

UCLA

UCLA Electronic Theses and Dissertations

Title

The Culture Problem in Neolithic Archaeology: Examples and Possible Solutions in the Middle Yangzi River Region

Permalink

<https://escholarship.org/uc/item/7qb7h943>

Author

Ehrich, Richard

Publication Date

2017

Peer reviewed|Thesis/dissertation

UNIVERSITY OF CALIFORNIA
Los Angeles

The Culture Problem in Neolithic Archaeology: Examples and Possible Solutions in the
Middle Yangzi River Region

A dissertation submitted in partial satisfaction
of the requirements for the degree
Doctor of Philosophy in Archaeology

by

Richard Ehrich

2017

© Copyright by

Richard Ehrich

2017

ABSTRACT OF THE DISSERTATION

The Culture Problem in Neolithic Archaeology: Examples and Possible Solutions in the
Middle Yangzi River Region

by

Richard Ehrich

Doctor of Philosophy in Archaeology

University of California, Los Angeles, 2017

Professor Lothar Von Falkenhausen, Chair

Archaeological cultures have been an essential part of the study of prehistory, especially the Neolithic Age, since the beginning of the discipline. However, for a long time now doubts have been raised about their ability to reflect the reality of life in antiquity. These Neolithic "cultures", as they are defined by archaeologists, appear to have little semblance to how anthropology or the general public understand the concept of "culture". This thesis aims to re-conceptualize archaeological cultures and demonstrate ways in which these constructs of our modern typology can be made to relate to ancient human behavior. I apply these ideas in the archaeology of ancient China where the use of archaeological cultures has gone largely unquestioned and certain prehistoric cultures are ascribed a special significance in the formation of Chinese civilization.

After tracing the history of the culture concept in anthropology and the archaeologies of America, Europe, and China, I present a new framing of the term based on current ideas about style, practice, and social boundaries. The identification of cultures relies on detecting behaviors that are so ingrained that they are subject to little conscious manipulation and hence dependable signifiers of the cultural environment they were acquired in. In terms of Neolithic archaeology, the best way of achieving this is by discerning certain behavioral steps in the production of pottery, in this case the forming of the vessel rim.

I give a detailed introduction to a group of Neolithic cultures in the Middle Yangzi River

Region in Central China and demonstrate how the traditional culture concept by which they were defined has created problems in interpreting the underlying processes resulting in a long and unresolved debate about their relationship to each other. Then I apply my own typology of vessel rims to published material on the one hand and plot my measurements of the rims of vessels in Chinese museum collections on the other hand. The emerging patterns hint towards the invention and adoption of the potter's wheel in this time and region as a decisive force of cultural change.

The dissertation of Richard Ehrich is approved.

Anthony Barbieri-Low

Hans Barnard

Min Li

Lothar Von Falkenhausen, Committee Chair

University of California, Los Angeles

2017

For my dear parents, Dagmar and Mathias

TABLE OF CONTENTS

Introduction	1
Chapter 1: Changing Concepts of Culture	4
Introduction	4
The origin of the culture concept and its development in Anthropology	6
The roots of the terms "culture" and "civilization"	6
Early Evolutionism	8
Particularism	9
Systems Theory, Structuralism, and Functionalism	11
Neo-Evolutionism	13
New Relativism	15
The culture concept in European archaeology before World War II	18
<i>Formenkreise</i> and <i>Kulturkreise</i>	18
Kossinna's "Settlement Archaeology"	20
Childe's definition of the archaeological culture	22
The culture concept in Anglo-American archaeology	23
Culture historical beginnings	23
Processual Archaeology	24
Post-Processual Archaeology	27
The culture concept in German archaeology after World War II	30
Hachmann and the holistic concept of the archaeological culture	31
Lüning's criticism of the archaeological culture as an explanatory concept . .	32
Narr's Heuristic Principle for the definition of archaeological cultures	37

The unraveling of archaeological cultures as tightly bounded units	39
The culture concept in Chinese archaeology	42
Foundational ideas out of Western anthropology and archaeology	42
Xia Nai and Su Bingqi setting the culture-historical framework	43
The impact of Marxist Evolutionism	45
Critiques of the classical culture-historical model	47
Chapter 2: A Theory of Style and Culture	50
The usefulness of archaeological cultures and the need for middle-range theory . .	50
Common definitions of culture	52
Definitions of Style and Culture	56
Individuals Creating Society Through Culture: A Systemic Approach	59
Cultural Evolution	61
Passive Style and Active Style, Passive Culture and Active Culture	62
Culture and Power	65
Culture and Ethnicity	66
Culture and Civilization	69
Culture and Archaeology	73
Chapter 3: Setting the Stakes: The Origin of Chinese Civilization and the Role of the Middle Yangzi River Valley	74
Introduction: Why We Search	74
Where and How It All Began	76
The geography of the Middle Yangzi River region	88
A Shijiahe Ritual Sphere?	92
Closing Remarks	100

Chapter 4: The Daxi-Qujialing Controversy	101
Introduction	101
The naming of the Daxi Culture and the Qujialing Culture	102
The state of research at the beginning of the discussion	104
PHASE 1: The start of the debate	108
Li Wenjie 1979: Raising the question of the Daxi – Qujialing relationship . . .	108
Wang Jin 1980: A Counterpoint	110
Zhang Zhiheng 1982: A detailed periodization of the Daxi Culture	112
He Jiejun 1982: A different center of origin for the Daxi Culture	114
Lin Xiang 1982 and Zhang Xuqiu, He Dezhen, and Wang Yunxin 1982: The Dongting Plain might be separate	117
He Jiejun 1982: Separating the Daxi and Qujialing Cultures into Types . . .	118
Xiang Xucheng 1983: A response to Zhang Zhiheng 1982 and a new periodiza- tion of the Daxi Culture	119
Zheng Jiexiang 1983: The Qujialing Culture as a successor of the Yangshao Culture	122
PHASE 2: Back and forth	124
Xiang Xucheng 1985: Discussing the “Black Pottery Phase” between Daxi Culture and Qujialing Culture	125
Wang Jie 1985: Introducing quantitative arguments to the discussion	126
Li Wenjie 1986: New thoughts on the origin and distribution of the Daxi Culture	127
Wang Jie 1987, He Jiejun 1987, and Zhang Xuqiu 1987: An impasse?	128
PHASE 3: New evidence and new methods	130
Zhang Xuqiu 1987: Important new discoveries from the Jiangnan Plain	130
Meng Huaping 1992 and 1993: A new approach	133

Zhu Naicheng 1993 and Lin Bangcun 1994: New data from the Qujialing site	136
Shen Qianghua 1994: A clarification on the Late Daxi Culture at Guanmiaoshan	137
Xiang Xucheng 1995 and Fang Xisheng 1995: Defending the Daxi Culture to Qujialing Culture succession	138
Lin Bangcun 1996: The reason behind the formation and spread of the Qu- jialing Culture	140
Meng Huaping 1997: The Grand System	141
PHASE 4: The debate cools down	143
Zhang Xuqiu and other authors 2004: The question is still open	143
Guo Lixin 2005: The Daxi Period and the Pre-Qujialing Culture	144
Guo Weimin 2010: The Daxi-Qujialing succession hypothesis is alive and well	145
Wang Jin 2010: The last stand of the skeptics	147
A brief conclusion	147

Chapter 5: Sites in the Handong Region - with an Introduction to Typological

Categories	150
Introduction to the site catalogue	150
Vessel types	152
Rim typology	154
Other artifact types	156
A Brief Introduction to the Handong Region	156
Main sites in the Handong Region	159
Bianfan	159
Liuhe	162
Longzui	168
Qujialing site Qujialing locality	172

Shijiahe site Tanjialing locality	182
Youziling	190
Additional sites in the Handong Region	195
Brief summary	199
Chapter 6: Sites in the Western Jiangan Plain	204
Introduction	204
Guanmiaoshan	207
Guihuashu	215
Longwangshan	218
Yinxiangcheng	221
Additional sites in the Western Jiangan Plain	226
Brief summary	230
Chapter 7: Sites of the Three Gorges Region	233
Introduction	233
Daxi	236
Qingshuitan	240
Zhongbaodao	246
Additional sites in the Three Gorges Region	259
Brief summary	260
Chapter 8: Sites in the Middle Han River Region	262
Introduction	262
Baligang	265
Qinglongquan	271

Xiawanggang	281
Additional sites in the Middle Han River Region	291
Brief summary	296
Chapter 9: Possible solutions through ceramic analysis	299
The Style Concept and Pottery Production	299
Viusalization of rim type distributions	305
Introduction	305
Rim types of the Handong Region	308
Rim types of the Western Jianghan Plain	311
Rim types of the Three Gorges Region	314
Rim types of the Middle Han River Region	317
Rim types of the Western Jianghan Plain and Three Gorges Region	317
Rim types of the Handong Region and Western Jianghan Plain	322
Rim types of the Handong Region and Middle Han River Region	325
Rim types of the Western Jianghan Plain and Middle Han River Region	325
Conclusion	330
Case studies based on direct measurements of vessels	331
Problems of data collection	331
Selection of vessels to be measured	332
Conical cups	333
Introduction	333
Discussion	334
Conclusion	339
Small tripodal jars	340

Introduction	340
Discussion	341
Conclusion	345
Miniature vessels of the Pre-Qujialing Culture	346
Introduction	346
Discussion	348
Conclusion	353
Future perspectives for the microtypological method in the Middle Yangzi River	
Region	354
Conclusion	356
The Danger of Stereotyping	356
Cultural change and the potter's wheel	356
Stacks instead of blocks	360
Appendix	363
Site names in Chinese characters	363
¹⁴ C dates	366
Full rim type tables	370
Vessel measurements	378
Bibliography	378

LIST OF FIGURES

1	Map of sites mentioned in Chapter 3	86
2	Ceramics similar to the Qujialing Culture style discovered outside of the Middle Yangzi River Region	87
3	Map of the Middle Yangzi River Region with the four regions investigated here .	89
4	Thin-walled conical cups from Qujialing	93
5	Double-bellied bowls and dishes from Tanjialing	94
6	Map of the Shijiahe site cluster	97
7	Shoulder vessels from Qujialing	107
8	Rim Typology	155
9	Map of sites in the Handong Region	157
10	Map of sites in the Western Jiangnan Plain	205
11	Map of sites in the Three Gorges Region	234
12	Map of sites in the Middle Han River Region	263
13	Interregional Periods in the Middle Yangzi River Region	299
14	Ring base of a Qujialing Culture cup from Zhongbaodao	303
15	Rim Typology	306
16	Mouth diameter of conical cups by period and site	335
17	Mouth diameter of conical cups from Dengjiawan by rim type	336
18	Lip thickness of conical cups by period and site	337
19	Lip thickness of conical cups from Dengjiawan by lip type	337
20	Height of conical cups by period and site	338

21	Base diameter of conical cups by period and site	339
22	Three examples of small tripodal jars from Tanjialing	341
23	Mouth diameter of small tripodal jars by period and site	342
24	Lip thickness of small tripodal jars by period and site	342
25	Lip thickness of small tripodal jars by period and site, only lip type 3	343
26	Rim width of small tripodal jars by period and site	344
27	Rim width of small tripodal jars by period and site, only rim type b	344
28	Rim width of small tripodal jars from Tanjialing by rim type	345
29	Miniature vessels from Longwangshan burials M11, M16, and M42 in comparison	347
30	Mouth diameter of miniature vessels by burial	349
31	Mouth diameter of miniature vessels by rim type	350
32	Mouth diameter of miniature vessels from Longwangshan by burial and rim type group	350
33	Lip thickness of miniature vessels from Longwangshan by burial	351
34	Lip thickness of miniature vessels from Liuhe by burial	352
35	Neck height of miniature vessels from Longwangshan by burial	352
36	Rim width of miniature vessels from Longwangshan by burial	353
37	Different models of cultures constituted of traditions and their change over time	361
38	Calibrated ¹⁴ C dates, part 1	368
39	Calibrated ¹⁴ C dates, part 2	369

LIST OF TABLES

1	Periods of the Handong Region	199
2	Relevant sites of the Handong Region	203
3	Periods of the Western Jiangnan Plain	230
4	Relevant sites of the Western Jiangnan Plain	232
5	Periods of the Three Gorges Region	260
6	Relevant sites of the Three Gorges Region	261
7	Periods of the Middle Han River Region	296
8	Relevant sites of the Middle Han River Region	298
9	Rim types of the Handong Region, normalized, part 1	309
10	Rim types of the Handong Region, normalized, part 2	310
11	Rim types of the Western Jiangnan Plain, normalized, part 1	312
12	Rim types of the Western Jiangnan Plain, normalized, part 2	313
13	Rim types of the Three Gorges Region, normalized, part 1	315
14	Rim types of the Three Gorges Region, normalized, part 2	316
15	Rim types of the Middle Han River Region, normalized, part 1	318
16	Rim types of the Middle Han River Region, normalized, part 2	319
17	Rim types of the Western Jiangnan Plain and Three Gorges Region, part 1	320
18	Rim types of the Western Jiangnan Plain and Three Gorges Region, part 2	321
19	Rim types of the Handong Region and Western Jiangnan Plain, part 1	323
20	Rim types of the Handong Region and Western Jiangnan Plain, part 2	324
21	Rim types of the Handong and Middle Han River Regions, part 1	326

22	Rim types of the Handong and Middle Han River Regions, part 2	327
23	Rim types of the Western Jiangnan Plain and Middle Han River Region, part 1	328
24	Rim types of the Western Jiangnan Plain and Middle Han River Region, part 2	329
25	List of ¹⁴ C dates, part 1	366
26	List of ¹⁴ C dates, part 2	367
27	Rim types of the Handong Region, full, part 1	370
28	Rim types of the Handong Region, full, part 2	371
29	Rim types of the Western Jiangnan Plain, full, part 1	372
30	Rim types of the Western Jiangnan Plain, full, part 2	373
31	Rim types of the Three Gorges Region, full, part 1	374
32	Rim types of the Three Gorges Region, full, part 2	375
33	Rim types of the Middle Han River Region, full, part 1	376
34	Rim types of the Middle Han River Region, full, part 2	377
35	Conical cups, part 1	378
36	Conical cups, part 2	379
37	Conical cups, part 3	380
38	Conical cups, part 4	381
39	Conical cups, part 5	382
40	Conical cups, part 6	383
41	Small Tripodal Jars, part 1	384
42	Small Tripodal Jars, part 2	385
43	Small Tripodal Jars, part 3	386
44	Miniature vessels, part 1	387
45	Miniature vessels, part 2	388

46	Miniature vessels, part 3	389
47	Miniature vessels, part 4	390
48	Miniature vessels, part 5	391
49	Miniature vessels, part 6	392
50	Miniature vessels, part 7	393
51	Miniature vessels, part 8	394
52	Miniature vessels, part 9	395
53	Miniature vessels, part 10	396

ACKNOWLEDGMENTS

After five years of doctoral study, I am indebted to so many people, it would almost be an embarrassment, if it hadn't been such an immense pleasure to work with them! First and foremost, there is my committee, who have not only displayed superhuman patience with me towards the end of this process, but who also each have inspired me in their own way. I can hardly describe the amount of generosity I have received from my Doktorvater Lothar von Falkenhausen! I hardly have to mention how intellectually stimulating it is to deal with him, everybody already knows that, which incidentally can also open a lot of doors for his students, another thing I have to be grateful for! Instead, I want to emphasize how I could always count on my main advisor's friendliness and warmth to see me through stressful times.

A major part of the more theoretical musings of this thesis have been inspired, directly or indirectly, by conversations with Li Min. It would be almost rare for me to talk to him or attend one of his classes without having my mind completely changed by the experience. In terms of the best possible advice, to constantly seek out new viewpoints, he leads by example.

Hans Barnard is an utter delight to work with, to talk with, or to go on road trips through the Chinese countryside with! Apart from the pure fun it always is just to have a chat with Hans, I could always fall back on his broad knowledge of pretty much everything and his scientific common sense to guide me through confusing times.

I would be constantly spurred on by Anthony Barbieri-Low, not only through his direct comments, but even more through the shining example he sets for excellent scholarship, while somehow making it all look way easier than it should be.

My eternal gratitude is also extended to my Chinese advisor Xu Shaohua, whose help with conducting research in Hubei was invaluable! Professor Xu is the ideal person to seek out when looking to establish contacts, since it appears that everybody of rank and name in the archaeology of that region is a former student of his - probably no coincidence. Apart from the academic support, the moral support that the always excellent luncheons at his house would bring played a big part in getting me this far!

I am deeply indebted to the Staff of the Jingmen City Museum, the Jingzhou City Museum, and the Yichang City Museum! Their generosity in allowing me access to their collections made this research possible in the first place! Also, I would be remiss not to mention the warm welcome I have received among the brave field archaeologists at Qujialing.

During my time in China, I have received help from Zheng Yifan and Li Longjun to a degree that exceeds by far what I would ever be able to repay. Not to forget, if I ever needed any resources or advice in the field of Chinese archaeology, I could always count on my homies Shi Tao and Wen Chenghao!

My fellow students in archaeology and other antiquity-related fields in LA are the best fellow students anyone could ever hope for! I particularly have to thank my cohort, obviously! You guys made these five years go by far too quickly!

A special thanks for helping me along with the completion of this thesis has to go to Alan Farahani who introduced me to the wonders of LaTeX and guided me through the horrors of LaTeX. And Amy Karoll was of immense help when I needed to map a lot of points in a short time.

And lastly, I have to thank my parents for quite literally everything! But especially for putting up with me in my last few weeks before finishing this thesis. I must not have been the easiest to deal with.

VITA

EDUCATION

2004-2012: Free University of Berlin, Germany; Studies of Prehistoric Archaeology and Sinology; Degree: Magister Artium

2006-2007: Shandong University, Jinan, China; Chinese Language Studies

2015-2016: Wuhan University, China; Visiting Student

SCHOLARSHIPS

2006-2007: Full scholarship of the German Academic Exchange Service (DAAD) for Language Studies in China

2012-2013: UCLA Graduate Division Fellowship

2015-2016: Confucius China Studies Program Fellowship

EMPLOYMENT

2006: Library assistant at the German Archaeological Institute, Eurasia Department, Berlin

2007-2012: Research assistant of Dr. Mayke Wagner at the German Archaeological Institute, Eurasian Department, Berlin

2013-2017: Teaching assistant at the Department for Near Eastern Languages and Cultures, UCLA

2017: Teaching assistant at the Department for Art History, UCLA

FIELD WORK

2004: Excavation at Horno, Lower Lusatia, Germany (Middle Ages until present age)

2005: Survey near Wusterwitz, Brandenburg, Germany

2005: Excavation at Potsdam, Brandenburg, Germany (Foundations of City Palace)

2005, 2006, 2008 and 2009: Excavation at Pietrele, Muntenia, Rumania (Chalcolithic Tell settlement)

2007: Excavation at Beiqian, Shandong, China (Prehistoric shell middens)

2009/10 and 2010/11: Chengdu Plain Archaeological Survey, Sichuan, China

2013 and 2014: Teaching Assistant at Excavation Field School at Yangganzhai, Shaanxi, China (Neolithic settlement)

2014: Teaching Assistant at Excavation Field School at KomAushim/Karanis, Fayum, Egypt (Greco-Roman settlement)

2015: Excavation at Qujialing, Hubei, China (Neolithic settlement)

PUBLICATIONS

Hosner, D., A. Fleck, R. Ehrich and M. Wagner 2009:

"The Chinese Archaeology Database CHARDA-Xplore." In: *Chinese Archaeology and Palaeoenvironment I. Archäologie in China 2*, edited by M. Wagner, Luan Fengshi and P. Tarasov, pp. 129-138. Mainz: Philipp von Zabern.

Wagner, M., D. Hosner, A. Fleck, P. Tarasov, R. Ehrich and C. Leipe
2013: "Mapping of the spatial and temporal distribution of archaeological
sites of northern China during the Neolithic and Bronze Age." *Quaternary
International* 290-291, 344-351.

Introduction

Are archaeological cultures a relic of the past? A conceptual leftover that has missed decades of progress in the social theory passing it by? Are archaeological cultures even needed anymore in a "post-post-processual" archaeology with a digital toolset that is advancing in leaps at its disposal? If one looks into a current handbook on archaeological theory, one might think the concept has already been abandoned. But the archaeological culture seems to be a mainstay still in any summary of a regional prehistory, in any museum exhibit of prehistoric artifacts, and in any article that has to deal with the relative chronology of prehistoric remains. In the prehistoric archaeology of China, one of the largest in the world, archaeological cultures are a fundamental part of the established research standards. To be clear, this concept has been deemed problematic decades ago and yet it still exists as one of the core principles of prehistoric archaeology. This is certainly a discrepancy in need of investigation and that is the main goal of this thesis.

I put my focus on Neolithic archaeology here, first of all because Bronze Age archaeology sometimes already falls into the domain of historic archaeology, as is the case to a large degree in China. And secondly, in Neolithic archaeology it is particularly common to rely on one specific artifact group to delineate cultures: Ceramics. This thesis examines how the distribution of ceramic types determines the definition of Neolithic cultures, what problems of interpretation that brings, and what ceramics can tell us about ancient cultures nevertheless. I will illustrate all this by example of the Late Neolithic in the Middle Yangzi River Region, spanning roughly the 4th millennium BCE and first half of the 3rd millennium BCE. My reason for choosing China is, first of all, quite obviously that Neolithic archaeology is my trained specialization. Apart from that, it is worth noting how large and impactful Neolithic archaeology in China is. At the same time, China has been separated from the theoretical discussions in Anglo-American archaeology for a long time and, to a lesser extent, due to a

persistent language barrier, continues to do so. All this goes to say, China is a place where the reevaluation of the culture concept in archaeology really matters.

This thesis is structured in the following way.

Chapter 1 presents a short history of the concept of culture from its beginnings in anthropology to its use in archaeology. I contrast how archaeological cultures have been used and critically examined in Anglo-American archaeology, German archaeology, and Chinese archaeology.

In Chapter 2, I build upon these theoretical foundations to develop a culture concept that is very broad, so that it can inform the conceptualization of archaeological cultures, but still be accessible to other fields and the public. I also discuss how this affects related concepts relevant to archaeology, such as civilization and ethnicity.

Chapter 3 introduces the Middle Yangzi River Region and establishes why its cultural history is deemed so important in the search for the origins of Chinese civilization.

In Chapter 4 I lay out in detail a decade-spanning discussion regarding the relationship of Neolithic cultures in the Middle Yangzi River Region. This is meant to provide a thorough look into how archaeological cultures are being "handled" in such situations of controversy. This chapter also introduces the main questions that I attempt to tackle with my own research.

Chapters 5 to 8 provide an overview of sites that are relevant to the discussion. Each chapter is dedicated to a different sub-region, Chapter 5 to the Handong Region, Chapter 6 to the Western Jiangnan Plain, Chapter 7 to the Three Gorges Region, and Chapter 8 to the Middle Han River Region. A selection of sites is presented in detail, listing the content of different occupation phases. These phases are then synthesized into a system of regional periods.

In Chapter 9 everything comes together. I explain how my anthropologically informed culture concept can be applied to investigate Neolithic cultures through ceramic analysis. I give different examples of such analysis, some based on data aggregated from publications, others based on my own measurements on vessels in museum collections. I explain the

challenges of these approaches, discuss some results, and propose some directions they might be taken in future research.

Finally, there is a short conclusion to reflect on what can be gleaned from my investigations in the Middle Yangzi River Region for the understanding of archaeological cultures at large. And, based on all the observations made, I make a suggestion how to employ a concept that our theoretical consciousness tells us not to employ, yet the practical circumstance seem to offer no other alternative.

Chapter 1: Changing Concepts of Culture

Introduction

"Culture" is a highly loaded term, both in archaeology and in common usage. The word seems ubiquitous in the political discourse of our time. As people from all over the world are brought ever closer together by globalization, "cultural differences" become apparent and are in some cases posed as a challenge to a friendly co-existence. In a seemingly unrelated discussion, "cultural institutions" – museums, theaters, colleges – are frequently under threat of budget cuts and yet are deemed worth defending if just for the fact that they uphold "culture" as some intangible resource. In all these cases, the meaning of the word "culture" is implicit to both the authors and the readers of the book, article, news item, internet post etc.; it does not require explanation. However, a clear definition of the word can be hard to pin-point. While there have been many attempts at a definition, some of which shall be discussed below, the seemingly innocuous question "What is culture?" still yields wildly differing answers depending on the addressee. This lack of a consensus concerning the definition of a word used as often as "culture" bears the danger of turning any discussion into a sad show of participants talking past each other, something that is certainly not unheard of in today's media. Furthermore, it opens up the term to misappropriation and conflation with words such as "ethnicity" or "civilization" that come with their own contextual baggage. As much as these problems pertain to the general public discourse, they are just as apparent in the use of the word "culture" in archaeology, especially when it comes to its specific incarnation as "archaeological culture". The main conceit of this thesis is to find a specific definition of culture that can be applied in archaeology, but is also comprehensible to and compatible with anthropology as well as other sciences and the general discourse. The archaeological culture has been one of the fundamental concepts in the methodology of the

discipline throughout most of its history and as such has acquired a set of meanings and connotations that at times move it quite far away from what is commonly associated with the word "culture". One of the aims of this treatise is to reconcile the specific technical term with the general understanding of the idea behind the word "culture". This, as I shall argue, even helps its application in the very technical spheres of archaeological methodology.

This first chapter is dedicated to tracing how the concept of culture has been developed over time both in anthropology and in archaeology.

It should be noted that the singular term "culture" that indicates a holistic sense and the plural term "cultures" that indicates a partitive sense is conflated often, including in this discussion. The reason for this is that the two meanings are not as separate as some rigid definitions would imply (Eggert 1978). "Cultures" in the partitive sense are defined and differentiated precisely by the way that "culture" in the holistic sense manifests in each of them. Broken down to the simplest level, "cultures" are nothing more than plural representations of "culture". This can be applied even to the "culture - nature" dichotomy, since this opposition plays out in particular ways in each culture.

The following discussion of the research history of the culture concept in anthropology and archaeology is by necessity far from comprehensive. Rather than bring up every development in this field, I keep it to some major contributions to illustrate the back and forth of the discussion. Apart from English-speaking archaeology, I also include some of the debates surrounding the culture concept in German archaeology and Chinese archaeology. The inclusion of the latter should be obvious, since this thesis is drawing upon examples from Chinese prehistory. I include the former on the one hand simply because I am able to, thanks to my training in German archaeology, and, on the other hand, because Germany shares some of the origin of culture-historical archaeology with the Anglo-American realm, while providing an interesting counterpoint in the phases of its history after World War II.

As this look into the history of the culture concept in archaeology will demonstrate, there are two recurrent problems. The term "archaeological culture" is either associated unquestioningly with anthropological concepts such as ethnicity or stage in an evolutionary

development. Or it is separated entirely from any meaning outside of archaeological analysis. In this case, namely the use of "archaeological culture" as a mere analytical tool, the word "culture" loses any meaning and might as well be abandoned and replaced with a more innocuous term. But the research history also shows that these problems have been discussed at length and recently some perspectives have opened up that allow for a more fruitful link between "archaeological cultures" and "culture" in the common and anthropological sense.

The origin of the culture concept and its development in Anthropology

The roots of the terms "culture" and "civilization"

The original meaning of the word "culture" in its Latin form "cultura" denotes something cultivated, i.e. grown, tended. It would take quite some time for the concept to be extended from this meaning to signify different groups of people and their different customs. It started off with the concept of cultivation being applied to human character and personality. This normative understanding of "culture", the attainment of a desirable state by mind and spirit, already appears in statements by Cicero in ancient times, Erasmus von Rotterdam during the Renaissance, and Immanuel Kant during the Enlightenment period (citealt[4f.]Riegler2003). The concept could also be applied to a whole collective of people or a nation and from there acquire the additional meaning of the different ways in which different peoples are cultivated – often implying different stages of enlightenment as it were. The first occurrence of this usage of the word seems to be in German history books at the end of the 18th century, most notably Herder's (Kroeber and Kluckhohn 1952: 18). Although this idea is already not too far from "culture" being generalized to the different ways in which different peoples lived, it would take almost another 50 years until German historian Gustav Klemm uses the word in this sense in his "Allgemeine Culturgeschichte der Menschheit" from 1843 (Kroeber and Kluckhohn 1952: 10).

The word "civilization" came into use parallel to "culture" and it is worth looking at

how it at times complements and at times contradicts the culture concept. The concept of civilization is a product of the French Revolution (Kuper 1999: 25ff.). The word derives from Latin "*civis*" meaning "citizen" and, similar to "culture", "civilization" at first describes a process of becoming, in this case becoming "civil", a "citizen". In the wake of the revolution, being a citizen would be considered the epitome of social development. By that logic, civilization is the highest state a society can attain, the implication being that post-revolutionary France had attained that state. However, the status of civilization could be ascribed to other societies that are not France as well.

As we see, on a surface level the meaning of "culture" and "civilization" was initially quite similar: The process of attaining a higher, enlightened level of society and, by extension, that society itself. Different societies could be compared by how advanced they were in that process, i.e. how "cultured" or "civilized". However, the two terms acquired different connotations mainly based on the countries of their use. "Civilization" in France meant the enlightened state that the French empire gained through its unique history, there for all societies to emulate. "Culture" in Germany was conceived in opposition to that. It was meant to describe the unique "folkways" that the peoples in the various regions of Germany had attained through their different customs, with these characteristics then considered under threat by the encroachment of French civilization (Kuper 1999: 31f.). The themes of these two models – the measuring up of different societies against a "civilized" ideal in the French case and the emphasis on plurality and primordialism in the German case – can be said to preclude the later evolutionism vs. particularism debate in anthropology.

It is important to note that both terms have retained these connotations to a certain degree in the modern vernacular. Although my stated aim is to make the concept of the archaeological culture compatible with the popular use of the term "culture" again, the problematic roots of "civilization" in French Imperialism and of "culture" in German Isolationism have to be taken into account. I develop a new definition of "culture" in Chapter 2 that is so broad as to try and avoid these connotations.

Early Evolutionism

In the English language discourse, "civilization" and "culture" were often used interchangeably and lost some of the connotations noted above. The first "anthropological" definition of culture that later generations of scholars would fall back upon is ascribed to Edward B. Tylor. Tylor, a British pioneer of anthropology, was himself explicitly influenced by Klemm's culture concept (Kroeber and Kluckhohn 1952: 10). This is Tylor's famous definition that is still commonly cited whenever "culture" is brought up:

"Culture or civilization, taken in its wide ethnographic sense, is that complex whole which includes knowledge, belief, art, morals, law custom, and any other capabilities and habits acquired by man as a member of society." (Tylor 1920: 1)

A main question for Tylor was how to explain the similarities in these features among the different societies he studied. Tylor borrowed Charles Lyell's concept of uniformitarianism which allows for the comparison of geological strata among long time periods since their formation always follows the same laws. Similarly, Tylor argued, human minds always operated according to the same principles, wherefore the resulting cultural formations can be compared throughout the periods of human history (Moore 2009: 9). This also means that every human society possesses or produces culture in some form. An explanatory model for the similarities and differences in these cultural formations could be found in Charles Darwin's theory of evolution. Evolution, the gradual change from one state into another following a long causal chain of selections had already been applied not just to develop comparative methodologies in biology, but also in linguistics. Applying this to human societies would allow anthropologists to compare them as they represented different steps along the evolutionary chain just as a biologist defines different species according to the relations in their evolutionary history. The cultural traits apparent among different societies would be the phenotypes that allowed for such a classification. Tylor was not the first to apply the theory of evolution to human groups. John Lubbock had already done so a decade earlier in his famous "*Prehistoric Times*". But where Lubbock mixed up elements of biological evolution and cultural evolution to ultimately come up with a racist explanation for the superiority

of European civilization (Trigger 2006: 171ff.), Tylor decidedly used his model of cultural evolution to dispel any notions of biological determinism.

The development of evolutionist ideas was not limited to Tylor and English anthropology. At a similar time, the 1870s, the American social scientist Lewis Henry Morgan worked out a more explicit system for classifying the evolutionary stages that societies would undergo (Moore 2009: 25f.). He was first inspired to this by his observations of different kinship systems among the native groups that he studied. Similar to Tylor, he relied on the uniformitarianist principle to extend these observations to all of human history. To concepts of kinship he added concepts of property, concepts of government and inventions and discoveries to form four sets of cultural phenotypes that his classification could be based upon. Morgan named the resulting main stages of evolutionary development "savagery", "barbarism", and "civilization". Therefore, "culture", according to Morgan, reflects the development of every human society. But "civilization" is a specific stage that only certain societies with very developed manifestations of kinship, government, property, and technology have achieved. Morgan's evolutionism received extremely wide recognition, especially after it was picked up and expanded upon by Friedrich Engels in his "Origin of the Family, Private Property and the State" from 1884.

Although the concept of evolution itself is not supposed to have any normative implications, its early applications in anthropology and especially the resulting Marxist model carry strong implications of "the more advanced the better". Through Marxist ideology this subtext would enter archaeological interpretation in many countries as well, not the least of which is China. We will see it emerge occasionally in older treatises on Chinese prehistory.

Particularism

The most severe challenge to the evolutionist concept of culture and society came around the 1890s, personified by one of the most influential figures in American anthropology: Franz Boas. Born in Westphalia and educated at various German institutions, Boas had been subjected to the more regionalistic notions of culture prevalent in German Romanticism.

Grounded in these notions and ideas, a German brand of anthropology had emerged in the second half of the 19th century represented by Rudolf Virchow and Adolf Bastian. Boas had been subjected to Virchow's and Bastian's kind of anthropology in Berlin in the 1880s (Kuper 1999: 61). Boas' upbringing in a family devoted to the ideals of the 1848 revolution in Germany could be another source of the Romantic notions of culture present in Boas' thinking (Moore 2009: 35). One thing is certain: The concept of culture Boas brought to America reflects the German rejection of all-encompassing 'civilization' from the earlier 19th century to a fault.

For Boas the cultural traits used by Tylor and Morgan for comparison of different groups across centuries and continents cannot be extracted out of their specific historical context. The reason why a certain society exhibits a certain system of kinship is not due to an all-encompassing law that compels such a development, but due to the very specific developments in the history of that particular society. If another society halfway across the globe shows similar traits, then that is mere coincidence that cannot be ascribed to any connection between the two.

Similar to other anthropologists of the time, including the evolutionists, Boas was devoted to dispel any racial explanations of cultural differences ((Moore, 2009: 39f.)). The explanatory model of cultural particularism that he suggested instead just came from a very different angle than evolutionist models. And yet, it cannot be claimed to reject the concept of evolution itself. It merely reflects a very different idea of how evolution works and how it can be applied to human behavior.

Aside from bringing a theoretical challenge to Evolutionism to the game, Boas had a large influence on American anthropology as an institution by establishing his own brand of anthropology at Columbia University. The Columbian school, including Boas himself as a teacher, would go on to produce many of the most influential anthropologists in America, including Sapir, Kroeber, Benedict, Mead, White, Steward, Burke Leacock, and Harris. Boas' intellectual grounding in various disciplines contributed to his expanding the subject area of anthropology to include not just culture, but linguistics, archaeology, and human anatomy. This is still reflected in the four-part nature of American anthropology today.

Boas' particularism was taken in some very different directions by his students. Ruth Benedict attempted to tease out patterns of attitude and behavior that were essential to each particular culture. Edward Sapir, on the other hand, concentrated upon the process in which culture is created and perpetuated. Alfred Kroeber investigated how cultural traits were interconnected in certain patterns that, similar to what Benedict stated, were essential to each culture and that, similar to what Sapir had determined, were acquired by each new generation through learning. Although, in that line of thinking, all societies world-wide and throughout the ages did not share the same evolutionary trajectory, the one thing they did share is culture as a principle, according to Kroeber, that is at the basis of all human behavior; that is irreducible and not contingent on any other principle, such as adaptation or evolution; that is "superorganic" and not contingent on any individuals and their behavior (Moore 2009: 73).

From a modern standpoint the conception of culture as "superorganic" appears somewhat arcane, since how can culture be independent from the humans that create it? Generally speaking, the particularist notion that every culture has its own unique trajectory is evident and worth remembering in order to guard against stereotyping. However, this does not mean that every culture exists in a vacuum. Humans communicate and thus do cultures intersect and from this situation emerge patterns that we seek to record.

Systems Theory, Structuralism, and Functionalism

Sometimes, the question of how much of a role culture plays in human life is more a question of terminology and institutional politics. To the sociologist Talcott Parsons culture represents one of three systems that govern human action: The psychological, the social, and the cultural (Kuper 1999: 52ff.). The cultural system encompasses the values and ideas that are transmitted by symbols. Consequently, when Parsons founded the Department of Social Relations at Harvard University in 1946, he declared the study of the cultural system the sole task of anthropology. The strong primacy of culture in Kroeber's thought model mentioned above reflects the anthropologists not being content with seeing their discipline relegated to a

sub-system of sociology. This was the main impetus behind Kroeber's publication, together with Parsons' close anthropologist associate Clyde Kluckhohn, of *"Culture: A Critical Review of Concepts and Definitions"* in 1952. Talcott Parsons was a pioneer of Systems Theory in sociology and a major influence on the German sociologist Niklas Luhmann, whose version of Systems Theory that he developed in the 1970s rarely invokes culture as a concept. On the other hand, many of the processes that Luhmann describes, of the transmission and perpetuation of social systems, would likely have been called "cultural" by any anthropologist looking at the same models.

As a result of the strong particularist school in anthropology, Evolutionism would play a diminished role in English-speaking anthropology during the first half of the 20th century. In France, on the other hand, Emile Durkheim and his student Marcel Mauss were focused not so much on tracing evolutionary stages of social development, nor on essential characteristics of specific social groups, but on large-scale patterns that transcend single groups and reveal something about human behavior in general (Moore 2009: 46ff.; 121ff.). To them the question was primarily about similarities in, for example, ritual practice and then, secondarily, about how these general tendencies manifest in each particular society. The difference to earlier French notions of "civilization" is that here all "civilizations", still the preferred term over "cultures", were treated as equal contributors to the human experience. In opposition to German particularism and Boasian anthropology, here the emphasis was on commonalities, not differences between cultures. A direct trajectory can be assumed from Durkheim's and Mauss' search for patterns underlying all human practice to Claude Levi-Strauss' Structuralism seeing patterns underlying all human thought and signification. Through Structuralism, the ideas of French anthropology would have an increased influence on Anglo-American anthropology in the second half of the 20th century.

But before structuralism became popular in English-speaking anthropology, Evolutionism would make a return. At first, opposition against Boasian Particularism arose in Britain of the 1920s and 1930s. Bronislaw Malinowski and A. R. Radcliffe-Brown proposed a functional approach to anthropology that was not content with describing cultural differences, but instead sought to investigate the processes that created them (Moore 2009: 134ff.; 147ff.).

They were more interested in large-scale social connections than in specific customs. This also means that while there were some parallels to the French research at the time – Malinowski's field work was a great inspiration to Mauss' theories after all -, the British focus was more on economy and social systems while the French focus was more on beliefs, practices, and social conventions. Neither of the European anthropologies were explicitly evolutionist yet.

All of these different schools would at certain points inspire archaeologists, but usually decades after the publication of their main ideas and not infrequently at times when anthropology had already moved on to opposing models. Nevertheless, these concepts can be useful and enlightening if applied carefully. For some of my deliberations in Chapter 2 I have been influenced by the Systems Theory way of thinking.

Neo-Evolutionism

One of the reasons for the recurrence of Evolutionism in America was, ironically, the suppression of a related thought model – Marxism. In the decades before World War II, in a more tolerant environment, Australian-born archaeologist Vere Gordon Childe had already laid the groundwork inspired by Marxism for some of the concepts of Neo-Evolutionism. We will return to Childe below, when looking at how archaeology specifically dealt with the culture concept. However, the US of the McCarthy era during the late 1950s, it had become difficult, if not dangerous, for Marxist scholars to express their views, which is why some of them resorted to going back to the source that had had a big influence on Marx and Engels: Lewis Henry Morgan. The foremost among the anthropologists who resurrected Evolutionism due to their Marxist allegiance was Leslie White, who was also educated at Columbia University, the traditional stronghold of Boasian anthropology.

The Neo-Evolutionists were discontent with the idea that culture was an irreducible entity that existed only for its own sake. Culture had to have some function in human evolution. Malinowsky had already brought up the idea, published in 1944, that culture encompasses all the ways humans have come up with to satisfy their basic physical needs (Moore 2009: 141). Possibly following notions that Childe had brought up in his extensive theoretical writings,

White took this concept further to suggest that culture was essential not just in the survival of the individual, but in the evolutionary progress of the human species in general as the "extra-somatic means of adaptation" (182). The "extra-somatic" component here basically has the same meaning as Kroeber's "super-organic": Transcending the individual, exceeding the limitations of a human body and a human lifetime. The "adaptation" component implies the evolutionary goal: To survive and thrive under certain external conditions. More specifically, according to White, the success of culture – or a particular culture – could be measured by how much energy the individual is able to harness, thanks to the cultural means of adaptation, and how efficient that energy can be put to work (186). Not surprisingly, White emphasized the technological aspect of culture over sociological and ideological aspects.

White's metric way of expressing the success of a culture implies an evolutionary hierarchy from the least efficient to the most efficient. Elman Service came up with a distinction of evolutionary stages based not as much on energy efficiency but on social complexity. His rank system of societies, consisting of, from least complex to most complex, the band, the tribe, the chiefdom, and the state, is frequently invoked in archaeology. As an alternative to this single evolutionary chain, Julian Steward proposed a multi-lineal evolution in which each society adapts to their environment in different ways with different outcomes (Moore 2009: 201ff.).

As I will elaborate below, these Neo-Evolutionist models had a huge impact on the Processual Archaeology of the 1960s and 1970s. Nowadays, any archaeologist who would invoke the Neo-Evolutionist models had better make sure to avoid the normative connotations that this kind of Evolutionism still tends to carry.

To sum up the major competing schools up to the 1960s, there was the first wave of Evolutionism in the wake of the writings of Darwin and Spencer. This Evolutionism was best represented by Tylor and Morgan, coming out of England and America. Its main challenger was Boas' Particularism rooted in a German tradition. Boas and his disciples from Columbia University would shape the discourse in America during the first half of the 20th century in various ways. Meanwhile on the other side of the Atlantic, Malinowski in England and Durkheim and Mauss in France were still concerned with large-scale cross-

cultural patterns. The main challenge to the Boasian point of view would come out of 1950s America though, in the shape of Neo-Evolutionism, spear-headed by White and attracting many followers in its wake.

At least for the American side of the anthropological discourse we can invoke the metaphor of a pendulum swinging between large-scale, generalizing comparison of different cultures in search of evolutionary patterns on the one hand and an emphasis of relativism and the historical uniqueness of each culture on the other hand. After swinging from the former side in the 19th century to the latter side in the first half of the 20th century, the pendulum seemed to have swung back to the former side in the 1950s, but it would continue the motion back towards the latter side in the late 1960s. This would not be a mere return to the Boasian school of thought though. The new Particularism included a set of novel ideas to take the whole discipline in entirely new directions.

New Relativism

One impetus for the return to Particularism surprisingly came from the French school, which actually was anything but particularist. However, while the Neo-Evolutionism of the American 1950s and 1960s had a very materialist, economy-focused bent, the structuralism that Claude Lévi-Strauss started propagating in late 1950s France was more concerned with patterns of thought and meaning (Moore 2009: 235ff.). Lévi-Strauss was himself building on the tradition of seeking large-scale patterns in religion and ritual that Durkheim and Mauss had maintained earlier in the 20th century.

After the semiotic shift inspired by Lévi-Strauss' Structuralism reached America in the late 1960s meeting the postmodern *Zeitgeist* prevalent on campuses then, it inspired various new relativists to rise up against the Neo-Evolutionists (Kuper 1999: 201ff.). The resulting in-fighting would take up much of the 1970s with both sides claiming a different Marxist bent. When the dust finally settled in the 1980s, what emerged was a flavor of anthropology that leaned very much towards Relativism and Particularism (205f.). The pendulum had reached the peak of the particularist side again. A pioneer of this new Particularism was

Clifford Geertz. Inspired by literary theory, his stance was that every culture had at its core a specific set of meanings and narratives that had to be read and interpreted like a text in order to understand the culture (Moore 2009: 263ff.).

Added to the focus on semiotic content and literary criticism, the new anthropology picked up various postmodern notions typical of the period starting with the late 1960s. First of all, there was a rejection of objectivism, caused in part by the realization that ethnology was complicit in the colonial exploitation of third world nations. The etic categorization of peoples was scorned in favor of more emic narratives, engaging with the formerly objectified on their own terms. The critique of etic categorizations went along with the rise of constructivism, namely the notion that a lot of the concepts in anthropology were entirely dependent on the mindset of the scholars that came up with them and not representative of the reality of human existence – if such a reality even existed in the first place. Combined with Geertz' interpretive view of anthropology, the constructivist idea suggested that not only should the observed culture be treated as a literary text, but so should the ethnographical account written about it. Furthermore, postmodern anthropologists like James Clifford realized that in their post-colonial world, there could be no such thing as "genuine", "traditional" cultures anymore that were untouched by the expansion of "the West" (Kuper 1999: 210ff.). The only culture that they could observe was in the process of being permanently transformed and thus a concept emerged of culture as something that is constantly in flux; that resists clear distinctions and boundaries.

While the clear-cut definitions brought forth by the neo-evolutionists were rejected as rigid, paternalistic, and removed from lived experience, it was hard to put clear new concept in their place. Taking Clifford Geertz' *"The Interpretation of Cultures"* as an example, it is clear that culture is a hugely important aspect of human societies in which symbols and meanings are communicated, but the question exactly how and why this would be the case remains somewhat open. James Clifford also stressed the significance of culture as explanatory concept for the various differences in human behavior, especially as these differences come in contact with each other through the migrations of the modern world. This situation, in which culture has to be invoked as a shield against racism – the other

explanation of these differences, however often disproven – mirrors the one that Boas found himself in almost 100 years earlier.

But how could such arguments be fought with a concept of culture that had now by definition become elusive, fluid, and blurry? Adam Kuper suggests deconstructing the whole concept, not treating culture as an entity of its own but breaking it up into parts such as beliefs, values, knowledge, practices etc. that are much more tangible (1999: 245). However, as Christoph Brumann (1999) has made clear, abandoning the concept of culture altogether is not a viable solution either, especially since it has become so important in the public discourse.

A reinvigoration of the debate would once again come out of France. Pierre Bourdieu was inspired by the works of technical ethnology and archaeology as represented by the work of André Leroi-Gourhan and André-Georges Haudricourt when he formulated his "Outline for a Theory of Practice" (Bourdieu 1977). I will not go into depth about the rather complicated theory here, but what it added to the culture concept is the idea that culture only exists in practice. This means that culture does not exist as an abstract entity that controls all actions of the members of a given group in equal ways. Culture works as a series of dispositions that have been traded down through the generations. It thereby influences every action, but is in turn influenced by every action. This includes both physical actions like gestures as well as mental actions like comprehending a symbol. Culture cannot reside outside of action – it does not reside in the symbol itself, but in the act of producing it and in the act of comprehending it. By eliminating culture as a separate nebulous entity and linking it to practice, an aspect that can be observed and studied, Bourdieu lends back some tangible quality to culture that seemed lost in the post-modern discourse. This ensured his practice theory a wide-spread popularity, not only in anthropology, but especially in archaeology. The culture concept I will embrace in Chapter 2 owes a lot to this thought model and it thusly has a large impact on how my suggested solutions to the issue of culture in prehistoric archaeology are conceptualized in Chapter 9 and the Conclusion.

Most of the aforementioned approaches to the culture concept in anthropology were at various points in time referenced or adopted by archaeology in different areas of the world.

Archaeology had also developed its very own term of "archaeological culture", which was at times linked to anthropological ideas or at times held deliberately separate as shall be demonstrated in the following.

The culture concept in European archaeology before World War II

Formenkreise and Kulturkreise

The use of the term "culture" to denote groupings of artifact types already occurs during the early to mid-19th century in the works of the Danish pioneers of prehistoric archaeology Christian J. Thomsen and J. J. A. Worsaae. Their idea of culture was probably influenced by the emergent "cultural history" in German scholarship, represented by Herder, Klemm, and others.

The custom to name specific cultures in prehistoric archaeology after features of artifacts or other remains considered typical or after the names of type sites appeared by the turn from the 19th to the 20th century. Two notable examples for these naming practices that were both created by the German archaeologist Alfred Götze in 1891 and 1900 respectively are the Linear Pottery Culture [Bandkeramische Kultur], named after a type of pottery decoration, and the Rössen Culture [Rössener Kultur], named after the site in east-central Germany where its remains had first been discovered.

However, none of these early creations of archaeological cultures included any deliberations on what a "culture" encompasses on a conceptual level. There were implications that it denotes a particular period, region, or ethnicity, but there was no clear definition, which of these takes precedence in each case. That is not to say that archaeological cultures were not interpreted and associated with the above categories, but these often implied associations were not backed by methodical argument.

A more salient question at the time was how archaeological cultures could be distilled out of the excavated materials. How could they be delineated in space and time and what find categories were more significant than others for their definition?

The groundwork that Thomsen, Worsaae, and Swedish archaeologist Oscar Montelius laid for the establishment of relative chronologies is well known and shall not be repeated here. As for the spatial ordering of archaeological remains, the systematic mapping of distributions of archaeological remains had already been recognized in the 19th century as providing the key to distinguish regional groups. The large-scale production of distribution maps of specific artifact types began at the start of the 20th century (Eggert 2000: 271f.). Furthermore, German archaeologists coined the term "*Formenkreis*" ("form province") to denote a region with a congruous distribution of types of artifacts or other archaeological remains throughout different time periods (274). Therefore, when a region that could be clearly distinguished by the distribution of a certain type in one time period could still be distinguished by the distribution of a different type in the following period, it constituted a *Formenkreis*. A first step towards a culture-historical archaeology was taken in the 1920s when German archaeologist K. H. Jacob-Friesen began to associate the archaeological *Formenkreis* with the "*Kulturkreis*" ("culture province"), a concept he loaned from ethnology (275). The definition of such cultural provinces, which denote areas of coherent ethnographically observed cultural traits, had become en vogue in the German and Austrian ethnology of the early 20th century. The close contact between archaeology and ethnology at the time was facilitated by the "German Society for Anthropology, Ethnology, and Prehistory" ("Deutsche Gesellschaft für Anthropologie, Ethnologie und Urgeschichte") established, among others, by Rudolf Virchow and Adolf Bastian.

Now a main concern would be what types of archaeological remains and consequently which cultural traits that they represented were significant in the definition of a *Kulturkreis* or, on a smaller scale, of an archaeological culture. With his Three Period System, Thomsen had already pointed out the significance of different artifact materials, but also different types of contexts, for the distinguishing of groups in different time periods. Especially the usefulness of pottery in prehistoric typology had been recognized early on, thanks to its ubiquity in the excavated assemblages and the variety among its forms and decorations. In 1899, German archaeologist Alfred Schliz went one step further by distinguishing between artifact types of the same material but from different contexts. In his comparison of the

Linear Pottery Culture, whose pottery mostly comes from settlement contexts, and the Corded Ware Culture, whose pottery mostly comes from burial contexts, Schliz favored the pottery from settlement contexts in that only it could represent a culture completely (Lüning 1972: 149f.). Similarly, according to Schliz, different types of pottery could still represent the same culture if one type came from the pits and houses of a settlement and the other type from the burials associated with said settlement.

Somewhat parallel to this line of argument, Jacob-Friesen dealt with the problem of how to define a *Kulturkreis* in distinguishing between "material culture" (in the narrow sense) as represented by artifact types and "spiritual culture" or "intellectual culture", meaning the beliefs and customs as represented, for example, by burial customs (Eggert 2000: 275).

In the 1930s, Hans Jürgen Eggers argued in a somewhat opposite direction to Schliz, favoring burial contexts for the definition of cultures (Eggert 2000: 278). He was more specifically referring to tomb construction and apparent burial rites rather than burial goods, arguing that the mere distribution of artifacts would rather reflect the outlet areas of certain production or market centers. This very progressive notion has been picked up again more recently and supported through ethnoarchaeological research (Dietler and Herbich 1998: 248ff.). The severity of this problem naturally depends on the level of specialization in the production and distribution of goods. It can be assumed to play a more important role in the Metal Ages that Eggers was mostly referring to than in the Neolithic.

Judging in hindsight from a standpoint of modern anthropology, we know that these deliberations are missing the point somewhat, because they assume the presence of rigidly bounded cultural provinces that can be identified by certain distinctive traits. In a sense, it was this *Kulturkreis*-based conception of culture in archaeology that created a lot of the discrepancies about archaeological cultures that we are still dealing with.

Kossinna's "Settlement Archaeology"

The first model to state explicitly what archaeological cultures were supposed to signify was the "settlement archaeology" developed by German philologist-turned-archaeologist Gustaf

Kossinna, which famously states:

"[...] scharf umgrenzte archäologische Kulturprovinzen decken sich zu allen Zeiten mit ganz bestimmten Völkern oder Völkerstämmen." ["Sharply bounded archaeological culture provinces are at all times congruent with very specific peoples or tribes."] (Kossinna 1911: 3)¹

This exclusive focus on ethnicity, which to Kossinna was implicitly congruent with race, was motivated by his extreme nationalism. Using archaeological cultures, Kossinna aimed to prove that modern German peoples were directly descended from ancient Indo-Germanic tribes, which as Kossinna sought to imply, were superior to other peoples and their modern descendants. The theoretical idea behind this is that cultural traits are continuous in a given group of people. Any changes of these traits apparent in the archaeological remains in a certain area are to be explained by migrations. Hence, the aim of "settlement archaeology" was to discern the areas of settlement of different ancient peoples as represented by archaeological cultures (Trigger 2006: 237).

This approach garnered some immediate criticism by Virchow, Jacob-Friesen, Eggers, and many others, although rather more on methodological than ethical grounds (Trigger 2006: 239f.). It was first and foremost his cherry-picking of evidence and the dominance of migrationist interpretations that was attacked. At least some of the backlash can probably also be attributed to Kossinna's reportedly grating personality.

Its ulterior motives notwithstanding, Kossinna's settlement archaeology had clearly formulated a general mission statement for culture-historical archaeology that would in a certain way endure. In a region like Europe, but later also in East Asia and elsewhere, there is a persistent desire for prehistoric archaeology to trace the genealogy of the local ethnicity back to the distant ancestors in ancient times. This is often exploited by the local governments, but at the same time it attracts the interest of the general public to see "their own" history extended to prehistoric times. I will demonstrate in Chapter 3 how this dynamic plays out in the study of Chinese prehistory.

¹Unless noted otherwise, translations in brackets are always by myself.

Childe's definition of the archaeological culture

Although archaeological cultures had been defined in various parts of the world, a proper, developed culture-historical archaeology would owe its spread to archaeologies everywhere on the globe to one of the most prolific scholars in the history of archaeology: V. Gordon Childe. Childe synthesized different scholar's views to come up with his own definition of archaeological culture, which he laid down in his book *"The Danube in Prehistory"* published in 1929:

"We find certain types of remains – pots, implements, ornaments, burial rites, house forms – constantly recurring together. Such a complex of regularly associated traits we shall term a 'cultural group' or just a 'culture'. We assume that such a complex is the material expression of what today would be called a people." (Childe 1929: v-vi)

Judging from the methodology, this is a rather neutral approach. Any type of remains could be potentially significant for the definition of a culture. Childe mainly adopted Montelius' techniques in typology and chronology to distill cultures out of the excavated assemblages (Trigger 2006: 243f.). The last sentence of the passage quoted above betrays a clear influence from Kossinna (Veit 1984). It is unclear if Childe was aware of the racist connotations of Kossinna's model. As noted previously, Kossinna was at the time attacked more on the grounds of his methodically careless application of the model than the clear implications that we cannot help but find insidious from today's point of view. Childe valued the systematic behind the approach, not the ideology. And he was certainly aware of some of the pitfalls in Kossinna's application. For example, unlike Kossinna, Childe avoided putting prehistoric remains into direct relation with later, historically recorded peoples (Trigger 2006: 246).

The culture concept in Anglo-American archaeology

Culture historical beginnings

At a time when Native Americans were not yet involved in archaeological research, culture-historical archaeology in America was lacking the aforementioned European motivation to expound on the ethnical genealogies from extant peoples back to ancient times and the study of Native American remains was therefore considered more akin to ethnography (Trigger 1978: 93ff.).

Archaeologists in America began to classify excavated assemblages as "cultures" at a similar time as in Europe. For example, both the Fort Ancient Culture and the Hopewell Culture were named by William C. Mills in 1902 (Trigger 2006: 279). This suggests that the practice was not inspired directly by European archaeologists, but rather by the already common custom in anthropology to distinguish cultures. Around that time, Boasian anthropology held much sway in America, which put more emphasis on regional distinction at the cost of chronological precision.

This shortcoming would be remedied in the early 20th century by increasingly advanced excavation methods, honed on sites such as west coast shell middens and southwestern Pueblos. The resulting improved grasp on stratigraphy allowed for a better periodization, in which the word "culture" was frequently applied to different stratigraphical phases (Trigger 2006: 282). Similar to European archaeology before Kossinna and Childe, the meaning of the culture concept had not been explicitly defined yet.

Another step in the refinement of the typological methodology was taken in the 1930s, with the development of the "Midwestern Taxonomic Method" by William C. McKern and others (Trigger 2006: 283). In this method, various typological traits were combined in a nested hierarchy to discern large-scale patterns, which were equated with cultures. The cultural traits were said to represent different traditions of environmental adaptation. All traits, be they artifact forms or burial rites, were given equal significance with no distinctions made upon functional aspects. The Midwestern Taxonomic Method also did not provide any

explanations for how and why cultural changes occurred. Nevertheless, it did contribute, together with the excavation of more and more stratified sites, to the elucidation of the complex pattern of prehistoric cultures in North America.

Yet, despite the advances in the construction of chronologies, little attempt was made to interpret cultural developments in American prehistory; to attach historical meaning to them. Explanations that were made were usually migrationist in nature, further underselling the capacity of prehistoric Native Americans for independent cultural change (Trigger 2006: 288). Yet, when the pendulum inevitably swung in the other direction again, favoring the search for social processes and patterns of human behavior, the further refinement of chronological systems became neglected in turn. This earned Anglo-American archaeology a reputation to this day, deserved or undeserved, of constructing fancy interpretive models on shaky chronological foundations.

Processual Archaeology

In the decades leading up to the 1950s, some archaeologists on both sides of the Atlantic Ocean had become discontent with a merely descriptive discipline that shied away from explaining the processes behind cultural change. There was also the growing realization that ethnocentric perspectives could not account for a lot of the observed prehistoric phenomena, such as certain traits being distributed over very wide areas. Childe himself had already in the late 1920s begun to explore other explanatory models than migration and ethnicity (Trigger 2006: 322). It may have been his Marxist background that drew him more and more towards economic models. As noted above, he anticipated some of the developments of Neo-Evolutionism in anthropology.

In turn, anthropology would once again provide the inspiration for new thought models in archaeology. In late 1930s Britain, Grahame Clark had adopted a much more environmental perspective than previous archaeologists partly through an influence by the anthropology of Malinowski and Radcliffe-Brown (Trigger 2006: 353ff.). These two anthropologists also taught in US universities in the 1930s. The introduction of a functionalist perspective to the

hitherto taxonomically focused American archaeology was also helped by Columbian School anthropologists such as Benedict, Kroeber, and Sapir expanding the culture concept that Boas had introduced at the beginning of the century (365). No longer was it enough to take the historical contingencies of cultures for granted. Instead, the search for patterns and processes behind the cultural phenomena was encouraged.

After the end of World War II, new methodologies also brought about a change of perspective. The development of radiocarbon dating allowed for a temporal comparison of archaeological phenomena with much more accuracy and on a much larger scale. The scale of spatial comparison was enlarged as well with the development of a new kind of settlement archaeology. Unlike Kossinna's settlement archaeology, this one was not focused on determining migrations of specific ethnicities but on the survey-based investigation of settlement patterns on a regional level exceeding the bounds of individual sites. Early examples include the study of the Virú Valley in Peru in 1946 by Gordon Willey and the Jarmo Project in Iraq in 1948-1955 by Robert Braidwood. This new approach was advocated, among others, by the neo-evolutionary anthropologist Julian Steward, because it allowed for a much more detailed study of the relationship between humans and environment over time (Trigger 2006: 372ff.). Furthermore, the new settlement archaeology also opened up new perspectives on social and political developments.

The new processual approach - grounded in neo-evolutionist anthropology, focused on ecology and economy, employing new scientific methods - seemed suited to complement the old culture-historical approach. But in the early 1960s, a new generation of archaeologists, spear-headed by Lewis Binford, aimed to replace the old system altogether with an archaeology that had to be scientific in method and anthropological in theory. Binford set up this "New Archaeology" in direct opposition to the culture-historical approach, even though the "old archaeology" had been well on its way to incorporate key elements of processual archaeology on its own (Trigger 2006: 393f.). Yet, at least in America, the popular new movement signified the end of culture-historical archaeology.

Binford was very upfront from the beginning that the theoretical underpinnings of his approach came directly from neo-evolutionary anthropology. The most direct inspiration came

from his teacher at Michigan University, Leslie White. Binford lifted White's definition of culture as "extrasomatic means of adaptation" wholesale (Binford 1962: 218; 1965: 209). This emphasis on adaptation does not mean that social or ritual aspects were downplayed in favor of economic and technological explanations. On the contrary, in his seminal article "*Archaeology as Anthropology*" (1962) Binford explained the appearance and increased production of copper tools in Late Archaic eastern North America not with technological reasons but with their utilization as status objects in burials. The point is that even this "socio-technic" function of the copper tools was an adaptation to population pressure leading to increased competition among the elites for status. Cultural change therefore happens in response to external stimuli. Since it is assumed that humans respond as rationally as they can to whatever environmental or social challenges they face, their reactions can be generalized. That means, even groups of people in different parts of the world would generally react to a given problem in the same way if the circumstances were the same. From this perspective, individual cultures become irrelevant. Consequently, the task of archaeology shifts from reconstructing specific cultural histories to finding general laws that can explain cultural developments. It is clear how this viewpoint encouraged scientific positivism among archaeologists. The neo-evolutionist culture concept was also very compatible with Systems Theory based on the version that had been adapted for social theory by Talcott Parsons. However, rather than on high-level social theory, Binford himself was more concentrated on developing a middle-range theory that would help formulate laws out of observed patterns in the archaeological record. One major new tool that he introduced to archaeology for this purpose was ethnoarchaeology. The specific aim of ethnoarchaeology is to find analogues in ethnographic observation for past behaviors that cannot be observed directly in the archaeological record. If the material results of the directly observed action are the same as the material features of the ancient remains in question, then the same action must have produced these remains (cf. Binford 1978).

In the theoretical system of New Archaeology in America, archaeological cultures lost a lot of their importance. As noted above, individual cultures did not matter as much in an archaeological anthropology of cultural evolution. Archaeological cultures were still used

to provide chronological frameworks, but there was not much further engagement with the concept.

In Britain, on the other hand, David Clarke developed a processual archaeology that proposed methodological alternatives to the old culture-historical approaches, but at the same time did not attempt to shift the whole field of inquiry from history to anthropology as Binford had done. Clarke put Systems Theory at the center of his approach. To him, cultures are information systems (Clarke 1968: 83ff.). The evolutionary *raison d'être* for cultures is that they contain "survival information" which supplants natural instincts to help human individuals and groups to cope with their environment in order to adapt and survive. This information is codified in the form of beliefs, artifacts, and behavior in order to be socially transmitted from one individual to another. Thus, there are many sub-systems to culture: Social, religious, psychological, economic, material culture etc.

Post-Processual Archaeology

Processual archaeology was quite dominant in America and Britain until the 1980s. By that time, a sometimes fierce opposition had risen against the processual view on humankind as, polemically speaking, unswervingly rational managers of their own survival whose every action is forced upon them by an unforgiving natural and social environment. This time Britain was the hotbed of the new movement of "post-processual archaeology" and its forerunner was a former student of David Clarke: Ian Hodder. As usual, the new generation took their theoretical inspiration from anthropology; and as usual with some delay. In this case, the sources sources were at first structuralism as represented by Lévi-Strauss as well as critical theory and the relativist version of Marxism, all of which had already held their sway in anthropology in the late 1960s and 1970s. But this was followed not long after by the extremely relativist interpretational anthropology based upon Clifford Geertz' writings. Ian Hodder's *"Reading the Past"* displayed the inspiration by Geertz' anthropology-as-literature-criticism prominently in the title. In the third edition of *"Reading the Past"* (2003), Hodder and Scott Hutson claim that:

"[...] aspects of culture are *irreducible*. The relationship between material culture and human organization is partly social [...]. But it is also dependent on a set of cultural attitudes which cannot be predicted from or reduced to an environment. The cultural relationships are not caused by anything outside themselves. They just are. The task of archaeologists is to interpret this irreducible component of culture so that the society behind the material evidence can be 'read'." (4, emphasis in original)

Thus, Hodder advocates a "Contextual Archaeology" in which as much data as possible is collected surrounding an object or feature in order to discern its contextual relationship with other items, so that patterns of significance can be identified and ultimately the cultural meaning behind it can be understood (Hodder and Hutson 2003: 183ff.). It should not be surprising that this sounds quite similar to traditional culture-historical archaeology with an added emphasis on semiotics. In some way, it even sounds similar to the functional archaeology advocated by German archaeologist Rolf Hachmann in 1973 to be discussed in the next section, although the similarities are in all probability coincidental. Hodder is explicit in demanding a return to a culture-historically oriented archaeology (152f.). As he notes himself though, the departure of the American "New Archaeology" movement from cultural history might have been connected to the traditionally closer ties between American archaeology and anthropology; a development that did not affect Britain as much in the first place. Despite the renewed emphasis on historicity, Hodder leaves open the question of what to do about the concept of archaeological cultures apart from reminding us that multiple time scales may intersect for any given event depending on perspective and thus no singular perspective on time (i.e. chronology) should be given precedence (154).

A wide range of post-processual archaeologies arose independently in America, inspired by various developments in postmodernist thought (Trigger 2006: 456). Recurrent themes are an epistemological critique of processual archaeology, an emphasis on agency, and a focus on social power relations in past societies along the lines of race, gender, etc. Archaeologists also started discovering the usefulness of Bourdieu's Practice Theory in the 1990s. Due to this diversity, there is no over-arching concept of culture that they would have in common.

The lack, that I decried above, of clear definitions of culture in postmodernist anthropology also affects post-processual archaeology to a certain degree.

It must be noted that processual archaeology was not replaced by post-processual archaeology as thoroughly as neo-evolutionist anthropology was by relativist anthropology. Thus, many evolutionist culture concepts survive in today's archaeology. From a certain stand-point the argument can be made that the "revolutionary" nature of New Archaeology in contrast with culture-historical archaeology and of post-processual archaeology in contrast with both processual archaeology and culture-historical archaeology has been overstated in order to draw attention to new concepts; a development that was helped by the confrontational nature of many debates surrounding the supposed paradigmatic changes. For example, the use of archaeological cultures to refer to periods in the relative chronology or spatial distribution of assemblages has gone largely unchanged, despite changing conceptions of "culture" per se. In addition, the "revolution" was certainly not as sudden a flash of inspiration as it is presented by its main protagonists. As we have seen, scholars like V. Gordon Childe and Grahame Clark had been discussing these new concepts decades before the "New Archaeology" was declared. In the end, its main impact might have been less the innovation of new models, but the tearing down of old ones.

A notable challenge to the model of archaeological cultures was and is provided by Evolutionary Archaeology. Formulated in the 1980s in response to Processual Archaeology by Robert Dunnell and others, this application of the Theory of Evolution should not be confused with the Neo-Evolutionist theory that Processual Archaeology is commonly referring to (Trigger 2006: 429f.). Instead, it draws a direct analogy between culture and evolution in the Darwinian sense. Cultural change is thus seen as a constant, gradual process. Any imposition of chronological periodization on this evolutionary continuum is rejected and thus are archaeological cultures. Typologies that produce patterns which could be interpreted as chronological phases are viewed as flawed. In fact, according to Lyman, O'Brien, and Dunnell (1997), if it wasn't for the disruption of New Archaeology, American Culture-Historical Archaeology would have been on the way to develop into Evolutionary Archaeology by the 1960s thanks to the increasing refinement of typological methods that became more accu-

rate in representing the evolutionary continuum. Evolutionary Archaeology continues to have some influence but made it to a mainstream reception. A main reason for this is probably the problematic conflation of biological and cultural evolution. Furthermore, as our understanding of biological evolution advances, it becomes increasingly clear that it does not operate in an unbroken temporal continuum either. This is not to mention the conspicuous nature in which certain changes in the material culture of the prehistoric and, indeed, historic past present themselves, for example with the introduction of a new material or a new technology.

The spatial aspect of cultures is at the center of the study of social boundaries in archaeology. In *"The Archaeology of Social Boundaries"* (1998), edited by Miriam Stark, archaeological and ethnographic studies are combined to look at how social boundaries can be distinguished. The connection between social boundaries and archaeological cultures is not stated explicitly, although some of the archaeological studies mention archaeological cultures to provide a chronological or spatial framework (for example Cameron 1998: 184, fig. 8.1). Although some ethnographic studies cast doubt upon the clear discernment of social boundaries through material culture in certain cases (Welsch and Terrell 1998; MacEachern 1998; Dietler and Herbich 1998), contributors see promise in the use of Practice Theory to tackle the issue (Dietler and Herbich 1998; Hegmon 1998).

More recently, a growing number of scholars have realized that archaeological cultures are still in practical use and rather than abandon the concept, they call for a "re-ignition" of the theoretical debate surrounding them (Roberts and Vander Linden 2011). This movement seems to have more traction on the British and wider European side than in America, which is possibly still a reflection of the more historical leanings of European archaeology as opposed to the anthropological archaeology in the United States.

The culture concept in German archaeology after World War II

Nationalist archaeology in Germany during World War II was leaning heavily on Kossinna's theoretical approach. Not only was Kossinna's racist interpretation discredited after the war,

but German archaeology was so traumatized by the abuse of one broad, over-arching theory that any ostensible theory-building was shunned for decades (Trigger 2006: 258). Instead, the focus was on a "value-free" empiricism; a refinement of methods, so that any interpretation could present itself naturally out of the collected data. This means that for the time being, the term "archaeological culture" was kept, but any ethnical association avoided. Yet this also means that the empirical toolset of archaeology was put under increased scrutiny and soon this included terminology such as "archaeological culture". The issue was less with whatever meaning the term "culture" implied, but more with what archaeological unit the term should be applied to.

Hachmann and the holistic concept of the archaeological culture

One of the most insightful exchanges about the culture concept in the history of Germany archaeology arose out of an argument over the extent of a specific culture. An assemblage whose spatial extent and chronological status was often discussed was the so-called "Baden Culture", a Chalcolithic phenomenon of the late 4th and early 3rd millennium BC mainly distributed in Hungary and parts of Austria. At a "Symposium on the Origin and Chronology of the Baden Culture" in 1969, Rolf Hachmann gave some contributions to the concept of archaeological cultures in general (Hachmann 1973). His culture concept is clearly based in the functional anthropology of Malinowski and Radcliffe-Brown. He did not seem to cite these anthropologists directly in his presentation, but they do appear in the literature list of his published talk, together with a plethora of other anthropologists and sociologists. It is quite telling though that the only source he cited that is newer than 1960 was the German translation of Lévi-Strauss' *"Structural Anthropology"* (published in French 1958 and in German 1967). The complete absence of neo-evolutionist theory in Hachmann's approach is illustrative of how German archaeology had been largely untouched by the upheavals that New Archaeology had brought upon English-speaking archaeology. Hachmann considered culture to be a highly complex entity made up of functionally related sub-fields including, among others, the social system, economy, art, and religion (Hachmann 1973: 82). All these aspects are manifested in both material culture and spiritual/intellectual culture. Culture

therefore is an irreducible totality that is more than the sum of its parts and cannot be represented by single traits taken out of the functional context. Hachmann's article is for the most part a criticism of the then-common archaeological practice to define Neolithic cultures according to the occurrence of certain ceramic types deemed typical. He is not using the Baden Culture as an example, but instead the earlier Michelsberg Culture of the 5th and 4th millennium BC with which he is more familiar. The main distribution of the Michelsberg Culture is accepted to encompass eastern France and western as well as southern Germany. The question was if certain finds in East-Central Europe, Poland, the Czech Republic, and eastern Germany, should be considered as belonging to the Michelsberg Culture as well. Hachmann argued against that, since the only finds in East-Central Europe that would indicate Michelsberg were the so called "tulip beakers", the ceramic form considered the most typical for the Michelsberg Culture. The tulip beakers in East-Central Europe were mostly accompanied by ceramics of other local cultures. Hachmann suggested that their presence in those contexts could easily be attributed to an import of the vessels and their contents from the region of the Michelsberg Culture proper.

This sort of discussion might appear somewhat mundane from our current perspective, but it reflects the common issues of the culture-historical archaeology at the time quite well. I will discuss similar problems in Chinese archaeology later on. Hachmann did not specify in much detail what an archaeology based on his functional culture concept should look like. He mainly just invoked it to emphasize that the reliance on singular ceramic traits alone should not be enough to define a culture.

Lüning's criticism of the archaeological culture as an explanatory concept

Hachmann's presentation provoked a response from Jens Lüning, most likely for the reason that he had been working on the Michelsberg Culture as well and saw his claims challenged by Hachmann. But instead of going into more detail about that particular culture, Lüning made his seminal article "*Zum Kulturbegriff im Neolithikum*" ["On the culture concept in the

Neolithic"] (Lüning 1972) all about the concept of the archaeological culture.² Lüning's first criticism is about Hachmann applying a culture concept adopted from anthropology directly to archaeology. Lüning is citing Oswald Menghin's standpoint that the beginning of every analysis needs to be inductive, whereas deduction from broader theoretical concepts should be left to the interpretative stage (Lüning 1972: 145f.; Menghin 1952: 235ff.). According to Lüning, Menghin can be deemed an authority in this respect, since his close connections with ethnology allow him a clear perspective on the terminology of both ethnology and prehistoric archaeology with the resulting warning to keep both separate (Lüning 1972: 146). However, a closer look into the cited book chapter by Menghin, "*Urgeschichtliche Grundfragen*" ["Basic question in prehistory"] (1952), reveals that he somewhat arbitrarily discounts the use of certain anthropological concepts, while embracing others. An example:

"Die nicht zu bestreitende Tatsache [...], dass jede Kultur ein Organismus ist, der sein eigentliches Leben vom Geistigen, von einem Weltbild und einem Wertsystem her empfängt, ist höchst bedeutsam, hat aber mit dem Verfahren zur Feststellung von kulturellen Einheiten weiter nichts zu tun. Selbst zur Gewinnung von Allgemeinbegriffen wie Kulturgruppen, Kultur, Kulturkreis braucht nicht auf die Kulturphilosophie zurückgegriffen zu werden; sie erfließen vielmehr unmittelbar aus der empirischen Beobachtung der Verbreitung und Vergesellschaftung der Kulturelemente im Raume. Die bewiesene zeitliche und räumliche Koexistenz einer grösseren Anzahl von Kulturelementen ist eben unter allen Umständen der sinnfällige Ausdruck eines inneren geschichtlichen Zusammenhanges." ["The undeniable fact that every culture is an organism that receives its actual life from the mental, from a world view and a value system, is highly significant, but does not have any bearing on the method of discerning cultural units. Even the derivation of general terms such as culture groups, culture, and cultural province does not have to rely on cultural philosophy; instead, they emerge directly from the empirical observation of the spatial distribution and association of the cul-

²To avoid confusion: Lüning's article from 1972 is of course not a reaction to Hachmann's article from 1973, but to a copy of his presentation manuscript from 1969 that the article is based on.

tural elements. The proven temporal and spatial co-existence of a larger number of cultural elements is under every circumstance the manifestation of an inner historical connection."] (Menghin 1952: 246; emphasis in the original; the first sentence also cited in Lüning 1972: 155)

The emphasized part of this statement has a reference attached to a chapter in the same volume written by W. Schmidt, an ethnologist of the Vienna School, who was a strong proponent of the *Kulturkreislehre* (theory of cultural provinces). Menghin goes on saying that the question what a cultural unit and human culture in general are should be left to the post-analytical interpretation.

