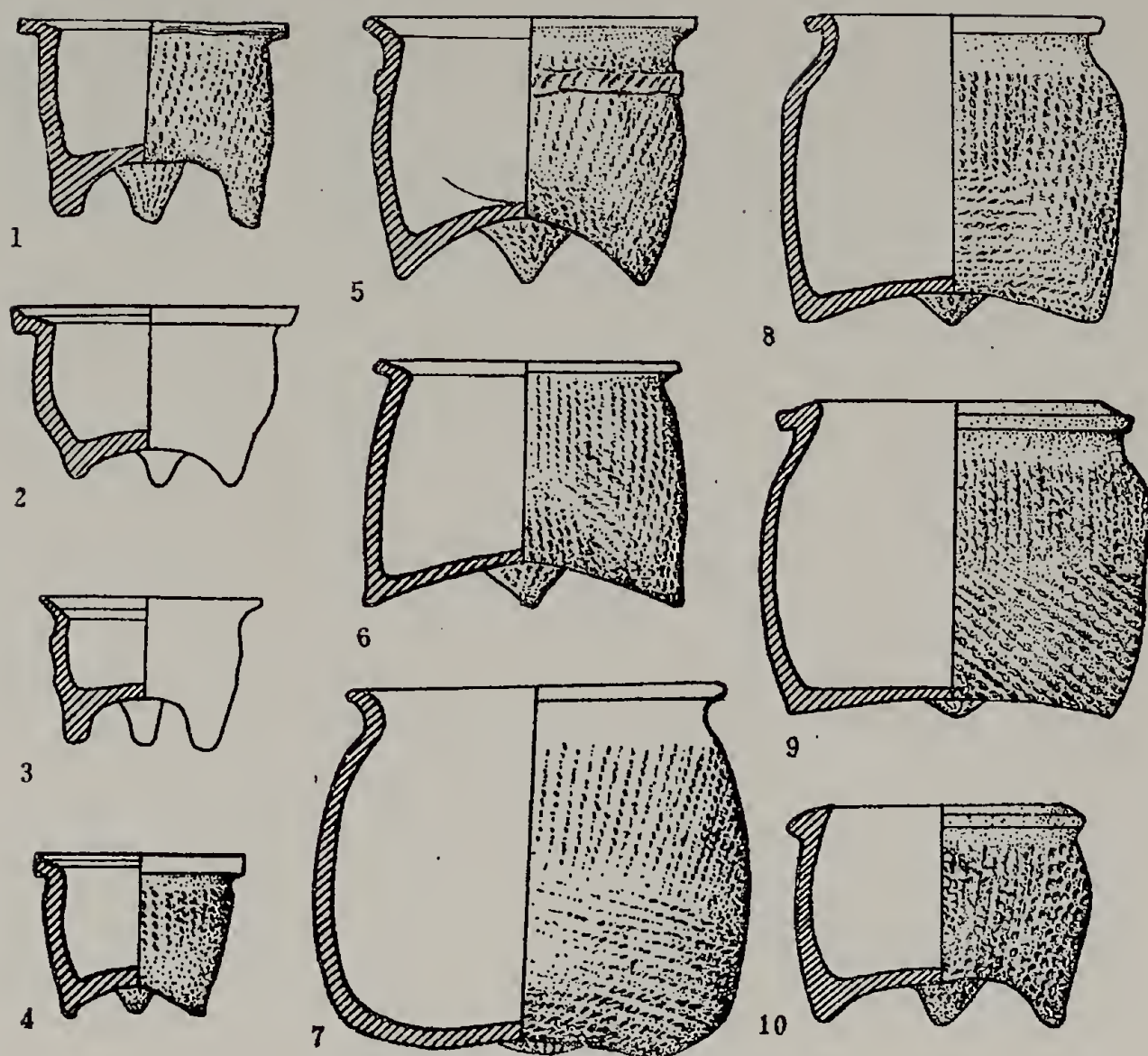
- 1, 7, 11, 12. Pottery *gui*
- 2, 5, 10, 18. Round bottomed pottery *guan*
- 3, 4, 13, 15. Pottery *li*
- 14. Pottery *zun*
- 9. Pottery *lei*
- 6, 8, 16, 17. Pottery *dou*
- 19. Stone *ge* blade
- 20. Mussel shell ornament
- 21. Salt water cowrie



图五五 M120平剖面图

1、7、11、12. 陶甗 2、5、10、18. 圆底陶罐 3、4、13、15. 陶鬲 14. 陶尊 9. 陶盂  
6、8、16、17. 陶豆 19. 石戈 20. 蚌饰 21. 海贝





图五六 甲组墓陶器 (1/4)

- |              |               |               |              |              |
|--------------|---------------|---------------|--------------|--------------|
| 1. I式M120:15 | 2. I式M501:1   | 3. I式M107:5   | 4. IV式M310:9 | 5. V式M310:1  |
| 6. VI式M320:2 | 7. VII式M328:1 | 8. VII式M202:1 | 9. IX式M207:1 | 10. X式M209:1 |

Diagram 10

Group A Grave pottery *li*

(1:4 scale)

1. Type I, M120:15
2. Type II, M501: 1
3. Type III, M107: 5
4. Type IV, M310: 9
5. Type V, M310: 1
6. Type VI, M320: 2
7. Type VII, M328: 1
8. Type VIII, M202: 1
9. Type IX, M207: 1
10. Type X, M209: 1

## Diagram 11

Pottery *gui* from Group A graves

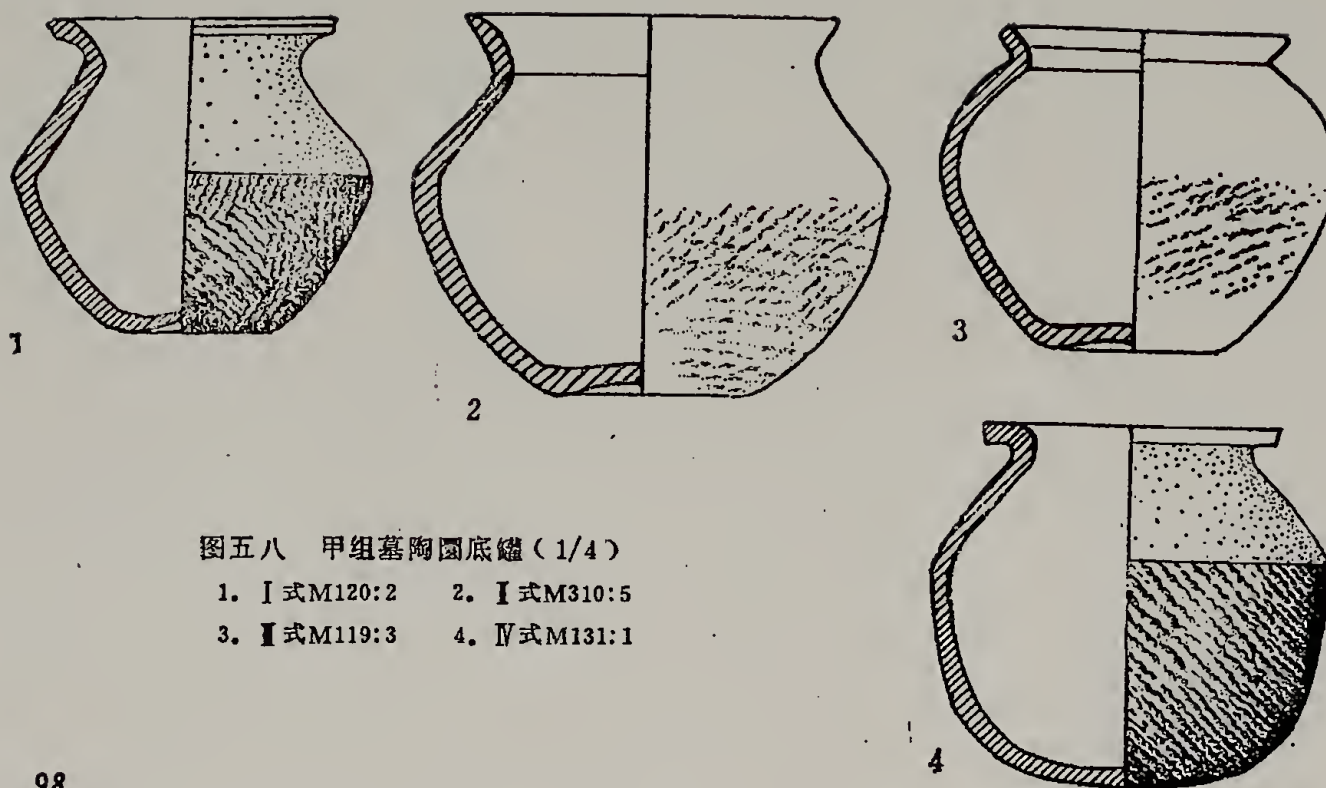
(1: 4 scale)

1. Type I, M120:11
2. Type II, M501: 7
3. Type II, M501: 7
4. Type III, M107:14
5. Type IV, M211: 3
6. Type V, M207: 4
7. Type VI, M209: 2
8. Type VII, M213:13
9. Type VIII, M16: 2



图五七 甲组墓陶簋(1/4)

- |              |              |                |                |              |
|--------------|--------------|----------------|----------------|--------------|
| 1. I式M120:11 | 2. I式M501:7  | 3. I式M501:3    | 4. I式M107:14   | 5. IV式M211:3 |
| 6. V式M207:4  | 7. VI式M209:2 | 8. VII式M213:13 | 9. VIII式M116:2 |              |



98

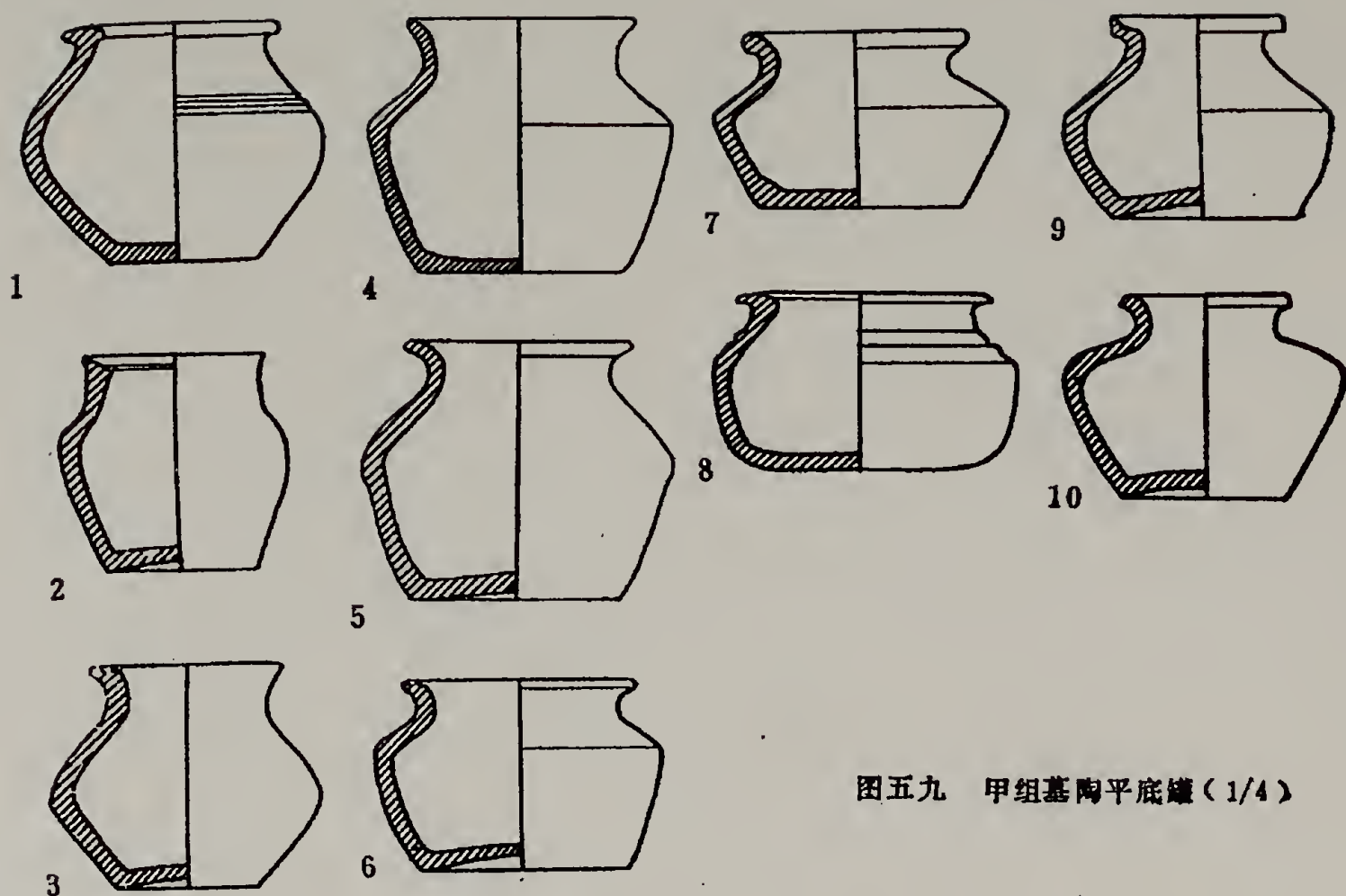
## Diagram 12

Round bottom pottery *guan* from Group A graves

(1: 4 scale):

1. Type I, M120: 2
2. Type II, M310: 5
3. Type III, M119: 3
4. Type IV, M131: 1





图五九 甲组基陶平底罐 (1/4)

1. I 式M501:4    2. II B 式M107:17    3. III 式M124:3    4. IV A 式M328:4    5. IV B 式M205:1  
6. V A 式M201:18    7. V B 式M201:15    8. V C 式M201:16    9. VI 式M201:13    10. X 式M116:22

### Diagram 13

Flat bottom pottery *guan* from Group A graves

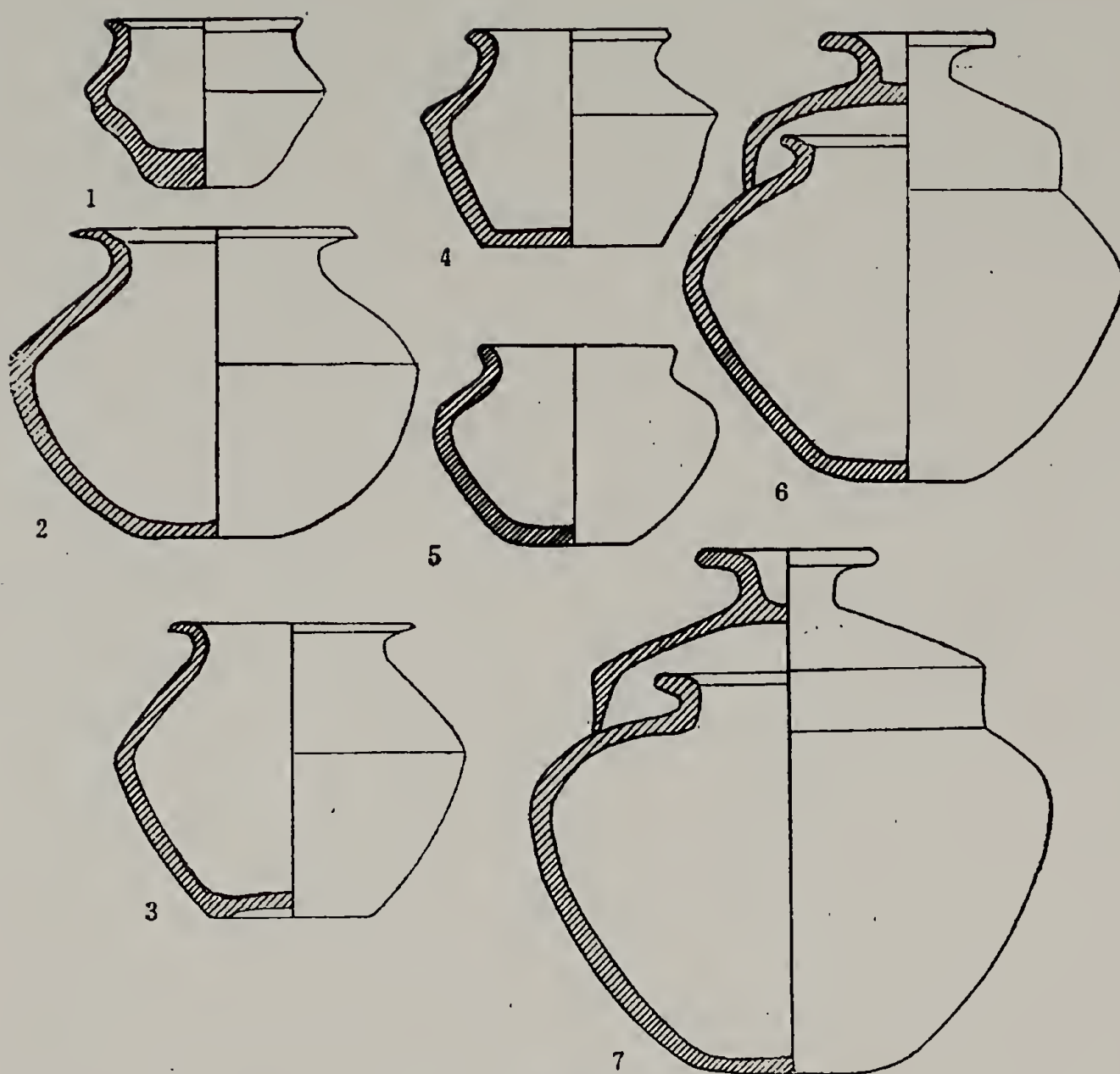
(1:4 scale)

1. Type I, M501: 4.
2. Type II-B, M107:17.
3. Type III, M124: 3.
4. Type IV-A, M328: 4.
5. Type IV-B, M205: 1.
6. Type V-A, M201:18.
7. Type V-B, M201:15.
8. Type V-C, M201:16.
9. Type VI, M201:13.
10. Type X, M116:22.

## Diagram 14

### Pottery *lei* from Group A Graves

1. Type I, M120: 9
2. Type II, M138: 2
3. Type III, M119: 4
4. Type VI, M305: 1
5. Type VII, M207: 5
6. Type X, M209: 11
7. Type IX, M202: 3



图六〇 甲组墓陶器 (1/4)

- |              |              |               |             |
|--------------|--------------|---------------|-------------|
| 1. I式M120:9  | 2. I式M138:2  | 3. II式M119:4  | 4. V式M305:1 |
| 5. VI式M207:5 | 6. X式M209:11 | 7. I X式M202:3 |             |

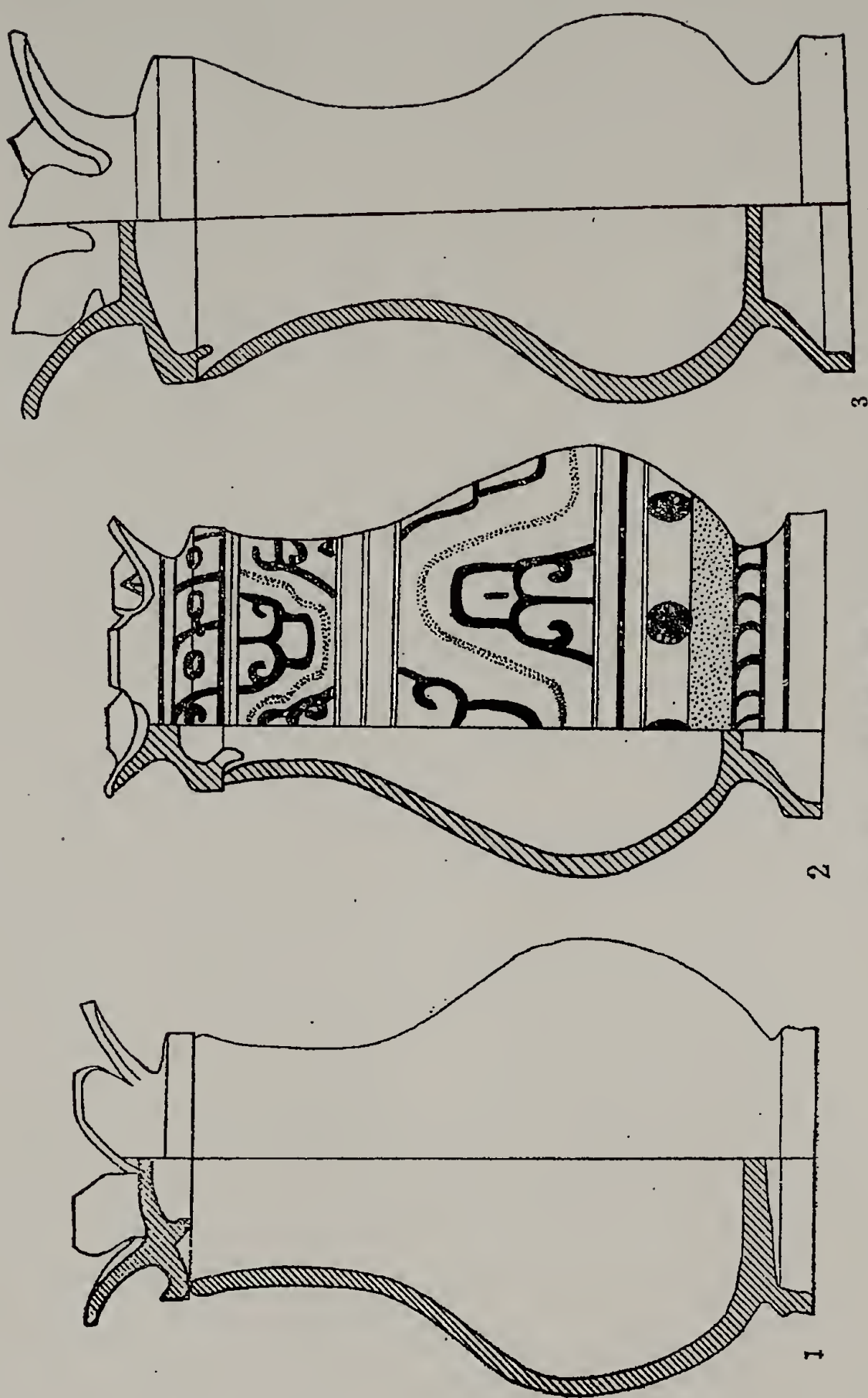
## Diagram 15

Pottery *hu* with ornamental cover, from Group A graves

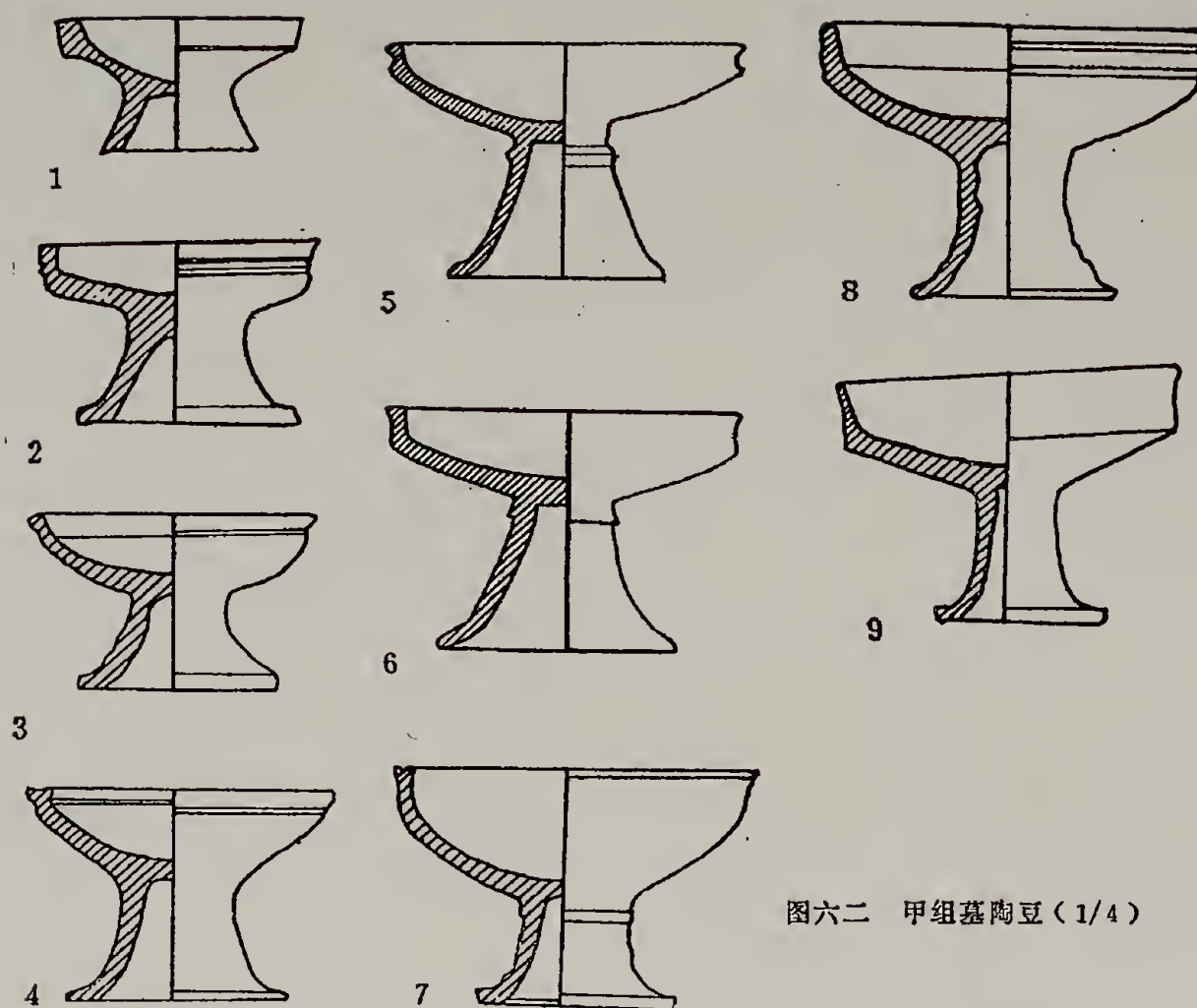
(1: 4 scale)

1. Type I, M115: 5
2. Type II, M116:16
3. Type III, M104: 8





图六一 甲组墓华盖陶壶 (1/4)  
 1. I 式M115:5 2. I 式M116:16 3. I 式M104:8



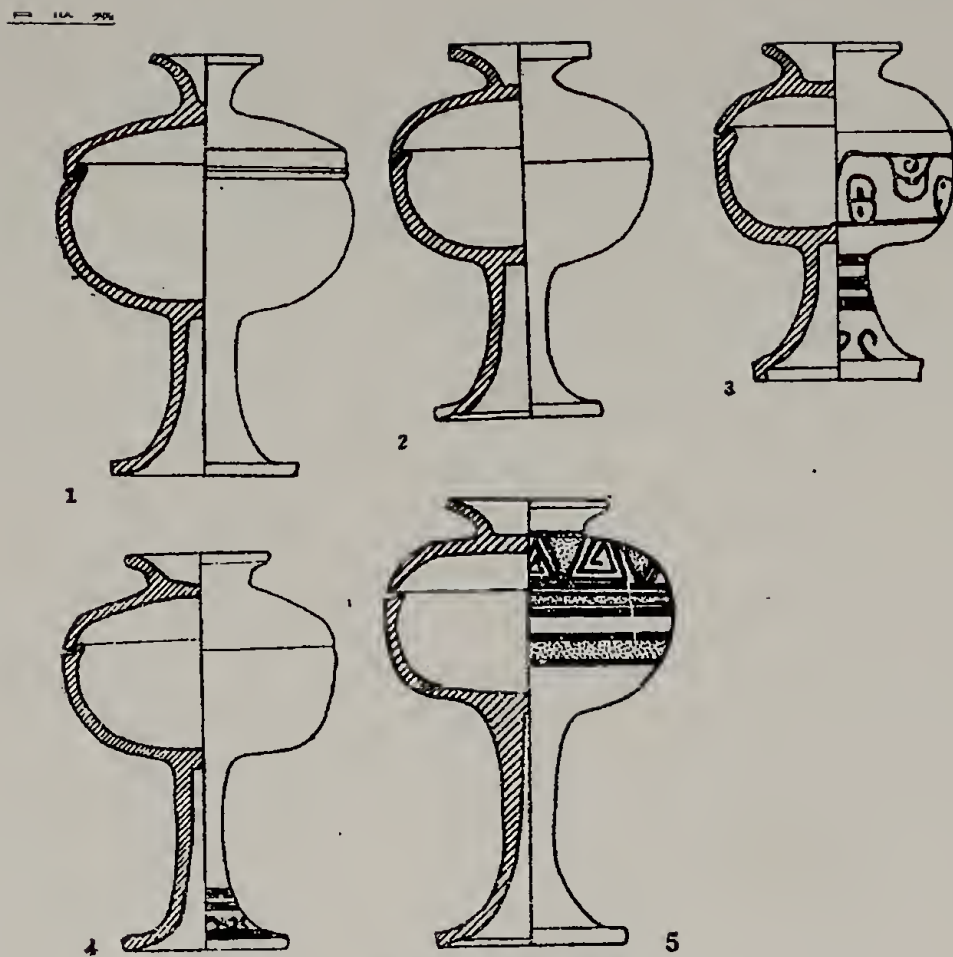
图六二 甲组墓陶豆（1/4）

1. I 式M120:6    2. I 式M501:5    3. II A 式M501:10    4. II B 式M107:13    5. IV 式M124:2  
6. V 式M119:2    7. VI 式M320:6    8. VII 式M316:1    9. VIII 式M211:1

## Diagram 16

### Pottery *dou* from Group A Graves

1. Type I, M120: 6
2. Type II, M501: 5
3. Type III-A, M501:10
4. Type III-B, M107:13
5. Type IV, M124: 2
6. Type V, M119: 2
7. Type VI, M320: 6
8. Type VII, M316: 1
9. Type VIII, M211: 1



图六三 甲组墓陶盖豆 (1/6)

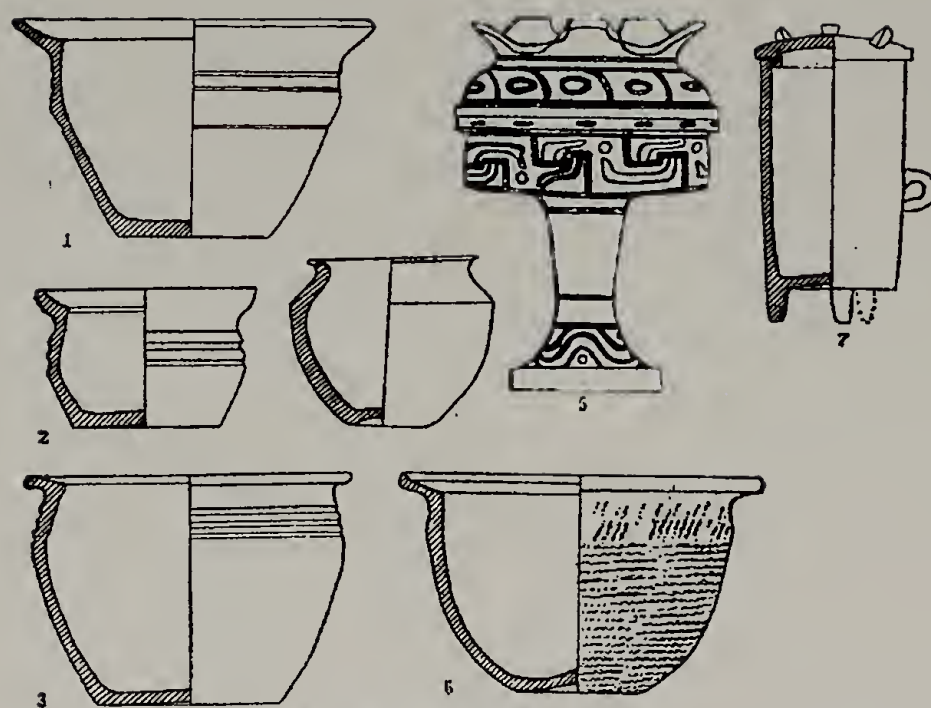
- |               |               |                |
|---------------|---------------|----------------|
| 1. I 式M213:1  | 2. I 式M115:3  | 3. IV 式M116:20 |
| 4. II 式M110:2 | 5. II 式M111:2 |                |

## Diagram 17

Pottery *dou* with cover, from Group A Graves

(1: 6 scale)

1. Type I, M213: 1
2. Type II, M115: 3
3. Type IV, M116:20
4. Type III, M110: 2
5. Type III, M111: 2



图六四 甲组墓陶器 (1/6)

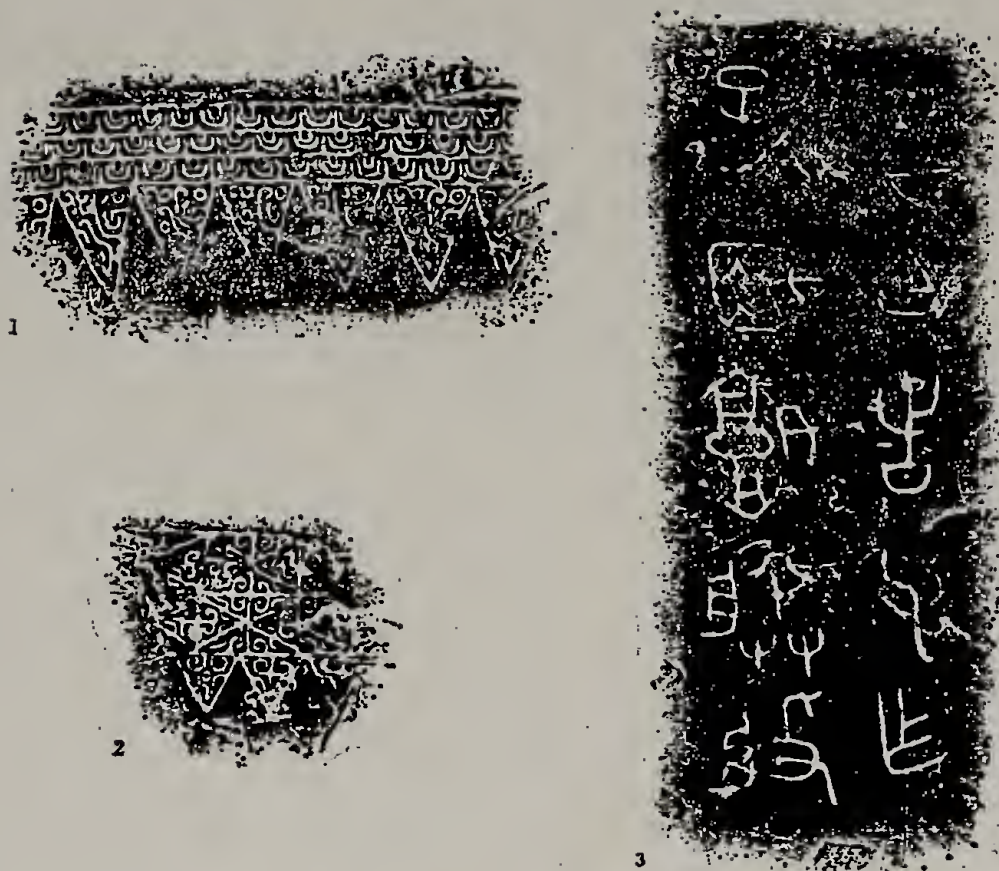
1. 盂 I 式 M310:11    2. 盂 II 式 M320:1    3. 盂 III 式 M202:2    4. 尊 M120:14  
5. 甗 M116:17    6. 钵 M301:1    7. 卮 M104:11

## Diagram 18

### Pottery vessels from Group A Graves

1. Type I *yu*, M310:11
2. Type II *yu*, M320: 1
3. Type III *yu*, M202: 2
4. *Zun*, M120:14
5. *Bian*, M116: 17
6. *Bo*, 301: 1
7. *Zhi*, M104:11





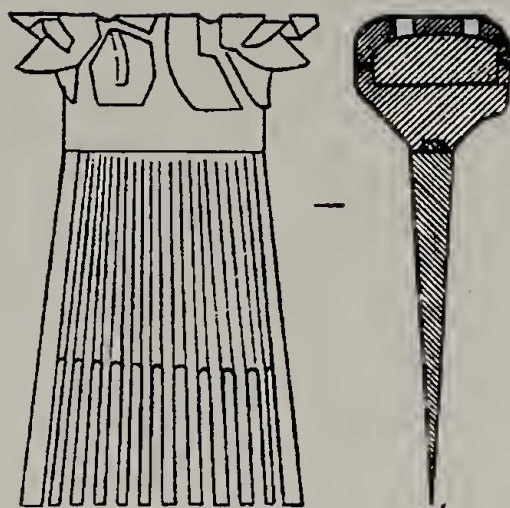
图六五 甲组墓铜器铭文、花纹拓片（2/3）

1. 舟M201:7    2. 舟M305:1    3. 盘M202:5

## Diagram 19

Rubbings of inscriptions and decorative patterns from bronze vessels  
excavated from Group A Graves

1. *Zhou*, M201: 7
2. *Zhou*, M305: 1
3. *Pan*, M202: 5



图六六 甲组墓象牙梳（2/3）

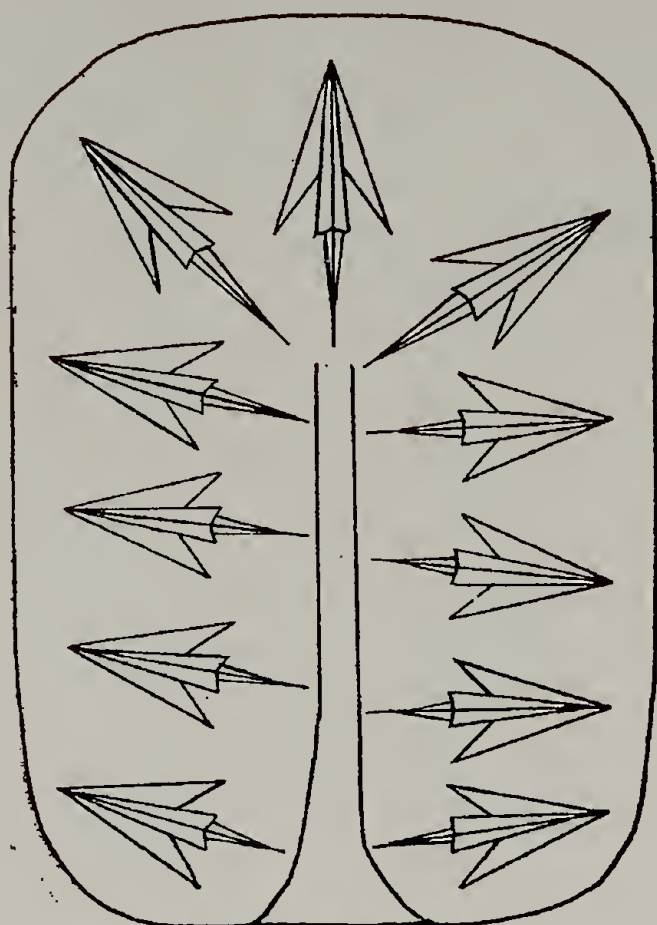
M116:15

Diagram 20

Elephant ivory comb from Group A Grave

(2:3 scale)

M116: 15



图六七 甲组墓陶铁范（约1/2）  
M138:2

## Diagram 21

Pottery mold for arrowheads, from Group A Grave  
(approximately. 1: 2 scale)

M138: 2.





































Diagram 22

Comparitive chart of funerary vessels from Group A Graves

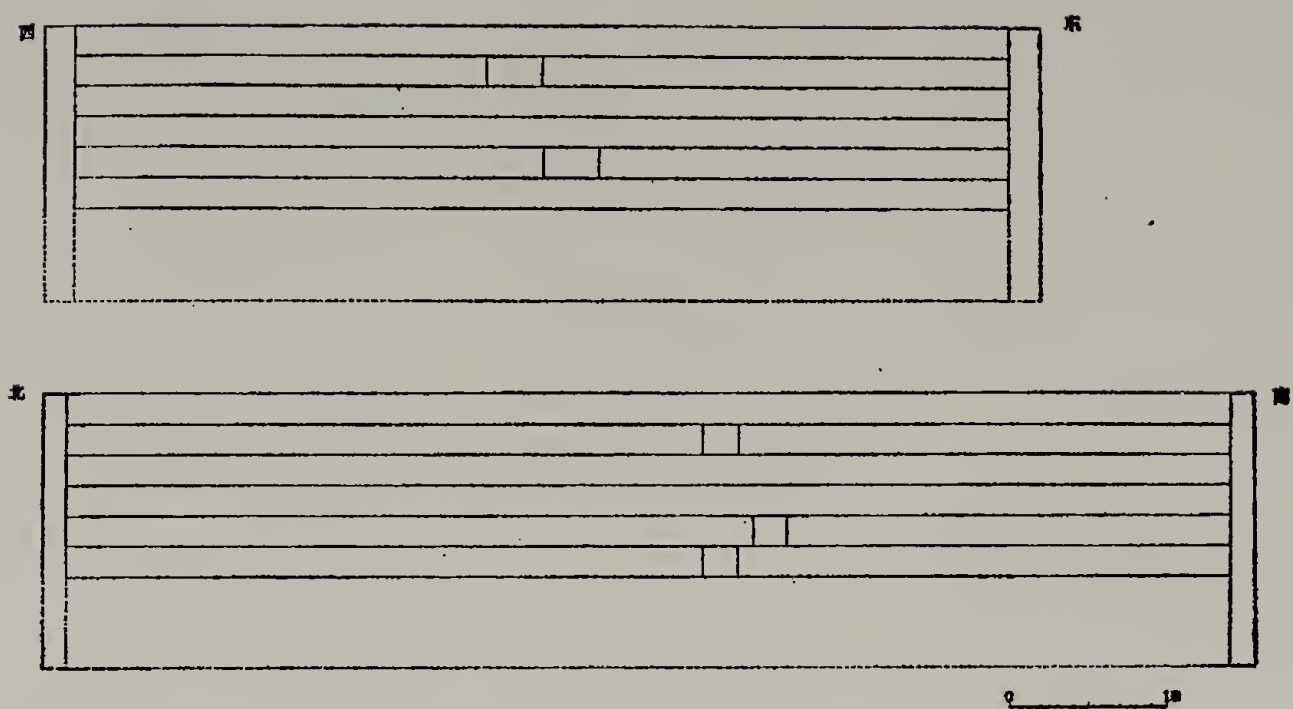
Columns:*li, gui, dou, guan, yu, lei, hu:*

Rows: First through Sixth Periods.



分期	期	鬲	簋	豆	斚	盂	罍	壺
第六期	116 (残)							
	209 (残)							
第五期	207 (残)							
	202 (残)							
第四期	328							
	316							
第三期	320							
	310							
第二期	107							
	120							

图六八 甲组墓随葬器物比较图



图六九 M2墓室北壁、东壁筑板痕迹图

### Diagram 23

Diagram of the traces of boards from which the east and north walls of the M2 burial chamber were constructed

- a) West-East
- b) North-South

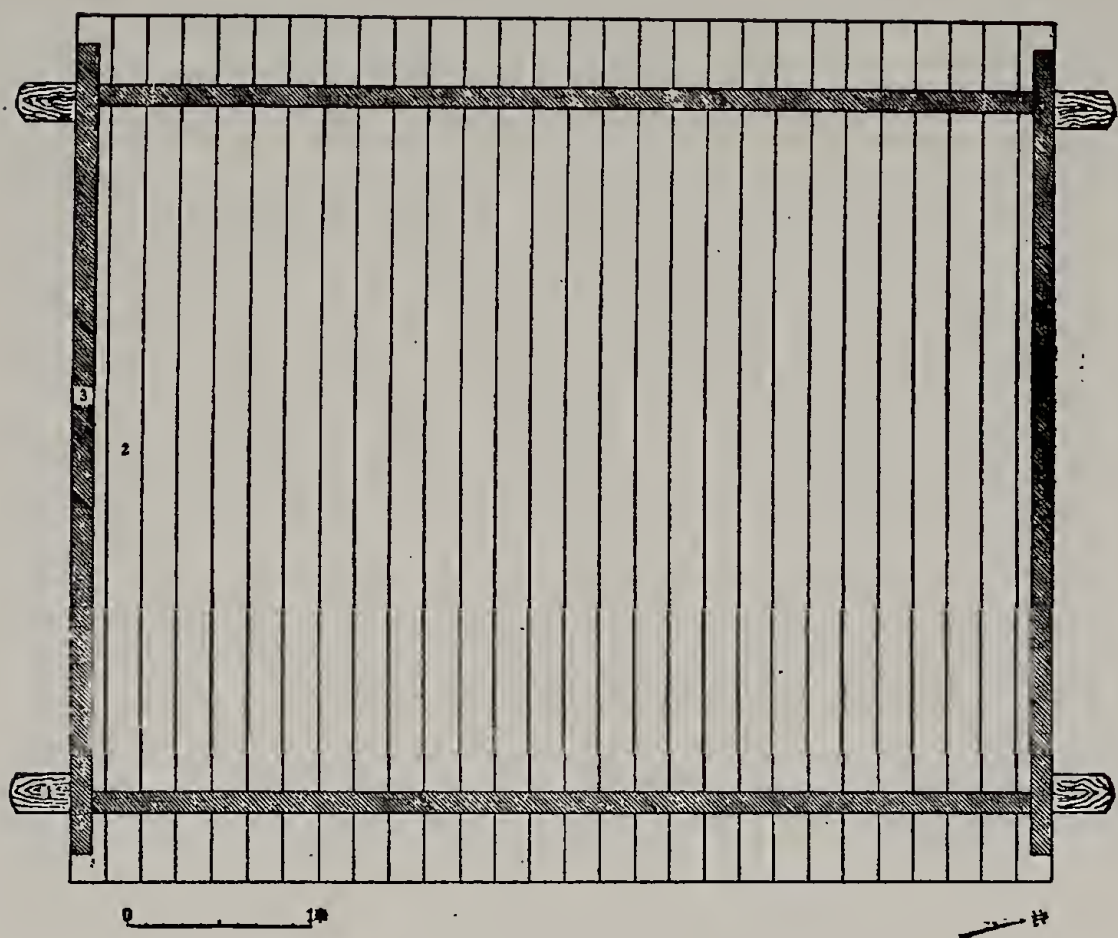
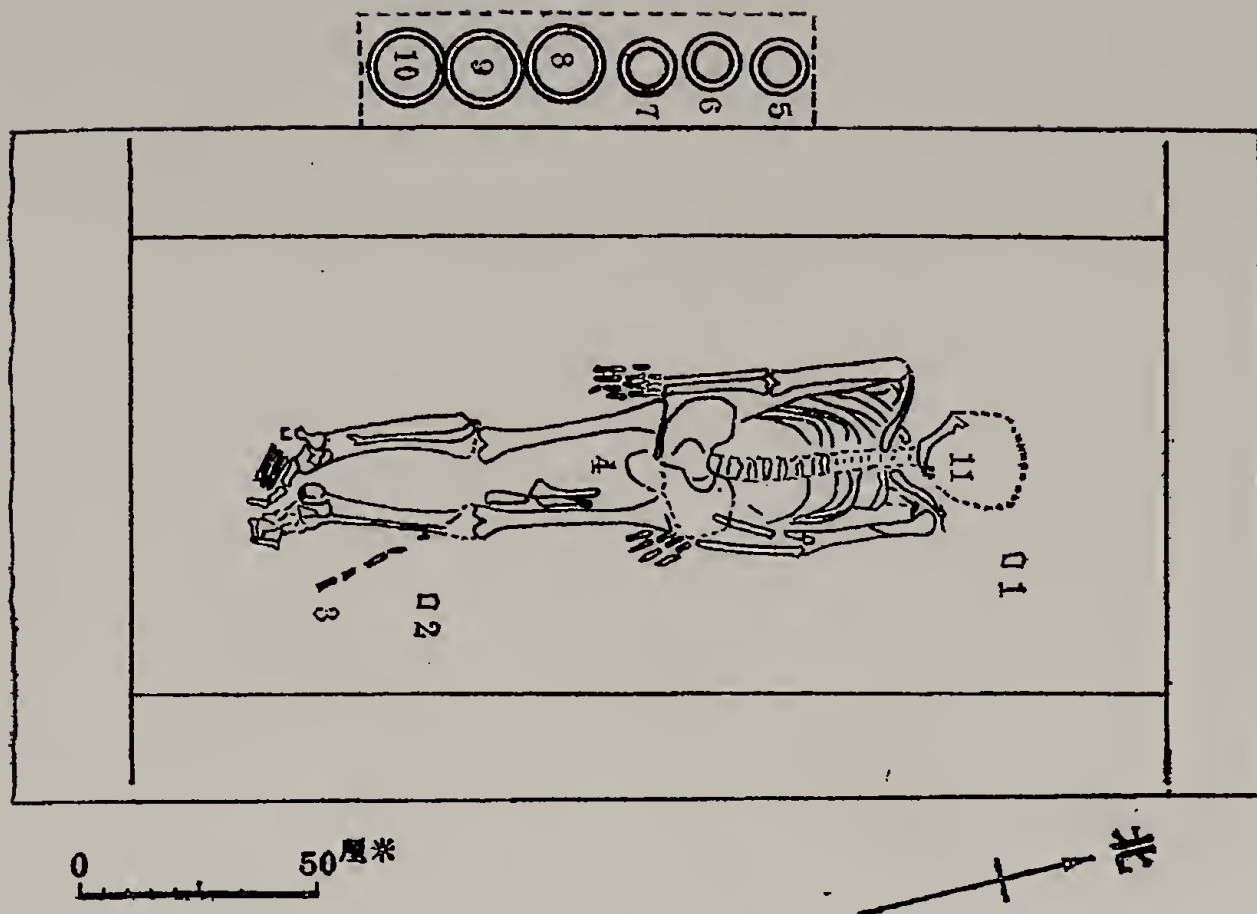


Diagram 24

Horizontal view diagram of a reconstruction of the floor of inner coffin M2

1. Horizontal support beam
2. Wooden floor of the inner coffin
3. Wood inner coffin wall



图七一 M18平面图

1、2. 骨管 3. 骨笄 4. 残陶器 5—7. 陶罐 8—10. 陶壶 11. 口含

## Diagram 25

### Top view of grave M18

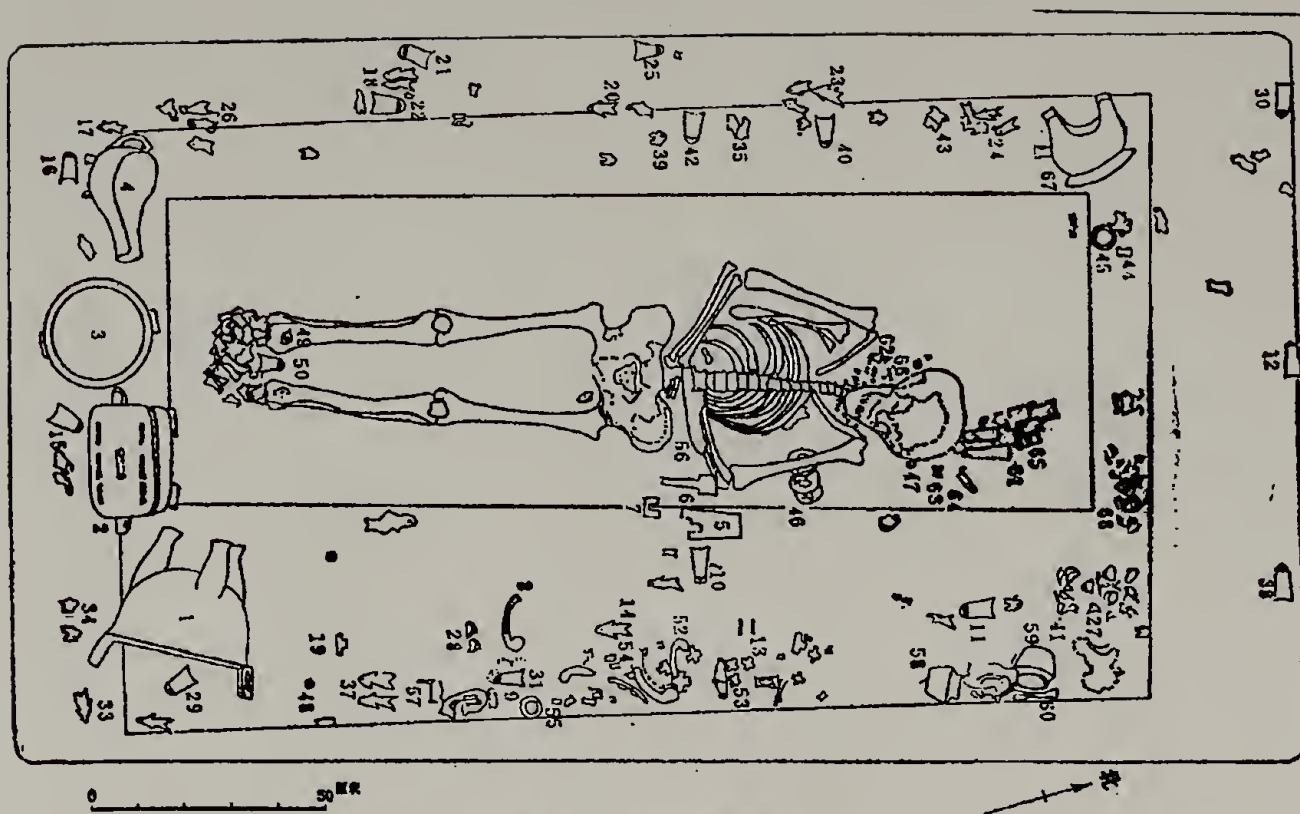
- 1, 2. Bone tube
- 3. Bone hairpin
- 4. Broken pottery vessel
- 5 to 7. Pottery *guan*
- 8 to 10. Pottery *hu*
- 11. Object placed in the mouth (tongue amulet)