The most notable aspect about Menghin's strict division between inductive analysis and deductive interpretation, which from a current perspective must seem rather idealistic, is that Lüning emphatically endorsed it at a time when Anglo-American archaeology had already abandoned this approach and leaned heavily towards the opposing nomothetic-deductive extreme. The reason for this cannot be unawareness on Lüning's part, as he even cites Binford and Clarke in the same article. Instead, it appears to be Lüning's intention of attacking Hachmann over the Michelsberg Culture issue that motivated him to defend against the perceived encroachment of anthropological theory on prehistoric archaeology. This becomes clear when Lüning moves from the general to the specific and dismantles Hachmann's use of Radcliffe-Brown's functionalist anthropology relentlessly and, admittedly, rather deftly. Apart from noting that this school of anthropology was rather short-lived and definitely out of fashion by the time Hachmann employs it (Lüning 1972: 155), Lüning turns Radcliffe-Brown against Hachmann by pointing out that his concept of culture was less as a "totality", as Hachmann called it, but rather as a functional sub-system of society which regulates the social interactions of its members (156). This means that the functional totality that Hachmann refers to is the social group, which in most cases is not congruent with the culture as represented by the distribution of cultural products visible in the archaeological record. The reason for that is material and cultural exchange between the societies, such as the apparent exchange of Michelsberg Culture ceramics from the western to the eastern parts of Central Europe. For Hachmann, this exchange was reason to exclude the East-

Central European recipients from the supposed functional unity of the Michelsberg Culture, a functional unity that, according to Lüning, does not exist or at least cannot be assumed a priori.

As an alternative, Lüning proposes a "selective culture concept", in which certain aspects are singled out to be constitutive of the culture in question (Lüning 1972: 162). This can be done inductively, as it indeed already has, in an implicit way, for archaeological cultures, for example by concentrating on ceramic styles for the definition of Neolithic cultures. Lüning emphasizes that a distinction has to be made between the definition and the content of a culture (166f.). Whereas the definition refers to one specific typologically determined trait, such as ceramic style, the content would include all other archaeological phenomena associated with that trait. Since the spatial and temporal distribution of different traits rarely is completely congruent, the selection of one trait can only serve as a classificatory framework against which to measure the others. This, according to Lüning, should be the sole task of archaeological cultures:

"Der Begriff Kultur dient im Neolithikum zur Klassifizierung archäologischer Phänomene, und er bezeichnet eine höhere Stufe innerhalb des Klassifizierungssystems. Eine Kultur umfasst die gesamten archäologisch erkennbaren Überreste und Produkte des Verhaltens und der Betätigung menschlicher Individuen und Gruppen innerhalb eines bestimmten zeitlichen und räumlichen Abschnittes." ["The term 'culture' serves, in the Neolithic, the classification of archaeological phenomena and it denotes a higher level inside the classificatory system. A culture encompasses all the archaeologically discernable remains and products of the behavior and activities of human individuals and groups within a certain temporal and spatial frame."] (Lüning 1972: 168)

Lüning's culture concept clearly operates only as an analytical tool without any implication of really existent past entities that it is supposed to match. Somewhat awkwardly, he contradicts his own definition towards the end of the article by first suggesting to restrict the meaning of culture to chronological, as opposed to spatial, classification (Lüning 1972:

168) and then by conceding that it might be less confusing in the long run to find a different term than "culture" for the selected ceramic aspect of the "overall culture" in the Neolithic (171).

There is an undeniable elegance to the rigor that Lüning applies to his culture concept and to the clarity with which he points out what can and what cannot be done in prehistoric archaeology in the name of "culture". However, the obvious problem lies in the fact that this clarity is only achieved by shifting the goalposts of the entire discussion. By simply declaring that certain things cannot be done and should not be attempted, he willfully ignored the anthropological avenues of inquiry within processual archaeology, which was working on a solution to the same epistemological problems that Lüning declared unsolvable. An example would be Binford's attempts to use ethnoarchaeology in order to establish a middle range theory that could bridge the gap between the analytical and the interpretative level. In fact, Lüning seemed to have inherited Menghin's idealistic outlook on the inductive method which is somehow supposed to exist in a theoretical vacuum. After the passage quoted above, Menghin pointed out that apart from the coexistence of formalistic attributes, functional convergence of cultural elements should also be considered in the determination of cultural units (Menghin 1952: 246). He then admitted that this is in most cases hard to do. It appears that this is exactly the point that Hachmann tried to make and that he tried to overcome the difficulties by looking to anthropology for help. Lüning formulated his model as a stepping stone for future inquiries; but as useful as it might be within its self-imposed confines as an artificial system of classification, in order to produce any insight on the really existing past societies, it would have to transcend its boundaries.

Another issue that Lüning's model does not quite account for is scale. His system of classification has different levels – types, groups, etc – the highest of which is "culture", but there is no word about how the limits between one level and the other should be delineated. This appears to be another problem where pure induction from archaeological data alone will not provide meaningful results.

Narr's Heuristic Principle for the definition of archaeological cultures

The issue of scale, along with the question of what the concept of "culture" is supposed to contain, was addressed by Karl J. Narr (1984), though without any direct reference to Lüning. Narr points out that the archaeologically defined unit can refer to a number of phenomena, including ethnicity. Similar to Menghin and Hachmann, Narr argues that the methodological errors and political abuse of the concept of ethnicity by Kossinna do not preclude it from representing a possible interpretation of archaeological cultures. At the same time, Narr laments that the term "ethnos" has been insufficiently defined (Narr 1984: 65). Nevertheless, he is confident that archaeological units that can be shown to be sufficiently bounded may be associated with bounded groups of people, which is what he mainly takes ethnicity to mean in this case. In fact, Narr's article is mainly preoccupied with the question of how ethnicity and ethnogenesis can or cannot be shown archaeologically.

According to the "heuristic principle" proposed by Narr, the best way to establish archaeologically bounded units is to look for the congruence of functionally independent traits. Naturally, functionally dependent traits would be congruent on their own, but if they always occur with seemingly unrelated traits, then there must be a relation that, though "archaeologically intangible", hints to a "formerly existent functional network", i.e. culture (Narr 1984: 63). An example for two ostensibly unrelated traits are ceramic forms and burial customs, though, unlike Eggers, Narr refuses to give one of the two precedence over the other a priori (Narr 1984: 60).

To illustrate his point, Narr brings up the example of the Schönfeld Culture [Schönfelder Kultur]. The Schönfeld Culture designates a particular ceramic assemblage in Central Germany at the middle of the 3rd millennium BC combined with the for its time unusual burial custom of cremation. The spatial extent of the Schönfeld Culture is rather circumscribed, following the middle reaches of the Elbe River and its tributaries, the Ohre and Saale Rivers. This combination of traits would suffice for Narr to suggest the Schönfeld Culture as representing a particular ethnic group (Narr 1984: 67).³

³Later on, Eggert (2000: 294, footnote 55) pointed out that the main defining pottery of the Schön-

As Narr points out (1984: 67f.), this congruence of functionally unrelated traits is also present in the Linear Pottery Culture of the 6th millennium BC⁴, only this time with a spatial extent reaching from the Middle Danube River in Hungary and Rumania to the Rhine River in Western Germany and the Netherlands. There is a congruence in this case of the typical ceramic style with a specific kind of large, hoe-like stone tool and the occurrence of long houses. A notable problem with this example is that these types of stone tools and houses continue in some of the succeeding archaeological cultures, such as the Rössen Culture, when the ceramic style has already changed.

Another example that Narr brings up is the Corded Ware Culture [Schnurkeramische Kultur], which is largely contemporaneous with the Schönfeld Culture but extends from the Dniepr River to the Rhine River and from the Northern Balkans to Southern Scandinavia. Apart from the typical cord-marked beakers, the Corded Ware Culture is characterized by a very specific set of burial customs: Single burials with flexed limbs and gender-specific orientation. Men are always lying on their right side with the head pointing west, while women are lying on their left side with the head pointing east. The shift from collective to single burial in Scandinavia also earned the Corded Ware Culture the name "Single Grave Culture" in that region.

Consequently, the Schönfeld Culture appears in relation to the Corded Ware Culture as a bounded unit within a bounded unit. There is some overlap around its area of distribution, as Schönfeld style ceramics appear in Corded Ware Culture graves (Narr 1984: 62) and there are some graves with Corded Ware style ceramics and cremated remains (61, fig. 1). Narr skirts the question of how to resolve this problem of nested archaeological cultures along with the question if the Linear Pottery Culture and Corded Ware Culture should, according to his criteria, represent ethnic groups as well, despite their large extent. Instead, Narr draws on ethnographic data compared with archaeological data from the American Southwest (Narr

feld Culture is represented by the bowls that hold the cremated remains and therefore not functionally independent from the burial custom of cremation.

⁴Narr (1984: 67) writes "5th millennium BC", but this might be attributed to the then still common use of non-calibrated 14C dates.

1984: 70ff.). This direct use of ethnography to answer archaeological questions is notably rare in German scholarship. However, in the example of the Hohokam Culture that he cites the archaeological data (e.g. cremation) is not congruent with the ethnographic data (e.g. extant distribution of languages). Ethnography in this case provides a cautionary tale against assuming ethnic unity where the archaeological record suggests bounded units of material remains.

Narr's fixation on ethnic interpretations of archaeological cultures has been criticized subsequently (Wotzka 1993). More interesting for this discussion of archaeological cultures, however, is his assumption that both the archaeological record and the past actions by the people who produced the archaeological remains form bounded units that are congruent on some level other than immediately apparent functional relationships. On the archaeological level, the thesis that the boundedness is inherent in the material and not just imposed by the researcher has to be tested constantly. The functional connections, on the other hand, might have been completely different from our present assumptions in the way that the material culture was actually used in the past.

The unraveling of archaeological cultures as tightly bounded units

The "Beaker Cultures" of the 3rd millennium BC with their wide distributions across Europe are a good example for the challenges facing a culture model that only deals with bounded assemblages. Apart from the Corded Ware Culture that has been brought up by Narr, there is the Bell Beaker Culture which follows it in the late 3rd millennium BC. The Bell Beaker Culture has a more Western European distribution, including the Iberian Peninsula and the British Isles, but it overlaps with the preceding Corded Ware Culture in Central Europe. Similar to the Corded Ware Culture, not much settlement material of the Bell Beaker Culture has been excavated; the overwhelming majority of evidence is from burials. This archaeological culture is mainly defined by the iconic bell beakers themselves along with some other ceramic types as well as copper daggers and small ceramic plates interpreted as wrist protection for archers. The burial customs, on the other hand, are actually quite

diverse throughout its area of distribution. One common element appears to be the deliberate subversion of the preceding burial customs. For example, in the area where the Bell Beaker Culture was preceded by the Corded Ware Culture, the gender-specific alignment of the single burials with flexed limbs remains, but the burials are turned by 90 degrees and the orientations among the genders are reversed. In Bell Beaker Culture burials in Central Europe the women are lying on their right side with the head pointing south, while the men are lying on their left side with the head pointing north. In Western Europe, burials of the Bell Beaker Culture reference the burials of preceding cultures as well, by reusing megalithic tombs for example or digging the grave shafts into pre-existing tumuli. This diversity, along with the reference of local traditions, has caused archaeologists to cast doubt on the Bell Beaker Culture's status as an archaeological culture. For example, Swiss archaeologist Christian Strahm has suggested to speak of a "Bell Beaker Phenomenon" instead (Strahm 1995). Instead of the traditional hypothesis of the "Beaker People" invading Europe, Strahm favors an explanation of the Bell Beaker Culture as the rise of a new elite that actively subverted established customs such as burial rites. On the other hand, recent studies including genetics and linguistics seem to support the former hypothesis, namely the Beaker Cultures of the 3rd millennium – i.e. the Globular Amphora Culture, the Corded Ware Culture, and the Bell Beaker Culture – being the result of migration of horse nomads from the Pontic Steppes and possible the cause for the spread of Indo-European languages throughout Europe. The discussion of this issue is still ongoing though. Regardless of the question if the "Beaker People" hypothesis is warranted or not, Strahm's reluctance to speak of the "Bell Beaker Phenomenon" as an archaeological culture still implies the association of archaeological culture and ethnicity. Nevertheless, other archaeological cultures have suffered a similar fate. Recently, Martin Furholt (2008) all but disbanded the Baden Culture as he showed that its typical cultural traits are spread out over multiple regional cultures, thereby possibly ending the struggle over the Baden Culture that had already called Hachmann to action. Furholt also called the name "Corded Ware Culture" problematic, preferring the term "Cultural Manifestations of Corded Ware" ["Schnurkeramische Kulturerscheinungen"] instead (Furholt 2003a: 1, footnote 1). Even more recently, he brought up inconsistencies

with the Funnel Beaker Culture of the 4th millennium BC or the "Funnel Beaker Complex" as it has come to be called (Furholt 2014).

Where does this dissolution of the classical Neolithic cultures come from? First of all, a more and more precise radiocarbon chronology allows for a re-evaluation of the synchronicity of various cultural features. As Furholt (2003a; 2003b) showed, the burial customs typically attributed to the Corded Ware Culture already appeared among Late Neolithic cultures of North and Central Europe around 2900 BC before the Corded Ware ceramics spread to those areas about 200 years later (Furholt 2003a: 25). This can incidentally be considered an argument against the Corded Ware Culture being brought into Central Europe wholesale by migration. This also opens up a new approach to periodization. Instead of constructing a relative chronology through typology and stratigraphy first and then using absolute dates to anchor this construct into the overall calendar of archaeological cultures, we can now start off by discerning an absolute sequence to the occurrence of certain phenomena and then see if they are congruent in the first place. Furthermore, new methods of data processing and visualization allow us to take into account as much characteristics as possible instead of just the ones we deem "typical". For example, rather than emphasizing differences in ceramic form and decoration to produce bounded culture areas, the similarities can be mapped instead to produce a network of connections, as Furholt has shown for the different regions of the Funnel Beaker Complex (Furholt 2014: 22, fig. 1).

A common aim of traditional culture historical archaeology has been to identify spatially and chronologically bounded archaeological units (*Formenkreise*, periods, cultures). But leaving out traits that cross-cut those boundaries introduces a bias, weighing one type of evidence (the congruent) more heavily than another (the incongruent). As Lüning (1972: 154) already pointed out, this leads to circular reasoning, where the congruence of an archaeological culture is "proven" with the same data that was used to define it in the first place. Once an archaeological culture has been defined, a certain confirmation bias sets in that leads us to treat observed traits as either belonging or not belonging to that culture without considering that the culture as archaeological unit still only represents a hypothesis and the data might contradict its validity.

The culture concept in Chinese archaeology

Foundational ideas out of Western anthropology and archaeology

The first archaeological culture in the study of Chinese prehistory was named in 1921 by Swedish geologist Johan Gunnar Andersson. In his task to survey the country for resources, Andersson came upon various prehistoric remains. Andersson's side interest in archaeology compelled him to document and classify these remains. Andersson excavated red pottery with decorations painted in black near the village of Yangshao in Henan Province in 1921 (Li Xinwei 2013: 213). Going along with the naming conventions for archaeological cultures as they had been used in Europe and America, Andersson defined these remains as "Yangshao Culture", although it was sometimes also called "Painted Pottery Culture". Not long after, in 1930, a different pottery assemblage including conspicuous polished black sherds was excavated near the town of Longshan in Shandong Province (Sun Bo 2013: 237). This assemblage was named "Longshan Culture" or "Black Pottery Culture". At first, the two cultures were put into spatial opposition, thought to represent two kinds of ancient peoples existing alongside each other. But later in the 1930s, the stratigraphy of the Hougang site in Henan Province revealed the Longshan Culture to be later than the Yangshao Culture (Yan Wenming 1985: 13).

Chinese archaeology in the early 20th century borrowed its concepts from the prominent Western scholars of the time. Montelius showed great interest in Andersson's investigations and endorsed his work personally (Chen Xingcan and Fiskesjö 2014: 2f.), which means that the geologist had an intimate understanding of Montelius' concepts of typology and stratigraphy in archaeology. These concepts were introduced to Chinese scholars through translations of Montelius' works in the 1930s (Chen Xingcan and Fiskesjö 2014: 1f.; Yu Weichao 1984: 310; Hein 2016: 13). Furthermore, the Chinese archaeologist Xia Nai, who would become one of the preeminent scholars of his field, had studied Egyptology in London in the 1940s, where he was introduced to Childe's ideas about prehistory that were very prominent at the time. Childe would have a major influence on Xia's concept of archaeological cultures and, by extension, on the concept of archaeological cultures in Chinese archaeology in general, as

I shall explain below.

A parallel development of Western concepts being introduced to China can be observed in the anthropology of the early 20th century. For example, the famous Chinese sociologist and anthropologist Fei Xiaotong went to London in the 1930s, where he was taught directly by Malinowski (Arkush 1981: 40ff.). His culture concept was consequently shaped to a large degree by functionalism (46ff.). However, there is no evidence that these anthropological concepts had any influence on Chinese archaeologists at the time, who were concerned more directly with archaeological theory and methods than with anthropological ideas. Furthermore, in the 1950s sociology and anthropology, being considered "colonial" and "elitist", were all but eliminated as subjects of study in China (Arkush 1981: 226ff.), with the exception of ethnographic studies among ethnic minorities in China⁵ and of course Marxism-Leninism, which supplanted all other theoretical approaches in the social sciences. This, again, may not have had a direct effect on archaeology, but it eliminated the potential for anthropology to inspire new theoretical approaches in the study of the ancient world as it did in America. Unlike post-war Germany, where there was more of an active resistance against anthropological influence in prehistoric archaeology, in China it was both the missing local anthropology and the long disconnect with Western anthropology due in part to political isolation and in part to language barriers that kept the concepts in archaeology separate from anthropology. Sociology and anthropology would make their comeback in China in the late 1970s with the establishment of the Chinese Academy of Social Sciences (Arkush 1981: 279).

Xia Nai and Su Bingqi setting the culture-historical framework

Returning to the subject of archaeological cultures in China, we have to start with Xia Nai. In 1959, a talk of his about the concept of archaeological cultures was published. Xia was mostly concerned with the conventions of how to name archaeological cultures, but he does give a definition of the culture concept that would be cited in many later articles:

"考古学上的"文化", 是表示考古学遗迹中 (尤其是原始社会的遗迹中) ,

⁵Which was not considered anthropology by Chinese ethnographers (Cooper 1973: 482).

所观察到的共同体。" ["'Culture' in archaeology denotes the combined units that can be observed among the archaeological remains (especially the remains of primitive societies)."] (Xia Nai 1959: 169)

Xia emphasizes that "culture" is a technical term in archaeology whose meaning is separate from its use in common language (Xia 1959: 169). The "combined units" mean collections of artifacts excavated from the same context. However, the same word, "gòngtóngtǐ 共同体", also means "community". While this is not the intended meaning in this case, Xia claims that the association of different artifacts in the same context indicates that they are products of the same society (169). Thus, while the definition itself sounds like it would limit archaeological cultures to the analytical level, the implication of them representing social groups is definitely there. It is interesting to note that Xia only limits his combined units to artifacts and does not include other traits such as burial customs or house forms, although he does not exclude them explicitly either. Xia was aware of Childe's culture concept, having studied Egyptology in London in the 1930s and citing Childe elsewhere in his talk, albeit in a different context (171). Therefore, Xia leaving out material features that are not artifacts from his definition of archaeological culture might have been mere oversight in this case.

Although the political turmoil of the 1960s and 1970s in China did not prevent archaeological fieldwork entirely, there were no attempts at theoretical advances concerning the culture concept during that period. However, after the reforms of 1978, China started on a path of political decentralization which was, and still is, reflected in its archaeology. The new "regionalist paradigm" (von Falkenhausen 1996) received its theoretical underpinnings first and foremost from Su Bingqi in the form of his "regional systems and local cultural series" ["qūxì lèixíng 区系类型", translation by Liu and Chen 2012: 16]. Su had actually started work on this model as early as the 1940s, but he did not get to present it in a fully fledged form until the 1980s. The model was a direct result of Su's application of Montelian typology to Chinese material, namely the baggy-footed tripod of the Early Bronze Age (Yu Weichao 1984: 327; Hein 2016: 14). Su took Montelius' idea that one typological form may split into multiple developmental sequences and identified different regions in which these

sequences, in this case of the baggy-footed tripod, would appear. Once he expanded the model into a more generalized state, he distinguished 6 major regions for which cultural sequences can be determined: 1) Shaanxi, Henan, Shanxi and neighboring areas; 2) Shandong and neighboring provinces; 3) Hubei and neighboring areas; 4) the Lower Yangzi River; 5) the Southern Region around the axis between the Poyang Lake and the Pearl River Delta; and 6) the Northern Region around the Great Wall (Su Bingqi and Yin Weizhang 1981). Su explains the distinction of these areas with environmental differences, but he also notes the natural tendency of humans to cluster into groups based on familial relations which, on a large scale, would lead to tribes etc. (Su Bingqi and Yin Weizhang 1981: 11). The linking of archaeological cultures to ethnicities that are mentioned in Chinese historical texts is stated as a long term goal for Su, but at the time he deemed the archaeological evidence insufficient (11). Su's "regional systems and local cultural series" thus represents on the one hand a rigorous application of the archaeological methods that Chinese scholars had adapted from Western scholarship early on, but on the other hand it was also presented at an opportune time in the early 1980s when a departure from traditional models centered on the Yellow River Valley had become more acceptable in the study of Chinese prehistory.

The impact of Marxist Evolutionism

In the 1980s and 1990s, the discussions of the culture concept in Chinese archaeology were still revolving mainly around naming conventions for archaeological cultures. Wang Renxiang even called for the instatement of an "archaeological cultures naming committee" (1999: 23). There are occasional mentions of Western anthropological theory, but mostly of rather outdated principles. For example, Yan Wenming (1985: 9) brings up the *Kulturkreislehre* [study of cultural provinces] of the Vienna School as does An Zhimin (1999: 83), although the latter does not neglect to decry its inherent racism along with Kossinna's approach. Yan betrays his clear Marxist Evolutionism when he cites changes in the relations of production as the main factor in cultural change (Yan Wenming 1985: 9). According to this view, a new archaeological culture emerges when these changes have reached a certain level. To be fair, Yan also acknowledges that many cultural differences can be attributed to different local

traditions while the environment provides a framework for, but does not determine, cultural change (10).

Xiang Xucheng also showed a decidedly evolutionist approach to archaeological cultures in an article from 1998. He brings up four evolutionary stages clearly reminiscent of Service's sequence, although in this sequence which Xiang loaned from a Chinese ethnology textbook the last stage of "state" is replaced by "modern ethnical groups" (Xiang Xucheng 1998: 87). Xiang claims that it might be possible to associate different archaeological units with these stages, such as types with bands, cultures with tribes, culture regions with chiefdoms (88), although he does point out that ethnology also showed that the distribution of material culture is not necessarily congruent with ethnical groups (84). According to Xiang, all kinds of archaeological evidence can indicate different evolutionary stages. For example, tools indicate the relations of production and the level of advancement of the productive forces (88). Xiang even fits art objects and decorations into this developmental scheme according to how advanced they are in terms of aesthetics and execution (88).

In terms of Western approaches to archaeological cultures, all these articles from before 2000 still only rely on Childe, especially on the method of defining archaeological cultures through the presence of type finds. Wang Renxiang even implies, by citing Zhang Zhongpei, that the main aim of archaeological fieldwork would be the detection of type finds in order to establish and verify archaeological cultures (Wang Renxiang 1999: 19). He also notes, though, that the scale of archaeological cultures may differ according to how many type find categories are used to define them, i.e. the fewer types are considered, the more general the definition and the larger the extent (20). Similar to European archaeology, Chinese archaeology was struggling with the large extent of some of their cultures and as more and more local variation became apparent, the two Neolithic cultures to be defined first, the Yangshao Culture and the Longshan Culture, were broken up into separate local cultures and renamed into "Yangshao Period" and "Longshan Period" respectively. Although, similar to European archaeology, the discussion about these changes is still ongoing.

Critiques of the classical culture-historical model

Although political barriers to an exchange with Western archaeology have fallen since 1978, the language barrier still remains, which seems to be the main reason why newer Western approaches to archaeological cultures would take so long until they were mentioned in Chinese articles. But as more and more translations become available and, more importantly, Chinese students of archaeology go to study abroad, Chinese archaeology is catching up rapidly in this regard. In an article from 2004, Guo Yanli brings up New Archaeology, although her assessment that it "elevated archaeological cultures through functionalism and cultural ecology" (Guo Yanli 2004: 11) appears somewhat reductive of the upheaval that it brought to culture historical archaeology. Guo is generally more concerned with pointing out the problematic nature of the conflation of archaeological cultures and ancient ethnicities that had been prevalent in Chinese archaeology. Zhang Quanmin engages a bit more with the theories of processual archaeology in an article from the same year. Zhang is critical about Steward's cultural ecology for treating all cultural change as adaptive measures (Zhang Quanmin 2004: 130). He also mentions Joseph Caldwell's "Interaction Sphere Model" (Caldwell 1964; Zhang Quanmin 2004: 129), which had already been employed by Chang Kwang-chih in 1986 to explain the origins of Chinese civilization (Chang Kwang-chih 1986: 241). I will explain his application in more detail in Chapter 3. Zhang Quanmin points out how the exchange of artifacts and the possible seasonality of site use and artifact use complicate the picture that Chinese archaeology had of archaeological cultures as clearly defined entities (Zhang Quanmin 2004: 128). He suggests various improvements to the use of archaeological cultures in Chinese archaeology, namely the employment of quantitative analysis, the treatment of cultures as complex systems and study of all factors that act upon them, the push for settlements and their economic and ecological systems to the center of analysis, the move from description to interpretation, and an increase in interdisciplinary research (131).

The most thorough engagement so far in Chinese archaeology with Western concepts of archaeological cultures comes from Chen Shengqian, a former PhD student of Lewis Binford at Southern Methodist University in Texas (Chen Shengqian 2009). Chen goes almost

through the whole research history from Kossinna and Childe to Hodder. He is the first in Chinese archaeology to emphasize the fact that the association of archaeological cultures derived from observed assemblages with social entities actually existing in antiquity is an unproven assumption (60). Furthermore, he points out that due to the functional differences of sites and artifacts that was first demonstrated by Binford's ethnoarchaeological studies the identification of type finds and main characteristics is not enough to define an archaeological culture (60). What Chinese archaeology needs, according to Chen, is the development of a middle range theory that helps with the definition of archaeological cultures (64). Chen recognizes that culture-historical archaeology, processual archaeology, and post-processual archaeology each concentrate on different aspects of the ancient past and that they can and should complement each other: Cultural history should provide the foundation of defining cultures, processual archaeology should add the study of function and process, and post-processual archaeology should add the study of meaning (62). To be fair, in order to arrive at this plea for cooperation, Chen has to gloss over the more aggressive branches of processualism and post-processualism that would bristle at the thought of being associated with each other. Chen also advocates a pluralistic view on culture, i.e. the co-existence of different interpretative models (64). Archeological cultures should, in his opinion, be mostly confined to Neolithic archaeology, since they are hard to apply to the non-sedentary communities of earlier periods as well as the more complex, layered, and hierarchical societies of later periods (63). I will argue that we are not able to avoid the latter problem though, since Neolithic societies are already likely to be very complex and layered.

There is evidently no intention in Chinese archaeology to give up on archaeological cultures. Wang Wei notes that some Western archaeologists have motioned to abandon the concept, but he mistakenly attributes that more to problems in methodological detail rather than deeper theoretical considerations (2014: 66). Wang not only defends archaeological cultures, however, his article also betrays the continued aim within Chinese archaeology of identifying archaeological cultures with bounded social groups or, more specifically, ethnicities in antiquity (72f.). Even historical descriptions of ethnic groups from millennia later are to Wang a type of evidence that should not be ignored (73). The study of archaeological

cultures should first happen independently from ethnical interpretations though. According to Wang, the two can be linked after clear patterns have been established.

Clearly, the conceptual deconstruction of the archaeological culture in Western archaeology and the culture in general in Western anthropology has showed no large impact in Chinese archaeology yet. Language barriers and differences in archaeological training are increasingly less to blame for this, however, since the cooperation and exchange of students between Chinese and Western archaeology is thriving. Perhaps there is no strong incentive for Chinese archaeology to attack a model that has served its function well enough for a century now and that furthermore is at the core of chronological and interpretive systems pertaining to Chinese prehistory. Any changes to this concept would be take a lot of cost and effort. However, as I will demonstrate in Chapter 4, holding on to outdated conceptualizations for too long can cause the discourse to become stuck, while the application of conceptually new approaches is discouraged.

Chapter 2: A Theory of Style and Culture

The usefulness of archaeological cultures and the need for middle-range theory

The last chapter outlined some of the troubled history of the culture concept in anthropology and archaeology. Before I am going to delve into this discussion myself, I want to come back to the question why archaeology has to rely on a concept laden with so much controversy in the first place.

As we have seen, archaeological approaches to culture vary between two extremes. One is treating archaeological cultures as an analytical tool to order the material (e.g. Lüning 1972 and to a lesser extent Menghin 1952; Chen Shengqian 2009; Furholt 2014). Any associations with anthropological interpretations are avoided or should be left to the "interpretative stage" while it is implied that the amount of archaeological evidence is insufficient at the moment to make such interpretations without falling back into speculation. Archaeologists of the other extreme just treat the archaeological cultures that they defined themselves, for example by using ceramic typology, as automatically equivalent to the social units of the past people they are investigating (e.g. many studies in Chinese archaeology; still somewhat reflected in (*alias?*)).

The importance of pointing out the problematic conflation of analytical units imposed by the researchers and entities that are supposed to have really existed in the past cannot be overstated. The problem is that "archaeological culture" was supposed from the beginning to somewhat reflect the reality of the people who left behind the archaeological remains (Eggert 1978). In the archaeology of 19th and early 20th century Europe and in large part still in current Chinese archaeology, the aspect most often thought to be reflected is ethnicity or at least social boundaries of some kind. In the meantime, anthropological studies have

shown that clearly bounded ethnical units are not something that can just be assumed to have existed (Barth 1969). Nevertheless, in certain fields of archaeology the question of ancient ethnical units still draws considerable interest, especially where migrations are concerned (Roberts and Vander Linden 2011: 5f.). The desire to identify ancient "tribes" etc. is particularly strong in Chinese archaeology and will probably remain so for quite some time (von Falkenhausen 1993). The fault should not be in asking these questions. It is rather the methods with which they are being answered that should be taken under scrutiny. The case appears to be that many of the conceptual confusions are still caused by a lack of understanding in the theoretical middle-range that attempts to bridge the gap between the actions of past communities and the patterns observed by archaeologists. That is not to say that archaeologists are not working on this problem; on the contrary, ever since Binford pointed it out in the 1960s (Binford 1965; 1983), many studies have been devoted to middle-range theory-building, even despite the assailments of some more aggressive post-processualists. In China, on the other hand, Binford's considerations have only quite recently come to the attention of prehistoric archaeologists (Chen Shengqian 2009), yet it is here that the need for elucidation in the theoretical middle-range is particularly great. In fact, the fallacies of the two extreme approaches to archaeological cultures can be attributed to short-cuts in the theoretical range. Either the whole process is limited to low-level empirical analytics and the resulting archaeological cultures as units of material patterning are supposed to represent some meaning somehow inherent in the material itself without further consideration of what that meaning could be. Or archaeological cultures are immediately linked to high-level concepts such as social units without testing the applicability to the material in question.

The term "culture" in "archaeological culture", however, implies a high-level concept. If the use of archaeological culture is to be restricted to a unit of empirical patterning, then the association with such a loaded term should be avoided. In this case, it really is more useful to speak of "periods" or "complexes". Archaeological cultures should represent the high-level end point of the ladder of inference; they are more results than tools of analysis. As such, we want them to be meaningful beyond the confines of scientific discourse in archaeology.

Archaeological cultures should be useful and understandable for the scientists of other disciplines – anthropology, sociology, history, economy, even biology – trying, as they should, to tap into the vast field of human antiquity for insights. When visitors to a site or museum look at a sign that mentions archaeological cultures, we want them to understand what they represent. In short, we want archaeological cultures to actually represent manifestations of culture. But in order to arrive there, we have to have a clear idea of what it is that the word "culture" really refers to.

For that purpose, I will cite and comment on some common dictionary definitions. Then I will attempt to approach the concept from a direction that actually comes out of a discussion in archaeology, namely the discussion of "style".

Common definitions of culture

These are a few definitions that come up when one looks up the word "culture" on the internet:

"A culture is a way of life of a group of people—the behaviors, beliefs, values, and symbols that they accept, generally without thinking about them, and that are passed along by communication and imitation from one generation to the next."

(Texas A&M University, first link that comes up in Google)

"Simple Definition of Culture

: the beliefs, customs, arts, etc., of a particular society, group, place, or time

: a particular society that has its own beliefs, ways of life, art, etc.

: a way of thinking, behaving, or working that exists in a place or organization

(such as a business)"

(Merriam-Webster: <http://www.merriam-webster.com/dictionary/culture>, accessed 02/15/2016)

"Full Definition of culture

- 1: cultivation, tillage
- 2: the act of developing the intellectual and moral faculties especially by education
- 3: expert care and training <beauty culture>
- 4a: enlightenment and excellence of taste acquired by intellectual and aesthetic training
 - b: acquaintance with and taste in fine arts, humanities, and broad aspects of science as distinguished from vocational and technical skills
- 5a: the integrated pattern of human knowledge, belief, and behavior that depends upon the capacity for learning and transmitting knowledge to succeeding generations
 - b: the customary beliefs, social forms, and material traits of a racial, religious, or social group; also: the characteristic features of everyday existence (as diversions or a way of life) shared by people in a place or time <popular culture> <southern culture>
 - c: the set of shared attitudes, values, goals, and practices that characterizes an institution or organization <a corporate culture focused on the bottom line>
 - d: the set of values, conventions, or social practices associated with a particular field, activity, or societal characteristic <studying the effect of computers on print culture> <changing the culture of materialism will take time — Peggy O'Mara>
- 6: the act or process of cultivating living material (as bacteria or viruses) in prepared nutrient media; also : a product of such cultivation"

(Merriam-Webster: <http://www.merriam-webster.com/dictionary/culture>, accessed 02/15/2016)

"Definition of culture in English

1 The arts and other manifestations of human intellectual achievement regarded collectively: 20th century popular culture

1.1 A refined understanding or appreciation of this:

men of culture

1.2 The customs, arts, social institutions, and achievements of a particular nation, people, or other social group:

Caribbean culture

people from many different cultures

1.3 [WITH MODIFIER] The attitudes and behavior characteristic of a particular social group:

the emerging drug culture

2 Biology The cultivation of bacteria, tissue cells, etc., in an artificial medium containing nutrients:

the cells proliferate readily in culture

2.1 A preparation of cells obtained from a culture:

the bacterium was isolated in two blood cultures

2.2 The cultivation of plants:

this variety of lettuce is popular for its ease of culture"

(Oxford Dictionary)

"Culture (/kltr/) is, in the words of E.B. Tylor, "that complex whole which includes knowledge, belief, art, morals, law, custom and any other capabilities and habits acquired by man as a member of society.""

(Wikipedia, first paragraph)

"As a defining aspect of what it means to be human, culture is a central concept in anthropology, encompassing the range of phenomena that are transmitted through social learning in human societies. The word is used in a general sense as the evolved ability to categorize and represent experiences with symbols and to act imaginatively and creatively. [...]"

(Wikipedia, beginning of third paragraph)

Not surprisingly, these definitions are missing a lot of the nuance of the anthropological discussions of the term within the last 100 years. They are more or less in line with Tylor's

famous definition from 1871. In addition, all definitions listed here except for the Oxford Dictionary definition and the short Merriam-Webster definition mention the aspect of social transmission. The definitions from Texas A&M University and Wikipedia also add symbols to the things encompassed by culture, a nod to the semiotic interpretations of the 1970s and after. There is, however, no hint of evolutionary theory, practice theory, or critical theory.

On the other hand, these definitions provide us with some aspects that have hitherto received little attention in anthropology. Due to the strong influence of ethnography and ethnology to a large part of the anthropological discussion, culture has largely been taken, often implicitly, as something that distinguishes different ethnic groups. What, then, about the "corporate culture" and the "print culture" of the Merriam-Webster definition (4c, 4d) or the "drug culture" of the Oxford Dictionary definition (1.3)? Clearly, "culture" is also commonly used to differentiate some very specific sub-sets of human society.

The definition of Merriam-Webster (4a, 4b) and the Oxford Dictionary (1, 1.1) also allude to the normative culture concept, as something that represents a positive achievement. These definitions are even set in front of the more "anthropological" definitions and in the example from the Oxford Dictionary, all social definitions are treated as a sub-set of the normative concept. Although anthropology has distanced itself from the normative culture concept from its very beginning, it is still very much alive in the way we use "culture" to denote art and entertainment, such as in the "culture section" of a newspaper, or the "Ministry of Culture" existing in many governments. In these cases, only certain aspects of human activity are taken out to represent the achievements of a group. The "culture section" of a newspaper will not usually report on new advances in technology and the "Ministry of Culture" will rarely feel responsible for the preparation and consumption of food – unless it is in the context of an ethnographic project, which brings this issue to a whole new meta-level. For the understanding of culture that I am referring to here, only certain cultural manifestations are desirable or interesting – that which is written, painted, performed etc. This narrow definition of culture results from the conscious selection of cultural traits – styles – to define group identity; a salient property of culture that I will discuss later in this chapter.

Attempting to reconcile these common definitions with the varied definitions that the anthropological discourse has produced obviously leaves us with no few problems. In addition, there is another semantic issue that needs to be mentioned: "Culture" is used to refer to a process – the transmission of behaviors, values, knowledge, etc. –, the results of that process – works of art, material culture, etc. –, and the actors involved in the process – this is often implied in the case of archaeological cultures. The definition of culture that I will present below is actually neither of these things, but a property of each action and of each result. But since the meaning of the word is already stretched to incorporate each of these aspects, we will have to accept this way of using it, although only after we have come to a central definition that each of these semantic extensions can be derived from. After that, I shall show how the term remains applicable in archaeology in the form of archaeological cultures.

A basic function of the concept of culture appears to be to distinguish. Any of the manifestations of culture, be it material culture, poetry, a certain code of conduct, or whatever else, are considered "cultural" because they distinguish the people that produced them, consumed them, employed them, or are otherwise associated with them. "Culture" is one possible answer to the question: 'Why do people behave differently?' This is the aspect that drove pioneers of anthropology like Tylor and Boas to the concept in the first place: To provide an alternative answer to the racist answer that was so prevalent at their time. In order to get to a clearer definition of culture, our question now becomes: How does culture distinguish between different people and their behavior? One possible answer lies in the concept of "style" that has been discussed in archaeology for some time.

Definitions of Style and Culture

Since we want to arrive at a definition for "culture" that can cover a wide range of fields and we suppose that the concept is related to style, it makes sense to choose a definition for style that is also quite open and general. Ian Hodder has provided a very general definition (also Hegmon 1998: 265). He starts off by citing the "colloquial view" that:

"[...] style is 'a way of doing', where 'doing' includes the activities of thinking, feeling, being." (Hodder 1990: 45)

After consideration of some "ways of doing" that do not appear to be cultural, because they are genetically or functionally determined, Hodder comes to this conclusion:

"Style is defined here as: 'the referral of an individual event to a general way of doing.'" (Hodder 1990: 45)

This means that every action is compared by both the actor and observers with all previous actions of a similar kind that are known or an otherwise transmitted idea of how the action should be undertaken. Most of the time, this is not done in a conscious way; a point I will return to below. Still, it is only through this referral that we know what action to choose in the first place. In my opinion, Hodder introduces some confusion into the terminology though, by defining the process of referral as style and not the way of doing that is being referred (cf. Carr 1995: 155). This contradicts the "colloquial" definition he gave before and goes against the normal way we use the word style, including all the examples Hodder gives: The styles of Boy George and Johnny Rotten (Hodder 1990: 45), a Protestant style of life (47), or a style of Impressionist painting (47), to name a few. Therefore, Hodder's definition might be a bit easier to handle when rewritten as:

"Style is a way of doing that is in every individual event referred to a general way of doing."

This "general way of doing", this frame of reference for every action, for every thought and belief, this we can define as culture. Since every style in every incident of referral has the potential to add to the culture and every way of doing can only be compared to another way of doing, culture is itself nothing but a collection of styles that is constantly built up. Thus, our definition can also be formulated in this way:

"Style is a way of doing that is in every individual event referred to a general culture of doing."

Or conversely:

"Culture is a general way of doing that every individual act of doing is referred to."

Or:

"Culture is a collection of styles that every individual style is referred to."

This still fits most of the definitions mentioned above, albeit with a slight twist. To take Tylor's famous definition as an example: Instead of culture consisting of "knowledge, belief, art, morals, law custom, and any other capabilities and habits acquired by man as a member of society" (Tylor 1920: 1), culture consists of a very specific idea of what knowledge, belief, art, morals, law custom, capabilities, and habits have to be like against which every individual manifestation of all these things is being measured. To take material culture as an example, culture is not so much the pot itself, but all the properties of the pot that either distinguish it from other pots or make it similar to other pots within what parameters are deemed acceptable. This actually helps us archaeologists, since it is not so much the pot that we base our interpretations upon, but all kinds of characteristics and measurements that we derived from it. Although, as noted above, we can allow for the meaning of "culture" to be stretched to incorporate the products themselves and not just their properties, in order to facilitate the dialogue.

We can define a tradition as the continuous presence of a style. Thus, on a temporal scale, cultures consist of sets of traditions phasing in and out depending on the rate at which the styles change.

Culture is still transmitted through learning and imitation, as well as occasionally through direct and explicit communication – of which both the lifestyle magazine and the art exhibition would be modern examples.

We even reflect the normative sense of culture in this, since it is after all this frame of reference that is usually considered the "right" or the "good" way of doing things. Although the individual does not have to agree obviously and it can be desirable to go actively against

culture, especially where power relations are involved. I shall elaborate on this point below. It is not even relevant for this definition if the action was genetically or functionally determined, i.e. if there was no choice in the first place; there is still a "right way" and a "wrong way" to do it, although the "wrong way" will probably occur only very rarely in these cases.

Furthermore, this definition of culture agrees particularly well with Bourdieu's practice theory, since it is more or less equivalent to the *doxa* (Bourdieu 1977: 160ff.) that affect the *habitus* behind every individual action. Another commonality is that culture only exists in practice, i.e. each time an action or a thought is referenced against the culture at large.

Our definition also makes it very clear that culture is constantly being negotiated and contested. Cultures are layered in each individual, depending on what styles they have come into contact with, so that, in a sense, everybody carries their own culture with them. Although we can expect there to be considerable overlap among groups of people who spend a lot of time in contact with each other. Culture is, to further exhaust one of the most worn out terms of our time, a palimpsest. I will return to the question what this means for archaeology at the end of this chapter.

Individuals Creating Society Through Culture: A Systemic Approach

Throughout the discussion of culture, many of the scholars involved have set up a dichotomy between a structured system on the hand, evolutionary or otherwise, and freely and independently acting individuals on the other hand that shape their own unique trajectory. I posit that these are not contradictory interpretations of what we observe about human nature, but different ways of observing it. Or, better put, different lenses that we can apply for our observations. Zoomed out to view the big picture, we can certainly detect recurring patterns in how human interaction plays out. This is in part due to how we humans are conditioned to think and act just by the way our brains and bodies work. But there are also structures emerging in the web of human communication due to a few immanent rules, for example increased communication leading to an amplification of certain processes and decreased communication leading to their impediment. This results in a system that we can

describe comprised of communicating units and sub-units behaving in somewhat predictable ways.⁶

The systemic perspective, whereby almost anything can be described as units communicating with each other creating an emergent system, can be applied at many scales. To explain how this can be useful to the study of culture, I will have to engage in some very fundamental considerations for the next few lines.

Just as all physical processes in the material world can be viewed as systems of communicating particles or waves, all living organisms can be viewed as systems of communicating cells. This includes the consciousness of the human individual, which, from what neurology can tell us at this point, can be described as an emergent system resulting from the communication of our neurons with each other and with the rest of our bodies. At the scale above that, it is communicating human beings who create society, as already mentioned. Thus we have systems creating systems creating systems. On the one hand, this approach carries with it the optimistic notion that the creation of systems at any level follows certain rules that can be studied and predicted. On the other hand, we are facing the realization that the higher we go in the scalar hierarchy; the further we zoom out; the complexity of the processes increases exponentially. Taking the model I have just set up to the extreme, we could attempt to envision all processes occurring in the Middle Yangzi River region in the 4th and 3rd millennium BC as interacting particles or waves. But in that case we would obviously be facing a seemingly infinite level of complexity that makes this approach useless for any questions we are asking as archaeologists or anthropologists.⁷ The point I am trying to make here is that with the level of complexity we are facing on the scale of human individuals and societies, any observations we make are by necessity simplifications and generalizations.⁸

⁶I owe most of my understanding of the social aspects of Systems Theory to Niklas Luhmann (1997).

⁷Not to mention the fact that apart from problems of preservation, we would be facing problems of quantum mechanics, which should probably be avoided in the social sciences and humanities.

⁸It is not by coincidence that there is some parallelism between the scales of different complexity I am describing - the physical, the organic, the social - and Hawkes' Ladder of Inference (1954). The difference is that I am not claiming that observations at a higher scale are more difficult - social scientists do not generally have a much harder time making observations than physicists - but that they are invariably less precise.

Any terms we apply, be it "individual" or "society" are shorthand for immensely complex underlying processes. Thus it is up to us to choose how reductive of a lens we want to apply. The more we zoom out, the more we have to simplify, while acknowledging that we are still describing incredibly complex systems each with its own history and trajectory.

Style and culture operate between the levels of individual and society; they are part of the interaction between human individuals that creates society. At the same time, even when an individual is not interacting with another, the society or societies they were part of up to that point shape everyone of their actions through the culture they have been imprinted with. Hence both the scales of the individual and the society have to be taken into account, a fact that should inform archaeological inquiries dealing with the subject.

Cultural Evolution

Culture changes over time through a process that can be called "cultural evolution". The term "evolution" is applicable in that, similar to biological evolution, it works through reproductive cycles of variation and selection. The mode of reproduction is communication. As I will explain below, the concept of "cultural evolution" also has to be considered as completely separated from any notions of cultural or social evolutionism. It is indeed more favorable to Boasian particularism than the term "cultural evolution" might suggest. This will become clear as I explain its main mechanisms: Variation and selection.

Variation is created through misunderstandings, the creation of new ideas, or the application of old ideas in new contexts. The creation of new ideas, for which we can use the term "invention", is more likely where the "inventor" is confronted with new concepts. This, together with the other points named above, suggests that variation is more likely to occur near the boundaries of cultures, where different cultures meet. These boundaries are not necessarily referring to borders in physical space but to occurrences at which different cultures are confronted with each other. This can mean a city as much as an actual border region and it is advanced by conditions of war or trade.

After variation occurred, selection comes into play. It is here that traditions, pre-

conceptions, notions of identity, and indeed habitus reflect on the variation and the circumstances that led to it. While conservatism can be a strong force towards negative selection in these cases leading to a return to the status quo. Positive selection, which we can also call "innovation", can result from the individuals involved realizing that they can gain a profit from the change in the status quo. Or, in cases in which the inventor profits from innovation, but other people do not, the process of selection may be fought out quite explicitly between individuals or groups.

The terms "invention" and "innovation" have so far mostly been used in the discussion of technological progress. However, there is no reason not to incorporate them into this more general model, of which technology itself is just one aspect.

When speaking of "cultural evolution", it is important to note that this model has no relation to biological evolution. It merely borrows the terms and some ideas behind them, but what is true for one model cannot be presumed true for the other. Furthermore, this kind of evolution does not by itself imply "evolutionism". This may sound paradox, but the model of evolutionism has become associated, in archaeology and anthropology, with a range of pre-suppositions that are not implied in the model of Cultural Evolution as it is suggested here. Evolutionism is predicated upon a directed progress and a sequence of stages that the system is progressing through. Cultural Evolution, as presented here, on the other hand, merely states that the system changes and through what mechanisms it changes, but it does not predict what the result of that change should look like.

Thus, this model of evolution agrees with Boas in that every culture has its own unique evolutionary history. For archaeology this means that, while the distinguishing of stages is very useful for comparison on a large scale, each assumed classification must be firmly anchored in a thorough analysis of the particular history of each culture.

Passive Style and Active Style, Passive Culture and Active Culture

There has been a long debate between archaeologists if styles are actively chosen by whoever performs an action in order to communicate something (e.g. Wobst 1977; Wiessner 1985;

1990; Hodder 1990) or if they force themselves on a passive performer who does not have much say in what style to employ since it is more or less predetermined by their unconscious predispositions (e.g. Leroi-Gourhan 1993 [1964]; Sackett 1977; 1982; 1986; 1990).

Christopher Carr (1995b: 184) pointed out that the opposition of "active – passive" is being conflated here with the opposition "conscious – unconscious". The first pair refers to control over the action, while the second one refers to awareness. It already becomes clear from Carr's examples, however, that the two oppositions are not mutually independent. A lack of awareness almost always effects a lack of control. There are some examples where there is awareness, but no control. If this happens, the reason is usually a lack of skill on behalf of the actor to execute a certain style, even though they are aware of it. This can also be reversed in a sense that the actor might not lack the skill to adopt a style, but to get rid of one. To me, the example of accents springs to mind – languages after all are ways of communicating, hence styles. However, I am not sure if "passive" is really the right word to describe this lack of control since "passivity" usually does imply an indifference that can be brought upon by unawareness. Thus, "active – passive" should imply awareness, as it has been taken by most authors in the first place, while lack of control should be described on its own terms, e.g. lack of skill, lack of resources, etc.

Carr also notes that the opposition of awareness is not that clear cut anyway. It is probably fair to say that most of the time we are unaware of the cultural context of our actions, thoughts, and motivations or indeed the actions, thoughts, and motivations of others. Yet we can become aware at any moment. It is usually when a style does not fit cultural expectations that observers notice. Some people might be better attuned to this kind of awareness than others. Sometimes we can be made aware by exactly the kind of active communication through style and of style that Wobst and Wiessner are referring to.

Reflected in this opposition of passive and active is the opposition of structure and agency that has also been the focus of many a debate in anthropology and archaeology (Dietler and Herbich 1998: 245). In the post-modern approaches to either discipline it has become popular to emphasize agency (for archaeology especially Dobres 1995; 2000; 2010; Dobres and Hoffman 1994; Dobres and Robb 2000). Yet clear definitions of agency are

missing. Taken at its most literal it is the capacity to act, which does not mean very much by itself. In opposition with structure, however, it becomes the capacity to act in a certain way despite social strictures working to prevent that. Or, more specifically, the capacity to act against one's own predispositions. One may agree with Archer (1988) that culture plays the role of structure in this case. This raises some complex questions, such as aren't the predispositions applicable at every time then? Maybe agency only exists because the habitus that encompasses all the predispositions is constantly changing in different ways for every individual. Dietler and Herbich pointed out the potential for *Habitus* to bridge the gap between structure and agency. Just as we have seen with active and passive styles, one aspect might take precedence over the other in any given situation, but that is not to say that any of the two can be said to hold dominance over the other. In fact, one cannot exist without the other. Without structure, agency is meaningless, but without agency there would never be any change.

The issue becomes really interesting when we apply the "passive – active" opposition to culture as a whole. Culture is referenced in all our actions without being noticed most of the time, but when culture becomes actively noted, it can be manipulated. Active culture – culture that has moved into the circle of awareness of any observer, either referencing themselves or others – is almost always linked to identity. Culture plays a major part in how we see ourselves and others, namely through the similarities and differences in styles that we can observe. Active culture is an interface that allows us to relate to other people, arguably the only interface aside from instinctual reactions. The function of culture, or rather the process of referencing styles to culture, is not just the transmission of knowledge and skills – the "right way of doing things", the "extrasomatic means of adaptation" (Binford 1962: 218) – it is, when culture becomes active through awareness, the creation of group cohesion. That is why certain aspects of culture get elevated and actively maintained. Religion can be said, at least in some of its aspects, to represent a particularly effective form of active culture.

Culture and Power

To reiterate, culture is, in its active form, when people are aware of it, used to relate to other people – either positively, through shared culture or negatively, through the emphasis of differences. But if a function of culture is to create group cohesion, then why should cultural differences be emphasized in the first place? First of all, shared culture can only be set up in opposition to culture that is different. As I have argued before, if there was no variation to a particular action, i.e. all the same style throughout, then people would not become aware of the style in the first place. In order for culture to become active, there has to be another culture to contrast it with.

Since this essentially describes cultural differences on an inter-group level, it is worth clarifying what I mean by the term "group". When speaking of human interaction, there are two kind of distances between humans: Spatial distance and what can be called social distance. Spatial distance obviously has a large impact on the capacity of any two humans to interact, especially in a prehistoric world where communication is limited most of the time to shouting distance. Whereas spatial distance limits the capacity for interaction, social distance limits the willingness for interaction. Social distance is created by differences in class, gender, birthplace and so forth. Relatives and friends naturally have a smaller social distance than strangers.

While it is possible in certain cases to determine the social distance between certain persons in the archaeological record, the spatial distance, especially on a geographical scale, is far easier to gauge. For the purpose of this discussion, I take a "group" of people to be a set of persons that live together in spatial proximity. There is no implication about social distance or proximity in my use of the word group. The concept of group can be scaled to encompass the inhabitants of a single settlement up to the inhabitants of a whole geographic region.

I have explained how cultural differences on an inter-group level are necessary to create group cohesion. But what about cultural differences on the intra-group level? What motivation can there be to contradict the group cohesion in this way? The answer is that we can

always see attempts at cultural distinguishing within a group along power differentials. The powerful maintain their power by creating social distance between themselves and the less powerful using culture. This can be done in a very conspicuous way through material power. But when persons outside of the elite obtain the resources to emulate material culture of the powerful – say, merchants for example, or possibly warriors – then the elite has to find less tangible ways to differentiate themselves. This is arguably where "high culture" comes from; a sense of refinement and taste that is hard to emulate, since one has to be brought up with it. In this sense, Hodder is right when he states that "style has power" (1990: 46), although it is important to note that this only applies to the active component of style and culture. In modern nation states, forms of "high culture" are in turn used to create group cohesion among the subjects. One can be proud of a work of art that is presented as a national treasure even when completely lacking the aesthetic skill to enjoy it "the proper way". Academia has been well known to employ strategies of "high culture" to emphasize its elite status. For us archaeologists this means, we have to beware of attempts to elevate ancient culture to "high culture". These issues only serve to illustrate how complex the web of cultural relations can become in societies with complex power relations.

These insights can be quite useful for archaeology, where social hierarchy might be inferred from increased attempts at intra-group differentiation of styles. This is basically what we already do when we cite the differences in amount and quality of burial goods as evidence for emergent social hierarchies. The problem is that with material culture we only grasp a part of the cultural mechanisms at the disposal of the elite to differentiate themselves, and furthermore only the part of material culture that has been preserved to us.

Culture and Ethnicity

The problem of identifying ethnicities in prehistory is still in the focus of many archaeological studies in China, as illustrated by the article by Wang Wei cited in Chapter 1 ((**alias?**)). The desire among Chinese scholars to validate historical accounts by seeking equivalents of the tribes mentioned in them among prehistoric cultures has been explained in more

detail by Lothar von Falkenhausen (1993). It should be noted, however, that many Chinese archaeologists have pointed out the dangers of the direct identification of archaeological cultures with ethnic groups (Su Bingqi and Yin Weizhang 1981; Xiang Xucheng 1998; Guo Yanli 2004; Chen Shengqian 2009). The fact alone that ethnicity plays a role in many Chinese investigations of prehistory warrants a short discussion of the concept here. Furthermore, the clear distinction between ethnicity and culture is important for the understanding of both concepts.

In Western archaeology and anthropology, this concept is treated with a lot of caution. The term "ethnicity" itself is frequently avoided even in studies that deal with the distinction of different human groups and social boundaries (Emberling 1997: 300). This is due in part to how the concept has been misused in the past by scholars such as Kossinna. In addition, "ethnicity" and "ethnic groups" have undergone a major reevaluation since. One scholar who has to be named in particular in this context is Fredrik Barth. Barth challenged traditional definitions of ethnic groups which he summarized as follows:

"The term ethnic group is generally understood in anthropological literature [...] to designate a population which:

1. is largely biologically self-perpetuating
2. shares fundamental cultural values, realized in overt unity in cultural forms
3. makes up a field of communication and interaction
4. has a membership which identifies itself, and is identified by others, as constituting a category distinguishable from other categories of the same order" (Barth 1969:10-11, cited in Emberling 1997:298)

Barth's main criticism of this definition is that it presupposes that ethnic groups are congruent with races as implied by point 1 or cultural units as implied by point 2; that ethnic boundaries can be mapped directly along racial or cultural boundaries (11ff.). Barth instead singles out point 4 as defining factor to come up with a more emic definition that also implies the function of differentiation of ethnic groups:

"[...] ethnic groups are categories of ascription and identification by the actors themselves, and thus have the characteristic of organizing interaction between people." (Barth 1969: 10)

I agree with removing point 1 from the general definition cited above. But even though ethnicity cannot be equated with culture, since, for example, cultural traits can be transmitted easily across ethnic boundaries (Barth 1969: 38), ethnicity cannot be divorced entirely from culture either. In the framework of the very broad definition of culture that I have derived above, culture is the building material that ethnicity is made of. Ethnicity is indeed a specific form of self-identification, although it should be noted that ethnicity can also be imposed upon a group of people by other actors. The decisive part is that we are dealing with a particular form of identity-building here and, as I have noted above, identity is created through active culture. We should also emphasize that the function of ethnicity is to classify and thus organize interaction between groups. No individual forms an ethnicity of their own. The purpose of ethnicity is to lump them in with a group.

Within the terminology of the theoretical framework I have set up in this chapter, while taking into account Barth's emphasis on the active construction of identity, I would propose the following definition for ethnicity: Ethnicity is active culture used to create identity on a group level.

Barth also advocated concentrating on the social boundaries between, rather than the contents of, each ethnic unit (Barth 1969: 15). Geoff Emberling (1997: 299f.) commented that "boundaries" denote too sharp lines here and that the term should be replaced by "differences". This brings us back to comparing the content of different units. But if we consider the system as a whole, both content and boundaries should be part of the investigation, as in each case the boundaries are defined by the differences in content. These boundaries do by no means have to be sharp. As I have noted above, we should always acknowledge the fact that we are approximating almost infinite complexity, so categories nearly always tend to be fuzzy.

I would in fact prefer a more general definition of social boundaries. Ethnicity creates

social boundaries, but it only denotes the specific identity-based component that uses active culture. A decisive role in the creation of social boundaries, however, is played by passive culture. This is the point, in fact, that the concept of archaeological cultures relies upon. Social boundaries exist no matter if the groups involved are aware of and possibly making use of their existence.

Since active culture is difficult to distinguish in prehistory, there usually is not enough evidence in Neolithic archaeology to make the pursuit of ethnicity worthwhile. Social boundaries, on the other hand, can just as well be created by communication networks or stylistic traditions that the participants are not actively aware of. This, for the most part, is what we seek to trace in prehistoric archaeology. We may never know if the ancient peoples who created the Daxi Culture remains considered themselves distinct from the peoples who created the Youziling Culture remains. Or, for that matter, if all participants in the Daxi Culture considered themselves one coherent ethnies or not. But the social boundaries that these archaeological cultures are supposed to represent were nevertheless meaningful in shaping the history of the Middle Yangzi River region and, by extension, the history of China.

Culture and Civilization

As I noted in Chapter 1, "culture" and "civilization" had often been used interchangeably in early English-speaking anthropology. The difference between the two was created when the meaning of culture was expanded to include "primitive" societies while civilization kept referring to some "higher level" of society. Since the concept of civilization originated out of a sense of inherent superiority of its creators, its meaning had been taken for granted for a long time. The defining features that set a civilization apart from a "non-civilized" society have often been presented in the form of a list, such as the following:

- "[...] 'City dweller' and 'urban' loosely [...] designate societies characterized by at least two of the following features:
- (i) towns of upward of, say, 5,000 inhabitants
 - (ii) a written language

(iii) monumental ceremonial centers"

(Kluckhohn 1960: 400, footnote 4; cited in Renfrew 1972: 7)

Renfrew's explanation of what sets a civilization apart goes a lot further than the listed traits. He finds the effect that is really achieved by the traits listed. In very brief summation, civilization is the insulation of humanity from the natural world (Renfrew 1972: 11). The products of human artifice, such as the traits listed, take up such an encompassing part in the lives of the people that their natural environment is replaced by an artificial one. All the traits included in Kluckhohn's list serve to uphold this system as "insulators" (Renfrew 1972: 13). Towns insulate against the Outside; writing insulates against the passage of time by recording information for later access; and ceremonial centers insulate against the Unknown by making it accessible to the community through ritual. Renfrew is somewhat unclear, however, on the question how the stage of civilization is reached. How are the conditions created that lead to the emergence of towns, writing, or ceremonial centers and thusly to the creation of this artificial living environment? Renfrew's concept of civilization is based on Leslie White's understanding of culture as "extrasomatic means of adaptation", which I have discussed in Chapter 1. Is the insulation of humans from the natural environment the final logical step in the cultural evolution? After all, an important purpose of ritual has always been to anthropomorphize the natural world, to make non-human creatures and things accessible to social interaction. This "insulation against the Unknown" does not necessarily need monumental ceremonial centers. But in many areas of the world ritual, culture, and adaptive measures to the environment clearly did not lead to the manifestation of civilization as it is defined here.

When we look for other commonalities of the traits listed here, the most obvious conclusion that has been pointed out frequently is that they are all the results of a large number of people interacting. This much is self-evident for towns and ceremonial centers, while writing where it emerges is usually necessitated by an organizational complexity, be it in economy, administration, or ritual, for which oral communication and traditional mnemonic techniques are insufficient. This organizational complexity in turn is the result of too many people coming together to trade, cohabit, or perform ceremonies. Other explanations of civilization,

such as Bruce Trigger's observation that kinship structures are being increasingly replaced by classes as governing principles within civilized societies (Trigger 2003: 44ff.), still have at their root the condition that a lot of people are needed to interact in certain ways to set these processes in motion.

As Kluckhohn and Renfrew have noted, not all of the "insulators" need to be present to fulfill the conditions of a civilization. Indeed, various cultures in North and South America and prehistoric Europe are now generally accepted as deserving of that label without ever having produced writing. On the other hand, there are some occurrences of only one of these traits in early cultures that seem to not have made the jump to manifest the others as well. In the 4th millennium BC, the Tripolye Culture north of the Black Sea featured huge settlements that definitely fit the definition of towns in terms of population sizes. But there are no indicators of monumental centers or writing. Göbekli Tepe in Upper Mesopotamia is the earliest known monumental ceremonial center, with a construction date starting in the 10th millennium BC. Its construction and use must have required the cooperation of a number of people exceeding the population of singular settlements at a time when sedentism was still in its early stages. But clearly this does not mean that civilizations arose in the Pre-Pottery Neolithic of Upper Mesopotamia or the Chalcolithic of the Ukrainian forest steppes. The scale of interaction must reach a certain tipping point after which multiple spheres of the artificial human environment rush towards complexity in parallel, reinforcing each other in the process, a phenomenon that Renfrew calls the "multiplier effect" (1972: 27ff.).

In order for civilizations to develop, the interaction between human groups needs to reach a certain scale, so it can arrive at that tipping point after which the multiplier effect will accelerate the progression toward civilization. Norman Yoffee describes this process for Mesopotamia, where more than 2,000 years after the abandonment of Göbekli Tepe, during the developed Neolithic period, certain pottery wares spread over a very large area encompassing all of Upper Mesopotamia. Yoffee calls this the "Halaf Interaction Sphere" (2005: 209), borrowing a term that Joseph Caldwell first introduced in 1964 (Caldwell 1964). Caldwell coined the term "Hopewellian Interaction Sphere" to describe a phenomenon arising in eastern North America in the late 1st millennium BC, wherein distinct cultures with clearly

distinguished traits nevertheless share certain features, so that a close interaction over a large area can be inferred. Caldwell suggests that this interaction transcending singular societies "will be associated with increases in the rate of innovation" (136) - the multiplier effect. This, according to Caldwell, provides "primary opportunities" for the development of civilization (136). Indeed, Yoffee notes that during the Ubaid Period, which is succeeding the Halaf Period in the 6th and 5th millennium BC, the symbolic manifestations of belief systems can be traced that spread over very large areas, leading to the emergence of certain sites as temple centers and ultimately cities (Yoffee 2005: 209; 230).

It appears that inter-social interactions on a large spatial scale, for example for trade and other kinds of exchange, are by themselves not sufficient to tip the scales toward an integrated interaction sphere that can lead to the emergence of civilizations. After all, long range communication and exchange between different groups can already be detected in the Paleolithic Period in many areas of the world. Instead, the different societies have to maintain intensive relations long enough for shared cultural traits to develop. We can detect occurrences of this process happening in the archaeological record through shared styles in the produced pottery etc. and can define the result as a "Cultural Interaction Sphere". But Interaction Spheres do not constitute civilizations yet. In order for that further step to be taken, the human groups who are interacting need to be bound together by strong forces of cohesion such as a shared belief system, a shared sense of identity, and a shared history. This leads to the manifestation of large towns, ceremonial centers, and writing. The fact that these act as "insulators" against the natural environment, as Renfrew explains, might be less the main intention for the formation of civilizations than a byproduct of humans coming ever closer together in large numbers.

Caldwell's concept of "Prehistoric Interaction Spheres" has been famously applied to China by K. C. Chang (Chang Kwang-chih 1986: 234-294). I shall discuss the implications of this in the next chapter.

Culture and Archaeology

Apart from the implications noted above, how can this culture model applied to archaeology and what does it say about archaeological cultures?

Due to the layered and contested nature of culture we can expect it to be far less clearly bounded than archaeological cultures would currently make us believe. Maybe it is as Furholt noted (2014) that our confirmation bias compels us to see bounded patterns in the material where there are not necessarily any. In the case where we can be absolutely sure of a clearly bounded alignment of different styles, we are probably dealing with culture that has been actively maintained. As we have seen, this does not have to imply one ethnic group trying to distinguish itself from another. The power differences that create cultural divergence might also follow lines along gender or class. It is not enough to elevate the cultures themselves to entities that are interacting with each other. The question of 'Who exactly is dealing with whom?' should be pursued as closely as the material allows.

We have also seen that functional differences are not separable from cultural differences. As Michelle Hegmon put it: "Style has Function" (1998: 265), but we may just as well say: "Function has Style". Since the value systems behind any intentions are themselves part of the habitus, no function is devoid of cultural influences.

This is why I chose a technique to contrast with the other styles that have been used so far to define Neolithic cultures in China. The aim is to see how much complexity it adds to the picture of the late Neolithic in Central China. This shall also be a test how useful this approach is to gap the middle range between observed material and the actual cultures existing in the past.

Chapter 3: Setting the Stakes: The Origin of Chinese Civilization and the Role of the Middle Yangzi River Valley

Introduction: Why We Search

The purpose of this chapter is to highlight the significance of the Middle Yangzi River Region in the prehistoric archaeology of China, particularly in that field of research deemed most important: The search for the origin of Chinese civilization. I will outline some of the history of this search and then explain the role of the Middle Yangzi River Region, also providing a brief introduction to its geography in the process. By this I hope to make clear the reason why I have chosen this region to discuss the application of archaeological cultures in China while also leading into the next chapter in which I will tackle a more specific question pertaining archaeological cultures in the Middle Yangzi River Region.

When working in the archaeology of a specific country as an outsider, it only respectful to consider what questions the research of local archaeologists is centered around. Naturally, there is always a multitude of factors that can influence where an inquiry is going. The direction in which any field of research is going is reflective of the *Zeitgeist* and indeed the culture at the place where it is situated. In the field of archaeology, there is often a not-so-subtle political influence on research questions. This is certainly the case where the concept of civilization is involved. It is no coincidence that the emergence of the concept of "civilization", as described in Chapter 1, occurs at a time when modern nation states were born. States still have an interest in presenting themselves as heirs to powerful ancient civilizations. This is not just to aggrandize themselves or legitimize their power, but also to promote unity among an often culturally quite diverse citizenry. This phenomenon does not even have to be limited

to single states as the interest of the European Union in furthering the narrative of a Grand Celtic Civilization shows. The cooption of ancient civilization for modern political purposes is obvious in China as it is in many other states. As a somewhat ironic counterpoint to the focus on unity, however, there is a competition between the different regions, specifically the provinces, about who contributed the most to the origin of civilization in this area. That might be why the search for the source of civilization is particularly pronounced in China.

Politically motivated as it might be, there is an undeniable validity to the question where and how Chinese civilization originated. The transition toward civilization was an immensely important step in the history of humankind wherever it occurred. Hence it is worth studying despite the political motivations associated with it. Indeed, as long as we are aware of the biases that are introduced by this particular entanglement, we might be able to pursue a more balanced narrative that benefits our understanding of human history at large. In addition, due to the fact that most of the funding for our research comes from sources that are politically motivated, we cannot avoid being under their influence. But we can try to limit the impact this has on our interpretations.

The first thing to consider when dealing with "Chinese civilization" is what exactly the "Chinese" component of the term denotes in this case. As I remarked above, the modern nation state - China in this case - is motivated to appropriate an ancient civilization. Viewed in this way, calling this civilization "Chinese" is problematic. However, since the beginnings of civilization in this case lie in prehistory - with the time of the actual start being disputed, see below -, we have no indicator how the earliest participants in this civilization called it or, for that matter, if a common name for this social construct existed in all its constituent areas. All we have is the narratives of later states that identified the Xia Dynasty and the mythical culture heroes preceding it as the common ancestors. Calling it "Chinese civilization" is therefore teleological by necessity, but leaving the discussion of actual cultural continuity from the prehistoric into the historic period aside, we can determine the "Chinese" in this case to denote two things: 1) The civilization that arose in the geographical "culture continent" of China, as we call it today, and 2) The civilization that was referenced as ancestral by the inhabitants of this area in the historical period - the "Chinese people" as we call them

today. We thusly have to agree that the name "Chinese civilization" does not contain any implication about how it would have been understood at the time of its birth or indeed how it manifested itself at that time.

The problematic nature of using historical texts that were produced millennia after the processes they describe to reconstruct prehistoric developments has been pointed out abundantly. But at the same time, we should not ignore the fact that it is certain areas that are continuously being referenced. The Egyptologist Jan Assmann has created the term "cultural memory" to refer to the codification of shared values, shared identity, a shared history, and a perceived shared point of origin among societies (Assmann 1992). Even in pre-literate societies, oral histories prove surprisingly enduring in preserving these shared cultural traits over long periods of time. The particular content of these narratives might change, but what stays constant is a sense of importance that is ascribed to certain locations as the setting of the mythical events. This means that the type of evidence that we can gain from historical sources is less in what exactly they are depicting, but more in what locations and actors they are referencing, which might also be reflected in the archaeological record.

Where and How It All Began

Chinese historiography traditionally has its own mythical explanations for the origin of Chinese civilization. These are largely centered on the Central Plains - the middle and lower reaches of the Yellow River and the valleys of some of its tributaries, especially the Wei River and the Yi and Luo Rivers. The focus on the Central Plains is unsurprising given that it is the center of the Bronze Age civilizations that created the mythical narratives in the first place. This fact has led many scholars, especially Western Sinologists to question the validity of these stories in all their aspects except to serve as an example for state propaganda of its time. I will discuss the use of mythical narratives to understand actual historical events further below.

The Western scholars who brought archaeology to China quickly developed their own ideas for the origins of Chinese civilization. Prevalent among these were suggestions of a

source for the decisive features of Chinese civilization in the West. Already in the 1920s, Andersson famously noted the similarities between the painted pottery of the Majiayao Culture and the Cucuteni-Tripolye Culture of the Northwest Black Sea region. This suggested to Andersson a derivation of the Chinese Neolithic from European traditions, although he would recant that viewpoint later on (An Zhimin 1987: 455). As discoveries of Neolithic and Bronze Age sites in China became more numerous, any notions of civilization being imported wholesale from the Near East or from India became harder to defend; although there would still be attempts as an essay from 1940 by Carl Bishop illustrates (Bishop 1940). Bishop, a proponent of the hyperdiffusionist school that considered every civilization in the world derived from Western Asia, conveniently defines only those traits as significant for the formation of civilization that demonstrably came into China from the West - e.g. metallurgy, the wheel, wheat agriculture, domestic sheep, goats, cattle, and horses - while giving short shrift to elements that were already known by then, but could not be explained as easily as coming from the West - writing and monumental architecture are mentioned but never brought up in the conclusion, while urbanism is not discussed at all. Bishop further resolves the discussion of all traits with unclear dating at his time - e.g. rice agriculture, wheel-thrown pottery - in favor of India or Western Asia rather than taking an indigenous origin into consideration. This sort of cherry-picking of evidence by hyperdiffusionists made it easier for Chinese archaeologists to refute the Western origins hypothesis entirely by concentrating on the evidence that scholars like Bishop had left out.

Chinese archaeologists reasserted the Central Plains as the source of Chinese civilization, helped by the discovery of the Bronze Age capitals at Anyang, Zhengzhou, and Luoyang. It should also be noted that North China was subjected to a lot more archaeological fieldwork in the first half of the 20th century than South China, due to a variety of factors including generally better conditions of preservation, the historiographic focus on the Yellow River Valley, and even coincidence such as Andersson's area of operation as a prospector.

By the 1980s, Chinese archaeologists would still emphasize that Chinese civilization did originate in China, but new challenges to the Central Plains model emerged. Although K. C. Chang still emphasized the Central Plains origins model in 1976 and pointed out continuities

in cultural traits between the Longshan Culture and the Shang Dynasty (Chang Kwang-chih 1976: 34f.), he also drew attention to Neolithic finds from outside the Central Plains that had at that time just recently received surprisingly early radio-carbon dates (43ff.). These included sites belonging to the Qingliangang and Qujialing Cultures which he considered "Lungshanoid", causing Chang to remark that additional fieldwork might show the decisive influence for the formation of the Longshan horizon, itself the direct precursor of the Bronze Age civilizations, to come from the Yangzi River valley; in his case specifically the Lower Yangzi River valley (44; 46).

The new political climate of the era did indeed motivate provinces outside of the Central Plains to increase funding for fieldwork and exhibitions in order to take part in creating the narrative about the formation of Chinese civilization (von Falkenhausen 1996). However, the evidence that would get the most attention from opponents of the Central Plains origin model would not come from the Yangzi River valley, but from the Northeast. The report of the discovery of monumental ceremonial architecture dating to the 4th millennium BC at Niuheliang in Liaoning Province (Liaoning Sheng Wenwu Kaogu Yanjiusuo 1986) is accompanied by an article by Su Bingqi expounding on its meaning in the larger picture of Chinese prehistory (Su Bingqi 1986). Su remarks that the finds of Niuheliang - a stone structure addressed as temple and multiple stone-lined tombs - suggest a level of social stratification that has not been detected for that time period in other areas of China yet (43). Although Su does not imply the Northeast as the origin of Chinese civilization directly, he traces a developmental line in this region of "ancient culture - ancient cities - ancient state" which underlines its importance for the emergence of social complexity in China. Su would expand on these thoughts in an article from 1991 (Su Bingqi 1991). In this article he states more explicitly that a decisive role for the origin of Chinese civilization was played by the corridor of communication along the Fen River between the Liao River system in the Northeast and the Yellow River in the Central Plains, connecting the Hongshan Culture in the Northeast with the Yangshao Culture in the Center during the 4th millennium BC (1116). In addition, Su notes that it is at that intersection, at the Fen River, that the Taosi site would arise in the 3rd millennium BC, exhibiting the trappings of the center of a fully formed civilization.

Apart from Niuheliang and the Hongshan Culture in the Northeast, Su also brings up the Dadiwan site in the Upper Yellow River region in the Northwest (1115). There the foundation of a large central building covering over 100 m² had been uncovered. Su suggests the function of an "ancestral hall" of sorts and remarks that it follows the basic structure of later Chinese palace halls (1118, endnote 2).

Despite these challenges from the Northeast and Northwest, the Central Plains origin of Chinese civilization was defended by a large number of prominent authors in the 1980s (Xia Nai 1985; An Zhimin 1987; Chen Xingcan 1987; Yan Wenming 1987; Zou Heng 1987; Cai Fengshu 1988; Zheng Guang 1988). An Zhimin specifically addresses the discoveries of Niuheliang and Dadiwan warning that pushing the beginnings of civilization back to this early stage is stretching the concept too far (An Zhimin 1987: 453; 457). While An only cites two newspaper articles declaring Niuheliang and Dadiwan respectively harbingers of civilization and Su Bingqi would not publish his reference to Dadiwan until a few years later, Su's position on the Hongshan Culture was well known and it is thus conceivable that An's article represents a veiled criticism of Su's focus on the Northeast concerning the origins of Chinese civilization. An was joined by Chen Xingcan in the same volume of the journal "*Kaogu*" (Chen Xingcan 1987), while Cai Fengshu advocated a similar standpoint in the following year (Cai Fengshu 1988).

Despite their agreement on the Central Plains as the source, these authors represent a spectrum in terms of how strong their emphasis of the Central Plains is at the cost of other regions and how early they date the beginning of Chinese civilization. For example, Xia Nai, An Zhimin, Chen Xingcan, Zou Heng, and Cai Fengshu all stress that civilization only fully emerged in the Bronze Age with the Erlitou Culture as its earliest incarnation. The Erlitou Culture in turn is the culmination of a Central Plains tradition represented by the Henan Longshan Culture as its direct predecessor, although influences from outside the Central Plains may have helped in the process.

Yan Wenming, on the other hand, presents a more generous scope, when he claims that all of North China as well as the Middle and Lower Yangzi River are the source of Chinese civilization (Yan Wenming 1987: 49). But at the same time he asserts, somewhat vaguely,

that the Central Plains took a leading role in the process. Yan chooses to demonstrate this model with the analogy of a flower, with the central stem being the Central Plains and the petals being the regions surrounding it (48). Civilization is hence a form of unity arising out of the multitudes of Late Neolithic cultures across China.

At the other end of the spectrum, Zheng Guang stresses the dominance of the Central Plains tradition starting as early as the Cishan-Peiligang Culture in the 6th millennium BC and continuing in an unbroken line to the Bronze Age dynasties (Zheng Guang 1988: 55). Although the region might have received some outside influence, there was never any true amalgamation of cultural elements and a lot of the civilizational achievements outside of the Central Plains is in turn a result of the outward spread of the central culture. Furthermore, Zheng dates the birth of Chinese civilization back to the Late Neolithic in the 3rd millennium BC (53). He fields a whole array of traits to support this claim, including the bronze artifacts discovered at some Longshan Culture sites and the social stratification visible at sites like Taosi (53). Zheng notes the presence of "cities" of various sizes, by which he is probably referring to the multitude of walled settlements during the Longshan Period. More dubiously, Zheng also lists "currency" and "writing" as elements present in that time period, without providing any further evidence or citation (53). Not surprisingly, Zheng associates the dominant Central Plains culture that brought forth Chinese civilization with the "Huaxia", the ancestral ethnicity of the Han Chinese (55), although, to be fair, most authors cited here share this claim.

A counterpoint to the aforementioned positions is provided by Tong Enzheng (1989). Although he agrees that Chinese civilization should start with the Erlitou Culture, Tong stresses that the discussion should not end there (56). After providing a very thorough summary of the concept of civilization in Western anthropological literature, Tong states that Chinese archaeology up to that point had been too reliant on Morgan's idea of "civilization" as opposed to "savagery" and "barbarism" (57). Tong advocates a more nuanced system including the concept of "chiefdom" as it had been introduced by Service, Fried, and Sahlins to possibly describe phenomena such as the Hongshan Culture. Tong also comments that the ideas of the source or origin of civilization and its formation get mixed up too often,

confusing the discussion (57). While the latter describes a stage at which sufficient traits of civilization are present, such as the Erlitou Culture, the former describes the cultures and traditions leading up to its formation, such as the Longshan Culture.

Another scholar to adopt a viewpoint on Chinese civilization inspired by Western anthropology was K. C. Chang, who had updated his stance from the 1970s to account for the discoveries made in the meantime. He laid out his new model in the Fourth Edition of *"The Archaeology of Ancient China"*, published in 1986, as well as an article published posthumously in 2004 based on a manuscript from 1990, which cites many passages from the aforementioned book. Chang notes how during the whole Neolithic period in China what started off as isolated cultures grew into increasingly interlinked regions of shared ceramic styles (Chang Kwang-chih 1986: 234, fig. 197). He borrows the concept of "Interaction Spheres" from Caldwell (1964), which I have mentioned in Chapter 2, to describe this phenomenon (Chang Kwang-chih 1986: 241f.). According to Chang, after about 4,000 BC a "Chinese Interaction Sphere" between the Yangshao Culture in the center and various other cultures including the Hongshan Culture, the Dawenkou Culture, the Majiabang Culture, and the Daxi Culture had begun to form. The true precursor to the Chinese civilization would be the Lungshanoid horizon⁹, which emerges in the 3rd millennium BC from multiple sources including, among others, the Dawenkou Culture, the Miaodigou II Culture, the Liangzhu Culture, and the Qujialing Culture (241, fig. 199). The archaeological cultures comprising the Lungshanoid horizon are the Shandong Longshan Culture¹⁰, the Middle Yellow River valley Longshan Cultures¹¹, the Liangzhu Culture¹², the Qijia Culture¹³, and the

⁹According to the current mode of transcription this would have to be spelled "Longshanoid", however, the spelling "Lungshanoid", as spelled by Chang, came to be adopted by several other authors writing in English about ancient civilizations (e.g. Trigger 2003: 107), which is why I am using it here.

¹⁰Also known nowadays as the Haidai Longshan Culture.

¹¹Namely the Wangwan III Culture and the Hougang II Culture.

¹²According to new radiocarbon dates, the Liangzhu Culture ends around 2,300 BC when the Longshan Culture is beginning, so the Liangzhu Culture would predate the Lungshanoid Horizon (Qin Ling 2013: 576).

¹³The Qijia Culture is now known to continue far into the 2nd millennium BC, which means at least its latter part postdates the Lungshanoid Horizon (Liu Li and Chen Xingcan 2012: 299, tab. 9.1).

Qinglongquan III Culture¹⁴ (286). The main markers of the Lungshanoid Interaction Sphere are certain types of ceramic vessels, specifically tripod vessels and stemmed dishes or dishes with high ring bases (239). Chang furthermore provides a list of innovations within the Lungshanoid Interaction Sphere spurring it on along the trajectory towards Chinese civilization. The listed innovations are: Copper and bronze metallurgy, the potter's wheel, rammed earth walls surrounding settlements, human sacrifice as markers of institutionalized violence, shared ritual symbolism as reflected in the depiction of certain animals, certain ritual implements such as jade tubes and ring-discs, scapulimancy, and social hierarchies reflected in ranked burials (287f.). Citing these traits, Bruce Trigger characterized the Lungshanoid cultures as complex chiefdoms or incipient states on par with Pre-Dynastic Egypt or Early Uruk Period Mesopotamia (Trigger 2003: 107).

At the point when K. C. Chang formulated his Chinese Interaction Sphere model, the available evidence for the emergence of civilization would be limited mostly to the distribution of ceramic types, determining the spread of archaeological cultures, and the occurrence of relevant traits such as monumental architecture or copper artifacts at individual sites. Social complexity would be detected on a quantifiable level only where it is reflected in the burial record of extensive cemeteries, such as those belonging to the Dawenkou Culture in the Lower Yellow River region. Liu Li changed this when she conducted an extensive rank-size analysis of various regions in the Middle Yellow River and Lower Yellow River and Wei River regions or, in other words, the areas of the modern provinces of Henan, Shandong, and Shaanxi (Liu Li 2004).

According to Liu's analysis, the area with highest amount of centralization and political integration during the Longshan Culture Period in the late 3rd millennium BC is in the Linfen Basin north of the Yellow River, centered on the site of Taosi (Liu Li 2004: 172ff.; 188ff.; He Nu 2013). At its heyday, around 2,100 - 2,000 BC, Taosi was one of the, if not the largest settlement in the Chinese Neolithic.¹⁵ At that time, Taosi featured a large rammed earth

¹⁴Known nowadays as Shijiahe Culture.

¹⁵The rammed earth wall at Taosi surrounded an area of 280 ha during the middle Taosi period (He Nu 2013: 264). This is rivaled by the rammed earth wall surrounding the Liangzhu site cluster at Mojiaoshan,

wall surrounding the city, an internal organization into districts divided by functionality, extremely elaborate burials, a large central building complex interpreted as a palace with attached temple, and a monumental complex interpreted as an observatory(He Nu 2013: 264-269). The evidence points towards Taosi being the urban center of a centralized state with a developed kingship ideology. This would have qualified it as the first true manifestation of Chinese civilization, were it not for the fact that around 2,000 BC the state system collapsed and the city was destroyed (269f.). The site would continue to be occupied for another 100 years (256), but the short-lived centralized settlement system disintegrated into a more dispersed pattern dominated by two competing centers (Liu Li 2004: 175). After 1,900 BC, the Linfen Basin would be sparsely populated for several centuries and the early states of the Erlitou Culture and Shang Dynasty did not consider it important in the narrative of their ancestral origins.¹⁶ The Taosi site thus seems to be a representative of a failed incipient civilization that, while it might have produced some cultural elements that found its way into Chinese civilization proper, was not inscribed in its mythical origins as Erlitou in the Yiluo Basin was.¹⁷

Although the association of Erlitou with the mythical Xia Dynasty has been disputed fiercely and the absence of written sources from that time period makes a conclusive resolution of this debate difficult, two facts that have to be acknowledged are that 1) the Erlitou Culture forms the starting point of many traditions that would characterize Chinese civilization and 2) that its center in the Yiluo Basin coincides with the location that the historiography of the later Chinese civilization ascribes to its own mythical origin. Despite the specific content of the myths and the validity of names such as "Xia Dynasty", it is thus, from the current knowledge we have, not too far-fetched to agree with Xia Nai (1985) and other scholars in seeing the Erlitou Culture as the earliest manifestation of Chinese civiliza-

which encircles an area of about 290 ha (Qin Ling 2013: 289). However, it is unclear if the area inside the Mojiaoshan enclosure was densely settled at all. The wall at Mojiaoshan was abandoned around 2,200 BC, about 100 years before the construction of the wall at Taosi.

¹⁶Although the Zhou Dynasty did ascribe particular importance to it in its historiography, possibly exploiting a remnant in the cultural memory of its time of the Taosi civilization.

¹⁷Except for the case mentioned in the footnote above.

tion. But the discussion should not end there. If we take Tong Enzheng's (1989) warning by its word, that the birthplace of a civilization is not necessarily the same as its source, then the question should be where the cultural elements that induced the formation of the Erlitou Culture come from. K. C. Chang's (1986) answer was to formulate a grand Chinese Interaction Sphere preceding the Erlitou Culture during the Longshan Period, but where did the elements of those interacting cultures come together to create the cultural mixture culminating in the Signature Erlitou Blend?

According to Liu Li's analysis, the social organization of the Yiluo Basin during the Longshan Period is unremarkable (Liu Li 2004: 178). The amount and integration of sites are quite low and their sizes comparably small. However, as Liu points out, the stylistic traditions of the Erlitou Culture, manifested in its ceramics and burial customs, have its most likely predecessor in a different region, namely the Xinzhai Phase in the Huanghuai Plain (226-229). While the Longshan Culture sites in the Huanghuai Plain are not among the largest and the level of centralization is comparably low, there is an extraordinary number of sites and this region sports the most dense accumulation of walled sites in the Yellow River valley (182-185). The prevalence of rammed earth walls and the presence of human sacrifice suggest a conflict-rich social climate during the Longshan Period in the Huanghuai Plain (188). Liu makes a reference to the traditional historiography in connection with this, wherein prior to the Xia Dynasty there existed an era of "Ten Thousand City States" (191). Maybe it is the atmosphere of competition in this geographically open region with its central location between the Yellow River and the Huai River that made it particularly susceptible to the adoption of innovations from throughout the "Longshanoid Interaction Sphere". This outside influence is manifested through the presence of a large amount of remains with traits of the neighboring Dawenkou Culture in the east and the neighboring Qujialing Culture in the south. Liu claims that this significant influx of cultural elements is more likely to be the result of migrating peoples than exchange and indirect acculturation (185). She bases this argument on customs of body modification, such as head deformation and tooth extraction, reflected in burials. However, these customs pertain to the Dawenkou Culture only, not to the Qujialing Culture. For the former, a migration caused by a shift in the course of the

Yellow River, as suggested by Liu (186f.), seems plausible enough. But for the Qujialing Culture the explanation appears less straightforward.

Sites with Qujialing Culture traits began to be detected in Henan Province soon after the culture was first defined in the 1950s¹⁸ and continued during the 1960s and 1970s (Yang Yubin 2001: 292). In the 1980s the Fourth General Survey of Cultural Relics in Henan revealed over 160 sites with Qujialing Culture remains. As Yang Yubin (2001: 292f.) has pointed out, a distinction has to be made between Qujialing Culture remains in Southwest Henan, namely the Nanyang Basin, and Qujialing Culture remains in South and Central Henan, namely the Huai River valley and the Huanghuai Plain. While the former constitute distinct cultural layers with "pure" assemblages that only contain Qujialing Culture remains, the latter consist of ceramics exhibiting a Qujialing Culture style mixed in with remains dating to the Late Yangshao Culture. Yang concludes that the Qujialing Culture remains in the Nanyang Basin are the results of a direct expansion of the Qujialing Culture (296). They replace the preceding Late Yangshao Culture remains completely. The traces of the Qujialing Culture in other regions of Henan, on the other hand, are the results of a more indirect influence of the Qujialing Culture. They include a sizable assemblage of Qujialing-style vessels among the remains of Dahecun in the Yellow River valley itself (Zhengzhou Shi Wenwu Kaogu Yanjiusuo 2001). Furthermore, certain types of Qujialing Culture ceramics can be found as far away from its center at the Middle Yangzi River as the Zijing site at the Upper Dan River in Southern Shaanxi (Wang Shihe and Zhang Hongyan 1987); the Dongguan site (Zhongguo Lishi Bowuguan Kaogubu et al. 1986) and the Pannancun site (Huang He Shuiku Kaogu Gongzuodui Henan Fendui 1960) in Southern Shanxi; the Miaodigou site (Zhongguo Kexueyuan Kaogu Yanjiusuo 1959) and the Yangshao site (Henan Sheng Wenwu Yanjiusuo and Mianchi Xian Wenhuaquan 1985) in Western Henan; the Dawenkou site in Southern Shandong (Shandong Sheng Wenwu Guanlichu et al. 1974); and, on the southern side, at the Xiu River in Northwestern Jiangxi (Meng Huaping 1997: 164; Zhang Xuqiu 2004: 106f.) (**Fig. 1; 2**). I will comment on some possible explanations for this phenomenon below.

¹⁸More on the circumstances of its definition to follow in the next chapter.

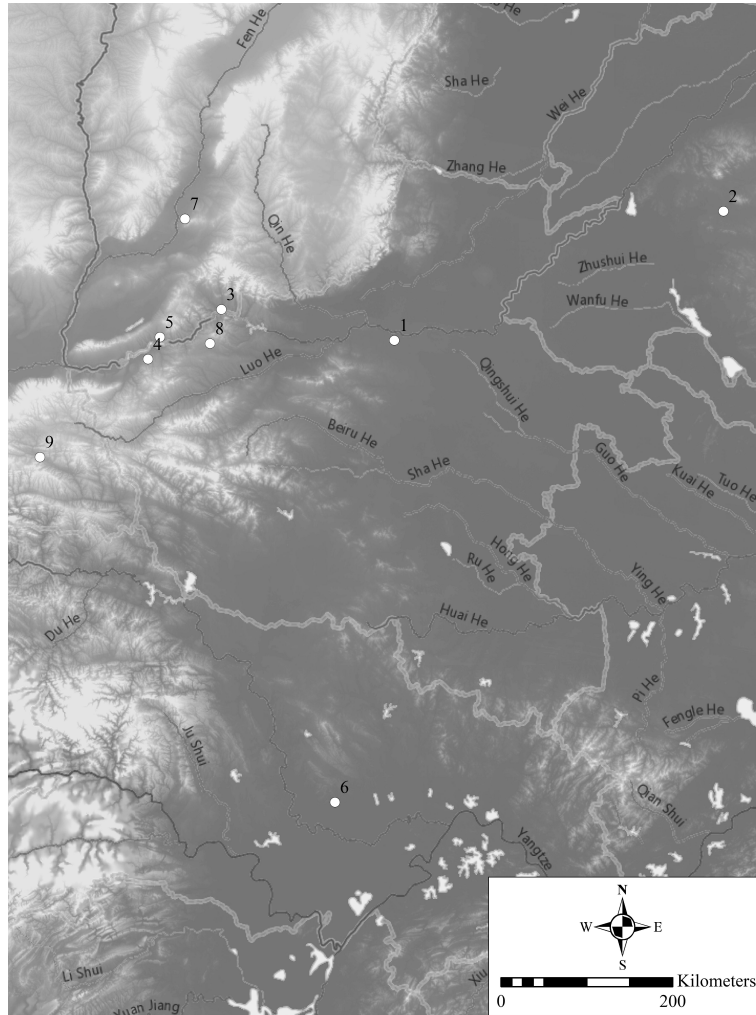


Figure 1: Map of sites mentioned in Chapter 3. 1. Dahecun 2. Dawenkou 3. Dongguan 4. Miaodigou 5. Pannancun 6. Shijiahe 7. Taosi 8. Yangshao 9. Zijing

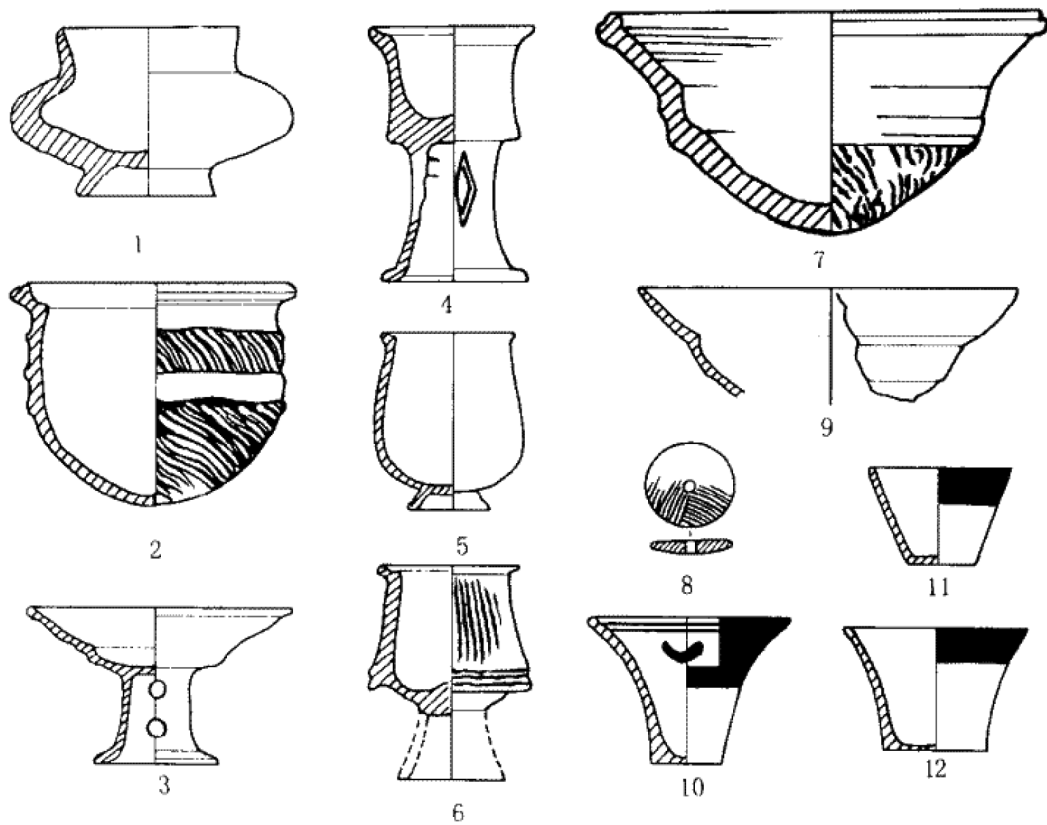


Figure 2: Ceramics similar to the Qujialing Culture style discovered outside of the Middle Yangzi River Region. 1. Shoulder vessel from Gushuihe, Henan Province 2. Vat from Zijing, Shaanxi Province 3. Double-bellied high-ring-based dish from Yangshao, Henan Province, 4. High-ring-based cup from Gushuihe, Henan Province 5. Ring-based cup from Zijing, Shaanxi Province 6. High-ring-based cup from Zjing, Shaanxi Province 7. Large basin from Dahecun, Henan Province 8. Painted spindle whorl from Zijing, Shaanxi Province 9. Double-bellied bowl from Gushuihe, Henan Province 10. Conical cup from Dongguan, Shanxi Province 11. Conical cup from Zijing, Shaanxi Province 12. Conical cup from Gushuihe, Henan Province (Zhang Xuqiu 2004: 105, fig. 15)

Thus, apart from trying to understand the cultural history of the Middle Yangzi River region for its own merit, the fact that it probably played an important role in setting the stage for the emergence of Chinese civilization provides a strong incentive to investigate what southern traditions we are dealing with here, how they came to be, and why they would have such an impact on the events in the Central Plains.¹⁹ Naturally, the eastern influence from the Dawenkou Culture deserves at least as much attention. But the reason why I concentrate on the Middle Yangzi River region in this case is that its prehistory also involves a fierce controversy involving archaeological cultures which serves very well to illustrate the conceptual problems that I brought up in the previous two chapters. The controversy I am foreshadowing here shall be the subject of the following chapter. But first I will outline the geography of the region in question and the possible role it might have played in the "Lungshanoid Interaction Sphere".

The geography of the Middle Yangzi River region

There seems to be some occasional disagreement about what constitutes the Middle Yangzi River region, but in general all authors agree that it is mainly comprised of one large basin that is bisected in East-Western direction by the Yangzi River into two plains: The Jiangnan Plain north of the Yangzi River and the Dongting Plain²⁰ south of the Yangzi River. This basin is bounded in the west by the Wuling Mountains south of the Yangzi River and the Daba Mountains north of the Yangzi River. These two are connected in the center by the Wu Mountains to form one conjoined mountain range. The Yangzi River valley cutting into the Wu Mountains is creating the Three Gorges. An eastern spur of the Daba Mountains forming the northwestern boundary of the basin is the Jing Mountains. Further to the east of the Jing Mountains, separated by the Han River Valley, are the Dahong Mountains. These

¹⁹In fact, a recent book published by Guo Jingyun about the Xia, Shang, and Zhou Dynasties (2013) argues that the Xia state itself, and with it the formative stage of Chinese civilization, did not come out of Erlitou, but out of the Middle Yangzi River region as the "Sumer of Yunmeng". It appears, however, that some liberties have to be taken with typology and chronology to arrive at this conclusion.

²⁰Also called "Dongting Lake Plain" or "Liyang Plain".

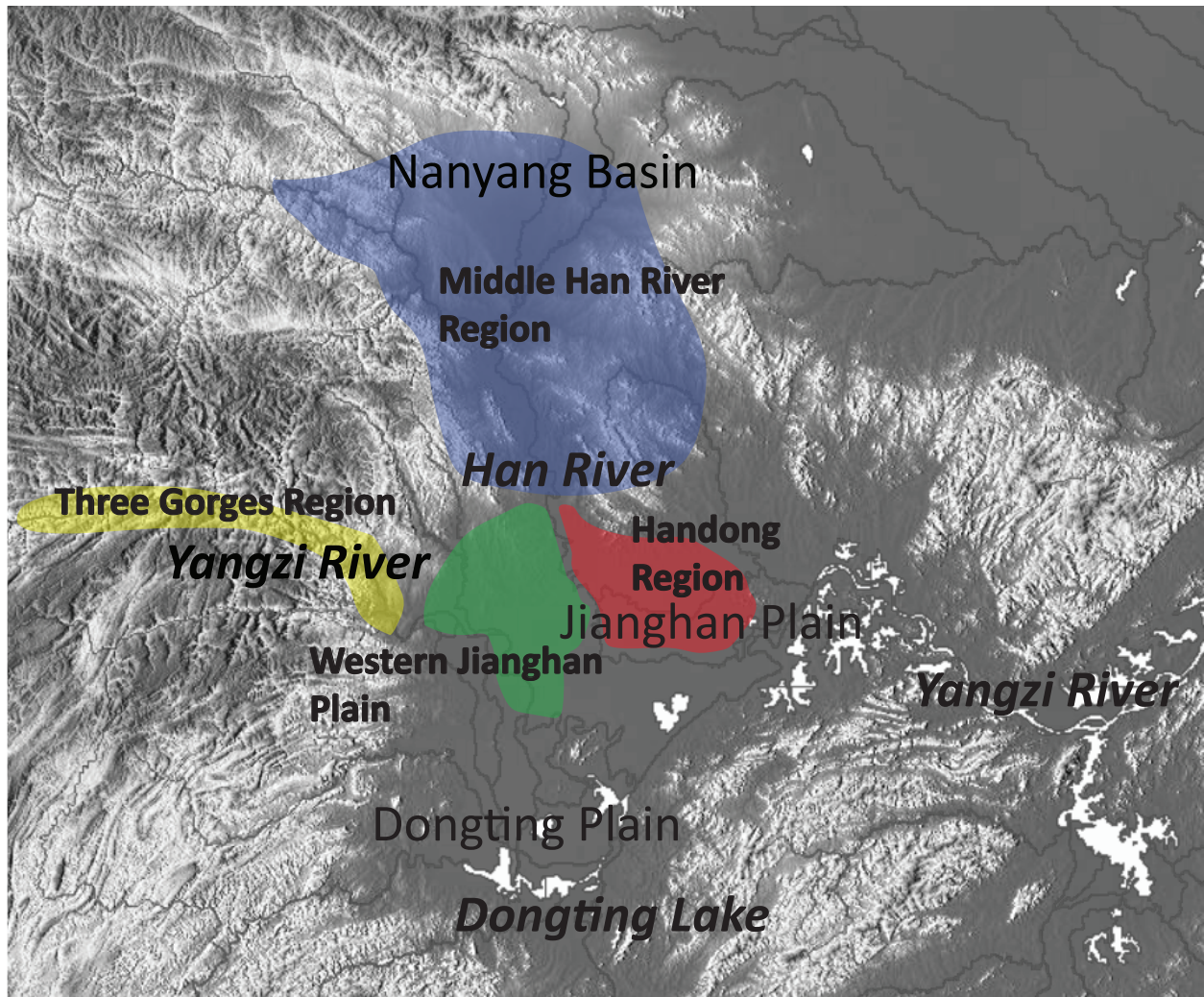


Figure 3: Map of the Middle Yangzi River Region with the four regions investigated here

form the main barrier between the Jiangnan Plain and the Nanyang Basin in the north. The Dahong Mountains are separated in the east from the Tongbai Mountains by the Yun River valley. The eastern end of the Tongbai Mountains is connected to the Dabie Mountains which form the northeastern boundary of the Middle Yangzi River basin. At the very eastern end of the basin, the Yangzi River flows into the Poyang Lake. South of that, forming the southeastern boundary, are the Mufu Mountains. At the western end of the Mufu Mountains is the Dongting Lake, which is bounded in the south by the Nanling, the northern foothills of the Hunan Highlands. Southwest of the Dongting Lake are the Xuefeng Mountains, which are in turn connected to the Wuling Mountains in the north, closing the circle.

The Jiangnan Plain and the Dongting Plain are still known today for their many lakes and rivers, but this feature was even more pronounced in the prehistoric period. Up to the 4th century AD the Dongting Lake did not exist as one large lake. Instead, the eastern half of the Dongting Plain and most of the southern and central Jiangnan Plain, including the entire area between the Yangzi and Han Rivers, was covered by a huge marsh, the Yunmeng Marsh, dotted with lakes and crossed by small rivers flowing parallel to the Yangzi and Han Rivers (Yin et al. 2007: 198). This whole area would be unsuited for the practice of agriculture and probably also for permanent settlement in general. In areas outside the marsh, however, conditions would be very favorable for agriculture. Pollen profiles indicate a warm and humid climate throughout the Neolithic period (Li et al. 2011: 922f.). It appears that the Holocene Climatic Optimum lasted longer in this region than in North China where many a socio-economic development might have been in response to the shift towards a more cold and arid climate caused by the monsoon receding south (Liu Li and Chen Xingcan 2012: 38f.).

Most archaeologists also include the Nanyang Basin north of the Dahong and Tongbai Mountains into the Middle Yangzi River region (e.g. Zhang Xuqiu 1992; Meng Huaping 1997; Flad and Chen 2013). This makes sense insofar that all rivers in the Nanyang Basin drain into the Han River which in turn joins the Yangzi River at Wuhan. This means that hydrologically speaking the Nanyang Basin is very much part of the Middle Yangzi River system. However, culturally speaking it is clearly quite distinct from the Yangzi River valley

in the south. That is why when Fan Li (2000) examines the cultural connections in the Neolithic Period between the Nanyang Basin and neighboring regions, he treats the Middle Yangzi River region as separate. The issue is not of vital importance to this thesis: Since the Nanyang Basin forms the main thoroughfare between the core area of the Qujialing Culture in the Jiangnan Plain in the south and the Central Plains in the north, I will take it into account wherever possible. But at the same time, I believe that its role as an intermediary between these core areas that retains its own characteristics is better emphasized by treating it as a separate entity. As Fan Li points out, the Nanyang Basin would at some times have closer cultural ties to the Yellow River valley, such as during the Yangshao Culture period in the early 4th millennium BC, and at some times have closer ties to the Yangzi River valley, such as during the Qujialing Culture period in the late 4th and 3rd millennium BC.

As previously noted, the Nanyang Basin is separated from the Jiangnan Plain in the south by the Dahong Mountains and the Tongbai Mountains, while being connected to it by the Han and Yun River valleys. The northern foothills of the Tongbai Mountains link up to the eastern foothills of the Funiu Mountains to form the barrier that separates the Nanyang Basin from the Huai River valley in the east. The Funiu Mountains form the northern boundary of the basin and are connected in the west to the Qinling Mountains. In the southwest the Nanyang Basin is bounded by the Wudang Mountains, which form a northern promontory for the Daba Mountains and are in turn connected to the Jing Mountains. The Han River flows into the Nanyang Basin from the west, coming from the Qinling Mountains. Similarly, the Dan River is coming from the northwest and joins the Han River at the western end of the Nanyang Basin. The Tang River flows right through the center of the Nanyang Basin, originating from the Funiu Mountains in the north and draining into the Han River at the southern end of the Nanyang Basin.

A somewhat similar case to the Nanyang Basin is presented by the Three Gorges region. It is usually not considered part of the Middle Yangzi River region, which is reasonable since its mountain environment creates very different conditions from the lowlands of the Jiangnan and Dongting Plains. But since it forms part of the area of distribution of the Daxi Culture, including the location of the eponymous Daxi site, the Three Gorges region is often included

in discussions of the cultural history of the Middle Yangzi River region (e.g. Meng 1997). For that reason, I have included the Daxi site in the site catalog of this thesis, even though it technically lies outside the area of interest. The point where the Three Gorges region and the Middle Yangzi River region meet is at the eastern end of the Xiling Gorge, where the Yangzi River exits the Wu Mountains to enter the lowland basin. This location is marked by the modern city of Yichang as well as the nearby ancient site of Zhongbaodao, which will play an important role in the discussion.

A Shijiahe Ritual Sphere?

Returning to the question of the Qujialing Culture Expansion into the Nanyang Basin and the Qujialing Culture Influence into the Huanghuai Plain and beyond, I will elaborate on the former later on. A few authors have attempted explanations for the reason behind the expansion of the Qujialing Culture, which I will touch upon in the following chapter.²¹ More pertinent to the discussion of its influence on the rise of Chinese civilization is the nature of the interaction between its core area in the Middle Yangzi River region and the far-off regions where its cultural traits can be detected, including the Huanghuai Plain.

It is important to note that the archaeological culture involved during the time of K. C. Chang's Lungshanoid Horizon is not just the Qujialing Culture, but also its successor, the Shijiahe Culture. Originally also known as "Qinglongquan III Culture" or "Hubei Longshan Culture", the Shijiahe Culture exhibits a clear continuity of Qujialing Culture traditions. Compared to the long discussion about the continuity between the Daxi Culture and the Qujialing Culture, the Shijiahe Culture appears to be almost universally accepted as directly succeeding the Qujialing Culture, so much so that Zhang Chi (2013) advocates abandoning the distinction altogether, creating a joint "Qujialing-Shijiahe Culture" instead.

While we know that the Qujialing and Shijiahe Cultures also expanded towards the south into the highlands of Hunan and exerted its influence even further, to Jiangxi and possibly

²¹It will also become clear that this expansion predates the Qujialing Culture itself. But that brings us into the territory of the origins of the Qujialing Culture, which will be the subject of the following chapter.

Guangdong (Meng Huaping 1997: 164), for the sake of this discussion I will concentrate on the spread of cultural elements northward into the Yellow River system. How did this influence manifest? Liu Li comments that the Qujialing and Dawenkou Cultures exhibited more social complexity than the Late Yangshao Culture in the Central Plains, so the import of more stratified social structures into Henan leading to the emergence of the competing polities of the Henan Longshan Culture might be a product of the interaction with the cultures of the Lower Yellow River and the Middle Yangzi River (Liu Li 2004: 187f.). Technological innovations might have also played a role, such as the potter's wheel, a subject to which I will come back later, and certain construction techniques of rammed earth walls (Zhao Chunqing 2011).

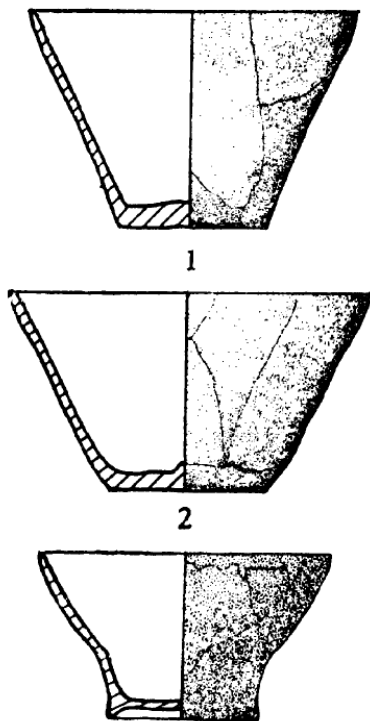


Figure 4: Thin-walled conical cups from Qujialing (Zhongguo Kexueyuan Kaogu Yanjiusuo 1965: 56, fig. 45, 1-3)

The most direct evidence is found, however, in the Qujialing-style ceramic vessels appearing north of its core area of distribution. One feature that these have in common is that they are representative drinking or serving vessels. Quite common is a type of small conical drinking cup, mostly consisting of fine red pottery (**Fig. 4**). During the Qujialing Culture period, these cups feature very thin walls. For many of these cups from the Middle Yangzi River region, I could find traces indicating that they had been wheel-thrown. All cups have a smoothly polished surface and some have been painted with simple designs. Cups of this type appear in southern Shaanxi and Shanxi as well as in western Henan (Meng Huaping 1997: 164). A serving vessel characteristic of the Qujialing Culture that appears in South and Central Henan as well as at Dahecun in northern Henan and at Dawenkou in Shandong is the "double-bellied"

ring base dish. This deep dish has a lower part that is approaching the shape of a bowl, but then there is a bend in the wall leading to a much more open upper part and rim. This

bend gives it the characteristic "double-bellied" appearance (for typical examples from the Middle Yangzi River Region see **Fig. 5**). The Qujialing-style assemblages at Dahecun and in Central and South Henan tripod basins and tripod jars (Yang Yubin 2001: 296), which could have been used for food preparation. But a function as serving vessels cannot be ruled out in this case either. The point is that these kinds of cups and dishes are unlikely to have found their way to places far off from their stylistic point of origin as containers of traded food and beverage. Instead, they belong in a context of communal dining or feasting. We do not know if the vessels themselves were exported from the Qujialing Culture core area or if they are local imitation inspired by the vessels commonly used in the Middle Yangzi River region. I will make some suggestions for the further study of this question in Chapter 6. Either way, the context of their function can give us an indication as to the nature of the exchange that led to their wide-spread distribution.

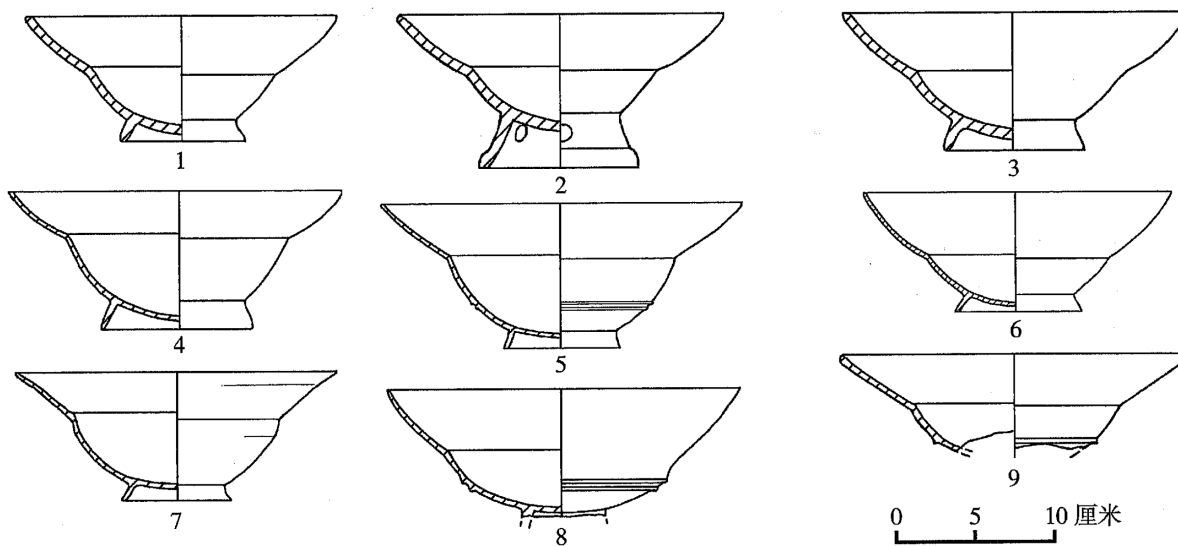


Figure 5: Double-bellied bowls and dishes from Tanjialing (Shijiahe Kaogudui 2011: 151, fig. 131)

If we thusly assume that the elites of the Qujialing and Shijiahe Cultures were engaged in interregional feasting congregations, the Shijiahe site appears to be a likely setting for these events. Shijiahe is commonly denoted as a "site cluster" due to the presence of several localities dating to the Youziling Culture, Pre-Qujialing Culture, Qujialing Culture, Shijiahe Culture, and Post-Shijiahe Culture. It is clear, however, that all these sub-sites were integrated in one large settlement system demarcated by an imposing rammed earth enclosure

starting in the Late Qujialing Culture. Although the enclosed area is with about 120 hectares less than half as large as that of Taosi, but the settlement extended beyond its boundaries as well. Unlike Taosi, Shijiahe does not exhibit quite as clear of a functional division in different quarters, at least according to the current state of excavation. There have not been any finds of palatial structures or extremely rich burials either.²² However, certain localities at Shijiahe show clear evidence of ritual practice.

A potentially promising piece of evidence for ritual feasting has unfortunately not seen much research. The Sanfangwan site is located in the southwest corner of the area inside of the enclosure. Corings at this locality has revealed the presence of a massive accumulation of sherds within a deposit of yellow clay measuring about 90 m x 75 m with a thickness of 1 m - 1.25 m (Zhang Chi 2003: 148; 2013: 524). The sherds are almost all of the red conical cups I mentioned earlier with the notable difference that these are mostly Shijiahe Culture cups (Zhang Chi, personal communication), which have much thicker walls than the Qujialing Culture cups and are thus much heavier while capable of holding a smaller volume of liquid. The Shijiahe Culture cups also have a coarser texture and are rarely painted. The examples that I have seen, from other localities of the Shijiahe site cluster, appear to be mostly wheel-thrown as well. Zhang Chi estimates by the size of the accumulation that there could be the sherds of 10,000 to 100,000 cups buried at Sanfangwan (Zhang Chi 2003: 148; 2013: 524). Also included in the deposit are stones, charcoal, and remains of burnt daub which might indicate a building of some sort.

This remarkable feature leaves a lot of questions unanswered. A prevailing hypothesis is that these are the remains of a pottery workshop specialized in the conical cups (Xiang Qifang, personal communication; Liu Li and Chen Xingcan 2012: 243). I find this the less likely explanation. A skilled potter could indeed produce a very large amount of cups in a short time, but why should the process result in such a large accumulation presumably of wasters, especially of such a rather simple vessel? And why would a workshop specialize

²²The direct comparison of Shijiahe with Taosi is a bit unfair, given that the latter reached the height of its occupation several centuries after the former. This merely serves to show Shijiahe as lacking the ostentatious display of political authority that characterizes Taosi, at least to our current knowledge.

almost exclusively in the production of such a simple vessel type?

The other explanation, which has also been brought up by Zhang Chi (2013: 524), is that these are the remains of drinking vessels that were purposefully discarded into this deposit after a libation ritual of sorts. If there was indeed a built structure here, it might have played a role in this ritual. One cannot help but be reminded of Tiwanaku at Lake Titicaca, where elites from different regions would congregate to drink alcohol out of conical cups called kero that incidentally look quite similar to the Qujialing and Shijiahe Culture examples. They would stand on the roof of a temple throwing the cups off the building after the libation ritual had concluded (Christine Hastorf, personal communication). If we are indeed dealing with a similar practice at Shijiahe cannot be conclusively answered at this point. More information on the potential presence and the type of the building would go a long way toward making the situation clearer. We would also have to assume that the thick-walled Shijiahe Culture cups fulfilled a similar function to the thin-walled Qujialing Culture cups, which clearly produced with an eye on aesthetic value. Zhang Chi (2013:524) has also brought up the possibility of a salt production site. A function for the thick-walled cups in salt production cannot be ruled out, although, as I have pointed out, their liquid capacity is not very large.

Excavations were carried out at the Sanfangwan site in 2011, but they were targeted towards the rammed earth enclosure and not the accumulation of ceramics (Hubei Sheng Wenwu Kaogu Yanjiusuo and Beijing Daxue Kaogu Wenbo Xueyuan 2012a). An excavation of that area specifically is being planned, however (Zhang Chi, personal communication). I will mention in Chapter 6 how ceramic analysis can help resolving the question of the meaning behind the Sanfangwan feature.

There certainly is a lot of precedent for the intentional burial of objects used in a ritual context at Shijiahe. These include ceramic artifacts in various shapes - tubular, conical, ring-shaped - that can be put together to form sculptures, possibly with phallic implications (Zhang Xuqiu 2004: 212f.). These objects were buried in an arrangement in which they were stuck inside each other at the Dengjiawan Locality, in the northwestern corner inside the enclosure of Shijiahe (Shijiahe Kaogudui 2003: 28ff.). Dengjiawan has been called an

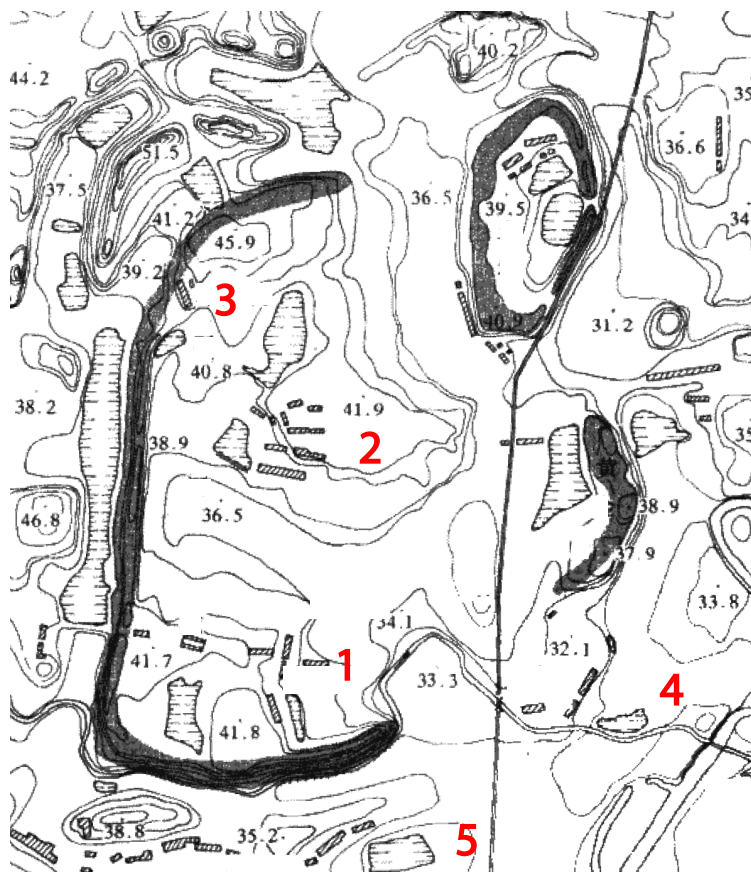


Figure 6: Map of the Shijiahe site cluster. 1. Sanfangwan 2. Tanjialing 3. Dengjiawan 4. Luojiabailing 5. Xiaojiawuji

"area of ritual activity" (Guo Weimin 2010: 206), due to the fact that it features other depositions - of vats and ceramic figurines - and burials but no dwellings. The vats would have been easy to mistake for unremarkable, purely utilitarian storage vessels were it not for the fact that they had been buried in large quantities lying on their side and stuck inside each other to form long rows, similar to the composite ceramic objects mentioned above (Shijiahe Kaogudui 2003: 139ff.). Additional sets of vats were unearthed at Shijiahe at the Xiaojiawuji Locality south of the enclosure (Shijiahe Kaogudui 1999: 129f.). Many of them were incised with symbols (Shijiahe Kaogudui 2003: 233ff.; Shijiahe Kaogudui 1999: 218ff.), the most common of which might depict a sort of horn or sickle. Vessels of a very similar shape that also featured incised symbols were discovered in burials of the Dawenkou Culture (Zhang Chi 2013: 525). The Dawenkou Culture vats predate the vessels at Shijiahe, however, since the latter mostly date to the Shijiahe Culture. But they might still provide additional evidence for a direct exchange between the Dawenkou and Qujialing Cultures, this time directed from the former to the latter. As of now, we cannot say why these particular vessels had such an importance that they were deposited in this way, but we can call this another possible example of a vessel type involved in ritual that also represents a connection with a distant culture.

The Dengjiawan Locality furthermore yielded depositions of several thousand fragments of ceramic figurines dating to the Shijiahe Culture (Shijiahe Kaogudui 2003: 174; Zhang Xuqiu 1991). There are anthropomorphic figurines among them, but most are zoomorphic, depicting dogs, pigs, sheep, rabbits, monkeys, elephants, tapirs, foxes, birds, turtles, and fish. The figurine fragments have been unearthed from numerous pits and scattered in cultural layers not only at Dengjiawan, but also at Xiaojiawuji and several Shijiahe Culture sites outside of the Shijiahe site cluster. The large majority come from Shijiahe itself, although I would dispute if this is sufficient evidence to say that Shijiahe is the sole production center for these figurines (Zhang Xuqiu 1991: 55), especially with a type of object that is so easy to make and imitate. The fragmented nature of the figurine might give an indication to their active use in ritual as more than just static idols, perhaps going so far as to break them intentionally, either as part of the ritual which they were involved in itself or as part of the

discarding process after the ritual had been concluded.

Another area of concentrated ritual activity at Shijiahe has been discovered recently at Yinxintai, outside of the rammed earth enclosure at its western side (Hubei Sheng Wenwu Kaogu Yanjiusuo 2016: 36). It features 4 earthen platforms and 6 buried sets of vats and dates to the Late Shijiahe Culture. Together with Xiaojiawuji, Yinxintai is another example of large-scale ritual activity outside of the enclosure. Leaving aside the debate about the main function of these enclosures that dominate the landscape of Central and Eastern China during the Longshan Period - defense, flood protection, symbolic, or a combination thereof - it is reasonable to assume that, intentionally or not, they served as markers of the political authority concentrated at these central sites. Thus, it is interesting to note that the locales of ritual practice at Shijiahe are not confined to the enclosure. Even within the enclosure, the sites of Dengjiawan and Sanfangwan are situated at the edge, while the center is taken up by the largely residential area of Tanjialing (Shijiahe Kaogudui 2011). Furthermore, although there are burials richly furnished with ceramic vessels and jade ornaments, none of the high-status burials contain artifacts directly associated with ritual practice - a situation very much unlike the elite burials of the Liangzhu Culture that are filled with ritual implements.

Perhaps the non-centralized locations of ritual activity at Shijiahe, together with the astonishing amounts of ritual remains and the comparably simple nature of the ritual artifacts - ceramic as opposed to jade, easy to produce - indicate that ritual practice here was not under the control of a single political entity. This would be quite unlike one of the main characteristics of historical China, namely that political authority and ritual control are inextricably linked together. But it might have been this openness to a wide range of participants that encouraged the involvement of peoples from far away places like the Yellow River valley, who might even have taken on the long journey to Shijiahe for this reason. As such, it stands to reason that Shijiahe and other centers of the Qujialing and Shijiahe Cultures played a role that is not to be underestimated in bringing the people of the Lungshanoid Interaction Sphere together.

Closing Remarks

This chapter is intended to introduce the Middle Yangzi River Region and its significance by tracing its impact on the search for the origin of the Chinese civilization. Naturally, it is only one of several regions to play a part in that process. Even with the possible presence of a Shijiahe Ritual Sphere, the core area, according to the narrative outlined here, would be around the Middle Yellow River and the Huai River, in modern-day Henan Province. I have hinted that there are alternatives to that narration as well. Furthermore, the interpretations presented here are presupposing that by the beginning of Dynastic China there was only a single civilization in this area of the world. The civilization centered around the origin story of the Xia Dynasty is referenced throughout Chinese history. However, for example, a culture very distinct from the civilization based around the Yellow River existed in the Sichuan Basin during the Early Bronze Age (Bagley 2001). One might also distinguish between a civilization based around the Yellow River and a civilization based around the Yangzi River (Yasuda 2013) due to the very different conditions and life styles in the two regions.

Nevertheless, a large number of scholars ascribe to the narrative described in this chapter, including scholars who study the Middle Yangzi River Region. This is important to note when looking at how they frame archaeological cultures in that region. It lends weight to the discussion of the cultural sequence of the Middle Yangzi River, which is the topic of the next chapter.

Chapter 4: The Daxi-Qujialing Controversy

Introduction

The Middle Yangzi River Region provides us with an excellent example of how archaeological cultures are being constructed, managed, and transformed in the academic discourse of Chinese archaeology. The case I am referring to is a scholarly debate surrounding two Neolithic cultures in this region. It lasted over two decades and involved over a dozen scholars distributing their arguments in over thirty different books and articles. The central question may seem innocuous: Did the Qujialing Culture develop out of the Daxi Culture as its direct successor or was it an independent development from a different source? We have to keep in mind though, that its answer on either side may have wide-ranging implications. On a most simplified level, a continuous sequence from the Daxi Culture to the Qujialing Culture implies one autochthonous line of evolution that would cover most of the Neolithic in the Middle Yangzi River Region both spatially and chronologically, presenting a strong local cultural sequence. On the reverse side of the coin, if this sequence was broken and the Qujialing Culture was formed under the influence of cultures from outside of the region, the narrative of the strong local tradition would have to undergo major relativization. My intent is not to imply that the scholars involved aimed for any of these two narrative outcomes on purpose. Often one just sticks to the interpretation one reads out of the material at hand and defends it against other perspectives. All I want to insinuate is that the outcome of this debate would potentially matter to a lot more people than just the scholars involved in it.

This is not intended to be a mere background chapter on the research history of the subject matter. The reason why I present the published material in such detail is that after I touched upon the question how archaeological cultures are constructed on a conceptual level, I want to show how they are being handled in the practice of Chinese archaeology. It

helps that the debate lasted over almost thirty years, from the early 1980s to mid-to-late 2000s. This way we can see how new discoveries and new methods were incorporated in the discourse. After all, the Middle Yangzi River Region went from featuring a handful of known Neolithic sites to about a hundred surveyed and dozens of excavated sites within this time period.

I have chosen to present these articles and book chapters in the order of their publication. Some may have been in the works for some time before that or are based on conference talks that were given in previous years. This may have affected the way in which some of the discussants involved respond to each other.

Furthermore, I will summarize the main content of each article pertinent to my questions on their own terms, according to the information available at its time of writing, barring a few remarks strewn in for clarification about changing terminologies. A concluding discussion of the content will follow in the next chapter, in which I take a look at everything in a broader context.

Before diving into the thick of the debate, a look at how the Daxi Culture and the Qujialing Culture were defined in the first place might be in order.

The naming of the Daxi Culture and the Qujialing Culture

Although Neolithic remains had been discovered at the Daxi site in 1925 by N. C. Nelson of the American Museum of Natural History (Li Wenjie 1986: 131), the site only came into attention again after a survey of the Three Gorges in 1958 (Sichuan Sheng Bowuguan 1959: 399ff.).²³ There the surveyors note the presence of cultural layers containing large amounts of fish bone and some pottery sherds. These included sherds of a round coarse red pot with red slip and of a round polished black jar as well as fragments of ring bases. In addition, local farmers had discovered a complete red cylindrical bottle here covered with geometrical patterns painted in black. The author of the article, Yang Yourun, remarks that these

²³In this report, the site is still called Huobaoxi.

remains seem comparatively older than those at other prehistoric sites discovered during the survey (402).

More light was shed on the issue after excavations were conducted at the Daxi site in the summer and winter of 1959 (Sichuan Chang Jiang Liuyu Wenwu Baohu Weiyuanhui Wenwu Kaogudui 1961). The excavators Shen Zhongchang and Yuan Mingsen could now give a much more detailed description of the pottery assemblage present at the site. Although they noted the distinct nature of the pottery from the ceramic repertoire of the Central Plains or the Middle Yangzi River (60), they did not define a new archaeological culture yet.

The first one to use the term "Daxi Culture", rather offhandedly, is Shi Xingbang in an article published in 1962 (? : 328). The article is actually discussing the Majiiaoyao Culture of the North-west, but Shi cites the painted pottery of the Daxi Culture as an example of the early contacts between North and South Chinese Neolithic cultures. Regardless of whether Shi's invocation of a "Daxi Culture" based on the discovery of the Daxi site was a call for the formal definition of a new archaeological culture or the mere habit of a Neolithic archaeologist, the term stuck.

The term "Qujialing Culture" might have a similar history of having been introduced by an archaeologist who was not actually working on the material in question. Although its clear definition is commonly attributed to the excavation report of the Qujialing site "Jingshan Qujialing", published in 1965 (Zhongguo Kexueyuan Kaogu Yanjiusuo 1965), a "Qujialing Culture" is already mentioned in the preliminary report of the excavations at the Daxi site in 1959 (Sichuan Chang Jiang Liuyu Wenwu Baohu Weiyuanhui Wenwu Kaogudui 1961), a survey report of the counties Yun and Jun in northern Hubei (Changban Wenwu Kaogudui Zhishu Gongzuodui 1961: 28ff.), and in a summary of important discoveries in Chinese archaeology (Zhongguo Kexueyuan Kaogu Yanjiusuo 1961 28ff.). This implies that the concept of a Qujialing Culture was already fully formed at that stage. The first survey report from the Qujialing site published in 1955, however, makes no assertions of a new archaeological culture yet and limits itself to a brief description of collected ceramics, stone tools, and other artifacts as well as the statement that, judging by this assemblage, this is probably a Neolithic site (Wang Jin et al. 1955: 45). Another survey report from 1956

mentions the Shijiahe site for the first time (Shilongguo Jiang Shuiku Zhihuibu Wenwu Gongzuodui 1956). Its author, Zhang Yunpeng, also provides another description of the pottery discovered at Qujialing and draws some parallels between the assemblages of the Qujialing and Shijiahe sites, but he does not take the step towards defining a new culture yet either. Instead, it appears that the first use of the word "Qujialing Culture" goes back to a summary of the achievements in Chinese Neolithic archaeology, published in 1959 by An Zhimin (An Zhimin 1959). In the section on the Middle and Lower Yangzi River, An puts a sub-header titled "Qujialing Culture" (22). He mentions the Qujialing and Shijiahe sites and delineates the distribution of the Qujialing Culture as the Han River Valley and the Yangzi River Valley in Eastern Hubei. An stresses the connections of the Qujialing Culture to the Yangshao Culture through their painted pottery and to the Longshan Culture through the thin-walled "eggshell" pottery and especially to the Qingliangang Culture further down the Yangzi River through a supposed contact zone in Eastern Hubei. While this last point about the supposed connections between the Middle and Lower Yangzi River Regions did not really move into the focus of the archaeologists working in the Middle Yangzi River Region, especially after the discovery of the Daxi site turned their attention in the opposite direction, further upstream, the term "Qujialing Culture" seemed to stick. Xia Nai used it in an address in December of the same year (Xia Nai 1960), also mentioning the fresh discovery of Qujialing Culture remains in the Danjiangkou area in Northern Hubei. If it was indeed An Zhimin who invented the "Qujialing Culture", nobody formally credited him for it. It is as if the time was just right for the emergence of the term and it was henceforth taken for granted.

The state of research at the beginning of the discussion

The debate about the origin of the Qujialing Culture was started in 1979 with the publication of an article titled "A discussion attempt of the relationship between the Daxi Culture and the Qujialing and Yangshao Cultures respectively" by Li Wenjie (Li Wenjie 1979). By that time Li already had access to a fair amount of data, though not all of it had been published

yet.

The earliest survey reports from the Qujialing site (Wang Jin et al. 1955; Shilongguo Jiang Shuiku Zhihuibu Wenwu Gongzuodui 1956) and the Daxi site (Sichuan Sheng Bowuguan 1959) only give brief accounts of the finds, but do not attempt to compare them to other cultures. This changes with the first excavation report from Daxi (Sichuan Chang Jiang Liuyu Wenwu Baohu Weiyuanhui Wenwu Kaogudui 1961). The pottery assemblage unearthed both from cultural layers and burials mainly consists of red sand-tempered pots, bowls, dishes, and cups, but there is also a certain amount of grey vessels and fine polished black cups and small jars (16; 20).²⁴ The authors of the report, Shen Zhongchang and Yuan Mingsen, compare this black pottery to that of the Longshan Culture, which was the archaeological culture mainly known for its black pottery at the time (60). The remarkable find of a red cylindrical bottle with a motif painted in black on white grounding (20, fig. 25; 16) compels the authors to draw comparisons to the Yangshao Culture in the north and the Qujialing Culture in the west, but they note that this example is quite distinctive in the vessel shape and the style of the painting (60). All in all, Shen and Yuan suggest that the ceramics represent an autochthonous culture (20).

In the excavation report of the Qujialing site (Zhongguo Kexueyuan Kaogu Yanjiusuo 1965) the author Zhang Yunpeng provides a periodization of the Qujialing Culture, which is based in part upon the stratigraphy of the Qujialing site and in part upon the typology of the artifacts unearthed at Qujialing (72). He distinguishes an Early Period and a Late Period, which is further divided into Late Period I and II.

The Early Period of the Qujialing site mostly features black pottery, making up about half the sherd count from pits (8f., tab. 3), followed by grey pottery.²⁵ There is only a small amount of yellow pottery and even less red pottery. The main forms are thin-walled black tripod bowls and jars with matching lids that can be turned into ring base dishes; thin-walled black cups, ring-based jars, and basins; black jars and basins with red paint;

²⁴This would turn out to be a mixture of Daxi Culture and Pre-Qujialing Culture wares.

²⁵This would turn out to be a mixture of Pre-Qujialing Culture and Qujialing Culture wares.

ring-based cups and bowls; bowls with bent walls and vertical rims; and bowls, dishes, and basins with three small knob-like feet (72). There are only few examples of painted sherds. Among the pottery artifacts are some spindle whorls in black and grey, but none of them are decorated. The stone tool assemblage is dominated by large axes and adzes.

Zhang does not give any account of the pottery fabrics of the Late Period, but he notes that the vessel forms increase in diversity (72). There are all manners of tripodal vessels; ring-based dishes and bowls; and cups with high ring bases. New forms include very large jars and basins and thin-walled yellow or red cups and bowls decorated with black paint. Many spindle whorls are now painted as well. The stone tool assemblage consists of smaller axes and arrowheads. The Late Periods I and II seem to be mainly distinguished by the increasing amount of painted pottery, at least according to the summary (72f.), although other typological differences are apparent in the report itself. Although Zhang does not point them out in the summary, some forms appear in the Late Period that would later be considered typical for the Qujialing Culture, such as high-ring-based dishes that have a bend in the wall around the belly, giving them a "double-bellied" appearance (32, fig. 23, 6; 55, fig. 44, 4; 6); or ring base vessels with straight vertical necks and very broad shoulders, making their body shape almost ellipsoid, henceforth called "shoulder vessels" (35, fig. 25, 3; 62, fig. 49, 1-5; **Fig. 7**). There is an interesting point made in the report about the Late Period II, namely that many of the jars and bowls have bodies of very similar shapes and sizes and only differ in the presence and size of ring bases or feet. Oddly enough, this point is only brought up in the English language summary of the report (81f.) and is mentioned neither in the Chinese language summary nor in the report itself. As I will demonstrate in the concluding chapters of this thesis, the possibility of increased standardization in the Qujialing Culture holds some significance.

Zhang notes that the black polished ware, the ring base vessels and the thin-walled vessels of the Qujialing Culture bear resemblance with the assemblage of the Late Longshan Culture in the Yellow River Valley (75). He therefore assumes that the date of the Qujialing Culture should not be earlier than the emergence of the Longshan Culture in the north. He was already aware, however, of a number of sites in Northern Hubei and Southern Henan

that featured assemblages resembling that from the Qujialing site, but the stratigraphies of sites such as Qinglongquan and Dasi (Changban 1961) show the Qujialing Culture remains sandwiched between the Yangshao Culture remains on the bottom and the Longshan Culture remains on the top.

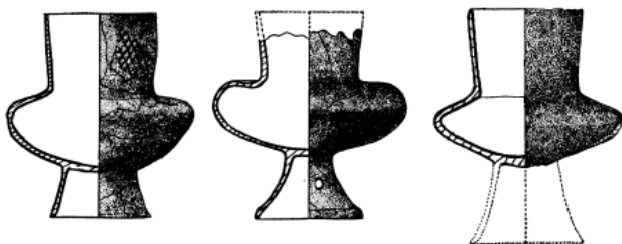


Figure 7: Shoulder vessels from Qujialing (Zhongguo Kexueyuan Kaogu Yanjiusuo 1965: 62, fig. 49, 1-3)

In Eastern Hubei, Zhang sees a connection of the Qujialing Culture and the Qingliangang Culture represented by sites such as Zhucheng in Huanggang County and Heshangshan in Echeng County (Zhongguo Kexueyuan Kaogu Yanjiusuo 1965: 75). Furthermore, he stresses a connection between the Qujialing Cul-

ture and the Daxi Culture (75), now represented by the Daxi site and the Yangjiawan site in Yichang County, Western Hubei (Yang Y. Zh. 1960). However, Zhang was not in a position to discuss the exact nature of that connection yet.

The two other Qujialing Culture in the Handong Region known at the time are Shijiahe (Shilongguo Jiang Shuiku Zhihuibu Wenwu Gongzuodui 1956) and Zhujiazui (Hubei Sheng Wenwu Guanli Weiyuanhui 1964). The Luosishan site in Huanggang County, Eastern Hubei, is noted to have some connections with the Qujialing Culture through its thin-walled cups (Zhongguo Kexueyuan Kaogu Yanjiusuo Hubei Fajuedui 1962). A number of sites with Qujialing Culture remains in Southern Henan published before Li Wenjie's article in 1979, such as Zhaicigang, Zhaowan, and Xiawanggang²⁶ would support the chronological position of the Qujialing Culture after the Yangshao Culture and before the Longshan Culture. The sites of Guihuashu and Maojiashan, both located in the Western Jiangnan Plain²⁷, would prove important to the discussion between the relationship of the Daxi Culture and the Qujialing Culture. Lastly, the discovery of Qujialing Culture remains as far south as Northern Hunan

²⁶See Chapter 8 for a list and map of these sites.

²⁷See Chapter 6 for a list and map of these sites.

(Hunan Sheng Bowuguan 1972) would play a significant role in the discussion as well .

PHASE 1: The start of the debate

In order to make the debate easier to follow, I have chosen to divide its progress into four phases. During the initial phase of the debate, lasting from 1979 to 1983, the different sides are presented and their lines of argumentation presented. By the end of this phase, all major regions around the Middle Yangzi River would be involved in the debate.

Li Wenjie 1979: Raising the question of the Daxi – Qujialing relationship

In addition to the aforementioned sites, Li Wenjie was able to include some material in his considerations from sites that had not been published yet (Li Wenjie 1979). Additional sites with Daxi Culture remains in Hubei Province include Zhujiatai, Honghuatao, Guanmiaoshan, Qingshuitan and Chaotianzui.²⁸ Li defines the area of distribution of the Daxi Culture as the Three Gorges Region, the Western Jiangnan Plain, and the northern parts of Hunan (161).

Li also adds new sites to the distribution of the Qujialing Culture, namely Zhujiazui, Sanbu'erdaoqiao, Lengpiya, Qilihe, Yangbiling, Huanglianshu, and Xiaji as well as a few sites east of the confluence of Han River and Yangzi River, such as Fangyingtai. In addition, Li stresses that the Daxi Culture sites Honghuatao, Guanmiaoshan, and Guihuashu, as well as Sanyuangong in the Dongting Plain²⁹ also include Qujialing Culture remains. This would mean that the Qujialing Culture distribution overlaps with the area of distribution of the Daxi Culture in southwestern Hubei and northern Hunan, a point that is of some significance for Li's discussion of the relationship between the two.

In his comparison of the cultural traits of the Daxi Culture and the Qujialing Culture, Li starts by indicating their differences to show that they should indeed be different archae-

²⁸See Chapter 6 for a list and map of the first three sites and Chapter 7 for the last two.

²⁹The presence of Daxi Culture remains in the Dongting Plain would be disputed later on.

ological cultures (Li Wenjie 1979: 162). Apart from the relatively larger presence of ground stone tools in the Qujialing Culture assemblage (161), the main differences unsurprisingly appear in the ceramic assemblages (162). Li points out that most Daxi Culture wares are red, while the Early Qujialing Culture³⁰ is dominated by black ware and the Late Qujialing Culture mostly features grey ware. In terms of decoration, Li notes that the poked impressions appearing on Daxi Culture ceramics are not present in the Qujialing Culture anymore and there are notable differences among the two cultures in the motifs on painted vessels (162). Li further points out that certain vessel shapes only appear in the Qujialing Culture assemblage, such as various "double-bellied" forms, certain necked jars, and cups with high ring bases.

Li then proceeds to list the similarities among the Daxi and Qujialing Cultures. They share rice agriculture and chisels with triangular points (162) as well as burials with flexed limbs (164). In the ceramic assemblages, ring bases are common in both cultures (163). Cups with bent walls are typical for the Daxi Culture and continue until the early Qujialing Culture, as discoveries at Zhujiiazui and Fangyingtai show. There are cases of red-on-black painted decorations in both cultures. The decorated spindle whorls and clay balls that are typical for the Qujialing Culture find predecessors in the Daxi Culture as do thin-walled ceramic vessels, the so-called "eggshell pottery". Li then remarks that the relative amount of black ware increases in the late Daxi Culture, leading right up into the Early Qujialing Culture when it predominates. All of these points lead Li to conclude that the Daxi Culture and the Qujialing Culture form a direct sequence from the former to the latter.

In the second part of his article, Li points out some similarities between the Daxi Culture and the Yangshao Culture assemblages (164), specifically geometrical patterns painted on some Daxi Culture vessels consisting of arcs, circles and triangles that are very reminiscent of the Miaodigou Type of the Yangshao Culture. Li also thinks that the cup-like knobs on many lids in the Daxi Culture assemblage could be related to the cup-shaped rims of the

³⁰This is not the Early Qujialing Culture represented by interregional period 6 in this thesis, but instead what I have come to call the "Pre-Qujialing Culture" represented by interregional period 5. I shall continue to use the terminology as employed by the authors in this chapter to trace the history of these terms. Things will become sorted out as this history nears the present day.

pointed-based amphorae that are a typical form for the Yangshao Culture. While the Daxi Culture thusly must have been influenced by the Yangshao Culture, there might have been another influence in the opposite direction causing the later Yangshao Culture to adopt more and more vessels with ring bases. Despite this cultural exchange, Li emphasizes that the Daxi Culture was an independent local phenomenon.

Wang Jin 1980: A Counterpoint

The first counterpoint to the assumption of a direct sequence from the Daxi Culture to the Qujialing Culture is provided in a summary article about the Daxi Culture, Qujialing Culture and Yangshao Culture remains along the Han River by Wang Jin (Wang Jin 1980).

In addition to the Daxi Culture sites that Li Wenjie enumerated in 1979, Wang includes the Zhongbaodao site (10). As sites in Hubei with "similar assemblages" in the periphery of the Jiangnan Plain, she recalls Chaotianzui and Zhujiatai.

Wang uses the sites of Guihuashu, Maojiashan, and Honghuatao as examples to characterize the Daxi Culture (10f.). She notes that there is a burial from Guihuashu Period I of a supine body with flexed limbs, which is a common feature among the burials at the Daxi site. The ceramic assemblages from these sites also mainly consist of coarse red ware, often with a red slip, as is typical for the Daxi Culture.

Wang then lists some vessel types from Guihuashu, Maojiashan, and Honghuatao that she thinks have Daxi Culture characteristics. Her types are more concrete than those that Shen Zhongchang and Yuan Mingsen (1961) list in their characterization of the Daxi site assemblage. Li Wenjie (1979), on the other hand, only brought up cups with bent walls as a concrete vessel type of the Daxi Culture. This means that Wang Jin is the first to provide us with a list of "typical" Daxi Culture vessels, based on assemblages from different sites (Wang Jin 1980: 10). They are: Bent-walled bowls; ring-based bowls with rims that are bent inward or fitted rims for lids; ring-based dishes and basins; small tripodal jars with conical feet; and, with particular emphasis, painted cylindrical bottles. The types of decoration include painting - black-on-red and red-on-black -, poked impressions, and simple openwork.

Unlike Li, Wang does not mention the bent-walled cups that do occur at Guihuashu and Maojiashan. Wang remarks that while the assemblages from the lower layers of Guihuashu, Maojiashan, and Honghuatao certainly belong to the same cultural unit, they show some differences with the assemblage from the Daxi site (11).

Wang's article also includes an inter-site periodization of the Qujialing Culture, which can be considered an extension of a first periodization already presented in 1961 (Zhongguo Kexueyuan Kaogu Yanjiusuo 1961: 30). In that scheme, the Early Qujialing Culture was represented by the lower layers of the Qujialing site or "Early Qujialing" according to the excavation report (Zhongguo Kexueyuan Kaogu Yanjiusuo 1965); the Middle Qujialing Culture would be associated with what the report calls "Late Qujialing I and II"; and the Late Qujialing Culture would be represented by the remains unearthed at the Shijiahe site, specifically the Luojiabailing Locality. Although she does not cite it directly, it seems likely that Wang Jin's periodization is based at least on the notion of this basic framework. Wang adds the sites of Zhujiazui and Fangyingtai to the Early Qujialing Culture period (Wang Jin 1980: 8) which is defined by its black pottery (9). The Middle Qujialing Culture period is complemented by the second site phase of the Qinglongquan site in Northern Hubei (8). It is largely made up of grey ware (9). The "Late Qujialing Culture" period would later be separated out as the Shijiahe Culture (He Jiejun 1982a: 55).

Wang notes that all of her three periods of the Qujialing Culture are represented in abundance in the Jiangnan Plain and therefore considers this the core area of the Qujialing Culture (10). Many sites further up the Han River, in the Middle Han River Region, show "Qujialing Culture traits", although Wang remarks that there are some differences between their assemblages and the classical Qujialing Culture repertoire. Qujialing Culture forms also appear at the aforementioned Daxi Culture sites in the Western Jiangnan Plain and the Three Gorges Region, especially cups with high ring bases. These also occur in the Dongting Plain together with shoulder vessels. The characteristic "eggshell pottery" is also found in Eastern Hubei, beyond the confluence of the Han and Yangzi Rivers and some high-ring-based cups and shoulder vessels even appear in the mountain areas bordering Jiangxi.

As already mentioned above, Wang Jin casts doubt on the direct developmental sequence

from the Daxi Culture to the Qujialing Culture as brought up by Li Wenjie (1979). Wang's argument is based upon their areas of distribution (Wang Jin 1980: 13). The core area of the Qujialing Culture is the Jiangnan Plain, but, according to Wang, the distribution of the Daxi Culture reaches the western edge of that plain at best, while there are no Daxi Culture remains in the center of the plain, east the Han River. Instead, Wang mentions the sites of Liuguan in Jianli County, Southern Hubei, and Luosishan in Huanggang County, Eastern Hubei, as possible candidates for predecessors to the Qujialing Culture, even though their locations are on the periphery of the Jiangnan Plain as well. The simple vessel forms at Liuguan and the presence of bent-walled cups remind Wang of the Early Qujialing Culture, whereas the predominantly red ware from Luosishan features some thin-walled vessels similar to the eggshell pottery in the Qujialing Culture. Wang admits, however, that the data from either of these sites and their surrounding areas is still insufficient to make any clear connections (13).

Zhang Zhiheng 1982: A detailed periodization of the Daxi Culture

Another skeptic of the direct sequence of the Daxi Culture to the Qujialing Culture is Zhang Zhiheng. He published the first inter-site periodization of the Daxi Culture in 1982 (Zhang Zhiheng 1982). This scheme deserves a closer look, because a large part of the discussion of the relationship between the Daxi Culture and the Qujialing Culture revolves around the periodization of the Daxi Culture, especially its beginning showing its point of origin and its end showing the connection with the Qujialing Culture. According to Zhang, early Daxi Culture remains are mostly concentrated around the stretches of the Yangzi River right to the east of the opening of the Three Gorges between the easternmost Xiling Gorge and the area of the modern town of Jiangling (66).

Zhang distinguishes five Daxi Culture periods.

Period I is represented by Guanmiaoshan layer 6, Honghuatao layer 7, and Lower Zhongbaodao (67). The assemblage mostly consists of red ware with a sand or organic temper. The majority of these red vessels also have a red slip. There are some fine black or grey

vessels. All vessels have quite thick walls. Typical forms are ring base jars with bent walls; dishes with sharp lips and vertical rims that can have ring bases or, in some cases, three small feet; flat jars with ring bases; drum-shaped vessel stands; and concave lids. Most vessels are undecorated, although occasional grooves appear on the vessel body or openwork on the ring bases.

Period II is represented by Guanmiaoshan layer 5, Honghuatao layer 6, Zhongbaodao layers 9 and 8, and Lower Qingyubei (67). The fabric of the pottery is mostly similar to period I, although fine red ware takes the place of coarse red ware as the most common fabric type. Zhang also notes the rare presence of white pottery, probably made out of kaolinite clay. The rims of the ring base bowls and dishes are now receding inward. New forms include flat-based bowls, round-based flat jars with extended rims, and painted jars and thin-walled cups. The decorations are somewhat more varied including, aside from paint, picked and carved patterns.

Period III is represented by Guanmiaoshan layer 4, Zhongbaodao layers 7 and 6, Guihuashu, Lower Yangjiawan, some of the burials at Daxi, Maojiashan, and Sanyuangong layer 5 (67). The pottery fabric is similar to period II. Zhang notes that, although the main method of fashioning the vessels is still coiling, the rims of some vessels have been finished on a tournette. The ring base bowls now start to have fitted rims. New forms are thin-necked bottles and painted cylindrical bottles; bent-walled cups; rippled jars; and stemmed vessels with fitted rims. There is a very large variety of different decoration types, both plastic and painted.

Period IV is represented by Guanmiaoshan layer 3, Zhongbaodao layer 5, Guihuashu, Middle Yangjiawan, and Sanyuangong layer 4 (67). The main change from previous periods is that the predominant ware is black instead of red. There are spouted vessels and pottery ladles now. Zhang notes that the cylindrical bottles decrease in quality.

Period V is represented by Upper Yangjiawan, Sanyuangong, and the burials at Wangjiagang in the northern Dongting Plain (67f.). The main forms are bent-walled cups, including some with high ring bases; rippled jars; round-bodied thin-necked bottles as well as cylin-

dricial bottles with restrained necks; and double-bellied ring base dishes. Some vessels may have been wheel-thrown, according to Zhang.