## Diagram 26

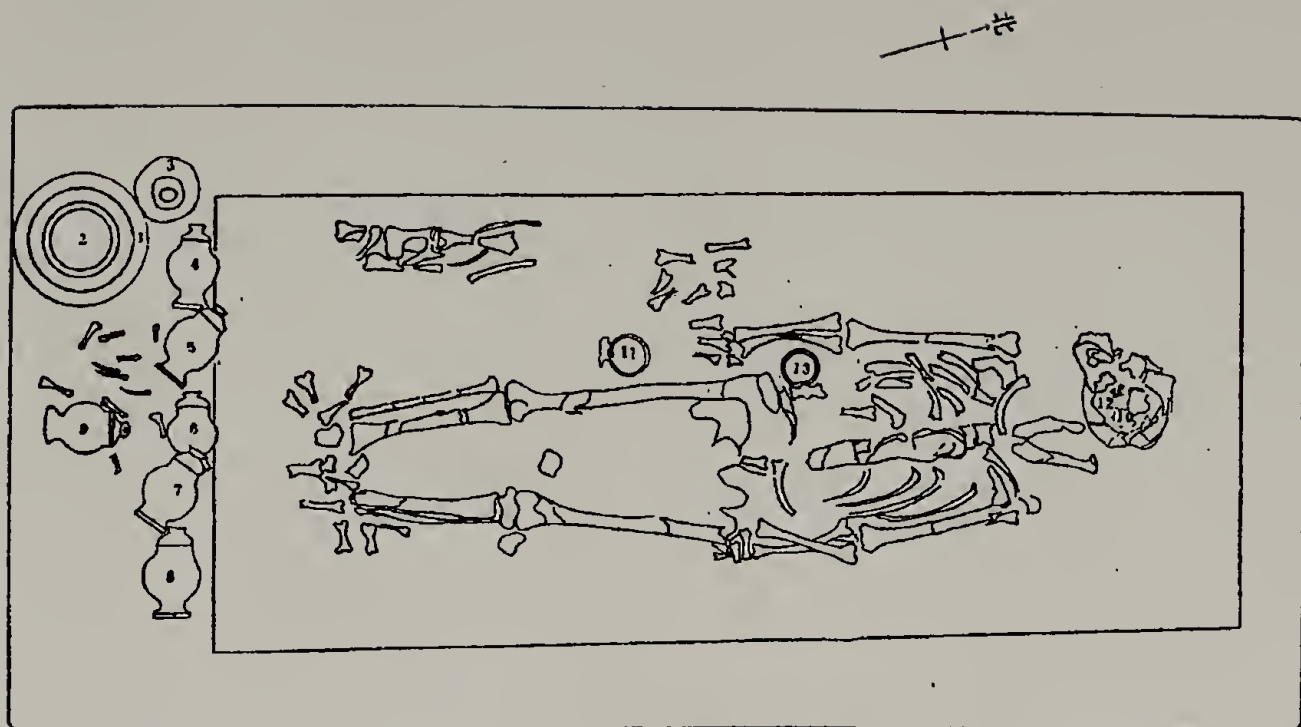
### Top view of grave M30

1. Bronze *ding*
2. Bronze *xu*
3. Bronze *pan*
4. Bronze *yi*
5. *Gu* chariot wheel
- 6, 7. *Xia* chariot linchpin
- 8, 52. Bronze *biao* curb chain
- 9 to 12, 15, 16, 21, 22, 25, 29 to 31, 36, 38, 40, 42, 50, 51. Bronze *ling* bells
- 13, 14. Bronze *xiyao* hyperboloid
- 14, 17, 18, 20, 23, 24, 33, 37. Bronze fish
- 19, 53. Bronze *jiyue* harness ornaments
- 26, 35. "Fish" carved from shell
- 27, 28, 47, 86. Clam shells
32. Bronze *hu*
- 34, 43. *Taotie* head
39. Stone *gui* tablet
- 45, 55. Bronze *bei* cup
46. Bronze waist pendant
41. Jade *huan*
- 48, 49. Cowrie shell
54. Bronze *fu* cauldron
- 56, 57. Bronze *ge*
- 58, 59. Pottery *guan*
60. Animal bone
- 61, 62, 64, 65. Stone shards
63. Mussel shell ornament
66. Necklace
67. Pottery *li*
69. Bone ornament



图七二 M30平面图

1. 铜鼎 2. 铜盂 3. 铜盆 4. 铜匣 5. 车害 6, 7. 车辖 8, 52. 铜簪 9—12, 15, 16, 21, 22, 25, 29—31, 36, 38, 40, 42, 50, 51. 铜铃 13, 44. 铜细腰 14, 17, 18, 20, 23, 24, 33, 37. 铜鱼 19, 53. 铜节约 26, 35. 蚌鱼 27, 28, 47, 68. 蛤蜊壳 32. 铜壶 34, 43. 簪头 39. 石圭 45, 55. 铜环 46. 铜腰带饰 41. 玉玦 48, 49. 贝 54. 铜盩 56, 57. 铜戈 58, 59. 陶罐 60. 兽骨 61, 62, 64, 65. 石片 63. 蚌饰 66. 项链 67. 陶甬 69. 骨饰



图七三 M54平面图

1—2. 陶釜 3—9. 陶圈足小壶 10. 小骨棒 11. 铜兽首衔环 12. 玉蝉(口含)

## Diagram 27

### Top view of grave M54

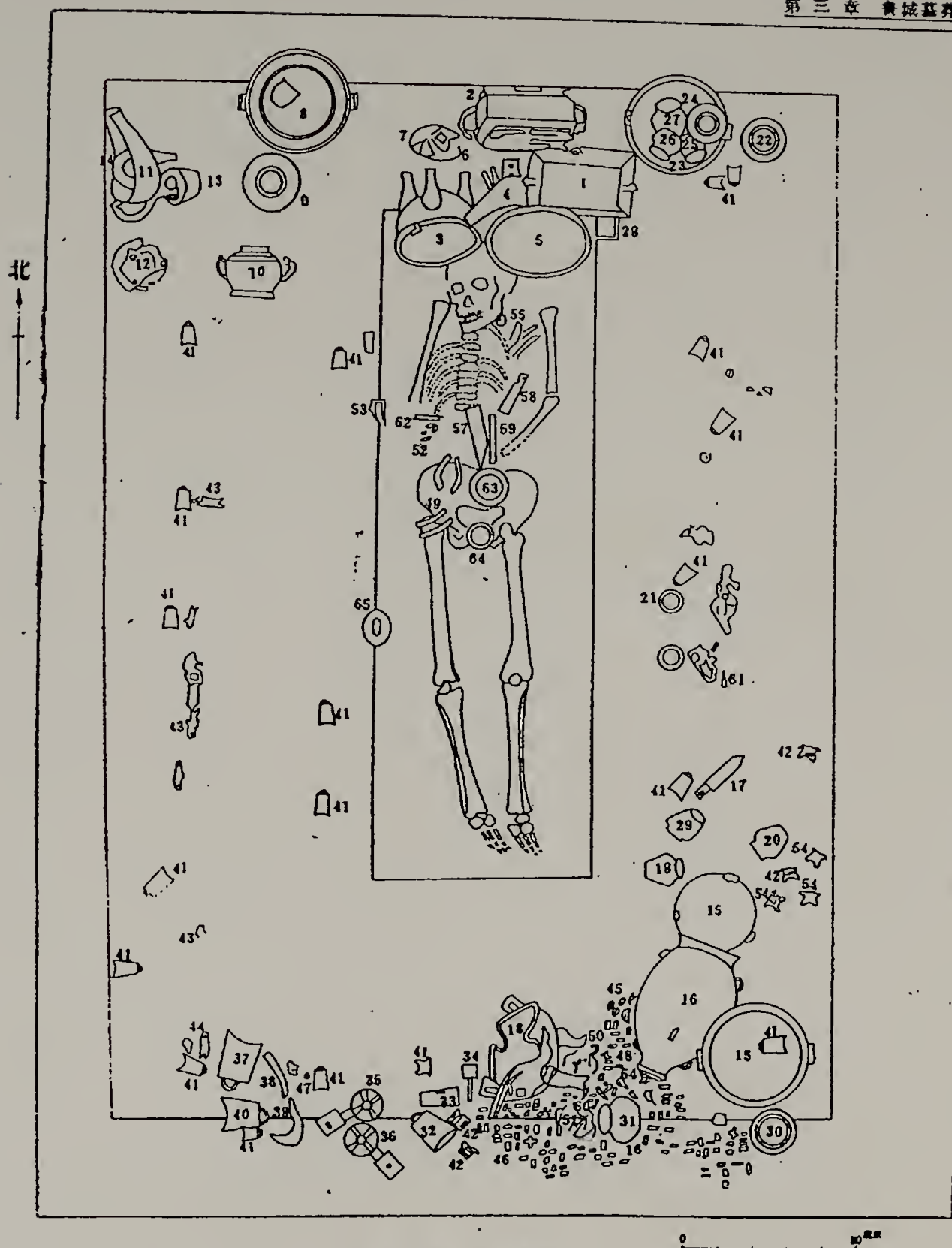
- 1 to 2. Pottery *fu*
- 3 to 9. Pottery ring footed *xiao hu*
- 10. Small bone stick
- 11. Bronze animal head holding a ring in its mouth
- 12. Jade cicada (placed in the mouth)

## Diagram 28

### Top view of grave M48

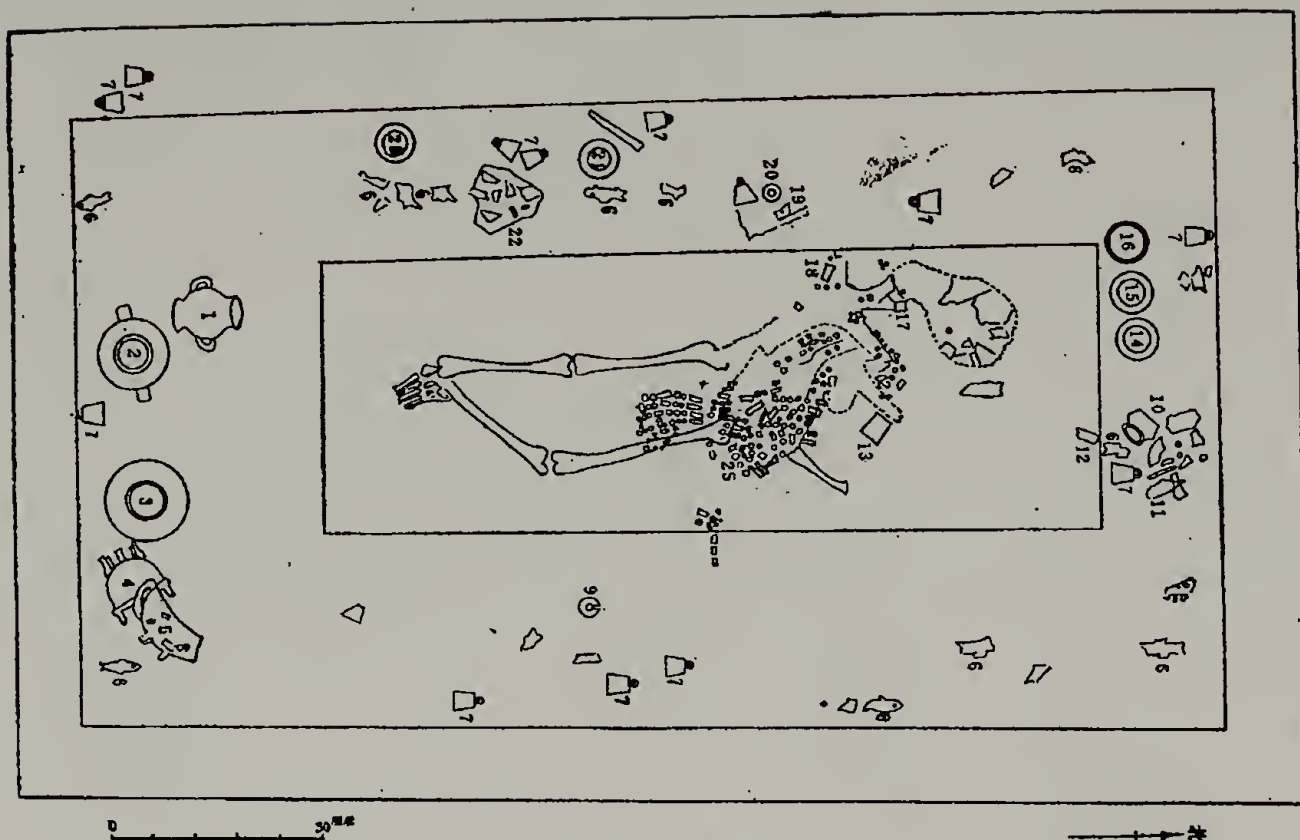
- 1, 2. Bronze *xu*
- 3, 18, 23. Bronze *ding*
- 4, 11. Bronze *yi*
- 5, 8. Bronze *pan*
6. Jade spoon
- 7, 13, 14, 19, 20, 24 to 27, 29 to 31, 51, 60. Pottery *guan*
- 9, 10. Bronze *gui*
12. Pottery *li*
15. Bronze *yan*
16. Bronze *hu*
17. Bronze *ge*
21. Bronze cup
28. Bronze *fu*
- 32, 37, 40. Bronze *ling* bell
33. Bronze *wei* axle-hub
34. Chariot linch-pin
- 35, 36 to 38, 39. Bronze *luan* rattle-jingle
41. Bronze *ling* bell
- 42, 54. *Taotie* head
43. Bronze fish
44. Mussel shell "fish"
45. Clam shell
46. *Pei* bridle ornament
47. Mussel shell pao
48. *Jieyue*
49. Bronze *biao* curb chain
50. Horse *xian* curb bit
52. Bone tube
53. *Xiyao*
54. Tube ornament bearing an animal head
55. Necklace
56. Jade *huan*
57. Jade *ge*
- 58, 59. Jade ornament in the shape of a sword scabbard
61. Round tube pointed awl ornament
62. Rectangular piece of jasper
- 63, 65. Jade *bi* disk
64. Jade cup





图七四 M48平面图

- 1, 2. 铜甗 3, 18, 23. 铜鼎 4, 11. 铜匜 5, 8. 铜盘 6. 玉匕 7, 13, 14, 19, 20, 24—27, 29—31, 51, 60. 陶罐 9, 10. 铜簋 12. 陶鬲 15. 铜甗 16. 铜盃 17. 铜戈 21. 铜环 28. 铜簋 32, 37, 40. 铜铃 33. 车膏 34. 车辖 35, 36—38, 39. 铜盃 41. 铜铃 42, 54. 簪头 43. 铜鱼 44. 蚌鱼 45. 蛤蜊壳 46. 髀饰 47. 蚌泡 48. 节约 49. 铜匜 50. 马衔 52. 骨管 53. 细腰 54. 带骨头管饰 55. 项链 56. 玉块 57. 玉戈 58, 59. 剑鞘形玉饰 61. 圆管尖锥饰 62. 长方条碧玉 63, 65. 玉璜 64. 玉环



图七五 M49平面图

- 1、2. 铜簋 3. 铜盆 4. 铜鼎 5. 铜匜 6. 铜鱼 7. 铜铃  
8. 玉小件 9、20. 玉块 10、14—16、21—23. 陶罐 11. 陶鬲  
12. 石戈 13. 方形石饰 17、19、24. 玉片 18. 铜片 25. 石串珠

## Diagram 29

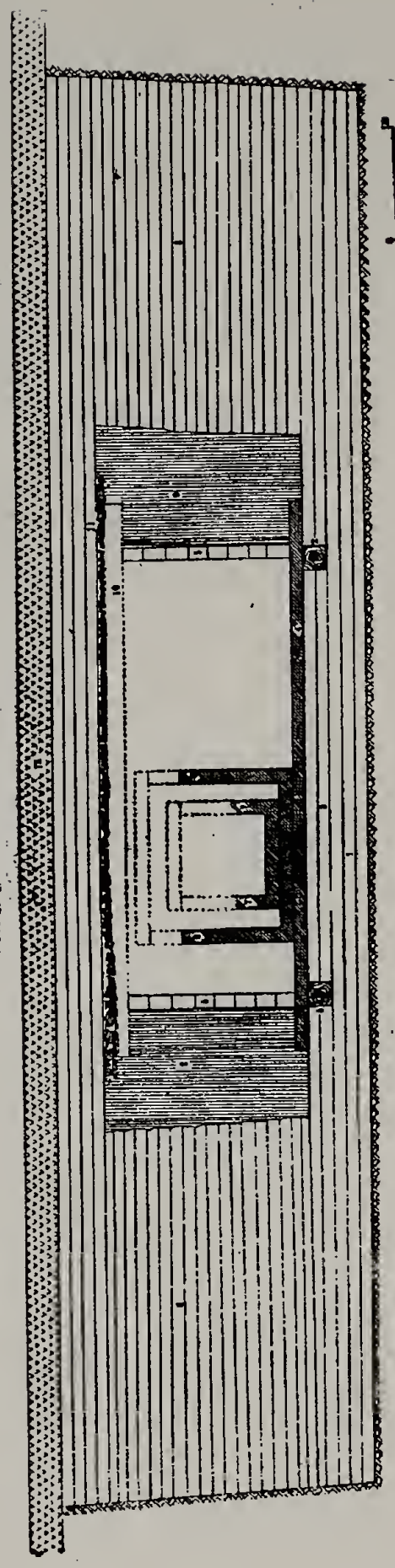
### Top view of grave M49

- 1, 2. Bronze *gui*
3. Bronze *pan*
4. Bronze *ding*
5. Bronze *yi*
6. Bronze fish
7. Bronze ling bell
8. Small piece of jade
- 9, 20. Jade *huan*
- 10, 14 to 16, 21 to 23. Pottery *guan*
11. Pottery *li*
12. Stone *ge*
13. Square stone ornament
- 17, 19, 24. Jade shard
18. Bronze shards
25. Stone string of beads

### Diagram 30

East-west cross section reconstructed view of grave M2

1. Rammed earth floor of the burial chamber
2. Wood handle
3. Rammed earth floor of outer coffin
4. Floor boards of outer coffin
5. Outer coffin wall
6. Outer inner coffin
7. Inner inner coffin
8. Rammed earth surrounding the burial chamber
9. Rammed earth surrounding the outer coffin
10. Boards covering the outer coffin
11. Wood ash and mussel shells covering the outer coffin
12. Disturbed soil



图七六 M2东西剖面复原图

- 1. 基坛底夯土
- 2. 枕木
- 3. 椰底夯土
- 4. 椰底板
- 5. 椰壁
- 6. 外棺
- 7. 内棺
- 8. 墓室四外夯土
- 9. 椰室四外夯土
- 10. 椰壁板
- 11. 椰室木板和蚌壳
- 12. 耕土



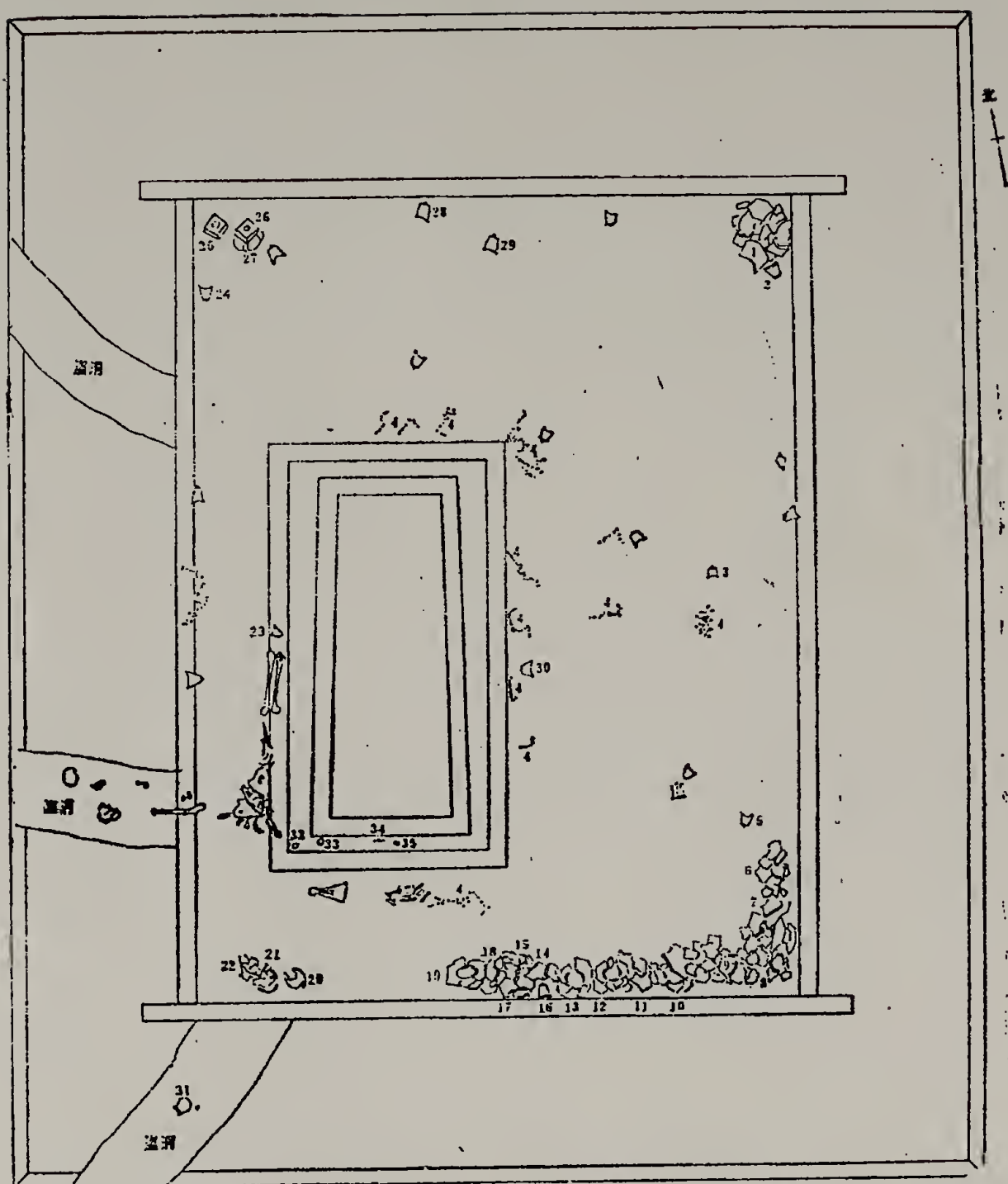
### Diagram 31

Top view diagram of grave M2, and perspective drawing of the remnant inner inner coffin

Top, top view of M2

Bottom: sketch map [perspective drawing] of the remains of the inner inner coffin

1. Pottery *fu*
- 2, 3, 5, 10, 16, 23, 24, 28 to 30. Bronze *ling* bell
4. Bridle ornament
- 6 to 9, 11 to 15, 17 to 20, 31. Pottery *guan*
- 21, 22. Pottery *lei* cover
- 25, 26. Pottery vessel stand
27. Pottery *hu*
- 32, 33. Gold inlaid bronze *pao*
34. Bone tube
35. Bone *huan* disk



图七七 M2 墓室平面图和内棺（残）示意图

上，M2平面图

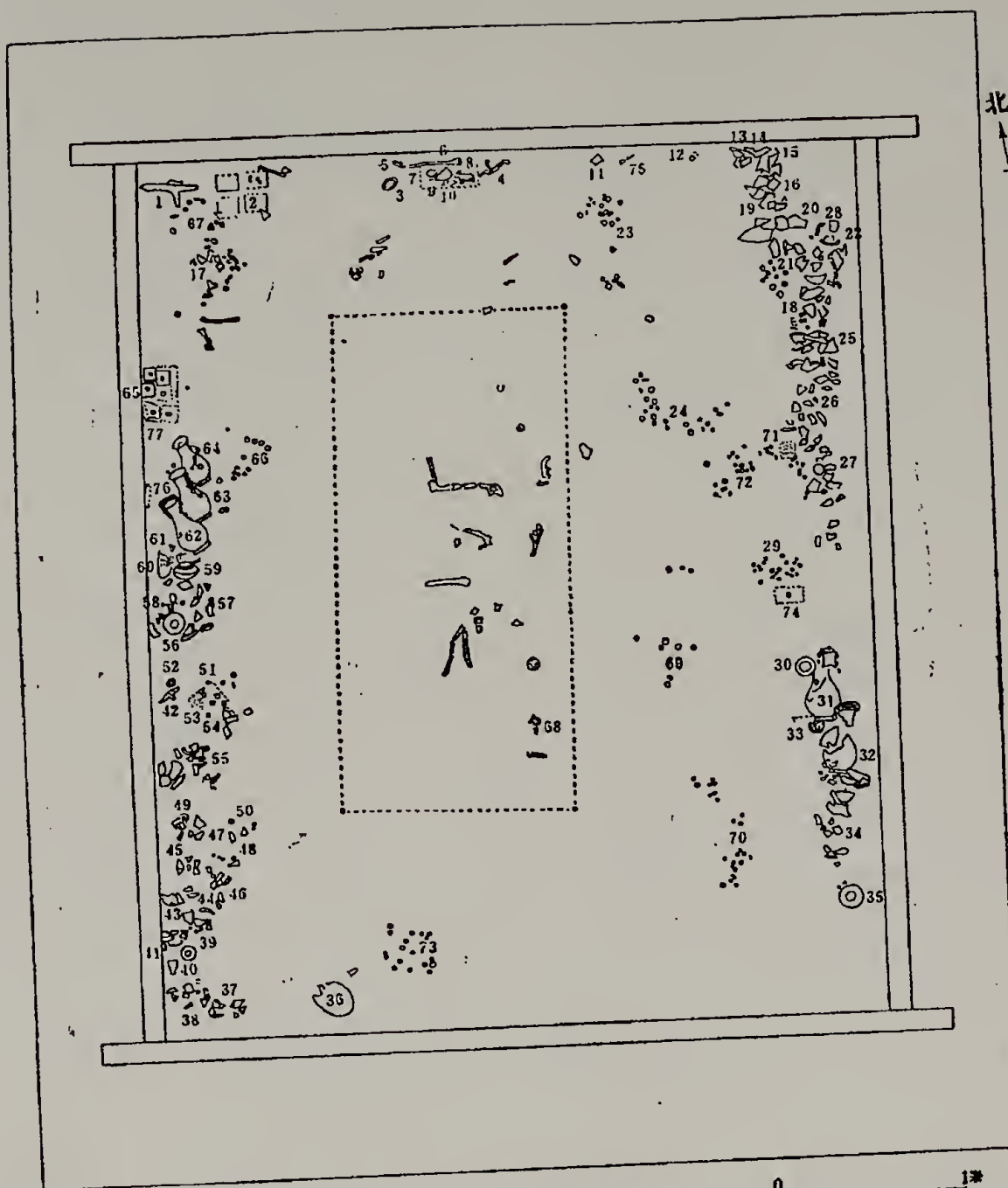
下，内棺（残）示意图

1. 陶盆 2、3、5、10、16、23、24、28—30. 铜铃 4. 髀饰 6—9、11—15、17—20、31. 陶罐  
21、22. 陶盂盖 25、26. 陶器座 27. 陶壶 32、33. 鍍金铜泡 34. 骨管 35. 骨环

## Diagram 32

### Top view of grave M3 burial chamber

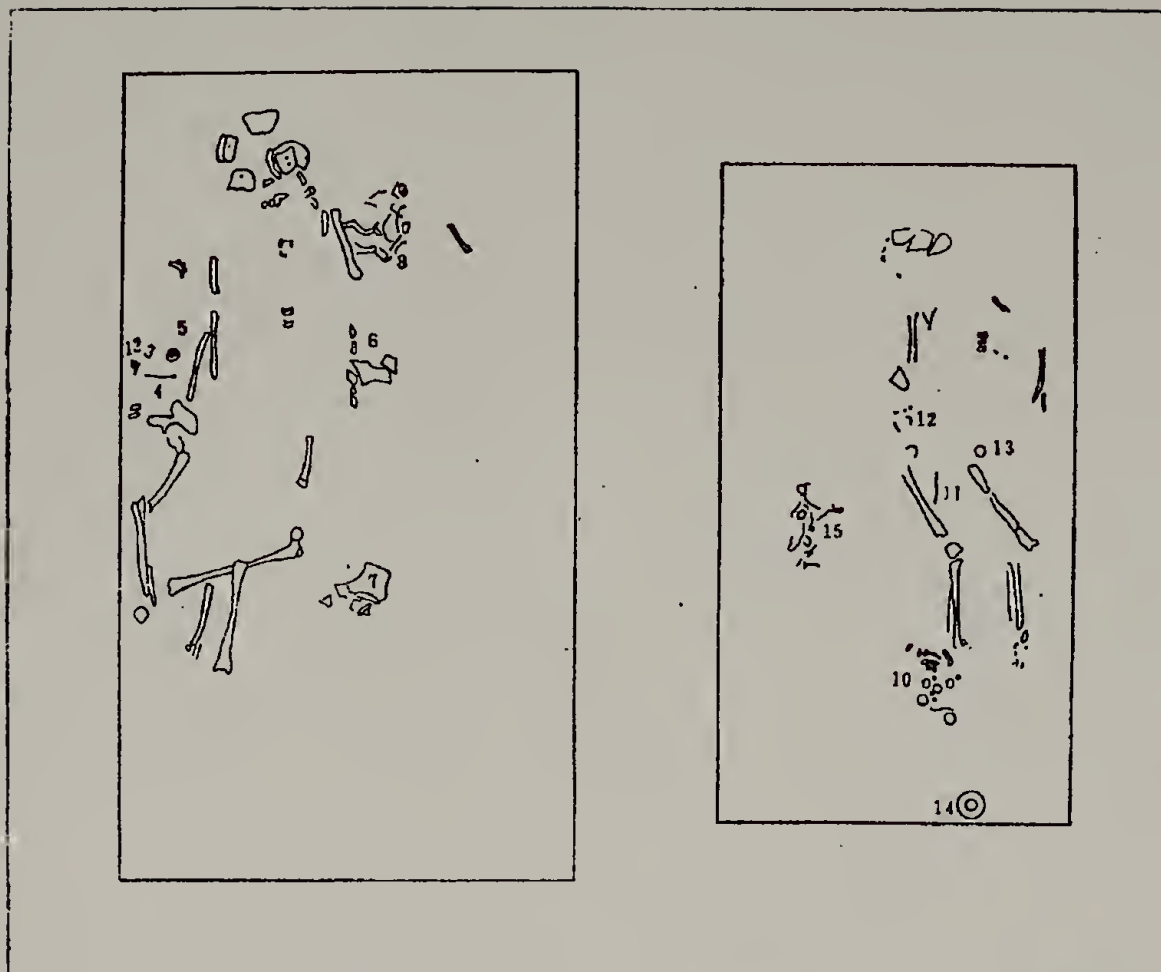
- 1, 28. Bronze *ge*
- 2, 65. Lacquer food case
- 3, 30. jade *huan* disk
5. Inscribed ivory "back scratcher"
6. Bronze *jing* mirror
- 7, 11. Ivory stick
8. Jade horse
9. Jade belt hook
10. Turquoise inlaid silver garment hook
12. Ivory ornament
13. *Kui* dragon jade ornament
14. Ivory *zan* hairpin
- 15 to 17, 21, 26, 27, 38, 39, 43 to 46, 50, 57. Pottery *guan*
18. Engraved ivory vessel stand
- 19, 20, 22, 25. Pottery *hu*
- 23, 24, 29, 48, 51, 67, 69, 70, 72, 73, 80. Strings of beads
- 31, 32, 62, 63, 64. Bronze *hu*
33. bronze vessel cover
35. Jade *huan* disk
36. Fragment of a vessel cover
- 37, 55, 56, 59. Pottery ring footed *hu*
- 40, 52. Engraved ivory vessel stand
41. Bronze *zun*
42. Gold and silver inlaid finial
- 47, 54, 58. Square jade gambling counters
49. Pottery *fu*
53. Chopstick shaped silver gambling counters
60. Bronze arrowhead
61. Bronze cross bow mechanism
68. Gold inlaid bronze *pao*
74. Fragment of a piece of lacquer ware
75. Bronze outer coffin nail
76. Ivory tube
78. Turtle shaped bronze garment hook
81. Stone *gui*



图七八 M3 墓室平面图

- 1、28. 铜戈    2、65. 漆食奩    3、30. 玉环    4. 狼形银饰    5. 牙雕孝順    6. 铜镜  
 7、11. 牙梳    8. 玉马    9. 玉带钩    10. 绿松石片镶嵌银带钩    12. 牙饰    13. 夔龙玉饰  
 14. 牙簪    15—17、21、26、27、38、39、43—46、50、57. 陶罐    18. 牙雕器座    19、20、  
 22、25. 陶壶    23、24、29、48、51、67、69、70、72、73、80. 串珠    31、32、62、63、64.  
 铜壶    33. 铜器盖    35. 玉环    36. 残器盖    37、55、56、59. 陶圈足壶    40、52. 牙雕器座  
 41. 铜钲    42. 错金银杖首饰    47、54、58. 方玉簪    49. 陶釜    53. 筷形银箸    60. 铜簪  
 61. 铜弩机    68. 鍍金铜泡    74. 残漆片    75. 铜铆钉    76. 象牙管    78. 龟形铜带钩    81. 石圭





图七九 M4平面图

- 1, 2, 3, 4. 骨针 5. 铜泡 6—8, 12. 陶片 9. 铁器  
10. 串珠 11. 骨针 13. 铜件 14. 玉环

### Diagram 33

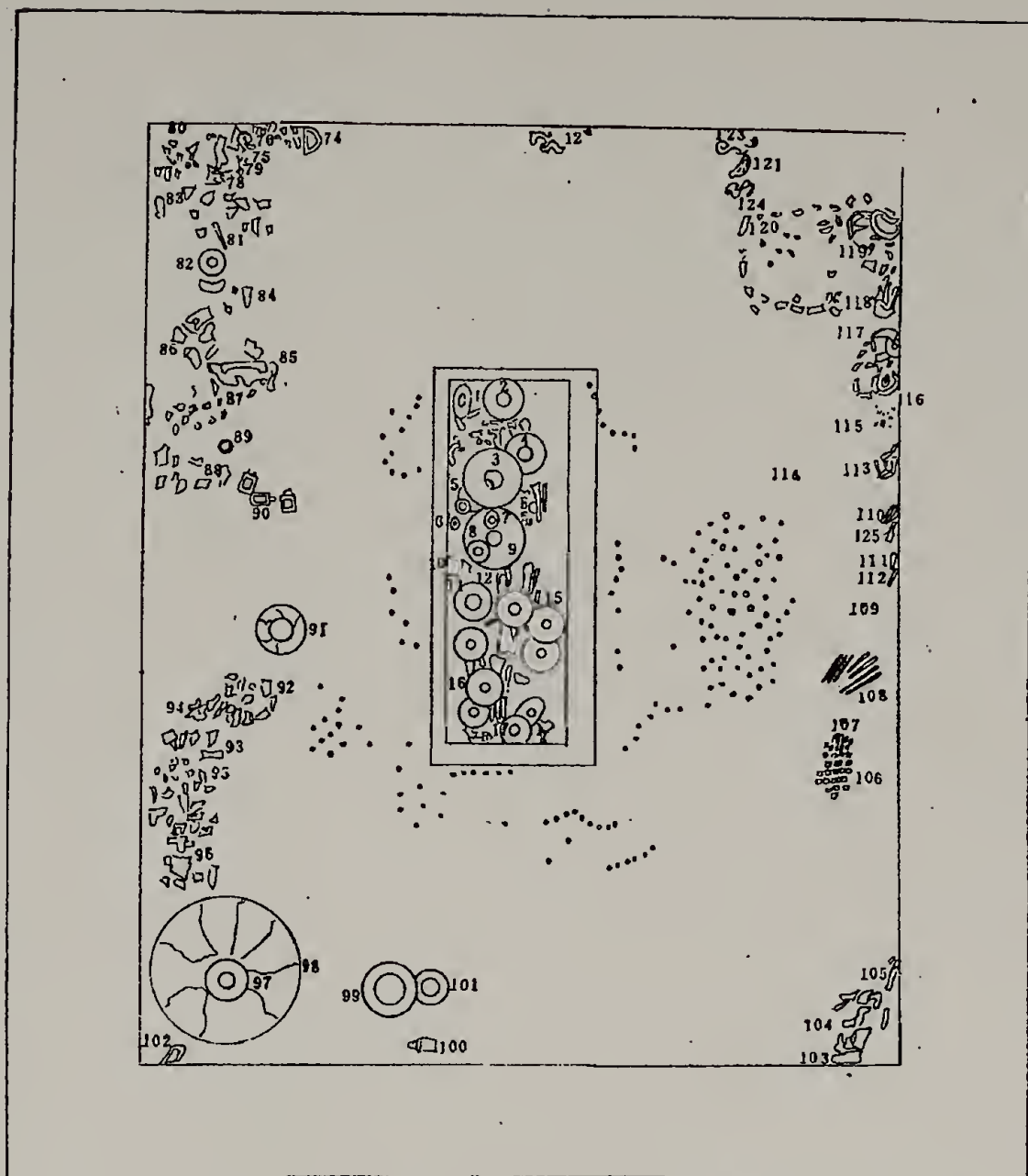
#### Top view of grave M4

- 1, 2, 3, 4. Bone needle  
5. Bronze *pao*  
6 to 8, 12. Pottery shard  
9. Iron implement  
10. String of beads  
11. Bone needle  
13. Piece of bronze  
14. Jade *huan* disk

## Diagram 34

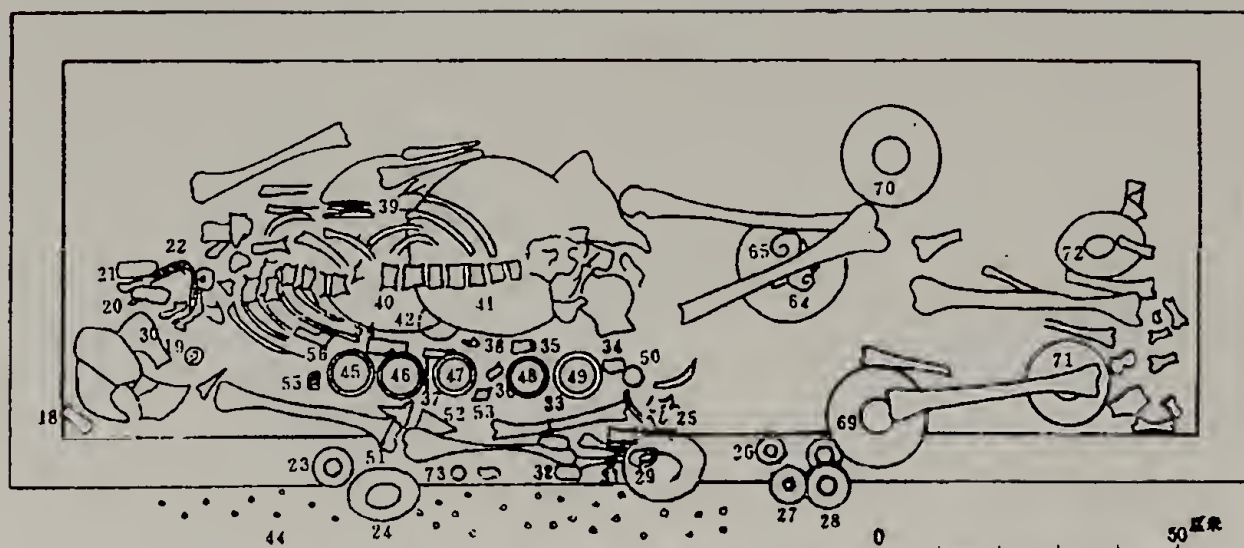
### Overview of M52 burial chamber

- 1 to 5, 9, 11, 15 to 17, 25, 82. Jade *bi* disk
- 6. Agate *huan* disk
- 7, 8, 13, 14. Inlaid stone
- 12, 94, 121, 122 to 124. *Kui* dragon jade ornament
- 114. String of bone and stone
- 74, 77 to 80, 84, 86 to 88, 91 to 93, 95, 96, 101, 116 to 120. Pottery *hu*
- 75. Bronze crossbow mechanism
- 78. Bronze *guan*
- 81. Silver garment hook
- 83. Silver and gold inlaid bronze garment hook
- 85. Bronze *zhui hu*
- 89, 109. Bronze *huan* disk
- 90. Bronze vessel stand
- 97, 99. Porcelain *guan*
- 98. Bronze *pan*
- 100. Bronze *chan* shovel
- 102. Bronze *zun*
- 103. Bronze *pen*
- 104. Pottery *fu*
- 105. Bronze *dui* 鍬
- 106. Jade square counter
- 107. Chopstick shaped ivory counter
- 108. Chopstick shaped silver gambling counter
- 110. bronze arrow head
- 111. Octagonal bone tube
- 112. Ivory *qimao* implement “cap” with hook
- 113, 129. Bronze outer coffin nails
- 127. Bronze scraper
- 125. Bronze implement cap
- 126. Bronze *jian* mirror
- 128. Stone *gui* tablet (for 18 to 73 see diagram 81)



图八〇 M52墓室平面图

1—5、9、11、15—17、25、82. 玉璧 8. 玛瑙环 7、8、13、14. 错石 12、94、121、  
122—124. 夔龙玉饰 114. 骨串珠 74、77—80、84、86—88、91—93、95、96、101、  
116—120. 陶壶 75. 铜弩机 78. 铜罐 81. 银带钩 83. 嵌金银铜带钩 85. 铜镜  
89、109. 铜环 90. 铜器座 97、99. 瓷罐 98. 铜盘 100. 铜铲 102. 铜簪  
103. 铜铍 104. 陶釜 105. 铜镜 106. 玉方筹 107. 箕形牙筹 108. 箕形银筹  
110. 铜镜 111. 八角形骨管 112. 有钩牙器柄 113、129. 铜棒钉 115、127. 铜削  
125. 铜器帽 126. 铜剑 128. 石圭 (18—73见图八一)



图八一 M52棺内下层器物分布图

18、31、34—37. 玉管 19、22. 玉玦 20. 玉片 21. 玉牌 23、24、26—28. 玉环 25、40、41、65、69—72. 玉璧 29、30. 玉轎 32. 拱形起脊玉饰 33. 瓦纹玉饰 38. 残兽头玉饰 39. 残牙器 44. 骨石串珠 45—48. 圆金带饰 49、50. 小圆金带饰 51、52. 三角形金带饰 53、54. 金叶 55. 小玉片 64. 夔龙形玉饰 73. 料珠

## Diagram 35

Diagram of the distribution of implements on the lower level within the inner coffin of grave M52

- 18, 31, 34 to 37. Jade tubes
- 19, 22. Jade *huan* disk
- 20. Jade piece
- 21. Jade *pai* tablet
- 23, 24, 26 to 28. Jade *huan* disk
- 25, 40, 41, 65, 69 to 72. Jade *bi* disks
- 29, 30. Jade *she* archer's rings
- 32. Arch shaped jade ornament with raised spine
- 33. Wa tile pattern jade ornament
- 38. Fragment of a animal head shaped jade ornament
- 39. Fragment of an ivory implement
- 44. String of bone and stone beads
- 45 to 48. Round gold garment ornament
- 49, 50. Small round gold garment ornament
- 53, 54. Gold needle
- 55. Small piece of jade
- 64. *Kui* dragon shaped jade ornament
- 73. *Liaozhu* glass frit

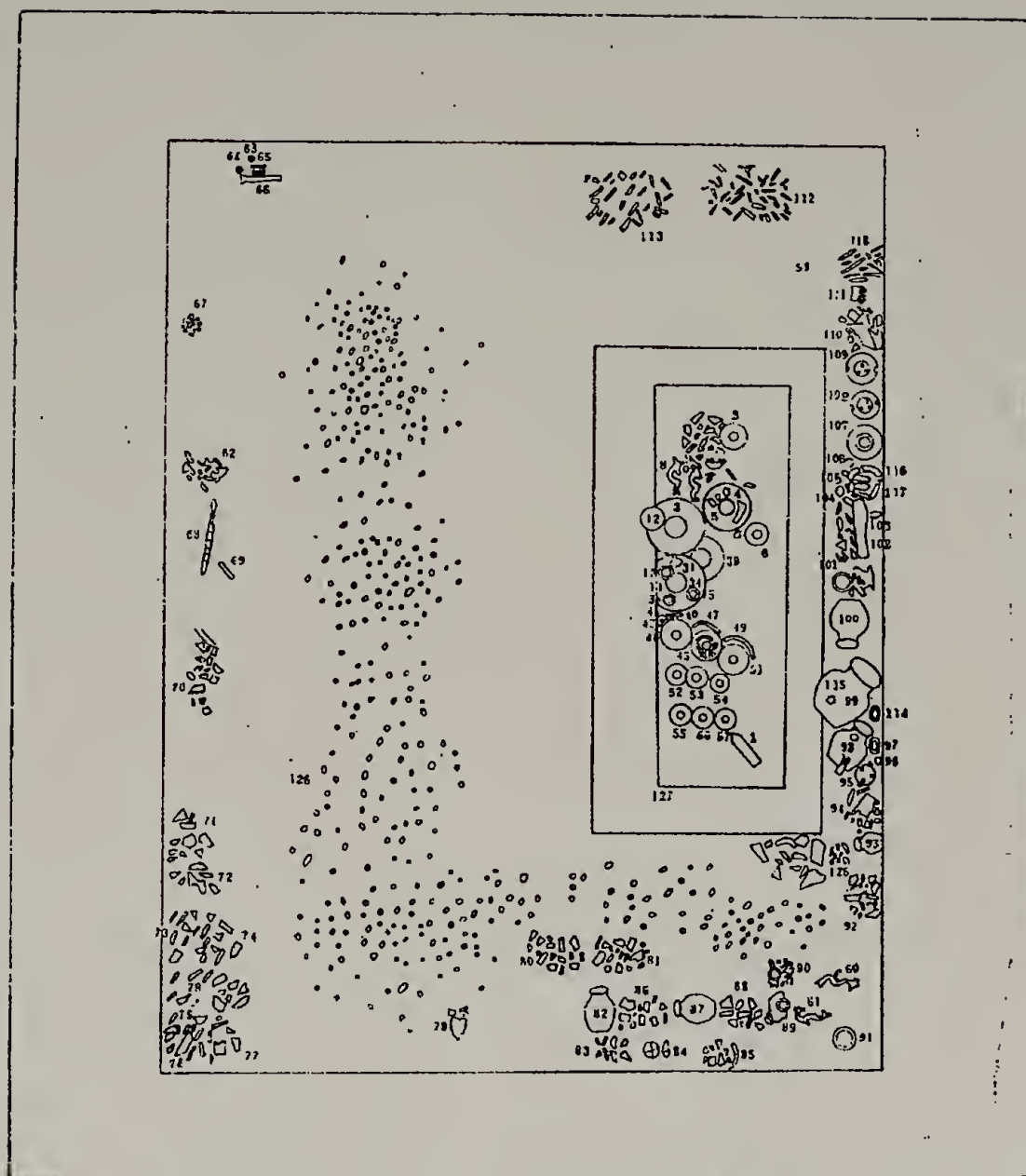


## Diagram 36

### Top view of grave M58 burial chamber

1. Stone *gui* tablet
- 2 to 5, 12, 34, 39, 43, 46, 51 to 57. Jade *bi* disk
- 6, 10, 11, 13 to 16, 32, 37, 39, 42. Jade *huan* disk
- 7, 8, 60, 61, 62. *Kui* dragon jade ornaments
- 9, 40. Round piece of jade
- 17, 24, 25, 26, 28 to 30, 35, 36, 45. Jade *pei* pendants
- 18, 27, 33, 58, 96, 104, 115, 119, 120. *Liaozhu* glass frit
- 19, 20. Jade stick
23. Square jade bead
121. Wa roof tile pattern jade tube
27. Six edged, long drum shaped *liaozhu* glass frit
13. Jade garment hook
- 41, 44. Jade *pai* tablet
- 47, 49, 50. Jade *huang* semi-annular pendant
48. Long piece of jade
59. string of turquoise beads
63. Stone bead
64. Bronze *huan* disk
65. Round tube shaped *liaozhu* glass frit
66. Bone stick
- 67, 125. Broken piece of bronze
68. Bronze scraper
69. Bronze *dui* 鍬
- 70, 89, 90, 93. Pottery *hu*
- 1 to 77, 79 to 83, 85 to 90. Pottery *guan*
- 78, 84. Pottery *fan* 范
- 101, 108, 109. Bronze *hu*
103. Peach shaped jade ornament
- 105, 107. Porcelain *guan*
110. Pottery *fu*
111. Elephant ivory *xiaoshun* back scratcher
112. Jade and ivory ornament shaped like four wings
113. Ivory *ji* hairpin
116. Bronze garment hook inlaid with fine gold
117. Gold and silver inlaid iron garment hook
118. Bronze scraper
121. Jade *guan* tube
122. Jade *pei* pendant
123. Jade knob
124. Ivory butterfly
126. String of bone and stone beads

北



图八二 M58墓室平面图

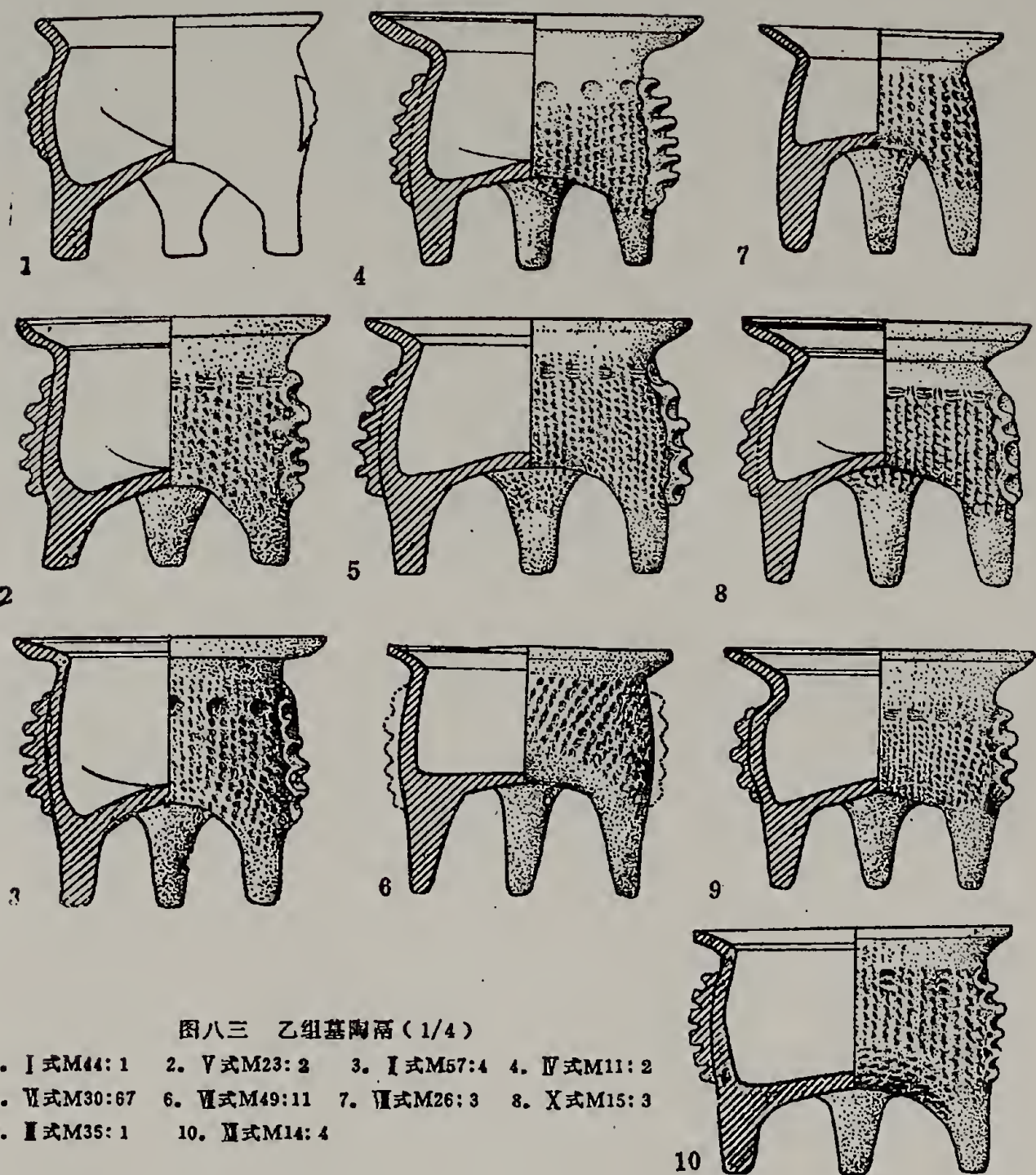
1. 石圭 2—5、12、34、39、43、46、51—57. 玉璧 6、10、11、13—16、32、37、38、42. 玉环 7、8、60、61、62. 夔龙玉饰 9、40. 圆玉片 17、24、25、26、28—30、35、36、45. 玉佩件 18、27、33、58、96、104、106、115、119、120. 料珠 19、20. 玉棒 23. 方玉珠 121. 瓦纹玉管 27. 六棱长鼓形料珠 13. 玉带钩 41、44. 玉牌 47、49、50. 玉璜 48. 长条玉片 59. 绿松石小串珠 63. 石珠 64. 铜环 65. 圆管形料珠 66. 骨棒 67、125. 碎铜片 68. 铜剑 69. 铜钺 70. 89、90、93. 陶壶 71—77、79—83、85—90. 陶罐 78、84. 陶范 101、108、109. 铜壶 91. 铜钵 94. 铜匜 95. 铜鼎 97、114. 玛瑙环 98. 铜镜壶 99. 铜罐 100. 铜缶 102. 铜盘 103. 桃形玉饰 105、107. 瓷罐 110. 陶盆 111. 象牙孝顺 112. 四翼形玉牙饰 113. 牙斧 116. 鍍金嵌玉铜带钩 117. 鍍金嵌银带钩 118. 铜削 121. 玉管 122. 玉佩饰 123. 玉器钮 124. 牙钎 126. 骨石串珠

## Diagram 37

Pottery *li* from the Group B graves

(1:4 scale)

1. Type I, M44: 1
2. Type V, M23: 2
3. Type II, M57: 4
4. Type IV, M11: 2
5. Type VI, M30: 67
6. Type VII, M49: 11
7. Type VIII, M26: 3
8. Type X, M15: 3
9. Type III, M35: 1
10. Type XII, M14: 4



图八三 乙组基陶甗 (1/4)

1. I式M44:1    2. V式M23:2    3. I式M57:4    4. IV式M11:2  
 5. VI式M30:67    6. VII式M49:11    7. VII式M26:3    8. X式M15:3  
 9. II式M35:1    10. II式M14:4

10

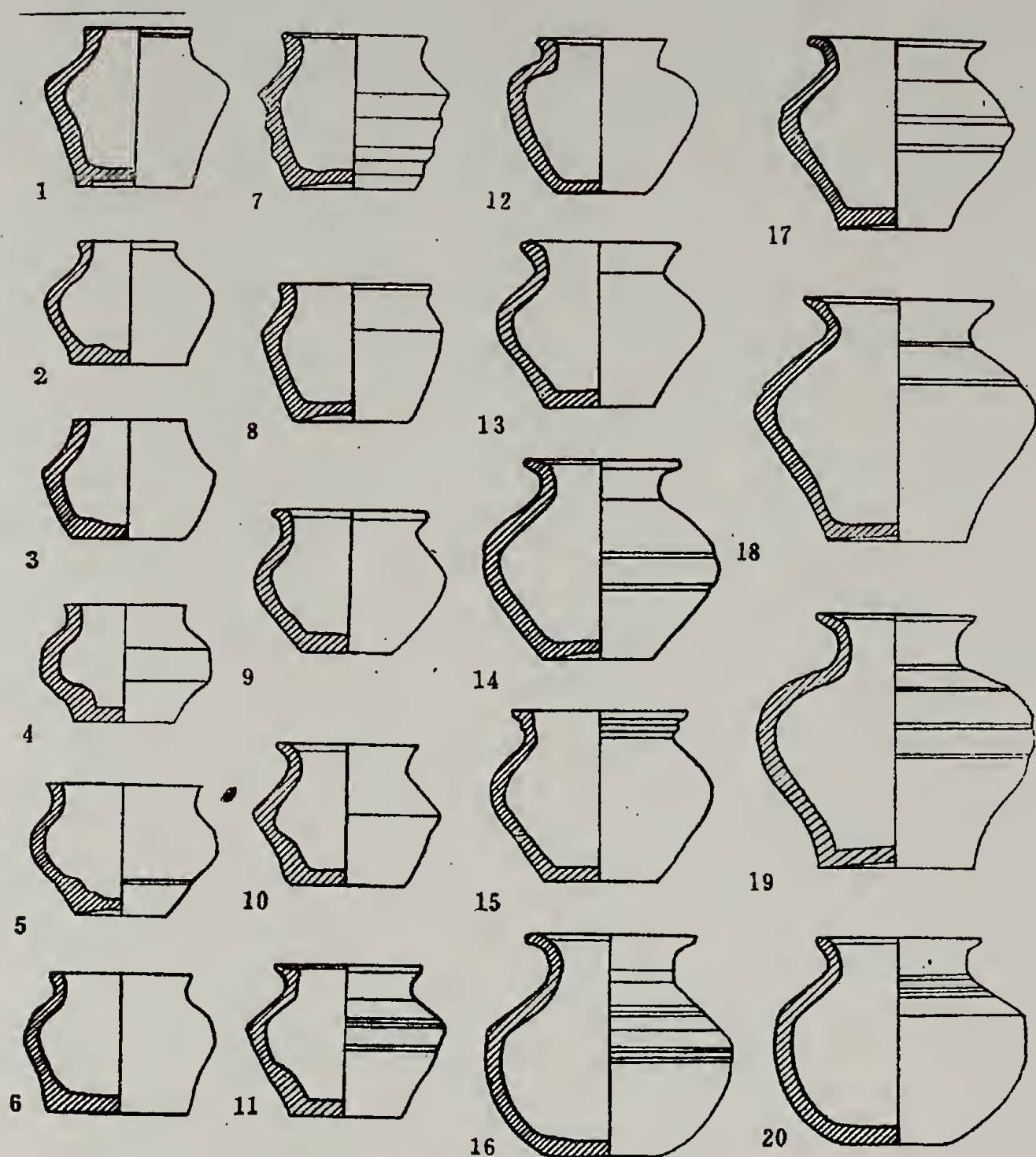


## Diagram 38

Pottery *guan* from Group B graves

(1:4 scale)