With some vessels forms, a gradual evolution is visible throughout the periods (68). For instance, bent-walled cups get taller and thinner and the bend in the wall moves upward. The inner part of their bottom gets more rounded rather than flat. In addition, the ring bases of bowls and dishes get higher and higher.

Zhang parallelizes his Daxi Culture Period II with the Miaodigou Culture³¹ of the Yellow River, due to the presence in the Daxi Culture assemblage of typical Miaodigou-type vessels, such as red round-based, open-mouthed bowls, bent-walled dishes, drum-shaped cups with flared rims, and pointed-based jars with beak-like decorations (68). Zhang also mentions the cup-shaped lid knobs and painted decorations in the Daxi Culture that were already brought up by Li Wenjie as traits with Yellow River equivalents.

While Zhang notes that there are clear connections between the assemblages of the Daxi Culture and the Qujialing Culture, he thinks that they do not form a direct sequence with the Qujialing Culture developing out of the Daxi Culture (70). Instead, Zhang emphasizes their different areas of distribution, with the Daxi Culture mostly occurring in Western Hubei, while the point of origin of the Qujialing Culture seems to be in the Handong Region. He furthermore notes that at sites where the Daxi Culture deposit is overlapped by the Qujialing Culture deposit, these deposits represent the late, not the early Qujialing Culture.

He Jiejun 1982: A different center of origin for the Daxi Culture

Another periodization of the Daxi Culture was presented by He Jiejun already in 1980 at the Second Annual Meeting of the Archaeological Society of China (He Jiejun 1982b). Although it was published later than Zhang Zhiheng's periodization (Zhang Zhiheng 1982), the two might have been developed in parallel. As a representative of the Hunan Province Museum, He moves a new area into the spotlight of the discussion: The Dongting Plain. He Jiejun had already in 1979 in the preliminary report of the excavation of the Sanyuangong site pointed

³¹Here still called "the Miaodigou Type of the Yangshao Culture".

out the presence of Daxi Culture and Qujialing Culture remains in this area ((**alias?**)). Although the ring-based bowls with bent walls that are common in the early Daxi Culture are present, they are frequently decorated with impresso patterns that do not appear among Daxi Culture vessels from other regions. Some of the vessels are made out of a kaolin-based clay that appears light grey to white, another phenomenon that is rare in the rest of the distribution area of the Daxi Culture. There is neither painted pottery nor a kind of pottery that is red on the outside but black on the inside and around the rim, another typical feature of the Daxi Culture. He notes that these differences make the assemblages from Lower Tangjiagang and Lower Dingjiagang in the Dongting Plain quite distinct, but he remarks that the material is at that time not yet sufficient to define it as a separate culture or type. But since this kind of assemblage is superseded by a more classical Daxi Culture assemblage at both sites, He claims it represents the earliest period of the Daxi Culture together with the lowest layers of the Guanmiaoshan site (119).

He's second and third period of the Daxi Culture are represented by sites in the Western Jiangnan Plain, such as Guanmiaoshan, Honghuatao, Miaojiashan, and Caitai (120). The Dongting Plain is still represented by Upper Tangjiagang, Upper Dingjiagang, and Sanyuangong. Only in He's fourth and last period of the Daxi Culture does the Daxi site itself come into play and with it the area within the Three Gorges. He argues for a late date for the Daxi site mainly based on the presence there of grey and black pottery that is more typical for the Qujialing Culture (116f.). According to this periodization, the Daxi Culture developed to the south of the Middle Yangzi River region, near the shore of Lake Dongting, and then progressed north-west towards and into the Three Gorges. As for its eastern distribution, He cites the painted thin-walled cups and bowls from Luosishan as possible reason to extend the Daxi Culture all the way to Huanggang County, east of the confluence of the Han and Yangzi Rivers at Wuhan (116), even though the same kind of pottery had been considered exemplary of the Qujialing Culture by Li Wenjie (1979). Wang Jin (1980) had considered the pottery from Luosishan as representative of a possible predecessor of the Qujialing Culture, although certainly not of the Daxi Culture itself.

With He's focus on the Dongting Plain, it is not easy to compare his periodization of

the Daxi Culture to that by Zhang Zhiheng (1982). It appears that Zhang's five periods are mostly compressed in He's Periods III and IV.

Unlike Wang Jin (1980) and Zhang Zhiheng (1982), He is a proponent of the hypothesis that the Qujialing Culture is a direct successor of the Daxi Culture (He Jiejun 1982b: 120). He agrees with the points brought up by Li Wenjie and adds that his periodization shows that it is specifically the latest period of Daxi Culture, Period IV, that exhibits many vessel forms which would be considered typical for the Qujialing Culture, including necked jars with polished surfaces or with bent walls, double-bellied bowls and dishes, and thin-walled painted cups that already appear in He's Period III. He tackles the problem of the distinct areas of distribution of the Daxi and Qujialing Cultures by suggesting that the Qujialing Culture also developed in the Dongting Plain (122). The Qujialing Culture sites that lie outside the area of distribution of the Daxi Culture, such as the Qujialing site itself in the Handong Region, might merely represent a type of the already advanced Qujialing Culture. According to He, there are only three sites in that area around the Han River that have been considered representative of the Early Qujialing Culture: Qujialing itself, Zhujiazui, and Fangyingtai. Against that, He puts the discoveries of what he calls Early Qujialing Culture remains from three sites in the Dongting Lake area: Dujiagang, Huachenggang, previously mentioned by He for its supposed Daxi Culture content, and Wangjiagang, already listed by Wang Jin (1980, 10) as a Daxi Culture site. Among these three sites, He singles out Huachenggang for showing a direct sequence from Daxi Culture to Qujialing Culture. According to He (1982b: 122f.), two burials of his Daxi Culture Period IV, namely M41 and M46, are directly overlapped by two burials of the Early Qujialing Culture, namely M40 and M44. The Daxi Culture burials contain mainly fine red pottery, including bowls with black inside walls and rims, round ring-based bowls with rims that are bent inward, and small coarse brown tripodal jars with conical feet. The Qujialing Culture burials, on the other hand, contain almost exclusively black or grey pottery, including bent-walled cups, cylindrical bottles, ring-based bowls with flatter bodies, basins, and small tripods. It should be noted that vessels of this description might actually still fall into Zhang Zhiheng's Daxi Culture Periods IV and V (Zhang Zhiheng 1982). Thus, this also marks the beginning of a debate about what culture

these assemblages with predominantly black pottery should be assigned to. In any case, for He Jiejun the direct stratigraphic relationship between Late Daxi Culture burials and Early Qujialing Culture burials are "strong evidence that proves a direct succession between these two cultures" (He Jiejun 1982b: 123).

Lin Xiang 1982 and Zhang Xuqiu, He Dezhen, and Wang Yunxin 1982: The Dongting Plain might be separate

During the same conference meeting as He Jiejun's talk, Lin Xiang shared some of his own insights about the Daxi Culture (Lin Xiang 1982). Most of his paper is focused on an internal periodization of the Daxi site. Lin expands upon the account given by Shen Zhongchang and Yuan Mingsen (Sichuan Chang Jiang Liuyu Wenwu Baohu Weiyuanhui Wenwu Kaogudui 1961) in part by providing the relative distribution of different pottery fabrics (Lin Xiang 1982: 128, tab. 1), which shows that while the pottery from the cultural layers is predominantly sand-tempered red; fine red, black, or grey pottery appears almost exclusively in the burials. According to Lin, the burials represent a later chronological stage than the cultural layers.

Lin agrees with Li Wenjie's and He Jiejun's notion that the Qujialing Culture formed out of the Daxi Culture and cites the sites of Guihuashu, Honghuatao, Guanmiaoshan, and Zhongbaodao as examples for the transition, proven by the stratigraphic overlap of Qujialing Culture layers over Daxi Culture layers (128). Lin names the same cultural traits shared by both cultures that Li Wenjie listed in his article from 1979.

According to Lin, the early and middle strata at Sanyuangong in the Dongting Plain have some similarities with the Daxi Culture, but altogether more differences (128) and suggests that they might represent a different archaeological culture that was heavily influenced by the Daxi Culture.

In the same year, Zhang Xuqiu, He Dezhen, and Wang Yunxin published another periodization of the Daxi Culture (Zhang Xuqiu et al. 1982). They make no reference to Zhang Zhiheng's (1982) or He Jiejun's (1982b) schemes, but all three were published within a fairly

short time frame, so they were likely developed parallel to each other. Zhang Xuqiu, He Dezhen, and Wang Yunxin distinguish four periods. Their Period I resembles He Jiejun's Period I, including Tangjiagang, Dingjiagang, and Sanyuangong, which are all in the Dongting Plain, but also the lowest layers of Guanmiaoshan at the Yangzi River. Zhang Xuqiu, He Dezhen, and Wang Yunxin's Period II conflates Zhang Zhiheng's Periods I and II, while Period III is roughly equivalent in both schemes. Zhang Zhiheng's Periods IV and V are both included in Zhang Xuqiu, He Dezhen, and Wang Yunxin's Period IV.

Similar to Lin Xiang (1982), Zhang, He, and Wang point out the differences between the assemblages from sites in the Dongting Lake area and sites in the Yangzi River area (Zhang Xuqiu et al. 1982: 19). Unlike Lin, however, they do not advocate taking the sites in the Dongting Lake area out of the Daxi Culture, but instead suggest that they might represent a different Type than the rest.

He Jiejun 1982: Separating the Daxi and Qujialing Cultures into Types

He Jiejun returns the same year with an article that seeks to synthesize some points about Neolithic cultures in the whole Middle Yangzi River Region (He Jiejun 1982a). As part of this essay, He actually advocates the separation of the Daxi Culture in the Yangzi River Valley on the one hand and in the Dongting Plain on the other hand as different types³² as suggested by Zhang Xuqiu, He Dezhen, and Wang Yunxin (1982). It is unlikely that He took this step as a swift response to their and Lin Xiang's (1982) objections. Instead, his decision might be founded in the fact that the excavators of Honghuatao in the Yangzi River Valley and Sanyuangong in the Dongting Plain already distinguished their finds as "Honghuatao Culture" and "Mengxi Culture"³³ respectively (He Jiejun 1982a: 48). Consequently, He now divides the Daxi Culture into the Honghuatao Type in the Yangzi River Valley and the Sanyuangong Type in the Dongting Plain (63). Furthermore, he distinguishes two types

³²"Types" are to be understood in this case as "sub-cultures", i.e. typological units below the archaeological culture. The concept is part of Su Bingqi's "regional systems and local cultural series" model (Su Bingqi and Yin Weizhang 1981).

³³Mengxi being an older name for Sanyuangong.

of the Qujialing Culture, but in this case the Yangzi River Valley in the Western Jiangnan Plain and Dongting Plain together form the area of distribution of the Huachenggang Type, whereas the Handong Region is where the Qujialing Type is located (64).

This does not mean that He abandons the idea that both the Daxi Culture and the Qujialing Culture were formed in the Dongting Plain. On the contrary, He now opts for taking the lowest layers at Guanmiaoshan, layers 7 and 6, out of his Period I and moving them into Period II on account of the stronger resemblance of their content to Dingjiagang II which belongs in Period II (51). This leaves only sites in the Dongting Plain in his Period I of the Daxi Culture. Furthermore, He's Early Qujialing Culture is not only made up of sites in the Handong Area as Wang Jin (1980) had emphasized, but also of many sites in the Dongting Plain (He Jiejun 1982a: 55).

In support of his argument that the Daxi Culture is the predecessor of the Qujialing Culture, He uses ^{14}C dates to show that at least the former dates to an earlier time period than the latter. Based on three dates from Guanmiaoshan and three dates from Honghuatao, He sets the time frame of the Daxi Culture around 4300-3300 calBC (61). He estimates the Qujialing Culture to date to around 3000-2600 calBC, based on two dates from Qujialing, two dates from Qinglongquan, and one date from Huanglianshu (61). However, missing in this chronology are any dates from Early Qujialing Culture contexts, which He says might account for the 300 year gap between the Daxi Culture and the Qujialing Culture in this scheme (62). It is remarkable that the number of available ^{14}C dates has not increased by a lot since then.

Xiang Xucheng 1983: A response to Zhang Zhiheng 1982 and a new periodization of the Daxi Culture

The debate is already in full swing in 1983 between the promoters of the direct succession from Daxi Culture to Qujialing Culture and the skeptics, when Xiang Xucheng (1983b), a promoter, directly takes on the skeptical article of Zhang Zhiheng (1982).

Xiang starts by tackling Zhang's assertion that the succession seems unlikely because

the core areas of the Daxi Culture – the Yangzi River Valley in Western Hubei - and the Qujialing Culture – the Jiangnan Plain - do not overlap (Zhang Zhiheng 1982: 70). Xiang agrees with He Jiejun's earlier periodization of the Daxi Culture (1982b), in which the sites in the Yangzi River Valley, such as Honghuatao and Guihuashu, date to Period II at the earliest, with the only exception of Guanmiaoshan, which represents that region in Period I (Xiang Xucheng 1983b: 66). Ergo, Xiang also accepts at least a partial origin of the Daxi Culture in the Dongting Plain.

To Zhang Zhiheng's statement that all sites with a stratigraphic succession of Daxi Culture and Qujialing Culture only feature Late Qujialing Culture material (Zhang Zhiheng 1982: 70), Xiang replies by referring to the sites in the northern Dongting Plain featuring Late Daxi Culture layers directly followed by Early Qujialing Culture layers that He Jiejun had included in his argument (He Jiejun 1982b: 122f.). While He focuses on the Huachenggang site, Xiang points out that the assemblage from the Wangjiagang site that Zhang Zhiheng included in his Daxi Culture Period V is very similar to the Early Qujialing Culture as described by Wang Jin (1980): Predominantly black pottery, small tripod jars, bent-walled cups, shoulder vessels, conical cups, basins, high-ring-based dishes, stand ring bowls, black vessels painted in red, etc. (Xiang Xucheng 1983b: 68).³⁴ Xiang asserts that it does not matter if this is called Late Daxi Culture or Early Qujialing Culture, since there is no separation between the two, thusly foreshadowing the later discussion of a unified "Black Pottery Horizon". However, unlike He Jiejun, Xiang does not conclude that the Qujialing Culture was entirely formed in the Dongting Plain. He merely sees these transitional assemblages from these sites at the interface between the Dongting Plain and the Jiangnan Plain as a result of the Late Daxi Culture expanding into the Jiangnan Plain itself, which to Xiang still forms the core area for the Qujialing Culture. As new evidence he brings up the then recently discovered site of Liuhe, which has quite a central position in the Jiangnan Plain, but, according to his scheme, fits well into Daxi Culture Period V (66).

Xiang's argument is thus mostly an extension of He's argument with the strong focus

³⁴This assortment of ceramic types would nowadays be dated to the Pre-Qujialing Culture and Qujialing Culture.

on the Dongting Plain, but with the addition of Liuhe to show that the Daxi Culture did indeed in its late stage show presence in the Handong Region from where the Qujialing Culture would originate.

A few months later, Xiang Xucheng publishes his own periodization of the Daxi Culture (Xiang Xucheng 1983a). Xiang's modification of Zhang Zhiheng's periodization, using the occupation phases of the Guanmiaoshan site as a foundation would until today be a major point of reference for many scholars, so it warrants a brief introduction.

Period I is represented by Guanmiaoshan layer 7 (68f.). It is comprised mainly of red pottery with organic temper and red slip. Bowls with or small dishes with bent walls and ring bases or round bases predominate alongside round pots.

Period II is represented by Guanmiaoshan layers 6 and 5 (69). The predominant fabric type is still red pottery with organic temper, but there is a relative increase of levigated red ware. The phenomenon of the vessels with red exterior alongside black interior and rim is quite common in this period. The majority of the assemblage is formed by all manners of ring-based bowls and dishes. Some of the bowls have fitted rims to hold lids. Basins with flat bases represent a new form. Drawing the most attention in this period, however, are thin-walled cups with painted motifs. Xiang's first two periods still contain assemblages from sites in the Dongting Plain, but now the sites of Daxi and Guihuashu in the Yangzi River valley are also represented with some vessels (73).

Period III is represented by Guanmiaoshan layer 4 (69). Fine red ware is now in the majority. Bent-walled cups and tubular bottles now make an appearance and many of the ring-based bowls are now sporting rims that are bent or curved inward. This period is also represented at Daxi, Guihuashu, and Maojiashan (74).

Period IV is represented by Guanmiaoshan layer 3 (69). Black pottery is now the most common. Vessels are generally small with thin walls and include bent-walled cups, small ring base or tripod jars, and cylindrical bottles with short necks. This kind of pottery is also present at Guihuashu, as well as Sanyuangong, Huachenggang, and Wangjiagang in the Dongting Plain (75).

In this periodization, Xiang has compressed He Jiejun's (1982b; 1982a) Periods I and II into his Period I (Xiang Xucheng 1983a: 77ff.). The Periods II and III of Xiang's chronology are equivalent to He's Period III. Zhang Zhiheng's (1982) Periods IV and V which both featured mostly black pottery fit into Xiang's Period IV. Indeed, Xiang appears to revoke his statement in the earlier article (Xiang Xucheng 1983b) that it does not matter if the black pottery is considered Late Daxi Culture or Early Qujialing Culture and opt for including it all in his Daxi Culture Period IV instead.

Xiang Xucheng also criticizes Lin Xiang's (1982) focus on the Daxi site, which after all only takes up a peripheral position in the Daxi Culture at large (Xiang Xucheng 1983a: 78). Accordingly, Xiang rebukes Lin's suggestion to consider the sites in the Dongting Plain a different culture as stemming from his limited vantage point from the Daxi site (78).

Zheng Jiexiang 1983: The Qujialing Culture as a successor of the Yangshao Culture

A new approach to the search for the origin of the Qujialing Culture was provided by Zheng Jiexiang in 1983. Zheng is looking at the problem from a northern direction, focusing on the sites in the Middle Han River Region of southern Henan and northern Hubei that feature both Late Yangshao Culture and Qujialing Culture assemblages.

According to Zheng, there are numerous sites with evidence of Qujialing Culture traits that already appear among the ceramic assemblages of the Late Yangshao Culture, below the layers that are assigned to the Qujialing Culture proper. For example, at Xiawanggang the ring-based bowls, bent-walled bowls, painted cups, and lids discovered in Late Yangshao Culture contexts betray Qujialing Culture characteristics (Zheng Jiexiang 1983: 196).³⁵ The same is true for necked jars, tripodal dishes, and basins from Zhaowan (196f.) as well as high-ring-based vessels, ceramic spindle whorls, and clay balls from Maocaosi (197).³⁶ This

³⁵Zheng might actually detect a direct influence of the Daxi Culture on the Late Yangshao Culture here, a phenomenon that has not been studied extensively yet.

³⁶Maocaosi is now mainly considered a Shijiahe Culture site.

phenomenon does not seem limited to the very southern edge of Henan Province, as Zheng also cites tripodal bowls, basins, and lids from Late Yangshao Culture contexts at Dazhang in Linru County (197) as well as high-ring-based dishes and ring base bowls with retracted rims from Late Yangshao Culture contexts at Gushuihe in Yu County (198). Furthermore, Zheng puts the shoulder vessels, large basins, and painted bowls from Dahecun in Zhengzhou into this category (198).

Zheng argues that this occurrence of Qujialing Culture style pottery in Late Yangshao Culture contexts is not a result of some sort of influence that the Late Yangshao Culture received from the Early Qujialing Culture (199f.). His reason for that is that the Late Yangshao Culture is a thriving entity with a wide distribution in Central China, whereas the Early Qujialing Culture is only weakly represented by a handful of sites in the Middle Yangzi River Region. If there was to be any influence from one culture to another, it should therefore have come from the Yangshao Culture to the Qujialing Culture, but there is no evidence of that among the Qujialing Culture sites in the Middle Yangzi River Region. Instead, Zheng argues, the early occurrences of a Qujialing Culture pottery style among the Late Yangshao Culture must be a manifestation of the Qujialing Culture forming out of the Yangshao Culture style itself. It started off as a Late Yangshao Culture type in the Middle Han River Region and then established itself in the Middle Yangzi River Region to the south. With these statements, Zheng betrays a conception of archaeological culture that not only completely conflates the pottery with the people but even the amount of remains found with the "strength" of the prehistoric culture. This is a rather extreme manifestation of an outdated culture concept that does not even take into account the head start of several decades of research history that the Yangshao Culture has over the Qujialing Culture.

Zheng makes no mention of how the Daxi Culture would factor into this development. One can assume that he considers it entirely separate from the Qujialing Culture phenomenon.

Zheng's hypothesis would often be cited on account of it remaining the only one to suggest a direct succession of the Qujialing Culture out of the Yangshao Culture (e.g. Zhang Xuqiu 2004: 28). However, archaeologists working in the Middle Yangzi River Region would

usually discount it. In fact, He Jiejun already criticized it before it was even published on the grounds of being based on the comparison of only a few vessel shapes (He Jiejun 1982a: 61). Nevertheless, the question if the Yangshao Culture or other Neolithic cultures from the north played a role in the formation of the Qujialing Culture or its predecessors would continue to be significant in the debate.

PHASE 2: Back and forth

Phase 2 of the debate covers the short time frame from 1984 to 1987, but contains a lot of articles nevertheless, many of which revolve around the same regions and sites. Several contributors are addressing each other's arguments directly and a few of them produce articles concerning the debate on an almost yearly basis. This is certainly the most heated phase of the debate.

This phase would start off with a contribution by an important new participant in the debate. Wang Jie is a decided skeptic of the Daxi-Qujialing succession hypothesis. He enters the stage by disputing the origin of the Daxi Culture in the Dongting Plain favored by He Jiejun and Xiang Xucheng (Wang Jie 1984). A large part of the discussion from 1984 to 1987 would revolve around sites in the Dongting Plain, particularly the Huachenggang site, but I have omitted several of the articles relating to this question from the detailed review here (Shao Xing 1984; He Jiejun 1986; Shen Qianghua 1986; Qi Guojun 1986), since the Dongting Plain would later be revealed to have played a peripheral role to the question of the relationship between Daxi Culture and Qujialing Culture, whereas the significant interactions happen between the Western Jiangnan Plain and the Handong Region. I hinted upon the hypothesis of the Dongting Plain as point of origin for the Daxi Culture and/or Qujialing Culture previously to show how unclear their nature was for a long time in the beginning.

Xiang Xucheng 1985: Discussing the “Black Pottery Phase” between Daxi Culture and Qujialing Culture

Xiang Xucheng might have felt the general need to provide some clarification about the assemblages that are dominated by black pottery which are variously labeled either Late Daxi Culture or Early Qujialing Culture. For example, Wang Jin (1980) and Zhang Zhiheng (1982) would treat the layers with black pottery at sites in the Western Jiangnan Plain as Late Daxi Culture – Zhang Zhiheng’s Periods IV and V – but consider the lower layer of the Qujialing site, also dominated by black pottery, as Early Qujialing Culture. He Jiejun, on the other hand, would consider both the same, namely Early Qujialing Culture (He Jiejun 1982a; 1982b).

Xiang Xucheng (Xiang Xucheng 1985: 628ff.) shows convincingly that the black pottery assemblages from the Handong Region represented by Lower Qujialing, Zhujiiazui, and Liuhe on the one hand and the black pottery assemblages from the Western Jiangnan Plain represented by Guihuashu and Guanmiaoshan as well as sites in the Dongting Plain on the other hand are indeed quite similar.

Furthermore, Xiang establishes that many of the vessel forms in the black pottery assemblages are continuations of Daxi Culture forms (630ff.), similar to what Shao Xing (1984) has demonstrated for the Huachenggang site. But at the same time they are in turn quite different from the "classical" Qujialing Culture with its double-bellied vessels and shoulder vessels and so forth.

If we follow this logic, then the lower layers of the Qujialing site along with Zhujiiazui, Liuhe, and Fangyingtai, which had all been considered representative of the Early Qujialing Culture would all in fact belong into Xiang’s (1983a) Daxi Culture IV. This way, the Qujialing Culture could have developed out of the Daxi Culture in the Handong Region.

Xiang Xucheng’s contributions to the discussion illustrate quite well that the two sides in this debate are not as clear-cut as they might initially appear. For example, Xiang contradicts He Jiejun and Shao Xing who are also arguing for a direct succession between the Daxi Culture and the Qujialing Culture. In the end, we have to keep in mind that

the goal of several contributions might not be to provide final arguments in favor of either hypothesis, but instead to clarify the meaning of the unearthed material and dispel possible misconceptions that may have arisen during the discussion.

Wang Jie 1985: Introducing quantitative arguments to the discussion

While in the articles by Wang Jin (1980) and Zhang Zhiheng (1982) the skepticism of the Daxi-Qujialing succession hypothesis had only formed a part of a larger synthesis of Neolithic remains in the area, the article titled "An inquiry into the problems of the relationship between the Qujialing Culture and the Daxi Culture" by Wang Jie (1985) is the first contribution that is devoted entirely to attacking that hypothesis. Wang Jie mainly addresses some points raised by Li Wenjie (1979) and He Jiejun (1982a; 1982b). The contributions by Xiang Xucheng (1983b; 1985) are not taken into account yet.

Wang reiterates Zhang Zhiheng's (1982) point that it is Late Qujialing Culture assemblages that are stratigraphically positioned on top of Daxi Culture assemblages at the sites of Honghuatao, Guanmiaoshan, Qingshuitan, Sanyuangong, and Huachenggang (Wang Jie 1985: 34) and therefore the sequence is missing the step of the Early Qujialing Culture. He goes against the argument of a decrease in red ware in Late Daxi Culture horizons leading over to Early Qujialing Culture horizons dominated by black ware by noting the relative amounts (36): In Late Daxi Culture contexts, for example Guihuashu, about 50% of the pottery is still red, whereas in the Lower Qujialing site phase it makes up only about 3% of the overall assemblage with about 60% black pottery and the rest grey or yellow. This would represent too large of a jump to be part of a continuous developmental sequence, according to Wang. Incidentally, this could represent an argument against Xiang Xucheng's (1985) unified black pottery horizon. Although looking at the actual quantities of the different pottery types is certainly a step in the right direction, I find this logic somewhat hard to follow, since starting off with about 50% black pottery surely represents a gradient better than going to over 90% of black and grey pottery right away. In the end, it comes down to requiring a finer chronology indicating where in the transition from Daxi Culture to Qujialing

Culture each assemblage falls and how much time the deposition of each assemblage covers in the first place. Quantitative arguments like this would remain rare in the discussion, however, and so there would not be a call for a refinement of methods either.

Wang Jie also employs traditional qualitative typology in order to dispel some supposed commonalities between the Daxi and Qujialing Cultures that formed part of the argumentation by Li Wenjie (1979) among others. For example, bent-walled cups and painted "eggshell" pottery only appear sporadically in Middle Daxi Culture contexts – what would be Daxi Culture II and III according to Xiang Xucheng's periodization (1983a). Wang sees this as a result of a possible influence on the Daxi Culture exerted by the Early Qujialing Culture, supposing there exists a temporal overlap between the two (Wang Jie 1985, 38). To Wang, the fact that both interact with the Yangshao Culture in some way could be an argument for this overlap. It is only when the Late Qujialing Culture expands from the Handong Region into the surrounding periphery that the Daxi Culture disappears (38).

Li Wenjie 1986: New thoughts on the origin and distribution of the Daxi Culture

Li Wenjie weighed in on the discussion again in 1986 with an article in which he attempts his own periodization of the Daxi Culture and distinguishes two types, namely the Guanmiaoshan Type in the Western Jiangnan Plain and the Tangjiagang Type in the Dongting Plain (Li Wenjie 1986).

Pertaining to the question of the area of origin of the Daxi Culture, Li notes recent discoveries of cultural layers that are related to but precede Daxi Culture layers at the sites of Chaotianzui and Chengbeixi in in the Three Gorges as well as Zaoshi in the Dongting Plain (150). Therefore, both the Yangzi River Valley, including the eastern part of the Three Gorges and the Western Jiangnan Plain, and the Dongting Plain are possible places of origin. The differences between these two sources may account for the two Daxi Culture Types that Li distinguishes.

Li Wenjie still upholds the hypothesis of a succession of the Qujialing Culture out of the Daxi Culture (150). He casts doubt on Wang Jie's (1985) concept of an influence from the

Early Qujialing Culture in the Handong Region on the Middle Daxi Culture in the Western Jiangnan Plain. Like He Jiejun (1982b), Li Wenjie cites the chronological distance between the two indicated by ^{14}C dates as reason against a temporal overlap (Li Wenjie 1986: 150). Instead, the influence might have gone the other way: Li mentions the recent discovery of red pottery with a resemblance to Daxi Culture Guanmiaoshan Type pottery from Periods II and III at the Tanjialing Locus of the Shijiahe site in the Handong Region (151). This could mean a spread of the Daxi Culture from Western Hubei into the Handong Region where it might have caused the formation of the Qujialing Culture. Li Wenjie's line of argumentation is quite similar to that of Xiang Xucheng (1983b), but he does not cite Xiang directly.

Wang Jie 1987, He Jiejun 1987, and Zhang Xuqiu 1987: An impasse?

In an article titled "Do the lower layer of the Qujialing site and the Late Daxi Culture have the same cultural characteristics?" Wang Jie (1987) attacks Xiang Xucheng's (1985) notion of a "Unified Black Pottery Horizon". Not surprisingly, Wang Jie's answer to the question in the title is "no". But his argument is mostly based on points he had already brought up. For example, he expounds upon the fact he had already hinted at in his article from 1985 that the assemblages of the Late Daxi Culture in the Western Jiangnan Plain are not predominantly black, but red (Wang Jie 1987: 64). Otherwise, Wang's word stands against Xiang's in terms of "they are not similar enough to be one culture" versus "they are similar enough to be one culture". Wang Jie closes by admonishing that archaeological cultures should not be defined solely on the basis of the main color of the pottery fabric (68), although, to be fair, Xiang Xucheng cannot be accused of that, since he incorporated comparisons of vessel shapes as well.

He Jiejun, on the other hand, is willing to make some adjustments to his typology of the Daxi Culture, based on Li Wenjie's periodization from 1986 and new data from Guanmiaoshan (He Jiejun 1987). For example, he concedes that some remains in his Period I might actually predate the Daxi Culture and instead belong to the Lower Zaoshi or Cheng-

beixi Cultures³⁷ (69f.). After these have been taken out, He's new periodization largely aligns with Li's (1986). He also adopts Li's naming of Daxi Culture Guanmiaoshan Type for the Yangzi River Valley remains and Daxi Culture Tangjiagang Type for the Dongting Plain remains, instead of his earlier Honghuatao Type and Sanyuangong Type respectively (He Jiejun 1982a). According to He, the evolution of pottery forms proceeds parallel in both of these types (He Jiejun 1987: 70). In one point, He is not willing to budge though: The black pottery phase represented by Guanmiaoshan IV is to him still representative of the Early Qujialing Culture and not the Late Daxi Culture (70).

The horizons with black pottery clearly have become a major point of contention in the debate. Zhang Xuqiu (1987) takes the opposite stand of Wang Jie (1987) again by supporting Xiang Xucheng's (1985) hypothesis of a unified "Black Pottery Culture". The difference is that, unlike Xiang Xucheng, but in agreement with He Jiejun, Zhang considers this culture to represent the Early Qujialing Culture and not the Late Daxi Culture (Zhang Xuqiu 1987b: 28f.). One reason for that might be that Zhang's perspective is more focused on the Handong Region where this kind of black pottery assemblage was first discovered at the sites of Qujialing and Longzui (26). According to Zhang, other type sites for the black pottery horizon include Guihuashu and Liuhe as well as various sites in the Dongting Plain together with the aforementioned two sites and the newly excavated site of Youziling which would still play an important role in the ongoing debate (26).

Zhang Xuqiu evades some of Wang Jie's (1987) methodological criticism by providing a bit of data on the relative amount of black pottery in the assemblage, estimating an average of about 60% followed by about 20% of grey pottery (Zhang Xuqiu 1987b: 26f.), and by listing some typical vessel shapes for this cultural stage, namely small tripodal jars, small necked jars³⁸, high-ring-based bowls, ring-based jars, jars with high necks, bent-walled cups, small conical cups, round bottles with narrow necks, and tall cylindrical bottles with

³⁷Here still neutrally named "Lower Zaoshi remains" and "Chengbeixi remains", but they would be defined as archaeological cultures later.

³⁸This probably includes a typical vessel type for the period which I have termed miniature vessels and which mainly includes jars and bottles.

short necks (27f.). Zhang also agrees with He Jiejun's suggestion (1982a) to distinguish a Qujialing Type in the Jiangnan Plain and a Huachenggang Type in the Dongting Plain for the Qujialing Culture (Zhang Xuqiu 1987b: 28f.). At this point in time, it seems that the discussion is stuck at an impasse. Only slight adjustments are made to typologies and naming conventions. Otherwise, the scholars on both sides have their comparative tables arrayed against each other and it is mostly a matter of whose subjective typology is more credible. Qi Guojun (1986: 59, footnote 5) summarizes the situation well by stating that more data is needed to move the debate along.

PHASE 3: New evidence and new methods

Phase 3 lasted from 1987 to 1997. It is characterized by the incorporation of new evidence that had been produced by various fieldwork projects during the 1980s. This would give the debate new impetus. Some scholars tried out new approaches to typological analyses which would bring their own challenges with them.

Zhang Xuqiu 1987: Important new discoveries from the Jiangnan Plain

In his article "A preliminary discussion of Neolithic cultures in the region east of the Han River" Zhang Xuqiu (1987a) interprets the discovery at recent excavations in the Handong Region of cultural layers with assemblages of mainly red pottery predating the Qujialing Culture layers. The first discovery of these remains, which feature red pottery in the majority, in the Handong Region occurred at the Liuhe site in 1980 (56f.). There, the red tripods, jars, basins, and ring-based dishes formed the lowest cultural layer, preceding the Early Qujialing Culture – or the black pottery horizon –, the Late Qujialing Culture and the Shijiahe Culture. Similar red pottery was unearthed at the Tanjialing Locality of the Shijiahe site in 1982, here largely comprised of cylindrical bottles, basins with bent rims, basins and dishes with rims that curve or are bent inward, ring-based dishes and necked jars.

With the discovery of more sites featuring these remains, Zhang distinguishes two different types: A type distributed in the north of the Handong Region, namely Zhongxiang County,

represented by the sites of Bianfan, Xiaojiadian, Cuijiatai, and possibly Zhaoyingtai; and a type distributed in the center of the Handong Region, in the counties of Jingshan and Tianmen, comprised of the sites of Youziling, Tanjialing, Longzui, Maojialing, Yaojialing, Dadouwan, and Zhenzhupo (59).³⁹ The site phases I and II of Bianfan⁴⁰ feature large globular round-based or tripodal jars. These vessels are distinct from the known forms of the Daxi Culture or the Yangshao Culture. They probably predate Guanmiaoshan site phase I, since Bianfan III bears some resemblance to Guanmiaoshan I and II with bent-walled bowls, round-based dishes, squat jars, and large ring-shaped vessel stands (57f.). This certainly makes Bianfan I and II the earliest Neolithic remains in the Handong Region known at the time and Zhang proposes the naming of a "Bianfan Culture" on these grounds (59).

The earliest layer of the Youziling site can be parallelized with Guanmiaoshan II. It is superseded by deposits of black pottery remains and Late Qujialing Culture remains (58f.).⁴¹ Given that the red pottery remains from the central Handong Region, represented by Youziling I, bear close similarities to the Daxi Culture assemblage, Zhang suggests defining them as "Daxi Culture Youziling Type" (59). The remains from the Northern Jiangnan Plain, represented by Bianfan III, on the other hand, continue traits of Bianfan I and II, but with many Daxi Culture elements, which is why Zhang proposes the name of "Daxi Culture Bianfan Type" (59). Zhang hints that it may yet turn out that his Bianfan Culture, comprised of the Bianfan I and II site phases, is also part of the Daxi Culture Bianfan Type, but more data is needed to ascertain this (59).

Zhang concludes that the Daxi Culture Youziling Type progresses parallel to the western types of the Daxi Culture (66) and the origin of the Qujialing Culture can be traced directly back to it (65f.). Therefore Zhang Xuqiu agrees with Wang Jin and Wang Jie in that the

³⁹Some of these sites are not listed in the site catalogue of Chapter 5, since no details about them have been published to date.

⁴⁰These site phases are subsumed under Bianfan I in Chapter 5, while Bianfan III here is Bianfan II in Chapter 5.

⁴¹To reiterate, the black pottery remains belong to what I term the "Pre-Qujialing Culture", while the so-called "Late Qujialing Culture" constitutes the Qujialing Culture proper in my own system, which is based upon more recent publications detailed below.

Qujialing Culture did not develop out of the Daxi Culture in the west. Its origin is in the Handong Region, but it goes back to an offshoot of the Daxi Culture that might be the result of its eastward expansion at a certain point in time, similar to what Xiang Xucheng had suggested in 1983. Zhang does not discuss however, how this supposed eastward expansion could be reconciled with a Daxi Culture Bianfan Type that, if Bianfan I and II are included, would predate Guanmiaoshan I. Zhang even states that the Youziling Type could be as old as the southern Daxi Culture, based on the find of remains that look to belong to the Chengbeixi Culture, a now accepted predecessor of the Daxi Culture, at the site of Tucheng in northeast Hubei (66).

Despite Zhang Xuqiu's revelations about the Jiangnan Plain, the discussion of the origin of the Qujialing Culture would continue to revolve around the Dongting Plain for some time. Li Longzhang (1987) demonstrates what appears to be an unbroken sequence of development of ceramic types from the Late Daxi Culture to the Qujialing Culture at Huachenggang. Wang Jie and Tian Fuqiang (1989) argue that the so-called Daxi Culture remains in the Dongting Plain did not belong to the Daxi Culture at all, not even as a separate type, and in another article Wang Jie (1990) reinforces this statement by showing that the assemblage from the Dongting Plain derives from the Lower Zaoshi Culture, whereas the actual Daxi Culture derives from the Chengbeixi Culture in the Western Jiangnan Plain and the Three Gorges. Wang Jie suggests to represent the remains in the Dongting Plain by the term "Hunan Daxi Culture" or "Tangjiagang Culture". He Jiejun (He Jiejun 1989) defends his claims that the Qujialing Culture originated in the Dongting Plain by attempting to show that its remains in the Dongting Plain are just as old, if not older, than its remains in the Handong Region, however, without making any reference to the Youziling Type remains preceding the Qujialing Culture in the Handong Region that Zhang Xuqiu had presented two years prior.

In the debate about the Daxi-Qujialing succession hypothesis, Wang Jie and Tian Fuqiang (1989) repeat Wang Jie's argument from 1985 that in the Yangzi River in Western Hubei only Late Qujialing Culture remains can be found on top of Late Daxi Culture remains (42).

Wang and Tian mainly rely on evidence that other scholars used to show a Daxi-Qujialing succession to argue for a mutual influence between the Daxi and Qujialing Cultures. Another example that shows how scholars from both sides of the debate often use the same evidence is the fact that ¹⁴C dates show a difference of about 1000 years between the occurrence of painted pottery in the Middle Daxi Culture and the Late Qujialing Culture. Wang and Tian use this to argue against an unbroken sequence of succession, where other scholars, such as Li Wenjie (1986) use it to argue against a mutual influence between two contemporaneous cultures.

Meng Huaping 1992 and 1993: A new approach

In 1992 Meng Huaping enters the scene on the side of the skeptics of the Daxi-Qujialing succession with a somewhat new approach to typological discussion. In order to avoid some of the biases associated with attacking or defending the extent of a certain archaeological culture or type, he would start his discussion by assigning anonymous numbers and letters to the typological groups he distinguishes, only giving them names ones he has clearly established their spatial and temporal relationship. If this system is really as inductive and bias-free as it appears remains debatable though, since Meng only presents us with the results of his thought processes.

Meng applies this method first to the Daxi Culture in the Yangzi River Valley in Western Hubei. He starts off with a detailed study of the internal chronologies and evolution of ceramic forms in the sites of Guanmiaoshan and Zhongbaodao as well as, to a lesser extent, Daxi, Yangjiawan, Gongjiadagou, and Qingshuitan.

One result of this examination is the distinction of two evolutionary lines or traditions in the pottery assemblages of the Daxi Culture. Line H⁴² is represented by various forms of red pottery with red slip and Line N consists of fine black or grey pottery, namely bent-walled cups, ring base bowls with rims that curve inward, high-ring-base dishes, and jars with

⁴²The naming appears to be based on the fabric, in which H stands for "hong" meaning "red" and N stands for "nizhi" meaning fine, levigated. The words for black and grey, "hei" and "hui" also start with the letter H.

narrow mouths (401). These lines are mostly distinguished chronologically. Line N dates later than Line H, but there is some overlap (403). In terms of their areas of distribution, N is completely contained in H (403). But in terms of their spatial extent, two groups can be distinguished within each line, a Western and an Eastern Group, wherein the Western Groups and the Eastern Groups of each line respectively are completely congruent with each other. The Western Group is located in the mountain areas of the Three Gorges right to where the Yangzi River exits them into the plains. Meng names it the Zhongbaodao Type (404). The Eastern Group is located along the Yangzi River and its tributaries in the flatland of the Western Jiangnan Plain. Meng names it the Guanmiaoshan Type (404).

Since the temporal transitions from one culture to another do not just occur through internal evolution, but also through influence from the outside (405), Meng then goes on to trace these possible contacts with other cultures.

The predecessor of Line H of the Zhongbaodao Type or Western Group can be found at the Chaotianzui site in the Three Gorges (404f.). But the bent-walled bowls and dishes in the Early Daxi Culture assemblage are very reminiscent of early remains from the Dongting Plain at sites such as Dingjiagang. These traits already appear in the Lower Zaoshi Culture, so these particular forms probably originate there (405). In the early remains of the Guanmiaoshan Type, or the Eastern Group, there are traits that can be traced to Yellow River Cultures such as Banpo or Hougang I. These ceramic traits include red pottery with red slip, tripods with conical feet and coarse red jars with horizontal grooves (405).

Then, in the Middle Daxi Culture, there are influences visible from the Miaodigou Culture in the north and the Tangjiagang Culture in the Dongting Plain. Meng also mentions possible contacts of the Middle Daxi Culture with the Majiayao Culture in the northwest, although according to current ¹⁴C dates there could hardly be a temporal overlap, and the Early Qujialing Culture in the Jiangnan Plain, although Meng does not specify what these might entail (405f.).

The N line finally enters the assemblage in the Late Middle Daxi Culture, Stage 5 out of 6 in Meng's periodization (398, fig. 1). According to Meng, it is equal to the Early

Qujialing Culture as represented by the sites of Liuhe and Qujialing in the Handong Region as well as Huachenggang and Chegushan in the Dongting Plain (406). During Stage 5 this new phenomenon, namely the black or grey pottery, is still in the minority (407). But its influence is much stronger in the Eastern than in the Western Group and their differences become amplified as a result. During the Late Daxi Culture, or Stage 6 out of 6, Line N already becomes predominant in the Eastern Group, making it indistinguishable from the Early Qujialing Culture in the Jiangnan Plain, while the Western Group continues its local tradition (407). Only after the end of the Daxi Culture, when both Groups are covered by the Late Qujialing Culture, do they become equalized again, although they still retain some localized characteristics.

Meng argues that only the H Line really represents the Daxi Culture proper and therefore its extent is limited to the Western and Eastern Groups or Zhongbaodao and Guanmiaoshan Types. All other types that have been suggested in other regions, such as the Tangjiagang Type (Li Wenjie 1986; He Jiejun 1987) or the Bianfan Type and Youziling Type (Zhang Xuqiu 1987a) should be excluded as different archaeological cultures (Meng Huaping 1992: 410). Meng reasserts that the Daxi Culture originates out of the Chengbeixi Culture (cf. Li Wenjie 1986; Wang Jie 1990). At the same time, he cites Wang Jie's (1990) observation that the Tangjiagang Culture appears as a successor to the Lower Zaoshi Culture. Meng distinguishes the assemblages represented by Early Bianfan and Youziling from the Daxi Culture by virtue of their featuring tripods as main cooking vessels whereas in the Early Daxi Culture the combination of round-based pots and vessel stands would be used for cooking. It had already been noted in 1985 in an article by Lu Depei that there is a shift from round-based pots as main cooking vessels in the Early Daxi Culture to tripods in the Late Daxi Culture (Lu Depei 1985: 74). Meng elevates this principle as the main indicator of the different tradition in the Jiangnan Plain represented by the Early Qujialing Culture, which would make an incursion on the Late Daxi Culture (411). The presence of ring-shaped vessel stands and some other typical Daxi Culture forms in the Youziling assemblage might be an indicator of an influence flowing in the other direction as well.

In 1993, Meng publishes an article based on his MA thesis from 1990. Using the same

approach as in his article from 1992, he expands the scope to include all Neolithic cultures in the Yangzi River Valley in Western Hubei, not just the Daxi Culture.

The earliest known remains are represented by the Pengtoushan Culture which is distributed in the mountainous areas south of the Yangzi River and the pre-mountainous areas of the Western Dongting Plain (47). The close contact between the Yangzi River Valley and the Dongting Plain persists through the Lower Zaoshi Culture, but many bowl types from the Yangzi River Valley during that early time period show similarities with remains from Lijiacun in the north (47). During the Early Daxi Culture cord marked decorations disappear, which might also be a result of influence from the north as represented by the Banpo and Hougang I Cultures (48). Interaction with the north in the form of the Miaodigou and Dahecun Cultures persists throughout the Middle Daxi Culture period. It is during that time that influences from the Early Qujialing Culture in the Handong Region become visible. These would persist and become stronger during the Late Daxi Culture, gradually transforming the Daxi Culture assemblage. On the other hand, the Daxi Culture itself exerts some influences in the other direction to the adjacent regions that become visible in Tanjialing, Dingjiagang, Xiawanggang, and Luosishan (48).

In spite of all the merits of Meng Huaping's systematic approach, he still only makes use of quantitative comparisons, or at least only demonstrates his use thereof, in special cases, such as his comparison of sherd counts from two sample contexts from Qingshuitan and Guanmiaoshan respectively to distinguish two subgroups (Meng Huaping 1993: 43, tab. 3).

Zhu Naicheng 1993 and Lin Bangcun 1994: New data from the Qujialing site

Already in 1989, a new layer had been discovered at the Qujialing site that lay underneath all the previously known cultural layers and featured mostly red pottery. In the report this phenomenon was named "Pre-Qujialing Culture", however Zhu Naicheng prefers to consider it part of the Daxi Culture (Zhu Naicheng 1993: 735). A proponent of the succession of the Qujialing Culture out of the Daxi Culture, Zhu compares these new Lower Qujialing

remains with various Daxi Culture sites as well as other sites in the Handong Region, such as Youziling and Tanjialing , and sites in the Dongting Plain (Zhu Naicheng 1993: 735). Consequently, he proposes that the newly discovered remains from Qujialing can be treated as a type of the Daxi Culture local to the Handong Region, together with the early remains from Youziling and Tanjialing (736). Zhu makes no reference of the fact though that this had already been done, in the case of the latter two sites at least, by Zhang Xuqiu (1987a) and subsequently disputed by Meng Huaping (1992). Although Zhu seeks to show that the Qujialing Culture developed in the Handong Region out of the Daxi Culture, he also emphasizes an influence from the north, represented by Bianfan, Diaolongbei, and Lower Qinglongquan apparent in the Lower Qujialing remains. According to Zhu's interpretation, these northern influences could have helped the transition from Daxi Culture to Qujialing Culture, but he also concedes that there is not enough material yet to define clearly the cultural origin of this northern influence (Zhu Naicheng 1993: 738f.).

Shen Qianghua 1994: A clarification on the Late Daxi Culture at Guanmiaoshan

Using the material from Guanmiaoshan as an example, Shen Qianghua (1994) seeks to prove that the Daxi Culture Period IV, namely Guanmiaoshan site phase IV, the period with black pottery, still belongs to the Daxi Culture and not to the Early Qujialing Culture as has been argued by He Jiejun (1987; 1989), Zhang Xuqiu (1987b), and Meng Huaping (1992).

Shen argues that the context representing Guanmiaoshan IV, namely the ditch G3, contains mostly red pottery, namely 40% of the overall assemblage, and then black pottery, at 30% of the overall assemblage (41ff.). Vessels with red slip or red exteriors and black interiors are common and various vessel forms are very similar to Daxi Culture vessels, if not the same. Still, there are some vessels in this context that are similar to the "Black Pottery Culture" proper or Early Qujialing Culture (43f.), which indicates that the Late Daxi Culture and the Early Qujialing Culture were contemporaneous, as does the fact that in the stratigraphy of Guanmiaoshan the Late Qujialing Culture follows straight upon the Late Daxi Culture.

A lot of Shen's argumentation is in line with what Wang Jie has been arguing for a while (especially Wang Jie 1985). Shen also adopts a method similar to Meng Huaping's to distinguish Qujialing Culture elements that must have come in from the outside, such as double-bellied vessels, shoulder vessels, and tripods with wedge-shaped legs that have rolled-in edges from the local substrate which features bowls with rims that are bent inward, large tripod bowls, and jars with grooved or otherwise decorated lips (44ff.). In the end, Shen's conclusion is similar to Meng's, although he does not cite it directly, namely that the Daxi Culture only existed in the Western Jiangnan Plain and Three Gorges Region, not in the Dongting Plain or Handong Region, and that the Qujialing Culture came into this region from the Handong Region mostly replacing the Daxi Culture (46f.). Shen's insistence that Guanmiaoshan IV still represents the Late Daxi Culture with some Early Qujialing Culture elements only illustrates the gradual process with which the Qujialing Culture assemblage took over as Meng Huaping had argued in his article from 1993.

Xiang Xucheng 1995 and Fang Xisheng 1995: Defending the Daxi Culture to Qujialing Culture succession

In the book titled "Archaeological finds and research in Hubei", published in 1995, Xiang Xucheng provides the chapter on the Daxi Culture and Fang Xisheng the chapter on the Qujialing Culture. Despite the recent challenges to the model of the Qujialing Culture forming out of the Daxi Culture by Meng Huaping (1992; 1993) and Shen Qianghua (1994), Xiang and Fang are still proponents of it.

Xiang divides the Daxi Culture into the Guanmiaoshan, Youziling, and Sanyuangong Types, which he claims all run parallel to each other (Xiang Xucheng 1995: 28ff.). His Youziling Type Period I is actually not present at the Youziling site, but instead represented by Bianfan site phase III.⁴³ The Youziling site phase I makes up Xiang's Daxi Culture Youziling Type Period II. With this model, Xiang still implicitly upholds his narrative of the Qujialing Culture developing in the Jiangnan Plain out of a local Daxi Culture variant,

⁴³Equivalent to Bianfan site phase II in Chapter 5.

namely the Youziling Type.

Fang Xisheng is more explicit when it comes to the debate of the Qujialing Culture origins. He discounts any suggestions of the Yangshao Culture or other northern culture providing the impetus for the formation of the Qujialing Culture on the grounds of the large economic differences: A rice-growing culture cannot develop out of a millet-growing culture (Fang Xisheng 1995: 47). In addition, the main areas of distribution of the Yangshao Culture and the Qujialing Culture are too different. In terms of the area of distribution, the mode of agriculture, and the ceramic typology, the Qujialing Culture aligns much better with the Daxi Culture (48). Fang largely supports Xiang's hypothesis of the Qujialing Culture developing in the Jiangnan Plain out of a local Daxi Culture substrate Fang calls the Daxi Culture Jiangnan Type (56). Some of the discrepancies between the Late Daxi Culture in Western Hubei and the Qujialing Culture can be explained by the latter expanding into that region from the Jiangnan Plain replacing the local variant of the Daxi Culture.

While neither Xiang nor Fang attempt to take on Meng Huaping's intricate typology – that would probably be an unsuitable task for the summarizing book chapters they intended to write – it is interesting to see that at least Fang employs an argument that is not grounded in ceramic typology, but economic considerations. Yet this demonstrates again the fallacy we see so often of treating archaeological cultures as these holistic packages of ceramic styles, stone tool types, burial customs, and indeed economic systems. Fang's line of reasoning suggests that one element out of the package, for example the ceramic style, could not be transmitted from one region to another without taking the other elements with it or already finding conditions in the new region that are compatible, such as the same style of agriculture. This is contradicted by as straightforward an example as the Daxi Culture pottery assemblage covering both the Western Jiangnan Plain and the eastern end of the Three Gorges, two regions with very different environments and hence very different economies. This is a good example of how the traditional concept of the archaeological culture can mislead our reasoning about processes in prehistoric times.

Lin Bangcun 1996: The reason behind the formation and spread of the Qujialing Culture

For Lin Bangcun, it is now clear that the Qujialing Culture did not develop out of the Daxi Culture, but instead out of what he calls the Bianfan Culture (1996: 67). Lin repeats Zhang Xuqiu's (1987a) realization that while remains resembling Bianfan III are present at Youziling and Tanjialing, the earlier remains of Bianfan I and II are only distributed in the northern Jiangnan Plain, in Zhongxiang County. He concludes that the Bianfan Culture spread into the Jiangnan Plain from north to south (Lin Bangcun 1996: 73). Lin estimates that the Bianfan Culture, together with the Zhujiatai Culture in Southern Henan, is a local variant of the Yangshao Culture. This means that, if true, the tradition that developed into the Qujialing Culture would have originated in the Yellow River Region in North China.

Lin is also the first scholar to address the question what led to the formation of a culture, the Qujialing Culture, that would then quickly expand and replace all surrounding local cultures. According to Lin, the answer lies in the development of the potter's wheel.⁴⁴ The characteristic black pottery of the transitional phase from the Late Daxi Culture to the Early Qujialing Culture is a manifestation of this new technology. Both in a direct way, as wheel-thrown pottery has been detected in the layers of Qujialing site phase III (cf. Lin Bangcun 1994). And in an indirect way, as Lin claims that the new fine black pottery is the result of a change in the firing process which is in turn a result of the introduction of the wheel – wheel-throwing led to such an increase in the speed and amount of pottery produced that the firing techniques had to be adjusted accordingly, although Lin does not explain in detail how the new firing technique is connected to the general changes in pottery production induced by the potter's wheel (Lin Bangcun 1996: 71). The site phases of Qujialing I and II show no traces of wheel-thrown pottery yet, although the new fine black pottery starts appearing in Qujialing II. There is evidence for wheel-thrown pottery as well from Guanmiaoshan, namely the ditch G3 which belongs to the site phase of Guanmiaoshan IV that is assigned either

⁴⁴This refers to the "fast wheel", the mechanically driven potter's wheel on which pottery is thrown, as opposed to the "slow wheel", the tournette on which vessels would be finished and decorated. Evidence for the latter dates to the Middle Daxi Culture.

to the Late Daxi Culture (Shen Qianghua 1994; Wang Jie 1990) or to the Early Qujialing Culture (He Jiejun 1987; 1989; Zhang Xuqiu 1987b; Meng Huaping 1992). If this context is considered to belong to the Late Daxi Culture, the presence of wheel-thrown pottery might be the result of an influence by the Early Qujialing Culture (Lin Bangcun 1996: 71f.). To Lin, the innovation of the potter's wheel also led to the rapid expansion of the Qujialing Culture into neighboring regions. The reason for this, according to his model, is the increased productivity that ensued in the Qujialing Culture, making it more "formidable" than the other cultures (71). I will discuss the conceptual validity of this explanation attempt in the conclusion, but for now I will remark that Lin Bangcun exploring the causes behind the formation of the Qujialing Culture is quite exceptional. Strangely, his hypothesis would only be mentioned in passing by other scholars, but hardly be scrutinized.

Meng Huaping 1997: The Grand System

In his book with the title "The system of prehistoric cultures at the Middle Yangzi River", published in 1997, Meng Huaping applies his approach from his previous articles (1992; 1993) to the whole Middle Yangzi River Region, including the Handong Region, the Yangzi River Valley in Western Hubei and the Three Gorges, the Dongting Plain, Northwest Hubei, and Southeast Hubei.

As he already hinted at in 1992, Meng sees two lines of development of Neolithic cultures in this region: A southern system characterized by the use of round pots with vessel stands as cooking vessels and a northern system characterized by the use of tripods as cooking vessels (Meng Huaping 1997: 172). In addition, the southern system features burial with flexed limbs while the northern system features burials with stretched limbs (191).

The southern system starts in the Dongting Plain in the form of the Pengtoushan Culture. Two strains split off the Pengtoushan Culture: The Lower Zaoshi Culture in the Dongting Plain, which would continue to form the Tangjiagang Culture, and the Chengbeixi Culture in the Yangzi River Valley which would lay the foundation for the Daxi Culture (172; 174, fig. 27).

The origin of the northern system is unclear, but it splits into two strains as well. One strain is located in the Handong Region. It starts with the Bianfan Culture. Unlike Lin Bangcun (1996), Meng only defines the remains of Bianfan I and II as Bianfan Culture. Developing out of it, starting with Bianfan III, is the Youziling Culture. The Qujialing Culture is the direct successor of the Youziling Culture. The other strain of the northern system is located in Northwest Hubei. It consists of the succession of the Xiawanggang Type⁴⁵, the Dasi Type, and the Zhujiatai Type. Another result of this strain are certain phenomena in Southeast Hubei and even in the Dongting Plain (172; 174, fig. 27).

Meng corrects his claim from 1992 that the type of remains largely made up of black pottery represents the Early Qujialing Culture. Instead, he now considers it an aspect of the Late Youziling Culture. The Youziling Culture is centered on the Youziling Culture Youziling Type in the Handong Region. From there it expands west into the Yangzi River Valley and the northern Dongting Plain to form the Youziling Culture Huachenggang Type. It also expands east to form the Youziling Culture Luosishan Type in Southeast Hubei (117). This means that while Meng does adhere to He Jiejun's (1982a) and Xiang Xucheng's (1985) model of a unified black pottery horizon, to him it is neither Late Daxi Culture nor Early Qujialing Culture, but instead Late Youziling Culture. In an article from the following year, Shen Qianghua would come to a similar conclusion about a Youziling Culture centered in the Handong Region, but he would still ascribe the expansion of a uniform pottery type to the Qujialing Culture while any forms with Jiangnan Plain characteristics in the earlier assemblages of Western Hubei would be due to mutual interaction between the Daxi Culture and the Youziling Culture ((**alias?**)).

Meng agrees with Lin Bangcun (1996) that the emergence of the potter's wheel in what he terms the Late Youziling Culture might have played a role in its rapid expansion (Meng Huaping 1997: 213). Similar to Lin, Meng cites raised productivity as the possible reason for its dominance over other cultures.

⁴⁵Apparently these types are not large enough for Meng to define them as cultures, but he also does not mention what overarching archaeological culture they would belong to, if any.

PHASE 4: The debate cools down

After Meng Huaping's exhaustive presentation of his model for the Neolithic period of the Middle Yangzi River region, the debate about the origin of the Qujialing Culture becomes considerably slower. However, this does not mean that everybody accepts Meng's model. Various scholars would still come up with different versions of the cultural history in this region or simply avoid taking a side in the debate. Nobody makes an effort to engage with Meng's typology in any detail, maybe owed to its complexity on the one hand and Meng's somewhat obscure use of letter and number codes for his typological units on the other hand.

Zhang Xuqiu and other authors 2004: The question is still open

In 2004, Zhang Xuqiu publishes a book about the Qujialing Culture intended to provide an exhaustive overview of all sorts of topics surrounding this archaeological culture. Zhang does not fail to provide a summary of the debate concerning the origin of the Qujialing Culture. But Zhang is hesitant to take a side. His only clear conclusion is that the Qujialing Culture originated in the Jiangnan Plain out of the Youziling remains. However, then it comes down to the question if this is a Youziling Culture that is independent from the Daxi Culture or a Daxi Culture Youziling Type. Zhang opts for using the latter denomination, but only "temporarily, until the discussion has been decided" (Zhang Xuqiu 2004: 22).

Zhang's discussion also contains a statement reminiscent of Wang Jie's article from 1987, that it is problematic to rely on fabric color to differentiate cultures (Zhang Xuqiu 2004: 14f.). Zhang also makes this remark in response to He Jiejun's (1982a) suggestion of the unified black pottery horizon. Zhang notes that the fabric color is mostly a result of the firing process. To him vessel shapes represent cultural choices better, but he does not expound on why that is.

In his summary of Neolithic archaeology in China, Zhang Zhiheng also concludes that the question of the origin of the Qujialing Culture is still open (Zhang Zhiheng 2004: 166). He agrees that the predecessor must be sought in the Jiangnan Plain, but claims that it is yet unclear what culture that is. Zhang does not mention the Youziling assemblage, but he

does not include the Jiangnan Plain in the area of distribution of the Daxi Culture either.

In another introduction to the Chinese Neolithic period, Zhang Jiangkai and Wei Jun claim that the discussion about the origin of the Qujialing Culture has never left the stalemate of the 1980s (Zhang Jiangkai and Wei Jun 2004: 157).

Guo Lixin raises some points in an article from 2004 that he believes everyone involved in the debate can now agree upon. According to Guo, the consensus is that the Qujialing Culture developed in the Handong Region out of the Black Pottery Culture, no matter if this culture is called Youziling Culture or Daxi Culture Youziling Type (Guo Lixin 2004: 73).

Guo Lixin 2005: The Daxi Period and the Pre-Qujialing Culture

In his book on early social complexity in the Middle Yangzi River Region, Guo Lixin gets more specific about how he envisions the relationship between the Daxi Culture and the Qujialing Culture (Guo Lixin 2005).

Guo chooses for his analysis to only consider vessel types that are very common in each assemblage in order to avoid bias created by outliers. His conclusion, after looking at material from various Neolithic sites, is that the Tangjiagang Culture and the Youziling Culture should indeed be distinguished from the Daxi Culture (40). Guo prefers to use the term "Daxi Period" to refer to all Neolithic remains in the Middle Yangzi River Region in the late 5th and 4th millennium BC (39ff.). This is akin to the now common practice in Chinese archaeology to speak of the Yangshao Period or the Longshan Period, since the original Yangshao Culture and Longshan Culture have become much too complex to be sustained as clearly delineated archaeological cultures. However, the Daxi Culture still exists as an archaeological culture limited to the Yangzi River Valley in Western Hubei and the Three Gorges. The usefulness of creating these overarching periods is questionable in my eyes, since they tend to mask the complexity of the cultural fabric that is actually present at the time. That being said, I am guilty of using the term "Yangshao Culture" for the remains of the 5th and 4th millennium BC in the Middle Han River Region, while aware that it is a very

generalizing shorthand that I am employing to make it more accessible for my comparison with other regions. I suppose a suitable compromise is that when we create these overarching terms, we have to acknowledge what we lose in accuracy as a result.

Guo also observes that during the Late Daxi Period, represented by Late Guanmiaoshan III and Guanmiaoshan IV (cf. Xiang Xucheng 1983a), the differences between the Daxi Culture, the Youziling Culture, and the Tangjiagang Culture gradually diminish culminating in the black pottery phase when a more-or-less unified assemblage can be found in all regions. Guo calls this black pottery phase "Pre-Qujialing Culture" (40f.). It lays the foundation for the wide spread of the Qujialing Culture. Guo Lixin's model largely aligns with Meng Huaping's (1997), with the only difference that he calls the stage of expansion from the Handong Region Pre-Qujialing Culture instead of Late Youziling Culture. To Guo the Youziling Culture only consists of the mainly red pottery represented by the Youziling site phase I and is confined to the Handong Region (55). I have adopted this terminology for my own periodization I present in Chapters 5 to 8.

Guo Weimin 2010: The Daxi-Qujialing succession hypothesis is alive and well

Just when it seems that the two expansive models of Meng Huaping (1997) and Guo Lixin (2005) are in agreement about an origin of the Qujialing Culture independent of the Daxi Culture, a new expansive model comes along to upset that notion. Guo Weimin's treatise on the Neolithic cultures of the Jiangnan Plain and the Dongting Plain⁴⁶ (2010) has to be counted on the side of the debate that promotes a succession of the Qujialing Culture out of the Daxi Culture, albeit an indirect and a much more complex succession than has previously been envisioned by its promoters.

Guo Weimin does admit the presence of early Neolithic remains in the Handong Region that are independent from the Daxi Culture. The Bianfan Culture is likely the product of a southward expansion of a northern assemblage represented by Xiawanggang I and Early Baligang (66f.). In addition, some remains from the Tucheng site in northeast Hubei might

⁴⁶Guo uses the alternative name "Liyang Plain" for the Dongting Plain.

even predate the Bianfan Culture. The Lower Tucheng assemblage contains red-brown pottery tempered with sand or organic material. Cord marks are common and common vessel shapes are double-handled jars, bowls, vessels stands, ring base vessels, and vessels with conical feet. These remains had already been mentioned in passing by Zhang Xuqiu (1987a) to show similarities with the Chengbeixi Culture.

It gets really interesting after the Bianfan Culture period though. By applying a finer chronology to some of the sites in the Handong region, Guo Weimin differentiates two phases of predominantly red pottery (Guo Weimin 2010: 76). Phase 1 is parallel to Guanmiaoshan II. It contains Tanjialing I, Youziling I stage I, Longzui stage I, and Qujialing I. Phase 2 is parallel to Guanmiaoshan III. It contains Tanjialing II, Youziling I stage II⁴⁷, Longzui stage II, and Liuhe I. Guo then proceeds to compare these assemblages to the Daxi Culture and illustrate the comparisons in tables. Phase 1 turns out to have more similarities than differences with the Daxi Culture assemblage (77, fig. 23). Phase 2, on the other hand, shows more differences than similarities with the Daxi Culture assemblage (78, fig. 34). Consequently, Guo designates Phase 1 as Daxi Culture Youziling Type and Phase 2 as Youziling Culture (79). The black pottery phase is a second period of the Youziling Culture (85f.), similar to Meng Huaping's model (1997). Its expansion and the subsequent formation and spread of the Qujialing Culture proceed just as Meng Huaping and Guo Lixin (2005) described. The one decisive difference in Guo Weimin's model is that the Youziling Culture does not originate from the Bianfan Culture, but is the result of an expansion of the Daxi Culture Guanmiaoshan Type II into the Handong Region (Guo Weimin 2010: 101). The Bianfan Culture disappeared under that influx of the Daxi Culture. Using the analytical methods I present in Chapter 9 to either confirm or contradict this model could bring a big advance in our understanding of the Neolithic in the Middle Yangzi River Region. However, as I will also illustrate in Chapter 9, the amount of data currently at my disposal is insufficient to make any statements on Guo Weimin's model. This endeavor would have to be a long-term research project.

⁴⁷This is Youziling II in Chapter 5.

Wang Jin 2010: The last stand of the skeptics

Thirty years after she kicked off the debate by taking a skeptical stance on the Daxi-Qujialing succession, Wang Jin returns with a defense of the skeptics' position (Wang Jin 2010). Her article is published shortly after Guo Weimin's book, so she unfortunately does not engage with his model. Otherwise, her model is very similar to Meng Huaping's (1997). This includes the distinction of a round-based pot tradition represented by the Daxi Culture from a tripod tradition represented by the Qujialing Culture. Maybe Wang Jin is already aware of Guo Weimin's theory after all, when she emphasizes that the Youziling Culture belongs firmly to the tripod tradition established in the Handong Region by the Bainfan Culture (Wang Jin 2010: 64f.). At the same time, she goes to lengths to illustrate the differences between the Youziling Culture and the Daxi Culture (68).

Wang Jin also challenges the simple narrative of a unified black pottery horizon. She illustrates, using the Wangjiagang site in the Dongting Plain as an example, that the bottles, bent-walled cups, and necked jars, among other forms, are quite different from the Early Qujialing Culture assemblage (70f.). Wang Jin advocates treating this assemblage still as Late Daxi Culture, similar to Shen Qianghua's (1994) inclusion of the black pottery at Guanmiaoshan into the Late Daxi Culture. In the Handong Region, on the other hand, the black pottery phase marks the transition from the Youziling Culture to the Qujialing Culture (Wang Jin 2010: 74). The existence of this unified Black Pottery Horizon is another question that still remains open even now. In the site catalogue of this thesis, I opt to have it represented by the "Pre-Qujialing Culture". However, as my analysis of miniature vessels from that period in Chapter 9 shows, its unified character can be called into question.

A brief conclusion

It is impressive to see how the narrative about the Late Neolithic Period in the Middle Yangzi River Region has grown within thirty-odd years from the discussion of the relationship between two cultures, the Daxi Culture and the Qujialing Culture, to a complex network

of a multitude of archaeological cultures and cultural sub-types interacting with each other and exchanging influences. My own quite simplified attempt of synthesizing a periodization and regional cultural sequences out of the published material is following in Chapter 5 to 8. For now I am going to comment less on the content of the debate but more on the way it progressed.

There seems to be a certain cyclical nature to some of its elements. From the existence or non-existence of a unified black pottery horizon to the role the Dongting Plain played in the formation of both Daxi Culture and Qujialing Culture, certain discussion points get revisited time and time again with the discussants mostly insisting upon their respective positions. One reason for this seems to be an occasional lack of awareness of publications not immediately addressing the specific point one is trying to argue. For example, it would take some time for the early remains discovered in the 1980s in the Jiangnan Plains to move into everyone's focus, even though their nature and relationship is vital to the core question of the debate. Furthermore, direct citations of related articles are sometimes lacking. Scholars would address each other directly in the debate, but not infrequently the other side of the discussion would be reduced to one or two older articles that at the time of publication would not reflect the current state of the discussion any more. I have to admit that I am being unfair by pitting the publications against each other so closely, since considerable time has to be accounted for their editing, print, and other preparatory steps. Particularly during the hot times of the debate in the 1980s, any given argument could, before it even reached print, have already been overtaken by some new point the other side brought up in the meantime. Nevertheless, even the essays that aim to summarize the debate only cite a fraction of the published works that I have assembled here. Salient points like Lin Bangcun's potter's wheel hypothesis (1996) easily get lost in the fray. In addition, in order to get involved in the debate one rarely has the time to examine and dissect monumental works like Meng Huaping's typological system of the whole region (1997). This last point might be a main reason why the debate just faded out a number of years ago without being resolved at all. In the end Wang Jin's argument (2010) stood against Guo Weimin's argument (2010) just like her argument (1980) stood against Li Wenjie's (1979) in the beginning.

Another problem lies in the inaccessibility of large typological frameworks like Meng Huaping's (1997) or Guo Weimin's (2010). They only ever reveal part of the process along with the conclusions. For example, quantitative analyses, if conducted at all, only get demonstrated sporadically. Sherd statistics are necessary parts of find documentation on any Chinese excavation just like anywhere else, but they do not always make it into the publications. In the end, the reader often has to take it upon the faith of the author that a certain assemblage really is similar or dissimilar to another one. The argument is often helped by comparative tables of vessel drawings, but the selection of representative forms for any given assemblage can also vary from author to author. Some of these complaints are fortunately owed to the age of the publications in question. Newer essays regularly involve a more rigorous use of technical and statistical analysis. For example, Guo Weimin (2010) makes the best use of the traditionally few ^{14}C dates that exist in the subject area, which certainly helps his argument. With this improvement in the range of analytical tools it might be only a matter of time until a new angle on the subject matter is found and the debate about the origin of the Qujialing Culture resumes with renewed vigor.

Chapter 5: Sites in the Handong Region - with an Introduction to Typological Categories

Introduction to the site catalogue

The following is a detailed account of some selected site in the Middle Yangzi River region. It is intended to provide some context to the discussion of the relationship between the Daxi Culture and the Qujialing Culture that I summarized in Chapter 4. In addition, it lists the data pertaining ceramic vessel types, particularly rim types, that I have distilled out of the published reports. The analysis in Chapter 9 is based in part on this data. Finally, this catalogue represents an attempt of a synthesis of varying viewpoints on the material laid out in different reports and review articles. As such, it may present a useful baseline for further investigations of the Late Neolithic Era in the Middle Yangzi River region.

My usage of archaeological cultures in this section of the thesis is still in line with how they have been employed in the publications that this is based upon. As such, the following chapters represent yet another part of setting the stage of how the cultural fabric of the Middle Yangzi River region in the Late Neolithic Period looked like from the perspective of traditional culture-historical archaeology. While chapters 5 through 8 introduce my own deliberations to the cultural sequences in each of the regions, they are still cultural sequences in the rather static, monolithic concept of "culture". Only after I have set up the framework thusly will I apply in chapter 9 the culture concept I have developed in chapter 2.

I have chosen for this catalogue to be deep rather than broad. This means that while it only covers between three and six sites per region in detail, it contains lists and descriptions of features and artifacts of these sites broken down by the occupation phases that can be distinguished at each site. The chronological focus is on the time period pertinent to the discussion outlined in Chapter 4: Beginning with the start of the Daxi Culture in the Middle

Yangzi River Region, the Bianfan Culture in the Handong Region, and the Yangshao Culture in the Middle Han River Region and ending with the end of the Qujialing Culture in all of these regions. Any occupation phases later than that I mention but do not describe. Although the Dongting Plain plays a frequent role in the discussion about the Daxi Culture - Qujialing Culture succession, this site catalogue could not do justice to the wealth of material that has already been published about it. Furthermore, the Daxi Culture in this region is closely entangled with the Tangjiagang Culture, which introduces an element to the study that is peripheral to the main focus of the discussion, but would have to be covered in any consideration of the Dongting Plain nevertheless. The same goes for the region of Eastern Hubei, featuring such sites as Luosishan and Fangyingtai, but here it would be the Xuejiagang Culture that enters into the frame of the investigation, taking it too far away from the main focus. The reason why I have chosen to eschew these two regions in favor of the Middle Han River Region in the north is that, as the discussion summarized in Chapter 4 has shown, it is the Yangshao Culture⁴⁸ in that latter region that may have contributed some important elements for the formation of the Qujialing Culture in the Handong Region. In addition, as outlined in Chapter 3, it is the expansion of the Qujialing Culture into this region that sets the stage for its participation in the "Lungshanoid Interaction Sphere".

I have stripped the descriptions of the features and artifacts provided in the reports down to the bare elements that are pertinent to the investigation of cultural relationships discussed here. I deal with certain features in slightly more detail, according to what is provided in the reports, since they can be indicative of certain practices which can play a role in the distinguishing of archaeological cultures. Naturally, the main focus is on the ceramic assemblages. My aim is not to reiterate the type distinctions already provided in the reports which frequently form the basis for the discussions of archaeological types and cultures outlined in Chapter 4. Instead, the purpose of these much simplified lists is the

⁴⁸While the term "Yangshao Culture" has become somewhat outdated in the discussion of Neolithic cultures of the Yellow River, it has seen continued use in the discussion of the remains in the Middle Han River Region. Following this trend, or rather resistance against a trend, I opt to employ the term "Yangshao Culture" here as a shorthand for what in many cases may be more accurately termed "Xiawanggang Culture" or "Zhujiatai Culture".

preparation of my own distinct approach to the material detailed in Chapter 9. For reasons explained in that chapter, I pay particular attention to the vessel rims. The code included in brackets after the vessel type indicates a rim type according to a system that I explain below. The number of vessels, if given, indicates the number of reconstructed vessels of a certain type. As can be expected, there are plenty of problems with the accuracy of these numbers. I will discuss these problems and the ways in which these numbers can and cannot be relied upon in Chapter 9.

Following the detailed accounts in each chapter of the site catalogue are lists of additional sites that feature assemblages of the pertinent time periods. These lists contain only sites that have been published in some way, be that in a detailed report, in a preliminary report, or in an account of surveyed sites. I list these additional sites here mainly for the purpose of reference to help further inquiries. Furthermore, these sites also feature in my distribution maps. For the sake of simplicity, I only mention the occupation periods of these sites that are of interest to my study, namely Daxi Culture, Bianfan Culture, Youziling Culture, Yangshao Culture, Pre-Qujialing Culture, and Qujialing Culture.

A table listing all sites presented for each region can be found at the end of the respective chapter.

Vessel types

The vessel type designations in the detailed site descriptions are meant to only imply form, not function, despite some of the terms being admittedly charged with functional connotations. Jars have quite closed shapes, their bodies ranging between globular and cylindrical. Some of them sport necks and their sizes range wildly between the miniature jars of the Pre-Qujialing Culture and large jars probably used for storage. Pots have wider mouths than jars in relation to their bodies giving them a more open shape. They tend to be a bit larger than jars on average. Vats are large vessels that either come in a more open cylindrical variant or a rather closed globular variant. Bottles are tall, constrained vessels. One specialty of the Daxi Culture is cylindrical bottles. But some of the assemblages also feature bottles with

globular bodies and high necks. There is a type of vessel specific to the Qujialing Culture that I opt to call "shoulder vessel". Shoulder vessels have round but flat bodies forming an ellipsoid or flattened ellipsoid and giving them the characteristic broad shoulders. They always have vertical or close-to-vertical necks without distinct rims and ring bases. Cups have bodies that are often approximating cylindrical shapes. They are usually smaller than jars. A frequent occurrence in Middle to Late Daxi Culture as well as Youziling Culture and Pre-Qujialing Culture assemblages are bent-walled cups. These start off with sharp bends in the earlier periods and develop into vessels with S-profiles later on. Basins generally resemble bowls in their shapes, but they are usually larger and often feature more angular bodies compared to the rounder bowl shapes. Basins also almost always feature distinct rims that are bent or curved off. Bowls are usually smaller than basins and can either have very basic shapes without distinct rims or rims that are bent or curved outward or inward. Dishes are similar to bowls in their general shape, but they are flatter and wider.

Naturally, the boundaries between different vessel shapes can be quite blurred. A deep dish can be close to a bowl and a deep bowl to a basin or even a pot or jar. I do not believe that a diverse Neolithic assemblage lends itself to the setting of artificial metric borders between one form and the next. The form designations are thusly based entirely on my own judgement of their shapes according to the published drawings and the vessels I encountered directly in the museum collections. I generally avoided a direct translation of type names from the Chinese. Due to its long history first in antiquarianism and then in archaeology, the traditional system of type designations in Chinese archaeology combines a variety of ordering principles with diverse goals and implications. For example, all tripodal vessels are subsumed in one category (鼎 *dǐng*) and all vessels with high ring bases in another (豆 *dòu*), regardless of the shapes of their bodies, be they dishes, bowls, or jars. Granted, the body shapes are then usually distinguished in sub-categories. However, since my system is intended to put the production aspect first and foremost, it distinguishes vessels first by the shape of their bodies and then by added features such as ring bases or specific rims.

I will explain the rim typology in detail below. As for base types, the default, if not otherwise noted, is flat-based. In many time periods in the Middle Yangzi River Region,

ring bases are actually more common than flat bases. But I do make notice of the occurrence of ring bases in order to also distinguish ring bases that are exceptionally high or wide or both. Stand rings are similar to very short ring bases, so short that they usually do not elevate the bottom of the vessel off the ground, but rather just provide a bit of stability.

I also included in the vessel category other ceramic artifacts that are technically not containers, but vessel-adjacent in their function. Lids frequently are just ring-based dishes or bowls turned over to cover other vessels, in which case I included them among whatever other vessel category suits them noting that they have been found in a context that suggested their use as lids. Some lids have knobs that prevent them to be turned over and used as dishes, in which case they form their own category. Vessel stands are large ring-shaped objects that allow for vessels to be placed on top acting effectively as high ring bases separate from the vessel body. Similarly, vessel supports are cone- or horn-shaped artifacts which can act as vessel feet.

Rim typology

In order to be able to account for the large diversity of rims present in the material, I have opted for a modular typology. I have split the rim into three components: The rim direction, the rim form, and the lip form. Every rim is represented by a combination of three values, one for each of the components. The numbers and letters indicating the values do not imply any inherent order; I chose them in the order I encountered the different forms among the material. As such, this typology does not represent all possible rims among all vessels ever produced, but rather only the vessels of the Late Neolithic in the Middle Yangzi River region. Of course, this typology could easily be expanded to include any additional rims as well.

The rim direction is represented by the first numeral [1-3]. It indicates the direction the vessel wall is going in the area around the rim and can often, but not always, be taken as an indicator if the general vessel shape is rather open or closed. The rim direction does not necessarily match the direction of the lip, however, in the case of rims that are bent or folded. Only in the case of straight or curved rims does the rim direction also indicate the

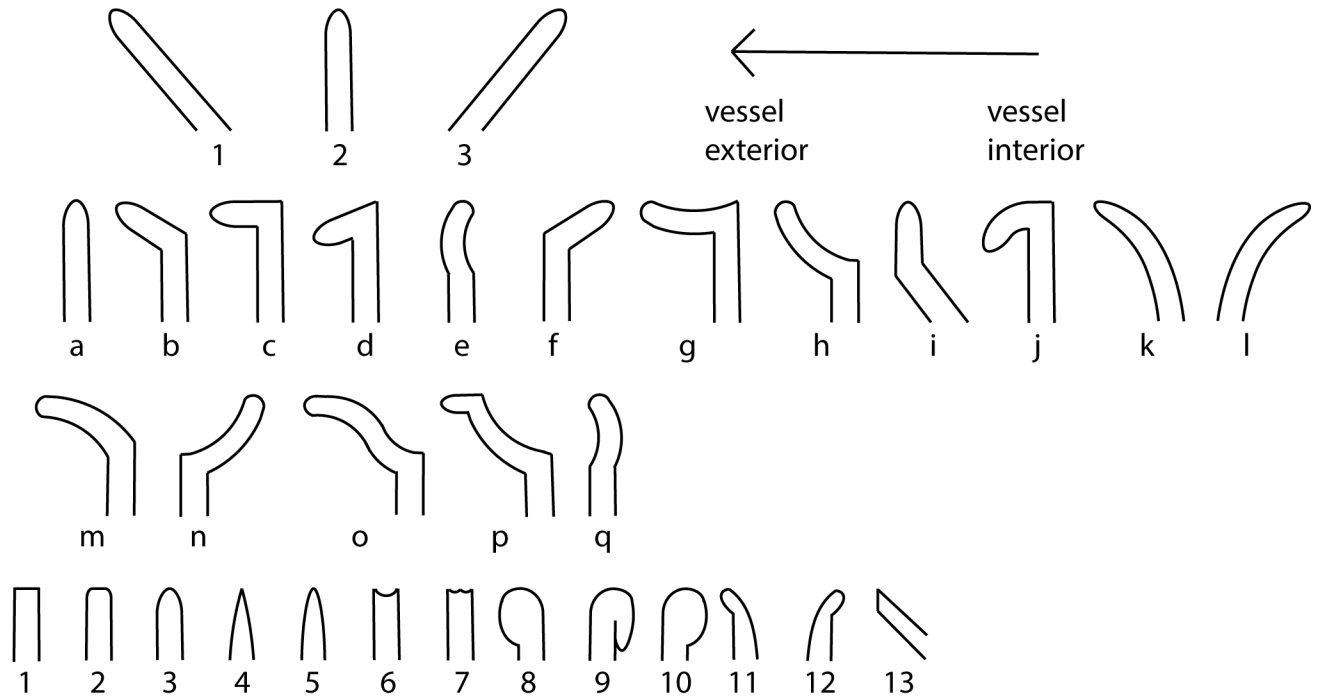


Figure 8: Rim Typology

lip direction. In the case of necked vessels, the rim direction indicates the direction of the neck wall, not the wall of the vessel body. A value of 1 indicates outward-turning rims; 2 indicates vertical rims; 3 indicates inward-turning rims.

The rim form is represented by the letter in the second position [a-r]. It includes rims that are bent, folded, or curved in either direction. Also included are combinations of these possibilities such as rims that are bent outward and then curved upward [h]. This rim typology does not include any information on the angle at which rims are bent, with the exception of rims that are bent straight upward to form a perfectly vertical lip [i] and rims that are bent straight outward to form a perfectly horizontal lip [c].

The lip form is represented by the numeral in third position [1-10]. It includes flat, rounded, and pointed lips as well as intermediary forms, such as flat-rounded. It also includes forms in which the lip is thickened in comparison to the rest of the rim wall either to the outside [8] or to the inside [10]. While type [6] covers lips with a single groove running along its middle, type [7] refers to rims with any number of grooves higher than one on top of the lip.

Other artifact types

Artifacts mentioned in the reports that are not ceramic vessels are also listed here. For the sake of brevity I do not provide any additional details, but I include references to where they can be found in the publications. An in-depth analysis of the lithic artifacts from these sites, for example, would exceed the scope of this thesis, but nevertheless the site catalogue could serve as a starting point for such an endeavor.

I eschewed any distinctions between tools and ornaments in these listings as any assumptions of function would require a more thorough investigation than what I can offer here.

The category "jade artifacts" is referring to the broader understanding of jade commonly employed in Chinese archaeology, which may include a variety of stones that are smooth and usually of opaque green or white-green color, although there can be a large diversity in coloration as well. This is unrelated to the more narrow geological category of jade which may or may not be represented among the material.

Accordingly, the category "bone artifacts" is a shorthand for any artifacts fashioned out of animal remains, including bone, shell, horn, antler, and tooth.

A Brief Introduction to the Handong Region

As can be gleaned from the discussion outlined in Chapter 4, the Handong Region plays a pivotal role in the transition from the Daxi Culture to the Qujialing Culture, as it is now commonly accepted as the region of origin of the Qujialing Culture. We can picture the Jiangnan Plain as separated into a western and an eastern portion by the portion of the Han River that is flowing south, coming down through the gap between the Jing Mountains and the Dahong Mountains. The Han River then makes a bend eastward to join the Yangzi River in a fork-like confluence, but that portion of the Han River, the Yangzi River, and the area in between would have been taken up by the Yunmeng Marsh in ancient times (see Chapter 3), which is why our area of interest lies north of that. The Handong Region essentially

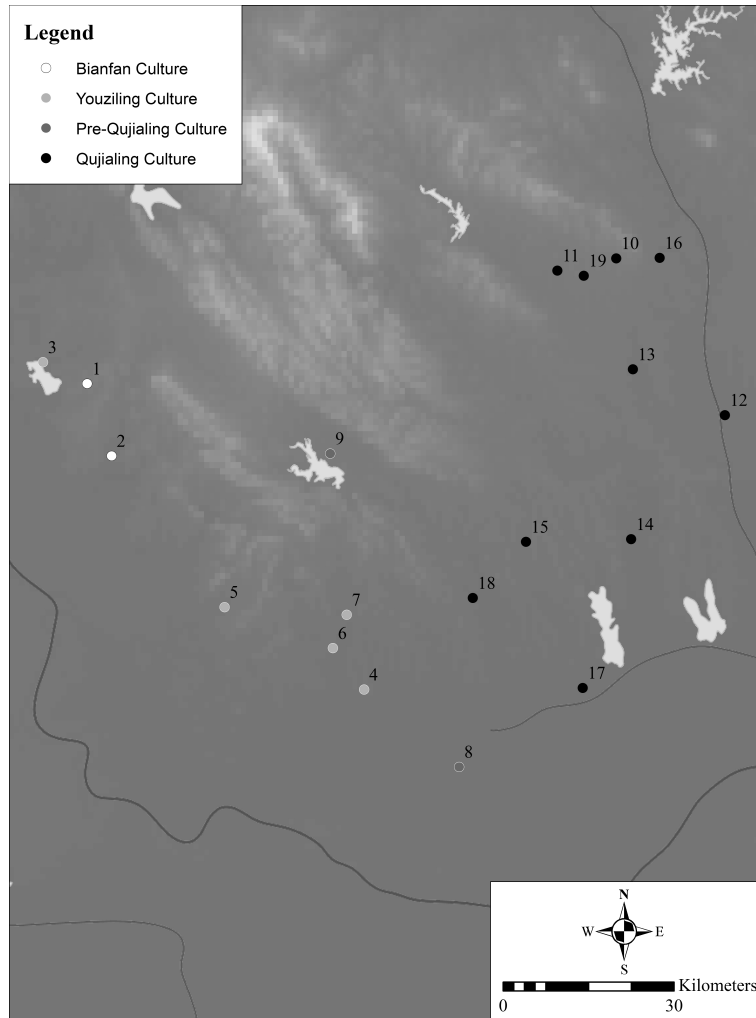


Figure 9: Map of sites in the Handong Region. 1. Bianfan 2. Cuijiatai 3. Liuhe 4. Longzui 5. Qujialing 6. Shijiahe 7. Youziling 8. Zhangjiashan 9. Zhujiazui 10. Bazifen 11. Dataizi 12. Gongzhai 13. Hujiashan 14. Menbanwan 15. Taojiahu 16. Wangguliu 17. Wangtai 18. Xiaocheng 19. Xiongjiazui. Symbol according to earliest occupation at the site among the cultures dealt with here.

constitutes the eastern section of the Jiangnan Plain thus divided.⁴⁹ It does, however, not extend all the way to the eastern end of the Jiangnan Plain. That area, as noted above, forms the distinct cultural region of Eastern Hubei with closer ties to the Lower Yangzi River Region. I follow Guo Weimin in setting the boundary between the Handong Region and the region of Eastern Hubei at the Yun River, also known as Fu River, that flows through the modern cities of Suizhou, Anlu, and Yunmeng (2010: 3). The western boundary of the Handong Region is obviously formed by the Han River, as is the southern boundary after its eastward bend. The region is bounded in the north by the Dahong Mountains.

Out of the sites presented here, most are located in the northern portion of the Handong Region, in the foothills of the Dahong Mountains. The only exceptions are Bianfan and Liuhe, which are located in the Han River Valley, close to its eastern shore, at the western edge of the Handong Region. The flatland at the very southern end of the Handong Region appears to be devoid of Neolithic sites (Guojia Wenwuju 2002), probably as a result of the spread of the Yunmeng Marsh.

No report, not even preliminary, has been published for the site of Bianfan and all information about the excavated assemblage has to be gleaned from summaries by scholars who have seen the material. On the other side of the spectrum, full reports have been published for Tanjialing and the second season of excavations at the Qujialing site. While the latter is comparably old and only represents an initial understanding of the Qujialing Culture, the former is a very recent, very detailed, and very useful account of large-scale excavations at the Tanjialing locality of the Shijiahe site. While another detailed report is available for the Dengjiawan (Shijiahe Kaogudui 2003) and Xiaojiawuji (Shijiahe Kaogudui 1999) localities of the Shijiahe site, their assemblage do not contain any material older than the Qujialing Culture and thus fall somewhat outside of the focus of this study. Preliminary reports of varying detail have been published for the third season of excavations at Qujialing as well as the sites of Longzui, Liuhe, and Youziling.

⁴⁹This is indicated in the name; the "Han" of "Handong" referring to the Han River and "dong" meaning east.

Main sites in the Handong Region

Bianfan

Settlement and cemetery: Bianfan Culture; settlement: Eastern Zhou Dynasty

Location: Hubei Province, Jingmen City, Zhongxiang City

In a slightly elevated plain

Fieldwork:

Excavations: 1st and 2nd seasons: 1984-1986; 1,100 m² (Zhang Xuqiu 1987a; Zhang Xuqiu 1992)

Site size: About 30 hectares

The Neolithic features that have been excavated are 12 pits and 61 pit graves.

Bianfan I

Cultural affiliation: Bianfan Culture occupation phases I and II (Zhang Xuqiu 1987a; Zhang Xuqiu 1992), Bianfan Culture (Lin Bangcun 1994; Xiang Xucheng 1995; Guo Weimin 2010), Early Bianfan Culture (Meng Huaping 1997)

Features: All the 61 graves are reported to date to this phase (Zhang Xuqiu 1987a: 57). No detailed information has been published.

Pottery: (Zhang Xuqiu 1987a: 57)

Fabric: Coarse red ware in the large majority of about 80-90%, mostly tempered with organic material, few instances of sand temper; some black pottery

Vessel forms: 6 globular tripodal jars [3b3]; 3 globular tripodal jars [3b5]; 2 globular tripodal jars [3h3]; 2 globular tripodal jars [3m3]; 1 globular tripodal jar [3b2]; 2 globular round-based jars [3m3]; 1 globular round-based jar [3b3]; 1 globular round-based jar [3b5]

Surface treatment/decoration: Most of the pottery features red slip; many instances of fine cord marks; shallow finger impressions at the upper part of the tripod feet; few instances of horizontal grooves, openwork

Bianfan II

Cultural affiliation: Daxi Culture Bianfan Type (Zhang Xuqiu 1987a), Daxi Culture Youziling Type I (Zhang Xuqiu 1992; Xiang Xucheng 1995), Late Bianfan Culture (Meng Huaping 1997)

Features: Pits and cultural layers. According to Zhang Xuqiu (1987a: 57), none of the excavated burials date to this phase, although Meng Huaping has noted an inconsistency between this statement and the typology (1997: 36, footnote 2).

Pottery: (Zhang Xuqiu 1987a: 57)

Fabric: Coarse red ware in the large majority of about 80-90%, less cases of organic temper, few instances of sand temper; some black pottery

Vessel forms: Large tripodal jars [3h8]; flat wide-necked wide-ring-based jars [3a8]; basins [1c3]; ring-based bowls [1l3]; bowls [2l3]; hourglass-shaped vessel stands

Surface treatment/decoration: Most of the pottery features red slip; horizontal grooves common; fewer instances of fine cord marks; deeper finger impressions at the upper part of the tripod feet, but less frequent occurrences; carved lines, poked impressions; few instances of openwork

Remarks

Unfortunately, no official report of the Bianfan site has been published yet, not even a preliminary report. The only published first-hand descriptions are provided by Zhang Xuqiu (1987a: 56-58; 1992: 107; 164-166), although various authors have referenced the material, for example Lin Bangcun (1994), Xiang Xucheng (1995), Meng Huaping (1997), and Guo Weimin (2010). Zhang Xuqiu distinguishes three Neolithic occupation phases. He provides descriptions of the ceramic characteristics of each phase, but he does not list the concrete features and artifacts associated with the respective phases. Meng Huaping (1997: 28) is more explicit in how he divides the features, but he only comes up with two Neolithic phases. He notes that Zhang's phases I and II are so similar that pending more comprehensive publication they cannot be distinguished. This assessment is seconded by Guo Weimin (2010: 68) and I have adopted the two-phase system here. I have used my observations of reconstructed vessels from Bianfan in the collection of the Jingzhou Museum to supplement the lists of vessel forms provided here. The concrete numbers of vessels given here are based thereupon.

Liuhe

Settlement: Youziling Culture, Pre-Qujialing Culture, Qujialing Culture, and Shijiahe Culture

Location: Hubei Province, Jingmen City, Zhongxiang City

A short distance north of the South Lake; on top of a hill that rises about 10 m above the surrounding countryside

Fieldwork:

Excavations: 1st and 2nd seasons: 1981 and 1983; northern, southern, and eastern area of the site, 875 m² (Jingzhou Diqu Bowuguan and Zhongxiang Xian Bowuguan 1987)

Site size: About 6 hectares

Liuhe I

Cultural affiliation: Daxi Culture Youziling Type (Jingzhou Diqu Bowuguan and Zhongxiang Xian Bowuguan 1987), Middle Youziling Culture (Meng Huaping 1997), Early Youziling Culture (Guo Weimin 2010)

Features: only cultural layers

Pottery: (Jingzhou Diqu Bowuguan and Zhongxiang Xian Bowuguan 1987: 3ff.)

Fabric: 70-80% red pottery, the rest black or a small amount of grey; 70% fine ware, the rest tempered with sand or, in a few cases, organic temper

Vessel forms: Many necked jars [2a8]; many necked jars [1a8]; some jars [3h3];
few pots [3b5];
some vats [3l3];
few bent-walled cups [1l3];

many basins [3l8];

a few tripod feet with elliptical or triangular cross-section; few high ring bases

Surface treatment/decoration: Mostly unadorned, some red slip, some horizontal grooves or shallow appliqué

Other pottery artifacts: 1 ring, 1 wedge-shaped object that could be a loomweight

Stone artifacts: 2 axes (Jingzhou Diqu Bowuguan and Zhongxiang Xian Bowuguan 1987: 3ff.)

Liuhe II

Cultural affiliation: Early Qujialing Culture (Jingzhou Diqu Bowuguan and Zhongxiang Xian Bowuguan 1987; Zhang Xuqiu 1987b), Daxi Culture IV (Xiang Xucheng 1985), Late Youziling Culture (Meng Huaping 1997; Guo Weimin 2010)

Features: 14 pit graves (Jingzhou Diqu Bowuguan and Zhongxiang Xian Bowuguan 1987: 5)
The grave pits are badly preserved; they were probably rectangular in outline. The skeletons are badly preserved as well, but the remains indicate supine burials with stretched limbs. The heads were pointing in southern direction. There were 7 primary and 6 secondary burials (1 undetermined), but the excavators do not explain how this was determined. Most of the burial goods are pottery vessels, their number per burial ranging from 2 to 25.

Pottery: (Jingzhou Diqu Bowuguan and Zhongxiang Xian Bowuguan 1987: 6-9)

Fabric: Out of the 126 vessels, there are 117 fine black vessels (92.9%), 8 fine grey vessels (6.3%), and 1 sand-tempered grey vessel (0.8%).

Vessel forms: 21 miniature necked stand ring jars [2a8]; 19 miniature necked ring-based jars [2b3]; 18 miniature tripodal jars [3b3]; 6 small tripodal jars with globular bodies [3h3]; 3 miniature necked tripodal jars [2b5]; 2 stand ring jars with lugs [3b3]; 1 stand ring jar [3b3]; 1 ring-based jar [3b3];

18 bent-walled cups [1a4];
1 basin [2b3]; 1 basin [2c3]; 1 basin [2d3];
6 ring-based bowls [3l3]; 1 high-ring-based bowl [3l3];
17 miniature ring-based dishes which acted as lids [1l3]; 2 small dishes which acted as lids [1l3];
4 concave hooked lids [1l3]

Surface treatment/decoration: 24 of the black vessels have been polished smoothly; some horizontal grooves and poked impressions; some openwork in the ring bases

Other pottery artifacts: 1 black pottery spindle whorl

Stone artifacts: 3 adzes, 2 perforated spades, 1 axe (Jingzhou Diqu Bowuguan and Zhongxiang Xian Bowuguan 1987: 5f.)

Liuhe III

Cultural affiliation: Early Qujialing Culture (Jingzhou Diqu Bowuguan and Zhongxiang Xian Bowuguan 1987; Meng Huaping 1997: 31f.), Late Youziling Culture (Guo Weimin 2010)

Features: 2 pits and cultural layers

Pottery: (Jingzhou Diqu Bowuguan and Zhongxiang Xian Bowuguan 1987: 10-12)

Fabric: Mostly fine black pottery, but smaller relative amount than in Liuhe II; larger relative amount of fine grey pottery than in Liuhe II; very small amount of red ware

Vessel forms: many tripodal jars [3h3]; many necked jars [2c2]; many jars [3b3]; some large jars [3b3]; a very large amount of large jars [3h3];
rather few bent-walled cups [1a4];
few shoulder vessels [2a3];
many large basins [3d3]; a few basins [3b3];
a few bowls [1h3]; a few ring-based bowls [3l5];

several stand ring dishes which acted as lids [113] or [1d4]; a few high-ring-based dishes [2l3] or [1b3];
few small lids [1a3]

Surface treatment/decoration: Some red slip; some horizontal grooves and poked impressions; some openwork in the ring bases; few instances of black-on-red paint

Other pottery artifacts: 36 large and 2 small spindle whorls

Stone artifacts: 2 axes, 1 chisel

Liuhe IV

Cultural affiliation: Late Qujialing Culture (Jingzhou Diqu Bowuguan and Zhongxiang Xian Bowuguan 1987; Meng Huaping 1997)

Features: 1 house, 14 pits, 6 pit graves, 6 possible urn graves (Jingzhou Diqu Bowuguan and Zhongxiang Xian Bowuguan 1987: 12)

The supposed remains of a house only consist of the roughly rectangular floor made from burnt clay mixed with small pebbles and an accumulation of burnt daub on the eastern side. No postholes or foundation trenches were uncovered.

There are six regular inhumations in rectangular pit graves (Jingzhou Diqu Bowuguan et al. 1987, 12). The grave pits were arranged in rows. The bodies were interred in supine position with stretched limbs and the heads pointing south. The unearthed burial goods consisted solely of pottery vessels, mostly bowls and jars.

There are also two instances of standing urns and four instances of urns of different sizes inserted in each other mouth-to-mouth. None of the urns contained any preserved human remains, but due to the way they are set up, the excavators address them as burials. One of the double-urn sets was placed on a bed of small pebbles and accompanied by lidded bowls and the lower mandible of a pig.

Pottery: (Jingzhou Diqu Bowuguan and Zhongxiang Xian Bowuguan 1987: 14-19)

Fabric: About half of the pottery is fine grey ware, about a third is fine black ware, the rest is fine red or yellow ware with rare instances of pottery tempered with sand or organic materials.⁵⁰

Vessel forms: 9 necked jars [2a8]; 4 stand ring jars with perforated bottoms that probably acted as steamers [2h3]; 4 large globular jars that were likely used as urns [3h3]; 2 ring-based jars [3b3]; 2 tripodal jars [3h3]; 1 jar [3b3]; 1 short-necked globular jar [2a3]; 1 stand ring jar with hook-shaped lugs below rim [2f3]; 1 necked tripodal jar [1a3]; 6 ring-based shoulder vessels [2a4]; 22 conical cups, some of which are painted [1a4]; 2 ring-based cups [3b5]; 1 large ring-based cup [2k3]; 1 bent-walled ring-based cup [1a5]; 5 tripodal basins [2h3]; 3 deep basins [3b3]; 1 basin with painted rim [1k3]; 1 large basin with strips of appliqué on rim [1k3]; some fragments of basins [3d3]; 12 ring-based bowls [1f3]; 4 ring-based bowls [2h3]; 1 ring-based bowl [2d5]; 1 bowl [2d3]; 1 high-ring-based bowl [1a3]; 1 ring-based bowl [2f3]; 5 ring-based dishes which acted as lids [1c5]; 3 double-bellied high-ring-based dishes [1b3]; 2 double-bellied ring-based dishes [1b3]; 2 small ring-based dishes which acted as lids [1a3]; 1 small dish with three little feet which acted as lid [1c3]; 1 small lid with a stem-like handle [1d5]

Surface treatment/decoration: Mostly undecorated with occasional horizontal grooves, black-on-red paint, or openwork ring bases

Other pottery artifacts: 169 spindle whorls, 29 of which are painted; 1 ring

Stone artifacts: 13 axes; 1 adze; 1 knife; 1 hammer

Liuhe V and VI belong to the Shijiahe Culture.

Remarks

⁵⁰The report Jingzhou Diqu Bowuguan and Zhongxiang Xian Bowuguan 1987: 14 gives the following numbers: 51% fine grey, 37% fine black, 9% fine red, 5% fine yellow. There must be an error here, because these numbers add up to 102%.

Meng Huaping splits both Liuhe II and Liuhe IV into two periods each. He divides the former on the grounds of the ceramic assemblage in one group graves differing from that in another group (Meng Huaping 1997: 31). The division of the latter period is based more on stratigraphic reasoning, but as Meng himself notes, the stratigraphy of the Late Qujialing Culture period seems a bit unclear and its assemblage often appears intermixed with the Shijiahe Culture assemblage (32). Chen Wen (2001: 68f.) also attempts a division of period IV which is actually at odds with Meng's in certain points. However, the stratigraphical relationships that Chen assumes are not reflected as such in the report and the features that Chen ends up sectioning out as part of the Late Qujialing Culture assemblage are not presented in the report. After comparing it with some other Qujialing Culture assemblages, I judge Liuhe phase IV to be more reflective of the Early Qujialing Culture as represented by Meng's Handong Region period 7 and Chen's Qujialing Culture period 3 than the Late Qujialing Culture of Meng's Handong Region period 8 and Chen's Qujialing Culture period 4.

Longzui

Walled settlement and cemetery: Youziling Culture

Location: Hubei Province, Tianmen City

Southern foothills of Dahong Mountains; at southern end of a hill called Longzuigang; small stream called Guanggouxi flows around it; about 6 km southeast of the Shijiahe site; 25 - 31 m above sea level

Fieldwork:

Excavations: 1st season: 1987; small scale excavation of 8 burials (Zhang Xuqiu 1992)

2nd season: March to September 2005: comprehensive rescue excavation, 1900 m² (Hubei Sheng Wenwu Kaogu Yanjiusuo 2008a)

Site size: 6 hectares inside enclosure

Altogether the excavated features include 1 rammed earth enclosure, 8 houses, 2 stoves, 52 pits, 12 ditches, 12 pit graves, and 8 urn graves. However, only the features listed below are described and dated in the preliminary report.

Longzui I

Cultural affiliation: Daxi Culture Youziling Type (Zhang Xuqiu 1992; Guo Weimin 2010), Early Youziling Culture (Meng Huaping 1997)

Features: 1 pit grave

Pottery: (Zhang Xuqiu 1992: 111, fig. 28)

Fabric: No detailed information is given

Vessel forms: 1 necked stand ring jar [2a3];

1 ring-based bowl [115];

1 ring-based dish [118]

Surface treatment/decoration: No detailed information is given

Longzui II

Cultural affiliation: Early Youziling Culture (Hubei Sheng Wenwu Kaogu Yanjiusuo 2008a)

Features: Pits, rammed earth enclosure, pit graves (Hubei Sheng Wenwu Kaogu Yanjiusuo 2008a: 5-10)

The rammed earth enclosure was started in this phase. Its shape is slightly irregular, but roughly rounded rectangular. Its north-south extent is 305 m and east-west 269 m. The wall is preserved to a height of up to 3 m and is 17 m wide at its base. It is surrounded by a moat about 18 m wide and up to 2.7 m deep.

M1, taken here as example for the inhumation graves, measures 184 cm x 72 cm and is 10 cm deep. It contains a supine body with stretched limbs, the head pointing west.

Ten ceramic vessels were arranged on the body's left flank.

Pottery: (Zhang Xuqiu 1992: 111, fig. 28; Hubei Sheng Wenwu Kaogu Yanjiusuo 2008a: 6; 8-10)

Fabric: Mostly fine black and fine red-brown or red ware, followed by pottery with organic temper; sand-tempered ware only appears occasionally

Vessel forms: 1 tripodal jar [3c3]; 2 tripodal jars [3b3]; 3 high-and-wide-ring-base jars [3k8];

1 necked ring-based jar [3a3];

1 ring-based cup [2b5];

1 stand ring bowl [1a4]; 1 stand ring bowl used as lid [1a8];

1 small ring-based dish used as lid [1a3]; 1 wide-ring-base dish [1b8]; 1 wide-ring-base dish [1e8]; 2 high-and-wide-ring-base dishes [1d3]; 1 high-and-wide-ring-base dish with

cup-shaped handle [1i3];

1 cylindrical vessel stand

Surface treatment/decoration: Horizontal grooves, stamped decorations, openwork

Longzui III

Cultural affiliation: Early Youziling Culture (Hubei Sheng Wenwu Kaogu Yanjiusuo 2008a)

Features: Houses, graves (Hubei Sheng Wenwu Kaogu Yanjiusuo 2008a: 10)

One of the houses and the burial given as an example here were dug into the rammed earth enclosure indicating that this was the period of its abandonment.

The pit of burial M9 measures 140 cm x 76 cm and is 30 cm deep. It is aligned in north-west south-eastern direction, but not enough remains of the body to indicate where the head pointed. The burial contained 22 ceramic vessels.

No information about the houses is given in the preliminary report.

Pottery: (Hubei Sheng Wenwu Kaogu Yanjiusuo 2008a: 10-13)

Fabric: Same as in phase I: Mostly fine black and fine red-brown or red ware, followed by pottery with organic temper; sand-tempered ware only appears occasionally

Vessel forms: 3 tripodal jars [3b3]; 3 high-necked high-ring-based jars [3b3]; 1 stand ring jar [3b3]; 1 ring-based jar [3b3]; 1 necked ring-based jar [3a3]; 1 necked high-ring-based jar [3a3];

6 small ring-based bowls used as lids [1l3]; 1 stand ring bowl [1l3]; 1 bowl [1a4];

1 high-ring-based dish with wavy lip [1a3]; 1 high-and-wide-ring-base dish [1a3]; 1 high-and-wide-ring-base dish [1a8]

Surface treatment/decoration: Same as in phase I: Horizontal grooves, stamped decorations, openwork

Longzui IV

Cultural affiliation: Middle Youziling Culture (Hubei Sheng Wenwu Kaogu Yanjiusuo 2008a)

Features: Pits (Hubei Sheng Wenwu Kaogu Yanjiusuo 2008a: 6f.)

Pottery: (Hubei Sheng Wenwu Kaogu Yanjiusuo 2008a: 6f.)

Fabric: Mostly fine grey ware; small amounts of organic-tempered red-brown ware and fine black ware

Vessel forms: 6 tripodal jars [3b3];

2 small ring-based dishes used as lids [113]; 1 small ring-based dish used as lid [1c3]; 1 small ring-based dish used as lid [1d3]

Surface treatment/decoration: Horizontal grooves

Remarks

Longzui I consists of one burial that is dated earlier than the other phases on typological grounds by Meng Huaping (1997) and Guo Weimin (2010).

Qujialing site Qujialing locality

Settlement: Youziling Culture, Pre-Qujialing Culture, Qujialing Culture, and Shijiahe Culture

Location: Hubei Province, Jingmen City, Jingshan County

small terrace north of the confluence of two small streams, Qingmu River and Qingmudang River; about 40 m above sea level

Fieldwork:

Surveys: 1954 (Wang Jin et al. 1955; Shilongguo Jiang Shuiku Zhihuiibu Wenwu Gongzuodui 1956); 2007 (Hubei Sheng Wenwu Kaogu Yanjiusuo and Jingshan Xian Bowuguan 2008)

Excavations: 1st season: February 1955; southern part of the site, 80 m²

2nd season: June 1956 to February 1957; northern part of the site, 858 m² (Zhongguo Kexueyuan Kaogu Yanjiusuo 1965)

3rd season: July to August 1989; northeastern part of the site, 87.5 m² (Qujialing Kaogu Fajuedui 1992)

Site size: 40 hectares

Qujialing I

Cultural affiliation: Pre-Qujialing Culture (Qujialing Kaogu Fajuedui 1992), Late Daxi Culture (Zhu Naicheng 1993), Bianfan Culture IV (Lin Bangcun 1994), Early Youziling Culture (Meng Huaping 1997), Daxi Culture Youziling Type (Guo Weimin 2010)

Features: 1 possible building, 3 pits, 2 urn graves (Qujialing Kaogu Fajuedui 1992: 65f.)

The presence of a house or structure of some other kind is suggested by a group of assumed postholes that had been dug into the sterile soil. The report does not mention

how many holes were discovered and their sizes vary to a large degree with diameters ranging between 16 and 40 cm and depths ranging between 8 and 16 cm. Since no other evidence for a building was preserved, the assumption of these holes containing the posts of a contiguous structure is tentative.

Two urn burials consist each of a large jar buried lying on its side. They contain badly preserved remains of infant skeletons.

Pottery: (Qujialing Kaogu Fajuedui 1992: 66-71)

Fabric: According to the sherd count of Trenches T1-T3: 44% organic-tempered red ware, 26% fine grey ware, 19% fine black ware, 6% fine red ware, 2% sand-tempered red ware, 2% organic-tempered brown ware, 0.3% fine orange ware

Vessel forms: 12 jars [3b3]; 5 small high-necked jars [2a8] or [2d5]; 4 necked jars [2c3]; 2 large jars [3b3]; 2 small jars [3b3]; 1 jar [2a8]; 1 small jar [3c1]; 1 small jar with bands of red paint [3b3];

2 large pots [3a8];

5 basins [3l5];

3 ring-based bowls [1f3]; 3 ring-based bowls [3b3]; 3 stand ring bowls [3l3]; 1 bowl [3l5];

1 bowl [2l4];

2 wide-ring-base dishes [1i2]; 2 dishes [1i8]; 2 dishes with narrow ring bases, which were used as lids [1l5]; 10 wide ring bases of various dishes;

18 tripodal feet of various shapes; 3 vessel stands

Surface treatment/decoration: Mostly unadorned, but some horizontal grooves; few cases of jagged rims, openwork ring bases, strips of appliqué, fine string marks, impresso, and paint

Other pottery artifacts: 2 black discoid spindle whorls, 1 small brown ring, 1 small grey ball (Qujialing Kaogu Fajuedui 1992: 71)

Stone artifacts: 3 axes (Qujialing Kaogu Fajuedui 1992: 71)

Qujialing II

Cultural affiliation: Initial Qujialing Culture (Qujialing Kaogu Fajuedui 1992; Lin Bangcun 1994), Early Youziling Culture (Guo Weimin 2010)

Features: 1 possible building, cultural layers (Qujialing Kaogu Fajuedui 1992: 72)

The possible building remains consist of 6 postholes and an accumulation of burnt daub.

Pottery: (Qujialing Kaogu Fajuedui 1992: 72-76)

Fabric: According to the sherd count of Trenches T1-T3: 36% fine black ware, 26% fine grey ware, 24% organic-tempered red ware, 5% fine red ware, 4% organic-tempered brown ware, 2% fine grey-white ware, 1% sand-tempered red ware, 0.6% organic-tempered grey ware, 0.4% fine orange ware

Vessel forms: 5 miniature tripod jars [3b5]; 1 jar with perforated bottom, probably used for steaming, without preserved rim; large necked jars [1a8]; large jars [3b3]; large jars [1k3]; large jars [3j3]; large jars [3c3]; necked jars [2a8]; necked jars [2b3]; small jars [3b3]; small jars [3k3]; pots [1a8]; pots [1k3]; vats [3b3]; vats [2k8]; vats [3h3]; vats [3a8]; vats [3c3]; vats [2c3]; large basins [3l3]; basins [2c1]; 2 bowls [2f5]; 2 bowls [3f5]; 1 ring-based bowl [1k3]; bowls [2b3]; bowls [1f3]; dishes [2b3]; lids with cup-shaped knob; 1 concave lid with cup-shaped knob; 2 vessel stands; 25 tripod feet

Surface treatment/decoration: Horizontal grooves common; horizontal ridges; some open-work, appliqué, stamped impressions, black paint

Other pottery artifacts: 4 spindle whorls; 3 balls; 1 ring (Qujialing Kaogu Fajuedui 1992: 77)

Stone artifacts: 6 axes; 2 perforated spades; 3 stone balls (Qujialing Kaogu Fajuedui 1992: 76)

Qujialing III

Cultural affiliation: Early Qujialing Culture (Qujialing Kaogu Fajuedui 1992), Qujialing Culture II/Early Qujialing Culture I (Lin Bangcun 1994), Lower Qujialing Culture (Chen Wen 2001), Late Youziling Culture (Meng Huaping 1997; Guo Weimin 2010)

Features: 13 pit graves, 2 urn graves (Qujialing Kaogu Fajuedui 1992: 77-79)

11 of the burials cluster together closely with frequent overlap. All grave pits are rectangular; their average size is 200 cm x 78 cm with an average depth of 17 cm. The general alignment is NNE-SSW, but two graves are in perpendicular alignment to that. Only few skeletal remains are preserved; they indicate supine burials with stretched limbs and the heads pointing SSW. The number of vessels given as burial goods normally differ between 2 and 13, but there is one burial with 50 vessels and one burial with 70 vessels.

Pottery: (Qujialing Kaogu Fajuedui 1992: 80-89)

Fabric: All levigated fine ware; 87% black ware, 12% grey ware, 0.5% red ware

Vessel forms: 102 small tripodal jars [3b3 or 3h3]; 1 small necked jar [1a3]; 1 necked jar [1a11]; 1 jar [3b3]; 2 stand ring jars [3b3]; 1 small high-necked ring-based jar [1k3]; 1 miniature necked stand ring jar [1k3]; 2 miniature ring-based jars [2k3]; 1 tripodal pot [3c3]; 1 deep pot [2d3]; 5 vats [3b3]; 7 bent-walled stand ring cups [3l5]; 3 bent-walled ring-based cups [2l5]; 2 bent-walled stand ring cups [1k5]; 31 deep high-ring-based bowls [3b3]; 1 deep high-ring-based bowl [2b3]; 4 ring-based bowls [1f5];

1 ring-based dish [113]; 5 small ring-based dishes used as lids [113]; 2 small high-ring-based dishes used as lids [1h3]; 1 small high-ring-based dish used as lid [113]; 4 ring-based dishes used as lids [1c3];

2 biconical vessel stands

Surface treatment/decoration: Horizontal grooves, horizontal ridges, openwork, poked impressions, ripples, carved lines

Other pottery artifacts: 1 ball (Qujialing Kaogu Fajuedui 1992: 89)

Qujialing IV

Cultural affiliation: Early Qujialing Culture (Zhongguo Kexueyuan Kaogu Yanjiusuo 1965; Wang Jin 1980), Qujialing Culture III/Early Qujialing Culture II (Lin Bangcun 1994)

Features: 24 pits, 1 burial, cultural layers (Zhongguo Kexueyuan Kaogu Yanjiusuo 1965: 8; 12)

No grave pit was detected for the burial, so that the excavators speculate the body might have been laid on the even ground. Only part of the skeletal remains were preserved, they indicate a supine burial with stretched limbs and the head pointing east. The burial contained 4 small tripodal jars and 1 ring-based vessel.

Pottery: (Zhongguo Kexueyuan Kaogu Yanjiusuo 1965: 8-12; 16-20)

Fabric: Mostly fine black followed by fine grey; small amounts of fine red ware, coarse brown ware, and coarse black ware

Vessel forms: Small tripodal jars [3b3]; small jars [3b3]; small jars [3i3]; jars [3h3]; necked jars [1a3]; necked jars [2a8];

pots [2c3];

vats [3b3]; vats [3c3];

bent-walled cups [2l5]; cups with painted decorations [1k4];

1 stemmed shoulder vessel with painted decoration [2a3];
many basins [3m3]; many basins [2c3]; basins [1a3];
bowls [1d3]; bowls with painted decorations [1k4];
small ring-based dishes used as lids [1c3]; small ring-based dishes used as lids [1l3]; small
dishes with three small feet [1l3]; wide-stand-ring dishes with painted decorations [1k4]

Surface treatment/decoration: Some red paint

Other pottery artifacts: 37 spindle whorls; rings; 18 balls; 1 phallic object, probably part of
a composite object like those discovered at Shijiahe; 3 zoomorphic figurines: 1 bird,
1 horned animal, 1 unidentified (Zhongguo Kexueyuan Kaogu Yanjiusuo 1965: 15f.;
20-23)

Stone artifacts: 29 axes; 2 adzes; 2 knives; 5 chisels; 2 spades; 1 stone ball (Zhongguo Kexueyuan Kaogu Yanjiusuo 1965: 12-15; 23)

Jade artifacts: 2 small and 3 large perforated pendants (Zhongguo Kexueyuan Kaogu Yanjiusuo 1965: 21)

Qujialing V

Cultural affiliation: Late Qujialing Culture I (Zhongguo Kexueyuan Kaogu Yanjiusuo 1965),
Middle Qujialing Culture (Wang Jin 1980), Qujialing Culture IV (Lin Bangcun 1994),
Early Qujialing Culture (Chen Wen 2001)

Features: 1 accumulation of burned earth, 1 burial, cultural layers (Zhongguo Kexueyuan Kaogu Yanjiusuo 1965: 24f.)

The accumulation of burned earth covers about 30 m² and might be the remains of a collapsed building. It contained a lot of rice remains.

The burial does not include a discernible grave pit or any burial goods. Only some human bones are left. They indicate a supine burial with stretched limbs and the head pointing southeast.

Pottery: (Zhongguo Kexueyuan Kaogu Yanjiusuo 1965: 31-37)

Fabric: No data given.

Vessel forms: 6 tripodal jars [3h3]; 1 stand ring jar with perforated bottom, probably used for steaming [3b3]; stand ring jars, some with spouts [3b3]; high-ring-based jars [2h3]; large high-necked jars [2l3]; small jars [3h3]; 1 vat [2d3]; 1 small conical ring-based cup [1a3]; small thin-walled cylindrical stand ring cups [2b4]; thin-walled conical cups, often painted [1a4]; 3 high-ring-based shoulder vessels [1a4]; 1 large basin [1b3]; 4 double-bellied tripodal bowls [2h6]; small ring-based bowls [1a3]; ring-based bowls, some with perforated lugs attached to the belly [2a5]; thin-walled bowls, often painted [1a4]; ring-based bowls [1d3]; ring-based dishes [1a2]; double-bellied high-ring-based dishes [1h3]; dishes with three small feet [1l3]; dishes with three small feet [1d3]; stand ring dishes used as lids [1c3]; small ring-based dishes used as lids [1l3]; small ring-based dishes used as lids [1c3]

Surface treatment/decoration: Fair amount of painted pottery

Other pottery artifacts: 1 arrowhead; spindle whorls, unpainted and painted; 8 unpainted rings, 7 painted rings; 10 balls (Zhongguo Kexueyuan Kaogu Yanjiusuo 1965: 29-31; 37-39)

Stone artifacts: 36 axes; adzes; 3 chisels; 1 pestle; 2 knives; 3 sickles; arrowheads; 3 stone balls (Zhongguo Kexueyuan Kaogu Yanjiusuo 1965: 27-29; 39)

Qujialing VI

Cultural affiliation: Late Qujialing Culture II (Zhongguo Kexueyuan Kaogu Yanjiusuo 1965), Middle Qujialing Culture (Wang Jin 1980), Qujialing Culture V (Lin Bangcun 1994), Early Qujialing Culture (Chen Wen 2001)

Features: 1 earthen platform, 1 burial, cultural layers (Zhongguo Kexueyuan Kaogu Yanjiusuo 1965: 39)

The platform consists of burnt earth and measures 8.9 m x 6.6 m with a height of 0.55 m. There is another irregular patch of burnt earth next to it that contained six holes. The function of either is unknown.

The burial includes neither grave pit nor burial goods, but the skeletal remains indicate a burial with flexed limbs. It is oriented SSE-NNW.

Pottery: (Zhongguo Kexueyuan Kaogu Yanjiusuo 1965: 49-67)

Fabric: No data given.

Vessel forms: Tripod jars [3b3]; necked jars [2a5]; necked jars [1a8]; jars [3b3]; stand ring jars [2l3]; 1 high-ring-based jar [3h3]; 5 stand ring jars with perforated bottom, probably used for steaming [2h3]; 1 flat ring-based jar [3h3]; 2 flat short-necked jars [2b3]; tripodal pots [3b2]; stand ring pots [1h3]; ring-based pots [3b3]; ring-based pots [1m3]; pots [3m3]; vats [2b3]; vats [3h3]; vats [3o3]; vats [3o2]; thin-walled conical cups, some painted [1a4]; thin-walled stand ring cups [1k4]; small conical ring-based cups [1a3]; high-ring-based cups [3b3]; high-ring-based cups [3h3]; high-ring-based shoulder vessels [1a4]; 1 large pointed-based basin [1k8]; basins [1d5]; basins [2l8]; ring-based bowls [1l3]; ring-based bowls [1d3]; ring-based bowls [1f3]; thin-walled stand ring bowls, often painted [1a4]; ring-based bowls used as lids [1l3]; double-bellied tripodal dishes with high feet [2h3]; double-bellied ring-base dishes [1h5]; double-bellied high-ring-based dishes [1h3]; small dishes with three small feet [1l3]; small dishes with three small feet [1d3]; high-ring-based dishes [1q3]; 2 high-and-wide ring-based dishes [1c3]; small lids with cup-shaped knobs [1l3 or 1c3]; conical lids

Surface treatment/decoration: Horizontal ridges, appliqué, paint

Other pottery artifacts: 1 sickle; 3 arrowheads; 3 pins, two of which are perforated; spindle whorls, many of which are painted; rings, painted and unpainted; balls, four of which are painted; conical objects, possibly phallic; 2 bird figurines; parts of large composite objects as found at Shijiahe (Zhongguo Kexueyuan Kaogu Yanjiusuo 1965: 42; 44-49; 63-65; 67; 69-71)

Stone artifacts: 87 axes; 7 adzes; 2 knives; 6 sickles; 2 chisels; 9 perforated spades; 4 drills; 1 pestle; 89 arrowheads; 1 spearhead; small axes and adzes; rings; 4 stone balls; 1 conical object, possibly phallic (Zhongguo Kexueyuan Kaogu Yanjiusuo 1965: 39-45; 67; 69)

Jade artifacts: Pendants in various shapes, perforated (Zhongguo Kexueyuan Kaogu Yanjiusuo 1965: 67-69)

Bone artifacts: 2 awls; 1 needle (Zhongguo Kexueyuan Kaogu Yanjiusuo 1965: 46; 49)

Qujialing VII

Cultural affiliation: Late Qujialing Culture II (Zhongguo Kexueyuan Kaogu Yanjiusuo 1965), Late Qujialing Culture (Chen Wen 2001)

Features: Only cultural layers

Pottery: (Zhongguo Kexueyuan Kaogu Yanjiusuo 1965: 49-67)

Fabric: No data given

Vessel forms: 1 jar [3b2];

2 thin-walled conical cups [1a4]; 1 small conical ring-based cup [1a3]; 1 high-ring-based cup [3b3];

2 ring-based bowls [1b3]; 2 ring-based bowls [1d3];

1 double-bellied tripod dish with high feet [2h3]; 1 high-ring-based dish [1c3]; 2 deep high-ring-based dishes [1a3];

1 painted lid with flat knob [1f3]

Surface treatment/decoration: Horizontal ridges

Stone artifacts: 1 sickle; 1 arrowhead; 1 drill (Zhongguo Kexueyuan Kaogu Yanjiusuo 1965: 39-45; 67; 69)

Remarks

Both phases VI and VII are subsumed under the "Late Phase II" in the 1965 report, but I split them following Chen Wen's (2001) assessment of the material. Chen further splits what is phase VI here, but the sub-phases created thusly all end up in the main period "Early Qujialing Culture", so I did not take that additional step.

Shijiahe site Tanjialing locality

Settlement and cemetery: Youziling Culture; Settlement: Pre-Qujialing Culture, Qujialing Culture, Shijiahe Culture, and Post-Shijiahe Culture

Location: Hubei Province, Tianmen City

transitional area between hilly country in the north and plain in the south; flanked by two rivers, the West River and East River

center of the Shijiahe site, inside the enclosure, 191.4 m above sea level

Fieldwork:

Surveys: 1950s

Test excavation: 1982

Excavations: 1st season: October to December 1987; center and northern part of the locality, 280 m² (Shijiahe Kaogudui 2011)

2nd season: October to November 1989; southeastern part of the locality, 185 m² (Shijiahe Kaogudui 2011)

3rd season: March to April 2011; southern part of the locality, near the Sanfangwan locality, 50 m² (Hubei Sheng Wenwu Kaogu Yanjiusuo and Beijing Daxue Kaogu Wenbo Xueyuan 2015b)

Site size: Over 20 hectares

Tanjialing I

Cultural affiliation: Youziling Culture (Shijiahe Kaogudui 2011), Early Youziling Culture (Meng Huaping 1997), Daxi Culture Youziling Type (Guo Weimin 2010)

Features: 4 pit graves, 1 urn grave; cultural layers (Shijiahe Kaogudui 2011: 14-19)

The grave pits of the inhumation burials measure on average about 175 cm x 50 cm with a depth of about 20 cm. The bodies are buried in supine position with stretched limbs. The orientations differ wildly with the heads pointing southeast, north, or west. Three of the graves are in a cemetery with later graves and all of them are overlapped by later grave pits. The only preserved burial goods are ceramic vessels.

The urn burial consisted only of the deep-basin-shaped urn buried upright in a pit fitting its size. No human remains or burial goods were detected.

Pottery: (Shijiahe Kaogudui 2011: 19-31)

Fabric: About 60% fine red ware, followed by fine black and fine grey ware; small amounts of coarse red ware tempered with sand or organic material

Vessel forms: 2 stand ring jars [3b3]; 2 jars [3b8]; 3 tripodal jars [3b3]; 1 ring-based jar [3b3]; 1 ring-based jar [3m3]; 1 necked high-ring-based jar [3a3]; 1 necked tripodal jar with small wedge-shaped feet [113];
1 vat [3b8];
1 deep basin used as urn [3d3];
5 stand ring bowls with painted decorations [115]; 7 stand ring bowls with painted decorations without preserved rims; 3 ring-based bowls [113]; 1 ring-based bowl [2a3];
1 deep ring-based bowl [1f3]; 1 ring-based bowl used as lid [215];
2 high-stemmed dishes [113]; 1 high-and-wide-ring-base dish [112]; 1 high-and-wide-ring-base dish [113]; 1 high-and-wide-ring-base dish with wavy lip [1c2]; 1 high-ring-based dish [113]; 1 high-ring-based dish [1c3]; 1 ring-based dish [118]; 4 ring-based dishes used as lids [113]; 1 ring-based dish used as lid [1c3];
2 lids with cup-shaped knobs [113]; 1 lid with spike-shaped knob [113]; 4 concave lids with stem-like knobs

Surface treatment/decoration: Dark red slip common with fine red ware; horizontal grooves, poked impressions, openwork, stamped circles; painted decorations on fine red bowls, mostly in black, but some in brown or red

Other pottery artifacts: 3 spindle whorls; 1 ball (Shijiahe Kaogudui 2011: 27f.)

Stone artifacts: 2 axes from cultural layers, not the burials (Shijiahe Kaogudui 2011: 15)

Tanjialing II

Cultural affiliation: Youziling Culture (Shijiahe Kaogudui 2011), Middle Youziling Culture (Meng Huaping 1997), Early Youziling Culture (Guo Weimin 2010)

Features: 16 pit graves, 2 urn graves; cultural layers (Shijiahe Kaogudui 2011: 33-45)

The grave pits of the inhumation burials measure on average about 175 cm x 70 cm with an average depth of about 20 cm. All bodies are buried in supine position with stretched limbs. The pits are now all oriented in east-western direction with the heads pointing west. Three of the burials are described as possible secondary burials due to the irregular arrangement of bones. Apart from four graves, all contain ceramic burials goods.

One of the urn burials consisted of the urn standing upright in a fitting pit. It contained a small lid and the remnants of an infant skull and long bones. The other burials consisted of two urns stuck into each other mouth-to-mouth. Each urn contained a painted bowl.

Pottery: (Shijiahe Kaogudui 2011: 46-68)

Fabric: Similar to phase I: About 60% fine red ware, followed by fine black and fine grey ware; small amounts of coarse red ware tempered with sand or organic material

Vessel forms: 38 tripodal jars [3b3]; 1 short-necked high-ring-based jar [2a3]; 3 small necked stand ring jars [2a3]; 1 jar with spout below rim [3b2];
3 globular round-based pots [3b3]; 1 small ring-based pot [2h4];
1 short-necked vat [2b2];
1 bent-walled cup [3l3]; 1 bent-walled stand ring cup [1k3];
1 basin [2d3]; 1 basin [3l3];

7 stand ring bowls with painted decorations [1a5]; 7 stand ring bowls with painted decorations without preserved rims;

2 stemmed dishes [1f3]; 42 small high-ring-based dishes used as lids [118]; 3 small high-ring-based dishes used as lids [113]; 10 small stemmed dishes used as lids [1c3]; 1 small ring-based dish used as lid [113]; 1 small ring-based dish used as lid [1f5]

Surface treatment/decoration: Light red slip common with fine red ware, still some dark red slip; decoration similar to phase I: Horizontal grooves, poked impressions, openwork, stamped circles; painted decorations on fine red bowls, mostly in black, but some in brown or red

Other pottery artifacts: 4 spindle whorls, one of which is painted; 2 balls (Shijiahe Kaogudui 2011: 60f.)

Stone artifacts: 3 axes (Shijiahe Kaogudui 2011: 46)

Tanjialing III

Cultural affiliation: Youziling Culture (Shijiahe Kaogudui 2011), Late Youziling Culture (Meng Huaping 1997; Guo Weimin 2010)

Features: 4 pits, 4 urn graves (Shijiahe Kaogudui 2011: 70-73)

All urn burials consisted of urns standing upright in pits fitting their size. One urn contained a lid; another urn had two lids underneath its bottom.

Pottery: (Shijiahe Kaogudui 2011: 70-111)

Fabric: Mostly fine red, but relatively less than in phases I and II; increasing number of grey and black vessels

Vessel forms: 19 small tripodal jars [3h3]; 17 small tripodal jars [3b3]; 1 large globular jar [3k8]; 1 jar [3h5]; 3 necked jars [1a8]; 2 necked jars [2a8]; 2 necked jars [2a5]; 2 globular necked jars [115]; 4 jars [3b3]; 2 jars [3b8]; 1 stand ring jar with perforated bottom,

probably for steaming [3h3]; 1 necked ring-based jar with pronounced shoulders and painted decoration [2a3];
1 pot [3b3]; 1 pot [3b8];
1 bent-walled cup [2a5]; 1 bent-walled cup [113];
1 painted shoulder vessel [1a3];
1 painted bottle without preserved rim;
1 deep ring-based basin with painted decoration [2b3]; 1 basin with painted decoration [2b3]; 4 basins with painted decoration [2c3]; 1 basin with painted decoration [1c3]; 2 large basins with carved decorations on top of rim [2c3]; 2 basins [2c3];
3 stand ring bowls with painted decorations [114]; 1 stand ring bowl with painted decoration [214]; 1 stand ring bowl with painted decoration [1a4]; 20 stand ring bowls with painted decoration without preserved rim; 1 bowl with painted decoration [113]; 1 ring-based bowl [2a3]; 1 high-ring-based bowl [1c5]; 1 stand ring bowl [2n3]; 1 stand ring bowl [3l3];
1 high-ring-based dish [1h3]; 1 dish [1i3]; 1 ring-based dish [1f3]; 9 small ring-based dishes used as lids [113]; 6 small ring-based dishes used as lids [118]; 17 small ring-based dishes used as lids [1c3]; 2 small ring-based dishes used as lids [1d3]; 14 small dishes with three little feet, used as lids [113];
6 conical lids; 13 conical lid knobs with appliqué decorations; 1 hourglass-shaped vessel stand; 3 conical vessel stands; 2 cylindrical vessel stands;

Surface treatment/decoration: Red slip still common, but thinner and lighter in color than in phases I and II; horizontal grooves, appliqué, openwork, carved decorations; several instances of painted decorations, mostly in black, but some in brown or red, patterns tend towards simplification

Other pottery artifacts: 1 bell-shaped object; 1 arrowhead; 8 balls; 39 spindle whorls (Shijiahe Kaogudui 2011: 99; 109-121)

Stone artifacts: 6 axes; 1 perforated axe; 3 adzes (Shijiahe Kaogudui 2011: 73-75)

Tanjialing IV

Cultural affiliation: Qujialing Culture (Shijiahe Kaogudui 2011)

Features: 6 houses, 12 pits (Shijiahe Kaogudui 2011: 123-138)

Five of the houses are rectangular, while one has a more oval outline. The walls are being described as consisting of mud, sometimes fire-hardened, containing sand, but none of the walls, nor the house interiors contain any detectable postholes. Perhaps, instead of wattle-and-daub, this is an example of pisé or some other adobe technique. One of the houses contained the charred remains of woven matting on the floor.

Pottery: (Shijiahe Kaogudui 2011: 143-173)

Fabric: Mostly fine grey ware, followed by fine black ware and fine red ware; some coarse red ware in the form of cooking or storage vessels

Vessel forms: 11 small tripodal jars [3h3]; 6 small tripodal jars [3b3]; 2 small tripodal jars [2h3]; 1 necked jar [2a3]; 1 necked jar [1h3]; 1 necked jar [1a3]; 1 necked jar [3h3]; 10 small necked jars [2a3]; 2 large necked jars with nine little feet [1b2]; 3 short-necked jars [1a3]; 1 large jar [3e3]; 1 large jar [3m3]; 1 jar [3b10]; 1 jar [2b3]; 1 large short-necked jar [2a8]; 3 stand ring jars with perforated bottom, probably used for steaming [3h2]; 1 stand ring jar with perforated bottom, probably used for steaming [2h3]; 2 stand ring jars with perforated bottom, probably used for steaming [3o2];

1 vat [3b2]; 1 vat [3c2]; 1 vat [3e2];

9 thin-walled conical cups [1a4]; 2 ring-based cups [3a3]; 4 ring-based cups [2a3]; 1 tall ring-based cup [3b3]; 1 high-ring-based cup [3b3]; 1 high-ring-based cup [2k3]; 1 bent-walled cup without preserved rim;

1 ring-based shoulder vessel [1a3]; 1 stand ring shoulder vessel [2a4];

2 stand ring basins [2m3]; 2 stand ring basins [2o3]; 4 stand ring basins [1b3]; 1 stand ring basin [2c3]; 1 stand ring basin [2d3]; 1 basin [1d3];

1 double-bellied tripodal bowl [1h3]; 1 double-bellied tripodal bowl [1h2]; 3 double-bellied tripodal bowls [2h2]; 1 double-bellied tripodal bowl [1b3]; 1 ring-based bowl

[1l3]; 2 ring-based bowls [1k3]; 2 ring-based bowls [2c3]; 3 ring-based bowls [1d3]; 5 high-ring-based bowls [1d3]; 1 ring-based bowl [1l8]; 1 double-bellied ring-based bowl [1m3];

8 double-bellied ring-based dishes [1h3]; 4 double-bellied ring-based dishes [1b3]; 1 double-bellied ring-based dish [1m3]; 4 double-bellied high-ring-based dishes [1h3]; 3 double-bellied high-ring-based dishes [1b3]; 3 small ring-based dishes used as lids [1l3]; 2 ring-based dishes used as lids [1l3]; 1 ring-based dish used as lid [1c3]; 4 small ring-based dishes used as lids [1c3]; 2 small ring-based dishes used as lids [1l8]; 3 small dishes with three little feet, used as lids [1c3]; 11 small dishes with three little feet, used as lids [1d3]; 10 small dishes with three little feet, used as lids [1l3];

12 small concave lids with stem-like knobs; 3 small conical lids; various tripod feet; 1 conical vessel stand

Surface treatment/decoration: Painted decorations on certain vessels and spindle whorls

Other pottery artifacts: 2 fragments of composite ritual objects; 14 painted spindle whorls; 36 spindle whorls; 3 balls (Shijiahe Kaogudui 2011: 173-181; 187)

Stone artifacts: 18 axes; 5 adzes; 1 perforated knife; 3 arrowheads; 3 phallic objects (Shijiahe Kaogudui 2011: 139-143)

Tanjialing V

Cultural affiliation: Qujialing Culture (Shijiahe Kaogudui 2011), Late Qujialing Culture (Meng Huaping 1997)

Features: 2 pits (Shijiahe Kaogudui 2011: 130-137)

Pottery: (Shijiahe Kaogudui 2011: 143-173)

Fabric: Mostly grey and black ware; few instances of red ware

Vessel forms: 2 small tripodal jars [3h3]; 2 necked jars [2h3]; 2 necked jars [1h3]; 3 necked jars [1k3]; 1 small necked jar [2a3];
1 vat [3b2];
6 thin-walled conical cups [1k4]; 4 thin-walled conical cups [1a4]; 1 thin-walled conical cup [1l4]; 2 high-ring-based cups [3b3]; 1 tall ring-based cup [3b3];
2 ring-based shoulder vessels [1a3];
1 large round-based basin [1k8]; 1 basin [1d3];
1 ring-based bowl [1l3]; 1 ring-based bowl [1d3]; 1 double-bellied high-ring-based bowl [1b3];
2 double-bellied ring-based dishes [1b3];
2 small conical lids

Surface treatment/decoration: Few instances of red slip; horizontal grooves, some black-on-red paint

The phases Tanjialing VI and VII belong to the Shijiahe Culture and Post-Shijiahe Culture respectively.

Remarks

The excavations in 2011 uncovered the preserved remains of rows of wooden posts, possibly a pier going out into a body of water existing there at the time (Hubei Sheng Wenwu Kaogu Yanjiusuo and Beijing Daxue Kaogu Wenbo Xueyuan 2015b: 55f.; 72f.). However, the dating is unclear, so it could belong to any of the occupation phases present at the site.

Although the Qujialing Culture occupation phases, Tanjialing IV and V, are presented as one period in the 2011 report, the authors suggest the sub-division undertaken here in the conclusion of the chapter describing these remains (Shijiahe Kaogudui 2011: 188f.).

Youziling

Settlement and cemetery: Youziling Culture, Pre-Qujialing Culture, and Qujialing Culture

Location: Hubei Province, Jingmen City, Jingshan County

Plain east of East River (Dong He)

Fieldwork:

Surveys: 1982

Excavations: 1985; northwestern edge of the site, 100 m² (Hubei Sheng Jingzhou Diqu Bowuguan 1994)

Youziling I

Cultural affiliation: Daxi Culture Youziling Type (Hubei Sheng Jingzhou Diqu Bowuguan 1994; Guo Weimin 2010), Daxi Culture Youziling Type II (Xiang Xucheng 1995), Early Youziling Culture (Meng Huaping 1997)

Features: Only cultural layers

Pottery: (Hubei Sheng Jingzhou Diqu Bowuguan 1994: 866-873)

Fabric: Mostly red pottery, followed by black pottery; very little grey pottery; example of Trench 1 layer 5: 54% fine red, 18% sand-tempered red, 15% fine black, 6% organic-tempered red, 3% fine grey, 2% sand-tempered black, 2% sand-tempered grey

Vessel forms: 1 small tripodal jar [3c3]; 1 globular tripodal jar [3m3]; 1 ring-based jar [2k8]; 1 ring-based jar [3n3]; 1 small jar with single spike-shaped handle [3b5]; 1 large short-necked jar [1d3]; 1 large necked jar [2a8]; 1 jar [3b3]; 1 large jar [3b3]; 1 ring-based jar [1f5];

1 pot [1d5];
1 vat [3d5]; 1 vat [3a8];
1 bent-walled high-ring-based bowl [1k3]; 1 high-and-wide-ring-base bowl [1a3]; 1 ring-based bowl [115]; 2 thin-walled bowls [114];
1 wide-ring-base dish [118]; 2 high-and-wide-ring-base dishes [1d3]; 1 high-and-wide-ring-base dish [118]; many small ring-based dishes used as lids [113];
conical lids; hourglass-shaped vessel stands; drum-shaped vessel stands; various tripod feet

Surface treatment/decoration: Horizontal grooves, openwork in bases, poked impressions, thumb impressions on tripod feet, carved lines, stamped impressions, appliqué, few instances of black paint

Stone artifacts: 1 chisel (Hubei Sheng Jingzhou Diqu Bowuguan 1994: 866)

Youziling II

Cultural affiliation:Cultural affiliation: Daxi Culture Youziling Type (Hubei Sheng Jingzhou Diqu Bowuguan 1994), Daxi Culture Youziling Type II (Xiang Xucheng 1995), Early Youziling Culture (Meng Huaping 1997; Guo Weimin 2010)

Features: 1 pit, 4 pit graves (Hubei Sheng Jingzhou Diqu Bowuguan 1994: 866)

The outlines of the grave pits are unclear, but the ceramic vessels buried in them were arranged in rows in north-south direction - 2 to 8 vessels in one grave. No skeletal remains were preserved.

Pottery: (Hubei Sheng Jingzhou Diqu Bowuguan 1994: 866-873)

Fabric: Not clearly stated, since phase is not separated from Youziling I in the report; presumably mostly red followed by black ware

Vessel forms: 2 small tripodal jars [3b3]; 1 small tripodal jar [3c3]; 1 globular tripodal jar [3b3]; 2 globular jars [3m3]; 1 large globular jar with two lugs on the shoulder [3b3]; 6

ring-based jars [3h3]; 5 stand ring jars [3h3]; 1 ring-based jar [2k3]; 1 small high-necked ring-based jar [2b2]; 1 small jar [3c5]; 2 necked jars [2b3]; 1 globular jar [3i3]; 1 necked jar [3a8]; 1 ring-based jar [1f5];

1 pot [3a8];

1 vat [3b8]; 1 vat [3l3]; 1 vat [3a3]; 1 vat [3a8];

1 wide tripod basin [2c6]; 2 large basins [3d5]; 2 large basins [3l3]; 1 basin [2l8];

1 wide-ring-base bowl [2a3]; 1 high-ring-based bowl [2d3]; 1 bowl [1a3]; 1 stand ring bowl [3l3];

1 high-and-wide-ring-base dish [2l3]; 1 high-ring-based dish [1l8]; 1 dish [1f3]; many small ring-based dishes used as lids [1l3];

concave lids with cup-shaped knobs; conical lids; hourglass-shaped vessel stands; various tripod feet; 2 cup-shaped handles

Surface treatment/decoration: Horizontal grooves, openwork in bases, poked impressions, thumb impressions on tripod feet, carved lines, stamped impressions, appliqué, few instances of black paint

Other pottery artifacts: 1 ball (Hubei Sheng Jingzhou Diqu Bowuguan 1994: 873)

Stone artifacts: 2 axes; 1 chisel (Hubei Sheng Jingzhou Diqu Bowuguan 1994: 866)

Youziling III

Cultural affiliation: Early Qujialing Culture (Hubei Sheng Jingzhou Diqu Bowuguan 1994), Middle Youziling Culture (Meng Huaping 1997), Late Youziling Culture (Guo Weimin 2010)

Features: 7 burials with unclear grave pits and no preserved skeletal remains (Hubei Sheng Jingzhou Diqu Bowuguan 1994: 873)

Pottery: All the pottery is from the burials; 24 vessels altogether, including lids (Hubei Sheng Jingzhou Diqu Bowuguan 1994: 873f.).

Fabric: Almost all fine black ware, only few instances of fine grey ware

Vessel forms: 1 small tripod jar without preserved rim; 4 small ring-based jars [3b3]; 8 high-ring-based jars [2f5];

11 small ring-based dishes used as lids [113 or 1c3]

Surface treatment/decoration: Horizontal grooves, openwork in bases

Youziling IV

Cultural affiliation: Late Qujialing Culture (Hubei Sheng Jingzhou Diqu Bowuguan 1994),
Early Qujialing Culture (Meng Huaping 1997)

Features: 2 pits (Hubei Sheng Jingzhou Diqu Bowuguan 1994: 874)

Pottery: (Hubei Sheng Jingzhou Diqu Bowuguan 1994: 874-876)

Fabric: Unclear because of split of periods IV and V; probably mostly fine ware; mostly black and grey ware; some red ware

Vessel forms: 2 small tripod jars [3b3]; 1 small high-ring-based jar [3b5];

1 ring-based shoulder vessel [2a5];

1 double-bellied ring-based bowl [1h3];

2 small dishes with three small feet, used as lids [1c5]

Surface treatment/decoration: Horizontal grooves, openwork in bases; small amounts of appliqué and painted ware

Youziling V

Cultural affiliation: Late Qujialing Culture (Hubei Sheng Jingzhou Diqu Bowuguan 1994;
Meng Huaping 1997)

Features: 1 pit (Hubei Sheng Jingzhou Diqu Bowuguan 1994: 874)

Pottery: (Hubei Sheng Jingzhou Diqu Bowuguan 1994: 874-876)

Fabric: Unclear because of split of periods IV and V; probably mostly fine ware; mostly black and grey ware

Vessel forms: 1 small tripod jar [3b3]; 1 miniature high-ring-based jar [3b5];

5 thin-walled conical cups [1a4]; 3 high-ring-based cups [3h3];

2 ring-based shoulder vessels [2a5];

1 ring-based basin [3h3];

1 double-bellied ring-based bowl [1h3]; 2 stand ring bowls [2f5]; 1 stand ring bowl [2d3];

2 small dishes with three small feet, used as lids [1l3]; 1 small dish with three small feet, used as lid [1c5]

Surface treatment/decoration: Horizontal grooves, openwork in bases; small amounts of appliqué and painted ware

Other pottery artifacts: 3 spindle whorls (Hubei Sheng Jingzhou Diqu Bowuguan 1994: 874)

Remarks

The preliminary report from 1994 only distinguishes three occupation phases. But both Meng Huaping (1997) and Guo Weimin (2010) have suggested splitting the original phase I into two; these are the phases I and II presented here. The report also suggested only one Qujialing Culture phase, which Meng furthermore splits into an Early Qujialing Culture and a Late Qujialing Culture phase. These are the phases IV and V presented here.

Additional sites in the Handong Region

Bazifen

Qujialing Culture site in Hubei Province, Xiaogan City, Anlu City; surveyed (Xiaogan Shi Bowuguan 1993)

Cuijiatai

Bianfan Culture and Pre-Qujialing Culture site in Hubei Province, Jingmen City, Zhongxiang City; surveyed (Zhongxiang Shi Bowuguan 2010)

Dataizi

Qujialing Culture site in Hubei Province, Xiaogan City, Anlu City; surveyed (Xiaogan Shi Bowuguan 1993)

Gongzhai

Qujialing Culture site in Hubei Province, Xiaogan City, Yunmeng County; surveyed (Yunmeng Xian Bowuguan 1987)

Hujiashan

Qujialing Culture site in Hubei Province, Xiaogan City, Anlu City; surveyed (Xiaogan Diqu Bowuguan 1986; Xiaogan Shi Bowuguan 1993)

Menbanwan

Qujialing Culture walled settlement in Hubei Province, Xiaogan City, Yingcheng City; excavated (Pu Xianjun and Cai Xianqi 1980; Xiaogan Diqu Bowuguan 1986; Xiaogan Diqu Bowuguan 1989)

Qujialing site Dahechang locality

Qujialing Culture site in Hubei Province, Jingmen City, Jingshan County; surveyed (Hubei Sheng Wenwu Kaogu Yanjiusuo and Jingshan Xian Bowuguan 2008)

Qujialing site Jiumuyan locality

Youziling Culture and Qujialing Culture site in Hubei Province, Jingmen City, Jingshan County; surveyed (Hubei Sheng Wenwu Kaogu Yanjiusuo and Jingshan Xian Bowuguan 2008)

Qujialing site Tudishan locality

Qujialing Culture site in Hubei Province, Jingmen City, Jingshan County; surveyed (Hubei Sheng Wenwu Kaogu Yanjiusuo and Jingshan Xian Bowuguan 2008)

Qujialing site Xiongjialing locality

Qujialing Culture site in Hubei Province, Jingmen City, Jingshan County; surveyed (Hubei Sheng Wenwu Kaogu Yanjiusuo and Jingshan Xian Bowuguan 2008)

Qujialing site Yangwan locality

Qujialing Culture site in Hubei Province, Jingmen City, Jingshan County; surveyed (Hubei Sheng Wenwu Kaogu Yanjiusuo and Jingshan Xian Bowuguan 2008)

Qujialing site Yinjialing locality

Qujialing Culture settlement in Hubei Province, Jingmen City, Jingshan County; surveyed (Hubei Sheng Wenwu Kaogu Yanjiusuo, Jingmen Shi Bowuguan et al. 1998; Hubei Sheng Wenwu Kaogu Yanjiusuo and Jingshan Xian Bowuguan 2008)

Qujialing site Zhongjialing locality

Youziling Culture and Pre-Qujialing Culture settlement in Hubei Province, Jingmen City, Jingshan County; surveyed (Hubei Sheng Wenwu Kaogu Yanjiusuo, Jingmen Shi Bowuguan et al. 1998; Hubei Sheng Wenwu Kaogu Yanjiusuo and Jingshan Xian Bowuguan 2008)

Qujialing site Zhongziba locality

Youziling Culture and Qujialing Culture settlement in Hubei Province, Jingmen City, Jingshan County; surveyed (Hubei Sheng Wenwu Kaogu Yanjiusuo, Jingmen Shi Bowuguan et al. 1998; Hubei Sheng Wenwu Kaogu Yanjiusuo and Jingshan Xian Bowuguan 2008)

Shijiahe site Dengjiawan locality

Qujialing Culture settlement and cemetery in Hubei Province, Tianmen City; excavated (Jingzhou Diqu Bowuguan and Beijing Daxue Kaoguxue Xi 1993; Shihe Kaogudui 1994; Shijiahe Kaogudui 2003)

Shijiahe site Luojiabailing locality

Qujialing Culture settlement in Hubei Province, Tianmen City; excavated (Hubei Sheng Wenwu Kaogu Yanjiusuo and Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo 1994)

Shijiahe site Sanfangwan locality

Qujialing Culture settlement in Hubei Province, Tianmen City; excavated (Hubei Sheng Wenwu Kaogu Yanjiusuo and Beijing Daxue Kaogu Wenbo Xueyuan 2012a)

Taojiahu

Qujialing Culture walled settlement in Hubei Province, Xiaogan City, Yingcheng City; surveyed (Xiaogan Diqu Bowuguan 1989 and Xiaogan Diqu Bowuguan 1990 under the name "Silonghe"; Li Taoyuan and Xia Feng 2001)

Wangguliu

Qujialing Culture site in Hubei Province, Xiaogan City, Anlu City; surveyed (Xiaogan Diqu Bowuguan 1990)

Wangtai

Qujialing Culture site in Hubei Province, Xiaogan City, Hanchuan City; surveyed (Xiaogan Diqu Bowuguan 1993)

Xiaocheng

Qujialing Culture walled settlement in Hubei Province, Tianmen City; excavated (Hubei Sheng Wenwu Kaogu Yanjiusuo and Tianmen Shi Bowuguan 2007)

Xiongjiazui

Qujialing Culture site in Hubei Province, Xiaogan City, Anlu City; surveyed (Xiaogan Shi Bowuguan 1993)

Zhangjiashan

Pre-Qujialing Culture and Qujialing Culture settlement and cemetery in Hubei Province, Tianmen City; excavated (Zhu Junying 1999)

Zhujiazui

Pre-Qujialing Culture site in Hubei Province, Jingmen City, Jingshan County; excavated (Hubei Sheng Wenwu Guanli Weiyuanhui 1964)

Period 7			Qujialing VII	Tanjialing V	Youziling V		Qujialing Culture
Period 6			Qujialing V, VI	Tanjialing IV	Youziling IV	Liuhe IV	
Period 5			Qujialing III, IV	Tanjialing III	Youziling III	Liuhe II, III	Pre-Qujialing Culture
Period 4		Longzui II, III, IV	Qujialing II	Tanjialing II	Youziling II	Liuhe I	Youziling Culture
Period 3		Longzui I	Qujialing I	Tanjialing I	Youziling I		
Period 2	Bianfan II						Bianfan Culture
Period 1	Bianfan I						

Table 1: Periods of the Handong Region

Brief summary

The earliest known Neolithic occupation phase in the Handong Region, period 1, is still represented by Bianfan.⁵¹ The occupation phase of Bianfan features a ceramic assemblage that consists entirely of globular jars with round bases. Many of them have three long conical feet attached to the bases, turning them into tripod jars. These have no parallel elsewhere in the Jiangnan Plain, but they resemble globular tripod jars in phase I of the Baligang and Xiawanggang sites in the Middle Han River Region.