1. Type I, M57: 5
2. Type II, M57: 9
3. Type III-A, M57: 6
4. Type IV, M11: 3
5. Type V-B, M29: 5
6. Type II-B, M29: 4
7. Type VII, M38: 3
8. Type III-C, M30: 59
9. Type IX-A, M48: 31
10. Type X-A, M48: 13
11. Type XI-A, M49: 10
12. Type VIII, M49: 21
13. Type IX-B, M8: 2
14. Type IX-C, M32: 5
15. Type X-B, M8: 4
16. Type XII, M56: 2
17. Type XIII-A, M32: 2
18. Type XIV, M27: 1
19. XIII-B, M27: 6
20. Type XV, M27: 5



图八四 乙组墓陶罐(1/4)

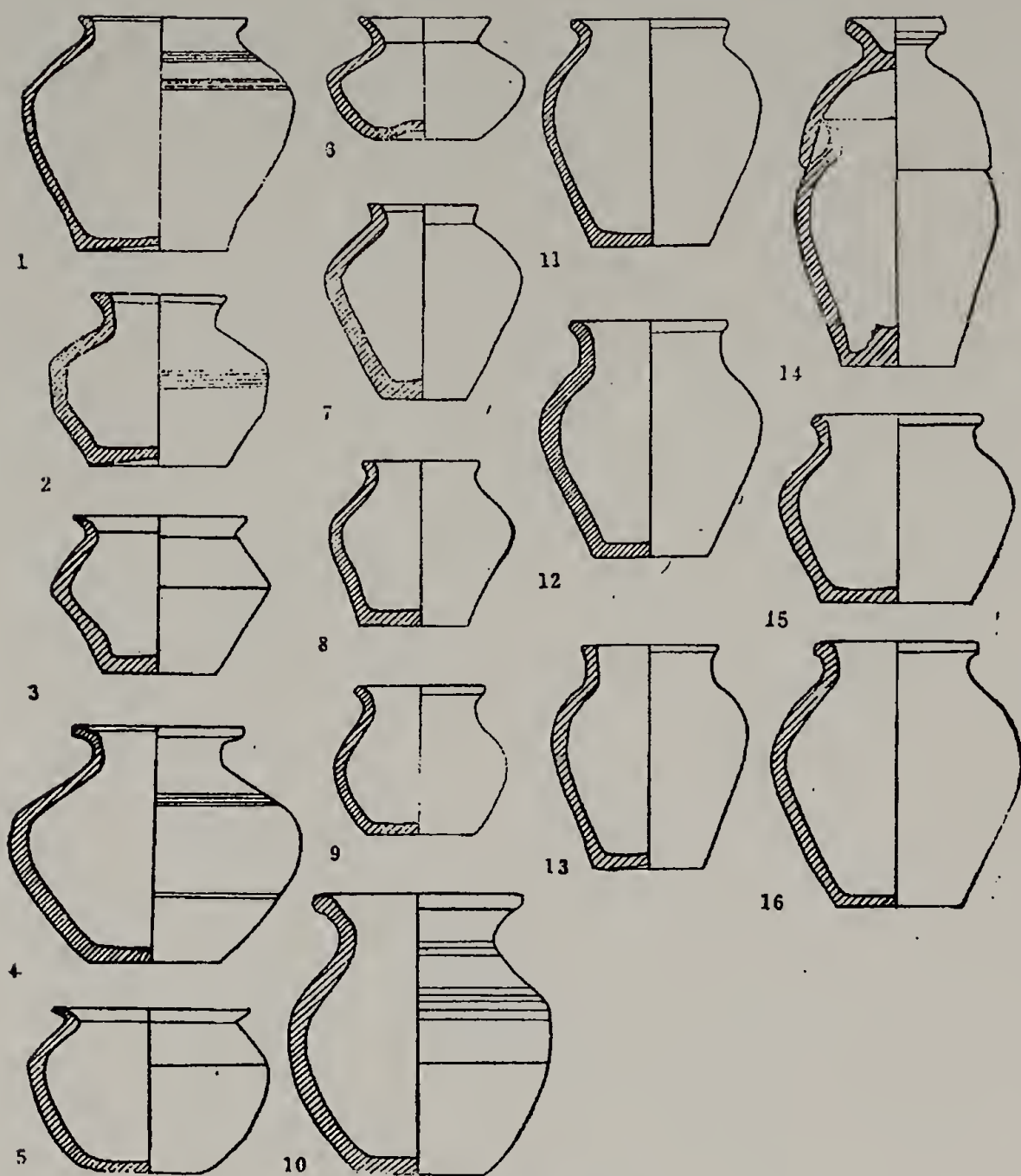
1. 1式M57:5    2. I A式M57:9    3. I A式M57:6    4. N式M11:3    5. VB式M29:6  
 6. IB式M29:4    7. VI式M38:8    8. IC式M30:59    9. IIA式M48:31    10. XA式M48:13  
 11. IIA式M49:10    12. VII式M49:21    13. IIB式M8:2    14. IIC式M32:5    15. XB  
 式M8:4    16. IIA式M56:2    17. XIA式M32:2    18. XN式M27:1    19. XIB式M  
 27:6    20. XV式M27:5

### Diagram 39

Pottery *guan* from Group B graves

(1:5 scale)

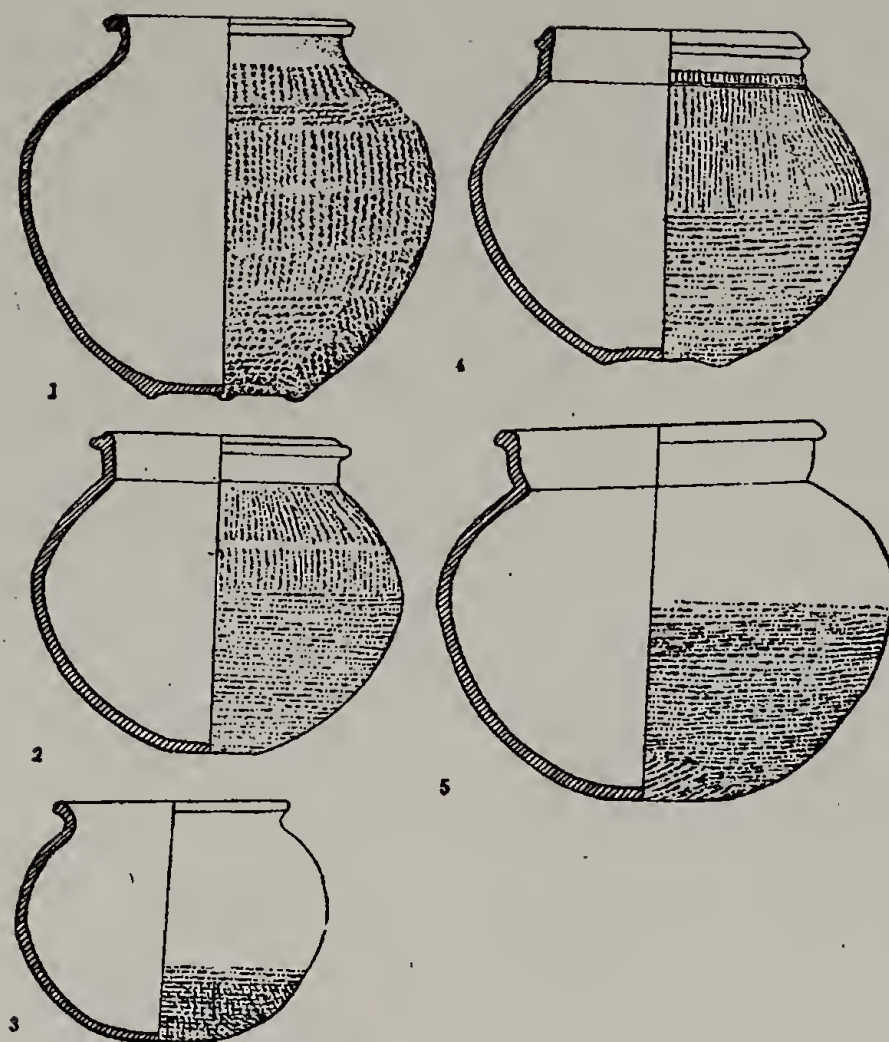
1. Type XVI, M7: 2
2. Type XVII, M7: 3
3. Type XVIII, M22: 2
4. Type XIX, M50: 1
5. XX, M10: 2
6. Type XXI, M10: 1
7. XXII-A, M15: 4
8. XXII-B, M15: 5
9. XXIV, M18: 5
10. Type XXIII-A, M14: 5
11. Type XXV, M2: 7
12. Type XXVI-A, M1: 9
13. XXVI-B, M3: 39
14. Type XXVII, M47: 9
15. XXVIII, M47: 3
16. Type XXIX, M58: 87



图八五 乙组基陶罐(1/5)

1. XV式M7:2    2. XV式M7:3    3. XV式M22:2    4. X式M50:1    5. XX式M10:2  
 6. X式M10:1    7. XXI A式M15:4    8. XXI B式M15:5    9. XXV式M18:5  
 10. XX A式M14:5    11. XXV式M2:7    12. XX A式M1:9    13. XX B式M3:39  
 14. XXV式M47:9    15. XXV式M47:3    16. XX式M58:87





图八六 乙组墓陶釜 (1, 1/9, 余1/6)

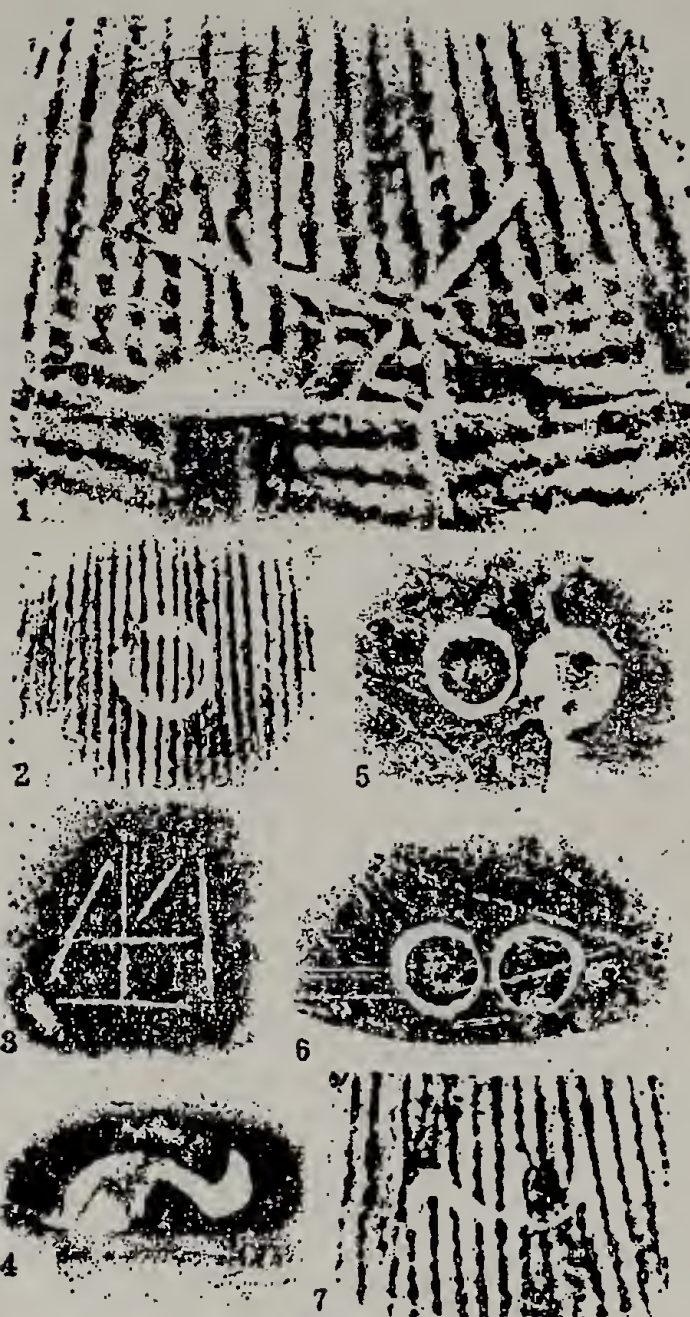
1. I式M2:1    2. I A式M52:104    3. IV式M54:2    4. I B式M58:110    5. I式M54:1

## Diagram 40

Pottery *fu* from Group B graves

(1, 1:9 scale; the remainder 1:6 scale)

1. Type I, M2: 1
2. Type II-A, M52: 104
3. Type IV, M54: 2
4. Type II-B, M58: 110
5. Type III, M54: 1



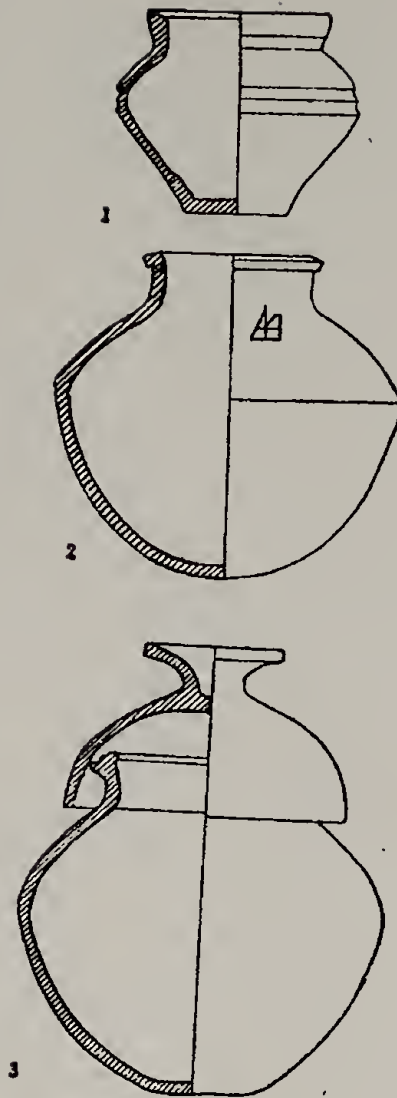
图八七 乙组墓陶文拓片（原大）

1. 釜（M2：1） 2. 釜（M3：49） 3. 盂（M47：1）  
4. 釜（M52：104） 5. 壶（M58：90） 6. 壶  
（M58：93） 7. 壶（M58：110）

## Diagram 41

Rubbings from Group B grave pottery

- |                         |                        |                        |
|-------------------------|------------------------|------------------------|
| 1. <i>Fu</i> (M2: 1)    | 2. <i>Fu</i> (M3: 49)  | 3. <i>Lei</i> (M47: 1) |
| 4. <i>Fu</i> (M52: 104) | 5. <i>Hu</i> (M58: 90) | 6. <i>Hu</i> (M58: 93) |
| 7. <i>Hu</i> (M58: 110) |                        |                        |



图八八 乙组墓陶器 (1/6)

1. Ⅲ式M51:3 2. Ⅱ式M47:1  
3. Ⅰ式M1:6

Diagram 42

Group B grave pottery *lei*

(1:6 scale)

1. Type III, M51: 3  
2. Type II, M47: 1  
3. Type I, M1: 6

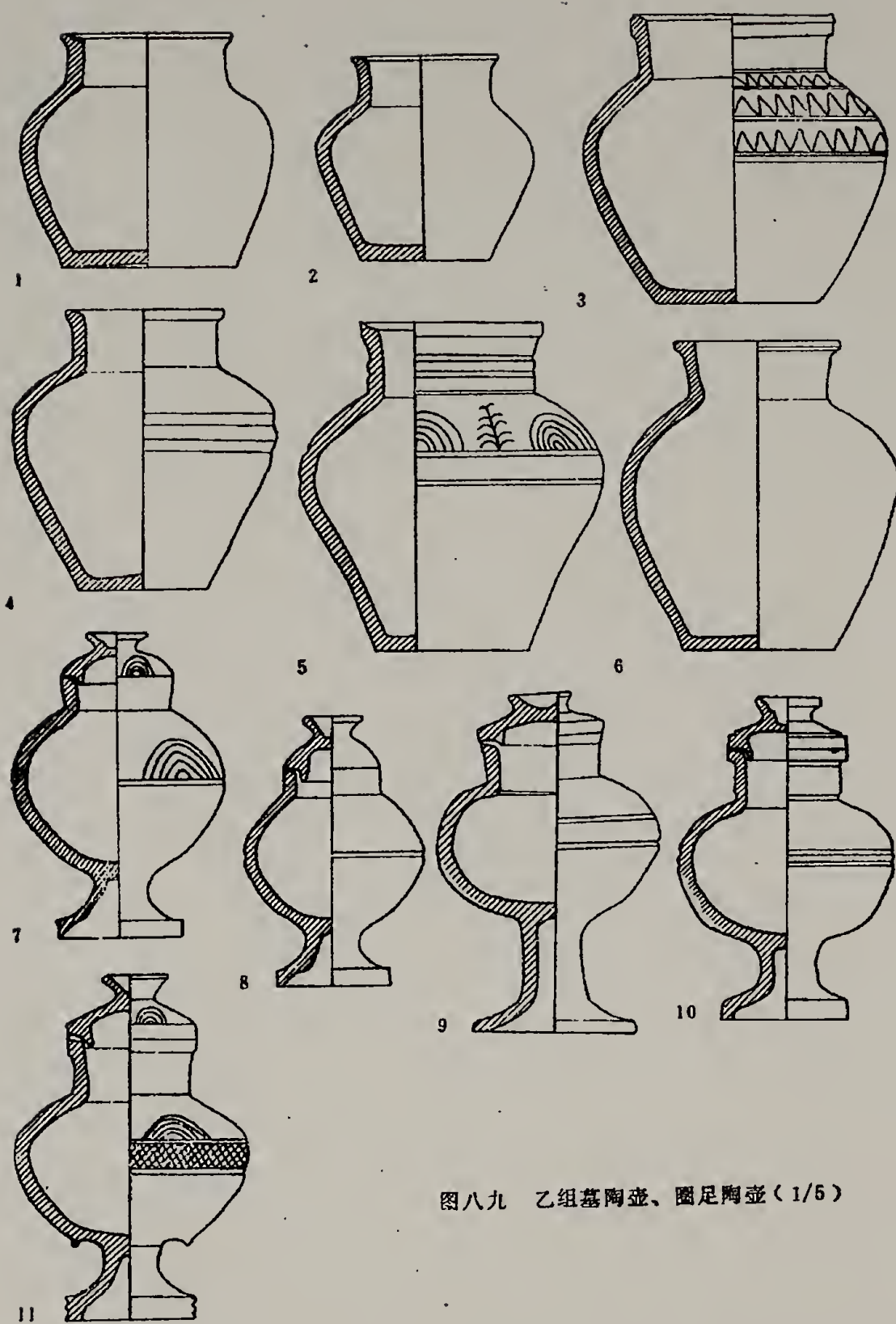
### Diagram 43

Group B grave pottery *hu* and pottery ring footed *hu*

(1:5 scale)

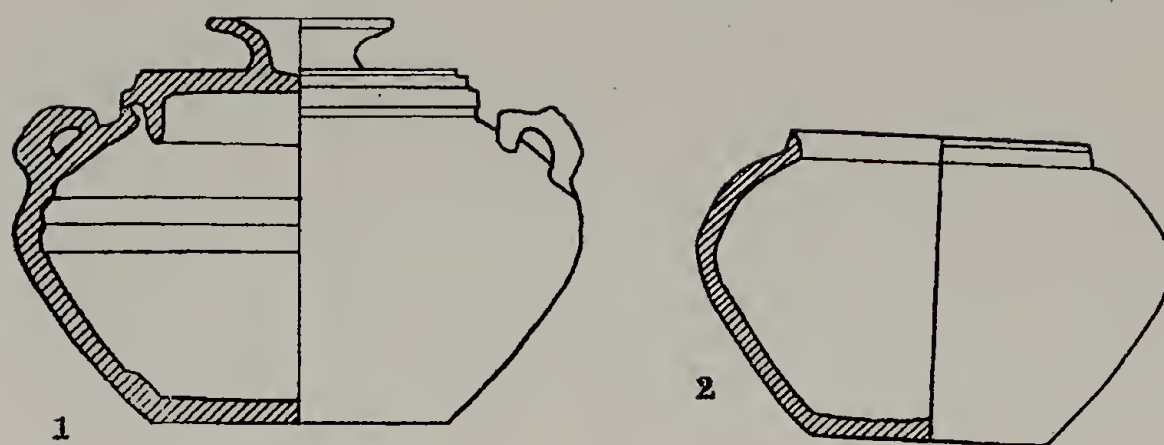
1. Type I, M18: 9
2. Type II, M47: 4
3. Type III, M52: 92
4. Type IV, M52: 101
5. Type V, M3: 19
6. Type VI, M58: 89
7. Type II-A, M54: 3
8. Type II-B, M54: 4
9. Type I-A, M3: 66
10. Type I-B, M3: 59
11. Type I-C, M3: 55





图八九 乙组墓陶壶、圈足陶壶 (1/5)

1. I式M18:9    2. I式M47:4    3. II式M52:92    4. IV式M52:101  
 5. V式M3:19    6. VI式M58:89    7. I A式M54:3    8. I B式M54:4  
 9. I A式M3:66    10. I B式M3:59    11. I C式M3:55



图九〇 乙组墓瓷罐 (1/4)

1. I 式 M52:99    2. II 式 M58:105

(2) 瓷器

Diagram 44

Group B grave porcelain *guan*

(1:4)

1. Type I, M52: 99
2. Type II, M58: 105



图九一 乙组墓铜器花纹拓片 (1/3)

1、2. 甗颈腹 (M48: 15)    3、7. 鼎颈腹 (M30: 1)    4—6. 盥盖座、顶、口 (M48: 2)

## Diagram 45

Rubbings from patterns on Group B grave bronze vessels

(1:3 scale)

- 1, 2. Neck-belly area of a *yan* (M48: 15)
- 3, 7. Neck-belly area of a *ding* (M30: 1)
- 4 to 6. Flange, top, and mouth of a *xu* (M48: 2)



图九二 乙组墓铜器花纹拓片 (1/3)

1. 盆腹 (M48: 8)      2—3. 簠盖腹 (M48: 28)      4—6. 壶颈腹 (M48: 16)

# Diagram 46

Rubbings of patterns on Group B grave bronze vessels

(1:3 scale)

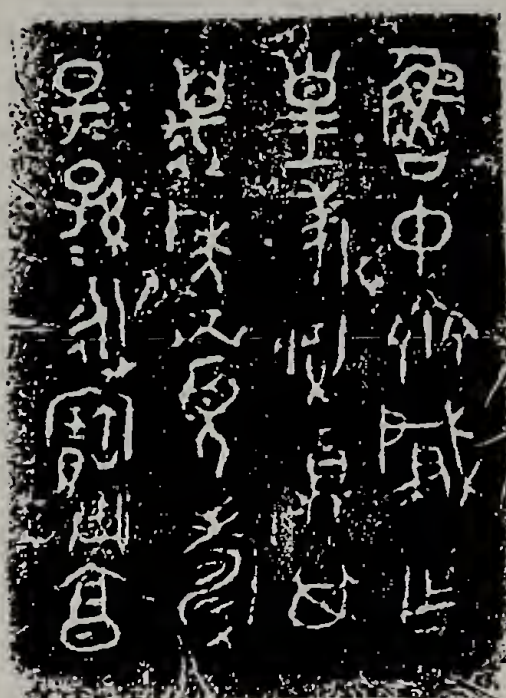
1. Belly of a *pan* (M48: 8)
- 2 to 3. Cover and belly of a *gui* (48: 28)
- 4 to 6. Neck and belly of a *hu* (M48: 16)



## Diagram 47

Rubbings of inscriptions on bronze vessels from Group B graves

1. Inscription on a *ding* (M48: 23)
2. Inscription on a *yan* (48: 15)
3. Inscription on a *fu* (M48: 28)
4. Inscription on a *hu* (M48: 16) cover
4. Inscription on a *hu* (M48: 16)



1



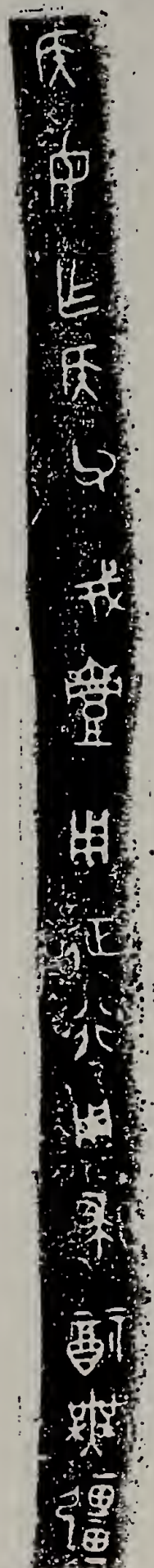
2



3

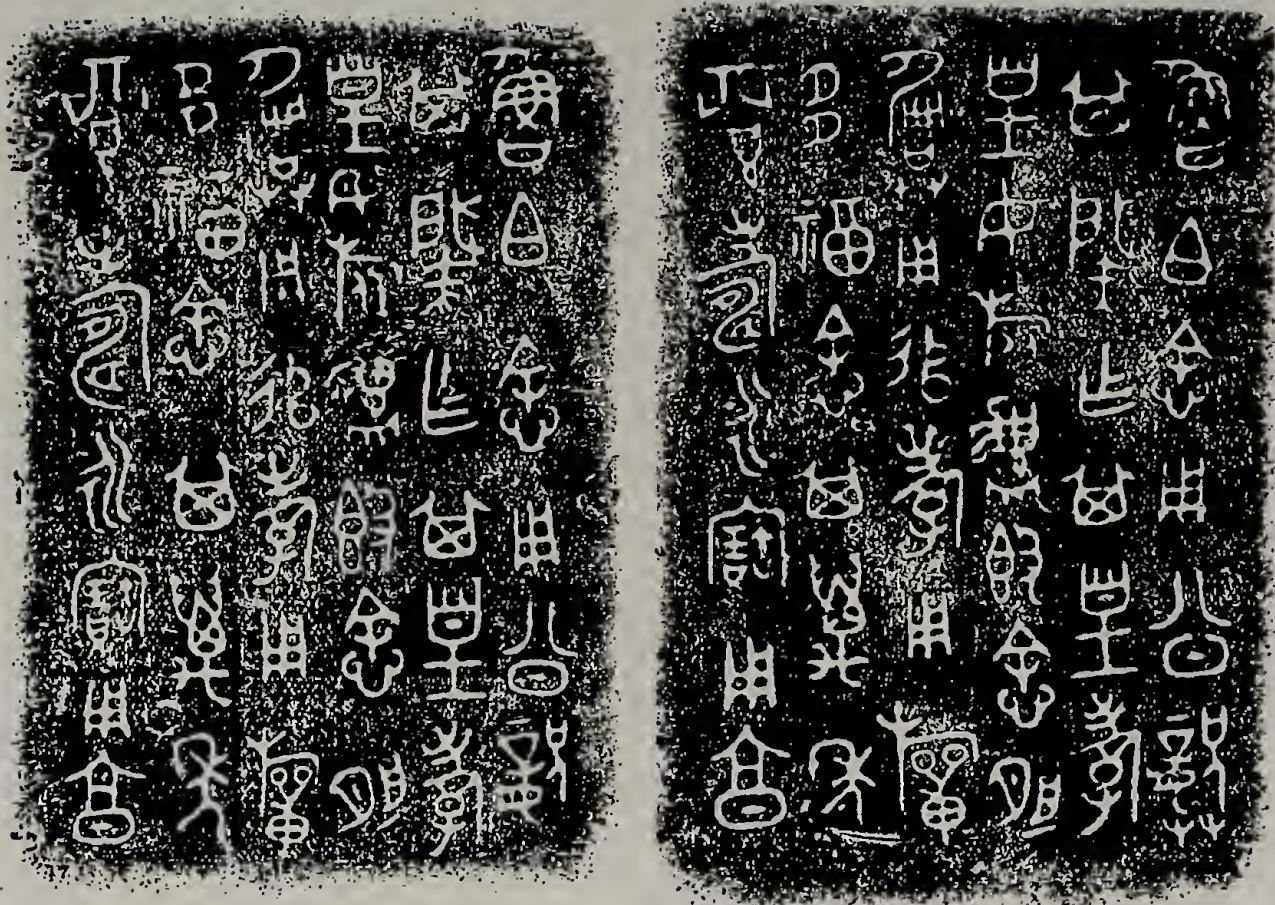


4



图九三 乙组墓铜器铭文拓片(1/2)

1. 鼎铭(M48:23) 2. 甗铭(M48:15) 3. 簋铭(M48:23) 4. 壶(M48:16) 5. 壶(M48:16)器铭



图九四 铜盥 (M30:2) 铭文拓片 (2:3)  
左, 盥铭 右, 器铭

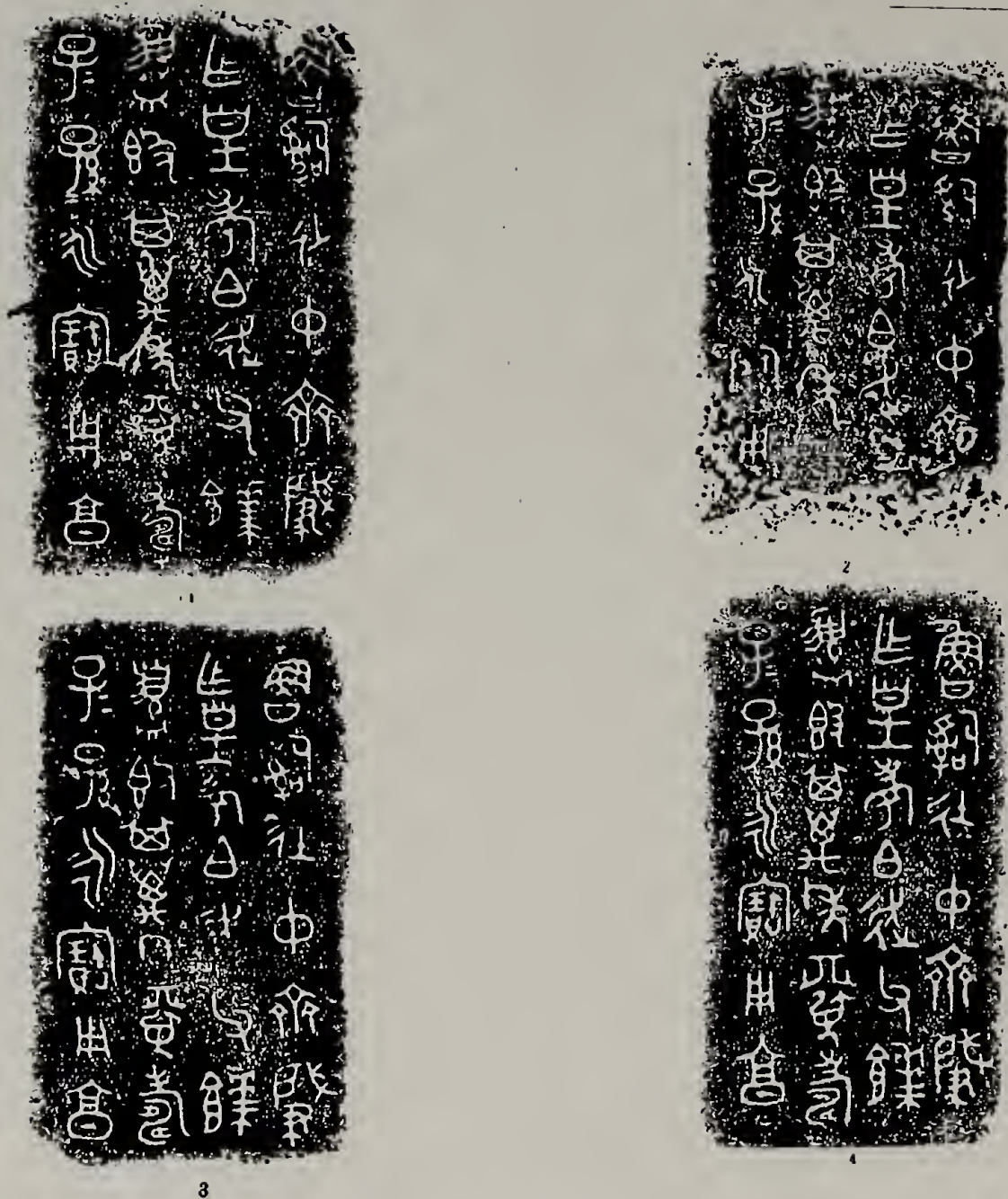
# Diagram 48

Rubbing of inscriptions on bronze xu M30: 2

(2:3 scale)

Left, cover inscription  
Right, vessel inscription





图九五 M48铜盃铭文拓片(1/2)

1. M48:2器铭 2. M48:2盖铭 3. M48:1盖铭 4. M48:1器铭

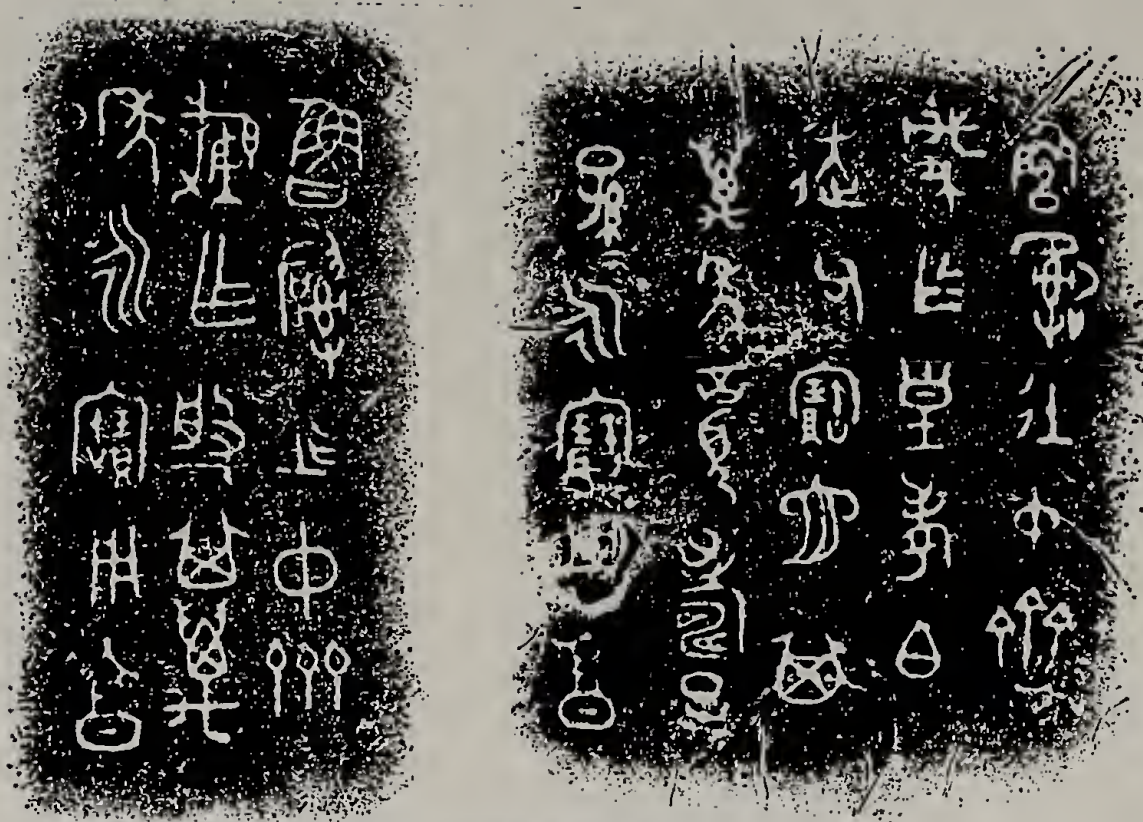
## Diagram 49

Rubbing of inscriptions on a bronze xu from grave M48

(1:2 scale)

1. Inscription on vessel M48: 2
2. Inscription on the cover of M48: 2
3. Inscription on the cover of M48: 1
4. Inscription on vessel M48: 1





图九六 乙组墓铜器铭文拓片 (2/3)  
左, 盘铭 (M48: 8) 右, 匜铭 (M48: 11)

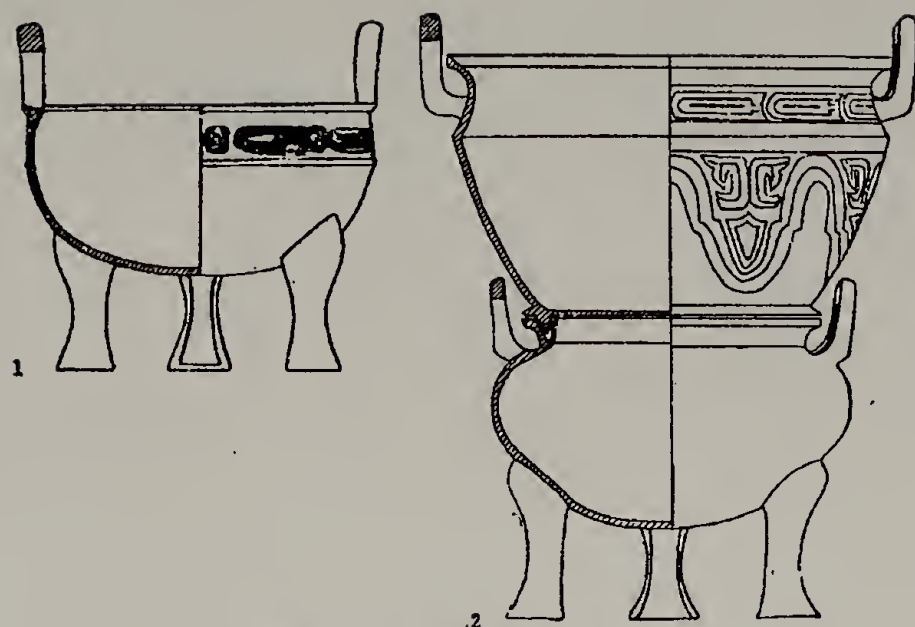
## Diagram 50

Rubbings of inscriptions on bronze vessels from Group B graves

(2:3 scale)

left, inscription on a *pan* (M48: 8)

right, inscription on an *yi* (M48: 11)



图九七 乙组墓铜器（1/6）  
1. 铜鼎M48：18 2. 铜簋M48：15

## Diagram 51

Bronze vessels from Group B graves

(1:6 scale)

1. Bronze *ding* M48: 18
2. Bronze *yan* M48: 15

Diagram 52

Clothing ornaments from Group B graves

(original size)

1. Bronze garment hook inlaid with gold and silver (M51: 8): side, front, and back
2. Bronze garment hook inlaid with gold and jade (M58: 16)



图九八 乙组墓服饰器（原大）  
1. 嵌金银铜带钩（M51：8）侧、正、背面 2. 嵌金银铜带钩（M58：16）

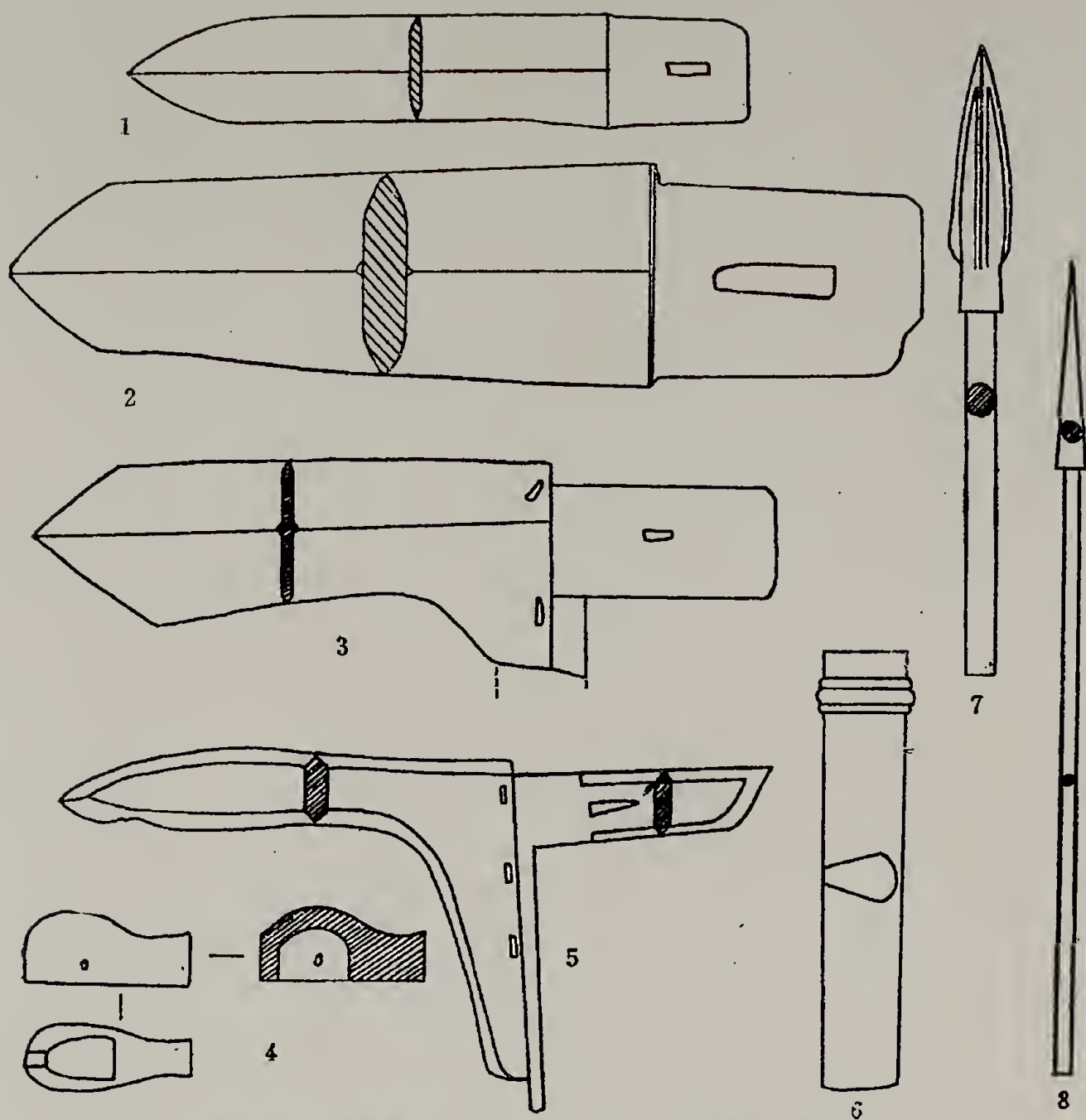


## Diagram 53

### Implements from Group B graves

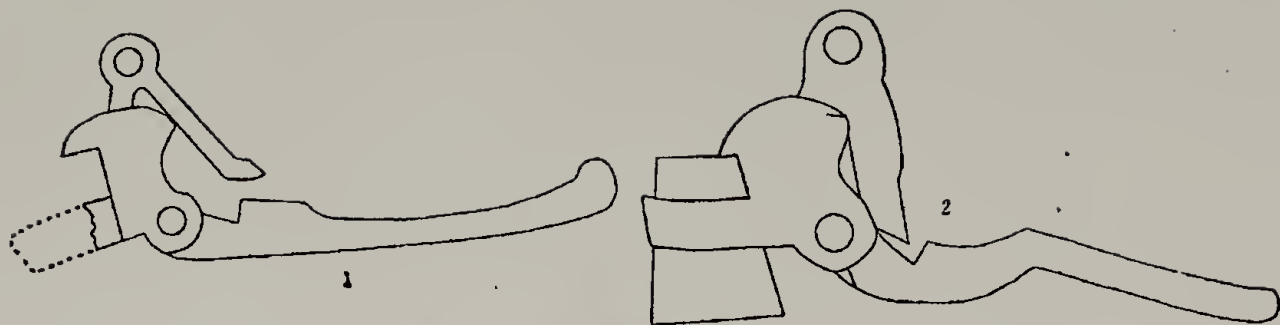
(1, 3, 8, 1:2 scale; 2, 7, original size; remainder 1:3 scale)

1. Type I bronze *ge*, M31: 2.
2. Type I bronze *ge*, M20: 4.
3. Type II bronze *ge*, M30: 56.
4. Ivory *bimao* finial, M3: 1.
5. Type III bronze *ge*, M3: 1.
6. Bronze *zun*, M3: 1.
7. Type II bronze arrowheads, M52.
8. Type I bronze arrowheads, M3: 60.



图九九 乙组墓武器（1、3、8，1/2；2、7，原大；余1/3）

1. 铜戈Ⅰ式M31：2    2. 铜戈Ⅰ式M20：4    3. 铜戈Ⅰ式M30：56    4. 象牙柄帽M3：1  
5. 铜戈Ⅰ式M3：1    6. 铜钺M3：1    7. 铜镞Ⅰ式M52    8. 铜镞Ⅰ式M3：60



图一〇〇 乙组基铜弩机 (1/2)

1. M52: 75    2. M3: 61

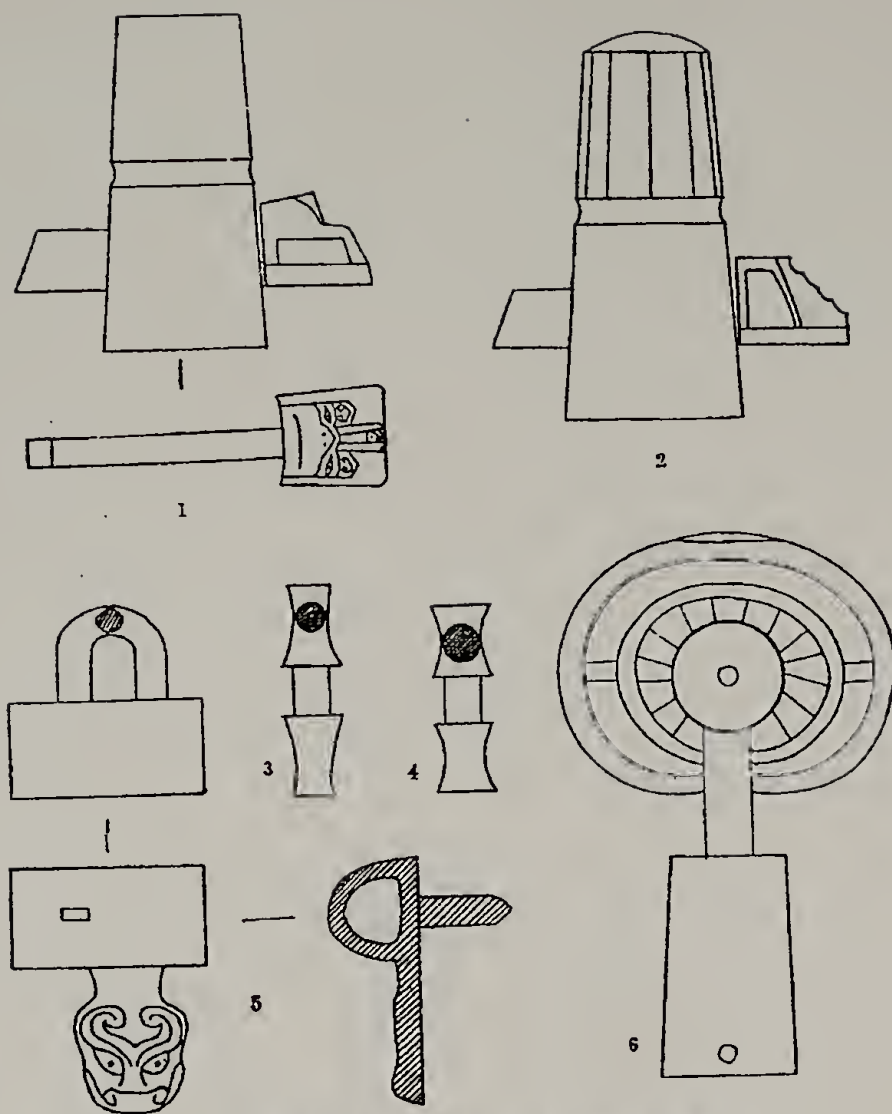
Diagram 54

Group B grave bronze crossbow mechanism

(1:2 scale)

1. M52: 75.

2. M3: 61.



图一〇一 乙组墓车马器 (1、2、6, 约1/3, 余2/3)  
 1. 齐I式M48:33 2. 齐I式M46:4 3、4. 细腰M30:13、44  
 5. 带兽头管饰M48:54 6. 轮M48:35

## Diagram 55

### Group B grave horse and chariot fittings

(1, 2, 6 approx. 1/3 scale; remainder 2/3 scale)

1. Type II wei axle cap, M48: 33.
2. Type I wei wheel cap, M46: 4.
- 3, 4. Xiyao hyperboloid, M30: 13, 44.
5. Tube ornament with animal head, M48: 54.
6. luan jingle bell, M48: 35.



Diagram 56 (top)

Group B grave *jieyue* and *taotie* heads

(2:3 scale)

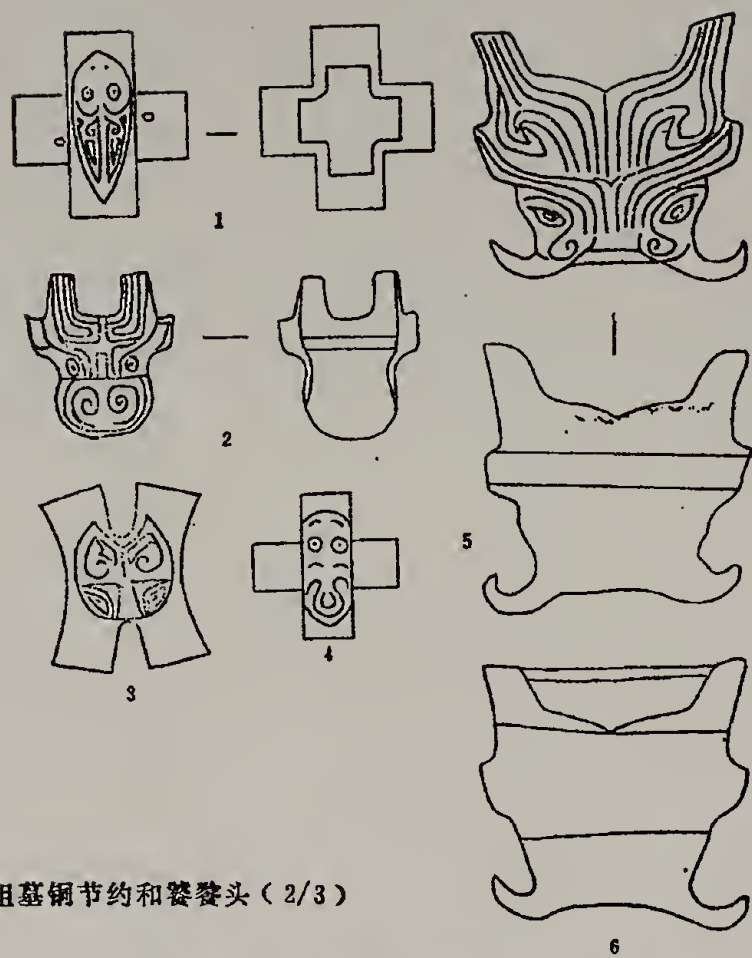
1. *Jieyue*, M30: 53.
2. Type II *taotie* head, M30: 34.
3. *Jieyue*, M30: 19.
4. *Jieyue*, M30
5. Type I *taotie* head, M48: 43.
6. Type I *taotie* head, M48: 43.