Bianfan II, on the other hand, features some bowls and vessel stands that appear similar to Early Daxi Culture assemblages from the Western Jiangnan Plain, particularly Guanmiaoshan I. At the same time, the wide-necked tripod jars have parallels at Baligang II. Most authors agree that this phase still predates the early occupation phases at Youziling, Qujialing etc. Together with Bianfan I, these remains are commonly termed "Bianfan Culture". Zhang Xuqiu already mentioned the presence of other sites with similar ceramics when he presented the Bianfan site (1992: 164). There is a publication of one of these other sites, Cuijiatai, where sherds indicating vessels similar to those of the Bianfan I phase have been collected at a survey (Zhongxiang Shi Bowuguan 2010). However, none of these sites appear to have undergone excavation. Until more information has been obtained - and the excavations of the Bianfan site have been published - the term "Bianfan Culture" has to remain tentative.⁵² Bianfan II is so far the only site phase representing period 2.

⁵¹As mentioned in Chapter 4, Tucheng might be earlier, but it is located outside of the boundaries of the Handong Region, east of the Yun River.

⁵²At least within the classical framework of how archaeological cultures are defined. As I will show in

The parallels between the Handong Region and the Western Jiangan Plain become more pronounced during period 3, which is represented by Longzui I, Qujialing I, Tanjialing I, and Youziling I. It is represented in particular by bowls and dishes with wide ring bases, ring-based jars with rims that are bent inward, thin-walled ring-based bowls with painted decorations, and vessel stands, all of which correspond to the Guanmiaoshan II site phase. On the other hand, the Handong Region assemblages include a large number of tripod jars, a feature that is not very common in the Daxi Culture core region. Due to these similarities, Guo Weimin calls this horizon "Daxi Culture Youziling Type" (2010: 79), while Meng Huaping refers to it as "Early Youziling Culture" (1997: 36, tab. 3; 73, tab. 7; 117), making this period a particular point of contention in the debate about the relationship between Daxi Culture and Qujialing Culture.

The next period, period 4, is represented by Liuhe I, Longzui II-IV, Qujialing II, Tanjialing II, and Youziling II. It corresponds to Guanmiaoshan III as the similarities noted above continue in this period with some newly added examples such as bent-walled cups. However, at the same time, differences become more pronounced. For example, there are no examples in this region of the cylindrical bottles that are considered a *Leitfund* of the Daxi Culture Guanmiaoshan Type III. Thus, Guo Weimin suggests that this is the start of the proper "Youziling Culture" as it becomes more independent from its supposed Daxi Culture heritage (2010: 79). Needless to say, the proponents of a discontinuity between Daxi Culture and Qujialing Culture just refer to this period as a continuation of Youziling Culture traditions. In this period we also have the first occurrence of very small jars, which I refer to as "miniature jars", with rim diameters of about 5 cm or less. They would become a typical vessel type in the following period.

Period 5 marks the so-called "Black Pottery Horizon", in which all assemblages feature a large proportion of polished fine black ware. It is represented by Liuhe II and III, Qujialing III and IV, Tanjialing III, and Youziling III. This black pottery horizon has close parallels in the Guanmiaoshan IV assemblage. As noted above, miniature jars become a common form

Chapter 9, the problem can be handled differently.

in this assemblage. Bent-walled cups as well as many other vessel types receive sharper, more angular outlines. In line with these tendencies, this period marks the first occurrence of the shoulder vessels that would become a typical form of the Qujialing Culture. Guo Weimin separates Liuhe III and Tanjialing III from the other site phases as a slightly later period (2010: 85). However, there does not appear to be a lot of differences between their ceramic assemblages and those of the other site phases in period 5. Furthermore, Guo does not give a reason why Tanjialing III should not follow directly on Tanjialing II in period 4 and the only difference between Liuhe II and III is that the former is a mortuary assemblage and the latter derived from ceramics from pits and cultural layers. There might be some chronological differences between the two as the Liuhe report points out (*Jingzhou Diqu Bowuguan and Zhongxiang Xian Bowuguan* 1987: 10), hence my distinction between the two site phases. However, in the big picture of the whole Handong Region, the differences are minor so that including both site phases in period 5 seems warranted. To Guo Weimin either sub-period represents the Late Youziling Culture (2010: 85). In Chapter 4 I have touched upon the debate if the assemblages containing black pottery form a unified horizon throughout the Jiangnan Plain and the northern Dongting Plain and if so whether it represents the Late Daxi or Late Youziling Culture or the Early Qujialing Culture. Since this horizon represents its own distinct phenomenon which at the same time marks a transition from the Daxi or Youziling Culture to the Qujialing Culture, I am partial to Guo Lixin's suggestion (2005: 40f.) to call it "Pre-Qujialing Culture".

Periods 6 and 7 represent the Early and Late Qujialing Culture respectively. This distinction as employed here is based largely on the systems by Meng Huaping (1997) and Chen Wen (2001). Period 6 is represented by Liuhe IV, Qujialing V and VI, Tanjialing IV, and Youziling IV. Period 7 is represented by Qujialing VII, Tanjialing V, and Youziling V. The differences between the ceramic assemblages lie in the detail, as the typical Qujialing Culture forms - double-bellied vessels, shoulder vessels, high-ring-based cups, thin-walled conical cups etc. - are present in both periods. However, in the later period the bend in the wall of the double-bellied vessels is situated lower on the vessel body, the thin-walled conical cups have more flared rims, the high ring bases are even higher on average etc. I

have included the distinction between Early and Late Qujialing Culture here mainly to test how its supposedly gradual changes compare to the supposedly more abrupt changes from Daxi Culture to Early Qujialing Culture in the Western Jiangnan Plain or particularly from Late Yangshao Culture to Qujialing Culture in the Middle Han River Region.

Site	Sub-region	Bianfan Culture	Youziling Culture	Pre-Qujialing Culture	Qujialing Culture
Bazifen	Anlu				x
Bianfan	Zhongxiang	x	x		
Cuijiatai	Zhongxiang	x		x	
Dahechang	Jingshan (Qujialing)				x
Dataizi	Anlu				x
Dengjiawan	Tianmen (Shijiahe)				x
Gongzhai	Yunmeng				x
Hujiashan	Anlu				x
Jiumuyan	Jingshan (Qujialing)		x		x
Liuhe	Zhongxiang		x	x	x
Longzui	Tianmen		x		
Luojiabailing	Tianmen (Shijiahe)				x
Menbanwan	Yingcheng				x
Qujialing	Jingshan (Qujialing)		x	x	x
Sanfangwan	Tianmen (Shijiahe)				x
Tanjialing	Tianmen (Shijiahe)		x	x	x
Taojiahu	Yingcheng				x
Tudishan	Jingshan (Qujialing)				x
Wangguliu	Anlu				x
Wangtai	Hanchuan				x
Xiaocheng	Tianmen				x
Xiongjialing	Jingshan (Qujialing)				x
Xiongjiazui	Anlu				x
Yangwan	Jingshan (Qujialing)				x
Yinjialing	Jingshan (Qujialing)				x
Youziling	Jingshan		x	x	x
Zhangjiashan	Tianmen			x	x
Zhongjialing	Jingshan (Qujialing)		x	x	
Zhongziba	Jingshan (Qujialing)		x		x
Zhujiazui	Jingshan			x	

Table 2: Relevant sites of the Handong Region. "Sub-region" refers to the county- or district-level political unit that the site is located in. If the site is a locality within a site cluster, the name of the site cluster is given in parentheses. The Pre-Qujialing Culture is very likely underrepresented, since its distinction from the late Youziling Culture or the early Qujialing Culture has not been widely accepted and as such it might not have been properly identified at all sites where it is present.

Chapter 6: Sites in the Western Jiangnan Plain

Introduction

The Western Jiangnan Plain region consists of the area west of the Han River. It is bounded in the south by the Yangzi River, in the west by the Daba Mountains including the Three Gorges, and in the north by the Jing Mountains. In the center of this region are the Zhang River and the Ju River, tributaries of the Yangzi River. The sites of Guanmiaoshan and Yinxiangcheng are located in the plain north of the Yangzi River. The site of Guihuashu is technically not located in the Jiangnan Plain, but in the Dongting Plain, south of the Yangzi River, but due to its proximity to the Yangzi River and to sites like Guanmiaoshan, it is normally included in the larger area of Western Hubei and thus counted among the sites here. Longwangshan, on the other hand, is located further north, in the foothills of the Jing Mountains, in the western area of the gap between the Jing Mountains and the Dahong Mountains where the Han River passes through. It is as such located in closer proximity to some sites of the northern Handong Region, such as Liuhe and Bianfan, than to Guanmiaoshan. This region forms the core area of the Daxi Culture. Unfortunately, the most important type site, Guanmiaoshan, has not been published in any detail exceeding preliminary reports. The same problem exists with the various sites whose excavated assemblages have started off the discussion of the relationship between the Daxi Culture and Qujialing Culture - Guihuashu, Maojiashan, Caitai, Honghuatao etc. - many of which have not been published at all. The only site with Daxi Culture occupation in this area to have received a full report so far is Jingnansi in Jingzhou County (Jingzhou Bowuguan 2009). However, the Daxi Culture layers at Jingnansi are sparse and not well preserved. Furthermore, there is no internal stratification of Daxi Culture layers or any Qujialing Culture layers at the site - the Daxi Culture occupation phase is followed by a Shijiahe Culture occupation phase. This

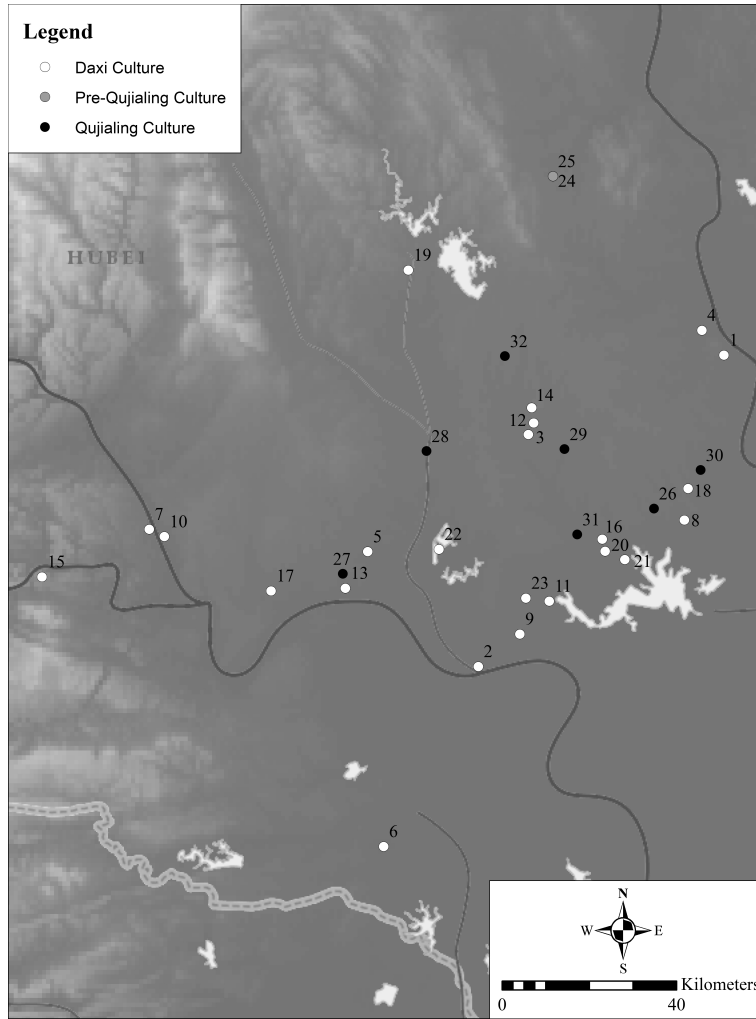


Figure 10: Map of sites in the Western Jiangnan Plain. 1. Beigongzui 2. Caitai 3. Chenjiawan 4. Daoshiwan 5. Guanmiaoshan 6. Guihuashu 7. Honghuatao 8. Jingjiacheng 9. Jingnansi 10. Majiaxi 11. Maojiashan 12. Sanbaiqiangang 13. Shijiapo 14. Tachefan 15. Tanjiaping 16. Wanjiawan 17. Xinmiaozi 18. Yandui 19. Yangmugang 20. Yaoyan 21. Yejiawan 22. Yinxiangcheng 23. Zhujiatai 24. Longwangshan 26. Chenghe 27. Dujiashanzi 28. Fengshan 29. Majiayuan 30. Sunjiatai 31. Xiaochang 32. Xiaogang. Symbol according to earliest occupation at the site among the cultures dealt with here.

makes Jingnansi of limited use for the purposes of this study, which is why I opted to leave it out. Altogether, this less-than-optimal state of publication in this region leaves a noticeable gap in the very center of the area of this study. Nevertheless, the data gleaned here from preliminary reports can give us at least a cursory impression of the Daxi Culture core area.

Guanmiaoshan

Settlement: Daxi Culture, Pre-Qujialing Culture, Qujialing Culture, and Shijiahe Culture

Location: Hubei Province, Yichang City, Zhijiang City

Plain about 8 km north of the Yangzi River

Fieldwork:

Test excavation: 1975

Excavations: 1st season: Autumn 1978 to spring 1979; eastern area and western area, 700 m² (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 1981)

2nd season: Autumn 1979 to winter 1980; western area, 1269 m², 8 urn graves (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 1983)

Site size: About 3 hectares

Guanmiaoshan I

Cultural affiliation: Daxi Culture (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 1981), Daxi Culture occupation phase 1 (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 1983), Daxi Culture I (Zhang Zhiheng 1982; He Jiejun 1982b; Zhang Xuqiu et al. 1982; Xiang Xucheng 1983a), Daxi Culture II (He Jiejun 1982a)

Features: Rectangular houses with burnt clay floors and stoves, pits, ditches, 8 urn graves (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 1981: 291; Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 1983: 18)

Pottery: (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 1981: 291-293; Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 1983: 18)

Fabric: Mostly coarse red ware with organic temper; also fine red ware; some grey, black, orange, and yellow ware; small amounts of white ware

Vessel forms: Stand ring jars [3b3]; large globular round-based jars [3b3]; globular round-based jars [3h3];
globular tripodal pots [3b5]; globular round-based pots [3h3];
vats [3l2]; vats [3b2];
conical stand ring cups [1k5]; ring-based cups with single handle [2k4];
basins [3d3];
bent-walled ring-based bowls [3b3]; bent-walled ring-based bowls [1k3]; bent-walled ring-based bowls [1l5]; ring-based bowls [2e3]; ring-based bowls [1f3]; wide-ring-base bowls [1l2]; tripodal bowls with wide feet [1l3];
bent-walled round-based dishes [1l3]; round-based dishes [2l3]; bent-walled ring-based dishes [1l3]; wide-ring-base dishes [1k5]; bent-walled stand ring dishes usable as lids [1l3]; ring-based dishes usable as lids [1a5];
lids; large drum-shaped vessel stands; conical vessel stands

Surface treatment/decoration: Deep red or red-brown slip common; surfaces polished; carved lines, horizontal grooves, openwork in bases, poked impressions, stamped circles; some black painted vessels

Other pottery artifacts: Spindle whorls (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 1981: 292)

Stone artifacts: Axes; adzes; chisels (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 1981: 291f.)

Faunal remains: Skeletons of domestic pig; fish bones, shells, antlers (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 1981: 293)

Cultural affiliation: Daxi Culture occupation phase 2 (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 1983), Daxi Culture II (Zhang Zhiheng 1982; Zhang Xuqiu et al. 1982; Xiang Xucheng 1983a)

Features: Houses with burnt clay floors and stoves, pits, ditches (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 1983: 18)

Pottery: (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 1983: 19-21)

Fabric: Coarse red ware with organic temper most common, then sand-tempered red ware, sand-tempered grey ware, fine red ware, fine grey ware, fine black ware, fine orange ware; small amounts of fine white ware or sand-tempered white ware; many instances of pottery with red outside and black inside

Vessel forms: A lot of large round-based jars [3h3]; many large round-based jars [3b3]; necked stand ring jars [2a3]; ring-based jars [3n5]; small pots [3b3]; wide-ring-base cups [1k3]; bent-walled cups [1a5]; cups with single handle; bottles with ridge below rim [1f5]; large round-based basins [1f3]; tripod basins with wedge-shaped feet [1f5]; ring-based bowls [1a2]; ring-based bowls [1l3]; ring-based bowls [1i5]; high-ring-based bowls [2a8]; wide-ring-base dishes [1d5]; wide-ring-base dishes [1l3]; wide-ring-base dishes [1a2]; high-and-wide-ring-base dishes [1f5]; high-ring-based dishes [1a2]; dishes with high cup-shaped ring-baseds [1k2]; lids with cup-shaped knobs; vessel supports

Surface treatment/decoration: Commonly polished and with red slip; impresso quite common; horizontal grooves; horizontal ridges; openwork in bases; carved lines; painted patterns in black or sometimes red or brown

Stone artifacts: Spades; axes; massive axes with rectangular cross-section; thick axes with rectangular cross-section; triangular adzes; heavy chisels with square cross-section;

pestles (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 1983: 19)

Guanmiaoshan III

Cultural affiliation: Daxi Culture (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 1981), Daxi Culture occupation phase 3 (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 1983), Daxi Culture III (Zhang Zhiheng 1982; Zhang Xuqiu et al. 1982; Xiang Xucheng 1983a)

Features: Houses with burnt clay floors and stoves, pits (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 1983: 21-23); 5 urn graves (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 1981: 294)

One of the better preserved houses is rectangular in shape, covering about 37 m². It is a wattle-and-daub construction with foundation trenches that contained altogether 20 postholes for wooden or bamboo posts. In addition, there are 16 postholes inside the room. Below the floor is a layer of burnt clay pieces. The floor itself consists of clay covered with sand. Pieces of burnt daub found outside of the southwestern corner of the house are attributed to a collapsed roof, although the excavators do not explain how these landed outside of the house.⁵³ (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 1983: 23)

Pottery: (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 1981: 294f.; Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 1983: 24-26)

Fabric: Mostly fine red ware; also sand-tempered and organic-tempered red ware, fine grey and black ware, sand-tempered grey-brown ware; small amounts of sand-tempered white ware, fine white ware

Vessel forms: Jars [3b3]; ring-based jars [3b5]; globular jars [3l8]; large necked globular jars [2a8]; ring-based jars [3c2]; cylindrical jars without preserved rim; small necked stand ring jars [2a8]; tripod jars with knob-like feet [3b3];

⁵³I suspect that this is a wall tumble.

round-based pots [3b3];
bent-walled cups [1k3]; bent-walled cups [1l3]; bent-walled cups [3l3]; cups [2b3];
cylindrical bottles [1c2];
basins [2b3]; small basins [3c2];
ring-based bowls [1l5]; ring-based bowls [1l3]; ring-based bowls [3l3]; high-ring-based
bowls [2n5];
wide-ring-base dishes [1f5]; high-and-wide-ring-base dishes [1f5]; ring-based dishes [1l8]

Surface treatment/decoration: Some red slip; impresso, horizontal grooves or ridges, open-work, impressed net patterns; some painted designs, mostly in black, some in red

Other pottery artifacts: Spindle whorls (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 1981: 294)

Stone artifacts: Axes; perforated axes; adzes; chisels; stone balls (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 1981: 294; Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 1983: 23f.)

Guanmiaoshan IV

Cultural affiliation: Daxi Culture occupation phase 4 (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 1983), Daxi Culture IV (Zhang Zhiheng 1982; Zhang Xuqiu et al. 1982; Xiang Xucheng 1983a), Early Qujialing Culture (Zhang Xuqiu 1987b; He Jiejun 1987; 1989; Zhang Xuqiu 1987b; Meng Huaping 1992), Late Youziling Culture (Meng Huaping 1997), Pre-Qujialing Culture (Guo Lixin 2005)

Features: Houses with burnt clay floors and stoves, pits, ditches (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 1983: 24)

Pottery: (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 1983: 25f.)

Fabric: Mostly fine red ware followed by fine black ware; some fine orange ware, organic-tempered red ware, sand-tempered grey ware, fine grey ware; a few instances of white ware. Some of the black ware has very thin walls and is highly polished.

Vessel forms: High-necked jars [1k3]; stand ring jars [3b3]; large necked jars [1k3]; necked jars [2a8]; large stand ring jars with holes in bottom, probably for steaming [3c2]; bent-walled cups [118]; bent-walled cups [113]; ring-based bowls [2n3]; high-ring-based bowls [3b3]; high-ring-based bowls [2f5]; hourglass-shaped vessel stands

Surface treatment/decoration: Light red slip; horizontal ridges, impresso, openwork, knobs, carved strokes, black paint

Stone artifacts: Axes; chisels; knives (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 1983: 23;25)

Guanmiaoshan V

Cultural affiliation: Qujialing Culture (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 1981); Late Qujialing Culture (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 1983); Early Qujialing Culture (Meng Huaping 1997)

Features: Houses with burnt clay floors and stoves, pits, ditches, close to 100 urn graves (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 1981: 295; Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 1983: 26)

Pottery: (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 1981: 295-297; Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 1983: 26f.)

Fabric: Mostly fine grey ware followed by fine black ware, coarse grey ware, and fine or coarse orange ware; small amounts of organic-tempered brown ware, coarse or fine red ware

Vessel forms: Large necked jars [2a8]; thin-walled ring-based jars [3k3]; stand ring jars with perforated bottoms, probably for steaming [3h3]; stand ring jars with perforated bottoms, probably for steaming [2h3]; ring-based jars [3m3]; jars [1k3]; large round-based vats [1a2]; conical thin-walled cups [1a4]; high-ring-based cups [3b3]; ring-based shoulder vessels; bottles [1a5]; basins [2h3]; basins [1d3]; stand ring basins [2d3]; tripodal basins with wedge-shaped feet [3h3]; double-bellied high-ring-based bowls [2h3]; double-bellied ring-based bowls [1h3]; high-ring-based bowls [1f3]; high-ring-based dishes [1d5]; double-bellied ring-based dishes [1h5]; lids with cup-shaped knobs [1a2]

Surface treatment/decoration: Many vessels with polished surface; horizontal grooves, combed patterns, stamped impressions, appliqué, fine cord marks, carved lines, net patterns, openwork, black or red paint

Other pottery artifacts: Spindle whorls (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 1981: 295)

Stone artifacts: Axes, adzes, chisels (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 1981: 295)

Guanmiaoshan VI

Cultural affiliation: Late Qujialing Culture (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 1983; Meng Huaping 1997)

Features: One pit (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 1983: 26)

Pottery: (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 1983: 26f.)

Fabric: 40.5% fine black ware, 39.8% fine grey ware, 9.5% fine orange ware, 8.2% organic-tempered brown ware, 1.1% fine red ware, 0.9% sand-tempered red ware

Vessel forms: Large jars [3h3];

ring-based cups [2a5];

ring-based bowls [2h3]; ring-based bowls [1f3]; bowls [1n3];

ring-based dishes used as lids [1d5]

Surface treatment/decoration: Openwork, appliqué

Guanmiaoshan VI belongs to the Shijiahe Culture.

Remarks

The periodization of the Daxi Culture strata employed here is based mainly on Xiang Xucheng 1983a. Following the system of Meng Huaping (1997), I took the assemblage of pit H75 out of phase V and separated it as a distinct "Late Qujialing Culture" phase VI.

Guihuashu

Settlement and cemetery: Daxi Culture; Settlement: Qujialing Culture and Shijiahe Culture

Location: Hubei Province, Jingzhou City, Songzi City

In the middle of the Great Wangjia Lake, submerged in modern times, but exposed by drainage project

Fieldwork:

Surveys: 1974

Test excavation: December 1974 to January 1975; 52 m² (Hubei Sheng Jingzhou Diqu Bowuguan 1976)

Site size: About 1.7 hectares preserved

Guihuashu I

Cultural affiliation: Daxi Culture (Hubei Sheng Jingzhou Diqu Bowuguan 1976), Daxi Culture III (Zhang Zhiheng 1982)

Features: Some pit graves, cultural layers (Hubei Sheng Jingzhou Diqu Bowuguan 1976: 188)
Only two of the burials were preserved well enough that the grave pits could be clearly delineated. One of them measured 1.25 m x 0.6 m. It contained a single supine body with straight arms and flexed legs. The head was pointing west. The other grave pit measured 1.5 m x 0.6 m. It contained four skulls and a few long bones. I also contained three ceramic vessels.

Pottery: (Hubei Sheng Jingzhou Diqu Bowuguan 1976: 188; 190-195)

Fabric: Cultural layers: 50% red ware, 30% grey ware, some black ware; burials: All fine ware, mostly red, followed by grey and black

Vessel forms: Jars [3b3]; small tripod jars [3b3]; necked jars [2a8]; some necked jars [1a8]; 1 high-ring-based jar [3l2]; 1 ring-based jar [3f4]; 1 necked jar [1c3]; 1 necked jar [2a3]; 2 jars with perforations below rim [3k3]; 2 high-necked stand ring jars [2a8]; 1 small high-ring-based jar [3k5]; 1 small stand ring jar [3b3]; 1 small necked stand ring jar [2a8];

1 small stand ring pot [2l3]; 1 ring-based pot [3l2]; 1 stand ring pot [3b5]; 1 stand ring pot [3b3]; 1 ring-based pot [3b3]; 1 ring-based pot [3l3];

1 vat [3l8];

3 bent-walled stand ring cups [3l3]; 1 bent-walled stand ring cups [1k3]; 1 bent-walled ring-based cup [3l4];

1 bottle [1k8]; 1 small bottle [1k8]; 1 small bottle with perforated bottom [3b5]; 1 bottle [1k3]; 1 cylindrical bottle [2a8]; 3 cylindrical bottles [1k3]; 1 bottle [1a8];

2 basins [3b3];

1 ring-based bowl [3l3]; some bowls [3l2]; some bowls [3l3]; 1 ring-based bowl used as lid [1l8];

many ring-based dishes [1f5]; 1 ring-based dish [1k3]; 1 wide-ring-base dish [1f5]; 1 ring-based dish [1i5]; 1 high-and-wide ring-based dish [1f5]; some high-ring-based dishes [1f5];

4 conical lids with cup-shaped or figural knobs [1l3]; 1 conical lid with cup-shaped knob [1b3]; 1 conical lid with cup-shaped knob [1i3]; 1 sandle-shaped vessel stand

Surface treatment/decoration: Some red slip over whole vessel or just top; horizontal grooves, ripples, poked impressions, black paint on red or red paint on black

Other pottery artifacts: Balls, spindle whorls (Hubei Sheng Jingzhou Diqu Bowuguan 1976: 188; 190; 195)

Stone artifacts: Axes, adzes, spades, chisels, boat-shaped chisels (Hubei Sheng Jingzhou Diqu Bowuguan 1976: 189f.)

Jade artifacts: 1 knife with perforation; 1 bracelet; 1 pendant; 1 tube (Hubei Sheng Jingzhou Diqu Bowuguan 1976: 195)

Guihuashu II

Cultural affiliation: Qujialing Culture (Hubei Sheng Jingzhou Diqu Bowuguan 1976)

Features: Only cultural layers

Pottery: (Hubei Sheng Jingzhou Diqu Bowuguan 1976: 188)

Fabric: Mostly red, some grey

Vessel forms: Jars [3b3];

cups [2k3];

bowls [1h3]

Surface treatment/decoration: Mat imprints, paint

The phase Guihuashu III belongs to the Shijiahe Culture.

Longwangshan

Cemetery: Pre-Qujialing Culture, Qujialing Culture

Location: Hubei Province, Jingmen City, Dongbao District

Foothills of Jing Mountains, east-west oriented ridge, looked over by cliff-face in the north, 104 m above sea level

Fieldwork:

Excavations: June to November 2007; southern part of the site, 1700 m² (Hubei Sheng Wenwu Kaogu Yanjiusuo and Jingmen Shi Bowuguan 2008)

Site size: About 20 hectares

Cultural affiliation: Transition of Daxi Culture to Qujialing Culture (Hubei Sheng Wenwu Kaogu Yanjiusuo 2008)

Features: 203 pit graves (Hubei Sheng Wenwu Kaogu Yanjiusuo and Jingmen Shi Bowuguan 2008: 24)

The graves all feature rectangular pits, some lined with stones. Their lengths range between 0.9 m and 4.3 m; their widths between 0.4 m and 1.8 m. Their depths from the preserved surface lie between 0.19 m and 1.65 m. Only a tenth of the skeletons are preserved, and those badly, but they indicate that these were supine burials with stretched limbs. The excavators claim the presence of secondary burials, but do not provide additional detail. The heads of the bodies were all oriented in northwestern direction. The burials differ clearly in the amount of grave goods. Many contain a large number of pottery vessels, especially miniature vessels that were assumedly produced for the sole function as burial goods. The excavated grave richest in burial goods, M132, contained 260 vessels (Hubei Sheng Wenwu Kaogu Yanjiusuo 2008, 28).

Pottery: (Hubei Sheng Wenwu Kaogu Yanjiusuo and Jingmen Shi Bowuguan 2008: 24ff.)

Fabric: Predominantly fine black ware, some grey ware, small amounts of coarse red ware

Vessel forms: Miniature ring-based jars with fitted lids [3b3] (50 in Grave M11); miniature tripod jars with fitted lids [3b3] (41 in Grave M11); miniature necked jars [1k3] (35 in Grave M11); miniature necked tripod jars [1a3] (5 in Grave M11); high-necked jars [1a3] (1 in Grave M11); tripod jars with fitted lids [3h3] (1 in Grave M11); miniature stand ring jars; miniature necked stand ring jars; large vats; pots [3b3] (1 in Grave M11); small bent-walled cups [1l3] (7 in Grave M11); small high-ring-based bowls [1f5] (11 in Grave M11); tripod dishes; ring-based dishes; double-bellied high-ring-based dishes;⁵⁴

Surface treatment/decoration: Most vessels undecorated; some horizontal grooves, openwork in the ring bases; large red vats are covered in imprinted net patterns; evidence of red paint on some of the black miniature vessels

Other pottery artifacts: Undecorated discoid spindle whorls (4 in Grave M11), contained in about one fourth of all burials

Stone artifacts: Only one stone axe among the 203 excavated burials (Hubei Sheng Wenwu Kaogu Yanjiusuo and Jingmen Shi Bowuguan 2008: 24)

Jade artifacts: Rings, ring discs, half-crescents, tubes; only in some burials (Hubei Sheng Wenwu Kaogu Yanjiusuo and Jingmen Shi Bowuguan 2008: 24)

Faunal remains: A few burials feature lower mandibles of pigs among the burial goods (11 in Grave M11)

Remarks

⁵⁴Only the contents of Grave M11 are presented in detail.

Since I managed to get a comprehensive overview of the ceramic assemblage excavated at Longwangshan in the Jingmen Museum, I complemented the account of vessel forms given in the preliminary report with the other vessel forms I have encountered among the material. For more detailed information, see Chapter 9 and Appendix.

Yinxiangcheng

Settlement: Daxi Culture; Walled settlement: Qujialing Culture to Western Zhou Dynasty

Location: Hubei Province, Jingzhou City, Jingzhou District

Southern Bank of Yujia Lake, a sidearm of Lingjiao Lake; mostly surrounded by marshes; 38m above sea level

Fieldwork:

Surveys: 1950s, 1983

Excavations: 1st season: October 1991 to February 1992; eastern wall section, 225 m²

2nd season: March to May 1995; eastern and western wall sections, 50 m², center-east inside enclosure, 100 m², south-west inside enclosure, 25 m² (Jingzhou Bowuguan et al. 1997; Jingzhou Bowuguan 1998)

Site size: About 20 hectares inside the enclosure

Yinxiangcheng I

Cultural affiliation: Daxi Culture, early occupation phase Jingzhou Bowuguan 荆州博物馆 (1998)

Features: 6 houses, 11 pits (Jingzhou Bowuguan 1998: 19)

The houses have largely rectangular outlines and feature postholes as well as foundation trenches. The floors have been fire-hardened and in some cases flattened smooth. The walls of house F6 consisted of burnt daub. Only parts of it have been excavated, but the arrangement of foundation trenches and wall remains suggest a division of the house into at least three rooms. However, due to the bad state of preservation and the small excavated area, I would not rule out that these are remains of multiple houses

instead (Jingzhou Bowuguan 1998: 19).

The report suggests that Pit H79 might have been a well, but it does not provide a detailed description (Jingzhou Bowuguan 1998: 19).

Pottery: (Jingzhou Bowuguan 1998: 19ff.)

Fabric: Mainly fine or organic-tempered red ware, a little fine black ware

Vessel forms: 1 necked ring-based jar with broad shoulders [1a3]; 1 high-necked jar [1a5];

2 tripodal pots [3c3];

2 bent-walled stand ring cups [1a3];

1 large basin [1f3];

many ring-based bowls [113] or [1f3], some might have been lids;

3 tripodal dishes with low and wide wedge-shaped feet [113]; 2 small round-based dishes with bent walls [113];

3 ring-shaped vessel stands that are conical, hourglass-shaped, or drum-shaped; 2 conical vessel supports

Surface treatment/decoration: Red slips and vessels with red outside surfaces and black inside surfaces common; fine cord marks, openwork, carved patterns, black paint

Yinxiangcheng II

Cultural affiliation: Daxi Culture, middle occupation phase (Jingzhou Bowuguan 1998)

Features: 8 pits (Jingzhou Bowuguan 1998: 21)

Pottery: (Jingzhou Bowuguan 1998: 21f.)

Fabric: More organic-tempered red ware than before, also a lot of fine red ware

Vessel forms: 1 jar [3b3]; 1 round-based jar with short neck [2a8];

1 basin [2a8];

ring-based bowls [1f3]; 1 bowl [1l5]; 2 high-and-wide-ring-base bowls [1a8];
6 ring-based dishes used as lids [1k3]; 1 high-and-wide-ring-base-dish [2a8];
1 vessel stand

Surface treatment/decoration: About half of the vessels feature red slip: red outside surfaces
and black inside surfaces still common; carved patterns, openwork, picked patterns

Other pottery artifacts: 1 spindle whorl, 1 ball

Stone artifacts: 4 axes (Jingzhou Bowuguan 1998: 22)

Yinxiangcheng III

Cultural affiliation: Daxi Culture, late occupation phase (Jingzhou Bowuguan 1998)

Features: 2 houses, 1 clay surface, 18 pits (Jingzhou Bowuguan 1998: 23f.)

Only some postholes remain of the houses.

An accumulation of yellow clay, c. 20 cm thick, covered the center of the site. The
excavators suggest that it was placed there intentionally as a surface for certain activ-
ities.

Pottery: (Jingzhou Bowuguan 1998: 24f.)

Fabric: Red ware in the large majority, less organic-tempered ware than before, amount of
fine black ware is increasing

Vessel forms: 1 small ring-based jar [3b5];

1 vat [3a3];

2 cylindrical bottles [1d5];

7 basins [2a8] or [1f3];

2 bowls [3l5]; 2 high-ring-based bowls [3l5]; 1 stand ring bowl with black-on-red paint
[2l4];

many wide-ring-base dishes [1f3]; 2 high-and-wide-ring-base dishes [1l3]; 6 ring-based

dishes used as lids [113];

1 hourglass-shaped vessel stand

Surface treatment/decoration: Red slips and vessels with red outside surfaces and black inside surfaces still common; horizontal grooves; black paint

Other pottery artifacts: 2 spindle whorls, one of which features a carved pattern; 3 clay balls, one of which is covered in a carved pattern, another in a pattern painted in black

Stone artifacts: 3 axes, 1 spade (Jingzhou Bowuguan 1998: 25)

Yinxiangcheng IV

Cultural affiliation: Qujialing Culture (Jingzhou Bowuguan 1998)

Features: 1 rammed earth enclosure, 1 kiln, 11 pits, 4 ditches (Jingzhou Bowuguan et al. 1997: 5f.; Jingzhou Bowuguan 1998: 25)

The rammed earth enclosure that surrounds the settlement measures 580 m from east to west and 350 m from north to south, encircling an area of about 20 ha. It is about 10 m - 25 m wide. The wall is preserved to a height of 1 m - 2 m above the ground inside the enclosure or 5 m - 6 m above the moat that surrounds it. The wall was built in two phases, the first of which was begun in the Qujialing Culture Period. The second, wider phase of the wall may have been started in the Late Qujialing Culture Period, but persisted throughout the following periods.

The kiln is only partially preserved. It appears to have the outline of a semi-circle.

Pottery: (Jingzhou Bowuguan 荆州博物馆, 1998: 25f.)

Fabric: Fine black or grey ware

Vessel forms: 1 ring-based steamer jar [2h3];

2 basins [1d3];

1 double-bellied high-ring-based bowl [1h5]; 1 ring-based bowl [2l3]; 1 tripodal bowl

[3b3];

1 high-ring-based dish [1d5];

5 small lids with stem-like knobs [1a5]; 1 hourglass-shaped vessel stand

Surface treatment/decoration: Horizontal grooves, openwork, appliqué, but mostly undecorated

Other pottery artifacts: A large amount of spindle whorls, conical or biconical, some with picked decorations

Stone artifacts: 4 adzes, 3 axes, 1 arrowhead (Jingzhou Bowuguan 1998: 26f.)

Yinxiangcheng V dates to the Shijiahe Culture. There are also some Bronze Age remains from the Shang and Zhou Dynasty Periods.

Additional sites in the Western Jiangnan Plain

Beigongzui

Daxi Culture site in Hubei Province, Jingmen City, Shayang County; surveyed (Jingmen Shi Bowuguan 1992)

Caitai

Daxi Culture site in Hubei Province, Jingzhou City, Jingzhou District; excavated (no report published, but material is mentioned in articles such as Zhang Xuqiu et al. 1982)

Chenghe

Qujialing Culture walled settlement in Hubei Province, Jingmen City, Shayang County; surveyed (Jingmen Shi Wenwu Kaogu Yanjiusuo 2008)

Chenjiawan

Daxi Culture site in Hubei Province, Jingmen City, Shayang County; surveyed (Jingmen Shi Bowuguan 1992)

Daoshiwan

Daxi Culture site in Hubei Province, Jingmen City, Shayang County; surveyed (Jingmen Shi Bowuguan 1992)

Dujiashanzi

Qujialing Culture site in Hubei Province, Yichang City, Zhijiang City (Zhijiang Xian Bowuguan 1992)

Fengshan

Qujialing Culture site in Hubei Province, Yichang City, Dangyang City; surveyed with test excavations (Hubei Sheng Bowuguan and Wuhan Daxue Lishi Xi Kaogu Zhuanye 1983)

Honghuatao

Daxi Culture, Pre-Qujialing Culture, and Qujialing Culture site in Hubei Province, Yichang City, Yidu City; excavated (Li Zegao 1991)

Jingjiacheng

Daxi Culture and Qujialing Culture site in Hubei Province, Jingmen City, Shayang County; surveyed (Jingmen Shi Bowuguan 1987; Jingmen Shi Bowuguan 1992)

Jingnansi

Daxi Culture settlement in Hubei Province, Jingzhou City, Jingzhou District; excavated (Jingzhou Diqu Bowuguan and Beijing Daxue Kaogu Xi 1989; Jingzhou Bowuguan 2009)

Majiayi

Daxi Culture site in Hubei Province, Yichang City, Xiaoting District; surveyed (Zhijiang Xian Bowuguan 1992)

Majiayuan

Qujialing Culture walled settlement in Hubei Province, Jingmen City, Shayang County; surveyed (Hubei Sheng Jingmen Shi Bowuguan 1997)

Maojiashan

Daxi Culture settlement in Hubei Province, Jingzhou City, Jingzhou District; excavated (Jinancheng Wenwu Kaogu Fajuedui 1977)

Sanbaiqiangang

Daxi Culture and Qujialing Culture site in Hubei Province, Jingmen City, Shayang County; surveyed (Jingmen Shi Bowuguan et al. 1988; Jingmen Shi Bowuguan 1992)

Shijiapo

Daxi Culture site in Hubei Province, Yichang City, Zhijiang City; surveyed (Zhijiang Xian Bowuguan 1992)

Sunjiatai

Qujialing Culture site in Hubei Province, Jingmen City, Shayang County; surveyed (Jingmen Shi Bowuguan 1992)

Tachefan

Daxi Culture and Qujialing Culture site in Hubei Province, Jingmen City, Shayang County; surveyed (Jingmen Shi Bowuguan 1992)

Tanjiaping

Daxi Culture site in Hubei Province, Yichang City, Changyang Tujia Autonomous County; surveyed (Chang Jiang Liuyu Guihua Bangongshi Kaogudui 1985)

Wanjiawan

Daxi Culture and Qujialing Culture site in Hubei Province, Jingmen City, Shayang County; surveyed (Jingmen Shi Bowuguan et al. 1988; Jingmen Shi Bowuguan 1992)

Xiaochang

Qujialing Culture site in Hubei Province, Jingmen City, Shayang County; surveyed (Jingmen Shi Bowuguan et al. 1988)

Xiaogang

Qujialing Culture site in Hubei Province, Jingmen City, Duodao District; surveyed (Jingmen Shi Bowuguan 1992)

Xinmiaozhi

Daxi Culture site in Hubei Province, Yichang City, Zhijiang City; surveyed (Zhijiang Xian Bowuguan 1992)

Yandui

Daxi Culture site in Hubei Province, Jingmen City, Shayang County; surveyed (Jingmen Shi Bowuguan 1992)

Yangmugang

Daxi Culture site in Hubei Province, Yichang City, Dangyang City; surveyed with test excavations (Hubei Sheng Bowuguan and Wuhan Daxue Lishi Xi Kaogu Zhuanye 1983)

Yaoyan

Daxi Culture site in Hubei Province, Jingmen City, Shayang County; surveyed (Jingmen Shi Bowuguan 1992)

Yejiawan

Daxi Culture and Qujialing Culture site in Hubei Province, Jingmen City, Shayang County; surveyed (Jingmen Shi Bowuguan et al. 1988; Jingmen Shi Bowuguan 1992)

Zhujiatai

Daxi Culture site in Hubei Province, Jingzhou City, Jingzhou District; excavated (Ebo Sanxia Kaogudui Di Sanzu 1989; Hubei Sheng Wenwu Kaogu Yanjiusuo 1991)

Period 6	Guanmiaoshan VI				
Period 5	Guanmiaoshan V	Yinxiangcheng IV			Qujialing Culture
Period 4	Guanmiaoshan IV			Longwangshan	Pre-Qujialing Culture
Period 3	Guanmiaoshan III	Yinxiangcheng III	Guihuashu I		
Period 2	Guanmiaoshan II	Yinxiangcheng II			Daxi Culture
Period 1	Guanmiaoshan I	Yinxiangcheng I			

Table 3: Periods of the Western Jiangan Plain

Brief summary

The Guanmiaoshan periodization forms the backbone of the relative chronology not only of the Daxi Culture in this region, but of related cultures in adjacent regions as well, such as the Youziling Culture in the Handong Region. Hence it will come as no surprise that I oriented my own chronology along this guiding line as well.

Period 1 is represented by Guanmiaoshan I and Yinxiangcheng I. Typical vessel types for this early stage of the Daxi Culture are bent-walled bowls and dishes. Some interactions with the Tangjiagang Culture are reflected in the impresso decorations and small amounts of white ware.

Period 2, represented by Guanmiaoshan II and Yinxiangcheng II, sees the appearance of bent-walled cups among the typical assemblage. This form, among others, also appears in the Handong Region indicating close connections that would continue in period 3. As noted in Chapter 4, there is an ongoing argument about this being either the result of the Daxi Culture exerting influence into the Handong Region or the Youziling Culture exerting influence into this region west of the Han River. There are some manifestations in the ceramic record of interactions with the Miaodigou Culture⁵⁵ in the Yellow River Valley. These include the neck of a bottle or amphora with a "double-lip" characteristic of similar vessels from the Miaodigou Culture. This means that there is a ridge below the lip, which acts as the "second lip" in the "double-lip" reasoning. In my own rim typology this is best represented by lip type 8. Other connections to the Miaodigou Culture are geometrical and

⁵⁵Or Yangshao Culture Miaodigou Type.

floral motifs painted in black upon a red or white slip, particularly on jars and bowls.

These contacts with the Handong Region and the Yangshao Culture continue in Period 3, which is represented by Guanmiaoshan III, Guihuashu I, and Yinxiangcheng III. The cylindrical bottle now appears as another typical ceramic form of the Daxi Culture.

Period 4, represented by Guanmiaoshan IV and Longwangshan, marks the appearance in this region of the Black Pottery Horizon, although fine red ware is actually still in the majority at Guanmiaoshan. A more "pure" manifestation of the typical fine black ware assemblage can be observed at Longwangshan, especially with its large amounts of miniature jars. It should be noted, however, that the ceramics from Longwangshan originate entirely from mortuary contexts, supporting the notion that a lot of the highly polished, thin-walled black ware has more of a representative function as funerary ceramics than a utilitarian function as household ceramics. Furthermore, some of the larger vessels from Longwangshan exhibit typical Qujialing Culture traits, for example double-bellied ring-based dishes. As such, the Longwangshan assemblage appears to have some overlap with the following period representing the Early Qujialing Culture. Since the internal chronology of Longwangshan is not quite clear yet, however, and most of the assemblage, especially the part published in the preliminary report, is so representative of the Black Pottery Horizon or Pre-Qujialing Culture, I have included Longwangshan in this period only.

Periods 5 and 6 mark the local occurrence of the Early and Late Qujialing Culture respectively. Period 5 is represented by Guanmiaoshan V and Yinxiangcheng IV, while period 6 is represented by Guanmiaoshan VI. Their characteristics and distinctions are similar to periods 6 and 7 in the Handong Region. Guihuashu II consists of only a sparse amount of Qujialing Culture ceramics and can therefore not be assigned clearly to either of these periods. I have thus left it out of the relative chronology.

The general impression we get from the broad vessel typology of this region is that the transition from Daxi Culture to Qujialing Culture does not appear very abrupt, since there have been close connections to the Handong Region at least from period 2 on.

Site	Sub-region	Daxi Culture	Pre-Qujialing Culture	Qujialing Culture
Beigongzui	Shayang	x		
Caitai	Jingzhou	x		
Chenghe	Shayang			x
Chenjiawan	Shayang	x		
Daoshiwan	Shayang	x		
Dujiashanzi	Zhijiang			x
Fengshan	Dangyang			x
Guanmiaoshan	Zhijiang	x	x	x
Guihuashu	Songzi	x		x
Honghuatao	Yidu	x	x	x
Jingjiacheng	Shayang	x		x
Jingnansi	Jingzhou	x		
Longwangshan	Dongbao		x	x
Majiayi	Xiaoting	x		
Majiayuan	Shayang			x
Maojiashan	Jingzhou	x		
Sanbaiqiangang	Shayang	x		x
Shijiapo	Zhijiang	x		
Sunjiatai	Shayang			x
Tachefan	Shayang	x		x
Tanjiaping	Changyang	x		
Wanjiawan	Shayang	x		x
Xiaochang	Shayang			x
Xiaogang	Duodao			x
Xinmiaozi	Zhijiang	x		
Yandui	Shayang	x		
Yangmugang	Dangyang	x		
Yaoyan	Shayang	x		
Yejiawan	Shayang	x		x
Yinxiangcheng	Jingzhou	x		x
Zhujiatai	Jingzhou	x		

Table 4: Relevant sites of the Western Jiangnan Plain. "Sub-region" refers to the county- or district-level political unit that the site is located in. The Pre-Qujialing Culture is very likely underrepresented, since its distinction from the late Daxi Culture or the early Qujialing Culture has not been widely accepted and as such it might not have been properly identified at all sites where it is present.

Chapter 7: Sites of the Three Gorges Region

Introduction

The Three Gorges Region forms the westernmost area of distribution of the Daxi Culture. In a twist of irony concerning the naming of archaeological cultures, the eponymous site of Daxi now appears to be at the very periphery of the Daxi Culture area. With the Daxi site as its western end, this region, as used here, covers only two of the Three Gorges in full, the Shiling Gorge in the east and the Wu Gorge in the center, while the Qutang Gorge in the west is only included at its eastern end where Daxi is located. These are steep gorges cut into the Daba Mountains by the Yangzi River. The sites are located at the shore of the Yangzi River or, in the case of Zhongbaodao, on an island in the middle of the river. The two sites included here apart from Daxi - Qingshuitan and Zhongbaodao - are both situated at the eastern end of the Three Gorges, near where the Yangzi River exits the mountains and descends into the flatland made up of the Jiangnan Plain and the Dongting Plain. As such, Qingshuitan and Zhongbaodao are in fact not very distant from Guanmiaoshan and other sites that form the core of the Daxi Culture. Nevertheless, the Yangzi River gorges present a very different environment from the lake-filled lowlands to Neolithic settlers. Daxi and Qingshuitan are published in two preliminary reports each. In the case of Daxi these are quite short, focused more on the features than the artifacts, and comparably old. Qingshuitan, on the other hand, has received a fair bit of coverage in its reports. The most well-covered, however, is Zhongbaodao, having been subjected to extensive excavation resulting in two full reports, one article-sized, the other monograph-sized, one preliminary report, and a short notice about the depositional area, leaving only this particular part underreported. This means that the material from the Three Gorges Region I included in my analysis is dominated by the Zhongbaodao assemblage, but it does provide a more detailed picture of typical Daxi

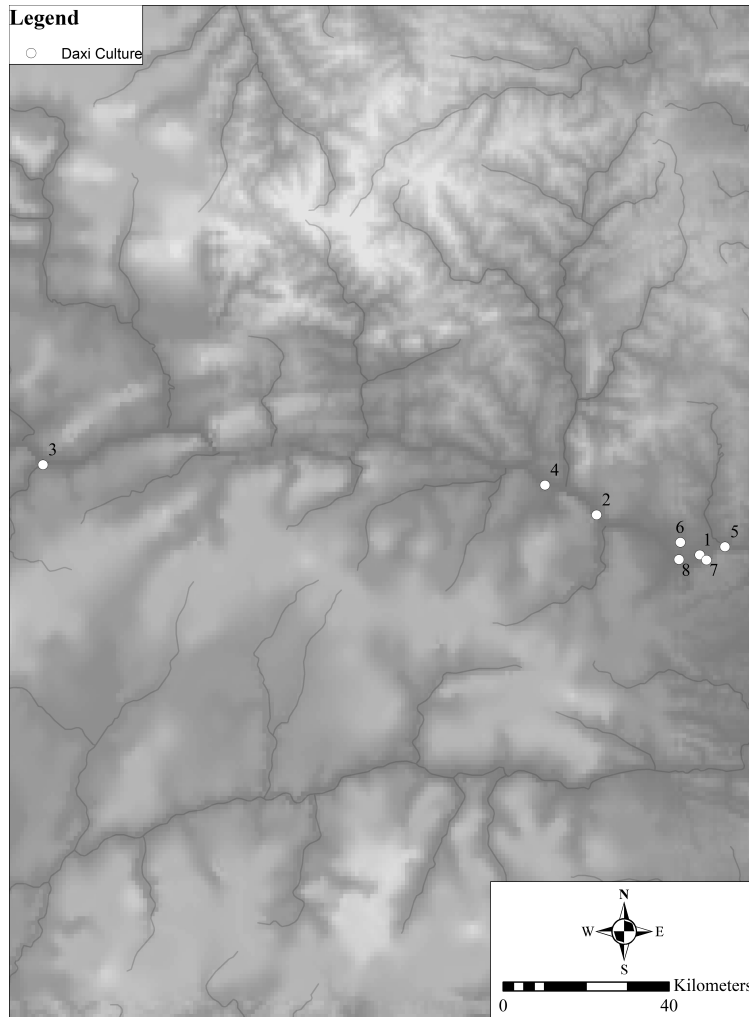


Figure 11: Map of sites in the Three Gorges Region. 1. Baishiwan 2. Chaotianzui 3. Daxi 4. Gongjiadagou 5. Qingshuitan 6. Wuxiangmiao 7. Yangjiawan 8. Zhongbaodao. Symbol according to earliest occupation at the site among the cultures dealt with here.

Culture ceramics than for example the published artifacts from Guanmiaoshan.

Daxi

Settlement and cemetery: Daxi Culture and Pre-Qujialing Culture

Location: Chongqing Municipality, Wushan County

Southern Bank of Yangzi River, Eastern end of the Qutang Gorge

Fieldwork:

Surveys: 1925-1926, 1958 (Sichuan Sheng Bowuguan 1959)

Excavations: 1st and 2nd season: July to August 1959 and November to December 1959; cultural layers with pits and 75 burials (Sichuan Chang Jiang Liuyu Wenwu Baohu Weiyuanhui Wenwu Kaogudui 1961)
3rd season: October 1975 to January 1976; cultural layers and 133 burials (Sichuan Sheng Bowuguan 1981)

The majority of graves cannot be relatively dated. For this reason I provide the general description of the burial customs here, outside of the periodization (Sichuan Chang Jiang Liuyu Wenwu Baohu Weiyuanhui Wenwu Kaogudui 1961: 17; Sichuan Sheng Bowuguan 1981: 461f.). Altogether 208 graves have been excavated. Due to the burials having been dug into soft sand, the outlines of the grave pits could not be clearly delineated. All burials were single burials with the exception of one grave containing an adult woman and an infant. There is a certain number of infant burials, although the exact number is not specified in the reports. They appear to follow the same burial customs as the adult burials. The report from 1961 states that the general direction of its 75 burials is the heads pointing north, the report from 1981 states that its 133 burials generally have the heads pointing south with only some exceptions pointing north. While the 1961 report does not contain concrete numbers concerning burial customs, the 1981 report states that among the graves with remains well enough preserved to identify the burial customs, 59 burials were supine with stretched limbs, 3 prone with stretched limbs, 25 supine with flexed legs, 9 lying on the side with flexed legs, and 6 prone with flexed legs. Most burials contained burial goods of some sort, including

ceramic vessels, stone artifacts, bone artifacts, and a few instances of fish and tortoises. The ceramic vessels were frequently placed on top of the bodies of the deceased.

One burial of an adult male was in prone position with the legs flexed strongly and the arms crossed in the front, between the belly and the legs. The femurs and tibiae of at least one more individual were arranged in a half-circle around the head of the deceased. The grave contained no preserved burial goods otherwise. No other occurrences of this odd custom are recorded, however, and so its meaning remains unclear.

The 1981 report distinguishes between early and late burials, but it is not indicated on what grounds this was done, since there is no discernable stratigraphy and only few of the supposedly early burials contain ceramic vessels. As noted below, I have adopted the periodization by Meng Huaping (1997) instead. The pottery described below is only based on the graves that Meng cited as representative. I did not include the pottery or bone and stone artifacts described in the reports that were from cultural layers or burials other than the few relevant examples.

Daxi I

Cultural affiliation: Middle Daxi Culture Zhongbaodao Type (Meng Huaping 1997)

Features: The graves M11 and M33 (Meng Huaping 1997: 22)

In the case of grave M11, three cylindrical bottles were placed between the legs of the deceased, arranged in a line (Sichuan Chang Jiang Liuyu Wenwu Baohu Weiyuanhui Wenwu Kaogudui 1961: 18).

Pottery: (Sichuan Chang Jiang Liuyu Wenwu Baohu Weiyuanhui Wenwu Kaogudui 1961: 20, fig. 26; plates, 4)

Fabric: Fine red

Vessel forms: 1 jar [3b3];

1 cylindrical bottle [1d3]

Surface treatment/decoration: Black-on-red paint and black-and-white-on-red paint

Daxi II

Cultural affiliation: Middle Daxi Culture Zhongbaodao Type (Meng Huaping 1997)

Features: The graves M103, M105, and M114 (Meng Huaping 1997: 22)

Pottery: (Sichuan Sheng Bowuguan 1981: 475f.; pl. 4)

Fabric: Fine red ware; fine grey ware

Vessel forms: 1 jar [3b3]; 1 jar [3h5]; 1 high-ring-based jar [2f4];

2 cylindrical bottles [1k3];

1 basin [3c3];

1 bowl [2d3];

1 very wide dish [3l3]; 1 wide-ring-base dish [1f5]

Surface treatment/decoration: Some red slip; black-on-red paint

Daxi III

Cultural affiliation: Late Daxi Culture Zhongbaodao Type (Meng Huaping 1997)

Features: The graves M5, M106, and M151 (Meng Huaping 1997: 22)

Pottery: (Sichuan Chang Jiang Liuyu Wenwu Baohu Weiyuanhui Wenwu Kaogudui 1961: 19, fig. 16; fig. 18; 20, fig. 23; plates, 2; Sichuan Sheng Bowuguan 1981: 471-477)

Fabric: Fine red ware, fine black ware, fine grey ware, sand-tempered red ware

Vessel forms: 1 ring base jar [3b3]; 1 miniature necked stand ring jar [2a8]; 2 miniature necked stand ring jars [1k3]; 1 small jar [3e3]; 1 globular round-based jar [3i3];

1 bent-walled cup [1k4]; 1 bent-walled cup [1a5]; 1 small cup [2l5];
1 cylindrical bottle [1k3];
1 small necked bottle [1k3];
1 basin [3l8];
1 high-ring-based bowl [2f3]; 1 ring base bowl [1c3];
1 ring base dish [1f5];
1 hourglass-shaped vessel stand

Surface treatment/decoration: Some black ware highly polished; openwork; some black-on-red paint

Other pottery artifacts: 1 spindle whorl; 1 ball (Sichuan Chang Jiang Liuyu Wenwu Baohu Weiyuanhui Wenwu Kaogudui 1961: 19, fig. 20; 20, fig. 24)

Remarks

There is no clear stratigraphy to the cemetery at Daxi and the material from the cultural layers as presented in the reports seems to contain a mix of assemblages from various time periods. I have adopted here the periodization by Meng Huaping (1997: 22), which is based on just a few representative graves and does not include the assemblage from the cultural layers.

Qingshuitan

Daxi Culture, Pre-Qujialing Culture, and Qujialing Culture settlement

Location: Hubei Province, Yichang City, Yiling District

Southern shore of the Yangzi River in the Xiling Gorge; on small hill

Fieldwork:

Excavations: 1st season: September to October 1979; northern and southern slope of the hill, 323 m² (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi Kaogu Zhuanye 1983)

2nd season: 1984; on top of the hill and one trench on southern slope, 150 m² (Wuhan Daxue Lishi Xi Kaogu Zhuanye 1988)

Site size: About 0.4 hectares

Qingshuitan I

Cultural affiliation: Early stage of Middle Daxi Culture (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi Kaogu Zhuanye 1983), Daxi Culture II (Wuhan Daxue Lishi Xi Kaogu Zhuanye 1988)

Features: 11 pits (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi Kaogu Zhuanye 1983: 2)

Pottery: (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi Kaogu Zhuanye 1983: 7-10; Wuhan Daxue Lishi Xi Kaogu Zhuanye 1988: 2-4)

Fabric: Statistics from the first excavation: 40% fine red ware, 35% coarse brown ware, 13% coarse red ware, 8% fine grey ware, 3% fine black ware, 1% fine brown ware. Coarse ware can be tempered with sand or organic material, a few pieces contain ground shell. There are rare instances of sand-tempered white ware.

Some instances of pottery with red outside and black inside

Vessel forms: Jars [3b3]; jars [3h3]; ring-based jars [2f5];
vats [3a8];
ring-based cups [3l3]; cups with single handle [1k3];
large pointed-based basins [3l3]; basins [3l3];
ring-based bowls [1k4]; ring-based bowls [1a4]; ring-based bowls [3i4]; ring-based bowls
[1l3]; bowls [2l3]; bowls [1f8]; bowls [3l3]; small bowls [3l3];
dishes [1c3]; dishes [1f5]; ring-based dishes [2k3]; high-and-wide-ring-base dishes [1f3];
wide-ring-base dishes [1f3]; wide-ring-base dishes [1l3];
lids with cup-shaped knobs; vessel stands; vessel supports; conical tripod feet; wedge-
shaped tripod feet

Surface treatment/decoration: Dark red slip common; patterns of poked impressions, horizontal grooves, carved lines; a few sherds with carved symbols

Other pottery artifacts: Rings (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi Kaogu Zhuanye 1983: 9; Wuhan Daxue Lishi Xi Kaogu Zhuanye 1988: 4)

Stone artifacts: Axes; hoes; spades; adzes; arrowheads; discoid choppers; pestles; scrapers; stone balls; 1 knife (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi Kaogu Zhuanye 1983: 3f.; Wuhan Daxue Lishi Xi Kaogu Zhuanye 1988: 2)

Jade artifacts: 1 crescent-shaped pendant with a small perforation at either end (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi Kaogu Zhuanye 1983: 9)

Bone artifacts: 1 wide ring (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi Kaogu Zhuanye 1983: 9f.)

Qingshuitan II

Cultural affiliation: Late stage of Middle Daxi Culture (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi Kaogu Zhuanye 1983), Daxi Culture III and IV (Wuhan Daxue Lishi Xi Kaogu Zhuanye 1988)

Features: Daub remains, 19 pits, 4 pit graves (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi Kaogu Zhuanye 1983: 2f.; Wuhan Daxue Lishi Xi Kaogu Zhuanye 1988: 4)

No grave pits were detected for the burials; only the skeletal remains, which indicate supine burials with stretched limbs. The heads are pointing north-west. The excavators speculate that perhaps no pits were dug and the bodies laid on the flat ground and then covered with earth. One burial included fish bones at the shoulders of the deceased. No other burial goods were detected (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi Kaogu Zhuanye 1983: 2). The daub remains included impressions of wooden posts and wattle.

Pottery: (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi Kaogu Zhuanye 1983: 7; 10-14; Wuhan Daxue Lishi Xi Kaogu Zhuanye 1988: 6-8)

Fabric: Statistics from the first excavation: 51% fine red ware, 17% coarse red ware, 12% fine black ware, 10% fine grey ware, 8% coarse brown ware, 2% fine orange ware. Coarse ware is mostly tempered with ground shells. There are rare instances of white ware.

Vessel forms: Jars [3b3]; jars [3f5]; ring-based jars [3b3]; necked jars [2a8]; necked jars [2a3]; large necked jars with wavy lip [2a3]; cylindrical jars with knob-like applications below rim [2a8]; large jars [3m3];
vats [3l8]; vats [3b3];
bent-walled stand ring cups [1a5]; stand ring cups [1l5]; round-based cups [2a3];
cylindrical bottles without preserved rim; high-necked stand ring bottles [1a8];
basins [1f3]; basins [1q2]; deep basins [3c3];
ring-based bowls [1a3]; stand ring bowls [1l2]; bowls [3l2]; bowls [1f4]; bowls [3b3];
high-ring-based bowls [3l8]; deep bowls [3l5]; bowls [3l3];
ring-based dishes [1l8]; wide-ring-base dishes [1f4]; wide-ring-base dishes [1m2]; wide-ring-base dishes [1f3]; high-ring-based dishes [1l3]; high-and-wide-ring-base dishes [1k2];
high-ring-based dishes [1i3]; ring-based dishes used as lids [1c3]; dishes with four small feet [2l3];

lids with cup-shaped knobs [113]; vessel stands; vessel supports; conical tripod feet; wedge-shaped tripod feet; 1 vessel handle

Surface treatment/decoration: Red slip common with the fine red pottery; poked impressions, horizontal grooves, ripples, combed patterns; few instances of cord marks, openwork, carved lines, black paint

Other pottery artifacts: Balls, rings, spindle whorls (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi Kaogu Zhuanye 1983: 6f.; 13; Wuhan Daxue Lishi Xi Kaogu Zhuanye 1988: 6; 8)

Stone artifacts: Over 300 axes; spades; adzes; arrowheads; discoid choppers; pestles; scrapers; burins; stone balls; chisels; boat-shaped chisels; spearheads; knives; spindle whorls; whetstones; 1 crescent-shaped pendant with a small perforation at either end; 4 rings (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi Kaogu Zhuanye 1983: 4-6; 14; Wuhan Daxue Lishi Xi Kaogu Zhuanye 1988: 4-6)

Jade artifacts: 1 crescent-shaped pendant with a small perforation at either end; 1 ring with an open slit (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi Kaogu Zhuanye 1983: 13f.)

Bone artifacts: 12 arrowheads; 2 spearheads; 1 fishhook; 1 harpoon; 33 awls; 2 needles; 1 antler awl (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi Kaogu Zhuanye 1983: 7f.; 14)

Qingshuitan III

Cultural affiliation: Middle Qujialing Culture (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi Kaogu Zhuanye 1983)

Features: 2 pits (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi Kaogu Zhuanye 1983: 2)

Pottery: (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi Kaogu Zhuanye 1983: 7; 15f.)

Fabric: Statistics from the first excavation: 23% fine red ware, 22% fine black ware, 20% fine grey ware, 10% coarse black ware, 9% coarse red ware, 9% fine orange ware, 7% coarse brown ware

Vessel forms: Jars [3h3]; jars [3m5]; jars [3e3]; necked jars [2b3]; high-necked jars [2b3]; flat high-ring-based jars [3b3];
vats [2a2];
thin-walled conical cups [1a4]; thin-walled cylindrical cups [1k4]; high-ring-based cups [2b3];
ring-based shoulder vessels [2a5];
basins [3c3];
ring-based bowls [1f4]; deep bowls [1c3];
double-bellied high-ring-based dishes [1h3];
lids

Surface treatment/decoration: Horizontal grooves, mat imprints, openwork in ring bases; black, red, or brown paint; a few sherds with carved symbols

Other pottery artifacts: Spindle whorls (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi Kaogu Zhuanye 1983: 15)

Stone artifacts: Axes; adzes; boat-shaped chisels; discoid choppers; pestles (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi Kaogu Zhuanye 1983: 14f.)

Jade artifacts: 1 crescent-shaped pendant with a small perforation at either end (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi Kaogu Zhuanye 1983: 16)

Bone artifacts: 1 horn ring (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi Kaogu Zhuanye 1983: 16)

Remarks

In the 1988 report, the excavators admit that phase II should be split into two phases, one corresponding to Daxi Culture III and the other Daxi Culture IV (Wuhan Daxue Lishi Xi Kaogu Zhuanye 1988: 8). However, the stratigraphy between the layers containing those assemblages is quite muddled, so that the artifacts could not be distinguished properly. I avoided trying to do it retroactively based on the limited information given in the two preliminary reports.

Zhongbaodao

Settlement and cemetery: Daxi Culture, Qujialing Culture, and various later periods

Location: Hubei Province, Yichang City, Yiling District

Island in the middle of Xiling Gorge

Fieldwork:

Surveys: 1950s

Excavations: 1st season: Autumn 1979; center of the island, 255 m² (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi 1987)

2nd season: Autumn 1985 to autumn 1986; western part, eastern part, and center of island, altogether 1,527 m² (Guojia Wenwuju Sanxia Kaogudui 1989a; Guojia Wenwuju Sanxia Kaogudui 2001)

3rd season: April to December 1993; western part and center of island, altogether more than 1,900 m² (Lu Depei 1994; Yichang Bowuguan 1996)

Site size: About 5.7 hectares

Zhongbaodao I

Cultural affiliation: Daxi Culture occupation phases 1 and 2 (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi 1987); Daxi Culture occupation phase 1 (Guojia Wenwuju Sanxia Kaogudui 2001); Daxi Culture I, II, and III (Zhang Zhiheng 1982); Daxi Culture I (Zhang Xuqiu et al. 1982)

Features: 70 pits, 2 pit graves (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi 1987: 56; Guojia Wenwuju Sanxia Kaogudui 2001: 99-102)

Both burials feature rectangular grave pits. The larger pit is 1.64 m long and 0.98 m

wide with a depth of 0.36 m. Its orientation is NE-SW. The pit was filled with the bodies of 7 male adults arranged in haphazard fashion. The skeletons were incomplete and many bones were broken. No burial goods could be detected. The interpretation of this as a mass grave after a massacre does not seem far-fetched. The smaller pit measures 1.05 m x 0.58 m with a depth of 0.12 m on average. It contained a single burial of an adult male, positioned supine with flexed limbs and the head pointing northwest.

Pottery: (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi 1987: 51-56; 59-64; Guojia Wenwuju Sanxia Kaogudui 2001: 103-116)

Fabric: About 60% sand-tempered ware, followed by c. 30% fine ware and c. 5% organic-tempered ware; rare instances of shell-tempered ware; about 80% red ware, c. 14% brown ware, few instances of grey or black ware

Vessel forms: Over 300 jars [3b3]; over 110 jars [3h3]; jars [3m3]; few necked jars [3b3]; 2 necked jars [2f3]; 10 jars [3b2]; 1 necked jar [2a8]; 3 small jars [3l5]; 2 necked jars [2l3]; 25 necked jars [1a8]; 110 jars [3b5]; 2 wide-necked jars [3b3]; 5 necked ring-based jars [2a2];
2 pots [3b3]; 1 globular miniature pot [3l3]; 1 large pot [3a3]; 1 large pot [3l8];
9 vats [2b5]; 6 vats [1a3]; 1 vat [3b3]; 2 vats [3a3]; 6 vats [3a8]; 6 vats [3l2];
25 bent-walled ring-based cups [3l4]; 2 large ring-based cups [1k2]; 3 large ring-based cups [1a2]; 7 cups [1k4]; 1 large ring-based cup [2m3]; 3 large ring-based cups [1k3];
1 basin [3l2]; 32 large basins [3l3]; 14 large deep basins [3a3]; 16 large deep basins [2f3];
7 basins [2b2]; 40 basins [3l8]; 1 ring-based basin [1k3]; 5 ring-based basins used as lids [1k3]; 1 basin [3l10]; basins [2a8]; basins [3b5];
112 ring-based bowls [1a5]; 3 wide-ring-base bowls [1l5]; 1 wide-ring-base bowl [3l3];
18 ring-based bowls [1f3]; 3 bowls [3a8]; 5 ring-based bowls used as lids [1l3]; 2 small stand ring bowls [1a5]; 2 bowls with perforation in the bottom [1a5]; 47 stand ring bowls [3l3]; 1 ring-based bowl [3l10]; 1 ring-based bowl used as lid [1k3]; 3 bowls [1l5];
1 ring-based bowl [2f5]; 1 wide-ring-base bowl [1k3]; 2 wide-ring-base bowls [1f3]; 2

bowls [1k4]; 19 bowls [3l5]; 9 bowls [2a2]; 18 bowls [1f5];
many ring-based dishes [1f8]; 9 wide-ring-base-dishes [1a8]; 29 wide-ring-base dishes [1f3]; 13 high-and-wide-ring-base dishes [1m3]; 2 wide-ring-base dishes [1m3]; 8 high-and-wide-ring-base dishes [1f3]; high-and-wide-ring-base dishes [1d5]; 2 high-and-wide-ring-base dishes [2a3]; 3 ring-based dishes [1a3]; 2 ring-based dishes [2l8]; 1 ring-based dish [3l3]; 1 wide-ring-base dish [1f8]; 1 wide-ring-base dish [1a3]; 8 high-and-wide-ring-base dishes [1i5]; 2 wide-ring-base dishes [1m8]; 7 wide-ring-base dishes [2l5]; 20 wide-ring-base dishes [1i8];
over 70 lids with cup-shaped knobs; over 430 vessel stands; over 30 vessel supports; 36 tripod feet

Surface treatment/decoration: About 22% of the pottery, all of it red ware, featured a red slip; horizontal grooves, cord marks, poked impressions, stamped impressions, carved lines, appliqué, openwork; few instances of black paint on red

Other pottery artifacts: 24 spindle whorls; 9 balls; 6 rings; 3 discs; 1 paddle for pottery production; 1 hook (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi 1987: 51; 58f.; 64; Guojia Wenwuju Sanxia Kaogudui 2001: 116-118)

Stone artifacts: 492 axes; 102 adzes; 174 hoes; 151 spades; 15 knives; 11 chisels; 98 scrapers; 21 discoid choppers; 8 burins; 3 boat-shaped chisels; 95 hammerstones; 12 whetstones; 125 stone balls; 6 pestles; 1 arrowhead; 1 paddle for pottery production; 2 spindle whorls; 2 rings; 1 drill core (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi 1987: 48-51; 56-58; Guojia Wenwuju Sanxia Kaogudui 2001: 118-124)

Bone artifacts: 1 arrowhead; 1 spearhead; 2 awls (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi 1987: 59; 64)

Bone artifacts: 3 arrowheads; 14 awls; 2 chisels; 1 spearhead; 1 perforated tooth of an undetermined animal; 5 antler awls; 1 horn chisel; 7 pins (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi 1987: 51; 59; 64; Guojia Wenwuju Sanxia Kaogudui 2001: 124)

Faunal remains: 5 deer antlers, 3 deer teeth (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi 1987: 64)

Zhongbaodao II

Cultural affiliation: Daxi Culture occupation phase 3 (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi 1987), Daxi Culture occupation phase 2 (Guojia Wenwuju Sanxia Kaogudui 2001), Daxi Culture III (Zhang Zhiheng 1982; Zhang Xuqiu et al. 1982)

Features: 23 pits, 8 small ditches (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi 1987: 64; Guojia Wenwuju Sanxia Kaogudui 2001: 125-128)

Pottery: (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi 1987: 67-74; Guojia Wenwuju Sanxia Kaogudui 2001: 128-142)

Fabric: About 56% fine ware, about 39% sand-tempered ware, about 5% organic-tempered ware; about 41% red ware, about 18% brown ware, about 14% grey ware, about 14% orange ware, about 10% grey-black ware, about 4% black ware

Vessel forms: 63 jars [3b5]; 137 jars [3b3]; 289 large round-based jars [3h3]; 13 large round-based jars [3b3]; 3 large round-based jars [3i3]; 2 necked jars [1b3]; 7 necked jars [1k3]; 1 necked jar [2a3]; 8 necked jars [2a8]; 1 cylindrical jar [2a8]; 1 small jar [3l8]; 2 jars [3h5]; 7 small necked jars [1a3]; 1 jar [3l8]; 1 small jar with single ring handle extending above rim [3b5]; 1 small necked high-ring-based jars with hole in the bottom [1k3]; small pots [3b3]; 1 small ring-based pot [3l8]; 19 ring-based pots [3l2]; vats [2a3]; 9 vats [3l3]; 3 vats [2b5]; 12 vats [3b3]; 20 vats [1k3]; bent-walled cups [2a5]; bent-walled cups [3a5]; bent-walled cups [3l5]; 1 conical cup [1a4]; 18 bent-walled cups [1a3]; cylindrical bottles [2a8]; 1 small high-necked bottle [2a8]; 18 cylindrical bottles [1k3];

basins [1i3]; 27 basins [1f2]; basins [3d3]; 6 ring-based basins [2b3]; 17 basins [1i2]; 19 basins [2l8]; 15 basins [3l8]; 31 basins [1q8]; 1 spouted basin [3l3]; 1 basin [3l2]; 3 basins [2b3]; 2 tripodal basins [1f2];

2 bowls [3l3], some of which have pair of lugs attached to rim; bowls [1f3]; several high-ring-based bowls [2l4]; 7 ring-based bowls [1a2]; 2 stand ring bowls [2l3]; 1 ring-based bowl [2a5]; 1 bowl with three little feet [2l3]; 17 deep ring-based bowls [1f3]; 17 deep bowls [3a3]; 9 deep bowls [3l8]; 4 wide-ring-base bowls [1f3]; 11 deep bowls [2b3]; 1 deep bowl [3l2]; 2 ring-based bowls used as lids [1f3];

16 ring-based dishes [1f3]; 1 high-ring-based dish [1f5]; 1 high-ring-based dish [1a3]; 1 ring-based dish [1a3]; 1 wide-ring-base dish [2d3]; 45 wide-ring-base dishes [1f3]; 9 wide-ring-base dishes [1f4]; 5 ring-based dishes [1f2]; 12 ring-based dishes [1l3]; 3 ring-based dishes [1l8]; 8 ring-based dishes [1a2]; 18 wide-ring-base dishes [1a8]; 26 ring-based dishes used as lids [1a3];

65 lids with cup-shaped knobs [1l3]; conical vessel stands; 1 hourglass-shaped vessel stand; more than 50 vessel supports; triangular tripod feet

Surface treatment/decoration: About 12% of the pottery has a red slip; horizontal grooves, poked impressions, cord marks, carved lines, black-on-red paint; rare instances of mat imprints, openwork, stamped impressions

Other pottery artifacts: 33 spindle whorls; more than 35 rings; 2 bracelets; 18 balls; 1 disc; 1 wide-rimmed wheel, possibly a tournette (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi 1987: 66f.; 73f.; Guojia Wenwuju Sanxia Kaogudui 2001: 142-144)

Stone artifacts: 476 axes; 456 adzes; 10 boat-shaped chisels; 59 hoes; 220 discoid choppers; 9 chisels; 4 spades; 5 burins; 12 pestles; 123 hammerstones; 1 knife; 6 arrowheads; 83 scrapers; 10 whetstones; 106 stone balls; 7 spindle whorls; 4 rings; 4 drill cores (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi 1987: 64-66; 74; Guojia Wenwuju Sanxia Kaogudui 2001: 144-149)

Bone artifacts: 7 arrowheads; 1 spearhead; 11 awls; 1 wide ring; 1 plate-like ornament; 1 long

antler needle; 1 boar tusk awl (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi 1987: 67; 74; Guojia Wenwuju Sanxia Kaogudui 2001: 149f.)