Diagram 57 (bottom)

Group B grave bronze finial inlaid with gold and silver

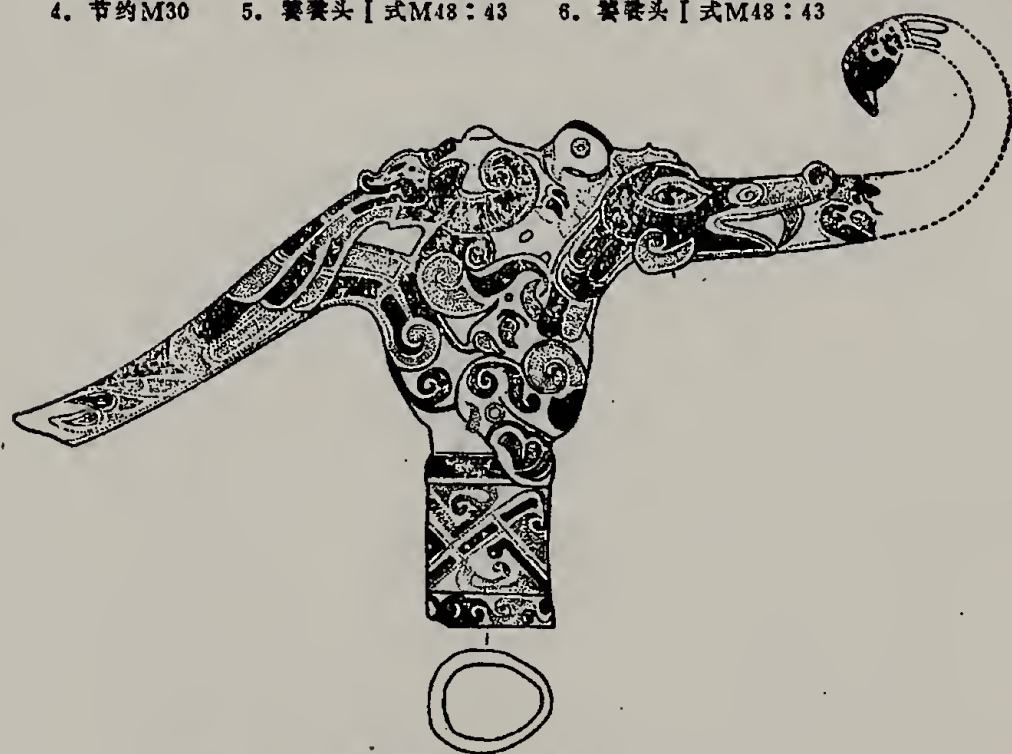
(1:2 scale)

M3: 42



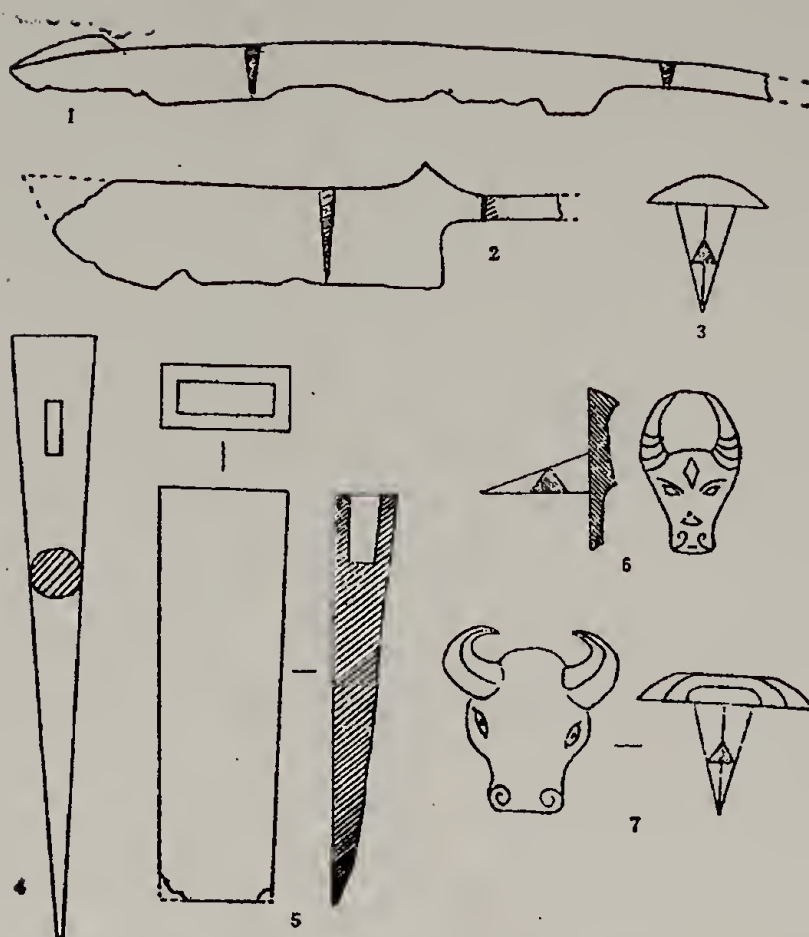
图一〇二 乙组基铜节约和簪簪头 (2/3)

1. 节约M30:53      2. 簪簪头Ⅰ式M30:34      3. 节约M30:19  
4. 节约M30      5. 簪簪头Ⅰ式M48:43      6. 簪簪头Ⅰ式M48:43



图一〇三 乙组基错金银铜杖首 (1/2)

M3:42



图一〇四 乙组墓铜器 (1、2、5, 1/3, 余2/3)

1. 铜刮M52:127    2. 铜刀M52:43    3. 椰钉Ⅲ式M<sub>2</sub>    4. 椰钉Ⅰ式M3:75  
5. 铜斧M57:1    6. 椰钉Ⅱ式M58:127    7. 椰钉Ⅱ式M<sub>2</sub>

## Diagram 58

### Group B grave bronze implements

(1, 2, 5, 1:3 scale; remainder 2:3 scale)

1. Bronze scraper, M52: 127
2. Bronze knife, M52: 43
3. Type III outer coffin nail, M2
4. Type I outer coffin nail, M3: 75
5. Bronze *ben* adze, M57: 1
6. Type II outer coffin nail, M58: 127
7. Type II outer coffin nail, M2



图一〇五 乙组墓金带饰、金饰花纹（3/4）

1. 圆形金带饰M52:57      2. 小圆形金带饰M52:50      3. 金叶M52:54  
4. 三角形金带饰M52:51    5. 三角形金带饰M52:63    6. 三角形金带饰M52:52

## Diagram 59

Group B grave garment ornaments, patterns on gold ornaments

(3:4 scale)

1. Circular gold ornament, M52: 57
2. Small circular gold ornament, M52: 50
3. Gold leaf, M52: 54
4. Triangular gold garment ornament, M52: 51
5. Triangular gold garment ornament, M52: 63
6. Triangular gold garment ornament, M52: 52





图一〇六 乙组基猿形银饰 (2/3)  
M3:4 上, 俯视; 中, 正视; 下, 背视

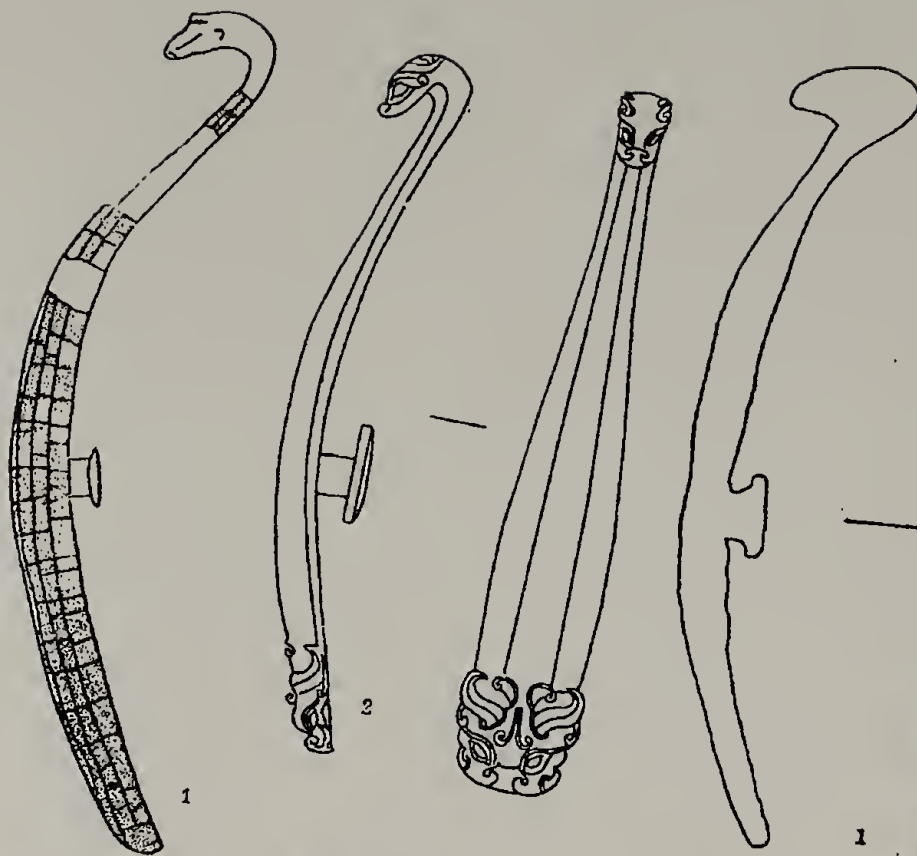
# Diagram 60

Group B grave gibbon-shaped silver ornament

(2:3 scale)

M3:4:

Above, top view  
Middle, front view  
Below, back view



图一〇七 乙组墓银带钩 (2/1)  
1. 镶嵌绿松石片银带钩 M3: 10 2. 银带钩 M52: 81



图一〇八 乙组墓错金银铁带钩 (2/3)  
M58: 117

Diagram 61 (left)

Group B grave silver garment hook

(2:1 scale):

1. Turquoise stones inlaid in silver garment hook, M3: 10
2. Silver garment hook, M52: 81

Diagram 62 (right)

Gold and silver inlaid iron garment hook from a Group B grave

(2:3 scale)

M58: 117



图一〇九 乙组墓Ⅰ式玉璧花纹拓片  
M52: 40

# Diagram 63

Rubbing of decorative patterns on a Type I jade *bi* disk from Group B grave,  
M52: 40





0 5 cm

图一—〇 乙组墓 I 式玉璧花纹拓片  
M52 : 3

Diagram 64

Rubbing of decorative patterns on a Type I jade *bi* disk from Group B grave  
M52: 3





图一一一 乙组墓Ⅰ式玉璧花纹拓片  
M52:9

Diagram 65

Rubbing of decorative patterns on a Type I jade *bi* disk from Group B grave  
M52:9





图一一二 乙组墓I式玉璧花纹拓片  
M52:41

# Diagram 66

Rubbing of decorative patterns on a Type I jade *bi* disk from Group B grave  
M52:41



图一一三 乙组墓Ⅱ式玉璧花纹拓片  
M58:3

Diagram 67

Rubbing of decorative patterns on a Type II jade *bi* disk from Group B grave,  
M58: 3

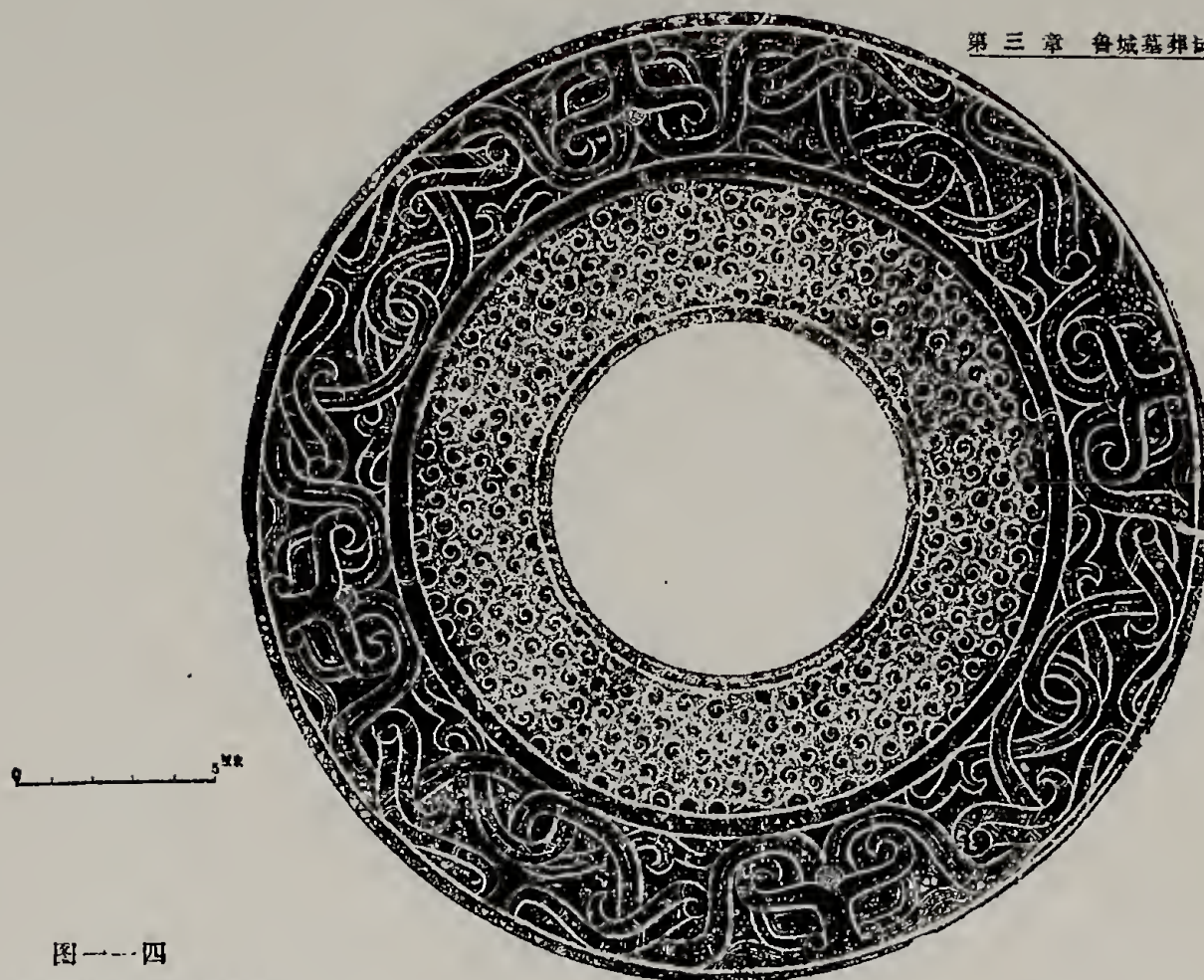
Diagram 68 (top)

Rubbing of decorative patterns on a Type II jade *bi* disk from a Group B grave,  
M58: 34

Diagram 69 (bottom)

Rubbing of decorative patterns on a Type II jade *bi* disk from Group B grave,  
M58: 5





图一一四  
乙组墓Ⅰ式玉璧花纹拓片  
M58:34



图一一五  
乙组墓Ⅰ式玉璧花纹拓片  
M58:5

Diagram 70

Rubbings of decorative patterns on a Type II jade *bi* disk from a Group B grave

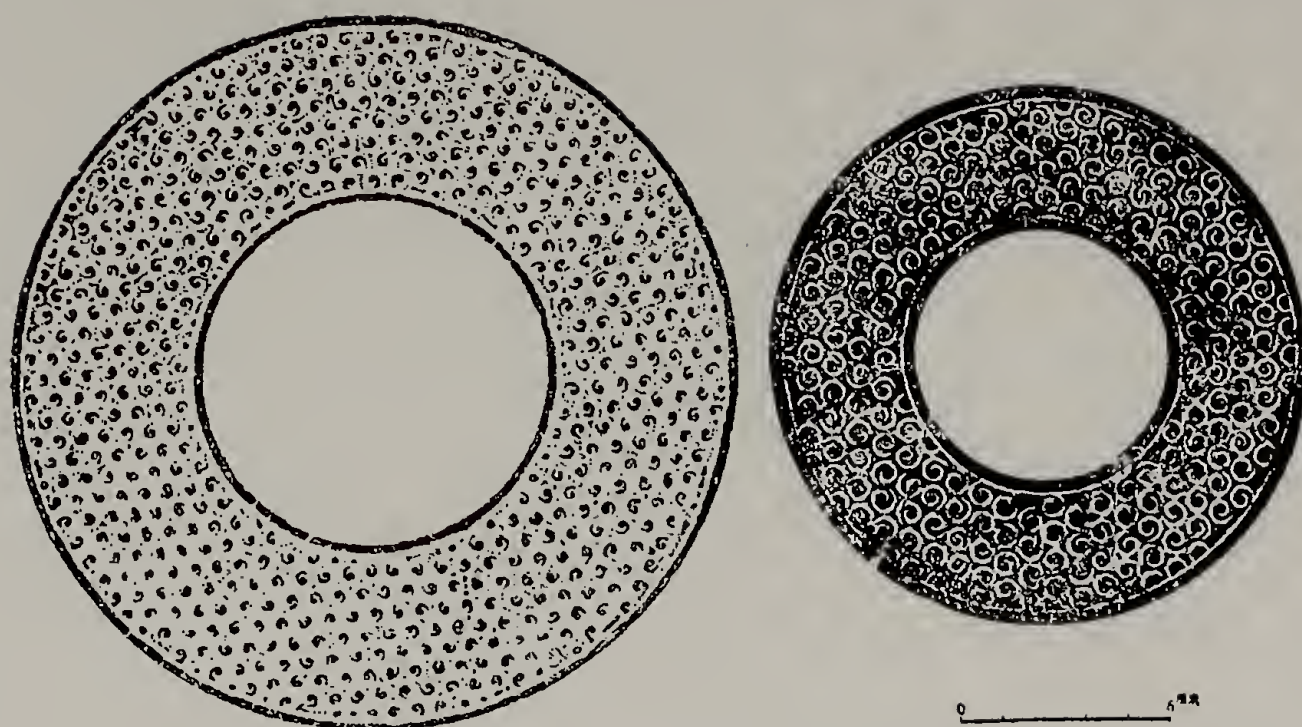
Above, M52: 5

Below, M52: 1





图一一六 乙组墓Ⅱ式玉璧花纹拓片  
上, M52:5 下, M52:1



图一一七 乙组墓Ⅲ式玉璧花纹拓片  
上, M52:15 下, M52:82

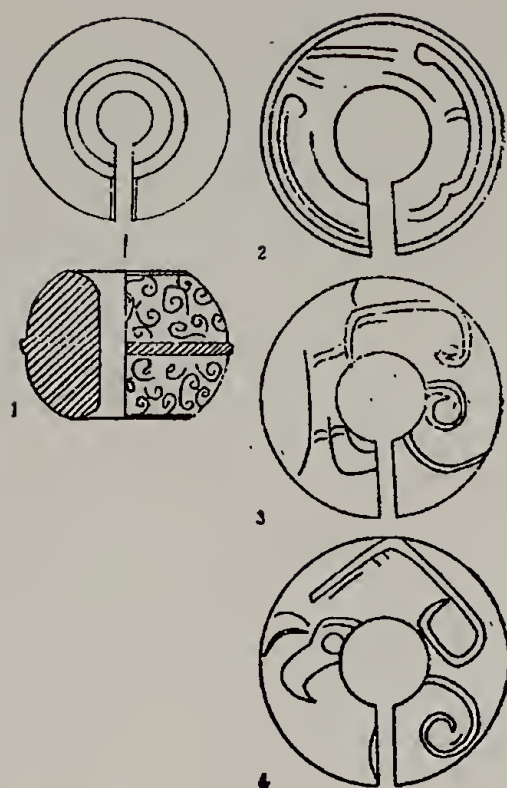
# Diagram 71

Rubbings of decorative patterns on Type III jade *bi* disk from Group B graves

Left, M5: 15

Right, M52: 82





图一一八 乙组墓玉玦 (2/3)

1. I 式玉玦 M52: 19 2—4. I 式  
玉玦 M48: 58 M49: 9、20

## Diagram 72

Group B grave jade *huan* disk

(2:3 scale)

1. Type II jade *huan*, M52: 19.

2 to 4. Type I jade *huan*, M48: 58, M49: 9, 20.

### Diagram 73

Group B grave jade garment hooks

(2:3 scale):

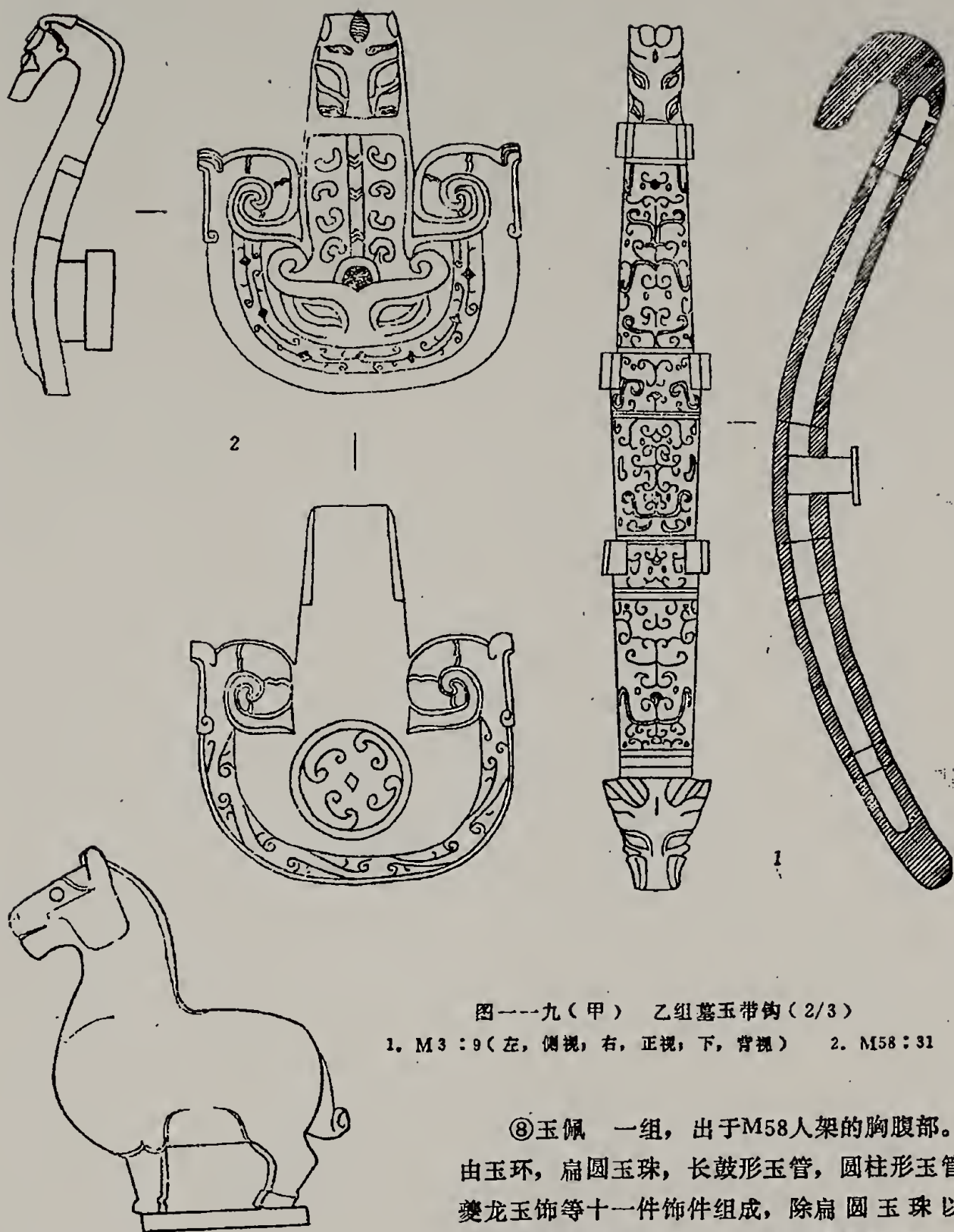
1. M3: 9 (left, side view; right, front view; below, back view).
2. M58: 31.

### Diagram 74

Jade horse M3: 8

(actual size)

.



图一一九(甲) 乙组墓玉带钩(2/3)

1. M3:9(左, 侧视, 右, 正视, 下, 背视) 2. M58:31

⑧玉佩 一组, 出于M58人架的胸腹部。由玉环, 扁圆玉珠, 长鼓形玉管, 圆柱形玉管, 夔龙玉饰等十一件饰件组成, 除扁圆玉珠以外, 都饰穀纹(图一二一; 图版壹零陆, 3)。

图一一九(乙) 玉马M3:8(原大)

Diagram 75 (top and left)

Group B grave rubbing of *kui* dragon jade ornaments

(3:4 scale)

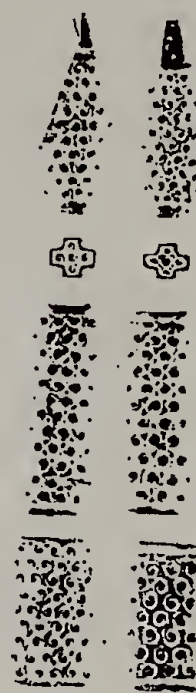
1. Type I (M58: 60)
2. Type VI (M52: 12)
3. Type V (M52: 121)

Diagram 76 (right)

Group B grave rubbing of jade pendant from grave M58

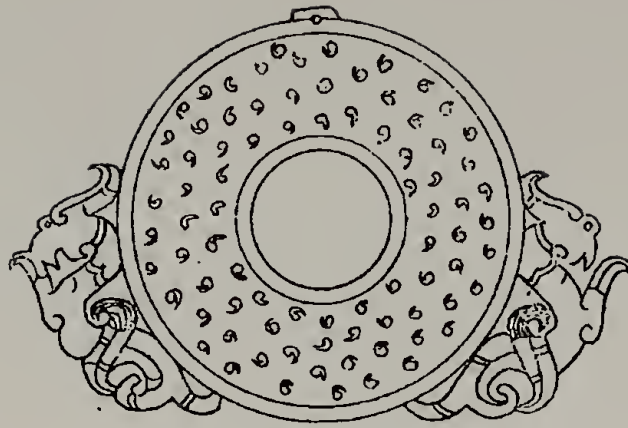
(1:2 scale)





图一二〇 乙组墓夔龙玉饰拓片 (3/4)  
1. I式 (M58:60) 2. II式 (M52:12)  
3. V式 (M52:121)

图一二一 乙组墓M58玉佩拓片 (1/2)



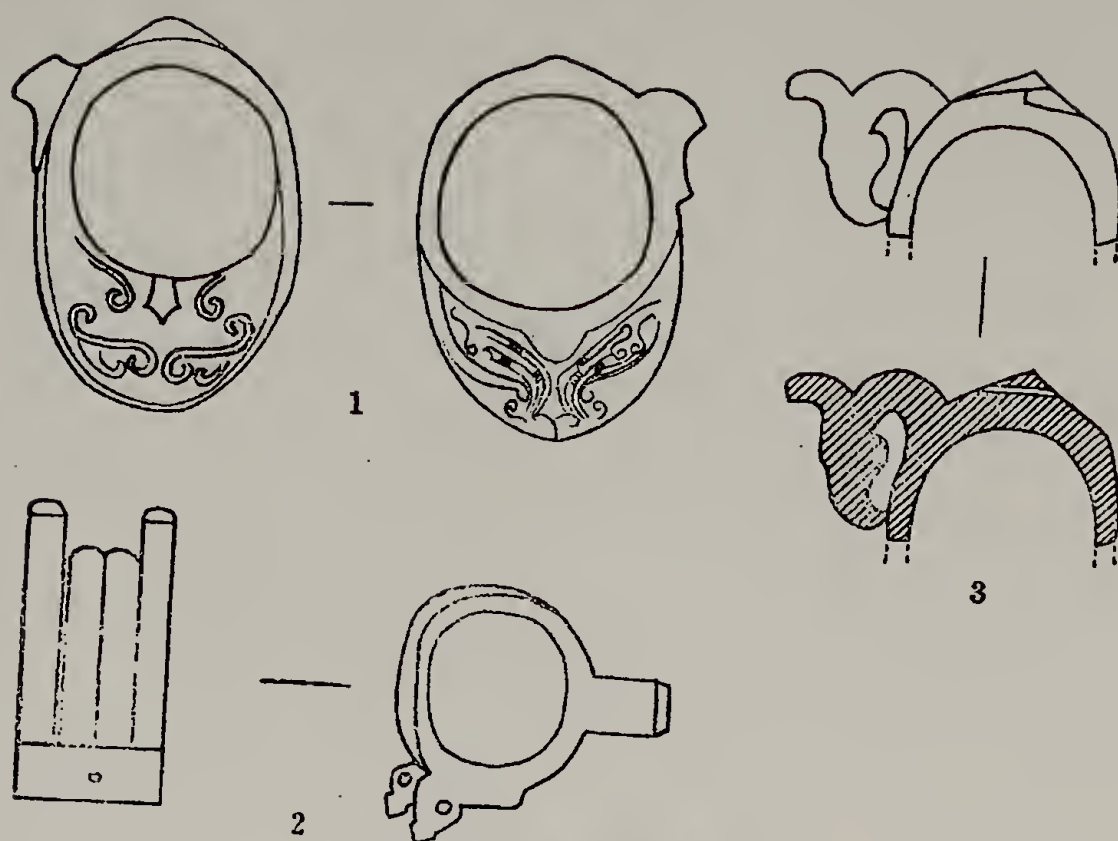
图一二二 乙组墓玉佩饰（原大）  
M58：122

Diagram 77

Group B grave jade pendant

(actual size)

M58: 122



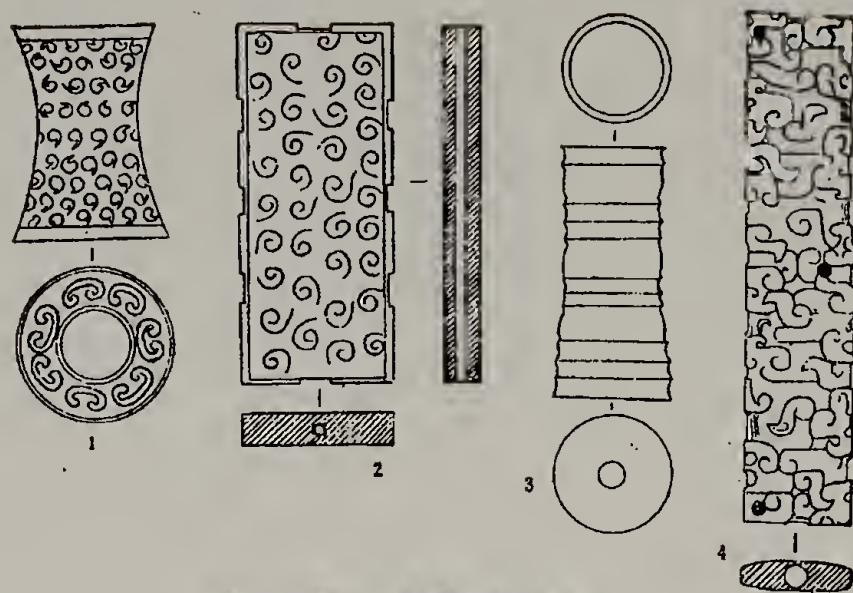
图一二三 乙组墓玉韘（原大）

1. M52: 30 (右, 正面, 左, 背面)    2. M28: 3 (右, 俯视, 左, 侧视)  
3. M52: 29

## Diagram 78

Group B grave jade *she* archer's thumb rings  
(actual size)

1. M52: 30 (right, front view; left, back view)  
2. M28: 3 (right, vertical view; left, side view)  
3. M52: 29



图一二四 乙组墓玉器 (2/3)

1. 玉管M52:31    2. 牌形玉饰M52:21    3. 玉管M58:128    4. 牌形玉饰M58:41

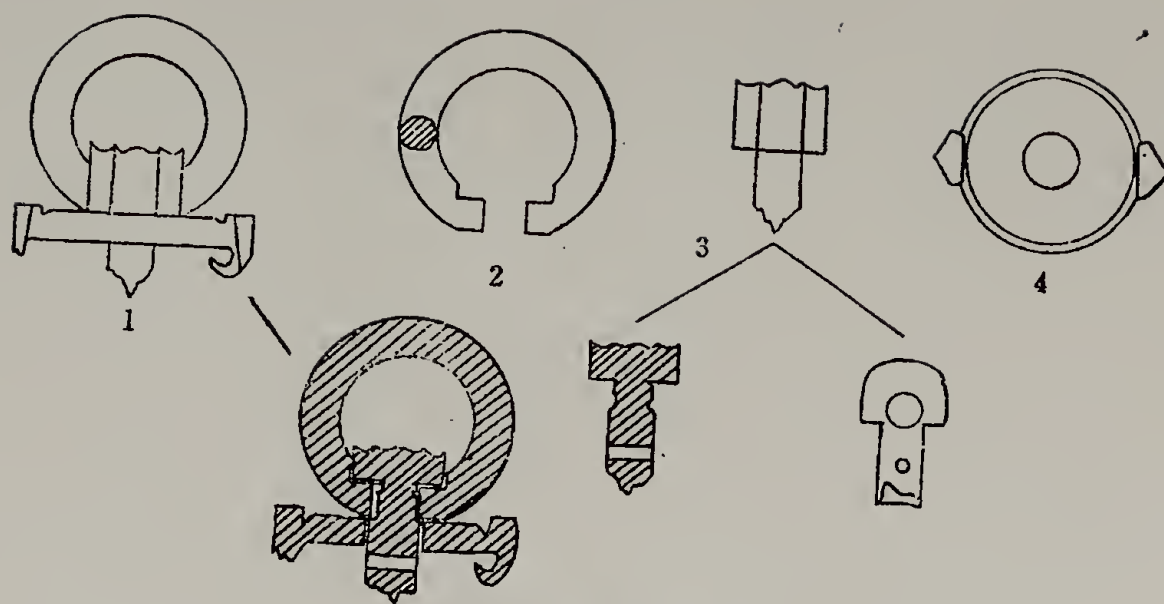
## Diagram 79

### Group B grave jade implements

(2:3 scale)

1. jade tube M52: 31
2. *pai* tablet shaped jade ornament M52: 21
3. jade tube M58: 128
4. *pai* tablet shaped jade ornament M58: 41





图一二五 乙组墓玉器钮（原大）  
1. 器钮M58：123 2、3、4. 器钮构件

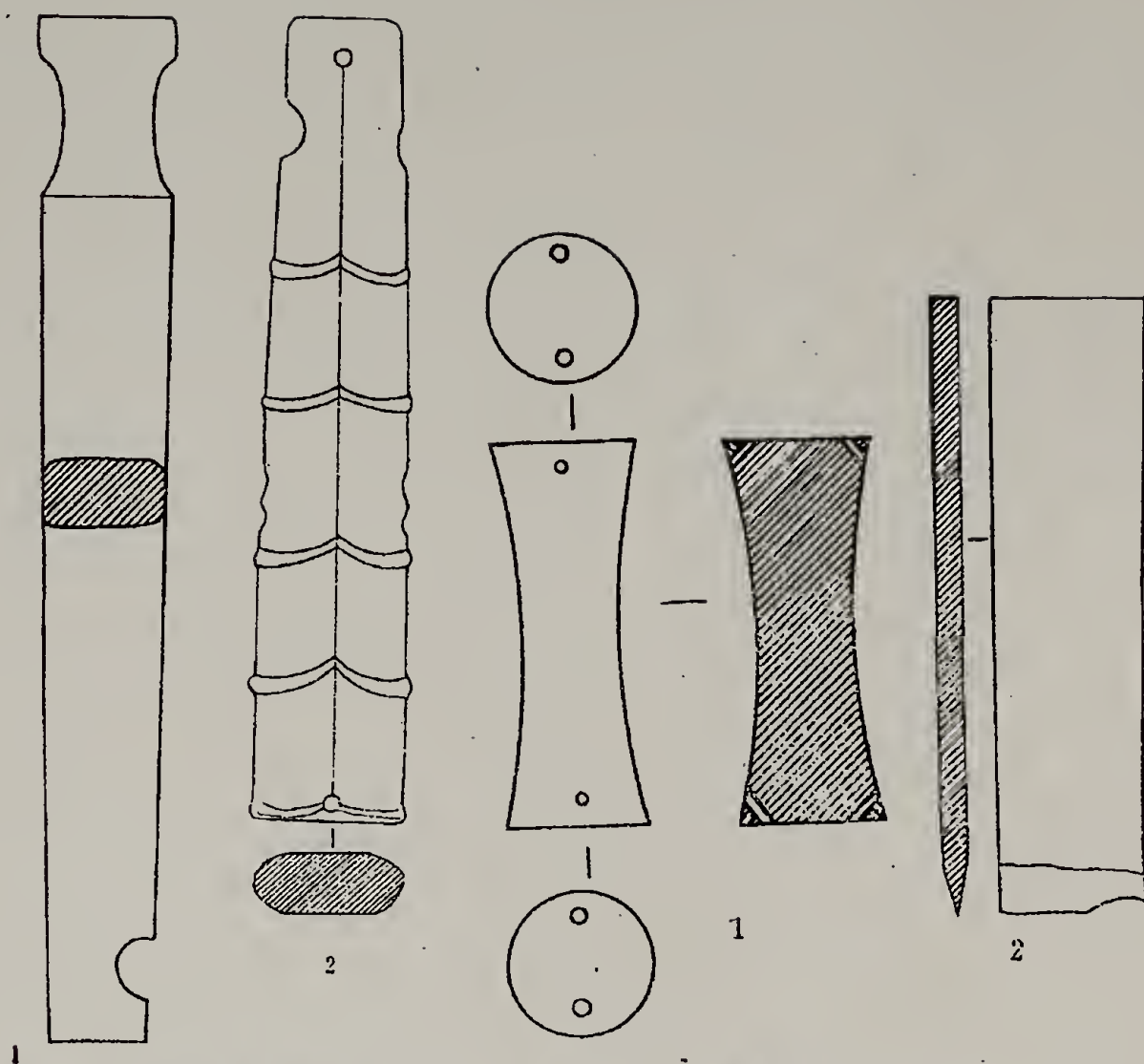
# Diagram 80

Group B grave jade knobs

(actual size)

1. Knob M58: 123

2, 3, 4. knob components



图一二六 乙组墓剑鞘形玉饰（约4/5）

1. M48: 59 2. M48: 58

图一二七 乙组墓石器（1，原大 2，1/2）

1. 圆柱形石饰M11: 7 2. 石凿M15: 9

Diagram 81 (left)

Group B grave *jianqiao* sword scabbard shaped jade ornament  
(approx. 4:5 scale)

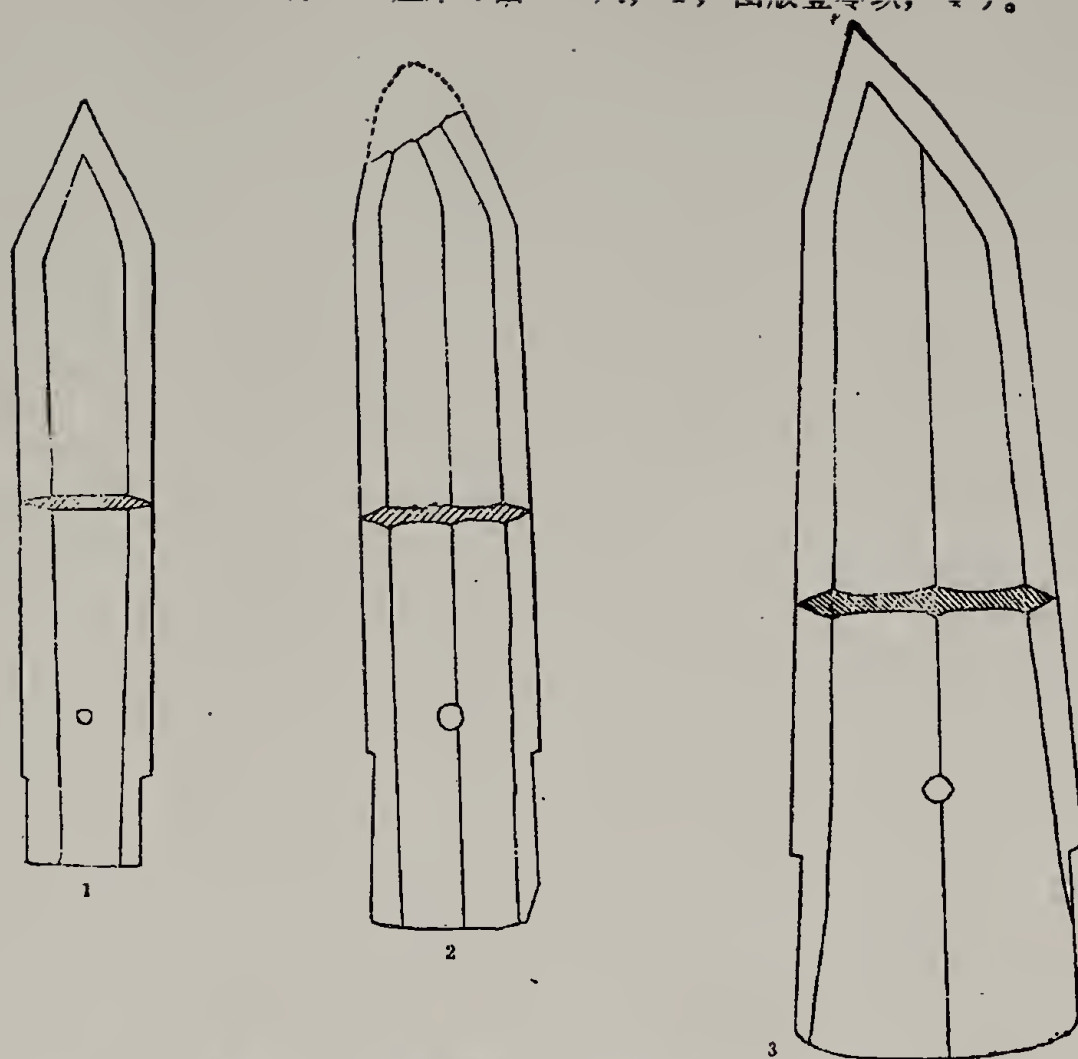
1. M48: 59

2. M48: 58

Diagram 82 (right)

Group B grave stone implements  
(no. 1. actual size; no. 2. 1:2 scale)

1. Cylindrical stone ornament M11: 7 2. Stone chisel M15: 9



图一二八 乙组墓玉戈(1, 约1/3, 2、3, 2/3)

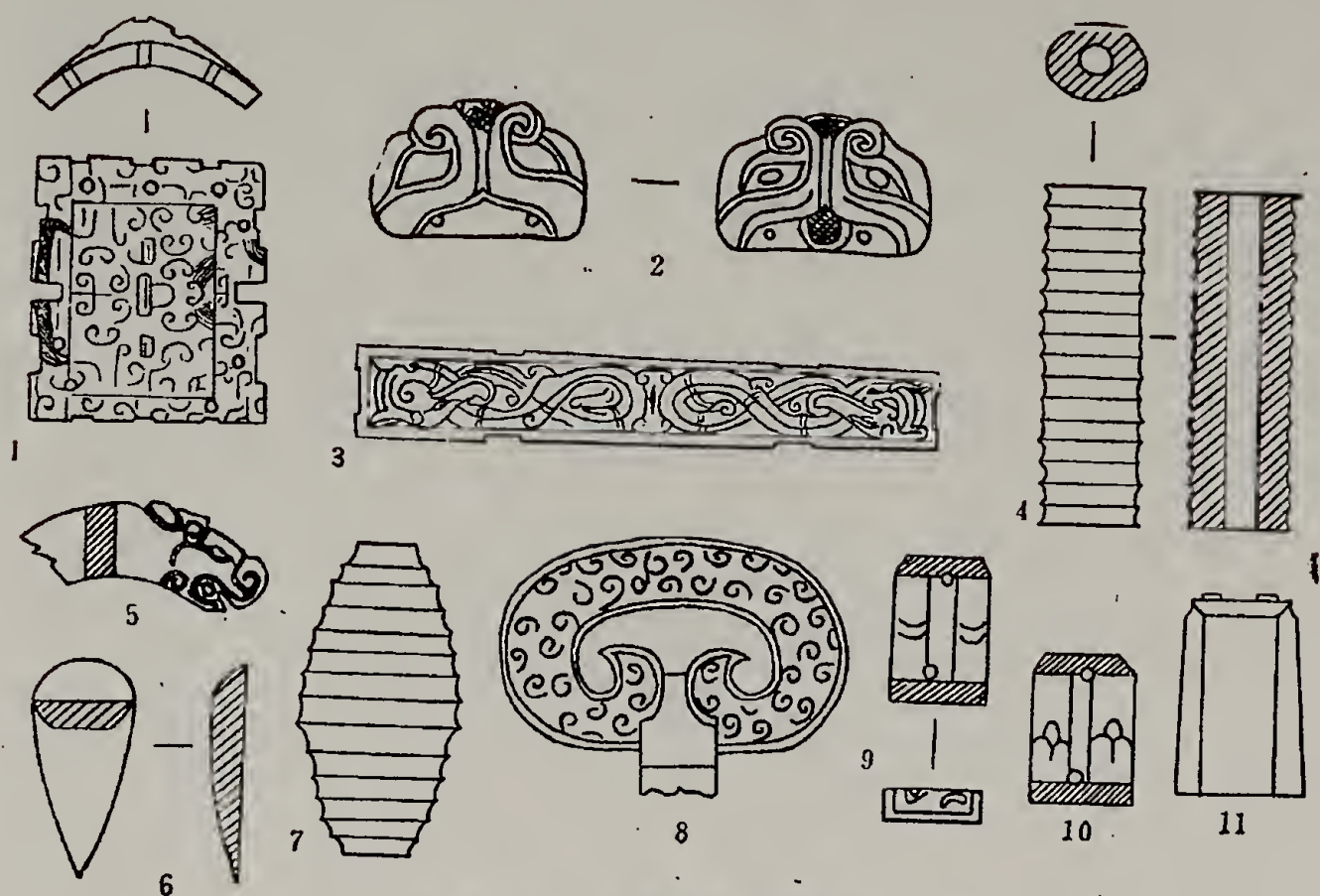
1. M42:8 2. M14:2 3. M48:57

### Diagram 83

Group B grave jade ge dagger-axe

(no. 1 is approx. 1:3 scale; nos. 2 and 3 are 2:3 scale)

- 1. M42:8
- 2. M14:2
- 3. M48:57



图一二九 乙组墓玉器（约原大）

1. 拱形起脊玉饰M52:32 2. 兽面纹玉片M52:58 3. 长条玉片M58:48 4. 瓦纹玉管M58:121  
5. 兽头残玉饰M52:38 6. 桃形玉饰M58:103 7. 瓦纹玉管M52:33 8. 铜削玉环首M28:1  
9. 玉饰M52:23 10. 玉饰M52:130 11. 方柱形玉管M52:36

## Diagram 84

### Group B grave jade implements

(approx. actual size)

1. Arched back jade ornament M52: 32
2. Jade piece with animal head design M52: 58
3. Long piece of jade M58: 48
4. Roof tile pattern jade tube M58: 121
5. A animal head fragment of a jade ornament M52: 38
6. Peach shaped jade ornament M58: 103
7. Roof tile pattern jade tube M52: 33
8. Bronze scraper set in a jade *huan* disk M28: 1
9. Jade ornament M52: 23
10. Jade ornament M52: 130
11. Square column shaped jade tube M52: 36





图一三〇 乙组墓料珠（原大）  
 1. IV式M52：73 2、3. III式M52：73

# Diagram 85

Group B grave *liaozhu* beads

(actual size)

1. Type IV, M52: 73
2. Type III, M52: 7



图一三一 乙组墓牙器(约1/2)

1. 牙雕杖首饰M3:52    2. 獠牙形牙饰M52:68    3. 牙雕杖尾饰M3:40

## Diagram 86

Group B grave ivory pieces

(approx. 1:2 scale)

1. Carved ivory finial, M3: 52
2. Tusk shaped ivory ornament, M52: 68
3. Carved ivory staff end [socket], M3: 40

Diagram 87 (top of page)

Group B grave carved ivory *xiaoshun* back scratcher

(1:2 scale)

1. Carved ivory back scratcher, M58: 111
2. Animal head ivory ornament, M3: 7
3. Animal head ivory ornament, M58: 113
4. Carved ivory *xiaoshun* back scratcher, M3: 5

Diagram 88 (bottom of page)

Group B grave ivory objects

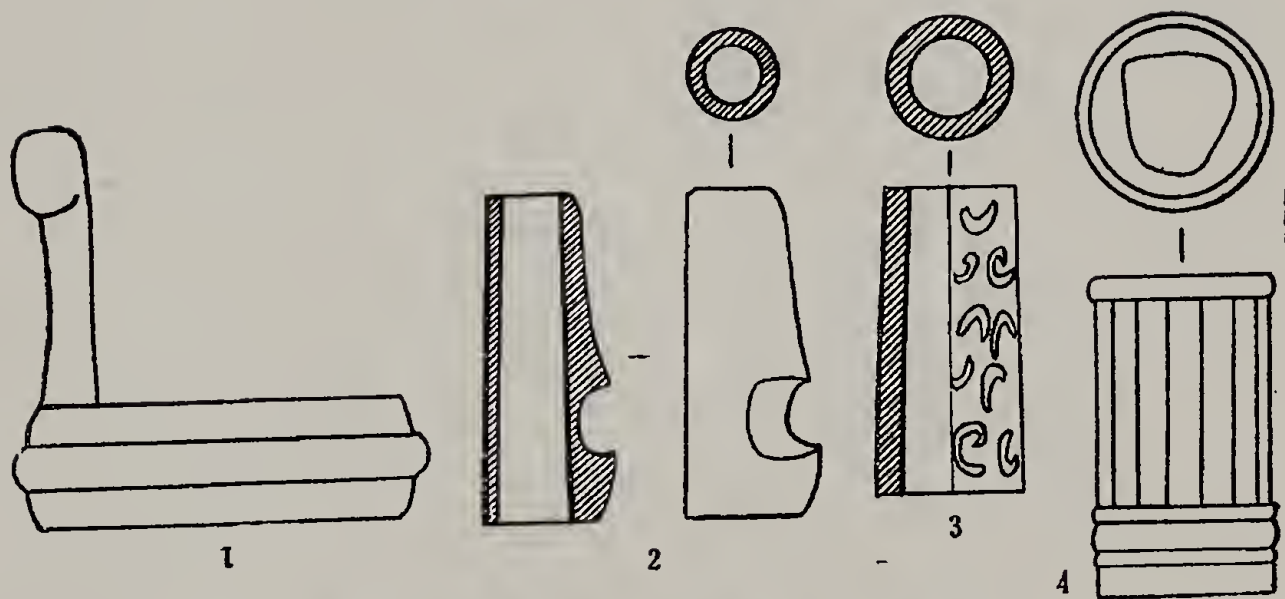
(nos. 1 and 2, actual size; 3 and 4, approx. 1:2 scale)

1. Ivory *huan* disk with handle, M51: 21
2. Ivory socket-cap with hook, M51: 23
3. Ivory tube, M51: 10
4. Ivory tube, M51: 9



图一三二 乙组墓牙雕“孝顺”(1/2)

1. 牙雕“孝顺” M58: 111    2. 兽首牙饰 M3: 7  
3. 兽首牙饰 M58: 113    4. 牙雕“孝顺” M3: 5



图一三三 乙组墓牙器(1、2原大; 3、4约1/2)

1. 有柄牙环 M51: 21    2. 有钩牙器帽 M51: 23    3. 牙管 M51: 10    4. 牙管 M51: 9



Diagram 89
















Comparative chart of Group B grave Western Zhou funerary vessels

Rows: bottom to top: First Period, Second Period, Third Period, Fourth Period

Columns: left side: pottery articles: *li*, *guan*; right side: bronze vessels

Numbers in the far left column identify the graves from which the vessel assemblages (on the right) were excavated

Note: each of the graves had been looted

品名 期别	陶		铜	器
	期别	器		
第四期	14			
第五期	49			
第六期	48			
第七期	11 23			
第八期	57			

图一三四 乙组西周墓随葬器物比较图

### Comparative chart of Group B grave Eastern Zhou funerary vessels

Rows: (bottom to top): First Period, Second Period, Third Period, Fourth Period

Columns: Left side: Pottery and porcelain vessels: *fu*, *guan*, *hu*, *lei* and  
porcelain *guan*, small *hu* and small *guan*

Right side: Bronze vessels

Numbers in the far left column identify the graves from which the vessel assemblages (on the right) were excavated

Note: each of the graves had been looted

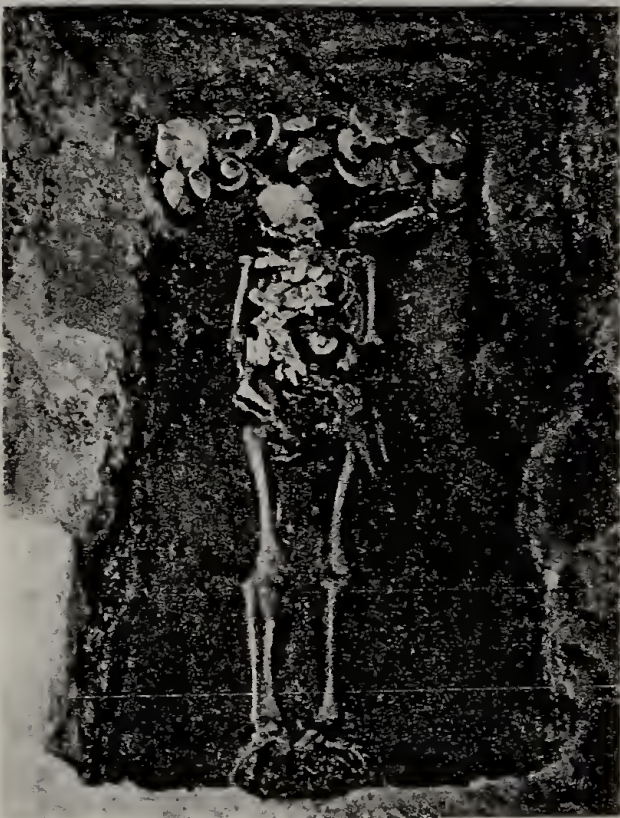




## Photograph 1

### Group A Western Zhou graves

1. M301 (S-N)
2. M107 (N-S)
3. M120 (N-S)
4. M120 dog skeleton in waist pit (N-S)



1	2
3	4

甲组西周墓

1 . M301 (南—北)  
3 . M120 (北—南)

2 . M107 (北—南)  
4 . M120 腰坑狗骨架 (北—南)

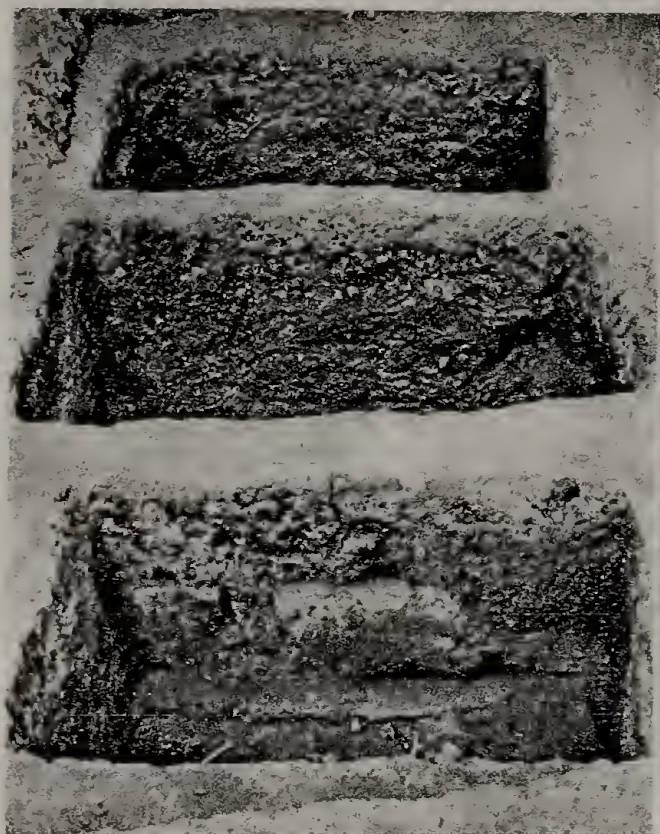
## Photograph 2

### Group A graves

(1, 2: Western Zhou; 3, 4: Spring and Autumn)

1. M119 (N-S)
2. M124 (N-S)
3. M121, 122, 123 (E-W)
4. M104 (N-S)





1	2
3	4

# 甲组墓

( 1、2 .西周 ; 3、4 .春秋 )

1 . M119 (北—南)

2 . M124 (北—南)

3 . M121、122、123 (东—西)