Zhongbaodao III

Cultural affiliation: Daxi Culture occupation phase 4 (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi 1987), Daxi Culture occupation phase 3 (Guojia Wenwuju Sanxia Kaogudui 2001), Daxi Culture IV (Zhang Zhiheng 1982), Daxi Culture III (Zhang Xuqiu et al. 1982)

Features: 71 pits, 1 pit grave (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi 1987: 75; Guojia Wenwuju Sanxia Kaogudui 2001: 151-154)

The grave pit of the burial is rectangular with rounded corners, 1.7 m long, 0.55 m wide, and 0.25 m deep. It contained the body of one adult male in supine position with stretched legs and folded arms. The head was pointing southeast. The only preserved burial good is a whetstone placed near the head.

Pottery: (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi 1987: 77-83; Guojia Wenwuju Sanxia Kaogudui 2001: 154-171)

Fabric: About 50% fine ware, 47% sand-tempered ware, small amounts of organic-tempered ware; about 25% red ware, 22% orange ware, 22% brown ware, 12% black-grey ware, 10% grey ware, 9% black ware

Vessel forms: Over 160 jars [3b3]; 140 large round-based jars [3h3]; 5 large round-based jars [3b3]; 69 jars [3m3]; 6 jars [3b5]; 1 necked jar [1a8]; 2 necked jars [1k3]; 6 necked jars [2b3]; 10 cylindrical jars with hook-shaped lugs below rim [2a8]; 5 necked jars [2a8]; 1 jar [3m8]; 1 small jar [2k3]; 5 small jars [3b3]; 1 small jar [3h5]; 2 small jars [3b5]; 1 small jar [3i3]; 3 jars [3b10]; 35 high-ring-based jars [3l5]; 4 high-necked jars [1k3]; large pots [3l8]; 1 pot [3h5]; 9 pots [3h3]; 11 ring-based pots [3c5]; 2 ring-based pots [3c3]; 21 pots [3j3]; 1 pot [1k3]; 1 pot [3b3]; 6 ring-based pots [3b5];

23 vats [2a2]; 1 vat [2h3]; 7 vats [3l3]; 1 vat with ring handles below rim [3l3]; 16 vats [3l8]; 3 vats [3b3];

29 bent-walled cups [1l5]; 13 bent-walled cups [2l3]; bent-walled cups [2a3]; 2 large conical cups [1k4]; 3 conical stand ring cups [1k4]; 1 small round-based cup [3l3]; 1 small round-based cup [3b3]; 1 miniature cup [1a5]; 1 small round-based cup [2l3]; high-necked bottles [2b3]; cylindrical bottles without preserved rims; 1 high-necked bottle [2n5];

17 small basins [3b5]; basins [3c2]; basins [3l2]; basins [2a8]; 28 basins [3b2]; 1 basin [1c5]; 15 basins [3c3]; 9 basins [2c3]; 37 basins [2b3]; 18 basins [2a10]; 1 basin [2k3]; bowls [3l4]; 2 bowls [2a5]; 5 deep stand ring bowls [2l3]; 1 high-ring-based bowl [2a4]; 1 deep bowl [1l2]; 2 ring-based bowls [3l3]; 1 ring-based bowl [1a2]; 9 ring-based bowls [1f5]; 4 ring-based bowls [1n3]; 3 ring-based bowls [1h3]; 4 spouted bowls [3l2]; 7 bowls with lugs [3l3]; 16 small bowls [3l3];

13 wide-ring-base-dishes [1i3]; 61 wide-ring-base dishes [1i5]; 3 wide-ring-base dishes [1l5]; 2 wide-ring-base dishes [1c3]; 2 high-and-wide-ring-base dishes [1i4]; 2 high-and-wide-ring-base dishes [1a2]; 11 high-ring-based dishes [1f3]; 12 high-ring-based dishes [1a2]; 1 ring-based dish used as lid [1l3]; 1 small dish with three little feet [1l3];

3 pouring vessels [2b3]; lids with cup-shaped knobs [1l3]; over 20 conical vessel stands; 1 cylindrical vessel stand; vessel supports; wedge-shaped tripodal feet; triangular tripodal feet

Surface treatment/decoration: About 13% of the pottery has red slip, some black slip; cord marks, horizontal grooves, poked impressions, stamped impressions, appliqué, mat impressions, openwork, carved lines, black-on-red paint

Other pottery artifacts: 29 spindle whorls; 37 rings; 15 balls; 1 disc (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi 1987: 77; 83f.; Guojia Wenwuju Sanxia Kaogudui 2001: 171-173)

Stone artifacts: 810 axes, some perforated; 413 hoes; 93 spades; 251 adzes; 14 knives, one of which is perforated; 22 boat-shaped chisels; 30 chisels; 18 discoid choppers; 20 pestles;

10 burins; 1 arrowhead; 140 balls; 18 hammerstones; 17 whetstones; 9 spindle whorls; 9 rings; 1 burin; 2 crescent-shaped pendants; 1 small strip with groove; 2 drill cores; 1 disc; 2 unfinished beads (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi 1987: 75-77; 83f.; Guojia Wenwuju Sanxia Kaogudui 2001: 173-184)

Bone artifacts: 2 awls (Guojia Wenwuju Sanxia Kaogudui 2001: 184)

Zhongbaodao IV

Cultural affiliation: Qujialing Culture (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi 1987), occupation phase with Qujialing Culture elements (Guojia Wenwuju Sanxia Kaogudui 2001)

Features: 1 accumulation of burnt daub, 87 pits, 1 small ditch, 7 pit graves (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi 1987: 84; Guojia Wenwuju Sanxia Kaogudui 2001: 184-189)

The burials had rectangular grave pits that measured on average 1.7 m x 0.5 m with a depth of about 15 cm. All bodies are buried in supine position with stretched limbs. In four cases the heads were pointing NNW; in two cases they were pointing SSE; in one case it could not be reconstructed. Most of the graves contained a few ceramic vessels.

Some of the burnt daub pieces have imprints of wooden or bamboo posts, but no foundations or living surfaces were preserved that were associated with the accumulation of daub.

Pottery: (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi 1987: 87-90; Guojia Wenwuju Sanxia Kaogudui 2001: 189-208)

Fabric: About 64% fine ware, 32% sand-tempered ware, 4% organic-tempered ware; about 23% red ware, 21% grey ware, 15% black ware, 14% brown ware, 13% grey-black ware, 10% orange ware

Vessel forms: 4 jars [3b3]; 4 jars [3b5]; 7 jars [1k2]; 10 jars [1k3]; 5 jars [3j3]; 1 jar [3m5]; 3 jars [1k5]; 1 jar [2b5]; 29 jars [2h3]; 7 jars [3b8]; necked jars [1h2]; 18 necked jars [1k3]; 89 large round-based jars [3b3]; 63 large jars [3h3]; 19 large jars [2b3]; 2 large jars [3b8]; large necked jars [1d4]; 13 large necked jars [1h5]; 15 large necked jars [1h3]; 22 large necked jars [1k3]; 1 small jar [2a3]; 8 miniature jars [3b3]; 7 miniature necked jars [2a3]; 1 miniature necked jar [2b3]; 1 small jar [3b3]; 2 small jars [2h5]; 1 high-ring-based jar [2f4]; 22 stand ring jars with perforated bottoms probably used as steamers [2h3]; 33 jars with perforated bottoms probably used as steamers [3b3]; 2 flat jars [3b3]; 1 small pot [3b3]; 2 small pots [3m5]; 10 pots [1k3]; 5 small pots [2k3]; vats [3b3]; vats [2d5]; 10 vats [3b2]; 8 vats [1k2]; 2 vats [3a7]; 8 vats [1a7]; 3 vats [1b3]; 10 vats [2h2]; 2 vats [3a8]; high-ring-based cups [2h5]; 1 ring-based cup [1k5]; 3 thin-walled conical cups [1a4]; 1 bent-walled stand ring cup [1k5]; 1 conical stand ring cup [1k4]; 1 cup [3b5]; 5 high-ring-based cups [3b3]; 1 conical cup [1a3]; 2 small thick-walled cups [3l2]; 1 small cup with very thick walls [1a3]; ring-based shoulder vessels [1a3]; 4 high-ring-based shoulder vessels [1a4]; 17 deep basins [3j3]; 18 deep basins [1k3]; 27 basins [3b3]; 49 basins [2d3]; 75 basins [1d3]; 10 basins [2c3]; basins [2c5]; basins [3l3]; 1 small basin [2l3]; 18 ring-based bowls [1n3]; 38 ring-based bowls [1h3]; ring-based bowls [2b5]; bowls [1l4]; double-bellied ring-based bowls [1h3]; 1 small stand ring bowl [1l3]; 1 ring-based bowl [1f5]; 4 ring-based bowls [2h3]; 4 ring-based bowls [1d3]; 11 deep bowls [3l5]; 17 deep bowls [3a5]; 10 deep bowls [3a3]; 1 small bowl [3l3]; 2 high-ring-based dishes [1a3]; 1 small dish with three little feet; lids with cup-shaped knobs; lids with conical knobs; 3 flat biconical vessel stands; 1 vessel support; wedge-shaped tripodal feet

Surface treatment/decoration: About 4% black-slipped ware; horizontal ridges, horizontal grooves, cord marks, carved lines; few instances of poked impressions, mat imprints, openwork, appliqué, ripples

Other pottery artifacts: 20 spindle whorls; 30 rings; 9 balls, some of them with poked patterns (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi 1987: 87; 90f.; Guojia Wenwuju Sanxia Kaogudui 2001: 208-210)

Stone artifacts: 351 axes; 39 hoes; 47 spades; 402 adzes; 18 knives; 33 chisels; 12 drills; 9 spindle whorls; 18 hammerstones; 2 pestles; 1 arrowhead; 18 whetstones; 1 ring; 1 point; 3 drill cores; 1 disc; 2 flat ornaments preserved in shape of ring segment (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi 1987: 84-86; 90f.; Guojia Wenwuju Sanxia Kaogudui 2001: 210-217)

Bone artifacts: 1 awl; 2 arrowheads (Guojia Wenwuju Sanxia Kaogudui 2001: 217)

Zhongbaodao V

Cultural affiliation: Qujialing Culture (Lu Depei 1994), Late Qujialing Culture (Yichang Bowuguan 1996), occupation phase with Qujialing Culture elements (Guojia Wenwuju Sanxia Kaogudui 2001)

Features: Over 200 features including many houses, pits, and burials, 23 hoards (Lu Depei 1994; Guojia Wenwuju Sanxia Kaogudui 2001: 218-224)

Apart from the hoards, the only detailed descriptions of features, namely 4 houses, 27 pits, and 2 pit graves, are provided in the excavation report from 2001 (Guojia Wenwuju Sanxia Kaogudui 2001).

One of the four houses excavated in 1985/86 has a round outline with a diameter of about 5 m. It consists of a foundation of burnt earth surrounded by a circle of 13 postholes. Only some foundation trenches and postholes are preserved of the other three houses. The preserved remains assume irregular shapes, but it is possible that they originally belonged to rectangular, multi-roomed houses.

Of the two pit graves excavated in 1985/86, one is long with rounded ends. It measures 1.36 m x 0.42 m with a depth of only 8 cm. It was oriented NNW-SSE. The body is not well enough preserved to determine details of the burial custom. The same problem

occurs in the other grave, which features a rectangular pit with rounded corners 1.7 m long, 0.46 m wide, and 0.4 m deep.

The supposed hoards consist of round or oval pits 1.20 m to 1.80 m in diameter, 25 cm to 80 cm deep. They are concentrated in the central area of the sites. Altogether they contained about 850 ceramic vessels. The vessels are not depicted or described in detail in the short note reporting the find (Lu Depei 1994), but the enumerated vessel types are: High-ring-base cups, double-bellied high-ring-based dishes, double-bellied ring-based bowls, flat ring-based jars, shoulder vessels, conical cups, short-necked jars, and ring-based jars. Apart from the pottery, the hoards contained a few hundred stone tools, jade ornaments, and spindle whorls.

Pottery: (Guojia Wenwuju Sanxia Kaogudui 2001: 224-234)

Fabric: According to the 2001 report: 59.6% fine ware, 40.4% sand-tempered ware; 26.9% grey ware, 23.1% brown ware, 21% black ware, 18.1% red ware, 6.9% orange ware, 4% black-grey ware

Vessel forms: 18 large jars [3h3], 2 large jars [3h5]; 28 large jars [3b3]; 3 large jars [3b8]; jars [3h3]; 2 jars [3b3]; 2 jars [3b5]; 2 necked jars [1k2]; 3 jars [3m8]; 1 jar [2b3]; 1 jar [3c3]; 2 jars [1k3]; 2 necked jars [1d3]; 3 necked jars [2b3]; 3 small ring-based jars [3b5]; 4 miniature jars [3b3]; short-necked jars [2a3]; pots [3h3]; 21 vats [2e8]; 22 vats [2a8]; 15 vats [3c3]; 2 thin-walled conical cups [1a4]; 1 small thick-walled cup [3b5]; 15 round high-necked bottles [1d3]; 8 basins [2d3]; 31 basins [1d8]; 11 basins [3l8]; basins [1c3]; 2 high-ring-based bowls [1b5]; 5 high-ring-based bowls [1h3]; bowls [3l3]; bowls [1f4]; bowls [3l8]; double-bellied ring-based bowls [2h3]; 1 ring-based dish [1a4]; 5 double-bellied dishes [1h3]; 14 lids [1l3]; 2 flat, hourglass-shaped vessel stands; wedge-shaped tripodal feet

Surface treatment/decoration: 4.5% of sherds have black slip, small amounts of red slip; cord

marks, horizontal grooves, mat imprints, carved lines, poked impressions, appliqué

Other pottery artifacts: 4 spindle whorls; 2 rings (Guojia Wenwuju Sanxia Kaogudui 2001: 234f.)

Stone artifacts: 21 hoes; 27 axes; 41 adzes; 19 spades; 20 chisels; 19 pestles; 5 whetstones; 30 balls; 1 arrowhead; 4 spindle whorls; 4 pendants; 1 small, flat disc (Yichang Bowuguan 1996: 23-25; Guojia Wenwuju Sanxia Kaogudui 2001: 235-238)

Bone artifacts: 4 awls; 6 arrowheads; 2 pins (Yichang Bowuguan 1996: 25; Guojia Wenwuju Sanxia Kaogudui 2001: 238f.)

Zhongbaodao VI dates to the Erlitou Culture Period.

Remarks

The periodization presented here is largely based on the periodization in the excavation report from 2001 (Guojia Wenwuju Sanxia Kaogudui 2001). However, I had to conceive of a way to integrate the periodization in the excavation report from 1987 (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi 1987), since the 2001 report made no attempt to conciliate these two systems.⁵⁶ Neither are there attempts of synthesis by other authors, with the only exception of Meng Huaping (1997: 21), but his synthesis is based on the 1987 report and a short preliminary report from 1989 (Guojia Wenwuju Sanxia Kaogudui 1989a) giving only a glimpse of the material that would be presented in full in 2001. The problem is that the 2001 report distinguishes three Daxi Culture phases and two phases dating to the Qujialing Culture period, while the 1987 report distinguishes four Daxi Culture phases and one Qujialing Culture phase. Meng splits phase I of the 1987 report into his stages 1 and 3, while inserting the equivalent of stage I in the 2001 report in between as his stage 2. He also inserts the equivalent of phase IV in the 2001 report into his scheme before the Qujialing Culture phase of the 1987 report. However, by having the occupation from the different

⁵⁶This is surprising insofar as the relevant chapters have been written by Lu Depei, who had also co-authored the 1987 report with Ma Jixian.

reports alternate in this way, Meng implies hiatuses in each of the systems that would allow for the insertion of phases from the other system respectively. This is not reflected in the stratigraphy of either report, while both excavation seasons were after all working in the same central area of the island. I therefore decided to leave Meng's system aside and create my own synthesis of both typologies. I arrived at the conclusion that both phases I and II from the 1987 report should be integrated in phase I of the 2001 report. Phases III, IV, and V of the 1987 report should then be matched with phases II, III, and IV of the 2001 report. Phase V of the 2001 report follows after and has no match among the phases in the 1987 report, but appears to me to match the Late Qujialing Culture remains reported from the 1993 season (Lu Depei 1994; Yichang Bowuguan 1996).

This system is corroborated by the conclusion in the 1987 report (Hubei Sheng Yichang Diqu Bowuguan and Sichuan Daxue Lishi Xi 1987: 95) associating its phases I and III with the phases I and II of Guanmiaoshan respectively, while treating its phase II as "a transitional period chronologically closer to phase I [of Guanmiaoshan]". This makes it less of a problem to bundle up phases I and II of the 1987 report into one phase and integrate it with phase I of the 2001 report, which would then be parallel to Guanmiaoshan phase I, rather than splitting it open and having it parallel Guanmiaoshan phases I-III as Meng Huaping does (1997: 21; 25, tab. 1).

Additional sites in the Three Gorges Region

Baishiwan

Daxi Culture cemetery in Hubei Province, Yichang City, Yiling District; excavated (Hubei Sheng Wenwu Kaogu Yanjiusuo 1999)

Chaotianzui

Daxi Culture settlement in Hubei Province, Yichang City, Zigui County; excavated (Guojia Wenwuju Sanxia Kaogudui 1989b; Guojia Wenwuju Sanxia Kaogudui 2001)

Gongjiadagou

Daxi Culture site in Hubei Province, Yichang City, Zigui County; surveyed with test excavations (Hubei Sheng Bowuguan Kaogubu 1984)

Wuxiangmiao

Daxi Culture site in Hubei Province, Yichang City, Yiling District; excavated (Hubei Sheng Bowuguan and Jiangling Kaogu Gongzuozhan 1988)

Yangjiawan

Daxi Culture settlement in Hubei Province, Yichang City, Yiling District; surveyed with small-scale excavations (Yichang Diqu Bowuguan 1984)

Period 5	Zhongbaodao V	Qingshuitan III		Qujialing Culture
Period 4	Zhongbaodao IV			
Period 3		Qingshuitan II	Daxi III	Pre-Qujialing Culture
Period 2	Zhongbaodao II, III		Daxi II	
Period 1	Zhongbaodao I	Qingshuitan I	Daxi I	Daxi Culture

Table 5: Periods of the Three Gorges Region

Brief summary

It should come as no surprise that the Daxi Culture periods of the Three Gorges Region are very similar to the Daxi Culture periods of the Western Jiangnan Plain, especially given the fact that Zhongbaodao and Qingshuitan are located no more than 100 km away from Guanmiaoshan. However, period 1 of the Western Jiangnan Plain, represented by Guanmiaoshan I, is not present yet among the assemblages included here.

Periods 1 and 2 parallel periods 2 and 3 of the Western Jiangnan Plain respectively. Period 1 is represented by Daxi I, Qingshuitan I, and Zhongbaodao I and period 2 by Daxi II, Qingshuitan II, Zhongbaodao II, and Zhongbaodao III. As noted above, the similarities between vessel forms from the Three Gorges Region and vessel forms from the Western Jiangnan Plain are evident. One notable difference lies in the fabric composition. The organic-tempered ware that is quite common in the Western Jiangnan Plain during these time periods is comparably rare at Zhongbaodao, whereas Qingshuitan II sticks out with its shell-tempered ware.

Part of the Qingshuitan II assemblage also belongs in period 3, which is represented in addition to that by Daxi III. This period parallels the Black Pottery Horizon of Guanmiaoshan IV and certain vessel types typical for that horizon, such as angular bent-walled cups and miniature jars, are certainly also present in the Three Gorges Region. However, the relative amounts of fine black pottery are not very large at Qingshuitan. There are no clear numbers for the relative amounts of fabric types at Daxi and the period is not represented at all at Zhongbaodao. Therefore, I would be cautious for now to count this region into the area of

distribution of the Pre-Qujialing Culture, although a certain influence is definitely there.

Periods 4 and 5 parallel the Early and Late Qujialing Culture periods in the Handong Region. Period 4 is represented only by Zhongbaodao IV, while period 5 is represented by Qingshuitan III and Zhongbaodao V. Bai Jiujiang has pointed out that apart from the Qujialing Culture elements clearly present in the Zhongbaodao IV and V assemblages, there is a noticeable part of the assemblage, especially among vats and necked jars, that closely resembles the ceramics of the Shaopengzui Culture, which originates in a part of the Three Gorges that is still west of the Daxi site (Bai Jiujiang 2003). There are other idiosyncrasies as well, for example a certain number of miniature jars appearing at Zhongbaodao IV and V. However, these show some differences from the typical miniature jars of the Pre-Qujialing Culture. Not all of them are black either, there are some grey or brown specimens.

Site	Sub-region	Daxi Culture	Pre-Qujialing Culture	Qujialing Culture
Baishiwan	Yiling	x		
Chaotianzui	Zigui	x		
Daxi	Wushan	x	x	
Gongjiadagou	Zigui	x		
Qingshuitan	Yiling	x	x	x
Wuxiangmiao	Yiling	x		
Yangjiawan	Yiling	x		
Zhongbaodao	Yiling	x		x

Table 6: Relevant sites of the Three Gorges Region. "Sub-region" refers to the county- or district-level political unit that the site is located in. The Pre-Qujialing Culture is very likely underrepresented, since its distinction from the late Daxi Culture or the early Qujialing Culture has not been widely accepted and as such it might not have been properly identified at all sites where it is present.

Chapter 8: Sites in the Middle Han River Region

Introduction

The Middle Han River Region is referring to that section of the Han River between where it exits the Qinling Mountains and is met by the Dan River to where it enters the Jiangnan Plain at the gap between the Jing Mountains and the Dahong Mountains. It also includes the Nanyang Basin which is crossed by various tributaries of the Han River. This region features a large amount of sites with Qujialing Culture assemblages. Among the few representative sites included here, Baligang is located in the Nanyang Basin, while Qinglongquan and Xiawanggang are situated in the general area of the confluence of the Dan and Han Rivers. Baligang has only been featured in a few preliminary reports so far, although its assemblage has received further analysis by a few scholars. Xiawanggang and Qinglongquan, on the other hand, both boast full monograph-length reports. This provides us with some good coverage of the relevant material, although it is quite spread out over the time periods, since the early Xiawanggang assemblage dates earlier than the early assemblages from Baligang and Qinglongquan.

The listing of additional sites includes only sites where Qujialing Culture remains are present, with or without preceding Yangshao Culture strata. The Late Yangshao Culture assemblages that are pertinent here (also known as "Xiawanggang Culture" or "Zhujiatai Culture") are in many survey reports insufficiently distinguished from earlier Yangshao Culture remains that have no connection to the question of the Qujialing Culture expansion. Hence, including all Yangshao Culture sites without Qujialing Culture remains would have resulted in a distorted picture, not to mention clutter the lists and maps, since the two millennia of the Yangshao Period obviously produced a lot of remains.

The site list also includes a few sites in the "Sui-Zao Corridor" that forms a connection

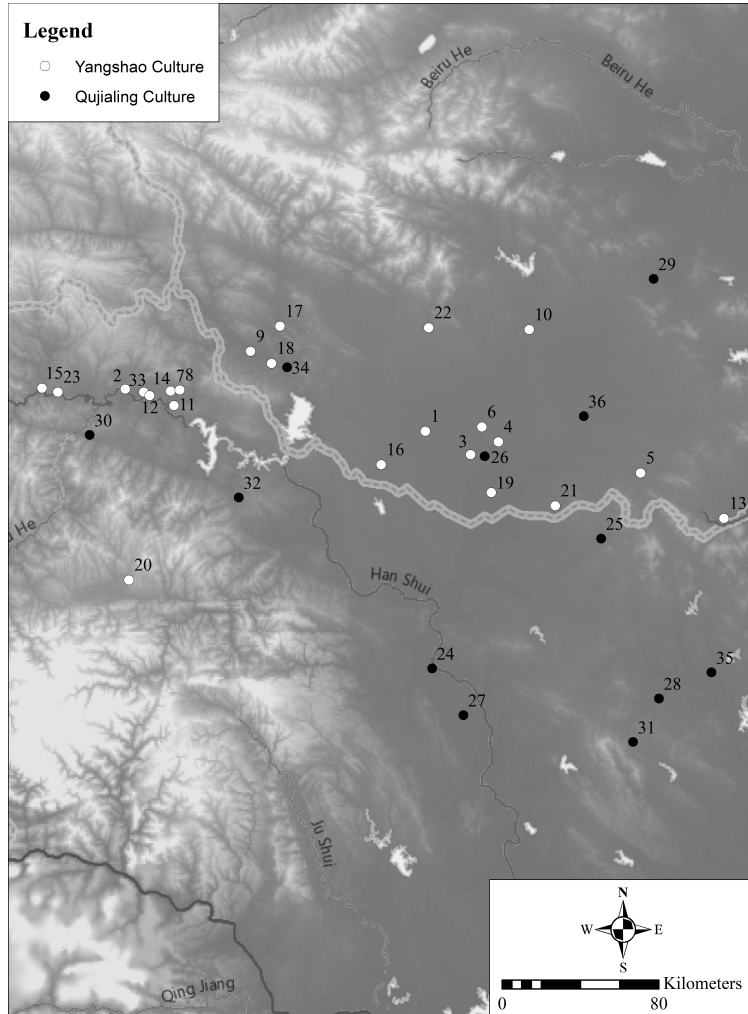


Figure 12: Map of sites in the Middle Han River Region. 1. Baligang 2. Dasi 3. Dengyutai 4. Diguanfen 5. Doupozui 6. Fenghuangshan 7. Guojiadaozi 8. Guojiayuan 9. Huanglianshu 10. Huangshan 11. Jiantanping 12. Meiziyuan 13. Mingang 14. Qinglongquan 15. Tuojiawan 16. Xiagang 17. Xiaji 18. Xiawanggang 19. Xigaoying 20. Yangbiling 21. Yingkeng 22. Zhaowan 23. Zhongtaizi 24. Caojialou 25. Diaolongbei 26. Guangwutai 27. Gujiapo 28. Huangtugang 29. Jintangzhai 30. Kangjiawan 31. Lengpiya 32. Nanzhangjiaying 33. Sanbuliangdaoqiao 34. Wuying 35. Xihuayuan 36. Zhaicigang. Symbol according to earliest occupation at the site among the cultures dealt with here.

between the Handong Region and the Nanyang Basin parallel to the Han River. The sites in question are Diaolongbei, Lengpiya, and Xihuayuan. Among these, the Diaolongbei site has undergone extensive research revealing archaeological remains that show clear influences of the Yangshao Culture and Qujialing Culture and yet retain a distinct character (Xiangyang Diqu Bowuguan 1984; Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubeidui 1992; Wang Jie 1995; Wang Jie 1997; Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubeidui 2000). Dealing with the Diaolongbei assemblage in detail lies outside the scope of this study, but it is certainly worth taking into consideration for any more in-depth investigations of the relationship between the Middle Yangzi River region and the regions north of it in the future.

Baligang

Settlement and cemetery: Yangshao Culture; settlement: Qujialing Culture, Shijiahe Culture, and Longshan Culture

Location: Henan Province, Nanyang City, Dengzhou County

On a hill at south shore of the Tuan River, a tributary of the Bai River

Fieldwork:

Surveys: 1991 (Beijing Daxue Kaoguxue Xi and Nanyang Diqu Wenwu Yanjiusuo 1994)

Excavations: 1st season: Autumn 1991; 50 m² (Beijing Daxue Kaoguxue Xi and Nanyang Diqu Wenwu Yanjiusuo 1994)

2nd and 3rd seasons: Spring and Autumn 1992; eastern area, 600 m² (Beijing Daxue Kaoguxue Xi et al. 1997; Beijing Daxue Kaogu Shixidui and Henan Sheng Nanyang Shi Wenwu Yanjiusuo 1998)

4th and 5th seasons: Autumn 1994 and 1996; south-central area, 1,400 m² (Beijing Daxue Kaogu Shixidui and Henan Sheng Nanyang Shi Wenwu Yanjiusuo 1998)

Site size: About 6 hectares preserved

The Baligang occupation phases I and II taken together feature over 120 graves. 15 houses were excavated belonging to the occupation phases II and III taken together.

Baligang I

Cultural affiliation: Yangshao Culture (Beijing Daxue Kaoguxue Xi et al. 1997; Beijing Daxue Kaogu Shixidui and Henan Sheng Nanyang Shi Wenwu Yanjiusuo 1998), Yangshao Culture Early Baligang Type (Fan Li 2000)

Features: Pits, pit graves (Beijing Daxue Kaogu Shixidui and Henan Sheng Nanyang Shi Wenwu Yanjiusuo 1998: 38-40)

The grave pits are rectangular with rounded corners. The majority are primary single burials of supine bodies with stretched limbs. Heads are usually pointing west, some are pointing north. Most burials contain a few ceramic vessels, although a few large burials can feature 40 to 50 vessels. Very few burials contained pig mandibles. Some graves are accompanied by small round pits next to them at a distance of less than 1 m. These pits contained mandibles or heads of pigs, in amounts of up to 50.

Pottery: (Fan Li 樊力 2000: 150-152)

Fabric: Slightly more sand-tempered ware than fine ware; mostly red ware, followed by red-brown ware and grey-brown ware

Vessel forms: Jars [3b3]; tripodal jars [1k3];
tripodal pots [3b3]; tripodal pots [3a3]; small pots [3a3];
vats [3b3];
basins [2d3];
bowls [1l3]; deep bowls [1a3]; deep bowls [2l3];
hourglass-shaped vessel stands

Surface treatment/decoration: Some pottery has a thin black layer on the surface, which could be a slip, a product of smudging during firing, or both; fine cord marks, horizontal grooves, poked impressions, small amounts of red or brown paint

Baligang II

Cultural affiliation: Yangshao Culture (Beijing Daxue Kaoguxue Xi et al. 1997; Beijing Daxue Kaogu Shixidui and Henan Sheng Nanyang Shi Wenwu Yanjiusuo 1998), Yangshao Culture Middle Baligang Type (Fan Li 2000)

Features: Houses, pits, pit graves (Beijing Daxue Kaogu Shixidui 北京大学考古实习队 and Henan Sheng Nanyang Shi Wenwu Yanjiusuo 河南省南阳市文物研究所 1998a: 38-40)

No details about the houses of this phase have been published.

The pit graves largely resemble those of phase I, but now there are more multiple burials consisting either of pairs of bodies, often in combination of male and female as well as old and young, or of a larger number of individuals buried together. The latter type of burial usually took the form of secondary burial of mainly the skulls and the long bones. A large grave of this type contained the bones of 31 individuals.

Pottery: (Beijing Daxue Kaogu Shixidui and Henan Sheng Nanyang Shi Wenwu Yanjiusuo 1998: 38f.; Fan Li 2000: 150-152)

Fabric: Slightly more sand-tempered ware than fine ware; mostly red ware, followed by red-brown ware and grey-brown ware; small amounts of black ware and grey ware

Vessel forms: Jars [3b3]; tripodal jars [3b3]; tripodal jars [3b8]; wide-necked tripodal jars [3b3]; necked flat tripodal jars [1b3]; necked tripodal jars [1a8]; necked jars [1k3]; high-necked jars [1k3]; wide-necked jars with cup-shaped handles [2b3]; tripodal pots [3k3]; tripodal pots [3a3]; small pots [3a3]; vats [3b8]; vats [3a8]; bent-walled cups [3l3]; high-necked bottles [2a8]; basins [3l8]; basins [3b3]; bowls [3l3]; bowls [1a5]; deep bowls [1a3]; deep bowls [3l3]; bowls [1a3]; lids [3l8]; hourglass-shaped vessel stands; stoves

Surface treatment/decoration: Small amounts of red slip; horizontal grooves, fingernail impressions, finger impressions, openwork, appliqué, fine cord marks; some paint, mostly brown, less red, rare instances of brown paint on white ground

Baligang III

Cultural affiliation: Yangshao Culture (Beijing Daxue Kaoguxue Xi et al. 1997; Beijing Daxue Kaogu Shixidui and Henan Sheng Nanyang Shi Wenwu Yanjiusuo 1998), Yangshao Culture Late Baligang Type (Fan Li 2000)

Features: Houses, cultural layers (Beijing Daxue Kaogu Shixidui and Henan Sheng Nanyang Shi Wenwu Yanjiusuo 1998: 35-38; Zhang Chi 2003: 32-34)

According to the preserved remains, all houses consisted of multi-room units consisting either of one large and one small room or one large and two small rooms. These units were in turn linked in rows to form row houses. The large rooms measure 14 m² - 19 m² and the small rooms measure 4 m² - 8 m². Each of the rooms usually contained a stove. The construction method is wattle-and-daub with foundation trenches for the walls.

Pottery: (Beijing Daxue Kaogu Shixidui and Henan Sheng Nanyang Shi Wenwu Yanjiusuo 1998: 40f.; Fan Li 2000: 150-152)

Fabric: About 50% sand-tempered ware and 50% fine ware; mainly red ware; small amounts of red-brown ware, grey-brown ware, and grey ware

Vessel forms: Jars [3b3]; jars [2c3]; tripodal jars [3b3]; necked tripodal jars [2a8]; vats [3b3]; vats [3b10]; vats [3l8]; basins [1f3]; basins [1c3]; spouted basins [2f3]; bowls [3l3]; lids [1l3]; stoves

Surface treatment/decoration: Small amounts of appliqué, openwork; some red paint and rare instances of brown paint

Baligang IV

Cultural affiliation: Early Qujialing Culture (Beijing Daxue Kaogu Shixidui and Henan Sheng Nanyang Shi Wenwu Yanjiusuo 1998; Fan Li 2000)

Features: Pits (Fan Li 2000: 150)

Pottery: (Beijing Daxue Kaogu Shixidui and Henan Sheng Nanyang Shi Wenwu Yanjiusuo 1998: 42; Fan Li 2000: 153f.)

Fabric: Slightly more sand-tempered ware than fine ware; grey ware in the majority, followed by grey-brown ware; small amounts of red and black ware

Vessel forms: Jars [3h3]; tripodal jars [3b3]; tripodal jars [3h3]; tripodal jars [3h10]; necked jars [1a8];
thin-walled conical cups [1k4]; high-ring-based cups [3b3]; cylindrical ring-based cups [2a4];
shoulder vessels [2a3];
basins [2b3]; tripodal basins [1f3]; tripodal basins [2h3]; spouted basins [2f3];
bowls [2l4]; deep bowls [3l3]; ring-based bowls [2h3]; high-ring-based bowls [1l8];
double-bellied ring-based dishes [1h5];
lids [1a3]

Surface treatment/decoration: Large amounts of horizontal ridges and appliqué; small amounts of openwork; some brown and red paint

Baligang V

Cultural affiliation: Late Qujialing Culture (Beijing Daxue Kaogu Shixidui and Henan Sheng Nanyang Shi Wenwu Yanjiusuo 1998; Fan Li 2000)

Features: Pits (Fan Li 2000: 150)

Pottery: (Beijing Daxue Kaogu Shixidui and Henan Sheng Nanyang Shi Wenwu Yanjiusuo 1998: 42; Fan Li 2000: 154)

Fabric: Mostly sand-tempered ware, slightly less fine ware; mainly grey and grey-brown ware; some red ware; few instances of black ware

Vessel forms: Jars [3h3]; tripodal jars [3b3]; tripodal jars [3h3];
thin-walled conical cups [1a4]; high-ring-based cups [2b3];
deep spouted basins [2f3];
high-ring-based bowls [2l2]; high-ring-based bowls [1d3]; bowls [2l4];
ring-based dishes used as lids [1l3]

Surface treatment/decoration: Appliqué, horizontal ridges, mat imprints, openwork; few instances of red paint

Remarks

Two different attempts were made at finding a periodization of this site: Zhang Jiangkai distinguishes five Yangshao Culture phases and two Qujialing Culture phases (Beijing Daxue Kaogu Shixidui and Henan Sheng Nanyang Shi Wenwu Yanjiusuo 1998), while Fan Li distinguishes three Yangshao Culture phases and two Qujialing Culture phases (Fan Li 2000). While it would be possible to integrate some of Zhang's phases into Fan's phases, the two schemes are occasionally at odds with each other. For example, grave M64 is dated to the Yangshao Culture phase I by Zhang and the Yangshao Culture phase II by Fan, while grave M41 is dated to phase II by Zhang and phase I by Fan. In a similar vein, Zhang dates pit H150 to the Qujialing Culture phase I and pit H121 to the Qujialing Culture phase II, while it is the reverse in Fan's scheme. Nevertheless, I have chosen to adopt Fan Li's system here, because it reflects the material well enough (Shi Tao, personal communication) and because, unlike Zhang, Fan has put his periodization into a regional context, which in turn facilitates the inter-regional comparison that is my goal as well.

Although the artifact assemblage from Baligang definitely includes stone and bone artifacts, they are not described in the published reports, so they are left out here.

Qinglongquan

Settlement: Yangshao Culture, Zhujiatai Culture, Qujialing Culture, Shijiahe Culture, and Post-Shijiahe Culture; Cemetery: Qujialing Culture and Shijiahe Culture

Location: Hubei Province, Shiyan City, Yunyang District

On two promontories in the southern foothills of the Yuqian Mountains; about 200 m north of the Han River

Fieldwork:

Test excavation: 1958

Excavations: 1st season: October to December 1959; western and eastern areas, 95 m² (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo 1991)

2nd season: April to August 1960; eastern area, 538.5 m² (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo 1991)

3rd season: October 1960 to January 1961; eastern area, finishing excavation of the trenches opened in the 2nd season (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo 1991)

4th season: January to July 1961; western and eastern areas, 262.5 m² (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo 1991)

5th season: December 1961 to May 1962; eastern area, finishing excavation of the trenches opened in the 4th season (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo 1991)

6th season: April to October 2008; western area, 1600 m² (Wuhan Daxue Kaogu Xi et al. 2010)

Site size: About 45 hectares

Qinglongquan I

Cultural affiliation: Yangshao Culture (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo 1991; Fan Li 2000; Ren Xinyu 2001), Yangshao Culture Zhujiatai Type (Meng Huaping 1997), Zhujiatai Culture (Wuhan Daxue Kaogu Xi et al. 2010)

Features: 7 houses, 1 accumulation of burnt earth, 1 ditch, 6 urn graves (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo 1991: 15-21; Wuhan Daxue Kaogu Xi et al. 2010: 16)
Five of the houses have round outlines. Not all have been preserved completely, but three houses have been excavated in full. Their diameter is about 3.7 m on average. Their remains consist of the round foundation trenches containing postholes as well as pieces of burnt earth.

Two of the houses have rectangular outlines, measuring about 5 m x 4 m. They are wattle-and-daub constructions with foundation trenches containing postholes.

The accumulation of burnt earth is largely flat, 3.1 m in the center, and covers an area of 150 m².

The urns in four of the burials are lying on the side with the mouth pointing west; in the other two burials they are standing upright. In the two upright burials and two of the sideways burials, the mouth of the urn was covered by another vessel.

Pottery: (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo 1991: 42-51)

Fabric: 59% sand-tempered grey ware, 30% fine orange ware, 5% sand-tempered red ware, 5% fine grey ware, 1% black ware

Vessel forms: 6 jars [3b3]; 1 small jar [3b3]; 1 jar [3i5]; 2 jars with large spout under the rim [3l3]; 2 necked jars [2a8]; 1 necked jar with painted decoration [2a3]; 3 necked jars [2a3]; 3 tripodal jars [3b2]; 6 tripodal jars [3b3]; 2 large jars [3b2]; 3 large jars [3h2]; 2 jars [3h3]; 1 jar [3h2]; 1 jar [2b3]; 1 necked jar [1k3]; 1 necked jar [1a3]; 1 jar with spout extending over rim [3l3]; 3 jars with small ring handles on lids [3l3];
2 vats [3a3]; some vats [1a2];
1 cup [2l5]; 2 thick-walled cups [1a2]; 1 cup [2h3];

1 deep basin with painted rim [3l3]; 2 deep basins [3l8]; 1 deep basin [2f3]; 2 basins [3l8]; 1 basin [2l8]; 1 basin [1f5]; 1 basin [1d3]; 1 basin [3c3]; 3 tripodal basins [2b2]; 2 tripodal basins [3h3]; 1 basin [3b2]; 1 basin [2f3]; 1 basin [1a2];
17 bowls [3l3]; 1 bowl [2a8]; 3 bowls [1l3];
2 dishes [1l5]; 1 small ring-based dish used as lid [1l3]; 1 small ring-based dish used as lid [1k3]; 1 ring-based dish used as lid [1l3]; 1 ring-based dish used as lid [1a3]; 1 large ring-based dish used as lid [1l3]; 1 large ring-based dish used as lid [1a3];
2 lids with ridge inside the rim; many tripodal feet

Surface treatment/decoration: Mostly horizontal grooves, mat imprints; also wavy lines, appliqué, cord marks, painted decoration

Other pottery artifacts: 70 spindle whorls; 24 rings (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo 1991: 51f.)

Stone artifacts: 85 axes; 35 adzes; 5 spades; 4 chisels; 7 knives; 1 net sinker; 2 discoid choppers; 1 scraper; 22 arrowheads; 1 stone ball; 1 hammer stone; 3 pestles; 4 grindstones; 1 polisher; 11 rings; 2 crescent-shaped pendants (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo 1991: 52-57)

Jade artifacts:

Bone artifacts: 31 arrowheads; 7 pins; 1 ring; 3 plates (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo 1991: 57f.)

Qinglongquan II

Cultural affiliation: Early Qujialing Culture (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo 1991; Meng Huaping 1997; Fan Li 2000; Meng Yuanzhao 2011), Zhujiatai Culture (Wuhan Daxue Kaogu Xi et al. 2010), Yangshao Culture (Ren Xinyu 2001)

Features: 1 house, 1 accumulation of burnt earth, 1 pit (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo 1991: 21-26)

The house has a rectangular outline measuring 13.85 m x 5.4 m. The house is divided by an internal wall into two rooms. Both rooms have doorways towards the outside, but are not connected to each other. The clay walls exhibit no foundation trenches or postholes. They might have been constructed in an adobe technique. There are three postholes inside each room. The sand floor has a substructure consisting of burnt earth. Each room contained an earthen platform measuring 1.8 m x 1.2 m with preserved heights of 5 cm and 10 cm respectively. One of the postholes is inside the platform. Next to the platforms are one jar each that are buried with their rims level to the floor. One contained ash, the other a stone hoe.

The accumulation of burnt earth is next to the house, it covers an area of more than 400 m². It is about 2 m high in the center.

Pottery: (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo 1991: 58-71)

Fabric: 52% sand-tempered grey ware, 19% fine red ware, 13% fine grey ware, 7% fine black ware, 6% sand-tempered red ware

Vessel forms: 3 small jars [3b3]; 2 small ring-based jars [3h3]; 1 flat high-ring-based jar [3h3]; 1 jar [3c5]; 1 jar [3b8]; 2 jars [3h2]; 2 globular necked jars [1k3]; 1 globular necked jar [1a8]; 2 small tripodal jars [3b3]; 1 tripodal jar with perforated bottom probably used for steaming, without preserved rim; 1 large jar [3h3]; 3 large jars [3h2]; 1 globular jar [3h3];
1 pot with two small ring handles below the rim [3i3]; 1 tripodal pot [3b2]; 1 pot [2f3]; 1 conical pot [2b3]; 1 conical pot [1b3];
1 vat with small ring handles below rim [3f3]; 1 vat with small ring handles below rim [3l3]; 1 vat with lugs below rim [3l3]; 2 vats [3l5]; 1 vat [1a7]; 1 vat [1k7];
2 thin-walled conical cups [1a4]; 1 cup with two perforated lugs below the rim [1f3]; 1 high-ring-based cup [1k3]; 1 cup [1c5]; 1 cup [1a3]; 1 cup [2l2];
1 high-necked bottle [1k3];
3 tripodal basins [2h3]; 1 tripodal basin [2h2]; 2 basins [3d3]; 1 basin [2c3]; 1 basin [1c3]; 1 basin [1c2]; 1 basin [3l8]; 1 basin [1o2]; 1 basin [2n5]; 1 basin [3h2]; 1 basin

[2b5]; 1 basin [2a8]; 1 basin [3l3]; 1 basin [2a2];
8 bowls [2l3]; 6 thin-walled bowls [1l4]; 2 bowls [1l2]; 1 ring-based bowl [1h3]; 1 bowl [1d5];
3 small dishes [2l3]; 2 high-ring-based dishes [1c3]; 1 double-bellied dish [1h3]; 1 dish [1b3]; 2 deep dishes [1h3]; 1 deep dish [1b3]; 1 ring-based dish [1f5]; 1 ring-based dish used as lid [1l8];
1 concave lid with stem-like knob [1d5]; 3 lids with wavy ring-base-shaped knobs [1l3]; 1 lid with cup-shaped knob [1a3]; 1 biconical vessel stand; many wedge-shaped tripodal feet; 1 fragment of probably a scoop with ring handle

Surface treatment/decoration: Mostly horizontal grooves; some carved lines and appliqué; few instances of openwork, mat imprints, circular imprints, rectangular marks, rhomboid marks, cord marks, paint

Other pottery artifacts: 38 spindle whorls; 2 rings (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo 1991: 71f.)

Stone artifacts: 88 axes; 45 adzes; 14 chisels; 32 hoes; 11 discoid choppers; 2 net sinkers; 8 spades; 4 knives; 78 arrowheads; 1 stone ball; 5 whetstones; 3 crescent-shaped pendants with perforations at either end; 3 rings (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo 1991: 72-80)

Jade artifacts:

Bone artifacts: 64 arrowheads; 1 spade; 22 pins; 1 dagger; 1 ivory comb (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo 1991: 80)

Qinglongquan III

Cultural affiliation: Late Qujialing Culture (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo 1991), Qujialing Culture (Wuhan Daxue Kaogu Xi et al. 2010)

Features: 28 houses, 7 accumulations of burnt earth, 3 kilns, 65 pits, 1 possible lithics manufacturing area, 11 pit graves, 9 urn graves (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo 1991: 26-38; Wuhan Daxue Kaogu Xi et al. 2010: 18f.)

Among the 28 houses, 23 have rectangular outlines and 5 have round outlines. Four of the houses feature two rooms and one features three rooms.

Three of the rectangular houses form a row with less than 5 m distance between them (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo 1991: 26-29). They consist of single rooms and have similar sizes measuring, on average, 4.2 m x 2.7 m. The walls consisted of wattle-and-daub. All houses feature foundation trenches containing postholes. They each contain a clay installation against the interior of the northern wall. The excavators address these installations as stove platforms.

One of the round houses taken as an example has a diameter of 3.55 m (Wuhan Daxue Kaogu Xi et al. 2010: 19). Its foundation trench contains 14 postholes.

One of the accumulations of burnt earth covers 250 m² and has a thickness of about 20 cm (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo 1991: 29).

The main chambers of the two kilns excavated in the 1960s are not preserved, but the excavated remains include oval fire pits, measuring each about 1.2 m x 0.6 m, and three channels in each kiln, connecting the fire pit with the main kiln chamber situated above (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo 1991: 29).

There is an area situated between two of the houses that is covered in lithic debitage, some lithic tools, and some ceramic sherds. This possible area for the manufacture of lithic artifacts is about 3.5 m wide.

The grave pits of the six inhumation burials excavated in the 1960s are rectangular and measure about 2.0 m x 0.6 m with a depth of about 0.2 m (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo 1991: 36f.). The deceased were buried in supine position with stretched limbs. The heads were pointing west to northwest in four cases and northeast in two cases. One of the graves included a 46 cm wide and 46 cm deep pit directly below the waist of the deceased. The pit contained a large necked jar and a bowl. The only other preserved burial good in another grave was one small jar next to

the right foot of the deceased. Among the five inhumation burials excavated in 2008, four contained ceramic vessels as burial goods and one featured a pit below the waist containing a large necked jar as well (Wuhan Daxue Kaogu Xi et al. 2010: 19).

Five of the urn burials excavated in the 1960s consisted of urns standing upright, while the other two urns were lying on the side with the openings facing west (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo 1991: 37f.). In four cases, three upright and one sideways urn, the mouths of the urns were lidded with bowls or dishes. One burial furthermore contained one polished bone tube, another a small deer antler. The urns of the two burials excavated in 2008 were covered with dishes or bowls as lids as well (Wuhan Daxue Kaogu Xi et al. 2010: 19).

A pit dug into a foundation trench of one of the houses contained a human skull of an adult woman (Wuhan Daxue Kaogu Xi et al. 2010: 18).

Pottery: (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo 1991: 80-102; Wuhan Daxue Kaogu Xi et al. 2010: 20-22)

Fabric: According to the 1991 report: 30% sand-tempered grey ware, 24% fine grey ware, 17% sand-tempered red ware, 14% fine red ware, 14% fine black ware (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo 1991: 81); according to the 2010 report: 80% sand-tempered ware, mostly grey, 20% fine ware, mostly red (Wuhan Daxue Kaogu Xi et al. 2010: 20)

Vessel forms: About 40 jars [3h3]; 17 necked jars [2b3]; 2 jars [3b3]; 1 large tripod jar [2o3]; 8 tripod jars [3h3]; 1 tripod jar [3h8]; 1 tripod jar [3b8]; 7 thin-walled ring-based jars [3h3]; 2 thin-walled ring-based jars [2h3]; 5 flat ring-based jars [3h5]; 1 flat ring-based jar [3a8]; 1 miniature jar [3b3]; 1 miniature stand ring jar [3h5]; 1 miniature stand ring jar [2b3]; 1 miniature necked jar [1k5]; 1 large jar [3b2]; 1 large jar [3b8]; 1 large jar [3b10]; 1 large jar [3h5]; 2 large necked jars [1k3]; 1 large necked jar [1a8]; 1 large necked jar [2a8]; 1 large necked jar [2b3]; 1 large necked jar [1a3]; 3 small jars [3b3]; 1 cylindrical stand ring jar [1f3]; 1 necked jar [1k3]; 1 cylindrical tripod jar [2b3]; 1 high-ring-based jar [2h3]; 1 large tall jar with openwork designs cut into body

[3h2]; 1 small round-based jar [3b5]; 1 round-based jar [3h3]; 2 cylindrical jars [2f3]; 4 tripodal pots [3b3]; 1 pot [1k8];

About 8 vats [2h2]; 3 vats [2h8]; 1 vat [2h3]; 1 vat [3h8]; 1 vat [2a8]; 1 vat with ring handles below rim [3a3]; 1 vat [3h3]; 1 vat with appliqué on top of rim [1k2]; 1 vat with appliqué on top of rim [1b8]; 2 vats [1a7];

12 thin-walled conical cups [1a4]; 1 thin-walled conical ring-based cup [1k4]; 1 thin-walled conical stand ring cup [1k4]; 1 conical cup [1a3]; 9 thin-walled trumpet-shaped cups [1l4]; 2 high-ring-based cups [3b3]; up to 13 high-ring-based cups [3h3]; 3 high-ring-based cups [2b3]; 1 high-ring-based cup [1k3]; 1 high-ring-based cup [1h3]; 7 conical ring-based cups used as lids [1a3]; at least 1 stand ring cup [1f5];

12 flat high-ring-based shoulder vessels [1a5]; many shoulder vessels [1a4];

Up to 27 basins [2h3]; 4 tripodal basins [1h3]; 2 deep basins [2h3]; 3 basins [2d3]; 2 basins [1m3]; 1 basin [1c2]; 1 basin [3l3]; 2 basins with spout extending over the rim [3l8]; 5 basins with spout extending over the rim [3l3]; 1 basin with perforated lugs on belly [1f2]; 1 tripodal basin [2h3]; 1 tripodal basin [1f3]; 3 basins [1f3]; 1 basin [2l3]; 1 basin [3l8]; 1 basin [3h3]; 1 basin [1k3]; 1 basin [2c2]; 1 basin [2l2];

Up to 27 bowls [2l8]; 7 bowls [1l2]; 12 bowls [1l5]; 1 bowl [1k2]; 1 ring-based bowl [1l3]; 1 ring-based bowl [1l8]; 1 ring-based bowl [2l8]; 2 ring-based bowls [1h3]; 4 high-ring-based bowls [1d3]; 6 high-ring-based bowls [1h3]; 1 ring-based bowl [1f3]; 1 ring-based bowl used as lid [1a3];

1 high-ring-based dish [1c5]; 1 double-bellied high-ring-based dish [2h5]; 1 double-bellied high-ring-based dish [2h3]; 2 double-bellied dishes [1h5]; 1 ring-based dish used as lid [1c3]; 1 deep dish [1k3];

1 lid with hole in top [1a3]; 2 lids [1i3]; 2 conical lids [1a3]; 3 lids with wavy ring-base-shaped knob [1d3]; up to 19 lids with wavy ring-base-shaped knob [1l3]; 2 hourglass-shaped vessel stands; 1 vessel support; many wedge-shaped tripodal feet

Surface treatment/decoration: Mostly horizontal grooves; some mat imprints; few instances of appliqué, openwork, carved lines, wavy lines, paint

Other pottery artifacts: 162 spindle whorls; 6 rings; 1 net sinker (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo 1991: 102-104; Wuhan Daxue Kaogu Xi et al. 2010: 22)

Stone artifacts: 171 axes; 97 adzes; 36 chisels; 80 hoes; 10 spades; 15 discoid choppers; 1 scraper; 5 knives; 2 sickles; 1 pestle; 5 net sinkers; 17 arrowheads; 2 polishers; 5 whetstones; 1 ring disc; 1 angular tube; 5 crescent-shaped pendants; 13 rings; 2 beads (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo 1991: 104-113)

Jade artifacts: 4 artifacts including a pendant, a pin, and an adze (Wuhan Daxue Kaogu Xi et al. 2010: 19)

Bone artifacts: 80 arrowheads; 2 harpoons; 5 awls; 2 chisels; 1 spade; 2 knives; 10 pins; 2 rings; 1 tube (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo 1991: 113f.)

Faunal remains: Bones of pig, dog, cattle; fishbones; clam and snail shells; tortoise shells (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo 1991: 114)

The phases Qinglongquan IV and Qinglongquan V belong to the Shijiahe Culture and Post-Shijiahe Culture respectively.

Remarks

The Yangshao Culture occupation phase, Qinglongquan I, is further subdivided by Meng Huaping (1997) and Fan Li (2000), however, the two authors do not agree which of their sub-periods is earlier and which is later. Since the features they use to define these periods are located in different excavation areas, the problem cannot be solved by stratigraphy. Furthermore, the vessel forms they cite as examples are few compared to the overall volume of Yangshao Culture material from this site. In the end I follow Ren Xinyu (2001) in not splitting this phase. In accordance with Meng, Fan, and Ren, the general chronological position of the Yangshao Culture assemblage from Qinglongquan should be rather late compared to the Xiawanggang assemblage.

There is also a controversy surrounding the Qinglongquan II occupation phase. The

authors of the 6th season report, Chen Bingbai, Zhou Guoping, Luo Yunbing, and Chen Minghui (Wuhan Daxue Kaogu Xi et al. 2010), follow Ren Xinyu (2001) in claiming the material that is labeled "Early Qujialing Culture" in the 1991 excavation report (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo 1991) is actually so similar to the Qinglongquan I material that it should be considered the same phase - Yangshao Culture or Zhujiatai Culture. However, in the meantime other authors have continued to consider this phase "Early Qujialing Culture" (Meng Huaping 1997; Fan Li 2000; Meng Yuanzhao 2011). While the similarities to the previous phase noted by Ren as well as Chen, Zhou, Luo, and Chen certainly exist, Chen et al. are incorrect when they claim that typical Qujialing Culture vessels, such as double-bellied vessels and shoulder vessels, do not appear in this phase (Wuhan Daxue Kaogu Xi et al. 2010: 30). In the 1991 report, there is at least one instance of a double-bellied dish (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo 1991: 64, fig. 55, 7) and a bowl with a wide upward-curving rim that might also qualify (64, fig. 55, 1). Furthermore, there are fragments of painted shoulder vessels (60, fig. 52, 7; 11; 14) as well as thin-walled conical cups (62, fig. 54, 16) and high-ring-based cups (62, fig. 54, 12). While these are individual examples that might be lumped in with an earlier occupation phase due to intrusions or inaccuracies in the excavation and sorting of the material, they could also represent an early stage of occurrence of Qujialing Culture pottery among the Late Yangshao or Zhujiatai assemblage. I therefore opted, for now, to keep this phase separate.

Due to my different counting of chronological stages, the occupation phase "Qinglongquan III" should not be confused with the "Qinglongquan III Period" or "Qinglongquan III Culture" mentioned in earlier articles. That phase would be equivalent to Qinglongquan IV in this system and would later become known as Shijiahe Culture.

Xiawanggang

Settlement and cemetery: Yangshao Culture, Qujialing Culture, Shijiahe Culture, Longshan Culture, Erlitou Culture, and Western Zhou Dynasty

Location: Henan Province, Nanyang City, Xichuan County

On a plateau at the south shore of the Dan River

Fieldwork:

Excavations: 1st season: November 1971 to January 1972; 700 m² (Henan Sheng Bowuguan et al. 1972)

2nd season: April 1972 to June 1974; cemetery of phase II and row house of phase III, 2,309 m² (Henan Sheng Wenwu Yanjiusuo and Chang Jiang Liuyu Guihua Bangongshi Kaogudui Henan Fendui 1989)

Site size: About 0.6 hectares preserved

Xiawanggang I

Cultural affiliation: Yangshao Culture occupation phase 1 (Henan Sheng Bowuguan et al. 1972; Henan Sheng Wenwu Yanjiusuo and Chang Jiang Liuyu Guihua Bangongshi Kaogudui Henan Fendui 1989)

Features: 6 houses, 37 pits, 123 pit graves, 1 urn grave (Henan Sheng Bowuguan et al. 1972: 6f.; Henan Sheng Wenwu Yanjiusuo and Chang Jiang Liuyu Guihua Bangongshi Kaogudui Henan Fendui 1989: 12-37)

The six houses all have round outlines. Three of the houses are semi-subterranean. The semi-subterranean houses are generally smaller, their areas ranging between 4.90 m² and 7.50 m². The areas of the ground-level houses vary between 13.85 m² and 50.38 m².

The inhumation burials have rectangular grave pits, except for one burial in a round pit. A lot of the graves were arranged in rows. The pits are about 2 m long on average and 0.6 m wide with a depth of about 0.55 m. An exception to this are 14 infant burials which measure about 1 m x 0.3 m, 0.15 m deep. 9 additional infant burials did not have their own pits but were interred on the side of adult women. Both adults and infants were generally buried in supine position with stretched limbs. The only exception are two flexed-limb burials. There is one burial containing two adults, both of them male. In 102 burials the heads were pointing northeast. 10 burials had heads pointing southwest; the rest were pointing in various directions. 74 of the burials contained burial goods, most of the time one ceramic vessel.

The urn in the single urn burial was buried with its mouth downward. It had a small hole in the bottom.

Pottery: (Henan Sheng Bowuguan et al. 1972: 6f.; Henan Sheng Wenwu Yanjiusuo and Chang Jiang Liuyu Guihua Bangongshi Kaogudui Henan Fendui 1989: 44-50)

Fabric: 48% fine red ware, 23% sand-tempered brown ware, 23% fine black ware, 3% fine grey ware, 2% sand-tempered grey ware, 1% sand-tempered grey-white ware

Vessel forms: 53 jars [3b3]; 23 tripodal jars [3b3]; 2 miniature necked jars [1a3]; 2 miniature necked jars [1k3]; 1 small necked jar [1k3];

1 ring-based pot [3b3];

1 thick-walled cup [3l3]; 1 thick-walled cup [2a2]; 1 thick-walled cup [1a3];

6 high-necked bottles [1a8]; 3 high-necked bottles [2a8]; 1 high-necked bottle [1f3]; 1 bottle [1a3];

2 basins [2d3]; 1 basin [1b3]; 1 basin [1h3];

15 bowls [2l3]; 1 bowl [3l3]; 1 high-ring-based bowl [1a3]; 2 stand ring bowls [2l3];

2 conical lids [1a3]; 1 cylindrical vessel stand; 2 small hourglass-shaped vessel stands

Surface treatment/decoration: Horizontal grooves, fingernail imprints, knobs; only very few painted sherds

Other pottery artifacts: 1 paddle for pottery making; 70 files; 3 balls; 1 silkworm figurine; 1 bird figurine (Henan Sheng Wenwu Yanjiusuo and Chang Jiang Liuyu Guihua Bangongshi Kaogudui Henan Fendui 1989: 44; 51)

Stone artifacts: 52 axes; 14 spades; 4 hoes; 1 knife; 1 sickle; 26 chisels; 3 millstones; 1 anvil; 5 grinding stones; 12 arrowheads; 3 net sinkers; 7 stone balls; 2 daggers; 48 scrapers; 3 earring pendants; 2 rings (Henan Sheng Bowuguan et al. 1972: 6f.; Henan Sheng Wenwu Yanjiusuo and Chang Jiang Liuyu Guihua Bangongshi Kaogudui Henan Fendui 1989: 38-42; 51)

Precious stone artifacts: 1 piece of pyrite; 1 piece of ferromanganese; 7 pieces of rock crystal (Henan Sheng Wenwu Yanjiusuo and Chang Jiang Liuyu Guihua Bangongshi Kaogudui Henan Fendui 1989: 51f.)

Bone artifacts: 3 spades; 1 adze; 3 chisels; 48 arrowheads; 1 dart; 17 needles; 9 awls; 21 pins; 384 beads; 1 tube; 35 deer tooth ornaments; 1 shell ornament; 1 shell figurine presumably of a cicada (Henan Sheng Bowuguan et al. 1972: 6f.; Henan Sheng Wenwu Yanjiusuo and Chang Jiang Liuyu Guihua Bangongshi Kaogudui Henan Fendui 1989: 42-44; 51)

Faunal remains: 1 elephant molar; 1 turtle shell and 1 dog skeleton contained in one of the single burials (Henan Sheng Bowuguan et al. 1972: 6f.; Henan Sheng Wenwu Yanjiusuo and Chang Jiang Liuyu Guihua Bangongshi Kaogudui Henan Fendui 1989: 52)

Xiawanggang II

Cultural affiliation: Yangshao Culture occupation phase 2 (Henan Sheng Bowuguan et al. 1972; Henan Sheng Wenwu Yanjiusuo and Chang Jiang Liuyu Guihua Bangongshi Kaogudui Henan Fendui 1989)

Features: 4 houses, 72 pits, 2 kilns, 451 pit graves, 21 urn graves (Henan Sheng Bowuguan et al. 1972: 8; Henan Sheng Wenwu Yanjiusuo and Chang Jiang Liuyu Guihua Bangongshi Kaogudui Henan Fendui 1989: 53-128)

All four houses are built on ground level with round outlines. Their areas range from 4 m² to 9 m².

The kilns consist of two pits, the fire pit and the main firing chamber, connected by an underground channel. They were used for firing pottery.

The grave pits of the inhumation burials are distributed extremely densely with frequent overlaps. Most grave pits are rectangular, some are square, and there are a few instances of round or oval grave pits. 64% of the burials are secondary burials. Out of the 162 primary burials, 158 were burials of single bodies. Out of these, 151 bodies were buried supine with stretched limbs, 4 bodies were buried lying on the side, and 1 body was buried prone. In two cases, the skull and long bones had been removed from the graves, leaving the rest of the skeletons and the burial goods behind. There are 3 instances among the primary burials of two bodies buried together and 1 instance of three bodies buried together. In the multiple burials, all bodies were buried in supine position with stretched limbs. The secondary burials all consist of the skull with the long bones of arms and legs arranged below it parallel to each other. Among the 289 graves with secondary burials, 202 contained the bones of one individual, 26 contained the bones of two individuals, 19 contained the bones of three individuals, 11 contained the bones of four individuals, 9 contained the bones of five individuals, 5 contained the bones of six individuals, 3 contained the bones of seven individuals, 4 contained the bones of eight individuals, 3 contained the bones of nine individuals, 1 contained the bones of twelve individuals, 1 contained the bones of fifteen individuals, 1 contained the bones of sixteen individuals, 2 contained the bones of twenty individuals, 1 contained the bones of twenty-one individuals, and 1 contained the bones of twenty-nine individuals. In almost all cases the heads are pointing east. About 70% of the graves contained burial goods, mostly ceramic vessels.

A variety of vessels were used as urns for the urn burials, including jars, tripodal jars, bowls, basins, and amphorae. Most of them were standing upright.

Pottery: Out of 1,308 excavated vessels, 1,057 were discovered in mortuary contexts (Henan Sheng Bowuguan et al. 1972: 8f.; Henan Sheng Wenwu Yanjiusuo and Chang Jiang

Liuyu Guihua Bangongshi Kaogudui Henan Fendui 1989: 143-161).

Fabric: 31.1% fine red ware, 29.4% sand-tempered brown ware, 25.2% sand-tempered brown ware, 8.2% fine grey ware, 6.0% fine black ware

Vessel forms: Many jars [3b3]; many jars [3b5]; 15 jars [3c3]; 1 necked jar [2a3]; jars with hole in bottom [3l3]; small tripod jars [3b3]; small tripod jars [3c2]; tripod jars [3b5]; small tripod jars [3k2]; 33 large tripod jars [3c5]; 5 tripod jars [3b3]; 5 wide-necked tripod jars [2c3]; 1 high-necked jar [2b3]; 1 jar [1f2]; 1 large necked jar [1d3];

2 pots [3b3]; tripod pots [3l3]; 2 tripod pots [3b3]; 1 small pot [2b3];

1 vat [3b2]; 1 vat [2a6]; 1 vat [3a2]; 1 vat [2b2]; 1 vat [1h2]; 1 slender vat possibly with a pointed base [1a2];

2 thin-walled stand ring cups [1k4]; 1 stand ring cup [2a4]; 1 cup [2a8]; 1 stand ring cup [3a8]; 5 cups [2a3]; 1 ring-based cup [1k3]; 1 cup [1f3]; 1 ring-based cup [3h5]; 1 large cup [2o2]; 2 large cups [1k3];

2 high-necked bottles [2k3];

4 tripod basins [3c3]; 4 basins with perforated bottom [3l8]; 1 deep basin [2b8]; 1 basin [3b2]; 1 basin [3c3]; 1 deep basin [1d2]; 1 basin [1a8]; 1 basin [2c3]; 3 basins [2l8]; 1 deep basin [1k3];

many deep bowls [2a3]; many deep bowls [3a3]; many bowls [3l3]; 3 deep bowls [3l3]; 18 deep bowls [2l3]; many deep bowls [1a3]; 5 deep bowls [1a5]; many deep bowls [1k3]; many bowls [1a3]; 9 bowls [1l3]; 1 deep bowl [3l4]; bowls [2l3]; 2 thin-walled deep bowls [1l4]; 1 ring-based bowl [1l4]; 1 ring-based bowl [1k4]; 2 high-ring-based bowls [1f5]; 2 high-ring-based bowls [1k5]; 1 bowl with perforated bottom [3l3];

many dishes [1l3]; 2 dishes [2l8]; 3 dishes [1d3]; 1 wide-ring-base dish [1l3]; 1 deep wide-ring-base dish with jagged lip [1d3]; 1 high-and-wide-ring-base dish [1q3]; 1 high-and-wide-ring-base dish [1c2];

6 lids with ring handles [2c3]; 9 conical lids with ring handles [1l3]; many hourglass-shaped vessel stands

Surface treatment/decoration: Horizontal grooves, cord marks, carved lines, appliqué, finger-nail imprints, openwork

Other pottery artifacts: 119 spindle whorls; 85 files; 13 balls; 12 rings; 10 balls; 2 bells (Henan Sheng Bowuguan et al. 1972: 8; Henan Sheng Wenwu Yanjiusuo and Chang Jiang Liuyu Guihua Bangongshi Kaogudui Henan Fendui 1989: 141-143; 163f.)

Stone artifacts: 247 axes; 4 adzes; 15 spades; 108 chisels; 3 knives; 3 sickles; 216 scrapers; 8 hammerstones; 143 net sinkers; 114 arrowheads; 12 stone balls; 1 millstone; 1 pestle; 1 dagger; 4 earring pendants; 5 ring discs; 2 tubes (Henan Sheng Bowuguan et al. 1972: 8; Henan Sheng Wenwu Yanjiusuo and Chang Jiang Liuyu Guihua Bangongshi Kaogudui Henan Fendui 1989: 128-137; 161)

Precious stone artifacts: 19 turquoise earring pendants (Henan Sheng Wenwu Yanjiusuo and Chang Jiang Liuyu Guihua Bangongshi Kaogudui Henan Fendui 1989: 161)

Bone artifacts: 10 spades; 5 chisels; 3 daggers; 143 arrowheads; 22 awls; 3 fishhooks; 41 needles; 13 pendants; 2 tubes; 1 awl made out of the fang of an undetermined animal; 1 antler awl; 1 shell earring; 1 boar tusk pendant (Henan Sheng Bowuguan et al. 1972: 8; Henan Sheng Wenwu Yanjiusuo and Chang Jiang Liuyu Guihua Bangongshi Kaogudui Henan Fendui 1989: 137-141; 162f.)

Xiawanggang III

Cultural affiliation: Yangshao Culture occupation phase 3 (Henan Sheng Wenwu Yanjiusuo and Chang Jiang Liuyu Guihua Bangongshi Kaogudui Henan Fendui 1989)

Features: 21 house units, 8 pits, 1 pit grave (Henan Sheng Wenwu Yanjiusuo and Chang Jiang Liuyu Guihua Bangongshi Kaogudui Henan Fendui 1989: 165-184)

17 of the house units were arranged in a long row and have been reconstructed as one row house. Not all units were well preserved, but the excavators claim that the outlines were still clearly visible. Most units supposedly constituting the row house consisted

of two rooms opening into one antechamber which contained the door to the outside. Apart from that, there were 5 units consisting of only one room with an antechamber. All the outer doorways opened into southeastern direction. Altogether there were 29 rooms to the row house, not including antechambers. The units consisting of two rooms and one antechamber measured between 15.35 m² and 38.85 m². The units consisting of single room and antechamber measured between 13.58 m² and 22.02 m². Some of the rooms had stoves preserved or clay installations containing stoves. At the eastern end of the supposed row house, in front of its southeastern side, there was an additional building consisting of three rooms, each with its own doorway to the outside. These three rooms measured about 19 m² each. All walls were constructed in the wattle-and-daub method and most walls features foundation trenches. The only other house apart from the supposed row house and the smaller ancilliary house is a round structure only 0.44 m in diameter. It featured 19 postholes and was situated outside the western end of the supposed row house.

The only uncovered inhumation burial of a supine body with stretched limbs featured a grave pit 1.7 m x 0.4 m with a depth of 0.35 m. The head was pointing northeast. No burial goods were discovered.

Pottery: (Henan Sheng Wenwu Yanjiusuo and Chang Jiang Liuyu Guihua Bangongshi Kaogudui Henan Fendui 1989: 193-198)

Fabric: Mostly fine red or brown ware; several instances of sand-tempered grey ware; few instances of sand-tempered red or brown ware and fine black or grey ware

Vessel forms: 11 small jars [3b3]; 2 jars [3b10]; 2 jars [3b3]; 1 necked jar [1k3]; 1 necked jar [1a2]; 1 necked jar [3b3]; 1 large tripodal jar [3b10]; 1 necked tripodal jar [1h3]; 1 pot [3b3]; 1 pot [1l3]; 1 pot [3l2]; 2 vats [3l8]; 2 necked vats [1a8]; 1 vat [2a2]; 1 bent-walled stand ring cup [3l4]; 3 cups [1c5]; 5 cups [1l5]; 1 conical cup [1k5]; 1 high-necked pointed-based amphora [2a8]; 2 bowls [1l5]; 1 bowl [1a3]; 3 large bowls [3l3]; 1 large bowl [2l3]; 1 tripodal bowl used

as lid [112];
1 high-ring-based dish [1f3];
4 lids with stem-like knobs [213]

Surface treatment/decoration: Some brown slip; few instances of appliqué or cord marks

Other pottery artifacts: 69 spindle whorls; 6 files; more than 300 fragments of rings; 11 balls (Henan Sheng Wenwu Yanjiusuo and Chang Jiang Liuyu Guihua Bangongshi Kaogudui Henan Fendui 1989: 192f.; 200)

Stone artifacts: 94 axes; 7 adzes; 5 spades; 3 knives; 34 chisels; 18 arrowheads; 1 stone ball; 20 net sinkers; 11 scrapers; 2 hammerstones; 3 grinding stones; 5 earring pendants; 1 crescent-shaped pendants (Henan Sheng Wenwu Yanjiusuo and Chang Jiang Liuyu Guihua Bangongshi Kaogudui Henan Fendui 1989: 185-190; 198)

Jade artifacts: 2 pendants; 1 ring (Henan Sheng Wenwu Yanjiusuo and Chang Jiang Liuyu Guihua Bangongshi Kaogudui Henan Fendui 1989: 198)

Bone artifacts: 89 arrowheads; 2 daggers; 4 needles; 9 awls; 11 pins; 1 awl made from a pig tooth; 1 sheep or goat scapula used for divination (Henan Sheng Wenwu Yanjiusuo and Chang Jiang Liuyu Guihua Bangongshi Kaogudui Henan Fendui 1989: 190-192; 198-200)

Xiawanggang IV

Cultural affiliation: Qujialing Culture (Henan Sheng Bowuguan et al. 1972; Henan Sheng Wenwu Yanjiusuo and Chang Jiang Liuyu Guihua Bangongshi Kaogudui Henan Fendui 1989)

Features: 20 pits, 3 pit graves, 3 urn graves (Henan Sheng Bowuguan et al. 1972: 10; Henan Sheng Wenwu Yanjiusuo and Chang Jiang Liuyu Guihua Bangongshi Kaogudui Henan Fendui 1989: 201-206)

Two of the grave pits of the inhumation burials. One of them is a supine burial of an adult woman with stretched limbs and the head pointing southwest. This pit was 1.85 m long, 0.55 m wide, and 0.1 m deep. The only preserved burial good was a bone pin above the head, possibly a hairpin. The other rectangular pit belongs to a single infant burial. The body was buried in supine position with flexed arms. Only one of the leg bones is left placed perpendicular to the body. The head was pointing north and there were no preserved burial goods. The remaining burial consisted of an oval pit with a diameter between 1 m and 1.30 m and a depth of 0.18 m. It contained the bones of four bodies in rather haphazard positions. The bodies belonged to one adult man, one adult woman, and two infants. No burial goods were preserved.