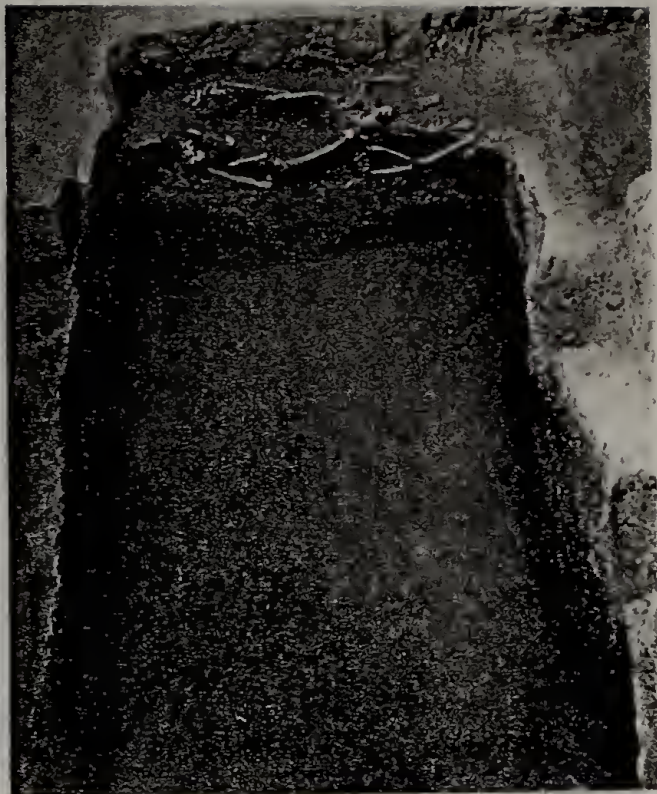
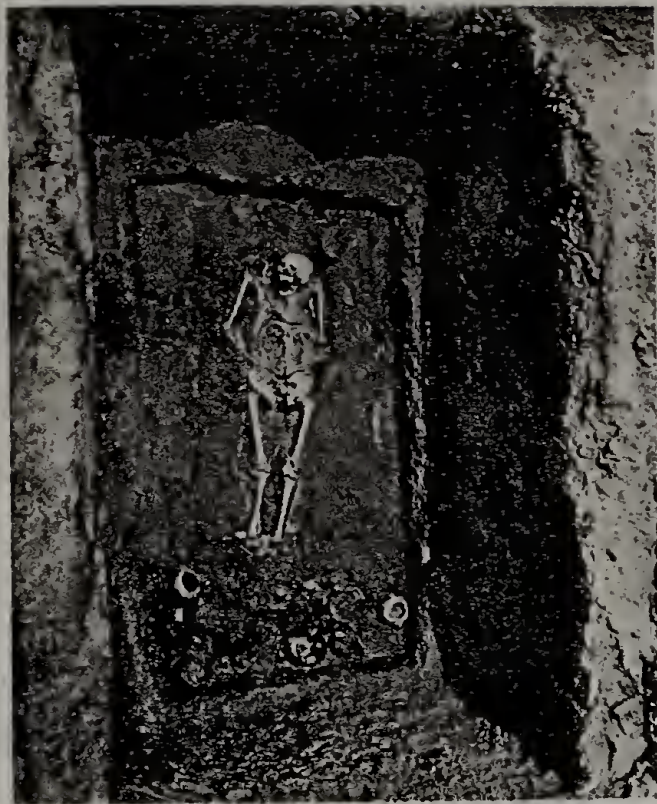
4 . M104 (北—南)



## Photograph 3

### Group A Spring and Autumn graves

1. M115 (N-S)
2. M202 (S-N)
3. M117 and M116 (W-E)
4. M116 subterranean box (S-N)



1	2
3	4

甲组 春秋墓

1. M115 (北—南)

2. M202 (南—北)

3. M117 和 116 (西—东)

4. M116 底箱 (南—北)

## Photograph 4

### Group A grave pottery vessel assemblages

1. M120 pottery vessels
2. M107 pottery vessels
3. M203 pottery vessels





甲组墓陶器组合

1. M120 陶器

2. M107 陶器

3. M203 陶器

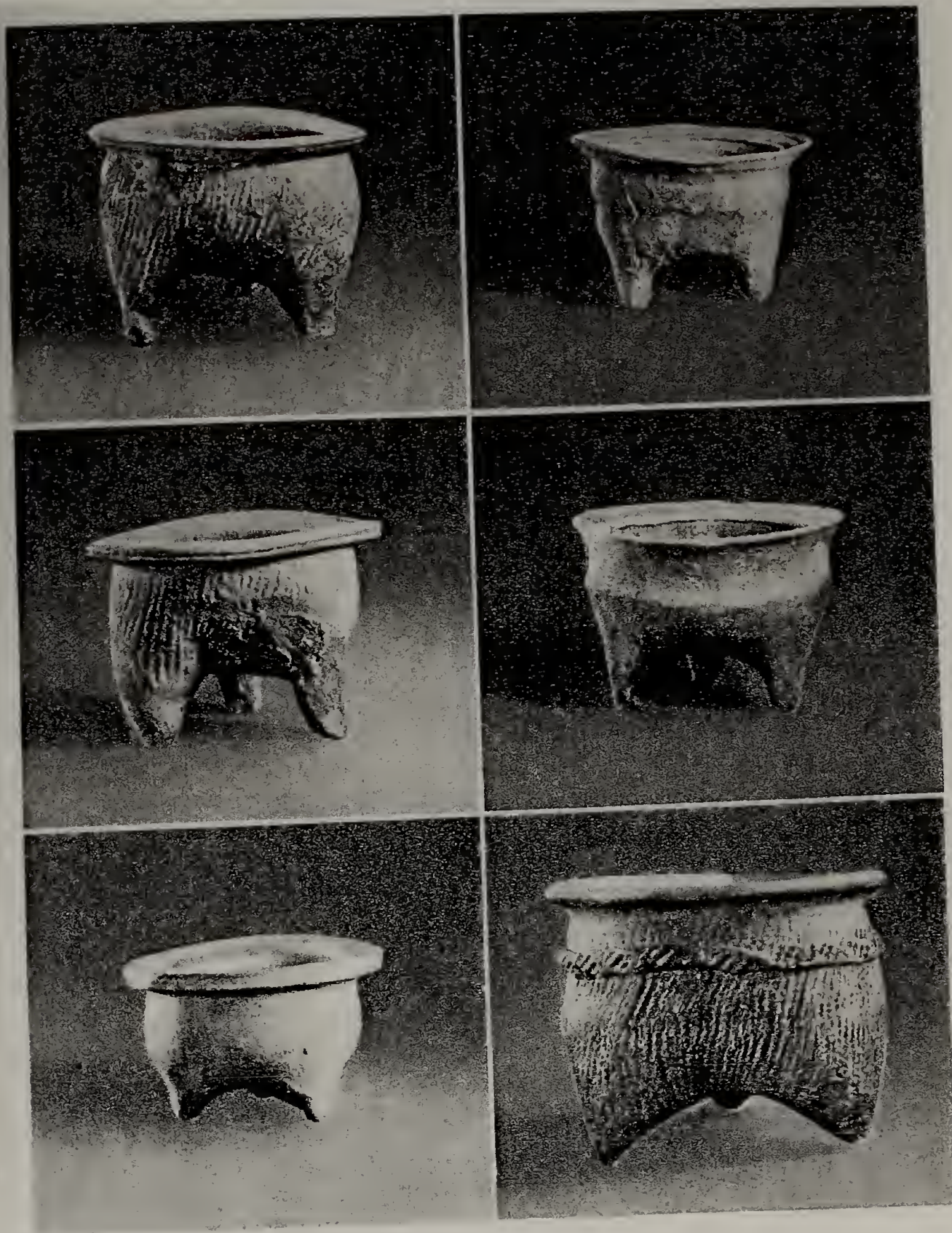


## Photograph 5

Group A grave pottery *li*

(Western Zhou)

1. Type I, M120: 3
2. Type I, M120: 15
3. Type II, M501: 1
4. Type III, M107: 5
5. Type III, M107: 11
6. Type V, M310: 1



1	4
2	5
3	6

甲组墓陶鬲 (西周)

1. I 式 M120 : 3  
2. I 式 M120 : 15  
3. II 式 M501 : 1

4. III 式 M107 : 5  
5. III 式 M107 : 11  
6. V 式 M310 : 1

## Photograph 6

### Group A grave pottery *li*

(1, 3: Western Zhou; remainder Eastern Zhou)

1. Type VI, M320: 2
2. Type VIII, M202: 1
3. Type VII, M328: 1
4. Type IX, M207: 1
5. Type X, M209: 1





# 甲组墓陶鬲

( 1、3、西周,余东周 )

1	2
3	
4	5

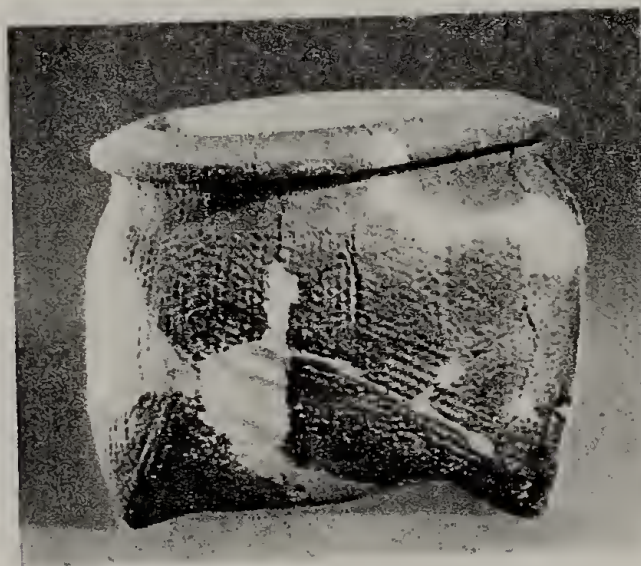
1. VI式M320 : 2

2. VII式M202 : 1

3. VII式M328 : 1

4. IX式M207 : 1

5. X式M209 : 1





## Photograph 7

Group A grave pottery *gui*

(1 to 3, Western Zhou; 4, 5, Spring and Autumn)

1. Type I, M120: 11
2. Type II, M501: 3
3. Type III, M107: 14
4. Type IV, M211: 3.
5. Type V, M207: 4



甲组墓陶簋

(1—3.西周; 4、5.春秋)

1	4
2	5
3	

1. I式M120 : 11  
2. II式M501 : 3  
3. III式M107 : 14

4. IV式M211 : 3  
5. V式M207 : 4

## Photograph 8

Group A Spring and Autumn grave pottery *gui*

1. Type VI, M209: 2
2. Type VII, M213: 15
3. Type VII, M213: 13
4. Type VIII, M116: 2
5. Type VIII, M116: 2





1	3
2	4
	5

甲组春秋墓陶簋

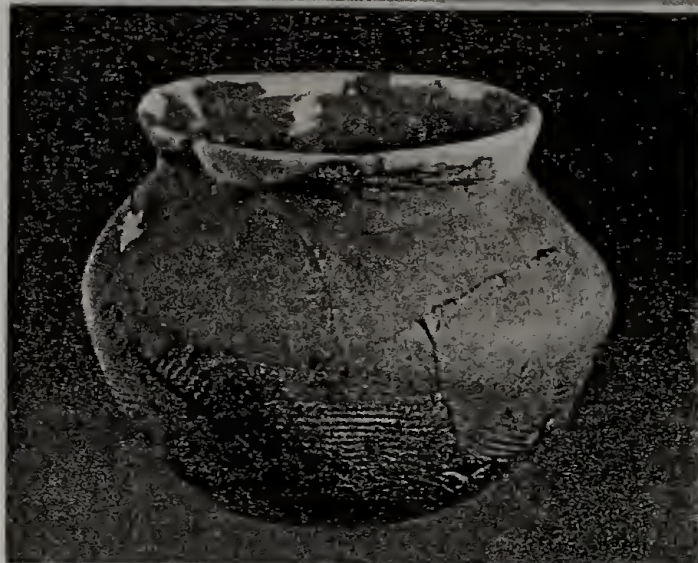
- |                  |                  |
|------------------|------------------|
| 1. VI式M209 : 2   | 3. VII式M213 : 13 |
| 2. VII式M213 : 15 | 4. VIII式M116 : 2 |
|                  | 5. VIII式M116 : 2 |



## Photograph 9

### Group A Western Zhou grave pottery vessels

1. Type I round bottomed *guan*, M120: 2
2. Type II round bottomed *guan*, M310: 5
3. Type III round bottomed *guan*, M119: 3
4. Type IV round bottomed *guan*, M131: 1
5. Type I *guan*, M501: 4
6. Type II-A *guan*, M107: 9
7. Type II-B *guan*, M107: 17



1	4
2	5
	6
3	7

甲组西周墓陶器

1. 圈底罐 I 式 M120 : 2  
2. 圈底罐 II 式 M310 : 5  
3. 圈底罐 III 式 M119 : 3

4. 圈底罐 IV 式 M131 : 1  
5. 罐 I 式 M501 : 4  
6. 罐 II A 式 M107 : 9  
7. 罐 II B 式 M107 : 17

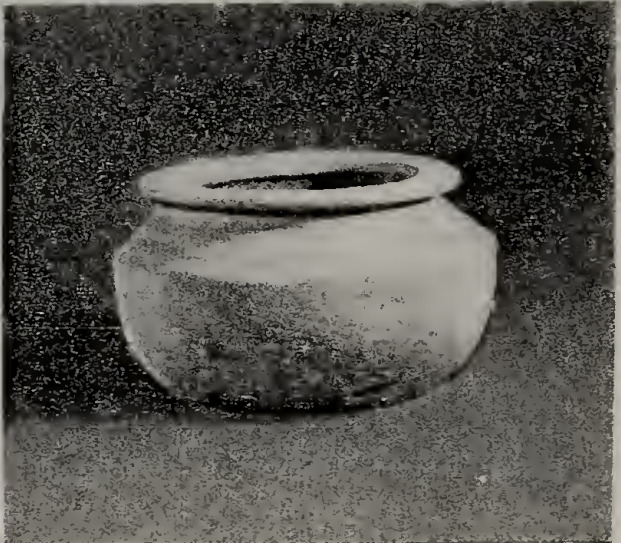
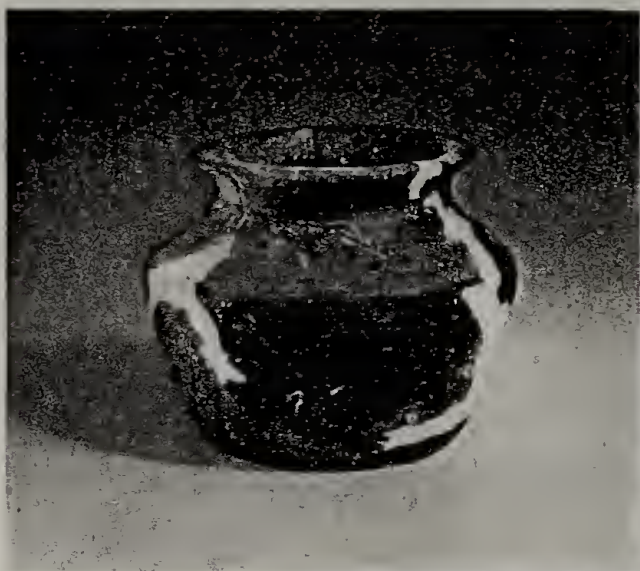
## Photograph 10

Group A grave pottery *guan*

(1, 2: Western Zhou; remainder Spring and Autumn)

1. Type III, M124: 3
2. Type IV-A, M328: 4
3. Type IV-B, M205: 1
4. Type V-A, M201: 18
5. Type V-B, M201: 15
6. Type V-C, M201: 16





甲组墓陶罐

(1、2.西周;余春秋)\*

1	4
2	5
3	6

1. Ⅲ式M124 : 3  
2. ⅣA式M328 : 4  
3. ⅣB式M205 : 1

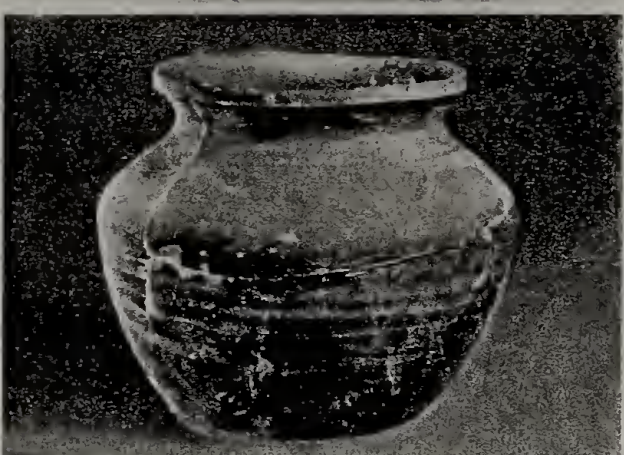
4. ⅤA式M201 : 18  
5. ⅤB式M201 : 15  
6. ⅤC式M201 : 16



Photograph 11

Group A Spring and Autumn grave pottery *guan*

1. Type VI, M201: 13
2. Type VII, M203: 5
3. Type VIII, M203: 3
4. Type IX, M115: 7
5. Type X, M116: 22
6. Type XI, M104: 4
7. Type XII, M105: 3
8. Type XIII, M105: 1



1	5
2	6
3	7
4	8

甲组 春秋墓陶罐

1. VI式 M201 : 13  
2. VII式 M203 : 5  
3. VIII式 M203 : 3  
4. IX式 M115 : 7

5. X式 M116 : 22  
6. XI式 M104 : 4  
7. XII式 M105 : 3  
8. XIII式 M105 : 1

## Photograph 12

Group A grave pottery *lei*

(1 to 3: Western Zhou; 4 to 6: Spring and Autumn)

1. Type I, M120: 9.
2. Type II, M138: 2
3. Type III, M119: 4
4. Type IV, M113: 1
5. Type V, M201: 14
6. Type VI, M305: 1





1	4
2	5
3	6

### 甲组墓陶器

(1—3.西周, 4—6.春秋)

1. I式M120 : 9  
2. II式M138 : 2  
3. III式M119 : 4

4. IV式M113 : 1  
5. V式M201 : 14  
6. VI式M305 : 1



Photograph 13

Group A Spring and Autumn grave pottery *lei*

1. Type VII, M207: 5 (lacks cover)
2. Type VIII, M210: 1
3. Type IX, M202: 3
4. Type IX, M202: 3
5. Type X, M209: 11



1. Ⅶ式M207 : 5 (缺盖)  
 2. Ⅷ式M210 : 1  
 3. Ⅸ式M202 : 3  
 4. Ⅸ式M202 : 3  
 5. X式M209 : 11

1	3
2	4
	5

甲组春秋墓陶器

## Photograph 14

### Group A Western Zhou grave pottery *dou*

1. Type I, M120: 6
2. Type II, M501: 5
3. Type III-A, M501: 10
4. Type III-B, M107: 13
5. Type IV, M124: 2
6. Type V, M119: 2





1	4
2	5
3	6

甲组西周墓陶豆

1. I式M120:6

4. III B式M107:13

2. II式M501:5

5. IV式M124:2

3. III A式M501:10

6. V式M119:2



## Photograph 15

### Group A grave pottery vessels

(1, 2, 5, 6: Western Zhou; 3, 4: Spring and Autumn)

1. Type VI *dou*, M320: 6
2. Type VII *dou*, M316: 1
3. Type VIII *dou*, M211: 1
4. Type IX *dou*, M207: 2
5. Type I *yu*, M310: 11
6. Type II *yu*, M320: 1



### 甲组墓陶器

(1、2、5、6.西周; 3、4.春秋)

1	4
2	5
3	6

1. 豆Ⅵ式M320 : 6

4. 豆Ⅸ式M207 : 2

2. 豆Ⅶ式M316 : 1

5. 孟Ⅰ式M310 : 11

3. 豆Ⅷ式M211 : 1

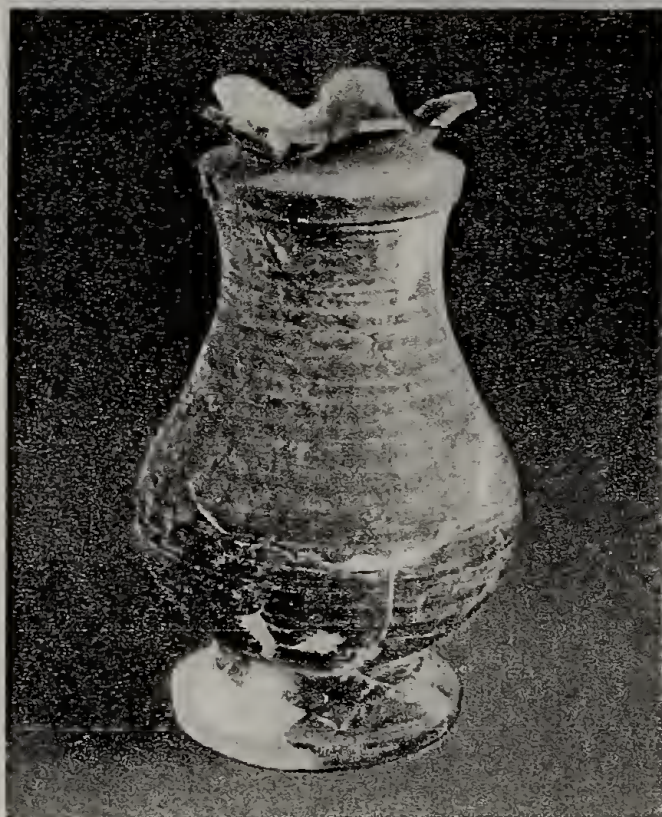
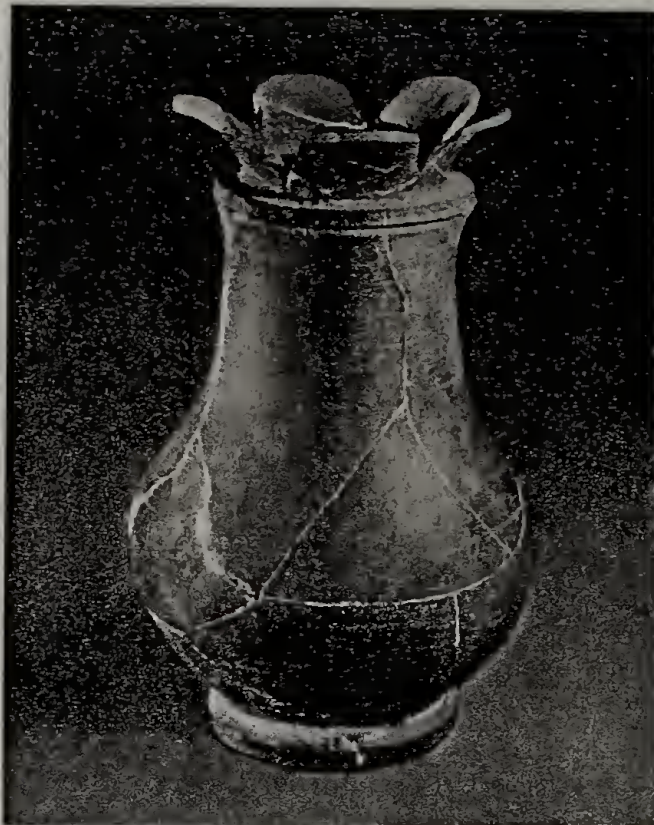
6. 孟Ⅱ式M320 : 1

## Photograph 16

### Group A Spring and Autumn grave pottery vessels

1. Type I decorated covered *hu*, M115: 5
2. Type II decorated covered *hu*, M116: 16
3. Type III decorated covered *hu*, M104: 8
4. Type I covered *dou*, M213: 1





1	2
3	4

甲组春秋墓陶器

1. 华盖壶 I 式 M115 : 5

2. 华盖壶 II 式 M116 : 16

3. 华盖壶 III 式 M104 : 8

4. 盖豆 I 式 M213 : 1



## Photograph 17

Group A Spring and Autumn grave pottery covered *dou*

1. Type II covered *dou*, M115: 3
2. Type III covered *dou*, M110: 2
3. Type IV covered *dou*, M116: 20
4. Type V covered *dou*, M104: 2



1. 盖豆Ⅱ式M115 : 3



2. 盖豆Ⅲ式M110 : 2



3. 盖豆Ⅳ式M116 : 20



4. 盖豆Ⅴ式M104 : 2

甲组春秋墓陶盖豆

## Photograph 18

Group A Spring and Autumn grave pottery vessels

(3, 4: Western Zhou; remainder Eastern Zhou)

1. Type III *yu*, M202: 2
2. *Bian*, M116: 17
3. *Bo*, M301: 1
4. *Zun*, M120: 14
5. *Zhi*, M104: 11
6. *Ding*, M401:1





甲组墓陶器

(3、4·西周；余东周)

1	4
2	5
3	6

1·孟Ⅲ式M202：2

2·逆M116：17

3·钵M301：1

4·尊M120：14

5·卮M104：11

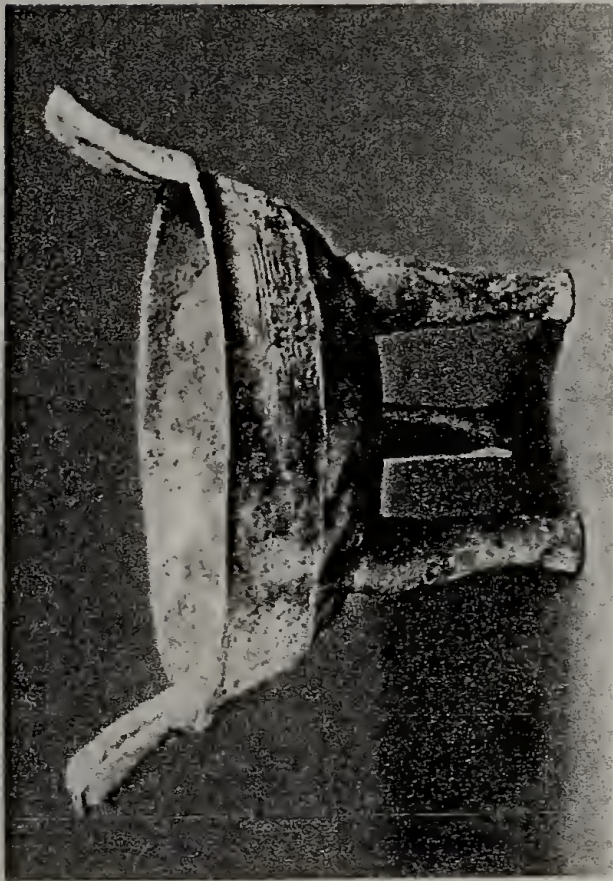
6·鼎M401：1



## Photograph 19

Group A Spring and Autumn grave bronze vessels

1. Type I *ding*, M201: 1
2. Type II *ding*, M116: 4
3. *Pan*, M202: 5
4. *Yi*, M202: 6



1	2
3	4

甲组 春秋墓铜器

1. 鼎 I 式 M201 : 1      2. 鼎 II 式 M116 : 4  
3. 盘 M202 : 5      4. 匜 M202 : 6

## Photograph 20

### Group A Spring and Autumn grave bronze vessels

1. Type I *pen*, M201: 20
2. Type I *pen*, M201: 20 detail
3. Type II *pen*, M202: 7
4. *Xu*, M116: 1





1. 盆 I 式 M201 : 20



2. 盆 I 式 M201 : 20 细部



3. 盆 II 式 M202 : 7



4. 盆 II 式 M202 : 7

甲组春秋墓铜器

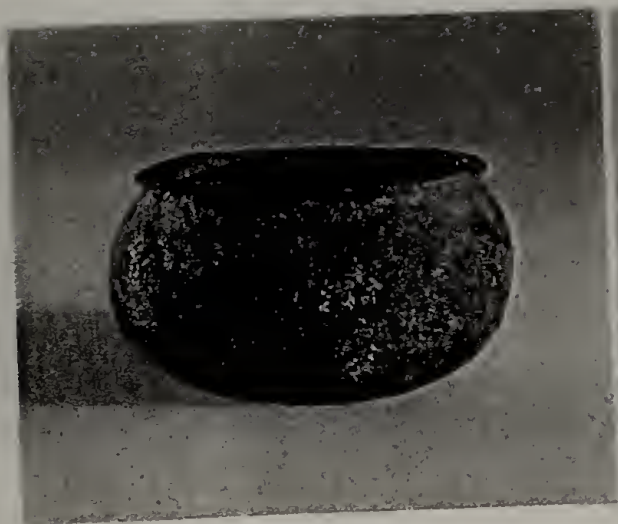
1	3
2	4



## Photograph 21

Group A Spring and Autumn grave bronze *zhou*

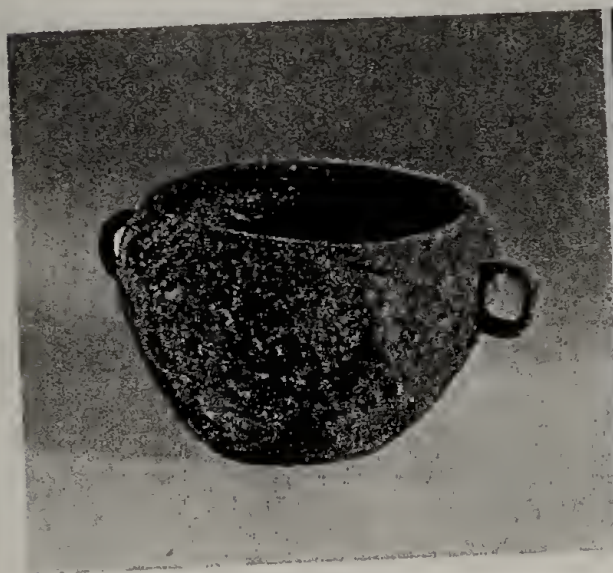
1. Type I, M305: 1
2. Type III, M202: 4
3. Type IV, M103: 1
4. Type V, M115: 6
5. Type II, M203: 8



1. I 式 M305 : 1



2. III 式 M202 : 4



3. IV 式 M103 : 1



4. V 式 M115 : 6



5. II 式 M203 : 8

甲组春秋墓铜舟

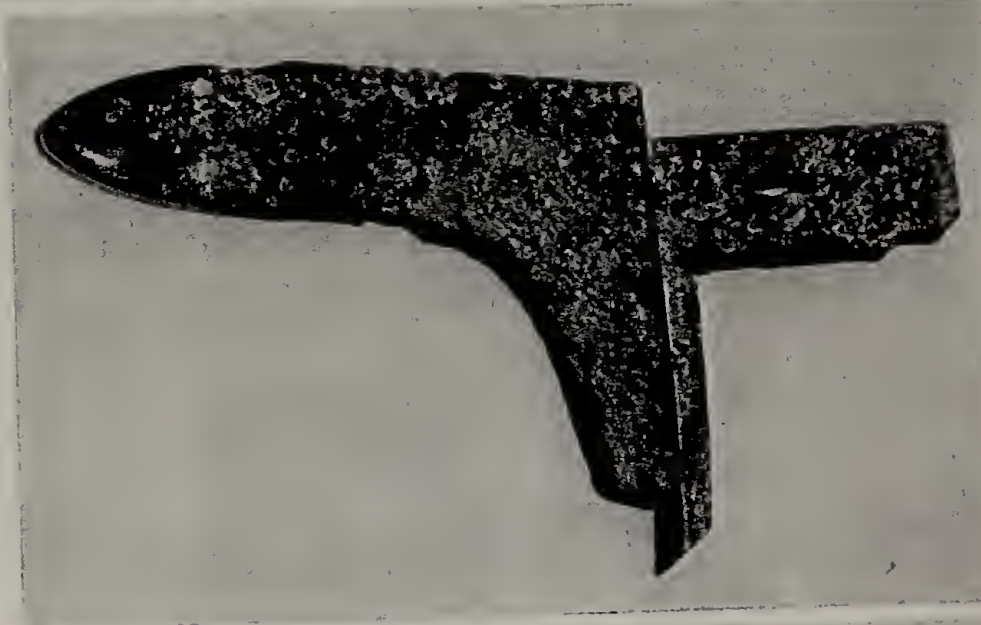
## Photograph 22

### Group A Spring and Autumn grave weapons

1. Bronze *zu* barbed arrowheads, M201: 9
2. Type III bronze *ge*, M111: 3
3. Type II bronze *ge*, M115: 8
4. Type I bronze *ge*, M201: 21



1	2
	3
	4



1. 铜镞 M201 : 9  
 2. 铜戈Ⅲ式 M111 : 3  
 3. 铜戈Ⅱ式 M115 : 8  
 4. 铜戈Ⅰ式 M201 : 21

甲组春秋墓兵器

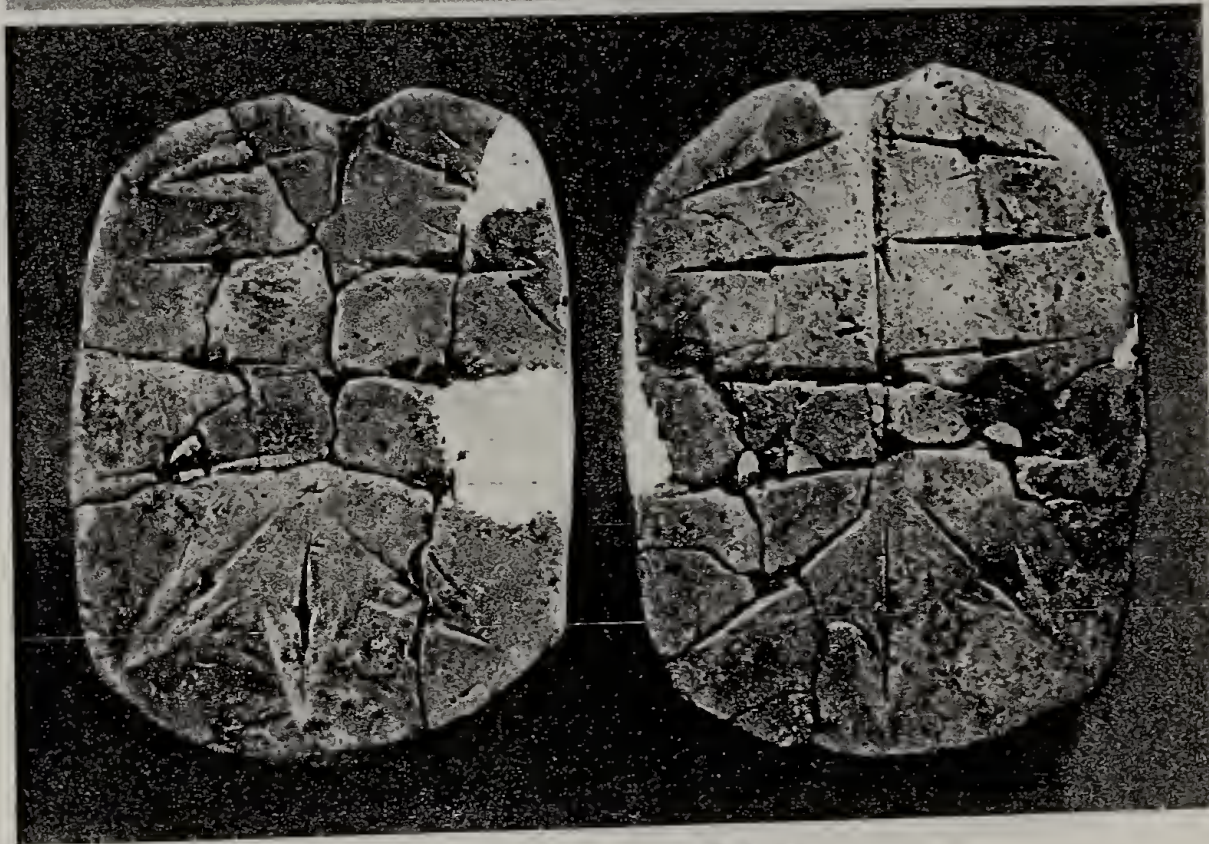


## Photograph 23

### Group A grave implements

(1 to 4, Spring and Autumn; 5, Western Zhou)

1. Bronze *pei* bridle ornaments, M201
2. Bone *xiyao* hyperboloid, M201
3. Bronze *wei* axle cap, M201: 5
4. Bronze *xian* bit, M201: 2
5. Pottery arrowhead mold, M138: 2



### 甲组墓器物

(1—4.春秋, 5.西周)

1	2
3	4
5	

1. 铜簪饰M201  
3. 铜簪M201 : 5  
5. 陶簪范M138 : 2

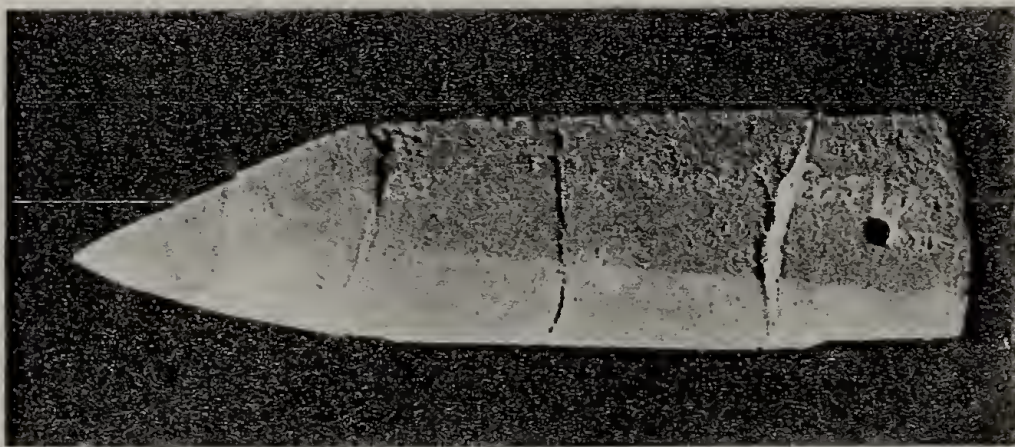
2. 骨细腰M201  
4. 铜衔, 镳M201 : 2

Photograph 24

Group A Eastern Zhou grave stone *ge* dagger-axe and stone *gui* tablet

1. Type I *ge*, M203: 7
2. Type II *ge*, M212: 2
3. Type III *ge*, M201: 8
4. *Gui*, M212: 1

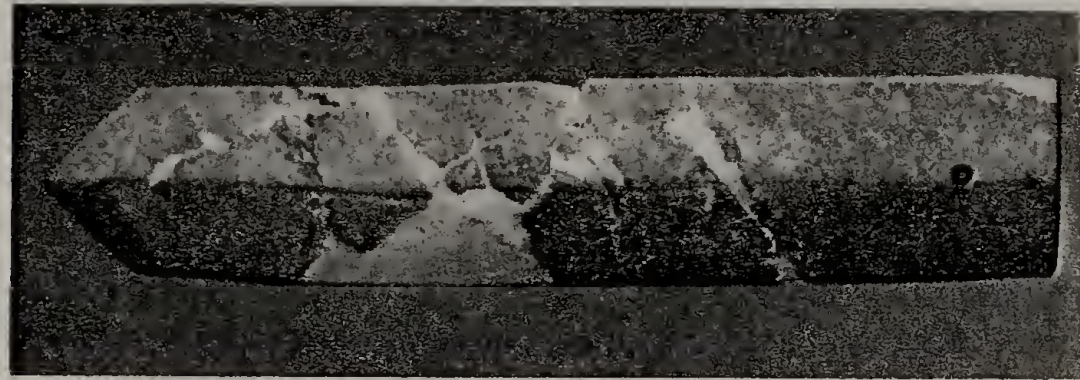




1. 戈 I 式 M203 : 7



2. 戈 II 式 M212 : 2



3. 戈 III 式 M201 : 8



4. 圭 M212 : 1

甲组东周墓石戈、石圭

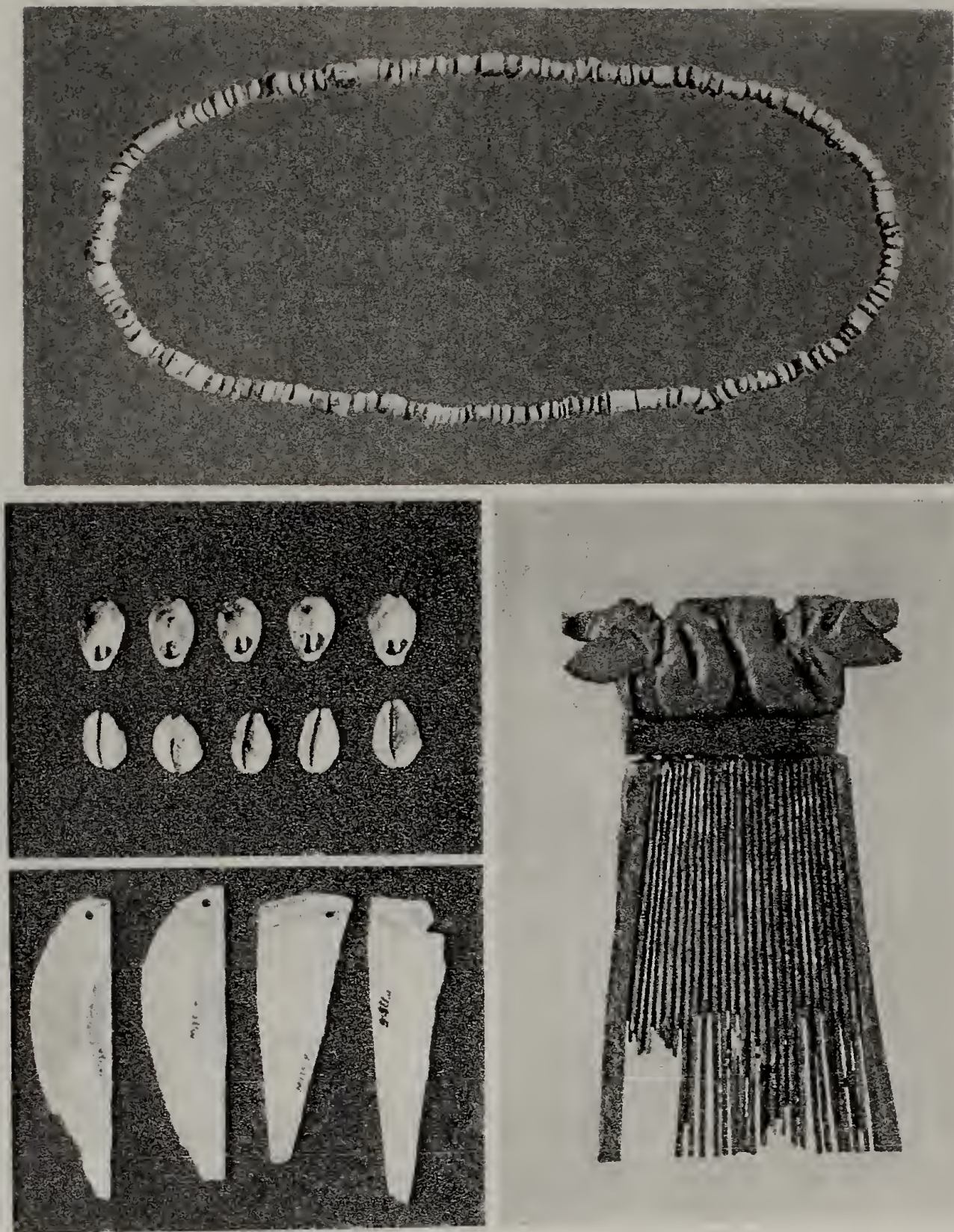


## Photograph 25

Group A grave ivory, bone, and shell implements

(2, 3: Western Zhou; remainder Spring and Autumn)

1. Ivory necklace, M202: 13
2. Cowrie shells, M120: 21
3. Mussel shell carved fish, M138: 5
4. Ivory comb, M116: 15



甲组墓牙 骨 蚌器  
(2、3.西周,余春秋)

1	
2	4
3	

1. 象牙项链M202 : 13  
3. 蚌鱼M138 : 5

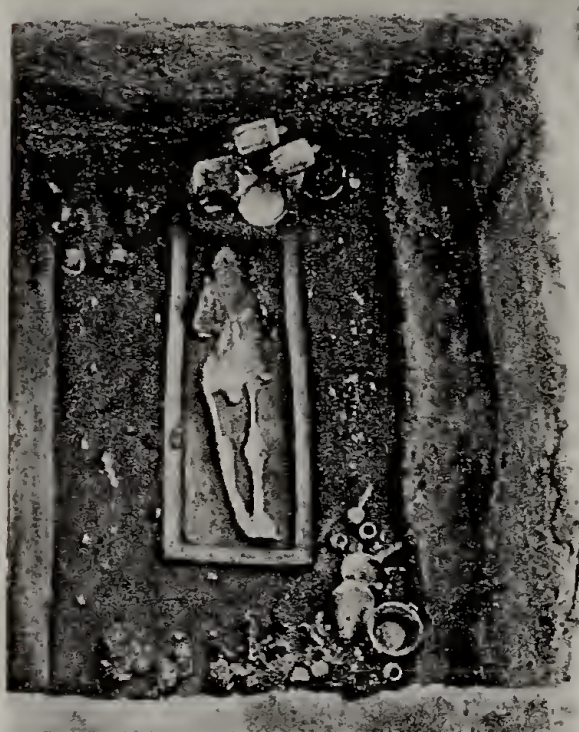
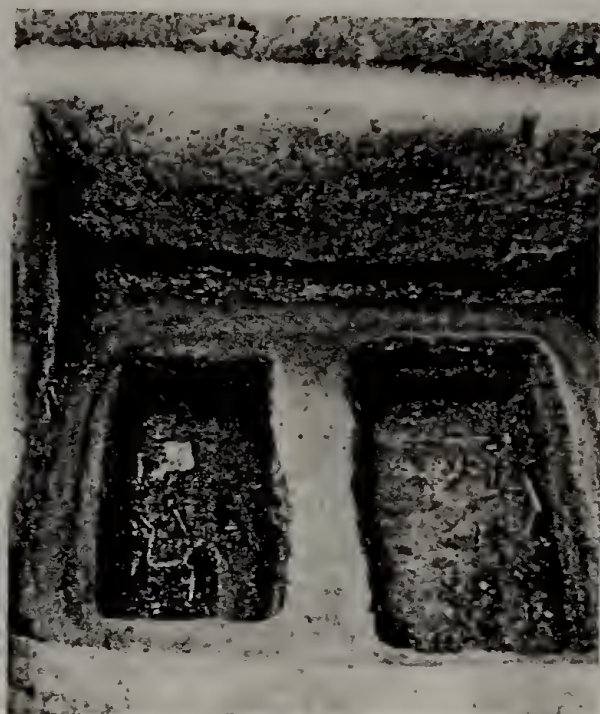
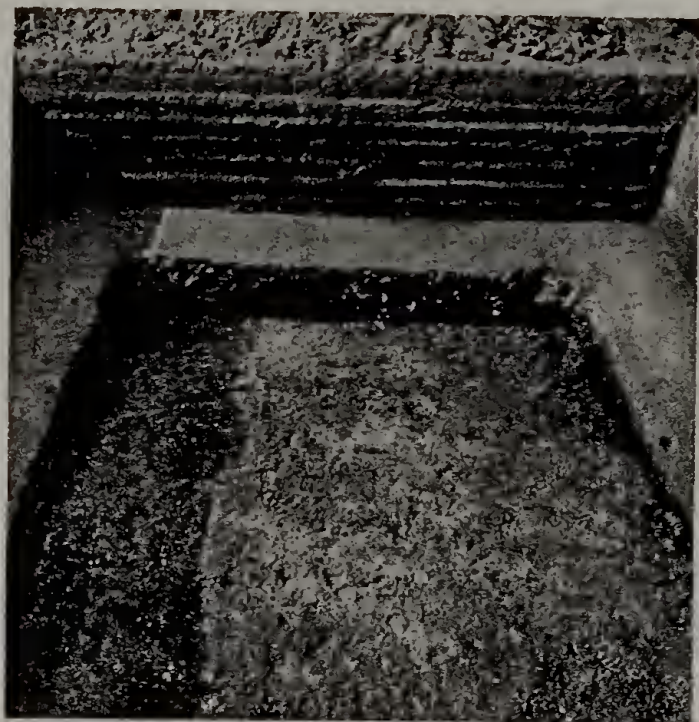
2. 贝M120 : 21  
4. 象牙梳子M116 : 15

## Photograph 26

### Group B graves

1. Remnants of the construction planks for the burial chamber of M2 (S-N)
2. M4 (W-E)
3. M48 (S-N)
4. Implements at the north end of M48 (S-N)





1	2
3	4

# 乙组墓

1. M2墓室板筑痕迹(南—北)

3. M48(南—北)

2. M4(西—东)

4. M48北端器物(南—北)



## Photograph 27

### Group B graves

1. M57 (S-N)
2. M46 (S-N).
3. M58 (N-S)
4. Bronze vessels excavated from M58 (S-N)



1	2
3	4

### 乙组墓

1. M57 (南—北)  
3. M58 (北—南)

2. M46 (南—北)  
4. M58 出土铜器 (南—北)

## Photograph 28

### Group B graves

1. Full view of grave M3 (S-N)
2. Tool markings on the wall of grave M3
3. Rammed earth in the fill of M3





1	
2	3

# 乙组墓

1. M3墓坑全景（南—北）  
2. M3墓壁工具痕

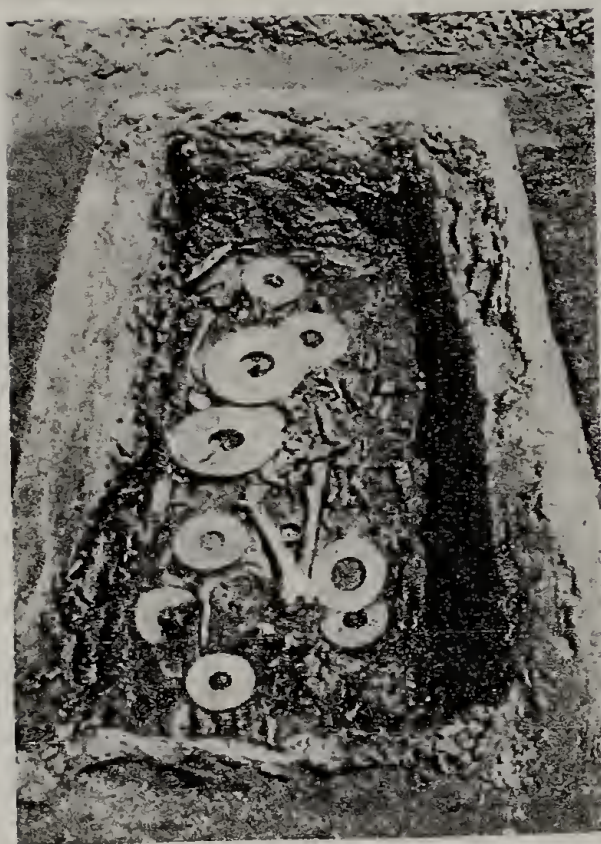
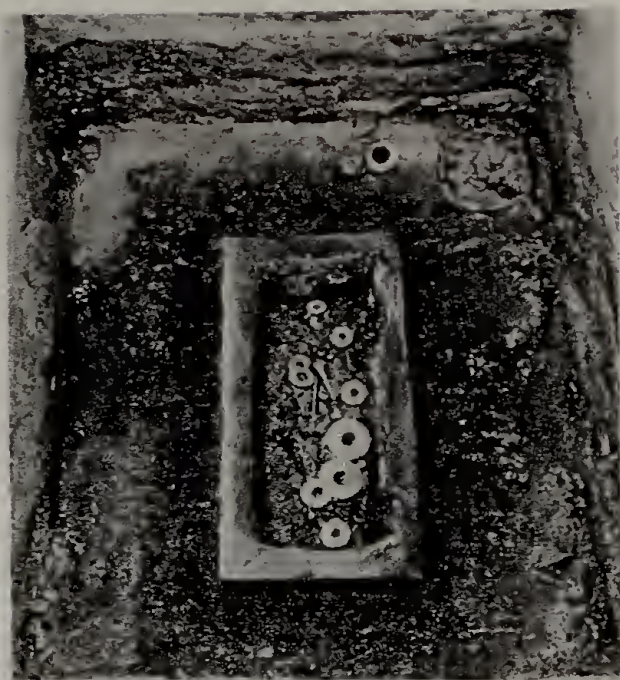
3. M3填土夯窝



## Photograph 29

### Group B graves

1. M54 grave pit (S-N)
2. M52 outer coffin chamber (N-S)
3. The situation of the jade *bi* disks on the upper level when grave M52 was excavated (S-N)
4. The situation of the jade *bi* disks and gold clothing ornaments on the lower level when grave M52 was excavated (S-N)



1	2
3	4

# 乙组墓

1. M54 墓坑 (南—北)

2. M52 槨室 (北—南)

3. M52 上层玉璧出土情形 (南—北)

4. M52 下层玉璧和金带饰出土情形 (南—北)

## Photograph 30

### Group B grave and sacrificial horse pit

1. The layout of the jade horse, jade garment hook, and turquoise inlaid silver garment hook, which were excavated from grave M3
2. Horse pits numbers One (top right), Two (top left), and Three (bottom right) (N-S)
3. Horse Pit number Six (N-S)





1. M3玉马、玉带钩、镶绿松石银带钩出土情况



2. 1(右上)、2(左上)、3(右下)号马坑(北—南)



3. 6号马坑(北—南)

### 乙组墓和殉马坑



Photograph 31

Group B Western Zhou grave pottery vessel assemblage

1. M57 pottery vessels
2. M38 pottery vessels



1 · M57 陶器



2 · M38 陶器

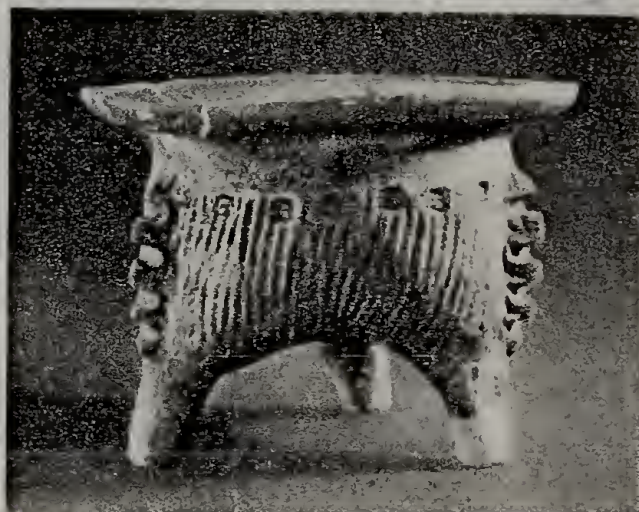
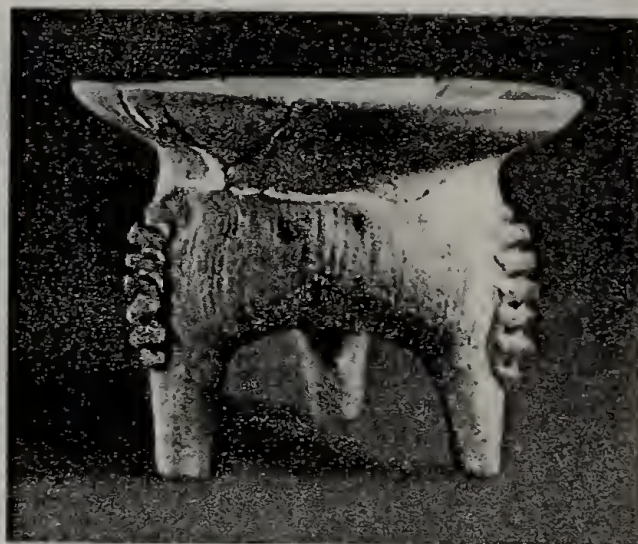
乙组西周墓陶器组合

## Photograph 32

Group B Western Zhou grave pottery *li*

1. Type I, M44: 1
2. Type II, M35: 1
3. Type II, M57: 4
4. Type IV, M11: 2
5. Type VI, M30: 67
6. Type V, M23: 2





1	2
3	4
5	6

乙组西周墓陶鬲

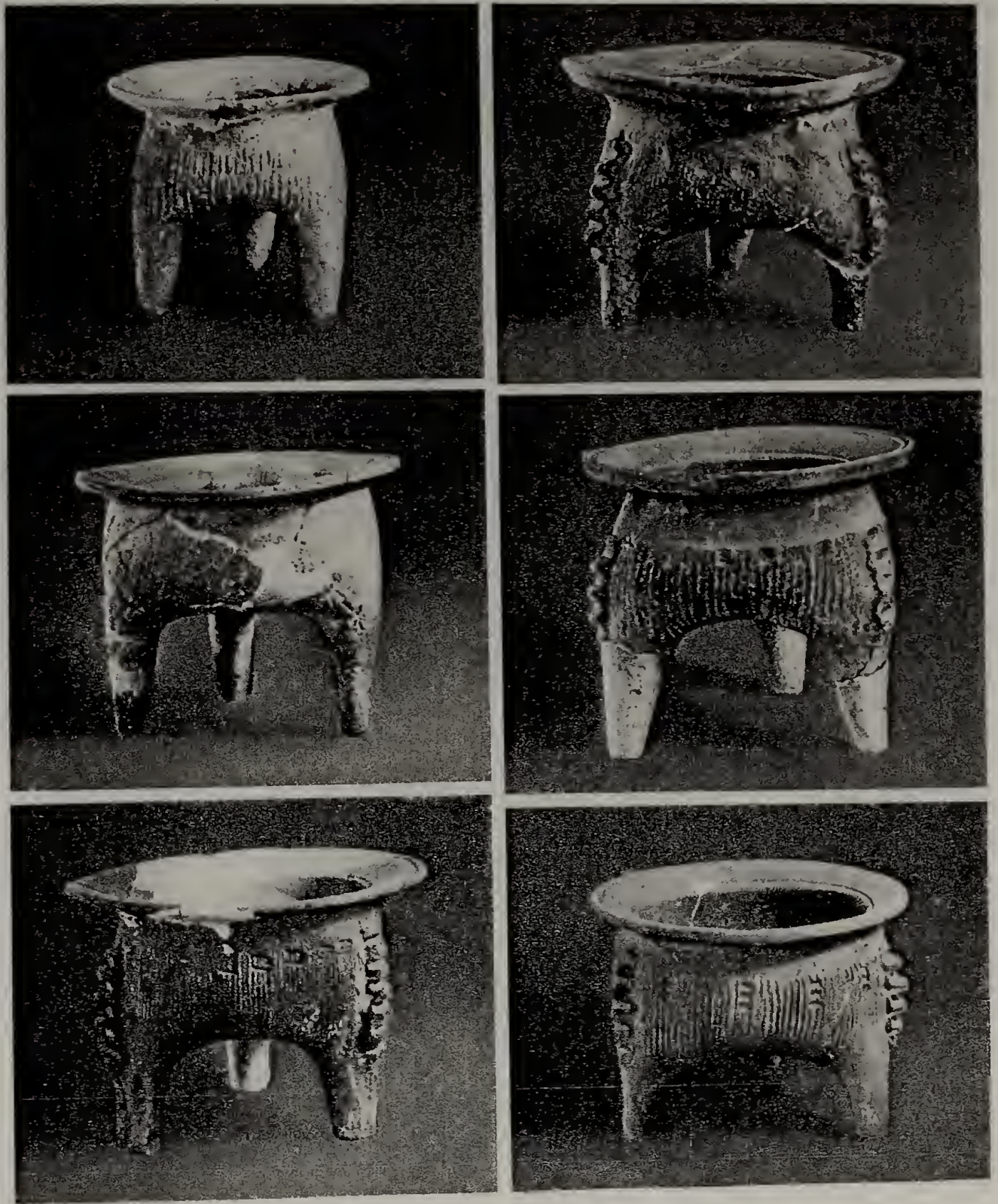
- |                |               |
|----------------|---------------|
| 1. I式M44 : 1   | 2. II式M35 : 1 |
| 3. II式M57 : 4  | 4. IV式M11 : 2 |
| 5. VI式M30 : 67 | 6. V式M23 : 2  |



Photograph 33

Group B Western Zhou grave pottery *li*

1. Type VIII, M26: 3.
2. Type IX, M19: 3
3. Type VII, M49: 11
4. Type X, M15: 3
5. Type XI, M56: 5
6. Type XII, M14: 4



乙组西周墓陶鬲

1	2
3	4
5	6

1. Ⅶ式 M26 : 3  
3. Ⅶ式 M49 : 11  
5. Ⅺ式 M56 : 5

2. Ⅸ式 M19 : 3  
4. X式 M15 : 3  
6. Ⅳ式 M14 : 4

## Photograph 34

Group B Western Zhou grave pottery *guan*

1. Type I, M57: 5
2. Type III-A, M57: 6
3. Type III-B, M11: 1
4. Type V-A, M24: 2.
5. Type IV, M11: 3
6. Type V-B, M29: 5
7. Type II-B, M29: 4
8. Type VI, M38: 2





乙组西周墓陶罐

1	2
3	4
5	6
7	8

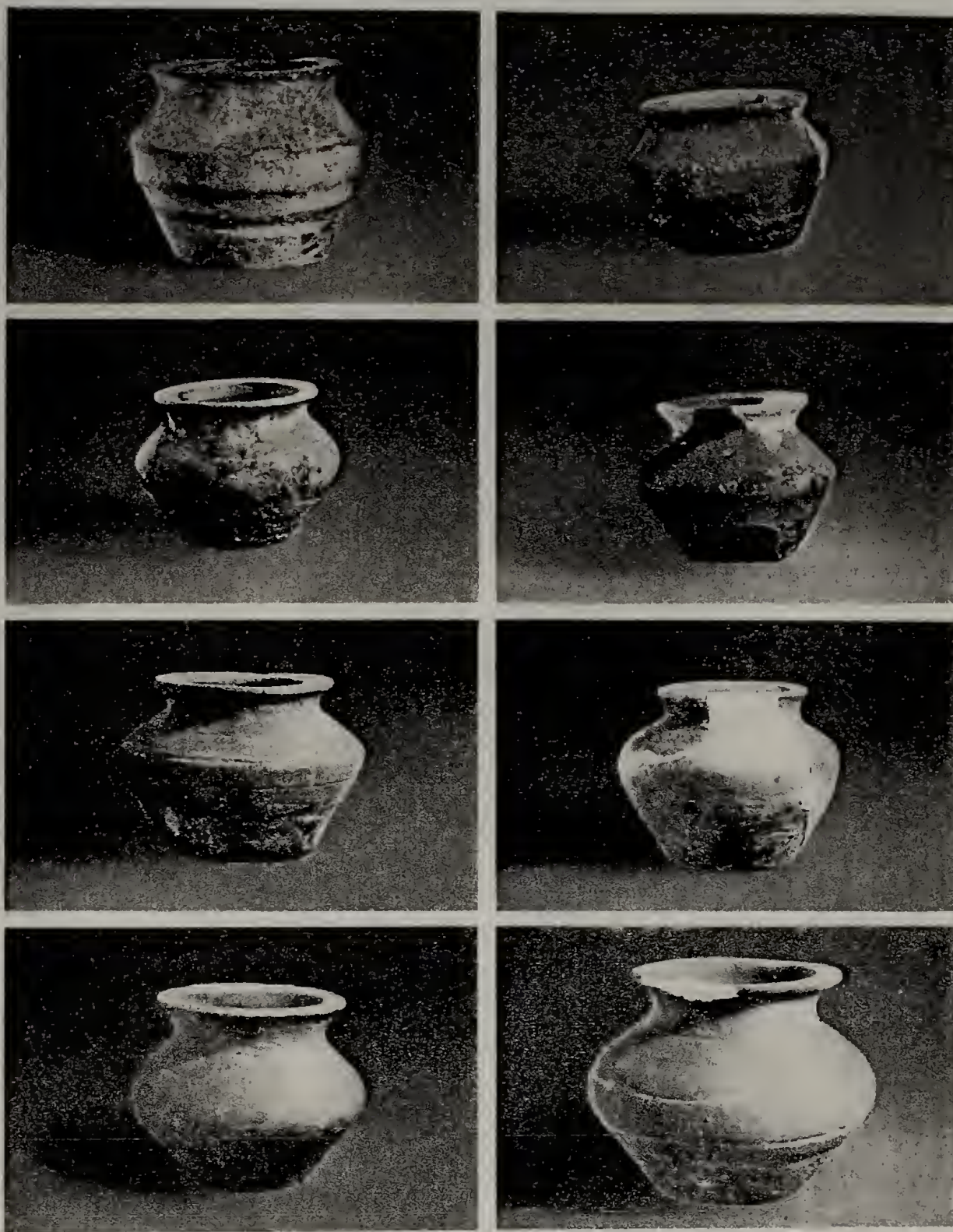
1. I 式 M57 : 5      2. III A 式 M57 : 6  
 3. III B 式 M11 : 1      4. V A 式 M24 : 2  
 5. IV 式 M11 : 3      6. V B 式 M29 : 5  
 7. II B 式 M29 : 4      8. VI 式 M38 : 2



## Photograph 35

### Group B Western Zhou grave pottery *guan*

1. Type VII, M38: 3
2. Type III-C, M30: 59
3. Type IX-A, M48: 31
4. Type X-A, M48: 13
5. Type XI-A, M49: 10
6. Type VIII, M49: 21
7. Type IX-B, M8: 2
8. Type IX-C, M32: 5



1	2
3	4
5	6
7	8

乙组西周墓陶罐

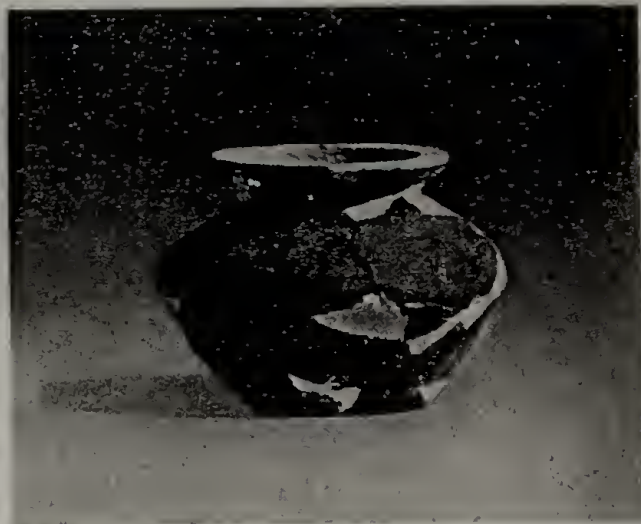
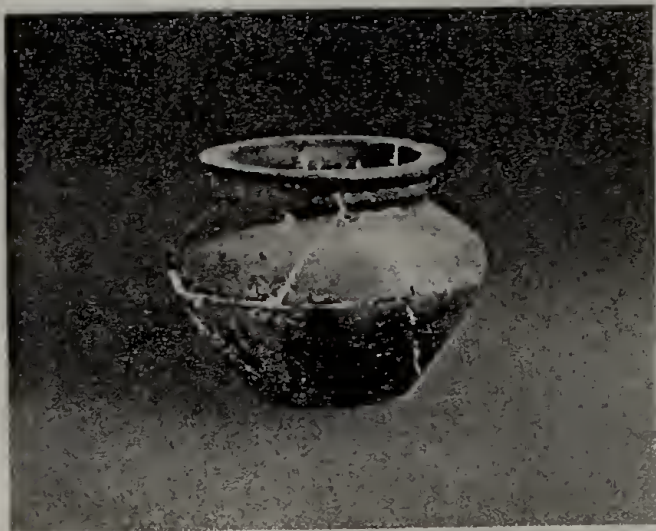
- |                  |                 |
|------------------|-----------------|
| 1. Ⅶ式M38 : 3     | 2. Ⅲ C式M30 : 59 |
| 3. Ⅸ A式M48 : 31  | 4. X A式M48 : 13 |
| 5. XI A式M49 : 10 | 6. Ⅷ式M49 : 21   |
| 7. Ⅸ B式M8 : 2    | 8. Ⅸ C式M32 : 5  |

## Photograph 36

Group B Western Zhou grave pottery *guan*

1. Type X-B, M8: 4
2. Type XI-B, M32: 14
3. Type XII, M56: 2
4. Type XIII-A, M32: 2
5. Type XIV, M27: 1
6. Type XIII-B, M27: 6





1	2
3	4
5	6

乙组西周墓陶罐

1. XB式M 8 : 4

2. XB式M 32 : 14

3. Ⅱ式M 56 : 2

4. XIII A式M 32 : 2

5. XIV式M 27 : 1

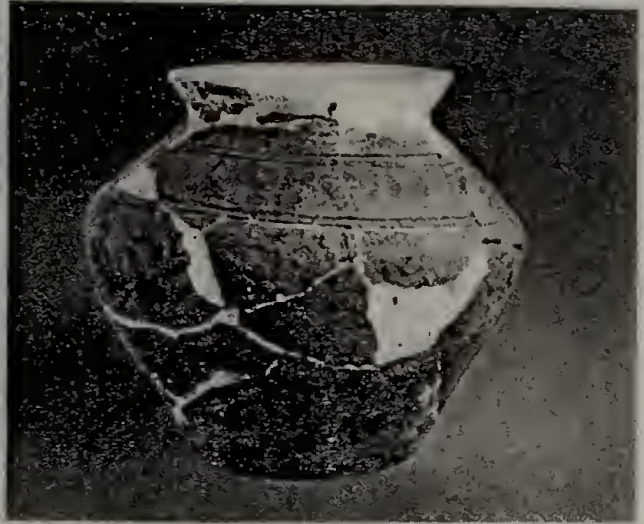
6. XIII B式M 27 : 6



Photograph 37

Group B Western Zhou grave pottery *guan*

1. Type XV, M27: 5
2. Type XVI, M7: 2
3. Type XIX, M50: 1
4. Type XVII, M7: 3.
5. Type XVIII, M22: 2



乙组西周墓陶罐

1. XV式M27 : 5      2. XVI式M7 : 2  
3. XIX式M50 : 1      4. XVII式M7 : 3  
5. XVIII式M22 : 2

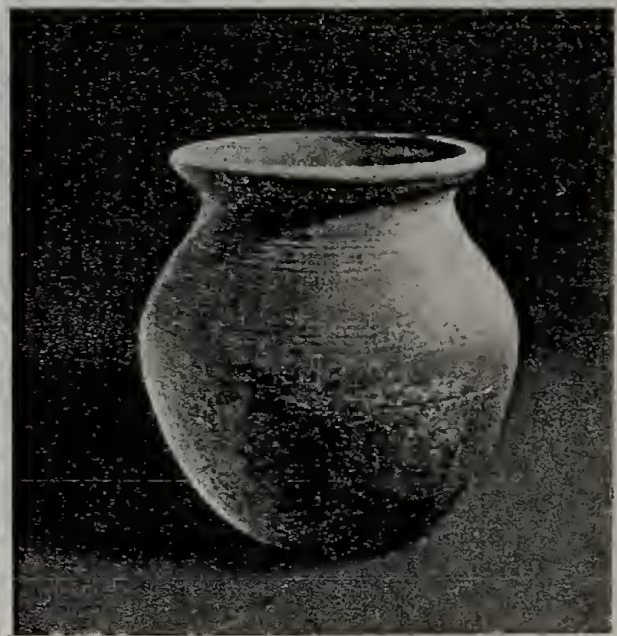
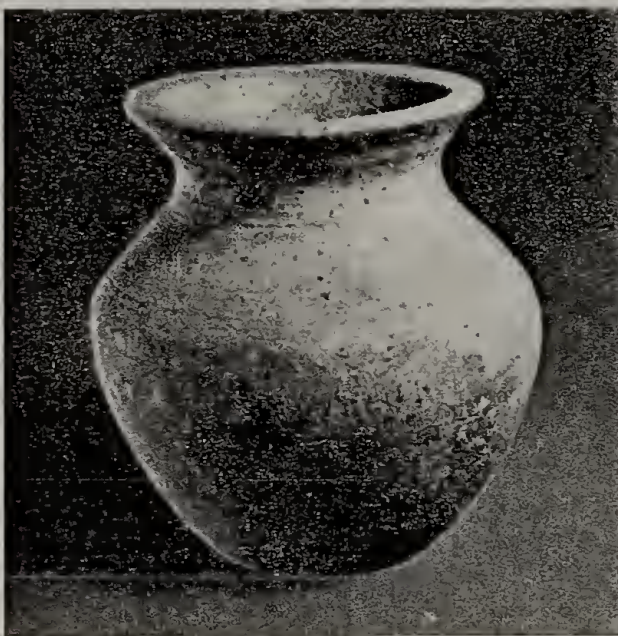
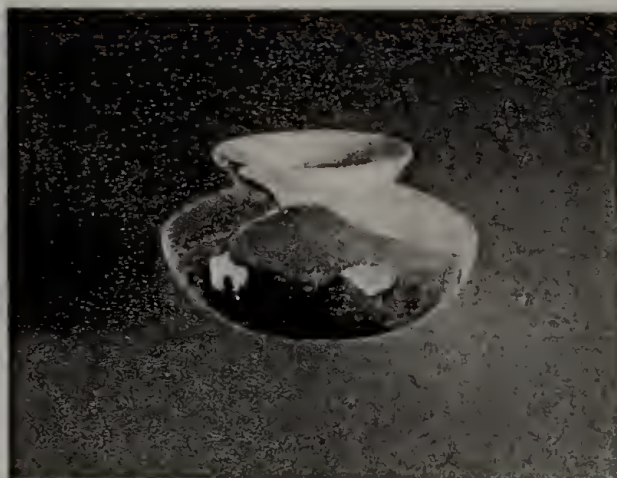
1	2
3	4
5	

## Photograph 38

Group B Western Zhou grave pottery *guan*

1. Type XX, M10: 2
2. Type XXI, M10: 1
3. Type XXII-A, M15: 4
4. Type XXII-B, M15: 5
5. Type XXIII-A, M14: 5
6. Type XXIII-B, M14: 6





1	2
3	4
5	6

乙组西周墓陶罐

1. XX式M 10 : 2  
3. XXIIA式M 15 : 4  
5. XXIII A式M 14 : 5

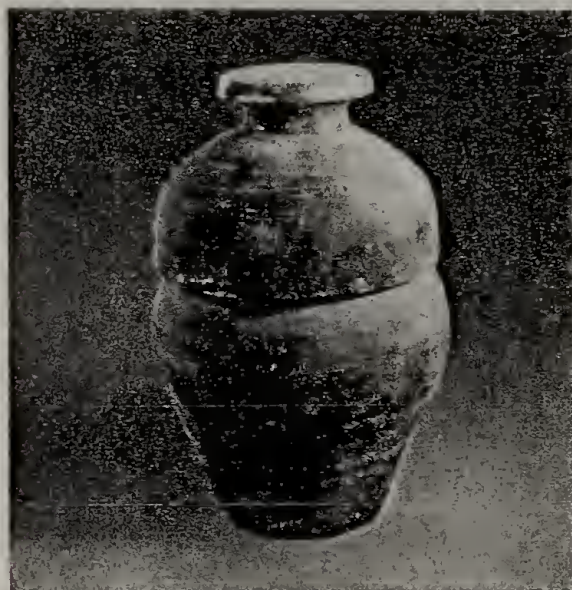
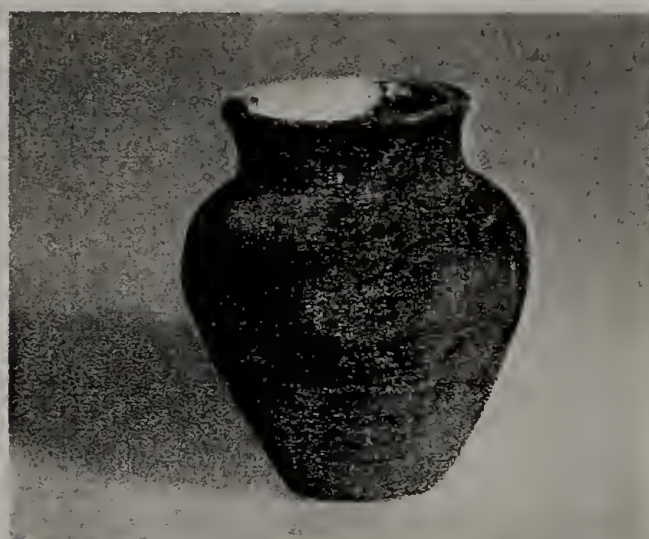
2. XXI式M 10 : 1  
4. XXII B式M 15 : 5  
6. XXIII B式M 14 : 6



## Photograph 39

Group B Eastern Zhou grave pottery *guan*

1. Type XXVI-A, M1: 9
2. Type XXV, M2: 7
3. Type XXIV, M18: 5
4. Type XXVI-B, M3: 39
5. Type XXVII, M51: 2
6. Type XXVII, M51: 2



乙组东周墓陶罐

1	2
3	4
5	6

1. XXVIA式M1 : 9

3. XXIV式M18 : 5

5. XXVII式M51 : 2

2. XXV式M2 : 7

4. XXVIB式M3 : 39

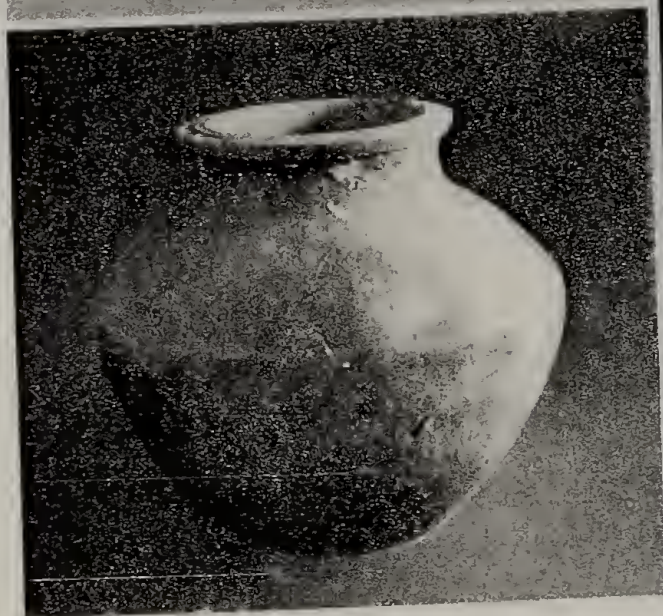
6. XXVII式M51 : 2

## Photograph 40

### Group B Eastern Zhou grave pottery vessels

1. Type XXVIII *guan*, M47: 3
2. Type III *lei*, M51: 3
3. Type II *lei*, M47: 1
4. Type XXIX *guan*, M58: 87
5. Type I *lei*, M1: 6





乙组东周墓陶器

1	4
2	5
3	

1. 罐 XXVIII 式 M 47 : 3  
2. 罍 III 式 M 51 : 3  
3. 罍 II 式 M 47 : 1

4. 罐 XXXIX 式 M 58 : 87  
5. 罍 I 式 M 1 : 6



## Photograph 41

### Group B Eastern Zhou grave pottery vessels

1. Type I *fu*, M2: 1
2. Type II-A *fu*, M 47: 2
3. Type II-B *fu*, M58: 110
4. Type IV *fu*, M54: 2
5. Type III *fu*, M54: 1
6. *Jian*, M1: 18



1	2
3	4
5	6

乙组东周墓陶器

1. 釜 I 式 M2 : 1

2. 釜 II A 式 M 47 : 2

3. 釜 II B 式 M 58 : 110

4. 釜 IV 式 M54 : 2

5. 釜 III 式 M54 : 1

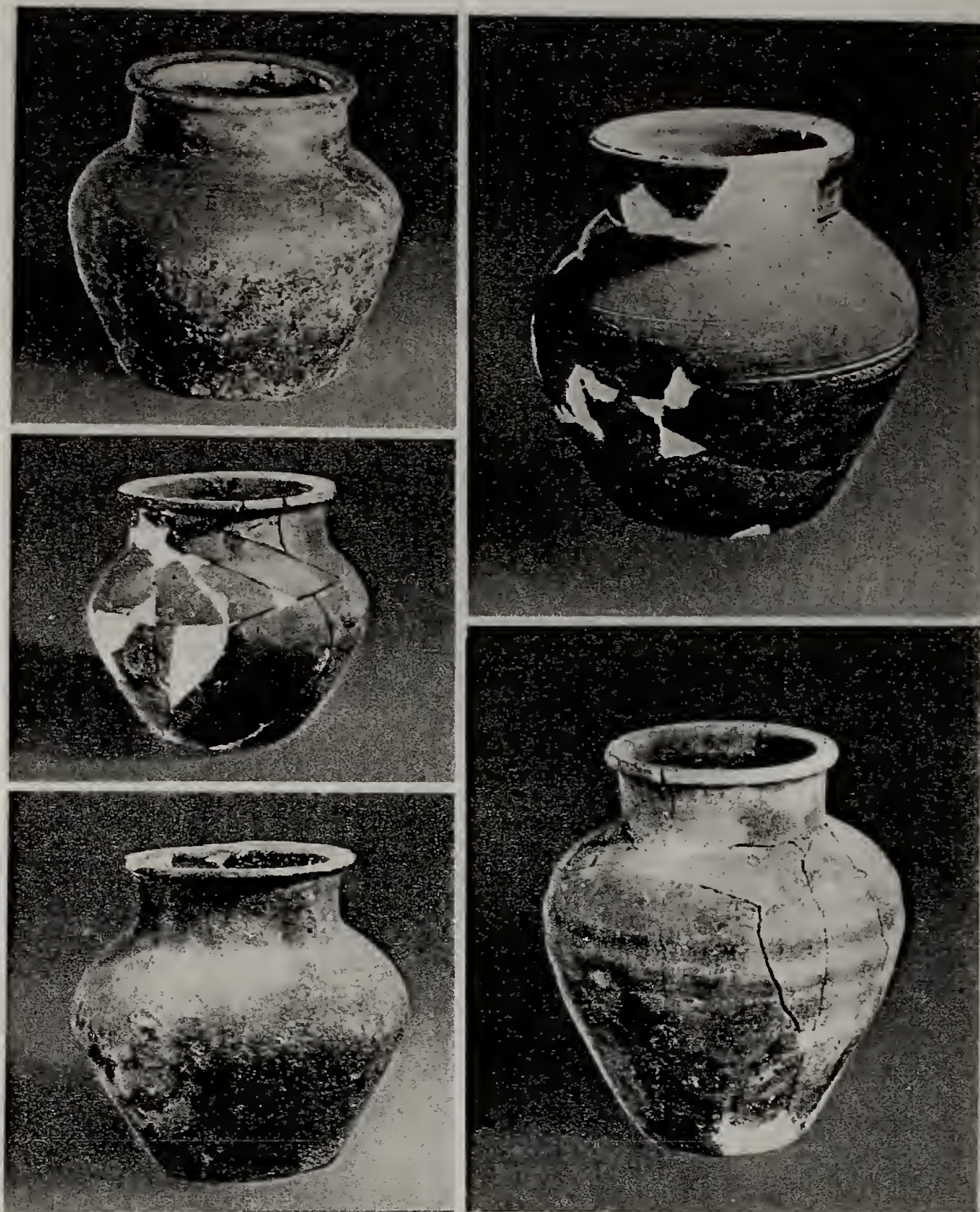
6. 釜 M1 : 18

## Photograph 42

Group B Eastern Zhou grave pottery *hu*

1. Type I, M18: 9
2. Type II, M4: 7
3. Type II, M47: 4
4. Type III, M52: 92
5. Type IV, M52: 101





乙组东周墓陶壶

1	4
2	
3	5

1. I式M18 : 9  
2. II式M4 : 7  
3. II式M47 : 4

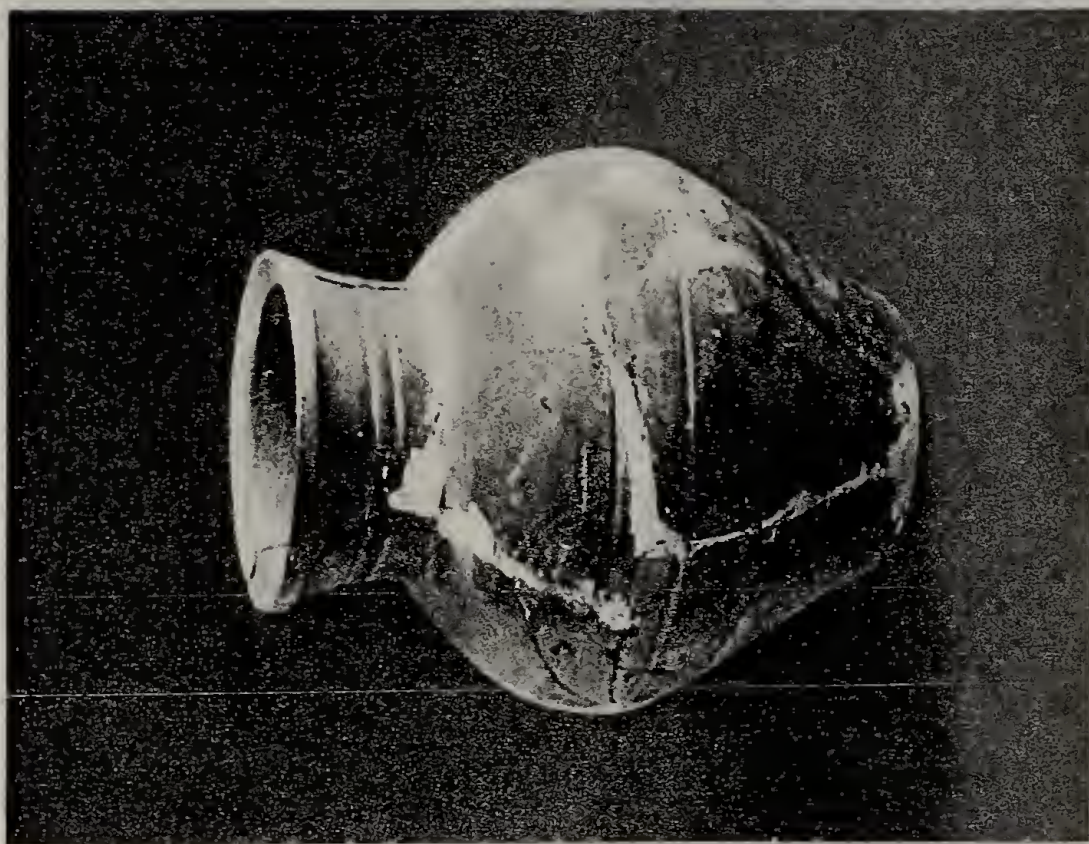
4. III式M52 : 92  
5. IV式M52 : 101



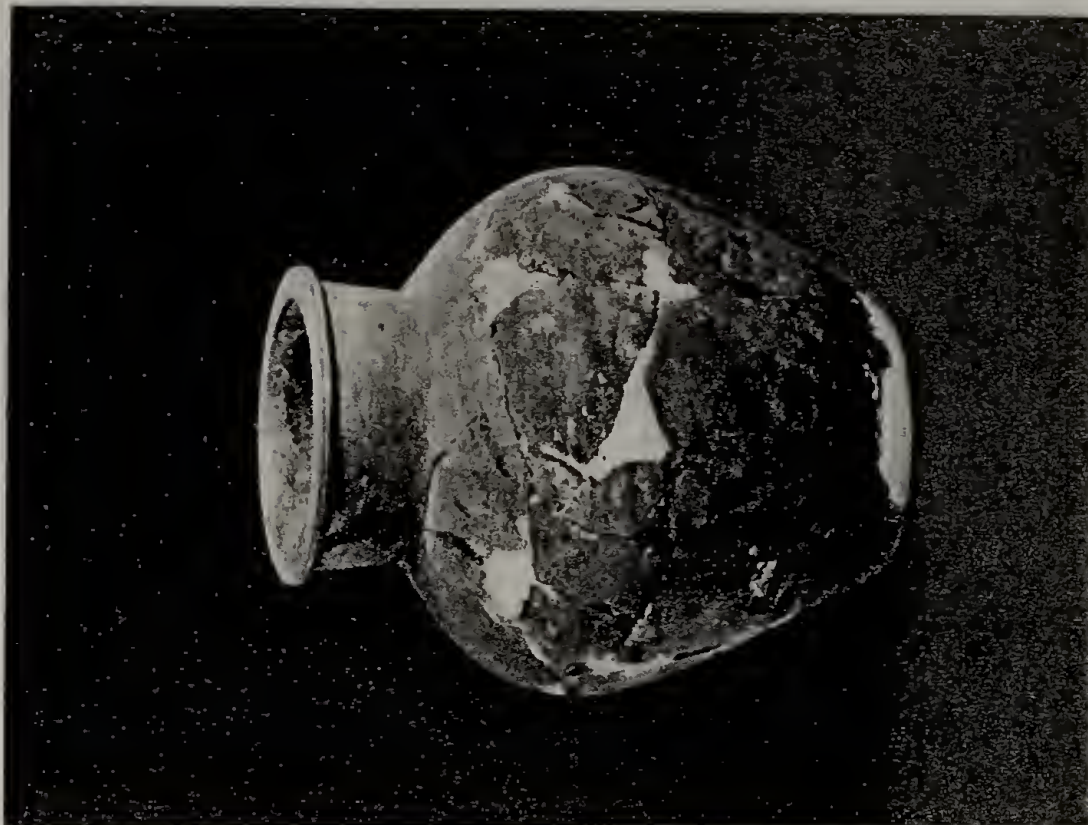
Photograph 43

Group B Eastern Zhou grave pottery *hu*

1. Type V, M3: 19
2. Type VI, M58: 89



1. V 式 M3 : 19



2. VI 式 M58 : 89

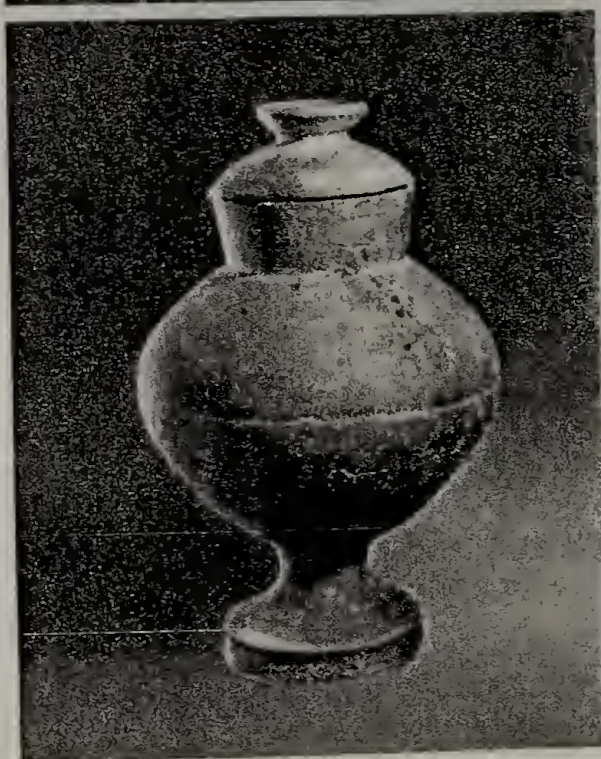
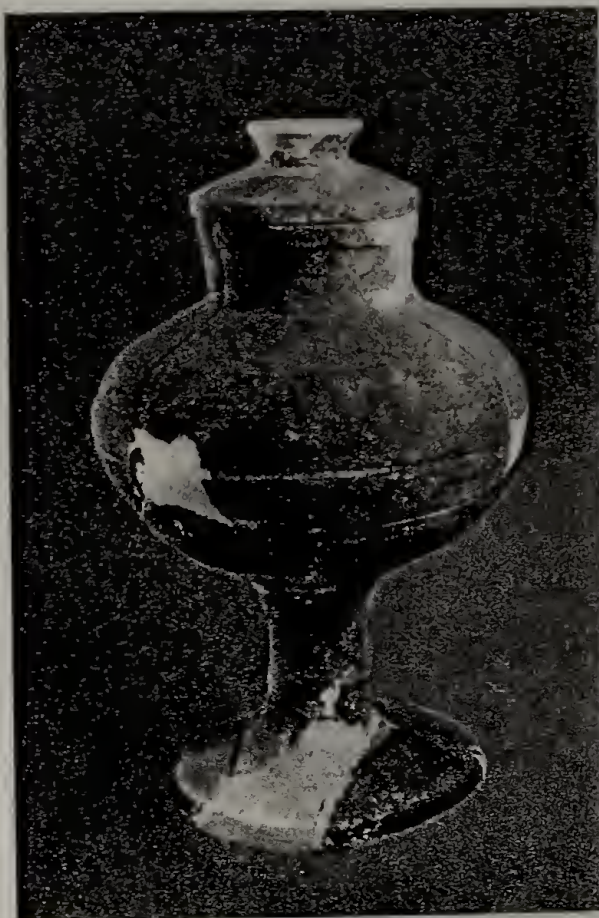
乙组东周墓陶壶

Photograph 44

Group B Eastern Zhou grave pottery ring foot *hu*

1. Type I-A, M3: 66
2. Type I-B, M3: 59
3. Type II-A, M54: 3
4. Type II-B, M54: 4





1	2
3	4

乙组东周墓圈足壶

1. I A式 M3 : 66  
3. II A式 M54 : 3

2. I B式 M3 : 59  
4. II B式 M54 : 4



## Photograph 45

### Group B Eastern Zhou grave implements

1. Pottery *yi* inner mold, M58: 84
2. Type VII bronze *ding*, M58: 95
3. *Shi lian* food case, M3: 65
4. Type II porcelain *guan*, M58: 105
5. Type I porcelain *guan*, M52: 99



1. 陶匣内范M58 : 84
2. 铜鼎Ⅶ式M58 : 95
3. 食奩M3 : 65
4. 瓷罐Ⅱ式M58 : 105
5. 瓷罐Ⅰ式M52 : 99

1	4
2	5
3	

乙组东周墓器物

## Photograph 46

Group B Western Zhou grave bronze *ding*

1. Type I, M23: 1
2. Type II, M11: 12
3. Type III, M20: 1
4. Type IV, M30: 1





1. I 式 M23 : 1



2. II 式 M11 : 12



3. III 式 M20 : 1



4. IV 式 M30 : 1

乙组西周墓铜鼎



## Photograph 47

Group B Western Zhou grave bronze *ding*

1. Type IV, M46: 1
2. Type V, M48: 23
3. Type V, M48: 3
4. Type VI, M14: 3



1	2
3	4

乙组西周墓铜鼎

1. IV式M46 : 1  
3. V式M48 : 3

2. V式M48 : 23  
4. VI式M14 : 3

Photograph 48

Group B Western Zhou grave bronze *pan* and *yan*

1. Type II *pan*, M48: 8
2. Detail of *pan*
3. *Yan*, M48: 15





1	
2	3

乙组西周墓铜盘、铜甗

1. 盘 II 式 M48 : 8

2. 盘细部

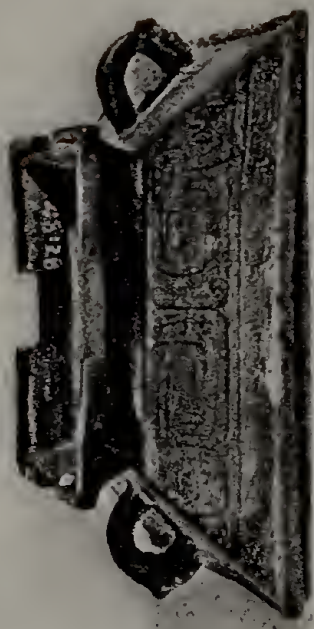
3. 甗 M48 : 15



Photograph 49

Group B Western Zhou grave bronze xu and fu

1. Xu, M30: 2
2. Xu, M48: 2
3. Xu, M30: 2
4. Fu, M48: 28



1	2
3	4

乙组西周墓铜罍、铜尊

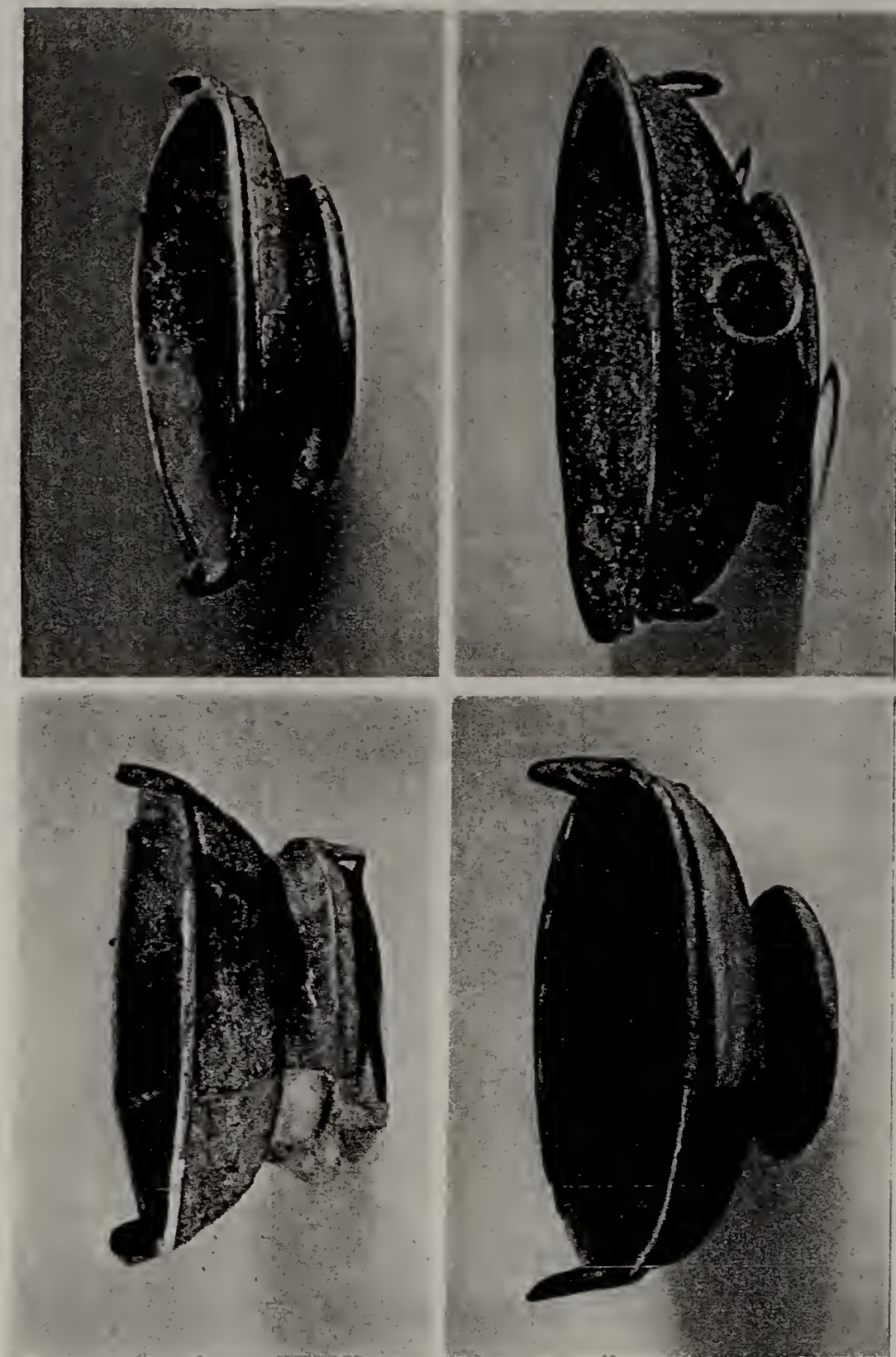
1. 罍 M30 : 2      2. 罍 M48 : 2  
3. 罍 M30 : 2      4. 罍 M48 : 28

Photograph 50

Group B grave bronze *pan*

(1 to 3: Western Zhou; 4: Eastern Zhou)

1. Type I, M30: 3
2. Type III, M48: 5
3. Type IV, M49: 3
4. Type V, M52: 98



乙组墓铜盘 (1—3, 西周, 4, 东周)

1. I 式 M30 : 3      2. III 式 M48 : 5  
3. IV 式 M49 : 3    4. V 式 M52 : 98

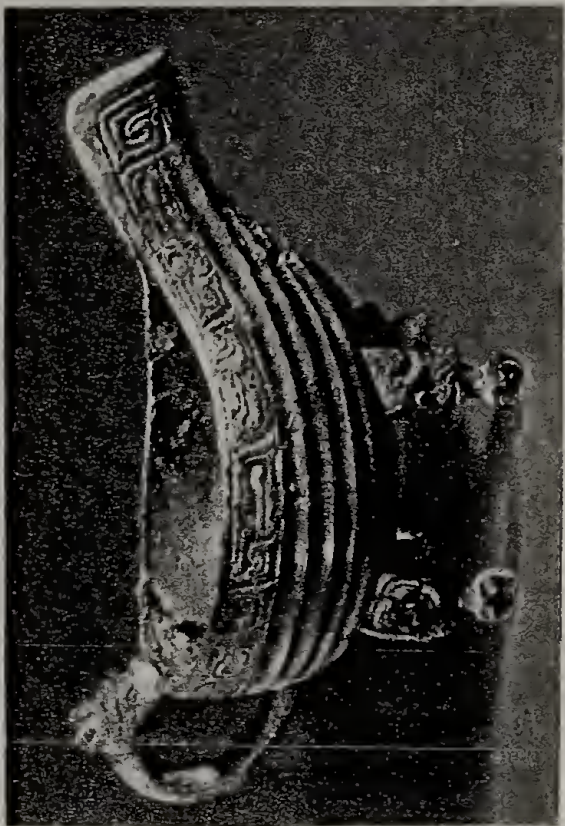
1	2
3	4



Photograph 51

Group B Western Zhou grave bronze *yi*

1. M49: 5
2. M30: 4
3. M48: 11
4. M48: 4



乙组西周墓铜匜

1 - M49 : 5  
2 - M30 : 4  
3 - M48 : II  
4 - M48 : 4

1	2
3	4

## Photograph 52

### Group B grave bronze vessels

1. Type I *gui*, M46: 2
2. Type II *gui*, M49: 2
3. Type I *gui*, M48: 9
4. Type I *hu*, M30: 32
5. *Guan*, M58: 99
6. *Bo*, M58: 91





1	2
3	4
5	6

乙组墓铜器

1. 簋 I 式 M46 : 2  
3. 簋 I 式 M48 : 9  
5. 罐 M58 : 99

2. 簋 II 式 M49 : 2  
4. 壶 I 式 M30 : 32  
6. 钵 M58 : 91



Photograph 53

Bronze *hu* from Group B Western Zhou grave, M48: 16



## Photograph 54

### Group B grave bronze vessels

1. *Fou*, M58: 100
2. *Zhui hu*, M58: 98
3. Type II *hu*, M3: 31
4. Type III *hu*, M58: 108



乙组东周墓铜器

1	2
3	4

1. 缶M58 : 100

2. 钺壶M58 : 98

3. 壶Ⅱ式M3 : 31

4. 壶Ⅲ式M58 : 108



Photograph 55

Gold and silver inlaid bronze finial from Group B Eastern Zhou grave, M3: 42







### Photograph 56

Group B Eastern Zhou grave bronze and iron garment hooks

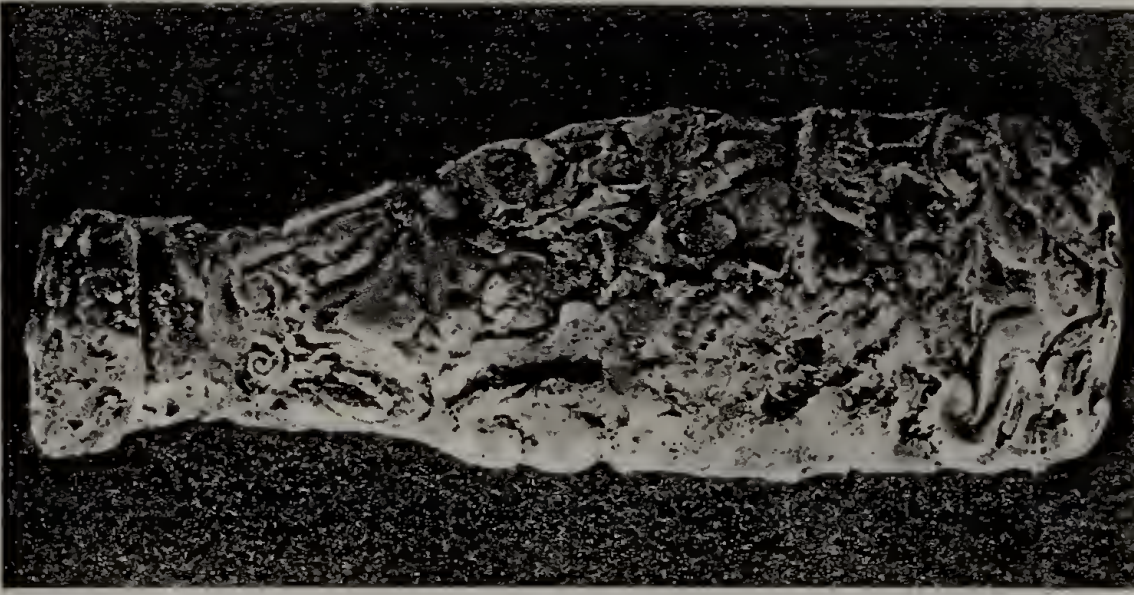
1. Gold and silver inlaid bronze garment hook, M51: 8 (front)
2. Gold and silver inlaid bronze garment hook, M51: 8 (back)
3. Gold and silver inlaid iron garment hook, M58: 117



1. 嵌金银铜带钩M51:8 (正面)



2. 嵌金银铜带钩M51:8 (背面)



3. 错金银铁带钩M58:117

乙组东周墓铜、铁带钩



## Photograph 57

### Group B grave weapons and bronze ornaments

(1 to 3, 7: Western Zhou; 4 to 6, Eastern Zhou)

1. Type I bronze *ge*, M20: 4
2. Type I bronze *ge*, M31: 2
3. Type II bronze *ge*, M30: 56
4. Type I bronze *zu* arrowheads, M3-60; Type II, M3: 71
5. Bronze crossbow mechanism, M52: 75
6. Bronze crossbow mechanism, M3: 61
7. Belt awl tip M48: 61



### 乙组墓兵器和铜饰

(1—3、7.西周; 4—6.东周)

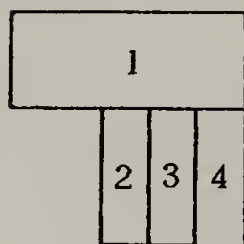
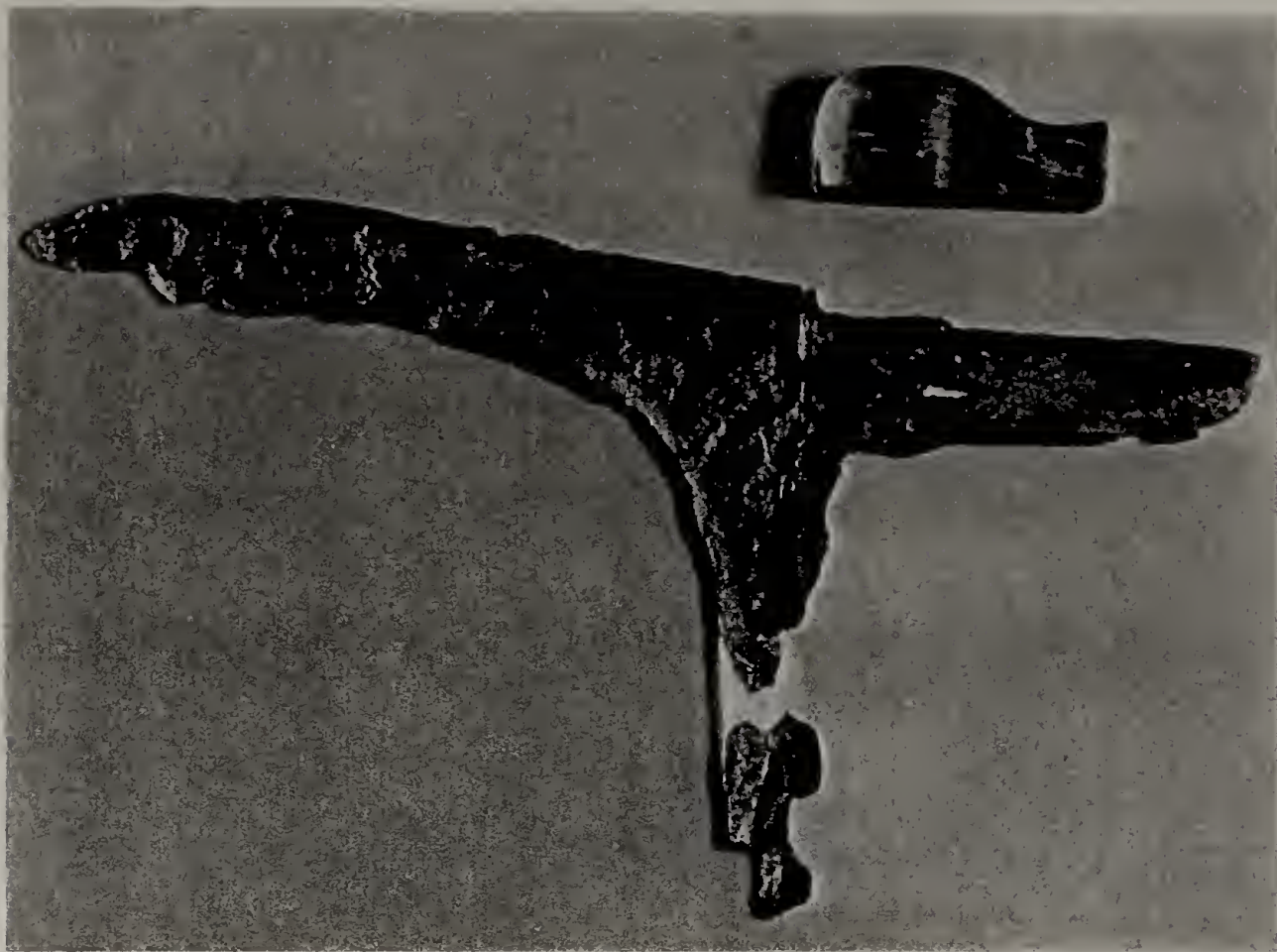
1	2
	3
4	5
6	7

- |                                 |                  |
|---------------------------------|------------------|
| 1. 铜戈 I 式 M20 : 4               | 5. 铜弩机 M52 : 75  |
| 2. 铜戈 I 式 M31 : 2               | 6. 铜弩机 M3 : 61   |
| 3. 铜戈 II 式 M30 : 56             | 7. 带锥器冒 M48 : 61 |
| 4. 铜镞 I 式 M3 : 60, II 式 M3 : 71 |                  |

## Photograph 58

### Group B Eastern Zhou grave weapons

1. Type III bronze *ge* and *bimao* endpiece, M3: 1
2. Bronze *zun* sword ferrule, M52: 102
3. Bronze *zun* sword ferrule, M3: 1
4. Bronze *dui* handle, M52: 105



乙组东周墓兵器

1. 铜戈Ⅲ式和秘冒M3 : 1
2. 铜镞M52 : 102
3. 铜镞M3 : 1
4. 铜镞M52 : 105





## Photograph 59

### Group B Western Zhou grave chariot and horse fittings

1. Type II *wei* axle cap, M48: 33
2. Type I *wei* axle cap, M46: 4
3. Type III *wei* axle cap, Horse Pit Number Six
4. Bronze *xiyao*, *huan*, round *pao*, butterfly shaped tube ornament, *jieyue* (Horse Pit Six)



乙组西周墓车马器

1	2
3	
4	

1. 晋II式M48 : 33  
3. 晋III式六号马坑

2. 晋I式M46 : 4  
4. 铜细腰、环、圆泡、蝶形管饰、节约 (六号马坑)

## Photograph 60

Group B Western Zhou grave chariot and horse fittings

(2, Eastern Zhou; remainder, Western Zhou)

1. *Ling* bell, M48: 32
2. *Ling*, M2: 2
3. *Ling*, M48: 41
4. *You huan*, M30: 45
5. *xian* curb bit, *biao* curb chain, M48: 50, 49





乙组墓车马器  
(2. 东周, 余西周)

1	2
3	4
5	

1. 铃 M48 : 32

2. 铃 M2 : 2

3. 铃 M48 : 41

4. 游环 M30 : 45

5. 衔, 镗 M48 : 50、49



## Photograph 61

Group B grave chariot and horse fittings and stand

(8, Eastern Zhou; remainder, Western Zhou)

1. Tube ornaments with attached animal head, M48: 54
2. *Jieyue*, M48:48
3. Type I *taotie* head, M48: 42
4. *Biao* curb chain, M30: 52
5. Bridle ornaments, M48: 46
6. *Xiyao*, M30: 13
7. Type II *taotie* heads, M30: 34
8. Bronze stand, M52: 90



乙组墓车马器和器座

(8·东周, 余西周)

1	5
2	6
3	7
4	8

1. 带兽头管饰M48 : 54

2. 节约M48 : 48

3. 饕餮头I式M48 : 42

4. 镞M30 : 52

5. 簪饰M48 : 46

6. 细腰M30 : 13

7. 饕餮头II式M30 : 34

8. 铜器座M52 : 90

## Photograph 62

### Group B grave implements

(2, Western Zhou; remainder, Eastern Zhou)

1. Outer coffin nails, M3: 75
2. Bronze adze, M57: 1
3. Bronze *dao* blade, M52: 43
4. Bronze *chan* shovel, M52: 100.
5. Bronze *xiao* scraper, M52: 127
6. Grindstones, M52: 10.67
7. Bronze scraper mounted in a jade *huan* ring, M28: 1





1	2	4
3		
5		
6	7	

乙组墓器物  
(2.西周,余东周)

1. 柳钉M3 : 75      2. 铜铎M57 : 1      3. 铜刀M52 : 43  
4. 铜铲M52 : 100    5. 铜削M52 : 127    6. 错石M52 : 10.67  
7. 铜削玉环首M28 : 1

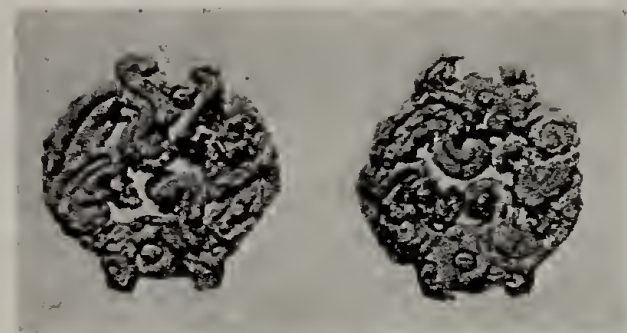
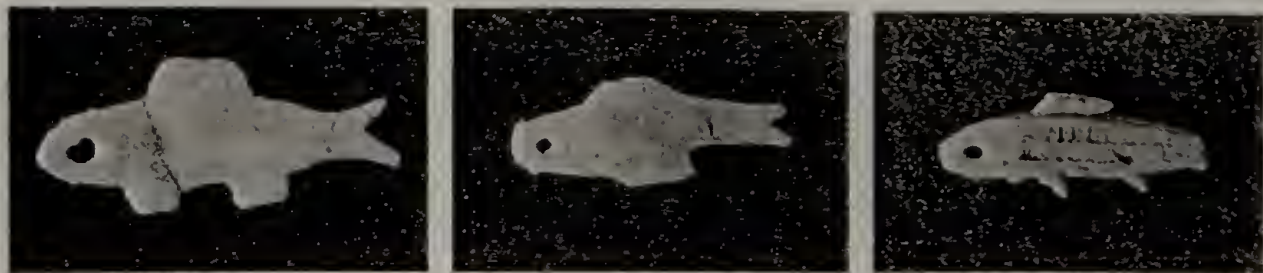


## Photograph 63

### Group B grave implements

(1 to 6, Western Zhou; 7 and 8, Eastern Zhou)

1. Bronze fish, M30: 14
2. Bronze fish, M30: 14
3. Bronze fish, M34: 11
4. Bronze fish, M15: 6
5. Bronze fish M49: 6
6. Bronze waist pendants, M30: 46
7. Bronze garment hook inlaid with gold and jade, M58: 116.
8. Bronze garment hook inlaid with gold and silver, M52: 83



乙组墓器物  
(1—6.西周, 7、8.东周)

1	2	3
4	7	
5		
6		
8		

1. 铜鱼M30 : 14      2. 铜鱼M30 : 14      3. 铜鱼M34 : 11      4. 铜鱼M15 : 6  
5. 铜鱼M49 : 6      6. 铜腰带饰M30 : 46      7. 鎏金镶玉铜带钩M58 : 116  
8. 嵌金银铜带钩M52 : 83

## Photograph 64

Group B Eastern Zhou grave garment hooks

1. Silver garment hook, M52: 81
2. Silver garment hook inlaid with turquoise stones, M3: 10



1. 银带钩M52 : 81



2. 镶嵌绿松石片银带钩M3 : 10

乙组东周墓带钩



Photograph 65

Group B Eastern Zhou gibbon-shaped silver ornament

M3:4

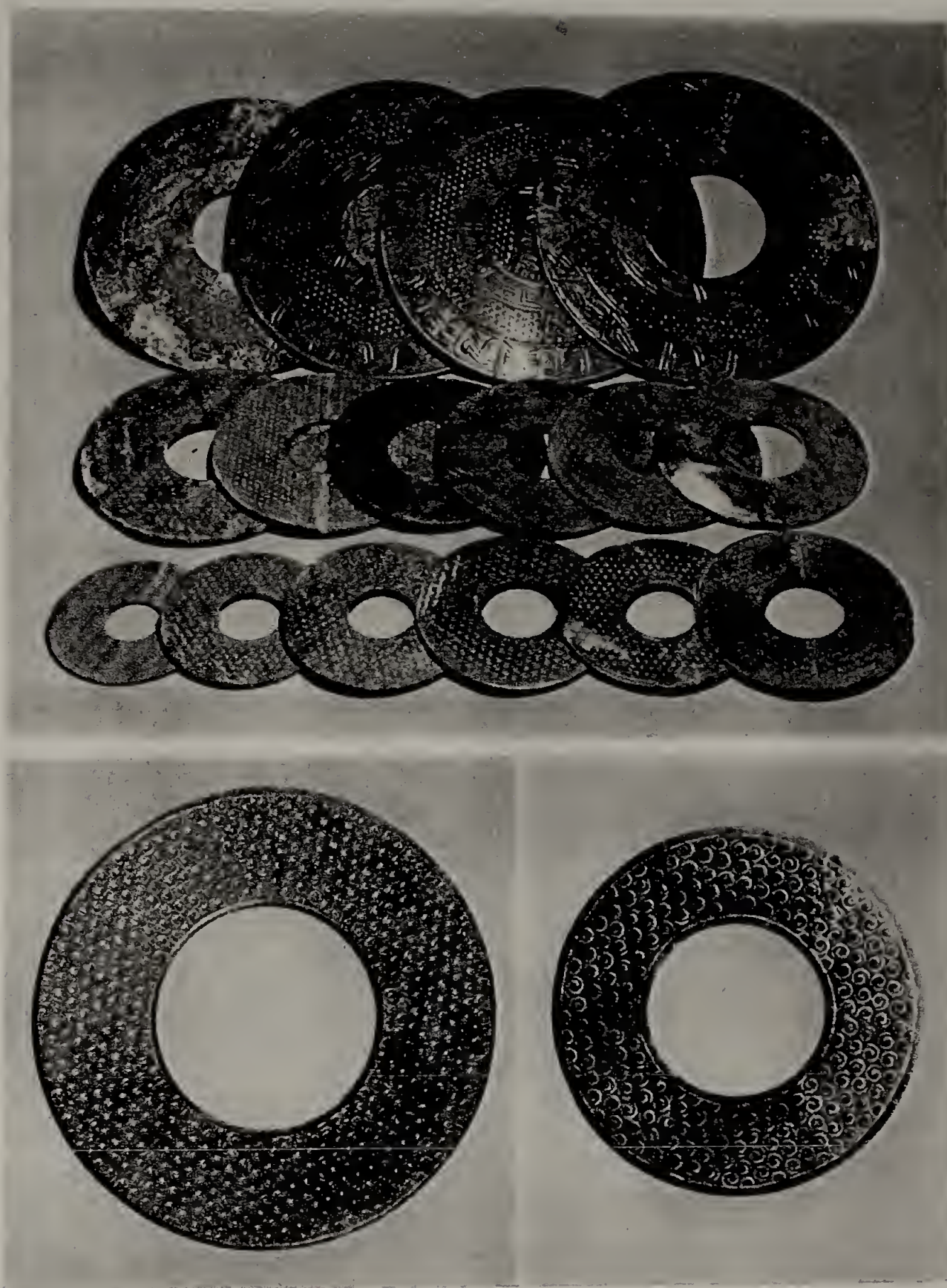


Photograph 66

Group B Eastern Zhou grave jade *bi* disks

1. M52
2. Type III, M52: 72
3. Type III, M52: 82





1	
2	3

乙组东周墓玉璧

1. M52      2. Ⅲ式M52 : 72      3. Ⅲ式M52 : 82



**Photograph 67**

Group B Eastern Zhou jade *bi* disk

Type I, M52: 40



Photograph 68

Group B Eastern Zhou jade *bi* disk

Type I, M52: 3





乙组东周墓玉璧

I式M52：3



Photograph 69

Group B Eastern Zhou jade *bi* disk

Type II, M58: 3



乙组东周墓玉璧

Ⅱ式M58：3

# Photograph 70

Group B Eastern Zhou jade *bi* disks

1. Type II, M58: 5
2. Type II, M52: 1





1. Ⅱ式M58 : 5



2. Ⅱ式M52 : 1

乙组东周墓玉壁

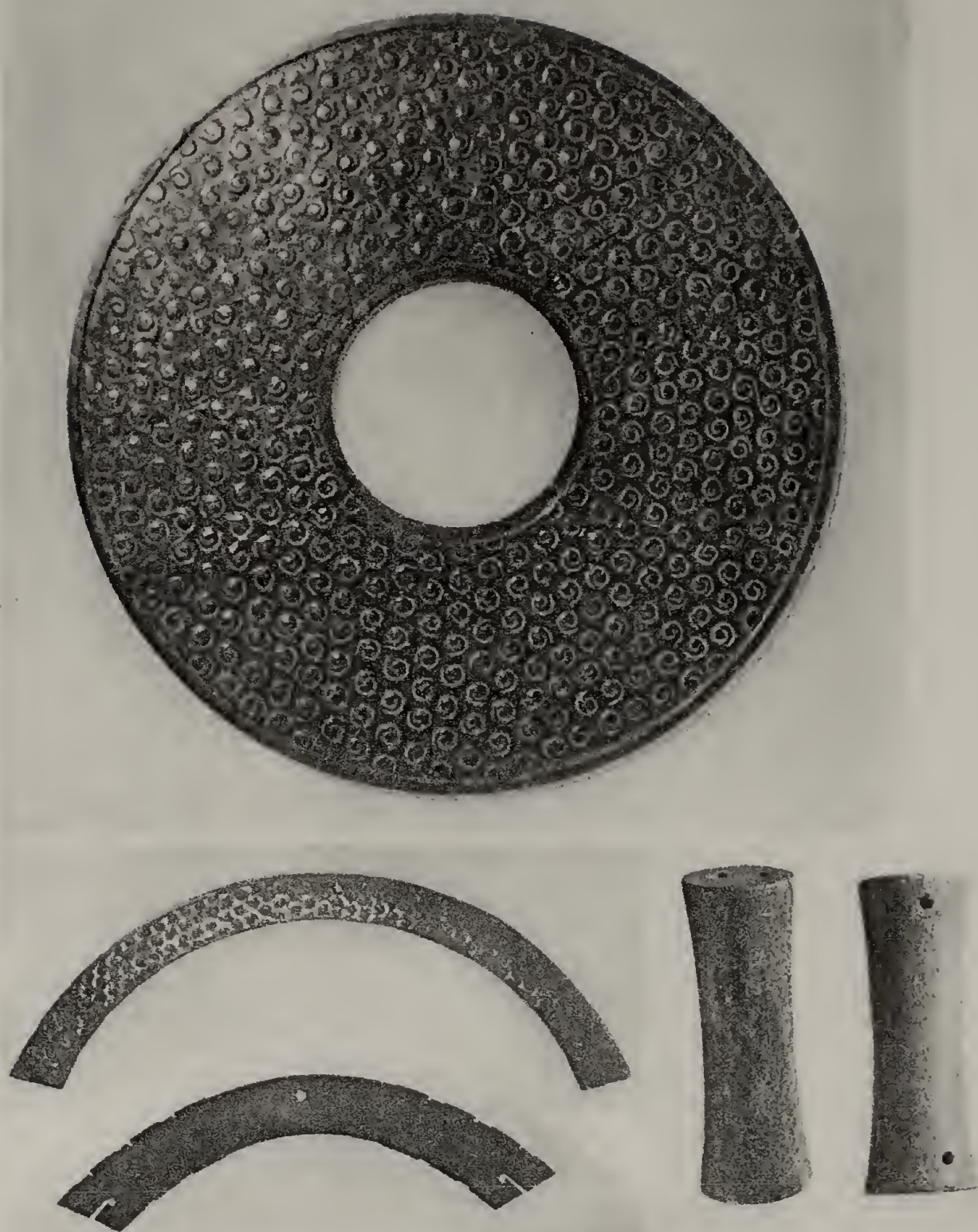


## Photograph 71

Group B grave jade and stone implements

(1 to 3, Eastern Zhou; 4 and 5, Western Zhou)

1. Type III jade *bi* disk, M58: 39
2. Jade *huang*, M58: 49
3. Jade *huang*, M58: 47
4. Cylindrical stone ornaments, M11: 7
5. Cylindrical stone ornaments, M46: 11



乙组墓玉石器

(1—3.东周, 4、5.西周)

1		
2	4	5
3		

1. 玉璧Ⅲ式M58 : 39  
4. 圆柱形石饰M11 : 7

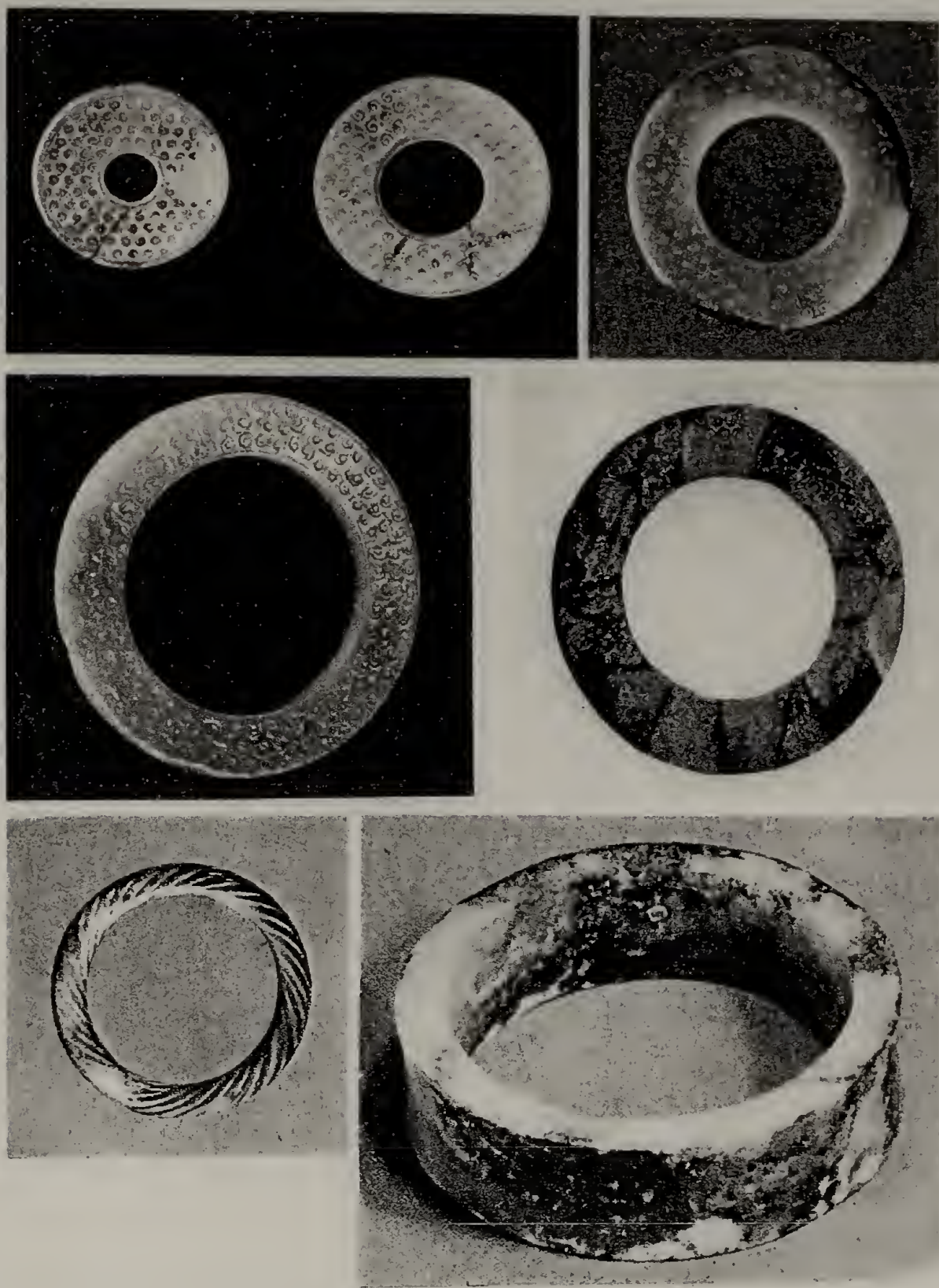
2. 玉璜M58 : 49      3. 玉璜M58 : 47  
5. 圆柱形石饰M46 : 11

Photograph 72

Group B Eastern Zhou grave jade *huan* rings

1. Type III, M52: 26, 27
2. Type III, M52: 8
3. Type II, M3: 35
4. Type II, M52: 28
5. Type I, M52: 14
6. Type IV, M52: 13





1	2
3	4
5	6

乙组东周墓玉环

1. Ⅲ式M52 : 26、27  
3. Ⅱ式M3 : 35  
5. Ⅰ式M52 : 14

2. Ⅲ式M52 : 8  
4. Ⅱ式M52 : 28  
6. Ⅳ式M52 : 13

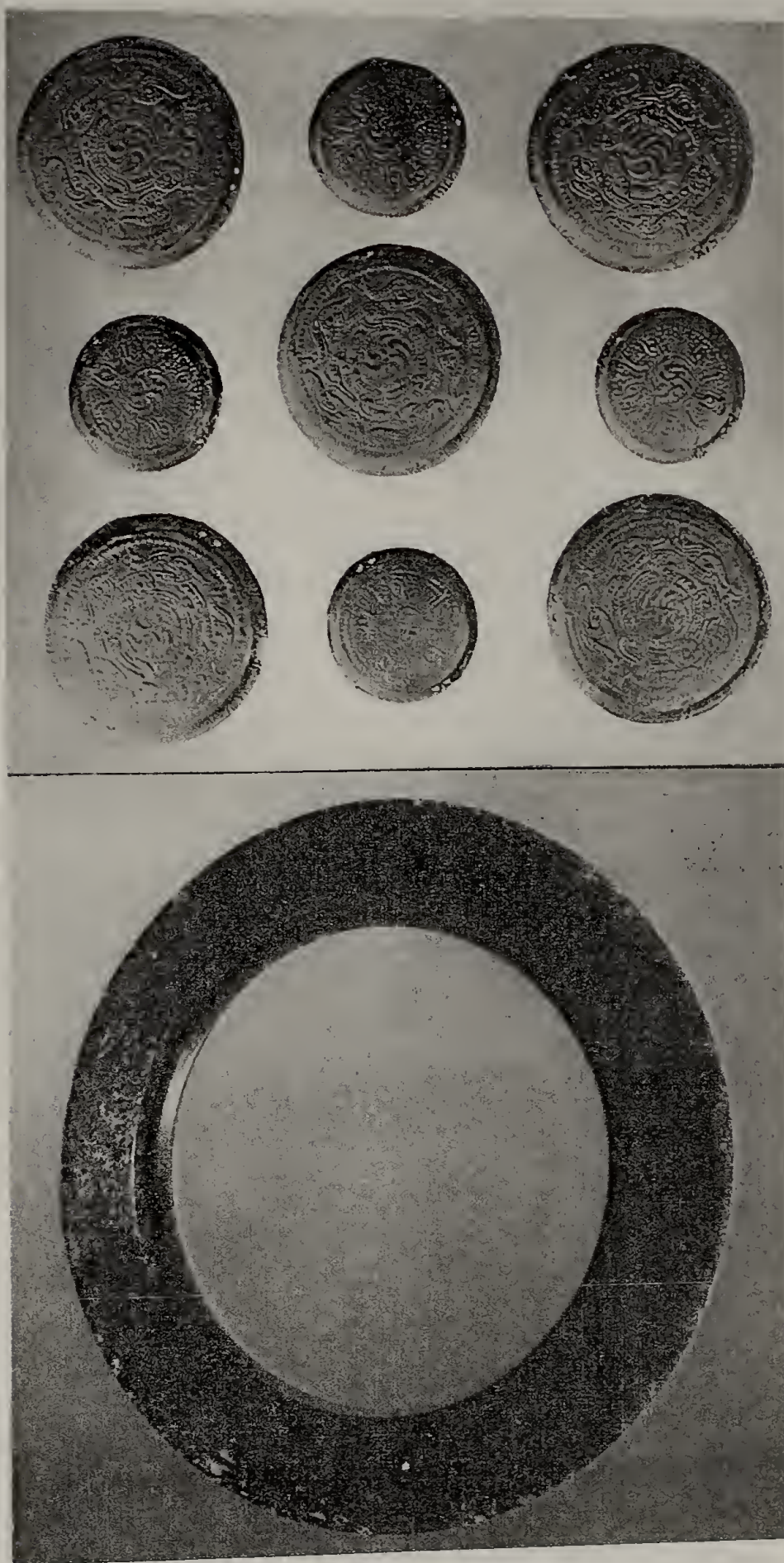


Photograph 73

Group B Eastern Zhou grave agate *huan* ring and gold garment ornaments

Left: Agate *huan* ring, M58: 97

Right: Gold garment ornaments, M52: 57, 58, 50, 60, 49, 56, 61, 62, 59



Photograph 74

Group B grave jade and stone implements

(1: Western Zhou; 2: Eastern Zhou)

1. Necklace, M30: 66

2. Agate *huan* ring, M52: 6



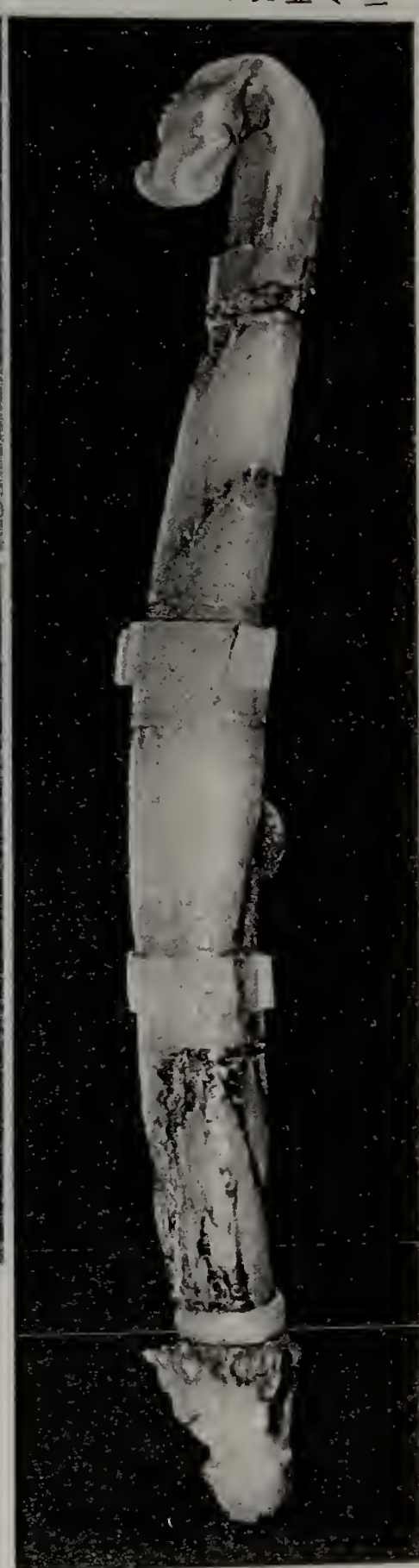




## Photograph 75

### Group B Eastern Zhou grave jade implements

1. Jade horse, M3: 8
2. Jade garment hook, M58: 31
3. Jade garment hook, M3: 9



1	3
2	

乙组东周墓玉器

1. 玉马M3 : 8  
 2. 玉带钩M58 : 31  
 3. 玉带钩M3 : 9

## Photograph 76

### Group B grave jade implements

(7: Western Zhou; remainder Eastern Zhou)

1. Roof tile pattern jade tube, M58: 121
2. Jade tubes, M52: 31, M58: 128, M52: 37
3. Jade tube, M52: 18
4. *Wawen* pattern jade tube, M52: 33
5. Jade tube, M52: 35, 34, 36
6. Round jade piece, M52: 9
7. Type I jade *jue*, M30: 47, M24: 7, M11: 10, M48: 58, M49: 20
8. Type II jade *jue*, M52: 19
9. Jade *she*, M28: 3, M52: 30, M52: 29





1	2	3
4	5	6
7	8	
9		

乙组墓玉器 (7.西周; 余东周)

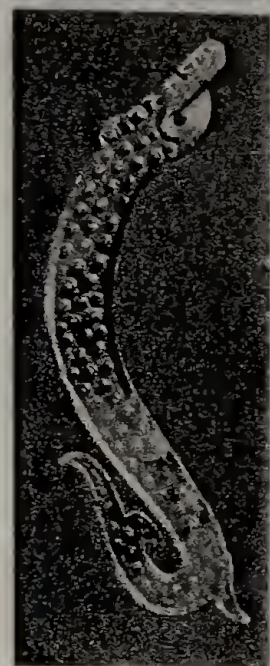
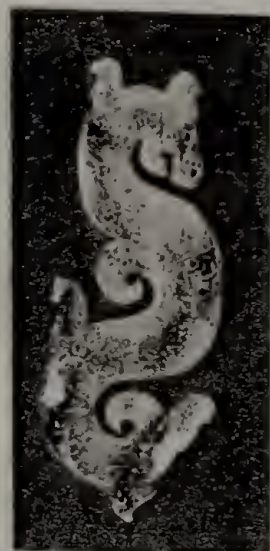
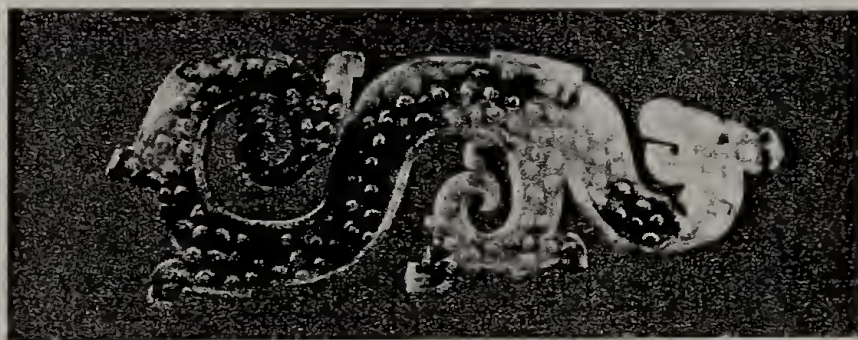
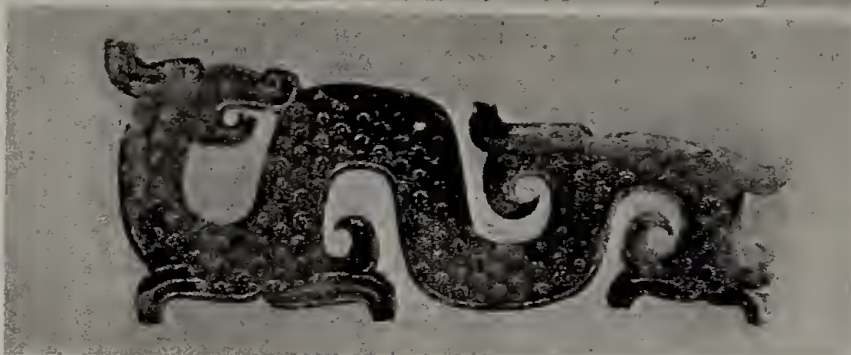
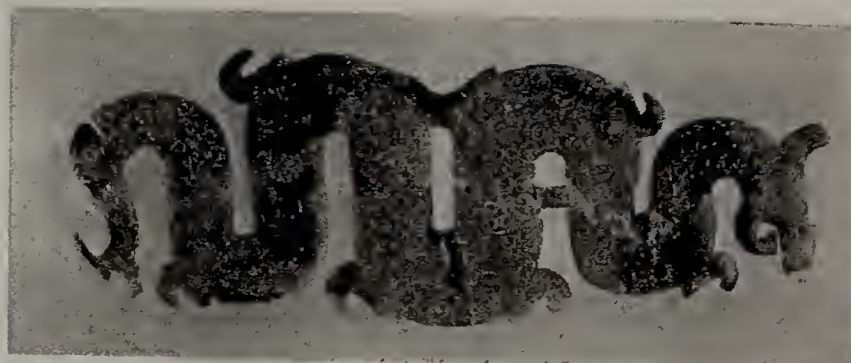
1. 瓦纹玉管M58 : 121      2. 玉管M52 : 31、M58 : 128、M52 : 37      3. 玉管M52 : 18  
4. 瓦纹玉管M52 : 33      5. 玉管M52 : 35、34、36      6. 圆玉片M52 : 9  
7. 玉块I式M30 : 47、M24 : 7、M11 : 10、M48 : 58、M49 : 20  
8. 玉块II式M52 : 19      9. 玉戟M28 : 3、M52 : 30、M52 : 29



## Photograph 77

### Group B Eastern Zhou grave *kui* dragon jade ornaments

1. Type II, M52: 94
2. Type I, M58: 7
3. Type I, M58: 60
4. Type I, M52: 122
5. Type I, M52: 124
6. Type III, M3: 13
7. Type I, M58: 30



1	5
2	
3	6
4	7

乙组东周墓夔龙玉饰

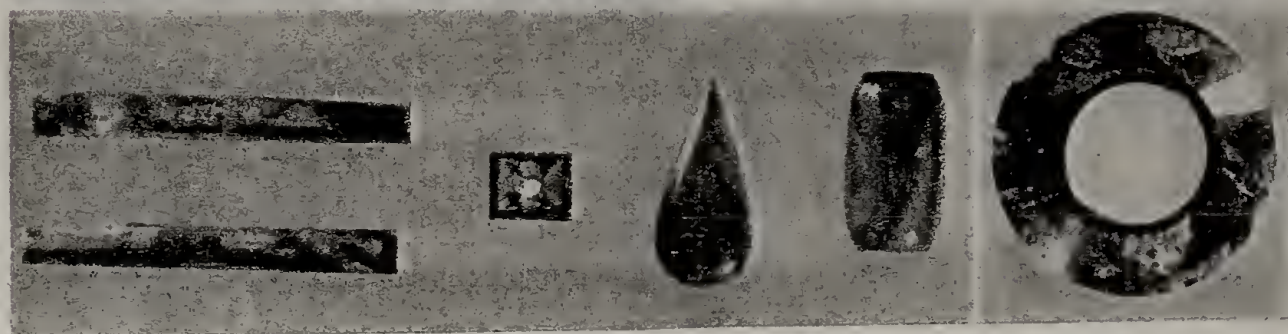
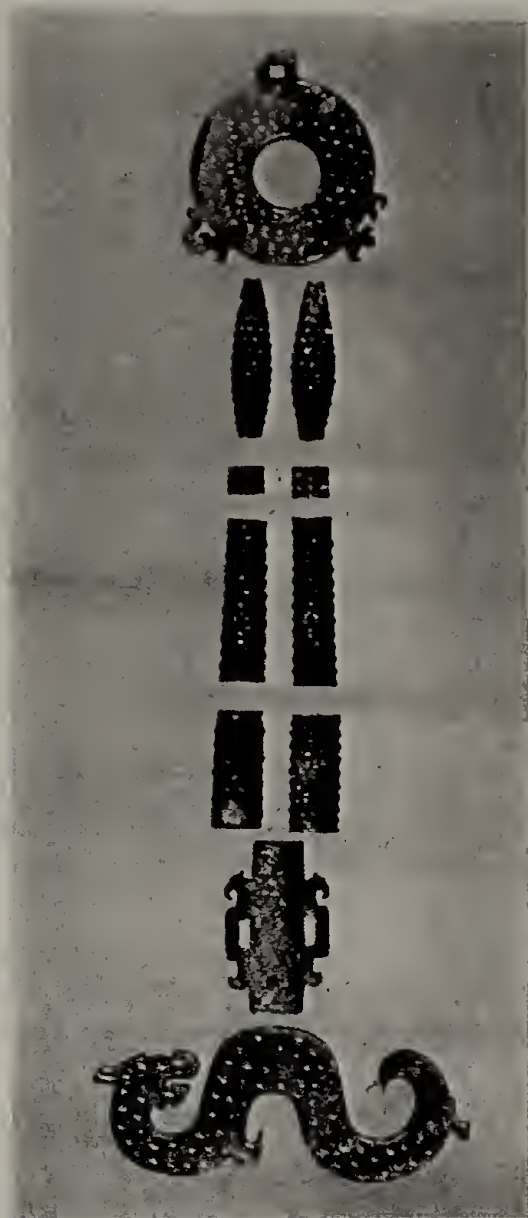
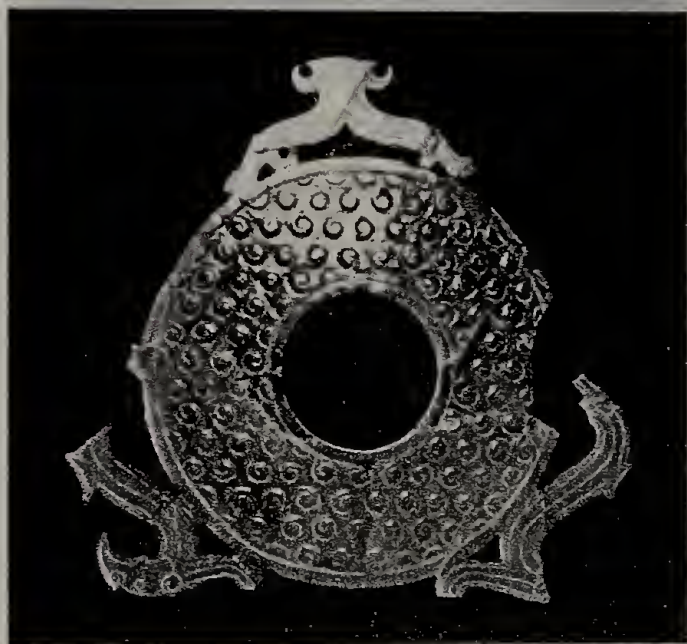
1. II式M52 : 94      2. I式M58 : 7      3. I式M58 : 60  
 4. I式M52 : 122    5. I式M52 : 124    6. III式M3 : 13  
 7. I式M58 : 30

## Photograph 78

### Group B Eastern Zhou grave jade and stone implements

1. Jade *pei* pendant, M58: 122
2. Jade *pei* pendant, M52: 25
3. Jade *pei*, M58: 17, 19, 20, 24, 25, 28, 29, 30, 35, 36, 45
4. Jade baton, M58: 66; square jade bead, M58: 23; peach shaped jade ornament, M58: 103; long drum shaped jade bead M58: 26
5. Agate *huan* ring, M58: 114





乙组东周墓玉石器

1	3
2	
4	5

1. 玉佩饰M58 : 122                      2. 玉佩饰M52 : 25  
 3. 玉佩M58 : 17、19、20、24、25、28、29、30、35、36、45  
 4. 玉棒M58 : 66、方玉珠M58 : 23、桃形玉饰M58 : 103、长鼓形玉珠M58 : 26  
 5. 玛瑙环M58 : 114



## Photograph 79

### Group B Eastern Zhou grave implements

1. *Kui* dragon jade ornaments, M58: 62
2. Type IV *kui* dragon jade ornament, M52: 66
3. Type V and VI *kui* dragon jade ornaments, M52: 121, 12
4. Jade piece decorated with animal face, M52: 55
5. Jade knob, M58: 123
6. Jade knob components
7. Triangular gold garment ornament and gold leaves: M52: 51, 52, 53, 54, 63
8. Four wing-shaped jade and ivory ornament, M58: 112



1	2
3	4
5	6
7	8

乙组东周墓器物

1. 夔龙玉饰M58 : 62      2. 夔龙玉饰Ⅳ式M52 : 66      3. 夔龙玉饰Ⅴ、Ⅵ式M52 : 121、122  
4. 兽面纹玉片M52 : 55      5. 玉器钮M58 : 123      6. 玉器钮构件  
7. 三角形金带饰和金叶M52 : 51、52、53、54、63      8. 四翼形玉牙饰M58 : 112

## Photograph 80

### Group B grave jade implements

(1 to 3, Western Zhou; 4 to 8, Eastern Zhou)

1. Jade *bi* spoon, M48: 6
2. Scabbard shaped jade ornament, M48: 58
3. Scabbard shaped jade ornament, M48: 59
4. Bei tablet shaped jade ornament, M58: 41
5. Arched jade ornament with raised spine, M52: 32
6. Long piece of jade, M58: 48
7. Bei tablet shaped jade ornament, M58: 44
8. Bei tablet shaped jade ornament, M52: 21





### 乙组墓玉器

(1—3.西周; 4—8.东周)

1	2	3	4
5	6	7	8

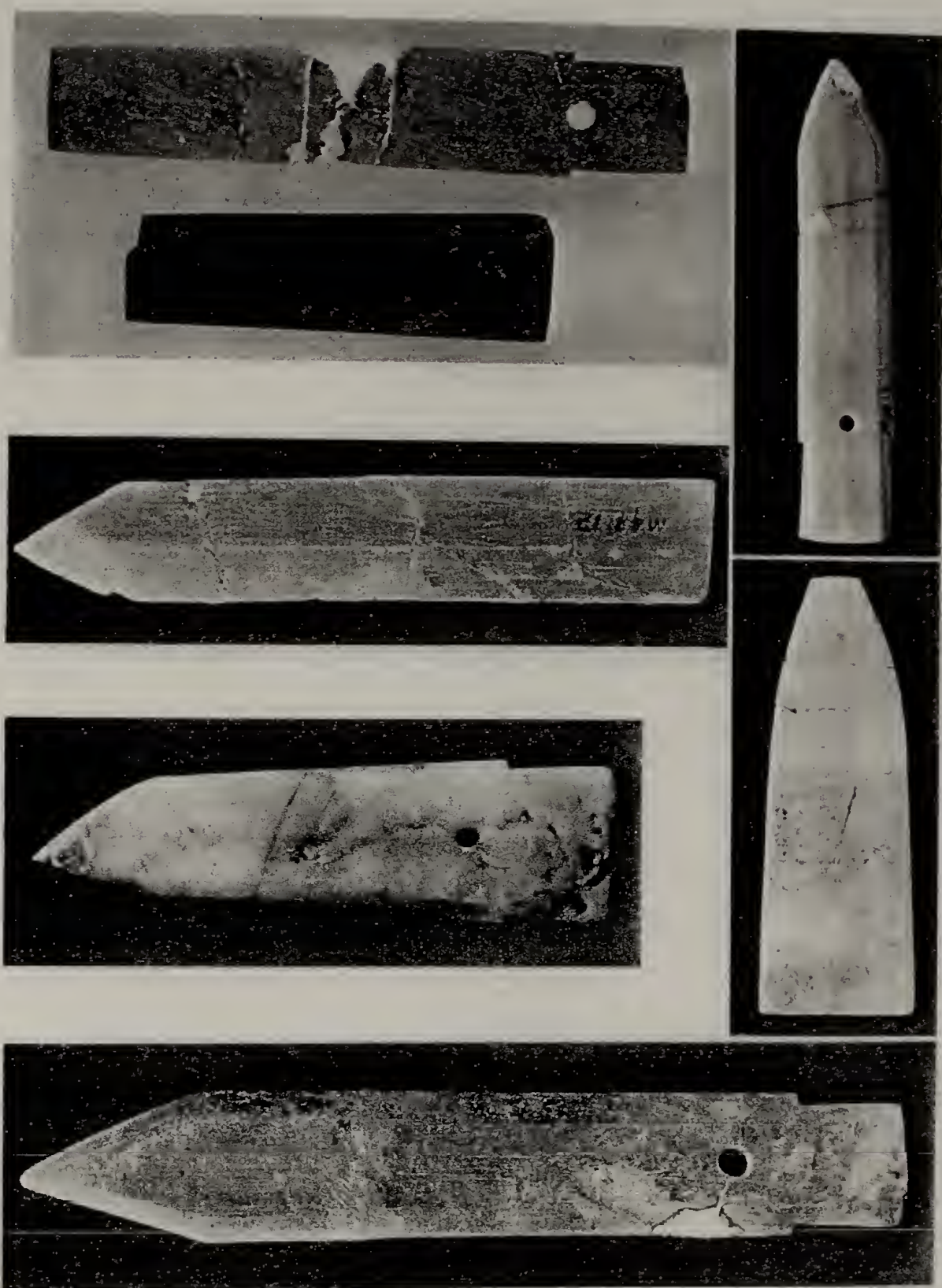
1. 玉匕 M48 : 6      2. 剑鞘形玉饰 M48 : 58      3. 剑鞘形玉饰 M48 : 59  
 4. 牌形玉饰 M58 : 41      5. 拱形起脊玉饰 M52 : 32      6. 长条玉片 M58 : 48  
 7. 牌形玉饰 M58 : 44      8. 牌形玉饰 M52 : 21



## Photograph 81

Group B Western Zhou grave jade and stone *ge*

1. Type I stone *ge*, M46: 10 (top), M42: 11 (bottom)
2. Type III stone *ge*, M49: 12
3. Jade *ge*, M48: 57
4. Jade *ge*, M14: 2
5. Type II stone *ge*, M30: 62
6. Jade *ge*, M42: 8



1	4
2	5
3	5
6	

乙组西周墓玉石戈

1. 石戈Ⅰ式M46 : 10 (上), M42 : 11 (下)      2. 石戈Ⅲ式M49 : 12  
 3. 玉戈M48 : 57      4. 玉戈M14 : 2      5. 石戈Ⅱ式M30 : 62  
 6. 玉戈M42 : 8

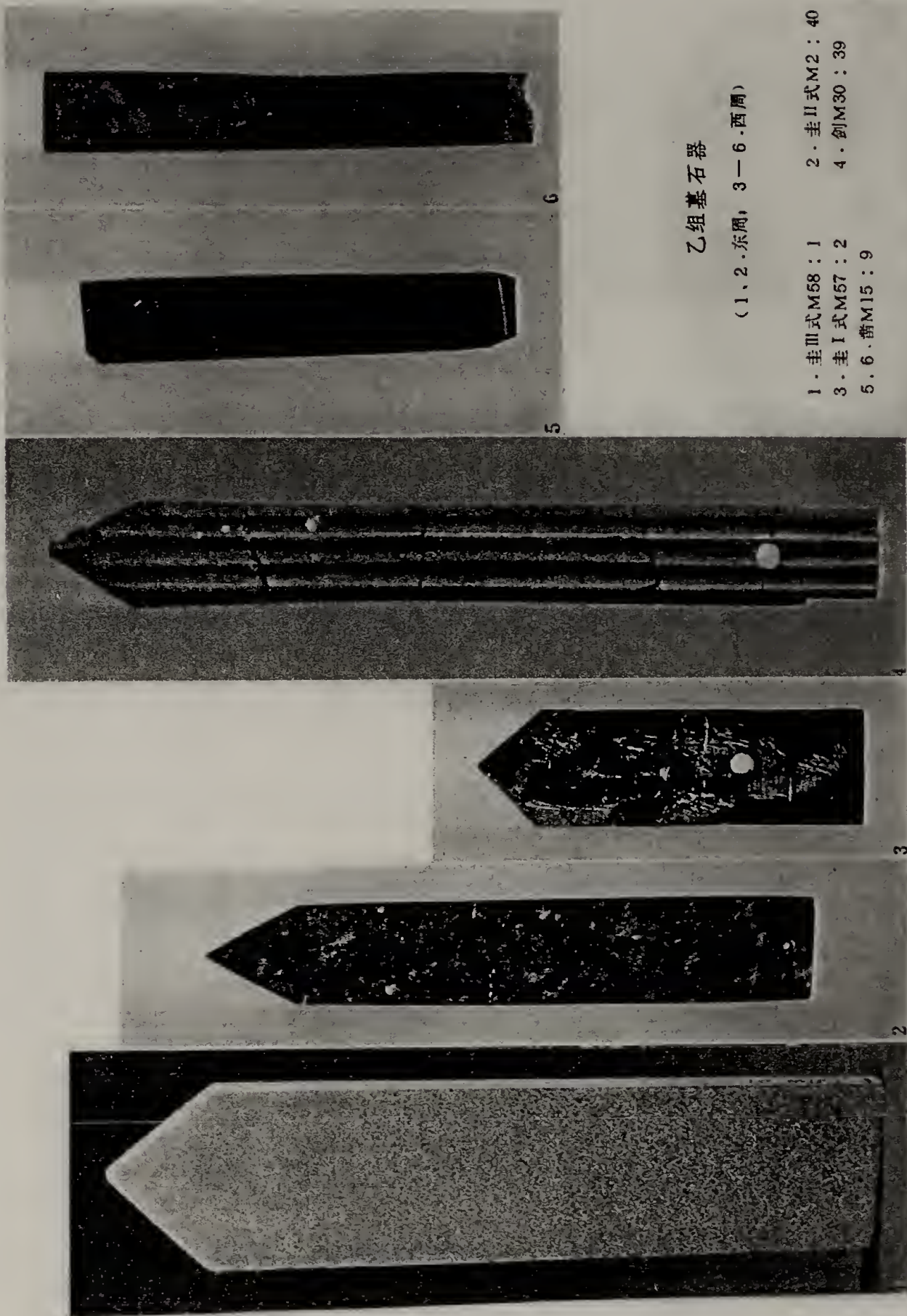
## Photograph 82

## Group B grave stone implements

(1 and 2, Eastern Zhou; 3 to 6, Western Zhou)

1. Type III *gui* tablet, M58: 1
2. Type II *gui* tablet, M2: 40
3. Type I *gui* tablet, M57: 2
4. *Jian* sword, M30: 39
- 5 and 6. Chisels, M15: 9





# 乙组基石器

(1、2.东周, 3—6.西周)

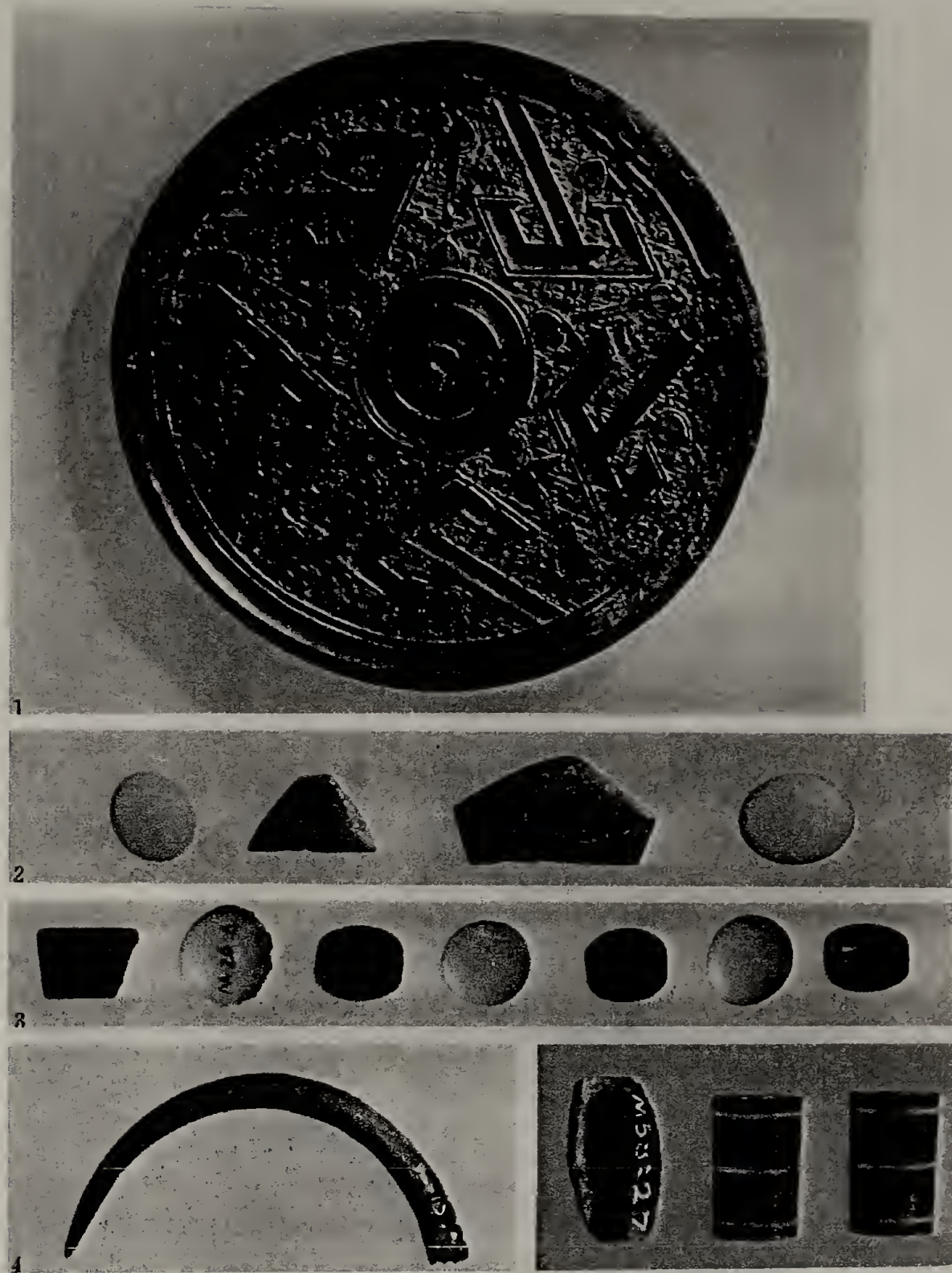
- 1. 圭Ⅲ式M58 : 1
- 2. 圭Ⅱ式M2 : 40
- 3. 圭Ⅰ式M57 : 2
- 4. 剑M30 : 39
- 5. 6. 箭M15 : 9



## Photograph 83

### Group B Eastern Zhou grave implements

1. Bronze *jing* mirror, M3: 6
2. *Kou han* tongue amulets, M22: 6
3. *Kou han*, M26: 4
4. Tusk shaped ivory ornament, M52: 68
5. Type II *liaoqi* glass frit six ridged long drum shaped beads, M58: 27; Type I round tube shaped glass frit bead, M58: 65.



### 乙组东周墓器物

1. 铜镜M3 : 6      2. 口含M22 : 6      3. 口含M26 : 4  
 4. 獠牙形牙饰M52 : 68  
 5. 料器Ⅱ式六棱长鼓形料珠, M58 : 27, Ⅰ式圆管形料珠M58 : 65

## Photograph 84

### Group B Warring States grave items

1. Type III glass frit beads, M58
2. glass frit beads, M52: 73
3. Ivory *pei* tablet with cloud dragon patterns, M52: 42





1. 料珠Ⅲ式M58



2. 料珠M52 : 73



3. 云龙纹牙牌M52 : 42

乙组战国墓器物



## Photograph 85

### Group B Eastern Zhou grave ivory implements

1. Ivory *she* archer's ring, M58: 12.
2. Carved ivory *xiaoshun* back scratcher, M58: 111
3. Carved ivory ornamental staff end tip, M3: 40
4. Carved ivory staff head tip, M3: 52
5. Ivory tube and ivory ornament, M51: 21, 9, 10



1	2
3	4
5	

乙组东周墓牙器

1. 牙髀M58 : 124      2. 牙雕“孝顺”M58 : 111  
3. 牙雕杖尾饰M3 : 40      4. 牙雕杖首饰M3 : 52  
5. 牙管和牙饰M51 : 21、9、10

Photograph 86

Group B Eastern Zhou grave ivory implement

Left, carved ivory *xiaoshun* back scratcher, M3: 5 (back view)

Right, carved ivory *xiaoshun* back scratcher, M3: 5 (front view)





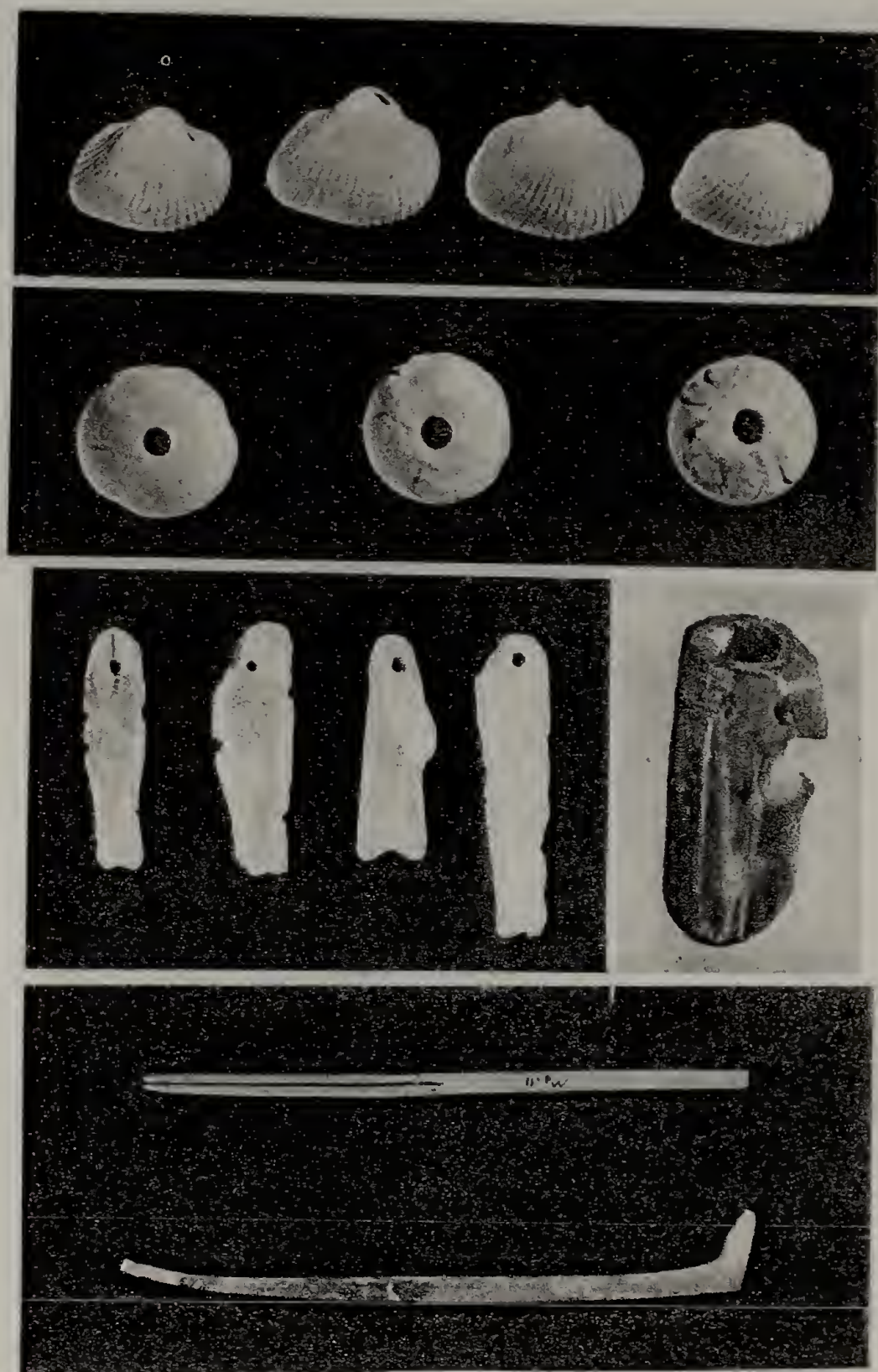
乙组东周墓牙器

左、牙雕“孝顺”M3：5（背面） 右、牙雕“孝顺”M3：5（正面）

## Photograph 87

### Group B grave ivory, bone, and shell implements

1. Clam shells, M48: 45
2. Mussel shell *pao* spheres, M48: 47
3. Mussel shell fish, M30: 26
4. Ivory tool tip with groove, M3: 58
5. Top, bone hairpin, M4: 11; bottom, ivory hairpin, M4: 11



1	
2	
3	4
5	

乙组墓牙、骨、蚌器

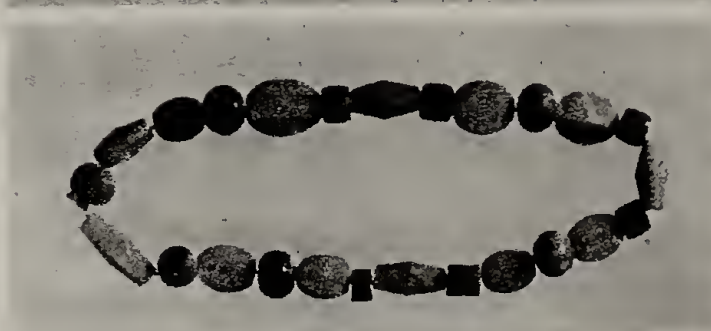
1. 蛤蜊壳M48 : 45      2. 蚌泡M48 : 47      3. 蚌鱼M30 : 26  
4. 有钩牙器M3 : 58      5. 上, 骨笄M4 : 11; 下, 牙笄M4 : 11

## Photograph 88

### Group B Western Zhou grave necklaces

1. M46: 12
2. M39: 10
3. M48: 55
4. M24: 8
5. M11: 9





乙组西周墓项链

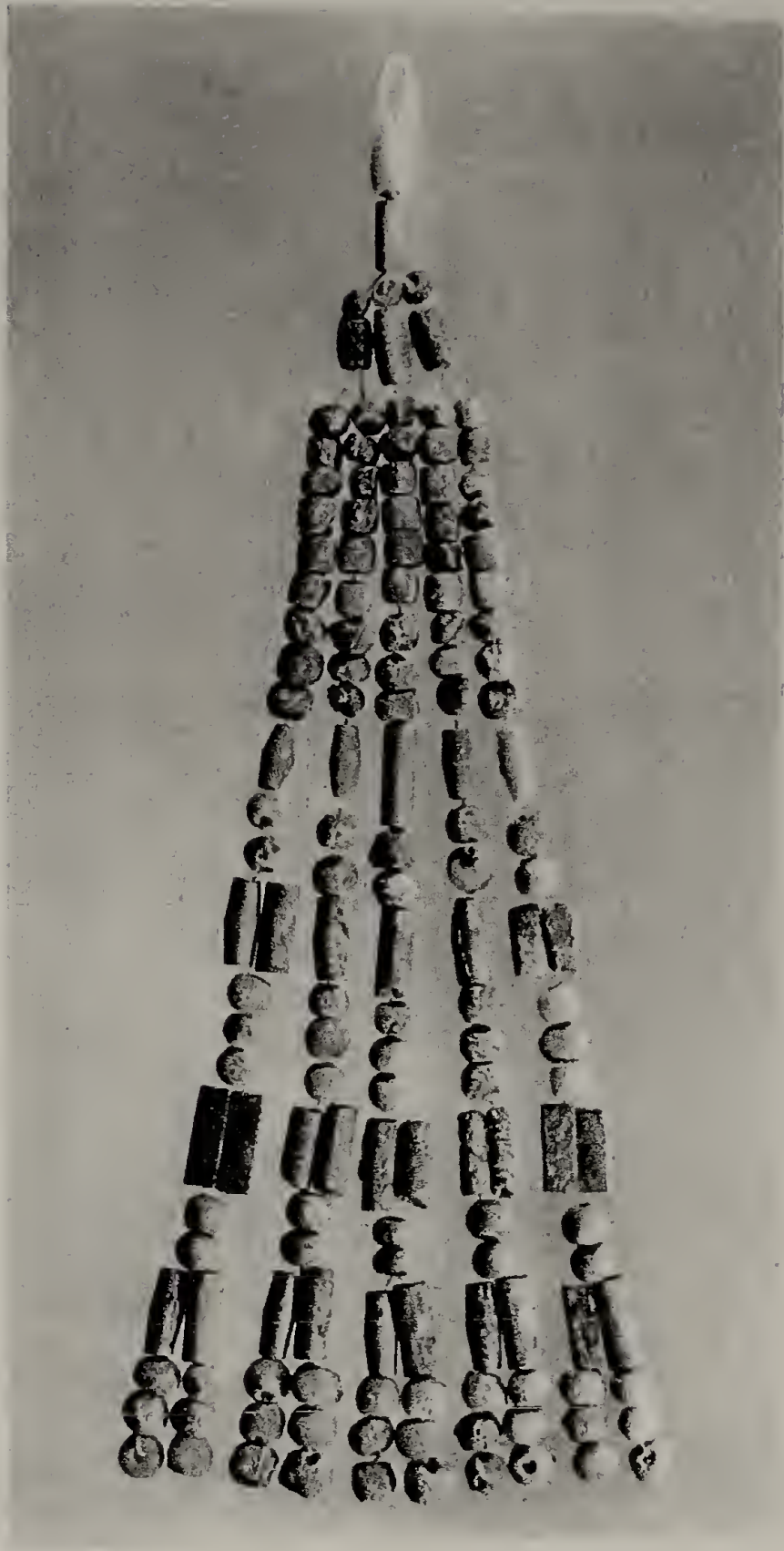
2	1
	3
	4
	5

- 1. M46 : 12
- 2. M39 : 10
- 3. M48 : 55
- 4. M24 : 8
- 5. M11 : 9

**Photograph 89**

Group B Western Zhou grave strung beads

String of stone and ivory beads, M49: 25



乙组西周墓串珠

石、牙串珠M49：25

## Photograph 90

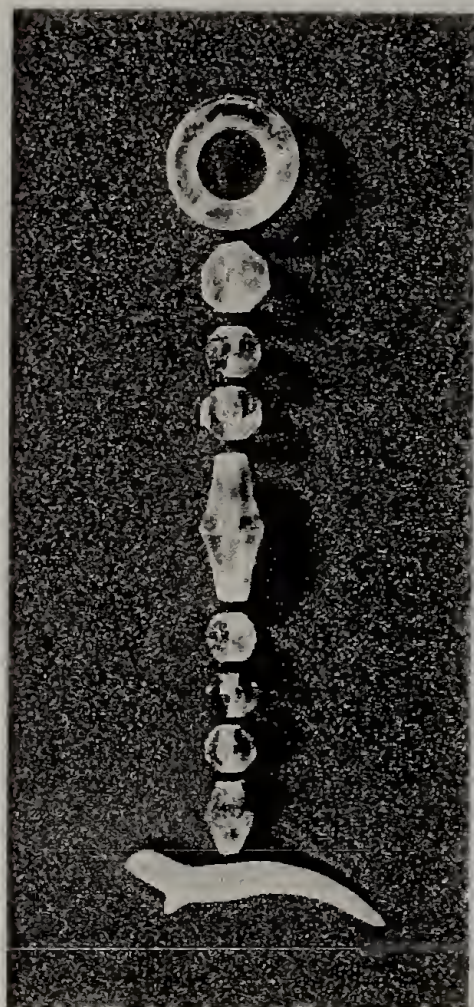
### Group B Eastern Zhou grave strung beads

1. Layout of string of beads excavated from M4
2. String of quartz and agate beads, M4: 10 (B)
3. String of quartz and agate beads, M4: 10 (A)

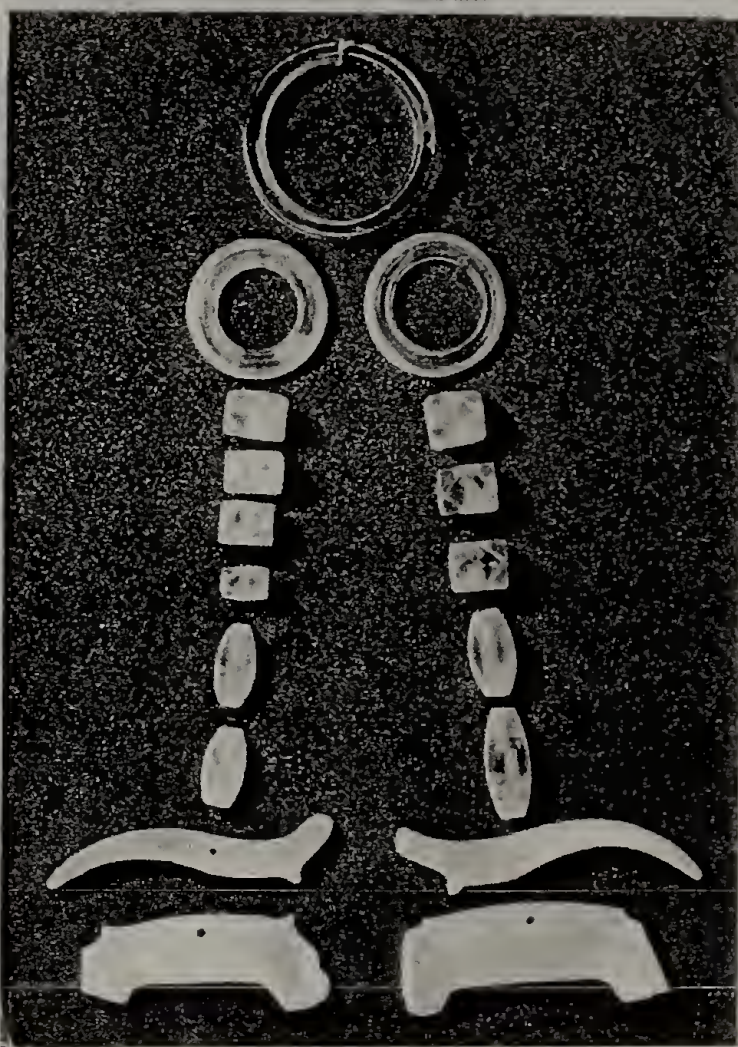




1 · M4 串饰出土情形



2 · 水晶、玛瑙串饰 M4 : 10 (乙)



3 · 水晶、玛瑙串饰 M4 : 10 (甲)

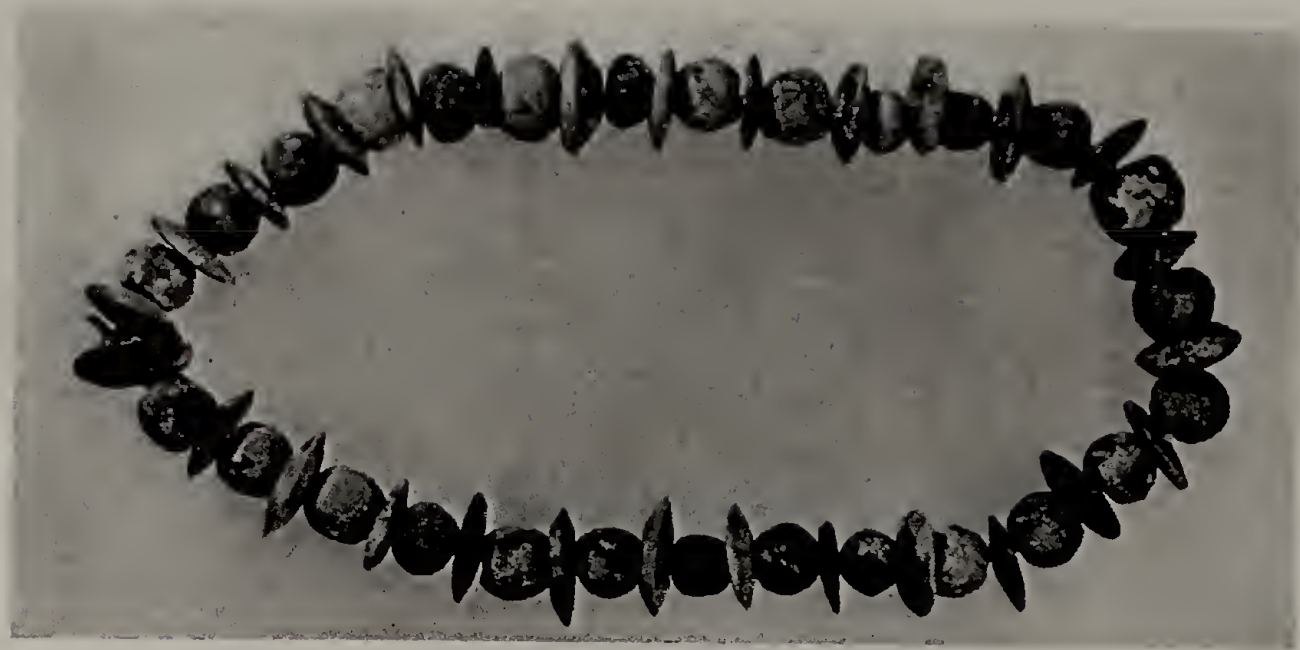
乙组东周墓串珠

Photograph 91

Group B Eastern Zhou strings of bone and stone beads

1. M2: 4
2. M58: 59
3. M52: 114





乙组东周墓骨石串珠

1	2	3
---	---	---

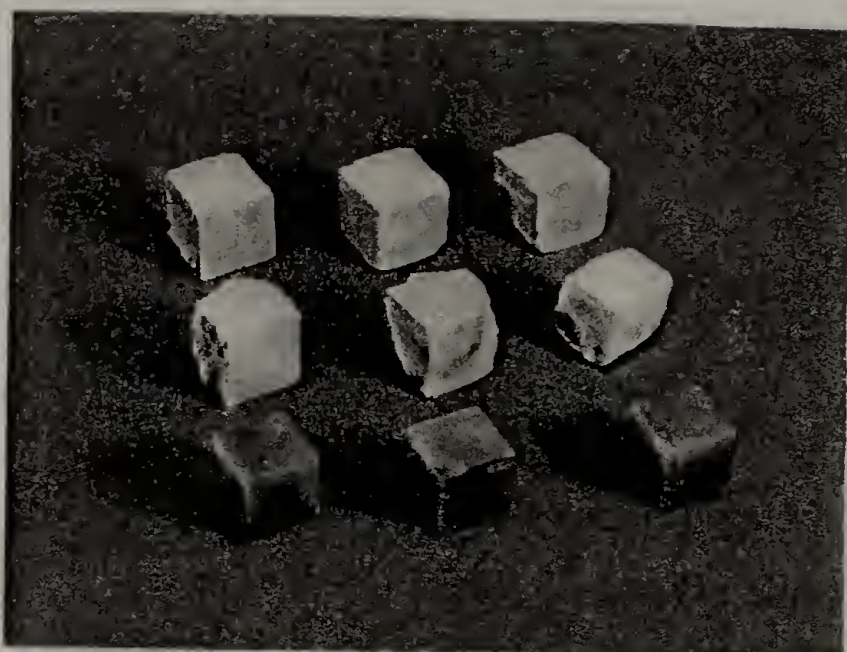
1. M2 : 4      2. M58 : 59      3. M52 : 114

## Photograph 92

Group B Eastern Zhou grave *boju* gambling implements

1. M52: 106
2. M3: 53, 54, 47





1 · M52 : 106



2 · M3 : 53、54、47

乙组东周墓博具

## BIBLIOGRAPHY

- Beijing daxue lishixi kaogujiao yanjiushi Shang Zhou zu 北京大学历史系考古教研室商周组. *Shang Zhou kaogu* 商周考古. Beijing: Wenwu chubanshe 文物出版社, 1979.
- Brooks, E. Bruce. "Review Article: The Present State and Future Prospects of Pre-Han Text Studies." In *Sino-Platonic Papers* 46 (July 1994): 1—74.
- and A. Taeko Brooks. *The Original Analects: Sayings of Confucius and His Successors, 0479 -- 0249*. New York: Columbia University Press, 1998.
- Buck, David, ed. and trans. "Archaeological Explorations at the Ancient Capital of Lu at Qufu in Shandong Province". *Chinese Sociology and Anthropology* 19, I (Fall 1986): 1—76.
- Chang, Kwang-Chih. *The Archaeology of Ancient China*. 1st ed., 1963. New Haven: Yale University Press, 4th ed. 1986.
- . *Shang Civilization* (Early Chinese Civilization Series). New Haven: Yale University Press, 1980.
- Chêng, Tê-k'un. *Archaeology in China, Volume 2: Shang China*. Cambridge: University of Toronto Press, 1960.
- . *Archaeology in China, Volume 2: Chou China*. Cambridge: University of Toronto Press, 1963.
- Chinese-English Dictionary, Vol. II. Han Ying Cidian* 汉英大辞典, Shanghai jiaotong daxue chubanshe 上海交通大学出版社. 2 vol. Wu Guanhua 吴光华, compiler. Shanghai Jiao Tong University Press. 1993; rpt. 1996
- Cook, C.A. *Auspicious metals and Southern spirits: an analysis of the Chu bronze inscriptions*. Ph.D. dissertation, University of California, Berkeley, 1990.
- Creel, Herrlee. *The Origins of Statecraft in China, Volume One: The Western Chou Empire*. Chicago: University of Chicago, 1970.
- Dien, Albert E., Jeffrey Riegel, and Nancy T. Price, ed. *Chinese Archaeological Abstracts 2, Prehistoric to Western Zhou* (Monumenta Archaeologica; v. 9). Los Angeles: University of California, The Institute of Archaeology, 1985.



- Dobson, W.A.C.H. *Late Archaic Chinese*. Toronto: University of Toronto Press, 1959.
- Guo Keyu 郭克煜 et al. *Lu guo shi* 鲁国史. Beijing: Renmin chubanshe 人民出版社, 1994.
- Hansford, S. Howard. *A Glossary of Chinese Art and Archaeology*. 1st ed. 1954, 2nd ed. revised 1961, 2nd ed rpt. 1972. London: The China Society, 1972.
- Hsu, Cho-yün, and Katheryn M. Linduff. *Western Chou Civilization* (Early Chinese Civilization Series). New Haven: Yale University Press, 1988.
- Hsu, Cho-yün. *Ancient China in Transition*. Stanford: Stanford University Press, 1965.
- Keightley, D. "The Quest for Eternity in Ancient China: the Dead, their Gifts, their Names", in *Ancient Mortuary Traditions of China*. Ed. Kuwayama, G. Los Angeles: Los Angeles County Museum of Art, 1991.
- Lao, D.C. and Chen Fong Ching, ed. *A Concordance to the Yili* (ICS series). Hong Kong: Commercial Press, 1994.
- . *A Concordance to the Liji* (ICS series). Hong Kong: Commercial Press, 1992.
- Legge, James, trans. *The Chinese Classics*. Vol. III: *The Shoo King, or The Book of Historical Documents*. Hong Kong: Hong Kong University Press, rev. ed. 1960; rpt. 1970.
- . *The Chinese Classics*. Vol. V: *The Ch'un Ts'ew, with The Tso Chuen*. Hong Kong: Hong Kong University Press, rev. ed. 1960; rpt. 1970.
- . *Li chi: Book of Rites*. rpt. edited by Ch'u Chai and Winberg Chai. New Hyde Park, NY: University Books, 1967.
- Li Xueqin. *Eastern Zhou and Qin Civilizations* (Early Chinese Civilization Series). trans, K. C. Chang. New Haven: Yale University Press. 1985.
- Li Zhiyan and Cheng Wen, *Chinese Pottery and Porcelain* (Traditional Chinese Art and Culture). Beijing: Foreign Languages Press, 1984.
- Loewe, Michael, ed. *Early Chinese Texts: A Bibliographical Guide*. Berkeley: University of California, The Society for the Study of Early China, and The Institute of East Asian Studies, 1993.

- , and Edward L. Shaughnessy, ed. *The Cambridge History of Ancient China*. Cambridge: Cambridge University Press, 1999.
- Maspero, Henri *China in Antiquity*. 1978, orig. pub. 1927, revised 1965; trans. Frank A. Kieman Jr.. Amherst: The University of Massachusetts Press, 1978.
- Mo Di (fl. 400 B.C.). *The ethical and Political Works of Motse*. Yi-pao Mei, trans. London: A. Probstahin, 1929.
- Nienhauser, William H. Jr., ed, with Tsai-fa Cheng, Zongli Lu, and Robert Reynolds, trans. *The Grand Scribe's Records, Vol. I: The Basic Annals of Pre-Han China by Ssu-ma Ch'ien*. Bloomington: Indiana University Press, 1994.
- Pan Ying 潘英. *Zhong guo shang gu shi xin tan* 中國上古史新探. Taipei: Ming wen shu ju 明文書局, 1985.
- Pulleyblank, E.G. "Zou and Lu and the Sinification of Shandong," in *Chinese Language, Thought, and Culture: Nivison and His Critics*, ed. Philip J. Ivanhoe. La Salle, Illinois: Open Court Press, 1996; pp. 39-57.
- Qi Wentao 齐文涛: "Gaishu Shandong jinnian chutu de Shang Zhou qing tongqi" 概述山东近年出土的商周青铜器 ["Summary of Recently Excavated Shang and Zhou Bronze Vessels"], *Wenwu*, 1972: 5
- Schueseler, Axel. *A Dictionary of Early Zhou Chinese*. Honolulu: University of Hawaii Press, 1987.
- Shandong sheng wenwu kaogu yanjiusuo 山东省文物考古研究所. *Qufu Luguo gucheng* 曲阜鲁国故城. Jinan 济南: Jilu shushe 齐鲁书社, 1982.
- Shaughnessy, Edward L. *Sources of Western Zhou History*. Berkeley: University of California Press, 1991.
- , ed. *New Sources of Early Chinese History: An Introduction to the Reading of Inscriptions and Manuscripts* (Early China Special Monograph Series No. 3). Berkeley: University of California, 1997.
- Shepherd, Anna O. *Ceramics for the Archaeologist*. Washington, D.C.: Carnegie Institute of Washington. First printing, 1954. Seventh printing, 1971.
- Sima Qian 司馬遷 (ca. 145-ca. 86 B.C.). *Shi ji* 史記. vol. 1-2. Beijing: Zhong hua shu ju 中華書局, 1969.
- Steele, John, trans., *The L li, or Book of Etiquette and Ceremonial*; 2 vols. London: Probsthain and Co., 1917.



- Stein, Rolf Alfred. *Monde en petit*. Translated as *The world in miniature: container gardens and dwellings in Far Eastern religious thought*. trans. Phyllis Brooks. Stanford, Calif.: Stanford University Press, 1990.
- Watson, William. *Handbook to the Collections of Early Chinese Antiquities*. London: Trustees of the British Museum, 1962.
- Yang Lien-sheng, "A Note on the So-Called TLV Mirrors and the Game Liu-Po 六博", *HJAS* 9.3—4 (1947): 202—206.
- . "An Additional Note on the Ancient Game Liu-po". *HJAS* 15 (June 1952). 124—39.
- Yin Difei 殷涤非. *Shang Zhou kaogu jianbian* 商周考古简编. Hefei 合肥: Huangshan shushe 黄山书社, 1986.
- Yu Weichao. "The Origins of the Cultures of the Eastern Zhou", *Early China* 9-10 (1983-85): 312.
- Zeng Yigong 曾毅公, *Shandong Jinwen Jicun* 山东金文集存, vol. 1, no. 15. China: n.p., 1940.
- Zhang Xinglian 张星联, comp, Zhao Shuhan 赵书汉, ed. *A Glossary of Chinese Archaeology (Chinese-English)* 中国考古词汇 (汉英对照). Beijing: Foreign Languages Press, 1983.
- Zhang Xuehai 张学海. "Guanyu Qi, Lu wenhua de jige wenti" 关于齐、鲁文化的几个问题 ("Several Questions Regarding Qi-Lu Culture") in *Kaoguxue wenhua lunji* 考古学文化论集, Vol. 2. Beijing: Wenhua Press 文化出版社, 1989.
- Zhongguo kexueyuan kaogu yanjiusuo 中国科学院考古研究所 [Institute of Archaeology, Academia Sinica]. *Fengxi fajue baogao* 澧西发掘报告 [Excavations at Fêng Hsi (1955—1957)]. Beijing: Wenwu Press, 1963.
- Zhongguo shehui kexueyuan kaogu yanjiusuo Anyang gongzuodui 中国社会科学院考古研究所安阳工作队 [Anyang Archaeological Team, IA, CASS]. "1969—1977 年殷墟西区墓葬发掘报告" [Excavation of the Yin Tombs in the Western Section of Yinxu, 1969—1977]. *Kaogu xuebao* 1979: 1: 27—146.

Table 7. Inventory of Group A graves

Grave No.	Period	Angle	units: meters		inner coffin	outer coffin	Burial form	Head orient	Waist pit	Dog head oriented	Funerary implements	Remarks
			Grave pit mouth	Grave pit floor								
101	uncertain	180°	3x1.25-0.75	2.9x1.4-1.9	2.16x0.85		supine	south	0.61x0.49	south		
102	uncertain	190°	3.1x2.25-1.5	3.05x2.1-3	2x0.75	2.45x1.3	supine	south				
103	6°	189°	3x1.9-1	2.9x1.85-2.9	2.1x0.9	2.4x1.2		south			BV: zhou IV (1)	looted
104	6°	190°	2.55x1.36-1.2	2.55x1.2-1.65	1.95x0.9	2.25x1.2	supine	south			PV: guan X (3), XI (1); lidded dou V (2); zhi (2); ornate lid hu III (2)	
105	uncertain	190°	3.48x2.44-1.58	3.1x2.4-1.28	2.1x1.5	2.94x1.98		south			PV: guan XII (1), XIII (2)	looted
106	uncertain	188°	3.14x2-1.6	2.8x1.76-0.9				south			BV: bronze knob (1)	looted
107	1°	189°	2.5x1.3-0.9	2.3x1.2-2.2	1.85x0.61		supine	south			PV: li III (4); guan II-A (4), II-B (1); dou III-B (4); gui III (4)	
108	uncertain	180°	2.55x1.15-1	2.15x0.99-0.87				south	0.8x0.38	south		
109	uncertain	195°	2.7x1.33-1.1	2.7x1.33-2.95			supine	south	0.67x0.32	south		looted
110	6°	188°	2.5x2.5-1.3	2.3x1.2-2.6			supine	south			PV: guan XI (1), IX (1); lidded dou III (1), gui lid (2); hu lid (1) BV: xu II (1)	looted
111	6°	178°	8x1.78-1.3	2.92x1.77-2.7							PV: lidded dou III (1); hu lid (2); bian gui VIII (1); guan (frag) (1); BV: ge III (1)	looted
113	3°		2.7x1.3-1.5	2.7x1.3-2.3			supine	south	0.80x0.51	north	PV: lei IV (1)	
114	uncertain		2.5x1.25-1.5	2.5x1.25-2.3			supine	south	present	?	jade & stone implements: stone beads (10)	
115	6°	195	3.15x1.75-1.15	3.15x1.75-2.9	1.895x0.77	2.58x1.18	supine	south			PV: guan IX (2), lidded dou II (2); decorated lid-hu I (2); BV: zhou IV (1), V (1); ge II (1); jian (1)	
116	6°	194°	3.15x2.2-1.2	3.15x2.2-3.2	1.93x0.87	2.6x1.45	supine	south			PV: guan X (1); lidded dou IV (2);	



Table 7. continued

											decorated lid hu II (1); gui VIII (2); bian dou (1); gui base (1); animal head ornament (1); animal pattern frame (1) BV: qimao (2); huan (8); ding II (1); xu II (2); lidded dou (2); pan (1); yi (1) other: convex bone ornament (2); JSO: stone cowries (23)	
117	uncertain	195°	1.95x0.65-1.8	1.95x0.65-2.55	1.95x0.65			south	0.70x0.32	south		looted
118	uncertain	195°	3.13x1.50-0.8	3.13x1.50-1.3	none	2.2x0.65			south			
119	2°	183°	2.65x1.35-1.36	2.6x1.30-2.8	present	2.5x2	supine	south		south	PV: ring foot guan III (1); dou V (2); lei III (1)	
120	1°	177°	2.63x1.67-1.2	1.91x0.65	2.46x0.95		supine	south	1x0.40	south	PV: li I (4); gui I (4); ring foot guan I (4); dou I (4); zun (1); lei I (1); JSV: stone ge III (1); others: sea cowries (26); mussel shell "fish" (14)	
121	uncertain	15°	2x1.3-1.35	2x1.3-2.7			supine	north		?		looted
122	uncertain	16°	2.6x1.8-1.35	2.35x1.75-3.05	1.9x0.85	2.4x1.25	supine	north	present	?		looted
123	uncertain	16°	2.6x1.8-1.3	2.5x1.6-2.3	1.95x0.95	2.4x1.6	supine	north				looted
124	1°	175°	2.8x1.4-1.6	2.5x1.37-3.32	2x0.74	2.4x1.6	supine	south	0.70x0.50	east	PV: dou IV (2); guan III (1) JSO: stone ge (1)	
125	uncertain							south				looted
126	uncertain		1.6x1-1.6	1.6x1-2			supine	south				looted
127	uncertain	195°	2.25x0.85-1.32		1.75x?		supine	south				
128	uncertain	190°	2.45x1.25-1.6	2.35x1.2-2.65	2.1x0.85			south				looted
129	uncertain	165°	2.8x1.88-1	2.76x1.84-1.94	2.0x1.1		supine	south	0.36x0.28	north		

Table 7. continued

131	4°	195°	2.95x1.5-0.75	2.70x1.75-3.5	1.9x0.68	2.08x0.95	supine	south			looted
132	uncertain	192°	2.70x1.85-0.75	2.70x1.75-3.5	1.9x0.68	2.08x0.95	supine	south	PV: ring foot guan IV (1)		looted
133	uncertain	196°	2.25x1.45-0.8	2.05x1.1-2.2	1.83x0.72			south			looted
136	uncertain	192°	2.8x1.3-1.05	2.7x1.3-2.9	1.7x0.75	2.25x0.9	supine	south			looted
137	uncertain	192°	2.6x1.3-1.05	2.6x1.3-3.4	present	present	supine	south			looted
138	2°	180°	3.1x1.5-0.85	3.1x1.5-2.7	2.8x1.1	3x1.3	supine	south	PV: lei II (1); arrowhead mold (2) other: mussel shell fish		
201	4°	10°	3.3x2.1-0.75	3.3x2.2-2.3	1.84x0.76	2.94x1.76	supine	north	PV: guan V-A (1), V-B (2), V-C (1), VI (2) lei V (2) BV: ding I (1); pan I (1); zhou II (1); ge I (2); arrowheads (10); axle cap (2) bridle (4); bit (2); harness ornaments (90) JSO: stone jue (2); stone ge I (1), III (1) others: string of ivory beads (1)		
202	4°	7°	2.8x1.5-0.7	2.8-1.5-1	present	present		north	PV: li VIII (2); yu III (2); lei IX (2) guan (1); dou (2)	sacrificial human (1)	looted
203	4°	10°	2.78x1.73-0.75	2.78x1.73-2.05	2.1x1.1	2.5x1.56	supine	north	PV: guan IV-A (1), VII (2), VIII (1) BV: zhou II (1) JSO: stone jue (2); stone ge I (2)		
204	uncertain	13°	3.64x2.26-0.9	3.34x1.96-2.7				north	JSO: stone jue (2); stone ge III (1) other: bone cowrie (1)		looted
205	4°		3.2x1.92-0.74	2.79x1.51-1.84			supine	south	PV: guan IV-B (2)		looted
206			3x1.9-0.6	2.9x1.8-1.5			supine	south			looted
207	5°	11°	3.02x1.84-0.5	2.86x1.68-2.4	present		supine	north	PV: li IX (3), lei VII (2);		



Table 7. continued

											dou IX (2); gui V (2)	looted
208 uncertain	7°	3.16x2.22-0.2	3.16x2.22-2.18			supine	north					
209 5°	11°	3.2x2-0.21	3.2x2-2								PV: li X (2), IX (1), ? (1) lei X (2); gui VI (4); dou (1) others: bone bit (2); bone hairpin (1).	looted
210 5°	13°	3.26x2.1-0.22				supine	north	0.4x0.3	south		PV: li (1); dou (1); lei VIII (2) gui VI (1)	looted
211 4°	15°	3.56x2.34-0.2	3.56x2.34-2.95					0.64x0.32	south		PV: lei VII (1); dou VIII (3); gui IV (4)	looted
212 uncertain	14°	3.26x1.94-0.21	3.26x1.94-2.7			flexed & on side	north				JSO: stone ge II (1); stone gui tablet (1)	looted
213 5°	15°	3.3x2.98-0.2	3.3x2.98-2.2			supine	north				PV: li (1), lidded dou I (1); dou IX (1); gui VI (1), VII (2)	looted
214 uncertain	20°	2.85x1.8-1.2	2.85x1.8-2.2									looted
301 1°	0°	2.8x1.33-0.9	2.8x1.33-3.5	2.05x0.62	2.4x1.1	supine	north	none	none		PV: bo (1)	
302 1°	190°	3x1.6-1.9	3x1.6-3.8	1.9x0.65	2.3x1.1	supine	south	0.61x0.38	north			
303 uncertain	200°	2.95x1.8-1.1	2.95x1.8-2.5	2.01x0.7	2.45x1.5	supine	south	0.80x0.47	north			
304 uncertain	200°	2.65x1.5-1.65	2.65x1.5-2.4	1.87x0.70	2.8x0.97	supine	south	none	none			
305 4°	92°	3.2x1.9-0.3	3.2x1.9-2.5	1.76x0.62	2.3x0.9	supine	east	0.92x0.49	east		PV: guan IV-A (1); lei VI (1) JJO: stone jue (6) BV: zhou I (1)	
306 uncertain	210°	2.5x1.5-0.6	2.5x1.5-1.9	2.1x0.72	2.35x1.2	supine	south	0.18x0.16	south			
307 2°	172°	2.75x1.5-1.2	2.4x1.25-2.9	2x0.75	2.5x1.26	supine	south	none	none			looted

Table 7. continued

308	uncertain	190°	2.6x1.6-1.1	2.6x1.6-2	2x0.75	2.5x1.26	supine	south	0.6x0.35	?			looted
310	2°	172°	2.75x1.5-1.2	2.4x1.25-2.9	2x0.75	2.5x1.26	supine	south	0.7x0.4	south	PV: li II (1), IV (1); V (1); yu I (1); ring foot guan II (1) other: mussel shell "fish"		
311	uncertain	172°	2.65x1.6-1.2	2.65x1.6-2.4	1.9x0.70	2.3x1.14	supine	south	none	none			
312	uncertain	172°	2.54x1.55-1.2	172 --2.4	2.54x1.55	1.8x0.67	supine	south	none	none			
313	uncertain	162°	2.6x1.48-1	2.6x1.48-2.70	1.88x0.69	2.36x1.2	supine	south	none	none	PV: guan ? (1)		looted
314	uncertain	168°	2.5x1.4-1.26	2.5x1.4-2.666	1.9x0.8	2.3x1	supine	south	0.70x0.41	south	JSO: stone ge I (1)		
315	uncertain	172°	2.5x1.4-1.74	2.5x1.4-4.4	2.14x0.71		supine	south	0.70x0.40	south			looted
316	3°	165°	2.8x1.5-0.65	2.8x1.5-1.9	1.8x0.65	2.1x0.9	supine	south	0.70x0.45	south	PV: dou VII (1)		
317	3°	172°	2.8x1.6-0.8	2.8x1.6-2.4	present	2.26x1.2	supine	south	none	none			looted
318	uncertain	194°	2.3x1.02	2.3x1.02	2.02x0.70		supine	south	0.70x0.40	south			
319	uncertain	200°	2.66x1.4-0.75	2.66x1.4-2.05	1.9x0.80	2.55x1.35	supine	south	0.55x0.55	south			
320	2°	172°	2.35x1.1-1.2	2.35x1.1-2.6	1.9x0.6	2.2x1	supine	south	0.61x0.42	south	PV: li VI (1); yu II (1); dou VI (2) other: mussel shell "fish"		
321	uncertain	200°	2.4x1.4-1.05	2.4x1.4-2.93	2.00x0.72	2.35x1.00	supine	south	none	none			
322	uncertain	158°	2.8x1.8-1.2	2.8x1.8-3	1.92x1.1	2.4x1.3	supine	south	0.46x0.45	?			looted
323	uncertain	195°	2.8x1.5-1	2.8x1.5-2.7	2x0.70	2.4x1.24	supine	south	0.53x0.41	south			
324	uncertain	194°	2.75x1.4-1.15	2.75x1.4-3	1.95x0.8	2.3x1.1	supine	south	none	none			looted
325	uncertain	210°	2.6x1.2-1.5	2.70x1.25-2.9	2.18x0.74	2.6x1.2	supine	south	none	none			

Table 7. continued

326	uncertain	190°	2.7x1.1-1.1	2.7x1.1-3.1	2x0.6	2.4x1.2	supine	south	0.46x0.29	south		looted
327	uncertain	195°	2.9x1.5-1.1	2.9x1.5-3.8	2.1x0.6	2.7x1	supine	south	0.64x0.42	south		
328	3°	95°	3.12x1.97-0.26	3.12x1.97-2.35	2.02x0.80	2.52x1.42	supine	east		none	PV: li VII (1); guan IV-A (4)	
401	6°	169°	3.58x2.72-0.27	3.58x2.72-2.53	2.36x1.36	2.98x2.06					PV: ding (3); JSO: stone huan (5); other: mussel shell "fish" (5); clam shells (6); string of beads (1); bone bit (1)	looted
402	6°	166°	3.02x1.54-0.26	3.02x1.54-2.44	1.97x0.76	2.3x1.2		south				looted
501	1°										PV: li II (2); gui II (4); guan I (1); dou II (2), III-A (1)	



Table 8. Inventory of Group B graves

units: meters											
Grave No.	Period	Angle	Grave pit mouth	Grave pit floor	Grave pit burial chamber	"outer" inner coffin	"inner" inner coffin	outer coffin	Burial style	Head orient	Funerary implements
1 (one)		10°	13.6x11.6-0.3	13x10-3	5.6x4.4-1.9	2.6x1.6x1.4	2.18x1.18x1.0	4.3x2.98x1.7	decomposed		PV: fu I (1); jian (1); lei I (2); guan XXVI-A (11); vessel cover (2) other: strings of bone and stone beads (10)
2 (one)		10°	15x13-0.3	14.5x12.6-3	7.8x6.4-1.8	2.8x1.6	2.2x1.2	5.6x4.2x1.7	decomposed		PV: fu I (1); guan XXV (12), XXVI-A (1); (small guan) vessel base (2); vessel cover (3) BV: bronze ling bell (12); pao (2); bridle ornament JSO: stone gui tablet II (1) other: string of bone and stone beads (9); bone tube (1); bone huan ring (1)
3 (two)		10°	13.5x12.5-0.3	13.5x12.5-3.1	6.4x5.7-2.8			4.9x4x2.68	decomposed		PV: fu II-B (1); guan XXVI-B (18); hu IV (4); ring foot hu I-A (2), I-B (2), I-C (5) BV: hu II (5); gold & silver inlaid finial (1); jing mirror (1); turtle shaped belt hook (1); ge III (1); crossbow mechanism (1); ling bell; outer coffin nails (21); arrowhead (60); zun (1); vessel cover (1) SO: gibbon shaped silver ornament (1); silver belt hook inlaid with turquoise stone pieces; set of chopstick shaped silver gambling "counters"; string of bone and stone beads (15); ivory tubes (3); lacquer food container (2)



Table 8. continued

4 (one)	15°	4.1x3.45-0.8	4.1x3.45-2.6	inner coffin present	present	supine	north	PV: hu II (3) BV: scraper (1) JSO: huan ring III (1) other: string of quartz & agate beads (2); bone hairpin (2); iron implement (1)
NOTE: a male and a female are buried in the same pit								
7	3 200°	2.335x1.04-0.	2.35x1.04-1.6	1.88x0.65	2.06x0.85	flexed/ on side	south	PV: li XI (1); guan XVI (1), XVII (1)
8	3 7°	2.5x1.19-0.2	2.5x1.19-2.1			supine	north	PV: li V (1); guan IX-B (2), X-B (1)
10	4 2°	2.58-1.3-0.2	2.58x1.3-1.95	2.08x0.75		supine	north	PV: li X (1); guan XX (1), XXI (1)
11	2 2°	2.6x1.5-1.5	2.6x1.5-2.4	1.8x0.76	2.25x1.22	supine	north	PV: li IV (1), IX-A (1); guan IV (2), III-B (1) BV: ding II (1); ge (1); ling bell (2); fish JSO: huan ring I (2); ellipsoid stone ornaments (2); stone gui tablet (1); other: necklace (1)
13 unclear	2°	2.5x1.22-0.3	2.5x1.22-2.5	2.1x0.87		supine	north	PV: li V (1) JSO: stone gui tablet II (1)
14	4 4°	2.54x1.13-0.2	2.54x1.13-2.22	1.9x0.7	2.18x0.95	supine	north	PV: li XII (1); guan XXIII-A (1), XXIII-B (1) BV: ding VI (1) JSO: jade ge (1); tongue amulets (20)
15	3 25°	3.13x1.8-0.25	2.26x0.76	2.74x1.1		side flexed	north	V: li X (1); guan XXII-A (1), XXII-B (1) BV: fish (90) JSO: huan ring I (1); stone tablet; stone chisel (2); ellipsoid stone ornament (2); tongue amulets
16 unclear	6°	2.72x1.4-0.23	2.72x1.4-2.08	2.1x0.7	2.4x1.04	supine	north	PV: LI X (1) other: tongue amulets (4)

Table 8. continued

17	unclear	20°	2.78x1.44-0.2	2.78x1.44-2.03	2.1x0.74		2.42x1.04	supine	north	PV: li V (1) JSO: stone ge II (1) other: necklace (1); tongue amulet
18	(one)	18° NOTE: niche present	2.73x1.47-0.3	2.73x1.47-1.08	inner coffin already decomposed		2.26x1	supine	north	PV: guan XXIV (3); hu I (3) other: bone tube (2); bone hairpin (1); cowries (2)
19		3 5°	2.9x1.36-0.32	2.9x1.36-2.32	inner coffin already decomposed		2.4x1.08	supine	north	PV: li IX (1); guan IX-C (2) other: tongue amulet
20		2 358°	2.54x1.37-0.2	2.54x1.37-2.46		2.12x0.7	2.38x1.04	decomposed	north	BV: ding III (1); ge I (1); fish
21	unclear	9°	2.5x1.22-0.21	2.5x1.22-1.66	inner coffin damaged		damaged	decomposed		PV: li IX (1)
22		3 3°	2.58x1.27-0.3	2.58x1.27-2.29		2.04x0.67	2.18x0.84	supine	north	PV: li X (10: guan IX-B (1), XVIII (1) JSO: jade huan I (1) other: tongue amulet
23		2 10°	2.64x1.26-0.3	2.58x1.27-2.16		2x0.72	2.08x0.92	supine	north	PV: li V (1) BV: ding I (1)
24		2 358°	2.64x1.18-0.2	2.64x1.18-2.65		2x0.62	2.4x0.84	supine	north	PV: guan IV (3), V-A (1); ;i (1) JSO: jade huan I (2) other: necklace (1)
25	unclear	5°	2.4x1.18-	2.4x1.18-1.9		2.04x0.78		supine	north	PV: li V (1)

Table 8. continued

26	3	2°	2.56x1.17-0.8	2.56x1.17-2.9	2x0.78		supine	north	PV: li VIII (1); guan IX-B (2) other: tongue amulet (7)
27	3	5°	2.46x1.31-0.3	2.46x1.31-1.76	1.9x0.78		supine	north	PV: li IX (1); guan IX-B (1), XIII-A (1), XIV (1), XIII-B (1), XV (1); JSO: jade huan (1)
28	unclear	15° NOTE: looted	11.5x10.4-1.5	11.5x10.4-2.4	5.85x4.65-2.4	present	present	decomposed	JSO: jade archer's thumb ring (1); jade huan II (1); bronze scraper attached to a jade huan (1); round piece of jade (1)
29	2	27°	2.6x1.3-0.34	2.6x1.3-1.64	2.04x0.7		supine	north	PV: li II (1); guan V-B (3), II-B (1) JSO: cylindrical stone ornament (2) other: sea cowries (6)
30	2	15°	2.86x1.63-0.5	2.86x1.63-2.15	2.02x0.69		supine	north	PV: li VI (1); guan III-C (2) BV: ding IV (1); xu I (1); pan I (1); yi (1); hu I (1); axle cap (1); bit (8); huan (2); ling bell (21); xiyao "hyperboloids" (5); fish (45); belt ornament (6); ge II (1); tao tie head II (14); bridle ornaments (20); jieyue (20); xia linchpin (2); tao tie head I (4) JSO: jade huan I (2); jade sword (1); stone ge I (2), II (1); stone tablet (2); small stone tablet (13); other: necklace (10); cowrie (5); clam shells (146); mussel shell "fish" (65); square mussel shell ornament (1)
31	2	15°	2.6x1.2-0.3	2.6x1.2-1.9	2.1x1.05		supine	north	PV: li V (1); guan IX-A (3), X-A (1) BV: ge I (1); lin JSO: stone cowries (28) other: mussel shell "fish"



Table 8. continued

32	3	15°	2.7x1.5-0.3	2.7x1.5-2	2.02x0.6	2.25x1.15	supine	north	PV: li IX (3); guan IX-C (1), XI-B (1), XIII-A (1) BV: ling bell (2); fish JSO: jade huan I (2); stone ge I (1) other: sea cowry (1)
33	unclear	26°	2.3x1.1-0.5	2.3x1.1-1.8	2x0.7		supine	north	PV: PV: li IX (1); guan (1)
34	unclear	25°	2.5x1.25-0.59	2.5x1.25-2.2	2.15x0.66	2.36x1.08	supine	north	PV: li IX (1) BV: ling bell (4); fish (13) JSO: stone ge I (1) other: clam shells (3); sea cowries (7)
35	unclear	22°	2.6x1.1-0.6	2.6x1.1-1.8	2.06x0.67		supine	north	PV: li III (1); guan (1)
36	unclear	17°	2.5x1.04-0.9	2.5x1.04-3.1	2.02x?	2.35x1	supine	north	PV: li IX (1)
38	2	30°	2.6x1.2-0.6	2.6x1.2-2.5	1.98x0.8	2.38x1.15	supine	north	PV: li II (1); guan VI (1°, VII (2), X-A (1) JSO: jade tablet (1)
39	2	14°	2.65x1.17-0.4	2.65x1.17-2	1.97x0.76	2.3x1.05	supine	north	PV: li II (1); guan V-B (2) BV: ling bell (2); fish JSO: jade huan I (1) other: sea cowry (1); necklace (1)
42	2	15°	2.9x1.5-1.2	2.9x1.5-3.1	2x0.7	2.49x1	supine	north	BV: ding IV (1); ge I (1); ling (5) PV: li (1) JSO: jade ge (1); stone ge I (2)
43	(unclear)	14°	4.63x3.1-0.87	4.63x3.1-2.4			decomposed		other: string of agate beads (1)
44	1		2.4x1.2-0.6	2.4x1.2-2.9			decomposed		PV: li I (1) NOTE: grave broken into

Table 8. continued

45	unclear	20°	2.6x1.7-0.85	2.6x1.7-2	1.8x0.6	2.43x0.9	supine	north	PV: li IX (10 other: tongue amulet (6)
46	2	25°	2.4x1.22-0.65	2.4x1.22-2.78	1.92x0.75	2.45x1.1	decomposed	north	PV: li II (1) BV: ding IV (1); gui I (1); ge I (1); axle cap (2); bit (4); ling (4); fish JSO: jade huan I (2); stone ge I (1); ellipsoid stone ornament (2) other: necklace (1); mussel "fish"; sea cowry (4)
47	(two)	18° NOTE: tomb looted	4.64x3.8-1.1	4.64x3.8-3.1	2.84x1.56	4.3x2.88	supine	north	PV: fu II-A (1); lei II (2); guan XXVII (5), XXVIII (1); (small guan); hu II (2) JSO: stone ge III (1)
48	2	2°	3.6x2.72-1.2	3.6x2.72-2.85	2x0.65	3.1x2.15	supine	north	PV: li V (1); guan IX-A (7), X-A (8) BV: ding V (3); xu I (2); gui (2); pan II (1), III (1); yi (2); hu I (1); fou (1); yan (1); bronze belt ornament (1); ling (23); fish (20); ge I (1); bit (12); fu (4); axle cap (1); huan (2); round tubular awl ornament (1); bridle ornament (80); jie yue (24); tao tie heads I (11); tube ornaments with animal head (3) JSO: necklace (1); rectangular piece of ?? jade (1); jade jue I (2); jade ladle (1); sword and scabbard shaped jade ornament (2); mussel shell pao (6); bone tube (3); clam shells (40); mussel shell "fish" (20)

Table 8. continued

49	3 2°	3.15x1.95-1.0	3.15x1.95-2.3		1.9x0.7		2.8x1.6	supine	north	PV: li XI ; guan XI-A (4), VIII (2) BV: ding IV (1); pan IV (1); yi (1); gui II (2); ling (13); fish JSO: jade huan I (2); stone ge III (1); square jade ornament (1); jade tablet (3); other: string of stone and ivory beads (1)
50	4 12°	2.46x1.08-0.8	2.46x1.08-2.34		2.18x0.73			supine	north	PV: guan XIX (1) JSO: tongue amulet (5)
51 (two)	17° NOTE: tomb looted	13x11.58-0.4	13x11.58-2.9	6.04x5.05-2.5	2.56x1.34	4.6x3.7x2.5		decomposed		PV: lei III (4); guan XXVII (4) BV: gold and silver inlaid bronze belt hook (1); arrowheads (10); zun (1) JSO: jade bi III (1); stone huan (30); stone beads (12); other: string of bone and stone beads (2); bone tube (small) (72)



Table 8. continued

52 (two)	10°	23.5x12-0.4	12.5x12-3.45	6.2x5.4-3.05		supine	north	PV: fu II-A (1); hu III-A (4); hu or guan III-B (16); porcelain guan I (2) BV: zhui hu I (1); pan V (1); vessel stand (3); sword (1); mao halberd (1); dao blade (1); crossbow mechanism (1); belt hook (1); huan (2); adze ? (1) arrowhead (3) scraper (11); coffin nail (7); zun (2); shovel (1); qimao handle ? (1); guan (1) JSO: jade bi I (4), II (2); III (12); jade ornament (10); jade huan I (1), II (1), III (6), IV (1); jade tablet with animal head pattern (1); jade she archer's ring (2); jade and stone ornaments (6); kui dragon jade ornament I (3), II (1), IV (2), V (2), VI (1); stone gui tablet I (1); square jade gambling chips, (6) square white stone gambling chips (6); square grey stone gambling chips (6); jade pei (2); stone grindstone (2); small rectangular piece of jade (2); fragment of an animal head shaped piece of jade (1); jade ornament with arched rising spine (1); jade tube (5); jade tube in the shape of a square column (1); jade tube with roof tile pattern (1); agate huan (1); jade jue II (2) other: carved ivory cloud dragon inscribed pai tablet (1); liao zhu glassware (12); string of bone and stone beads (9); octagonal bone tube (1); ivory implement fragment (1); ivory tip with hook (2); chopstick shaped ivory gambling chips (1 set); tusk shaped ivory ornament (4); round gold pao (9); small round gold pao (4); triangular gold pao (3); gold leaves (2); silver belt hook (1)
----------	-----	-------------	--------------	--------------	--	--------	-------	---

Table 8. continued

53	unclear	30°	2.7x1.4-1.05	2.7x1.4-2.05	2.15x1.4			supine	north	PV: li X (1) other: tongue amulet
54	(three)	15°	2.85x1.38-0.6	2.85x1.38-1.8		2.26x1.02		supine	north	PV: fu III (1), IV (1); ring foot small hu II-A (2), II-B (5) JSO: jade silkworm (tongue amulet) (3); other: small bone cudgel (1); bronze "extended head" huan
55	3	16° NOTE: tomb looted	2.69x1.65-0.9	2.69x1.65-2.2		1.93x0.68	2.15x0.95	supine	north	PV: li (1); guan IX-B (4) other: tongue amulet
56	3	16° NOTE: tomb looted	2.6x1.03-0.87	2.6x1.03-1.87		1.9x0.66		supine	north	PV: li XI (1); guan IX-B (2), XII (1) JSO: stone bead other: cylindrical stone ornament (2); tongue amulet
57	1	23°	2.51x1.26-1.2	2.51x1.26-2.37		2.5x0.6	2.28x0.98	supine	north	PV: li II (1); guan I (1), II-A (1), III-A (1) BV: adze (1); ling bell (1); fish JSO: JSO: stone ge III (1); stone gui tablet III (1) other: mussel shell fish

Table 8. continued

58 (three)	10°	11.6x10.7-0.4	11.6x1.7-3.15	6.25x5.4-2.75				decomposed	north	PV: fu II-B (1); guan XXIX (16); porcelin guan II (2); hu V (4); vessel cover (2); mold (2) BV: ding VII (1); hu III (2); pan (1) fragment; yi (1) fragment; guan (1); zun (1); jiao hu II (1); bo (1); gold plated jade inlaid belt hook (1); sword (1); zun (1); jing mirror (1); scraper (2) JSO: jade bi II (3), III (13); jade belt hook (1); jade huang semiannular ring (3); round jade piece (3); jade pai (2); long piece of jade (1); jade qinao knob (1); agate huan (2); jade huan III (11); kui dragon jade ornament I (5), ? (2); stone gui tablet I (1); jade baton (2); jade and ivory ornament in the shape of four wings (20); roof tile pattern jade tube (1); jade tube (1); peach shaped jade ornament (1); square jade bead (1); a string of jade ornaments (1); jade ornament (1); long drum shaped jade bead (1); a small string of turquoise beads (1) other: carved ivory backscratcher (1); jade she archer's ring (1); liaozhu "glass" balls (10); ivory hairpin (1); round tube shaped liaozhu "glass" (2); long hexagonal tube of liaozhu "glass" (1); string of bone and stone beads (11); iron belt hook inlaid with gold and silver (1)
------------	-----	---------------	---------------	---------------	--	--	--	------------	-------	---