Pottery: (Henan Sheng Bowuguan et al. 1972: 10f.; Henan Sheng Wenwu Yanjiusuo and Chang Jiang Liuyu Guihua Bangongshi Kaogudui Henan Fendui 1989: 211-214)

Fabric: Mostly grey ware, both fine and coarse; small amounts of brown or red ware; ground shell temper occurs frequently

Vessel forms: 2 jars [3h2];

1 bent-walled cup [2l5]; 6 high-ring-based cups [1h5]; 3 high-ring-based cups [1a5]; 4 thin-walled conical cups [1a4];

1 shoulder vessel [1a3];

1 tripodal basin [2h2];

4 deep bowls [2l4]; 2 bowls [1l3]; 2 bowls [1l8]; 1 double-bellied ring-based bowl [1h3];

1 ring-based bowl [1d5]; 1 deep ring-based bowl [1n3]; 3 high-ring-based bowls [1h3];

3 lids with wavy ring-base-shaped knobs [1a10]; 1 lid [2l3]; 1 lid [1a3]

Surface treatment/decoration: Horizontal grooves, fine cord marks, appliqué

Other pottery artifacts: 16 spindle whorls; 11 rings; 1 bird figurine; 1 dog figurine; 2 balls (Henan Sheng Bowuguan et al. 1972: 10; Henan Sheng Wenwu Yanjiusuo and Chang Jiang Liuyu Guihua Bangongshi Kaogudui Henan Fendui 1989: 211; 215)

Stone artifacts: 25 axes; 2 adzes; 17 chisels; 4 knives; 3 sickles; 4 arrowheads; 61 net sinkers; 6 scrapers; 2 grinding stones (Henan Sheng Bowuguan et al. 1972: 10; Henan Sheng Wenwu Yanjiusuo and Chang Jiang Liuyu Guihua Bangongshi Kaogudui Henan Fendui 1989: 207-209)

Bone artifacts: 1 chisel; 17 arrowheads; 1 fishhook; 8 awls; 1 dagger; 2 needles; 15 pins (Henan Sheng Bowuguan et al. 1972: 10; Henan Sheng Wenwu Yanjiusuo and Chang Jiang Liuyu Guihua Bangongshi Kaogudui Henan Fendui 1989: 209-211; 215)

The phase of Xiawanggang V, although termed "phase 2 of the Qujialing Culture occupation" in the main excavation report (Henan Sheng Wenwu Yanjiusuo and Chang Jiang Liuyu Guihua Bangongshi Kaogudui Henan Fendui 1989), belongs to the Shijiahe Culture. In addition, Xiawanggang has occupation layers of the Longshan Culture, the Erlitou Culture, and the Western Zhou Dynasty.

Additional sites in the Middle Han River Region

Caojialou

Qujialing Culture settlement and cemetery in Hubei Province, Xiangyang City, Yicheng City; excavated (Wuhan Daxue Lishi Xi Kaogu Jiaoyanshi et al. 1988)

Dasi

Yangshao Culture and Qujialing Culture settlement and cemetery in Hubei Province, Shiyan City, Yunyang District; excavated (Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo 1991; Hubei Sheng Wenwu Kaogu Yanjiusuo, Shiyan Shi Bowuguan et al. 1996; Hubei Sheng Wenwuju 2007; Hubei Sheng Wenwu Kaogu Yanjiusuo and Hubei Sheng Wenwuju Nanshuibeidiao Bangongshi 2008)

Dengyutai

Yangshao Culture and Qujialing Culture site in Henan Province, Nanyang City, Xinye County; surveyed (Beijing Daxue Kaogu Shixidui and Henan Sheng Nanyang Shi Wenwu Yanjiusuo 1996)

Diaolongbei

Qujialing Culture settlement in Hubei Province, Xiangyang City, Zaoyang City; excavated (Xiangyang Diqu Bowuguan 1984; Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubeidui 1992; Wang Jie 1995; Wang Jie 1997; Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubeidui 2000)

Diguanfen

Yangshao Culture and Qujialing Culture site in Henan Province, Nanyang City, Xinye County; surveyed (Beijing Daxue Kaogu Shixidui and Henan Sheng Nanyang Shi Wenwu Yanjiusuo 1996)

Doupozui

Yangshao Culture and Qujialing Culture site in Henan Province, Nanyang City, Tongbai County; surveyed (Beijing Daxue Kaogu Shixidui and Henan Sheng Nanyang Shi Wenwu Yanjiusuo 1996)

Fenghuangshan

Yangshao Culture and Qujialing Culture site in Henan Province, Nanyang City, Xinye County; surveyed (Beijing Daxue Kaogu Shixidui and Henan Sheng Nanyang Shi Wenwu Yanjiusuo 1996)

Guangwutai

Qujialing Culture site in Henan Province, Nanyang City, Xinye County; surveyed (Beijing Daxue Kaogu Shixidui and Henan Sheng Nanyang Shi Wenwu Yanjiusuo 1996)

Guojiadaozi

Yangshao Culture and Qujialing Culture site in Hubei Province, Shiyan City, Yunyang District; surveyed (Hubei Sheng Wenwu Kaogu Yanjiusuo, Shiyan Shi Bowuguan et al. 1996; Hubei Sheng Wenwuju 2007)

Guojiayuan

Yangshao Culture and Qujialing Culture site in Hubei Province, Shiyan City, Yunyang District; surveyed (Hubei Sheng Wenwu Kaogu Yanjiusuo, Shiyan Shi Bowuguan et al. 1996)

Gujiapo

Qujialing Culture settlement and cemetery in Hubei Province, Xiangyang City, Yicheng City; excavated (Jia Hanqing 2004)

Huanglianshu

Yangshao Culture and Qujialing Culture settlement and cemetery in Henan Province, Nanyang City, Xichuan County; excavated (Chang Jiang Liuyu Guihua Bangongshi Kaogudui Henan Fendui 1990)

Huangshan

Yangshao Culture and Qujialing Culture site in Henan Province, Nanyang City, Wolong District; surveyed (Beijing Daxue Kaogu Shixidui and Henan Sheng Nanyang Shi Wenwu Yanjiusuo 1996)

Huangtugang

Qujialing Culture settlement in Hubei Province, Suizhou City, Sui County; surveyed with test excavations (Hubei Sheng Wenwu Kaogu Yanjiusuo 2008b)

Jiantanping

Yangshao Culture and Qujialing Culture settlement in Hubei Province, Shiyan City, Yunyang District; excavated (Wuhan Daxue Lishi Xueyuan Kaogu Xi et al. 2015)

Jintangzhai

Qujialing Culture site in Henan Province, Nanyang City, Fangcheng County; surveyed (Beijing Daxue Kaogu Shixidui and Henan Sheng Nanyang Shi Wenwu Yanjiusuo 1996)

Kangjiawan

Qujialing Culture site in Hubei Province, Shiyan City, Zhangwan District; surveyed (Shiyan Shi Bowuguan 1996)

Lengpiya

Qujialing Culture site in Hubei Province, Suizhou City, Sui County; surveyed (Xiangyang Diqu Bowuguan 1985)

Meiziyuan

Yangshao Culture and Qujialing Culture site in Hubei Province, Shiyan City, Yunyang District; surveyed (Hubei Sheng Wenwu Kaogu Yanjiusuo, Shiyan Shi Bowuguan et al. 1996; Shiyan Shi Bowuguan 1997)

Mingang

Yangshao Culture and Qujialing Culture site in Henan Province, Nanyang City, Tongbai County; surveyed (Beijing Daxue Kaogu Shixidui and Henan Sheng Nanyang Shi Wenwu Yanjiusuo 1996)

Nanzhangjiaying

Qujialing Culture settlement in Hubei Province, Shiyan City, Danjiangkou City; excavated (Hubei Sheng Wenwuju 2007)

Sanbuliangdaoqiao

Qujialing Culture site in Hubei Province, Xiangyang City, Xiangcheng District; surveyed (Hubei Sheng Bowuguan 1984)

Tuojiawan

Yangshao Culture and Qujialing Culture settlement in Hubei Province, Shiyan City, Yunxi County; excavated (Hubei Sheng Wenwu Kaogu Yanjiusuo, Hubei Sheng Wenwuju et al. 2013)

Wuying

Qujialing Culture settlement in Henan Province, Nanyang City, Xichuan County; excavated (Zhengzhou Daxue Lishi Xueyuan Kaogu Xi et al. 2011)

Xiagang

Yangshao Culture and Qujialing Culture site in Henan Province, Nanyang City, Dengzhou City; surveyed (Beijing Daxue Kaogu Shixidui and Henan Sheng Nanyang Shi Wenwu Yanjiusuo 1996)

Xiaji

Yangshao Culture and Qujialing Culture settlement in Henan Province, Nanyang City, Xichuan County; excavated (Changban Kaogudui Henan Fendui 1989)

Xigaoying

Yangshao Culture and Qujialing Culture site in Henan Province, Nanyang City, Xinye County; surveyed (Beijing Daxue Kaogu Shixidui and Henan Sheng Nanyang Shi Wenwu Yanjiusuo 1996)

Xihuayuan

Qujialing Culture settlement and cemetery in Hubei Province, Suizhou City, Zengdu District; excavated (Wuhan Daxue Kaogu Jiaoyanshi et al. 1983; Wuhan Daxue Suizhou Kaogu Fajuedui 1991)

Yangbiling

Yangshao Culture and Qujialing Culture site in Hubei Province, Shiyan City, Fang County; surveyed (Hubei Sheng Bowuguan, Fang Xian Wenhuaquan et al. 1982; Shiyan Shi Bowuguan et al. 1998)

Yingkeng

Yangshao Culture and Qujialing Culture site in Henan Province, Nanyang City, Tanghe County; surveyed (Beijing Daxue Kaogu Shixidui and Henan Sheng Nanyang Shi Wenwu Yanjiusuo 1996)

Zhaicigang

Qujialing Culture settlement and cemetery in Henan Province, Nanyang City, Tanghe County; excavated (Henan Sheng Wenhua ju Wenwu Gongzuodui 1963)

Zhaowan

Yangshao Culture and Qujialing Culture settlement in Henan Province, Nanyang City, Zhenping County; excavated (Henan Sheng Wenhua ju Wenwu Gongzuodui 1962)

Zhongtaizi

Yangshao Culture and Qujialing Culture settlement and cemetery in Hubei Province, Shiyan City, Yunyang District; excavated (Hubei Sheng Wenwu Kaogu Yanjiusuo 2011)

Period 5	Baligang V	Xiawanggang IV	Qinglongquan III	Qujialing Culture
Period 4	Baligang IV		Qinglongquan II	
Period 3	Baligang III	Xiawanggang III	Qinglongquan I	Yangshao Culture
Period 2	Baligang II	Xiawanggang II		
Period 1	Baligang I	Xiawanggang I		

Table 7: Periods of the Middle Han River Region

Brief summary

The chronology of the Yangshao Culture⁵⁷ occupation of this region is somewhat complicated and vastly different systems have been brought forth by authors such as Meng Huaping (1997), Zhang Jiangkai (Beijing Daxue Kaogu Shixidui and Henan Sheng Nanyang Shi Wenwu Yanjiusuo 1998), Fan Li (2000), and Ren Xinyu (2001). The system employed here, which only serves the purpose of presenting that time period in broad strokes so that it can be contrasted with the Qujialing Culture period, is based for the most part on Fan Li's scheme. However, there are some notable variations, especially concerning Qinglongquan, which in this system starts parallel to Baligang III and Xiawanggang III as opposed to starting parallel to Baligang II and Xiawanggang II like in Fan's system.

Period 1 is comprised of Baligang I and Xiawanggang I. Globular tripodal jars are a conspicuous feature that finds a clear parallel in Bianfan in the Handong Region.

Period 2 is made up of Baligang II and Xiawanggang II. There are still parallels with Bianfan, in this case Bianfan II, in the form of wide-necked tripodal jars. At the same time, some Daxi Culture elements are visible as well, for example high-ring-based dishes and bent-walled cups. The painted decorations share some motifs with the Miaodigou Culture in the north. Period 2 thus appears to be parallel to periods 2 and 3 in the Handong Region as well as periods 1 and 2 in the Western Jiangnan Plain. A conspicuous feature of period 2 both at Baligang and Xiawanggang are multiple burials of up to 31 individuals in one grave pit.

⁵⁷Depending on area and time period also known as Baligang Culture, Xiawanggang Culture, or Zhujiatai Culture.

Period 3 includes Baligang III, Qinglongquan I, and Xiawanggang III. This period is marked by the appearance of multi-roomed "row houses" at Baligang and Xiawanggang. Period 3 runs parallel to period 4 of the Handong Region and probably also period 5, since the next period in the Middle Han River Region belongs already to the Qujialing Culture. However, the black pottery assemblage of the Pre-Qujialing Culture, represented by period 5 of the Handong Region, is absent at the Middle Han River.

Periods 4 and 5 of the Middle Han River Region are parallel to periods 6 and 7 of the Handong Region, namely the Early and Late Qujialing Culture periods. Period 4 is represented by Baligang IV and Qinglongquan II. Period 5 is represented by Baligang V, Qinglongquan III, and Xiawanggang IV. The ceramic assemblages clearly contain all Qujialing Culture traits - double-bellied vessels, thin-walled conical cups, high-ring-based cups, shoulder vessels etc.

Site	Sub-region	Yangshao Culture	Qujialing Culture
Baligang	Dengzhou	x	x
Caojialou	Yicheng		x
Dasi	Yunyang	x	x
Dengyutai	Xinye	x	x
Diaolongbei	Zaoyang		x
Diguanfen	Xinye	x	x
Doupozui	Tongbai	x	x
Fenghuangshan	Xinye	x	x
Guangwutai	Xinye		x
Gujiapo	Yicheng		x
Guojiadaozi	Yunyang	x	x
Guojiayuan	Yunyang	x	x
Huanglianshu	Xichuan	x	x
Huangshan	Wolong	x	x
Huangtugang	Sui		x
Jiantanping	Yunyang	x	x
Jintangzhai	Fangcheng		x
Kangjiawan	Zhangwan		x
Lengpiya	Sui		x
Meiziyuan	Yunyang	x	x
Mingang	Tongbai	x	x
Nanzhangjiaying	Danjiangkou		x
Qinglongquan	Yunyang	x	x
Sanbuliangdaoqiao	Xiangcheng		x
Tuojiawan	Yunxi	x	x
Wuying	Xichuan		x
Xiagang	Dengzhou	x	x
Xiaji	Xichuan	x	x
Xiawanggang	Xichuan	x	x
Xigaoying	Xinye	x	x
Xihuayuan	Zengdu		x
Yangbiling	Fang	x	x
Yingkeng	Tanghe	x	x
Zhaicigang	Tanghe		x
Zhaowan	Zhenping	x	x
Zhongtaizi	Yunyang	x	x

Table 8: Relevant sites of the Middle Han River Region. "Sub-region" refers to the county- or district-level political unit that the site is located in. As noted above, Yangshao Culture sites without Qujialing Culture remains are omitted.

Chapter 9: Possible solutions through ceramic analysis

The Style Concept and Pottery Production

The last few chapters have aimed to set up a system of relative chronology that allows for an interregional comparison of assemblages (**Fig. 13**).⁵⁸ What remains is the question raised in Chapter 4 of the particular relationship between the Daxi Culture, the Youziling Culture, the Pre-Qujialing Culture, and the Qujialing Culture, among others. Not to mention the question if these archaeological cultures are viable constructs in the first place. This chapter represents an attempt to bring this problem together with the theoretical foundations laid in Chapters 1 and 2. Can a new conception of culture that is in touch with both anthropological ideas and popular understandings about culture be applied to the Neolithic of the Middle Yangzi River Region and yield any actual insights for archaeology? As this chapter will show, the answer is a resounding 'maybe'. Despite limited success, the reasons for which I will make clear, the intent remains to advertise and demonstrate a new approach to the subject matter.

7	Handong Region VII	Western Jiangnan Plain VI	Three Gorges Region V	Middle Han River Region V
6	Handong Region VI	Western Jiangnan Plain V	Three Gorges Region IV	Middle Han River Region IV
5	Handong Region V	Western Jiangnan Plain IV	Three Gorges Region III	Middle Han River Region III
4	Handong Region IV	Western Jiangnan Plain III	Three Gorges Region II	
3	Handong Region III	Western Jiangnan Plain II	Three Gorges Region I	Middle Han River Region II
2	Handong Region II	Western Jiangnan Plain I		
1	Handong Region I			Middle Han River Region I

Figure 13: Interregional Periods in the Middle Yangzi River Region

⁵⁸In terms of absolute chronology, the published ¹⁴C dates (see appendix, **Tab. 25; Tab. 26; Fig. 38; Fig. 39**) are too few and far between to make any clear statements. According to these dates and relations with neighboring cultures, the following very rough estimate can be given: Periods 1 and 2 (Bianfan Culture, Daxi Culture, Yangshao Culture): 5th millennium BC to beginning of the 4th millennium BC; Periods 3 and 4 (Youziling Culture, Daxi Culture, Yangshao Culture): beginning of the 4th millennium BC to second half of the 4th millennium BC; Period 5 (Pre-Qujialing Culture, Yangshao Culture): second half of the 4th millennium BC; Periods 6 and 7 (Qujialing Culture): first half of the 3rd millennium BC.

If we adopt the style-based culture model introduced in Chapter 2, then clearly the kind of styles that the Daxi Culture, the Qujialing Culture and others have been defined by is the use of certain types of pottery vessels with certain shapes, certain colors and textures, and certain decorations. Other characteristics of the excavated sites - the way burials were laid, the architecture of houses, etc. - have been described, but are usually added as features of cultures that have been identified by their pottery. Very rarely are elements that are not pottery vessels considered diagnostic of a cultural assemblage, an example would be painted spindle whorls for the Qujialing Culture. But if, say, a considerable number of painted spindle whorls were uncovered in the same context as ceramic vessels typical of the Youziling Culture, the vessels would very likely take precedence in the interpretation and this would be deemed an early occurrence of painted spindle whorls.

This focus on pottery types for the distinction of Neolithic cultures is of course completely normal and for good reason, given the ubiquity of Neolithic pottery, its durability, and the variety of its manifestations. However, which of the features of a certain kind of vessel are considered diagnostic is often the subject of debate, particularly pertaining to the late Neolithic of the Middle Yangzi River Region, as demonstrated in Chapter 4. The color of the pottery is often used as a general ordering principle leading to the distinction of phenomena such as the "Black Pottery Horizon", which forms the basis for the definition of the Pre-Qujialing Culture. But what relative amount of black pottery does an assemblage need to have to be part of the "Black Pottery Horizon"? Similarly, certain motifs of decoration are often emphasized as conspicuous features of a certain cultural assemblage - especially painted decorations -, but again a further look at the relative amounts at which these decorations are present has led to the overturn of some models. For example, the Tangjiagang Culture in the Dongting Plain has been separated from the Early Daxi Culture in the Western Jiangnan Plain after it turned out that the presence of its characteristic impresso-decorated ware and white ware had been overemphasized among Daxi Culture sites and that this is more of a distinct feature of the Dongting Plain with only occasional occurrences in the Jiangnan Plain.

It deserves to be repeated at this point that in any conceptualization of the archaeological

culture that wants to have any anthropological relevance, it is not the distribution of the artifacts themselves that delineates cultures, but the distribution of practices or, on a longer temporal scale, customs and traditions that are indicated by the artifacts and their context. Hence, the first thing we can note is where and how artifacts, in this case ceramic vessels of the late Neolithic in the Middle Yangzi River Region, were discarded. One noteworthy distinction that has not quite been tackled yet in this region is between remains of vessels that have been thrown away as trash or left behind in abandoned or collapsed buildings and vessels that have been selected to be put in burials. Unfortunately, I did not have enough first-hand access to materials or primary documentation of excavated contexts for a proper implementation of this concept. But I suspect that systematically sorting out mortuary ceramics from domestic ceramics might have an interesting effect on what ceramic types define cultures. For example, as discussed in the case study below, the miniature vessels that are characteristic of the Pre-Qujialing Culture would be conceivable as having an exclusively mortuary purpose. A systematic study would have to take into account the relative amount of miniature vessels from domestic contexts at Liuhe and how they compare to the miniature vessels from mortuary contexts. Naturally, with our layered conception of culture, the stylistic choices of what ceramics to put in a burial and what ceramics to use in the household can be part of their own sub-cultures that do not have to be congruent with each other. I will elaborate in the thesis conclusion on how these layered sub-cultures can be fit together to form archaeological cultures that are useful as analytical units.

A valid assumption is that for pottery the place of discard is usually near the place of use. For ceramics with exclusively mortuary function use and discard are essentially the same. That assumption of proximity is not as easy with the place of use and the place of production. Ideally, all ceramics recovered archaeologically would be sourced and their place of production pin-pointed. This is obviously impossible on a practical level at the current stage of archaeological method. With these restrictions in mind, we have to be aware of certain filters between the distribution of production techniques and the distribution of the vessels that reveal these techniques to us.

Nevertheless, attempting to identify production techniques or, on a subtler level, habits of

pottery producers can bring definite advantages to the discussion of archaeological cultures. By focusing on the production, we operate in an area that is more consistent and more predictable in the active style vs. passive style question. Of course, the blurry parts about symbolism in ornamentation etc. that we are missing is just as well part of the ancient culture. Furthermore, the culture covered by aspects of pottery production is always just the very specific culture of the potters. But this narrow perspective provides a starting point for a discussion of the social context of this particular craft and may even allow for the distinction of social groups. And since pottery played an important role among the material aspects of ancient life, as evidenced by its prevalence in mortuary and other ritual contexts, any changes in the production of pottery can be assumed to have a significant impact on the culture not just of the potter but of the people at large.

The process that arguably had the most decisive impact on the sphere of production during the Late Neolithic of the Middle Yangzi River Region was the invention and spread of the potter's wheel. As briefly mentioned in the section of Chapter 4 about Lin Bangcun's discussion of the emergence of the wheel (Lin Bangcun 1996), the earliest clear evidence of wheel-thrown pottery, ripples on the inside and outside of the high ring base of a bowl, is from Guanmiaoshan site phase IV (Li Wenjie 1988), putting this in the time frame of Interregional Period 5 or the Pre-Qujialing Culture.⁵⁹ The ways that the use of the wheel changes pottery production are profound. A skilled potter can form vessels on the wheel much faster than it would take to form them by hand. One would also assume that certain types of vessels are easier to produce on the wheel and the products of better quality. I would suggest that this pertains especially to thin-walled pottery, but I suspect that new forms of the Qujialing Culture, such as shoulder vessels and double-bellied vessels emerged specifically because the potter's wheel facilitated their production. For now, these statements are merely hypothetical, but it should be possible to devise experimental studies to prove these assumptions. At the same time as it is bringing these advantages to pottery production, the wheel also introduces restrictions on who is able to participate in the production, at least using this advanced technique. Requirements are not only the possession of or access to an

⁵⁹This may well be the earliest evidence for the use of the potter's wheel currently known in the world.

actual potter's wheel, but also long years of training and a talent and skill that surpasses the demands of other techniques by far (Roux 2007: 159). Making pottery on the wheel thus tends to be the domain of specialized potters. Naturally, not all pottery was made on the wheel after its introduction; it seems likely that the non-specialized, household-based production of utilitarian wares by hand accompanied the specialized production of prestige wares on the wheel. There are many examples of wheel-thrown vessels from the Qujialing Culture, but it is unclear what percentage of the whole ceramic assemblage was wheel-made. It would be of immense value if we can determine how the wheel-throwing technique spread among the Pre-Qujialing and Qujialing Cultures. The problem is that evidence for wheel-throwing can be determined with the naked eye only when the potter did, for whatever reason, not erase the traces on the surface of the vessel during the finishing process. I was able to observe occasional traces of wheel-throwing on Qujialing Culture vessels, but these instances are few in relation to the whole assemblage. There are microscopic methods of identifying wheel-thrown ceramics (Courty and Roux 1995), but these require the creation of thin sections, a destructive technique that usually is not applicable to samples in the museum collections of this region, as I will explain in further detail below.



Figure 14: Ring base of a Qujialing Culture cup from Zhongbaodao. The ripples are a strong indicator of manufacture on the wheel. (Photo: R. Ehrich)

I agree with Lin Bangcun (1996) that the introduction of the potter's wheel had a profound impact on the cultural sequences of the Middle Yangzi River Region, albeit for different reasons than he does. I will elaborate on what I mean by that in the thesis conclusion. Nevertheless, as I have explained above, a detailed analysis of the distribution of wheel-made Neolithic pottery in the Middle Yangzi River Region is beyond my capabilities at the moment.

The key to how the study of pottery production can help the delineation of cultural traditions lies in the concept of active and passive

style that I outlined in Chapter 2. Any traits that we observe which have the possibility of having been turned into active styles by the original actors is problematic to us, since active styles are by definition manipulated for purposes such as reinforcing identity, whose meanings are inaccessible to us. If we can isolate styles instead that are more likely to stay consistently passive, we have a much better chance of identifying traditions, i.e. consistent uses of styles that suggest a consistent cultural context for their use. In other words, people, potters for example, who have picked up a passive style through socialization in a specific cultural context will continue to betray that socialization through the use of the style without being aware of it. Olivier Gosselain has determined in multiple ethnographic studies that the aspect of pottery production that is most likely to coincide with boundaries of language and ethnicity is the forming of the vessel as opposed to its decoration which easily transgresses these boundaries (Gosselain 1992b; Gosselain 1998; Gosselain 2000; Gosselain 2011). Put into my own terms, according to Gosselain, vessel decoration is more likely to be an active style, whereas the forming of the vessel usually stays passive. The reasons for this are straightforward: The forming of the vessel is the aspect of the production process that is the hardest to learn properly. Once the necessary skills and motor habits have been acquired, they are hard to change. This is especially true of subtle aspects in the production that do not involve a conscious decision on behalf of the potter, because conscious decisions are more likely to involve active styles. 'I am going to produce more dishes from now on, because people seem to like those', is a conscious decision. But using a specific set of gestures to shape the rim of that dish into the right width and thickness, because that is the way that the potter has learned it, is usually an unconscious process, unless a mistake is made and the result 'does not have the right feel to it'.

With these considerations in mind, it should be possible to trace cultural traditions just by taking out a specific step in the forming of a ceramic vessel, a specific set of gestures, and following the way it manifests among the artifacts that we recover. To us, this manifestation takes the form of the exact shape and dimensions of a specific part of the vessel. Instead of describing the vessel holistically and putting emphasis on its most conspicuous traits, we isolate one element and observe slight variances in its manifestation over time and in different

contexts. I essentially advocate for the development of a microtypology to complement the traditional macrotypology.

Naturally, not all elements are equally likely to be indicative of hidden traditions. Practical constraints can have a large impact on the shape and dimensions of certain parts as well. Based on ethnographic studies in Egypt in India, Sonali Gupta-Agarwal has determined that the vessel rims are more likely to be indicative of particular potters or workshops than other parts of the vessel (2015). Of course, her studies among specialized potters in a modern context are underlain by complete different conditions than what we can expect of potters in the context of the Late Neolithic Middle Yangzi River Region. But the vessel rim also happens to be the part of the vessel that is most accessible for measurement in the case of complete or repaired vessel and the most likely to be kept and identified in the case of loose sherds. This is why I chose to focus on vessel rims to figure out stylistic relationships among the Daxi and Qujialing Cultures and others and to test the applicability of Gupta-Agarwal's observations.

In the following, I will present two practical applications of this idea. The first is a visual representation of the data concerning vessel rims I gathered from published reports. The second is the plotting of dimensions of various parts of the rim based on direct measurements.

Viusalization of rim type distributions

Introduction

An introduction to the rim typology I already applied in the site catalogue is given in Chapter 5. Here is the reference chart once again to make it easier to follow the descriptions and charts below (**Fig. 13**).

This kind of modular typology can cover very complex assemblages, which is both a strength and a weakness. It is certainly more suited for large-scale interregional comparisons of the sort required, for example, for the description of archaeological cultures and their relationships. The problem is that since this system does little in terms of reduction-

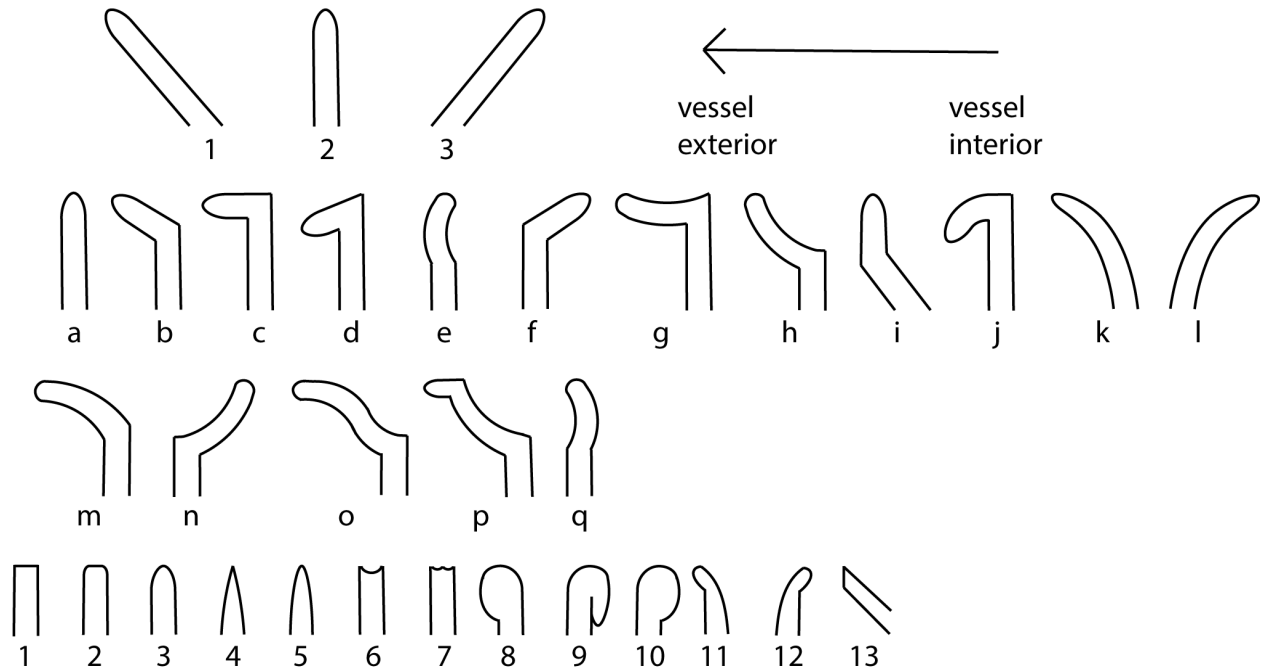


Figure 15: Rim Typology

ism, we still end up with a very complex and unwieldy set of data. The following is an attempt to visualize the data drawn from the site catalogue in order to tease out significant developments.

The charts are based on the amount of vessels per rim type per regional period drawn from the site catalogue. This dataset, gathered from very disparate published sources, is generally too inaccurate for statistical analysis of any kind. Instead, I hope to reveal some broad trends in these color-coded charts. Thus, I intend to tackle the question if these trends match expected tendencies, such as: 1) A higher level of continuity between two periods within one culture, such as Early, Middle, and Late Daxi Culture compared to a higher level of discontinuity at the breaks from one culture to another, especially if the succeeding culture is not assumed to be derived directly from the preceding culture, such as Yangshao Culture, and Qujialing Culture or the Daxi Culture and the Pre-Qujialing Culture according to the scholars who argue against the Daxi-Qujialing succession. 2) Rim types of the Qujialing Culture in regions neighboring the Handong Region are expected to be congruent with rim types of the Qujialing Culture from the Handong Region. 3) The diversity of rim types decreases with the start of the Pre-Qujialing Culture, as the introduction of the

potter's wheel causes a shift from dispersed household production to specialized workshop production.

Each table is broadly divided by general vessel shape with further broad distinctions by size and presence of a neck where applicable. Each column under a certain vessel shape represents one type of rim, such as 3b3, the rim on closed vessels that is bent outward with a rounded lip or 1l4, the rim on open vessels that is curved upward with a sharply edged lip. The columns are grouped so that similar rims are next to each other, for example 1d4 and 1d5 which only differ slightly by the roundedness of the lip. There is a column for each rim type that occurs at least once, regardless of region or time period. Hence, in each particular region and time period, there will be a lot of blank fields for types that do not occur at that stage. For ease of visualization, the presence of a rim type is marked by a different color for each region. The color saturation indicates the amounts of vessels for each type taken from the site catalogue. In the normalized tables presented here pale saturation indicates 1 vessel, medium saturation indicates 2-4 vessels, and deep saturation indicates 5 or more vessels. In the general, non-normalized tables in the appendix (**Tab. 27 - 34**) it is pale saturation for 1 vessel, medium saturation for 2-9 vessels, and deep saturation for 10 or more vessels.

Normalization of the tables was necessary, because the general tables present a skewed picture from row to row. Certain rows, i.e. time periods, are much better represented in the literature sources than others. Factors that go into this are the number of sites representing each time period, the amount that has been excavated per site, and the amount of detail with which the results have been published. Thus, I aggregated a score indicating the quality of the sample for each row. The lowest score of 1 refers to a time period covered by only one site that has either been only surveyed or the excavation only been reported in a preliminary report at best, indicating not even the total amounts of each vessel type, but instead presenting only a selection of "representative" vessels. This score of 1 I had to give to the periods 1 and 2 of the Handong Region, namely the Bianfan Culture periods, covered only by the Bianfan site, and the period 6 of the Western Jiangnan Plain, namely the Late Qujialing Culture, covered only by the Guanmiaoshan site (site phase VI). Higher scores indicate time periods covered by multiple sites, some of which have been excavated

extensively, with full reports giving the exact amounts of excavated vessels per type. The highest score is 14, awarded to period 5 in the Handong Region, namely the Pre-Qujialing Culture period, present at the sites of Liuhe, Qujialing, Tanjialing, and Youziling.

In order to make the time periods comparable among each other, I first eliminated all periods with a score of 1, since they were just too inaccurate for any kind of comparison. Then, I normalized the tables by dividing the values in each row by its half its sample quality score (since 2 was the lowest remaining score, effectively bringing all rows down to a score of 2). All resulting quotients were rounded commercially, meaning that all values below 0.5 after the division were eliminated. In order to normalize not just the values, but also the accuracy, I introduced a random element into the division that would be stronger the higher the score.

Rim types of the Handong Region

The normalized tables for the Handong Region (**Tab. 9; 10**) do not include the Periods I and II, represented by Bianfan, due to the poverty of that dataset (score 1).

One broad trend that is immediately visible is that among jars, including small jars and even miniature jars, rims of the type 3b3 are common throughout. These are rims with rounded lips that are bent straight outward. They do not disappear in Period VII, as is shown in the non-normalized table, but they become relatively less common compared to type 3h3 rims, which in addition to being bent outward are curved upward. Perhaps the curved type h rims became more popular over time thanks to being more suited to holding lids in place than the straight type b rims. Generally speaking, the type h rim is by no means a new invention of the Youziling Culture, however, since it is quite common already among the globular tripodal jars from Bianfan. The 3b3 and 3h3 rims also appear among cups during the Qujialing Culture in Periods VI and especially VII. They are characteristic of the goblet-like ring-based cups typical of the Qujialing Culture. In addition, the high number of 1a4 and 1k4 rims among cups mostly represent the thin-walled conical cups with their sharp type 4 lips that are also characteristic for the Qujialing Culture. Here it is notable that 1a4

Period	Handong Region Sire phases				Score	small jars		jars		large jars	
	miniature necked jars	small necked jars	necked jars	vats	miniature jars	jars	large pots	large pots	shoulder vessels		
VII	Qufajiang VII, Tanjialing V, Youziling V										
VI	Luhue IV, Qufajiang V, Qufajiang VI, Tanjialing IV, Youziling IV										
V	Luhue II, Luhue III, Qufajiang III, Qufajiang IV, Tanjialing II, Youziling III										
IV	Luhue I, Longzui II, Longzui III, Longzui IV, Qufajiang II, Tanjialing II, Youziling II										
III	Longzui I, Qufajiang I, Tanjialing I, Youziling I										
Period											
VII		2a3	1k3						1a3	2a5	
VI		2a8	2a8						1a4	2a4	
V		2a8									
IV											
III											

Table 9: Rim types of the Handong Region, normalized, part 1

Period	small cups	cups	bowls	double-bellied bowls	miniature dishes	basins	large basins	dishes	double-bellied dishes
III									
IV									
V									
VI									
VII									
VIII									
IX									
X									
XI									
XII									

Table 10: Rim types of the Handong Region, normalized, part 2

cups are already quite common in the Pre-Qujialing Culture of Period V. Among bowls and dishes, it is not surprising that type l rims are common throughout, as these are among the simplest types of rim, retaining the natural inward curvature of the wall of a bowl or dish all the way to the lip. The large number of small dishes during the Late Youziling Culture, the Pre-Qujialing Culture, and the Qujialing Culture parallels the large number of small, usually tripodal, jars, for which the dishes would serve as lids.⁶⁰ Starting with Periods IV and V, we see an increased appearance of rims that are bent off in some way, such as horizontally bent c rims, downward bent d rims, and inward bent f rims.

The tables do not appear to show any major developments in terms of variability. The hypothesis that the introduction of the potter's wheel around Period V would lead to increased standardization and thus decreased variability is not reflected on these tables. I think this could be the problem of the generally poor quality of the dataset, however, that simply does not allow for a representation of these finer points yet. What we do see is the emergence of new forms, in Period V and after, of certain types of cups, shoulder vessels, and double-bellied vessels. Although, granted, we already knew that from the traditional macrotypology.

A comparison of the dataset from the Handong Region with rim types from neighboring regions will follow further below, after I have introduced each region by itself.

Rim types of the Western Jiaghan Plain

The normalized rim type tables concerning the Western Jiaghan Plain (**Tab. 11; 12**) do not include Period VI, the Late Qujialing Culture, due to the small size and poor quality of the sample (score 1). I have noted before that this region is lacking in detailed published reports pertaining to our time frame, so the general quality of our dataset is not very high.

We see that 3h3 rims are already common among large jars during the Middle Daxi Culture, parallel to 3b3 rims. But it would be hard to argue that this element coming from

⁶⁰The question if their primary function was as a lid or as a dish or if both functions were equally important is not really of concern for this typology.

Period	Western Jiangnan Plain Region Site phases	Score	miniature jars	small jars	jars	large jars				
V	Guanniaoshan V, Yinxiangcheng IV	2			2h3					
IV	Guanniaoshan IV, Longwangshan	4		3b3	3b3	3h3				
III	Guanniaoshan III, Guifuashu I, Yinxiangcheng III	5								
II	Guanniaoshan II, Yinxiangcheng II	2				3b3				
I	Guanniaoshan I, Yinxiangcheng I	3				3h3				
Period	miniature necked jars	small necked jars	necked jars	large necked jars	vats	large vats	small pots	pots	bottles	necked bottles
V	1a3									
IV	1k3									
III			2a8							
II										
I										

Table 11: Rim types of the Western Jiangnan Plain, normalized, part 1

Period	small cups	cups	bowls	double-bellied bowls	basins	large basins	dishes	double-bellied dishes	
I									
II									
III									
IV									
V									
Period	small bowls	small cups	cups	bowls	double-bellied bowls	basins	large basins	dishes	double-bellied dishes
I									
II									
III									
IV									
V									
Period	small bowls	small cups	cups	bowls	double-bellied bowls	basins	large basins	dishes	double-bellied dishes
I									
II									
III									
IV									
V									

Table 12: Rim types of the Western Jiangan Plain, normalized, part 2

here was taken over in the Handong Region in the following periods, since, as noted above, h rims already appear at Bianfan. There is another element, however, where this assumption holds more promise and that is bowls, basins, and dishes with bent-off rims. It is especially the inward-bent f rim that can be deemed a typical feature of the Daxi Culture in Period I, II, and III. Surprisingly, our dataset seems to indicate that dishes in general become much less common during Periods IV and V, the Pre-Qujialing Culture and Qujialing Culture, at the same time as their numbers explode in the Handong Region. I will return to the question of a possible influence from the Daxi Culture on the Youziling and Pre-Qujialing Cultures in the terms of bowl and dish rims further below.

Similar to the Handong Region, no changes in variability are indicated on these tables, although probably due to a similar problem as well.

Rim types of the Three Gorges Region

This region is generally well represented thanks to the detailed report from Zhongbaodao, although this shows in the coverage of Period III, which is not present among the Zhongbaodao assemblage (**Tab. 13; 14**). This lacuna could not be concealed by the normalization of these tables.

Major visible trends parallel those in the Western Jiangnan Plain. Especially the open vessel forms - basins, bowls, and dishes - are worth looking at in this case. Along with a large amount of f rims in the first two periods, we see well represented among dishes the closely related i rim: A rim that is bent off to be straight vertical. In the Qujialing Culture periods, there is a strong occurrence among basins or bowls of rims that are bent outward, namely types b and h. The comparative data from the Handong Region is not strong enough, however, to determine at this stage if this development originates there.

The relatively good resolution of the data from the Three Gorges Region allows for the observation that in terms of open vessel shapes there appears to be more diversity in the earlier periods, i.e. the Daxi Culture periods compared to the later Qujialing Culture periods. Dishes seem to become a lot less common in the late periods, similar to the Western

Period	Three Gorges Region site phases				Score	small jars		jars	large jars	small necked bottles		necked bottles	shoulder vessels
	miniature necked jars	small necked jars	large necked jars		miniature jars	vats				bottles	necked bottles		
V	Qingshuitan III, Zhongbaodao V			4	3b3 3b5	2a8 2e8 3b2 3c3							
IV	Zhongbaodao IV			4	1k2 1k5	3b2 3c3							
III	Daxi III, Qingshuitan II			3									
II	Daxi II, Qingshuitan II, Zhongbaodao II, Zhongbaodao III			11									
I	Daxi I, Qingshuitan I, Zhongbaodao I			6									
V						2a3						1d3	
IV						1k3						1a4	
III						1a7 1k3 2a2							
II						1a3 1a8 2a8 3a8 3b3 3b8 3c5							
I						1a3 2a2 3a8 3b3 3b8 3c5							

Table 13: Rim types of the Three Gorges Region, normalized, part 1

Period	small cups	cups	large cups	small basins	basins	large basins
I						
II	1a3 1a4 114	1k4	3b3	1k3	1d3 2c3 3b3	3i3
III		2i3		2i8	2b3 3c3	2f3
IV				2a10	2b2	
V		3a5		3i8	3b2	
Period	small bowls	bowls	double-bellied bowls	dishes	double-bellied dishes	
I						
II	1a5	1f3 1f5	2b3	1a2 1a3 1a8	1f8 1i5	
III		3i8	1n3	1i3	1i3	
IV		3a3	1d3 2h3	1f4		
V			2h3		1m3	
Period						
I						
II						
III						
IV						
V						
Period						
I						
II						
III						
IV						
V						

Table 14: Rim types of the Three Gorges Region, normalized, part 2

Jiangnan Plain. Among basins and bowls the repertoire becomes more focused upon fewer types. Unfortunately, this recognizable trend here stands in contrast to the unclear situation in the other regions. For now it can only give us a glimpse into what might be achieved with more reliable datasets.

Rim types of the Middle Han River Region

The excavation reports of Xiawanggang and Qinglongquan provide a decent set of data for the Middle Han River Region (**Tab. 15; 16**).

The types that are common in all other regions, such as b jars and l bowls, are naturally well represented here as well, including the Yangshao Culture assemblages, lending support to the assumption that they transcend cultural particularities.⁶¹ Type h jars, on the other hand, appear only in larger numbers with the Qujialing Culture period, as do type h cups, so this might be the trace of an actual influence from the Handong Region. Period II is distinguished by a sizable number of type c jars, i.e. jars whose rims are bent outward horizontally. These do not have any parallels in other regions, they seem to be a distinct Yangshao Culture phenomenon. We also see a very large diversity of bowl rim types in Period II, but it seems to be gone already by Period III, so it is uncertain if this is representative of an actual development or an artifact of the low resolution of our data.

In order to get a better idea of how the rim types of one region compare to another, I have merged some of the tables, mixing the colors wherever they overlap.

Rim types of the Western Jiangnan Plain and Three Gorges Region

I start off with the aggregated tables of the Western Jiangnan Plain and the Three Gorges Region (**Tab. 17; 18**). This should provide a proof of concept, since from the established viewpoint of cultural sequences, both regions should display similar trajectories. After all, their sequences of Daxi Culture - Pre-Qujialing Culture - Qujialing Culture are parallel.

⁶¹In certain cases, this is only logical. A bowl with a type l rim is nothing but a bowl without a distinct rim.

Period	Western Jiangnan Plain Region Site phases	Score	small jars	jars	large jars
V	Baigang V, Qinglongquan III, Xiawanggang IV	7			
IV	Baigang IV, Qinglongquan II	3			
III	Baigang III, Qinglongquan I, Xiawanggang III	5			
II	Baigang II, Xiawanggang II	4			
I	Baigang I, Xiawanggang I	4			

Period	miniature necked jars	small necked jars	necked jars	large necked jars	small jars	vats	necked vats	small pots	pots	large jars	shoulder vessels
V			2b3		1a7	2h2					1a5
IV			2a3								1a4
III			1k3				1a8	3a3			2a3
II			2c3					3a3	3b3		2a8
I											1a8

Table 15: Rim types of the Middle Han River Region, normalized, part 1

Period	cups				large bowls	small dishes	basins		dishes	double-bellied dishes
V	1a3	114	1k4	1h5			3h3	3h3	2h3	
IV	1a4								1f3	
III		115	2a3	1c5	3b3			2f3		
II							218	318		3c3
I					213				2d3	
V		112			218					
IV				213		213				1h3
III	1a3	1a5	1k3	2a3	3a3					1d3
II		113						113		
I										

Table 16: Rim types of the Middle Han River Region, normalized, part 2

Period	Western Jiangnan Plain Region Site phases	miniature jars	small jars	jars	large jars	large vats	small pots	pots	small necked bottles	necked bottles	shoulder vessels
I	Western Jiangnan Plain 1										
II	Western Jiangnan Plain 2 + Sanxia Region 1										
III	Western Jiangnan Plain 3 + Sanxia Region 2										
IV	Western Jiangnan Plain 4 + Sanxia Region 3			1k3	2h3	3b3					
V	Western Jiangnan Plain 5 + Sanxia Region 4										
VI	Sanxia Region 5										
Period	miniature necked jars	small necked jars	necked jars	large necked jars	vats		pots		small necked bottles	necked bottles	shoulder vessels
I											
II											
III			2a8								
IV									1k3		
V											
VI											

Table 17: Rim types of the Western Jiangnan Plain and Three Gorges Region, part 1

Period	small bowls	bowls	double-bellied bowls	small basins	basins	dishes	double-bellied dishes
I							
II		113, 115, 113, 315, 113					
III		113, 115, 313, 315, 113					
IV		313			113, 113		
V							
VI							
Period	small cups	cups	large cups	small basins	basins	dishes	double-bellied dishes
I							
II							
III							
IV							
V			3b3		1d3, 2d3		
VI	small cups						

Table 18: Rim types of the Western Jiangan Plain and Three Gorges Region, part 2

Looking at the tables, we have to keep in mind that Period I of this aggregate is only represented by the Western Jiangnan Plain and that the Three Gorges Region contributes a lot more data. We can therefore claim a good congruency as long as most types from the Western Jiangnan Plain, apart from Period I, are overlapped by types from the Three Gorges Region. This seems to be largely the case. Notable exceptions are the large number of miniature vessels of the Pre-Qujialing Culture in the Western Jiangnan Plain, which so far only have some known equivalents from the Daxi site. We also see little overlap among cups, but granted, there are not many comparable examples of that vessel type in the first place and the seeming differences are slight, such as between lip type 4, a sharp lip, and lip type 5, a rounded-to-sharp lip. There is a certain amount of divergence among dishes in Period II that might deserve further attention.

In summary, this example illustrates the limitations of this method, but for the most part it still succeeds in producing the expected results. The close relationship between the Western Jiangnan Plain and the Three Gorges Region is reflected to an extent that lends this way of representation some trustworthiness at least.

Rim types of the Handong Region and Western Jiangnan Plain

If we put together the Western Jiangnan Region with its eastern neighbor, the Handong Region (**Tab. 19; 20**), the resulting patterns look more chaotic than in the previous example. The relationship between these two regions is of course crucial to the discussion about the succession between Daxi Culture and Qujialing Culture. But the only overlap we seem to get is among ubiquitous types like 3b3 and 3h3 jars. At least there is some overlap between bowls and dishes with type f rims, which, as I have suggested above, could be a key elements if one seeks to prove influences from the Daxi Culture to the Qujialing Culture via the Youziling and Pre-Qujialing Cultures.

We can also chalk the disparity between the two regions up to the scarcity of data and the yet unrefined stage of this method. I have to point out as well that the first and last periods in this comparison are represented only by the Western Jiangnan Plain and the

Period	Regional Periods				miniature jars	jars		pots	
	miniature-necked jars	small-necked jars	necked jars	large-necked jars	miniature jars	large jars	small pots	large pots	
I	Western Jiangnan Plain 1								
II	Handong Region 3 + Western Jiangnan Plain 2								
III	Handong Region 4 + Western Jiangnan Plain 3								
IV	Handong Region 5 + Western Jiangnan Plain 4								
V	Handong Region 6 + Western Jiangnan Plain 5								
VI	Handong Region 7								

Period	miniature-necked jars	small-necked jars	necked jars	large-necked jars	miniature jars	large jars	small pots	large pots	
I									
II									
III									
IV									
V									
VI									

Table 19: Rim types of the Handong Region and Western Jiangnan Plain, part 1

Period	small cups	cups	bowls	double-bellied bowls	miniature dishes	small dishes	dishes	double-bellied dishes
I								
II			115			113		
III							113	
IV				3b3				
V			1f3					
VI								
Period	small cups	cups	basins	large basins				
I								
II								
III								
IV								
V		1a4						
VI								

Table 20: Rim types of the Handong Region and Western Jiangnan Plain, part 2

Handong Region respectively. I have kept them in regardless, to illustrate continuities and discontinuities, but of course there can be no overlap in these two rows. Yet despite these objections, it is remarkable nevertheless that there is so little congruence even in Periods IV and V, the Pre-Qujialing Culture and Early Qujialing Culture, where both regions are ostensibly part of the same general system in terms of the distribution of archaeological cultures. The divergence even occurs among characteristic vessel types of the Qujialing Culture, such as the double-bellied bowls and dishes.

Rim types of the Handong Region and Middle Han River Region

Comparing the Handong Region with its northern neighbor, the Middle Han River Region, we get at least some more overlap during Periods V and VI, i.e. the Early and Late Qujialing Culture, which conforms to the expectations of the established model (**Tab. 21; 22**). However, at the same time, there is also a fair bit of divergence during these periods, conspicuously visible in the case of iconic Qujialing Culture types, such as double-bellied vessels and shoulder vessels. Unfortunately, there is not a lot we can say about the relationship between the Late Yangshao Culture and the Youziling and Pre-Qujialing Cultures respectively. There are no clear trends here that would indicate just how, when, and in what order the Qujialing Culture traits were transmitted to the Middle Han River Region. Furthermore, the question remains if the supposed influence from the north that created the ceramic assemblage of the Bianfan Culture had an ongoing effect after that, during the time of the Youziling Culture, or if there was any communication of styles in the other direction.

Rim types of the Western Jiangnan Plain and Middle Han River Region

The Middle Han River Region is also adjacent to the western portion of the Jiangnan Plain, so it is worth investigating the possible interchange of styles between the two (**Tab. 23; 24**). Unfortunately, we are again hindered by the dearth of data from the Western Jiangnan Plain. Hence, we detect little overlap. We get a hint that there might be a noteworthy development among bowls during the Daxi and Yangshao Cultures. Although, as I have

Period	Handong Region Site phases				miniature jars	jars	large jars			
VI	Handong Region 7 + Middle Han River Region 5				miniature jars					
V	Handong Region 6 + Middle Han River Region 4				3h3					
IV	Handong Region 5 + Middle Han River Region 3				3b3					
III	Handong Region 4 + Middle Han River Region 3					3b3				
II	Handong Region 3 + Middle Han River Region 2									
I	Middle Han River Region 1									
Period	miniature necked jars	small necked jars	necked jars	large necked jars	vats	necked vats	small pots	pots	large pots	shoulder vessels
VI										
V										
IV										
III										
II										
I										

Table 21: Rim types of the Handong and Middle Han River Regions, part 1

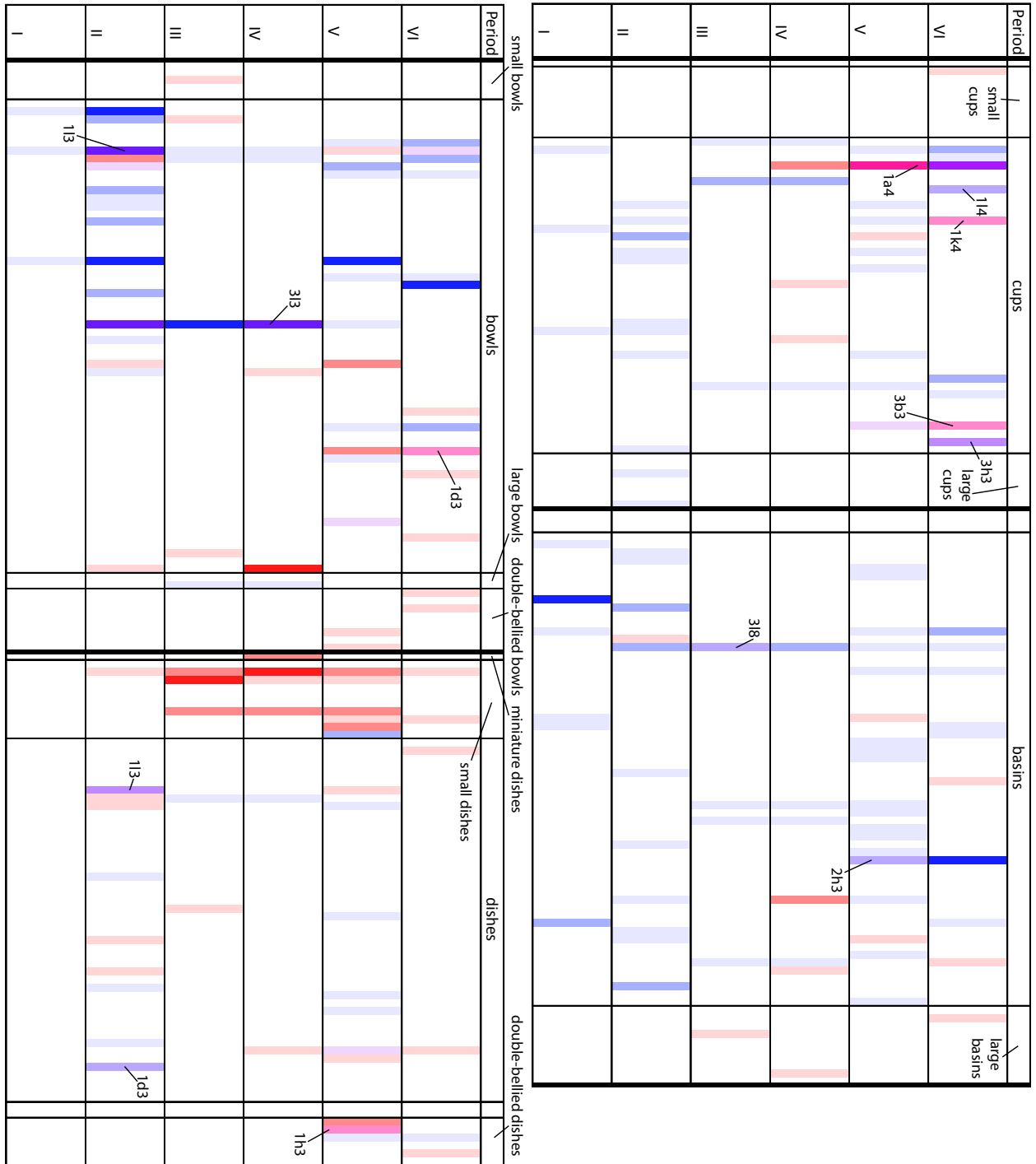


Table 22: Rim types of the Handong and Middle Han River Regions, part 2

Period	Western Jiangnan Plain Region Site phases				miniature jars	small jars	jars	large jars			
Period	miniature necked jars	small necked jars	necked jars	large necked jars	vats	large vats	necked vats	small pots	pots	bottles	shoulder vessels
I											
II											
III											
IV											
V											
VI											
VII											
I	Middle Han River Region 1										
II	Western Jiangnan Plain 1 + Middle Han River Region 2										
III	Western Jiangnan Plain 2 + Middle Han River Region 2										
IV	Western Jiangnan Plain 3 + Middle Han River Region 3										
V	Western Jiangnan Plain 4 + Middle Han River Region 3										
VI	Western Jiangnan Plain 5 + Middle Han River Region 4										
VII	Middle Han River Region 5										

Table 23: Rim types of the Western Jiangnan Plain and Middle Han River Region, part 1

Period	small cups	cups	large cups	basins	large basins
I					
II					
III					
IV					
V					
VI					
VII					

Period	small bowls	bowls	large bowls	double-bellied bowls	small dishes	dishes	double-bellied dishes
I							
II							
III							
IV							
V							
VI							
VII							

Table 24: Rim types of the Western Jiangnan Plain and Middle Han River Region, part 2

noted previously, simple type l bowls are ubiquitous anyway, we already know from the macrotypology that certain cups and dishes with Daxi Culture traits appear among Yangshao Culture assemblages and it is conceivable that bowls were also part of that exchange.

Conclusion

The application of the complex modular rim typology and its semi-quantitative visualization has had limited success in this field of inquiry. Important questions regarding the relationship between the Daxi Culture, the Youziling Culture, the Yangshao, the Pre-Qujialing Culture and the Qujialing Culture remain unresolved. The insights gained from these tables are all speculative to varying degrees.

I would argue, however, that the problem lies less with the method employed here and more with the data foundation. Only some sources provide detailed quantitative information as well as descriptions and drawings that allow for the precise identification of types. Since the tables have to be normalized for comparison, the overall resolution is always dependent on the weakest set of data, so that is where improvement is needed. The good news, on the other hand, is that this method gets more precise the more data is being published.

Albeit not helping much in resolving previously established issues regarding typology, chronology, and cultural interchange, the tables in their current state could reveal certain tendencies that have not been in the focus of previous studies, but might be worthy future objects of investigation. Why does there appear to be so little convergence of traits among the manifestations of the Qujialing Culture in the various regions? What role did basins, bowls, and dishes with the rim type f (rims bent inward) play in a possible transmission of styles from the Daxi Culture to the Youziling Culture? Did the expansion of Pre-Qujialing Culture and Qujialing Culture styles into the Daxi Culture area of the Western Jiangnan Plain and the Three Gorges lead to an impoverishment of variety among bowls and dishes and, if yes, is this related to the innovation of the potter's wheel?

Furthermore, the same system of synthesis and visualization employed here can and should obviously be applied to other aspects than just vessel rims. So, another questions

added to those above has to be: Are rims the most significant part of a vessel after all to study stylistic continuity and variety?

In the end, we are left with more new questions than answers. But I would argue that not only is this not a bad thing, it is an important step towards acknowledging the complexity of the processes we are attempting to study and the diversity of the dataset we are faced with. Many more questions will yet arise before the issues that have been discussed for decades will find a definite resolution.

Case studies based on direct measurements of vessels

Problems of data collection

Of course, a study of Late Neolithic vessel rims at the Middle Yangzi River would be quite incomplete without the direct investigation of the actual vessels. However, gaining access to collections of ceramic vessels and sherds from previous excavations in the region of study could be challenging in its own right, even though large quantities of material have been excavated in the last several decades. The most common problem I was faced with is that material that has not been published is barred from any kind of investigation from researchers other than those who intend to publish it. This is of course a prevalent problem in archaeology that is by no means unique to my region of study. But with the lacking state of publication for vitally important sites outlined previously, it should be easy to see how this situation presented a major challenge in tackling the pertinent questions directly. Another problem with collections from old excavations is that museums and institutes do not keep the whole collections of excavated sherds due to restrictions in storage space. After the material has been sufficiently documented, loose sherds that could not be repaired into vessels are sometimes discarded or reburied. This makes it all but impossible to obtain measurements that were not part of the initial documentation. I will not go into detail about the challenges involving the acquisition of permits to gain access to the collections in the first place, but one commonality I encountered is that the taking out samples even of loose sherds for purposes

of petrography and the like seems to be out of the question once the material has become part of a museum collection. The optimal way to gain access to material seems to be the participation in ongoing excavations, however, in that case one is bound to the pace and time frame of the projects and the quantity of the material at hand is dependent on what features are being excavated at that moment. This would not suit the broad frame of my study combined with the narrow time frame, so in the end, I did obtain most of my data from collections housed in museums.

Selection of vessels to be measured

Fortunately, I was lucky to encounter several exceptions to the problems and restrictions outlined above. Worth of particular mention are the Jingmen City Museum, the Yichang City Museum, and the Jingzhou City Museum, whose generous access to their collections made the following case studies possible. I concentrated most of the measuring to vessels that had been completely repaired, in part because, as mentioned above, loose sherds were not available anymore, but also because the complete vessels allowed for much more precise measurements of metrics such as mouth diameter and vessel height. Despite this constraint on the selection of vessels to be measured, there are still huge collections even of only the complete and repaired vessels. All measurements were done with calipers and occasionally tape measure in the case of larger dimensions. In addition, I used rim charts to determine the mouth diameter in the case of loose sherds, but the case studies presented below are based entirely on complete or repaired vessels. I measured the rims of many more vessels than those included in these three case studies. But the large diversity of vessel types made comparisons difficult, except in the case of three vessel types that provided me with samples large enough to be usable, namely the conical cups of the Qujialing and Shijiahe Cultures, the small tripodal jars that are common in the Youziling, Pre-Qujialing, and Qujialing Cultures, and the iconic black miniature vessels that occur in large quantities in burials of the Pre-Qujialing Culture. The sample sizes, when broken down to specific periods or sites or contexts, are still too small to justify any in-depth statistical analysis, but the charting of the measured values in box plots has proven insightful in at least some of the cases.

Conical cups

Introduction

Conical cups are a characteristic feature of both the Qujialing and the Shijiahe Culture, although there are marked differences among cups of either time period. The aspects that conical cups from both the Qujialing Culture and the Shijiahe Culture have in common are obviously a conical shape with a narrow, flat base and an open mouth. In some cases the rim is curved outward (type k), which Chinese archaeologists often call "trumpet mouth", due to its resemblance to the bell of a trumpet. The large majority of these cups are red, in fact they are commonly termed "red cups" in Chinese reports and articles. I only encountered a variety of thin-walled conical cups that are grey in the Qujialing Culture assemblage from Zhongbaodao. The conical cups are usually much smaller than other presumed drinking vessels of their time, such as the bent-walled cups and the ring-based cups.

A major difference between the conical cups of the Qujialing Culture and those of the Shijiahe Culture is the wall thickness. Qujialing Culture cups tend to have very thin walls, down to 1 mm, consistently throughout their body. Shijiahe Culture cups, on the other hand, have much thicker walls and very thick bases, which makes them many times heavier than Qujialing Culture cups. This difference is so pronounced that it casts doubt on their common function as prestigious drinking vessels, especially given that the Shijiahe Culture cups can often hold a lot less liquid due to their thick walls reducing their inner volume considerably. In addition, some of the Qujialing Culture cups exhibit a red slip and a few were painted with black patterns, while there is no evidence for this kind of treatment and decoration among the Shijiahe Culture cups. However, I do not think that that precludes the Shijiahe Culture cups from a role in events featuring ostentatious libation. As I noted in Chapter 3, the foremost feature that suggests to us the role that these conical cups potentially played in large-scale ritual is their huge accumulation at the Sanfangwan locality of the Shijiahe site and most of the cups in that deposit are of the thick-walled variety from the Shijiahe Culture (Zhang Chi, personal communication).

I have found traces among numerous conical cups of both periods that suggest that they

were wheel-thrown. These include thin, horizontal striations on the outside surface, ripples on the inside surface, and, in the case of some Qujialing Culture cups, slight ripples on the underside of the base that probably indicate the cutting of the vessel off the hump. Some of the tall, deep cups of the Shijiahe Culture also had spiraloid ripples at the bottom of the vessel on the inside, which presumably had not been smoothed out because they were hard to reach. All of this suggests that a sizable amount of conical cups, if not all, had been thrown on the potter's wheel, likely off the hump. This allows for a very fast production of vessels in a short time. A skilled potter should be able to throw a small vessel with a simple shape like this in a minute or less. This could account for their ubiquity, illustrated by the impressive deposit of as many as ten thousand of them at Sanfangwan. In addition, the wheel-throwing technique must have helped the potters achieve the consistently thin walls for the Qujialing Culture cups.

I was able to take measurements of 153 conical cups from the sites of Liuhe, Youziling, Yinxiangcheng, and Zhongbaodao as well as the Dengjiawan and Tanjialing localities of the Shijiahe site (**Tab. 35 - 40**). In this case, I could not distinguish between the Early and the Late Qujialing Culture (Interregional Periods 6 and 7), so the broad comparison between Qujialing Culture and Shijiahe Culture will have to suffice for now.

Aside from seeing the differences between Qujialing Culture cups and Shijiahe Culture cups that are already conspicuous to the naked eye expressed numerically, the main goals of this analysis are: 1) Discerning the variability of the measurements for both time periods. If all conical cups were produced en masse on the wheel by potters specialized in the task, we would expect to see very little variability. 2) Discerning inter-site variation. Was there one standard size for these cups among all sites or were there different styles at different sites and in different regions?

Discussion

The parameters I include in this analysis are mouth diameter, lip thickness, vessel height, and base diameter. In order to ascertain which variables to look out for particularly, I determined

the correlations among these variables. In an ideal case, where all vessels have standardized shapes, all measurements of the vessel would scale equally with its general size and would thus be strongly correlated. However, the only moderate to strong correlation exists between the mouth diameter and the base diameter (for Qujialing Culture cups: $r=0.614$, $n=45$; for Shijiahe Culture cups: $r=0.779$, $n=101$), allowing for roughly similar conical shapes. There is only a weak correlation between mouth diameter and lip thickness (for Qujialing Culture cups: $r=-0.230$, $n=45$; for Shijiahe Culture cups: $r=-0.285$, $n=101$), probably owing to the fact that there are certain technical limits to the wall thickness and thus lip thickness that are independent of the general vessel size. As can thus be expected, there is a weak to very weak correlation between the lip thickness and the vessel height on the hand (for Qujialing Culture cups: $r=0.120$, $n=45$; for Shijiahe Culture cups: $r=-0.015$, $n=101$) as well as the base diameter on the other hand (for Qujialing Culture cups: $r=-0.418$, $n=45$; for Shijiahe Culture cups: $r=-0.095$, $n=101$). But in addition, the vessel height is rather weakly correlated with the mouth diameter (for Qujialing Culture cups: $r=-0.309$, $n=45$; for Shijiahe Culture cups: $r=-0.306$, $n=101$) and the base diameter (for Qujialing Culture cups: $r=0.355$, $n=45$; for Shijiahe Culture cups: $r=0.218$, $n=101$). We should thus look at all variables separately.

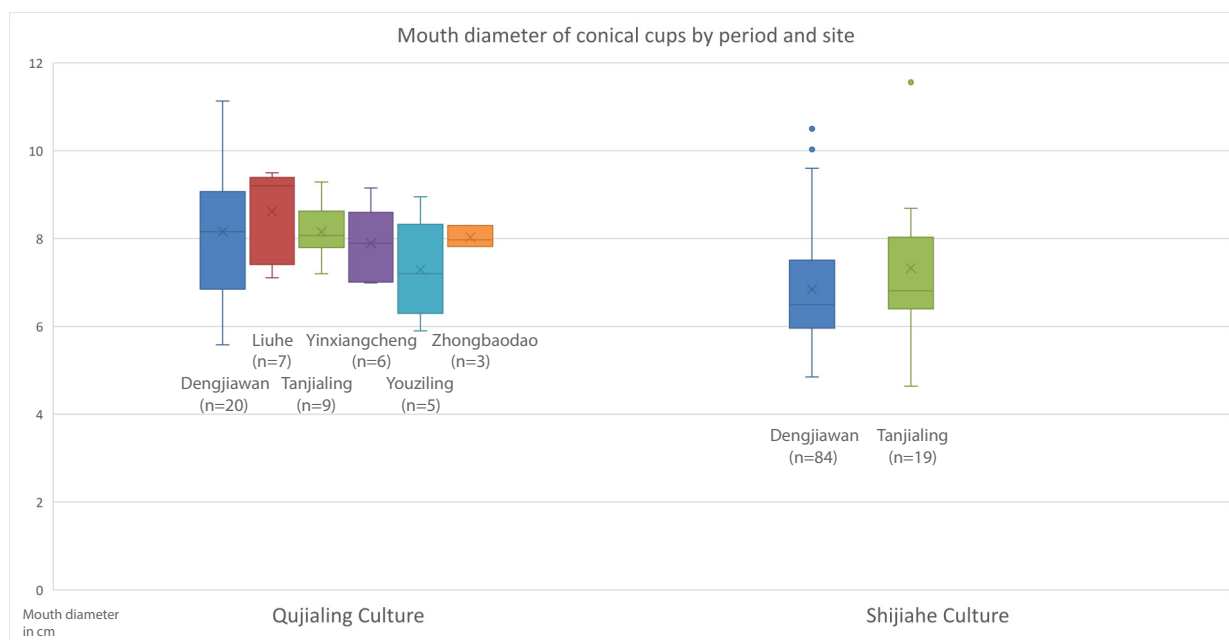


Figure 16: Mouth diameter of conical cups by period and site

Starting with the mouth diameter, we can see that they are all in a similar range at all sites and both time periods (**Fig. 16**). We do see a fair bit of variation, however, within the highest population, the sample from Dengjiawan. This could be caused by the difference in the two rim types, which in this case of the simple cups indicate the whole shape of the vessel: Type a indicating a straight conical shape and type k indicating the outward curve creating the "trumpet shape".

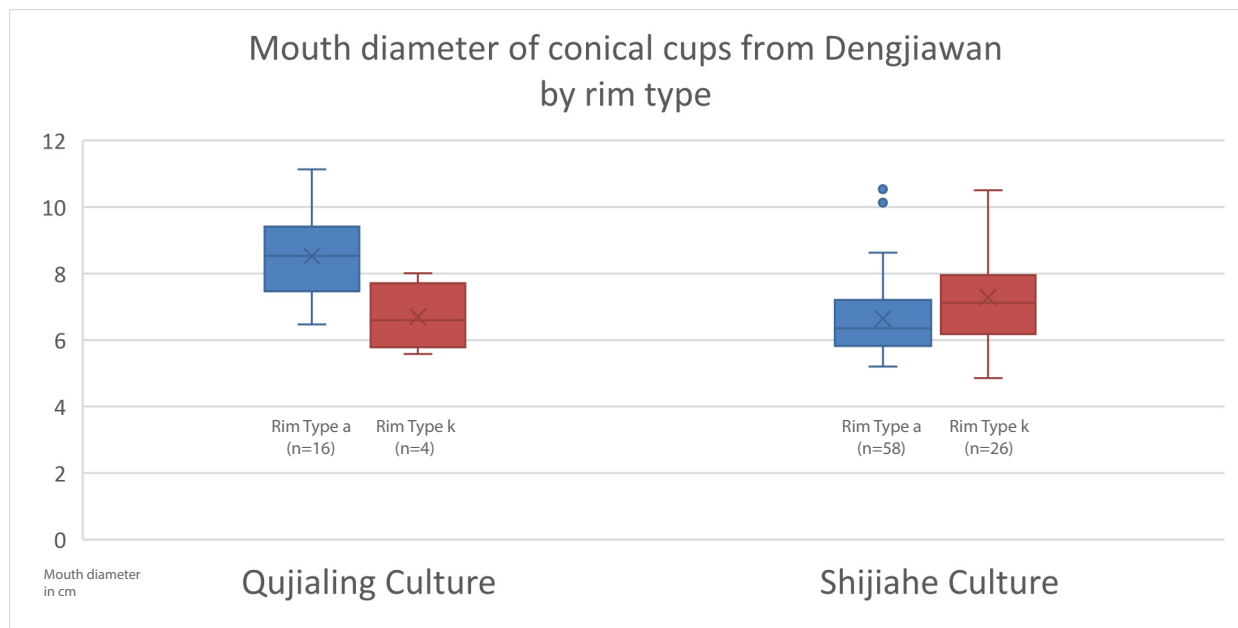


Figure 17: Mouth diameter of conical cups from Dengjiawan by rim type

When we plot these two types separately for the sample from Dengjiawan only, we see no decisive differences in mouth diameter (**Fig. 17**). In the Qujialing Culture sample, the "trumpet-mouthed" cups tend to be less wide than the straight conical, but then again we are dealing with a small sample here. "Trumpet-mouthed" cups become more common in the Shijiahe Culture period, but their mouth diameter does not stray far from that of the type a cups. The different rim types do not have a large impact here.

A comparison of lip thickness clearly shows the fact I stated initially that Shijiahe Culture cups generally have much thicker walls than Qujialing Culture cups (**Fig. 18**). Apart from that, there is not a huge variation from site to site. Cups from Yinxiangcheng appear comparably thin, but here the sample size is quite small and their thickness is still largely

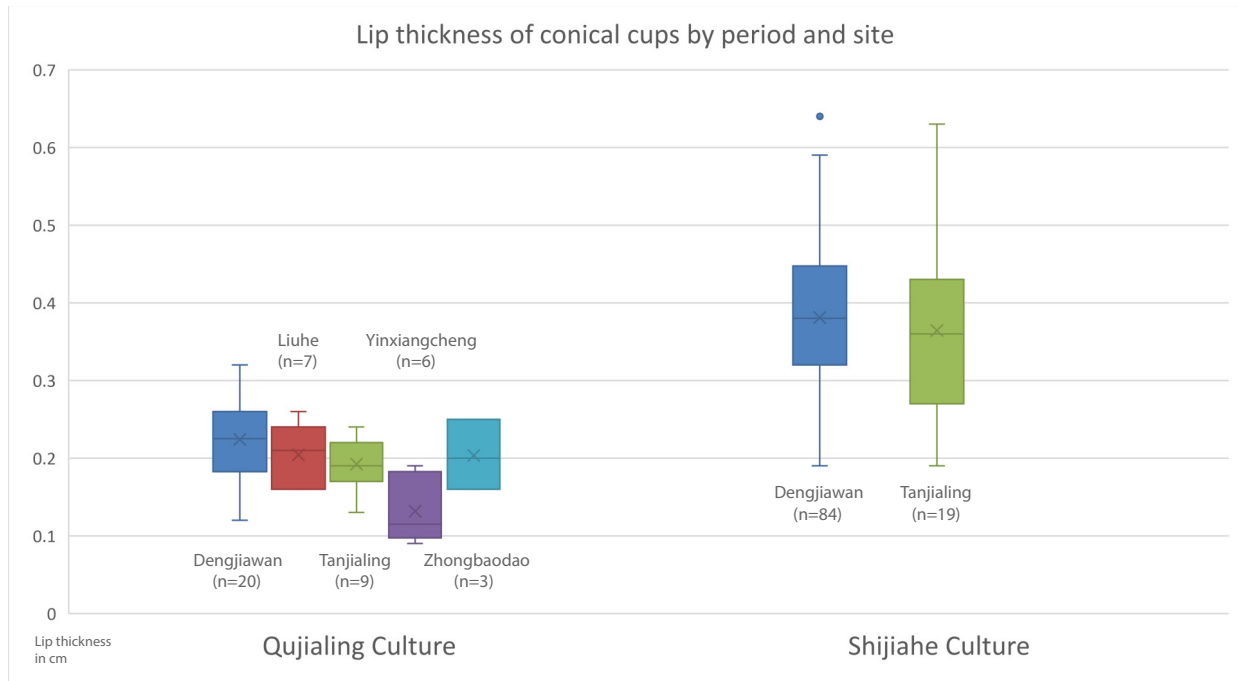


Figure 18: Lip thickness of conical cups by period and site

within the range of Dengjiawan and Tanjialing.

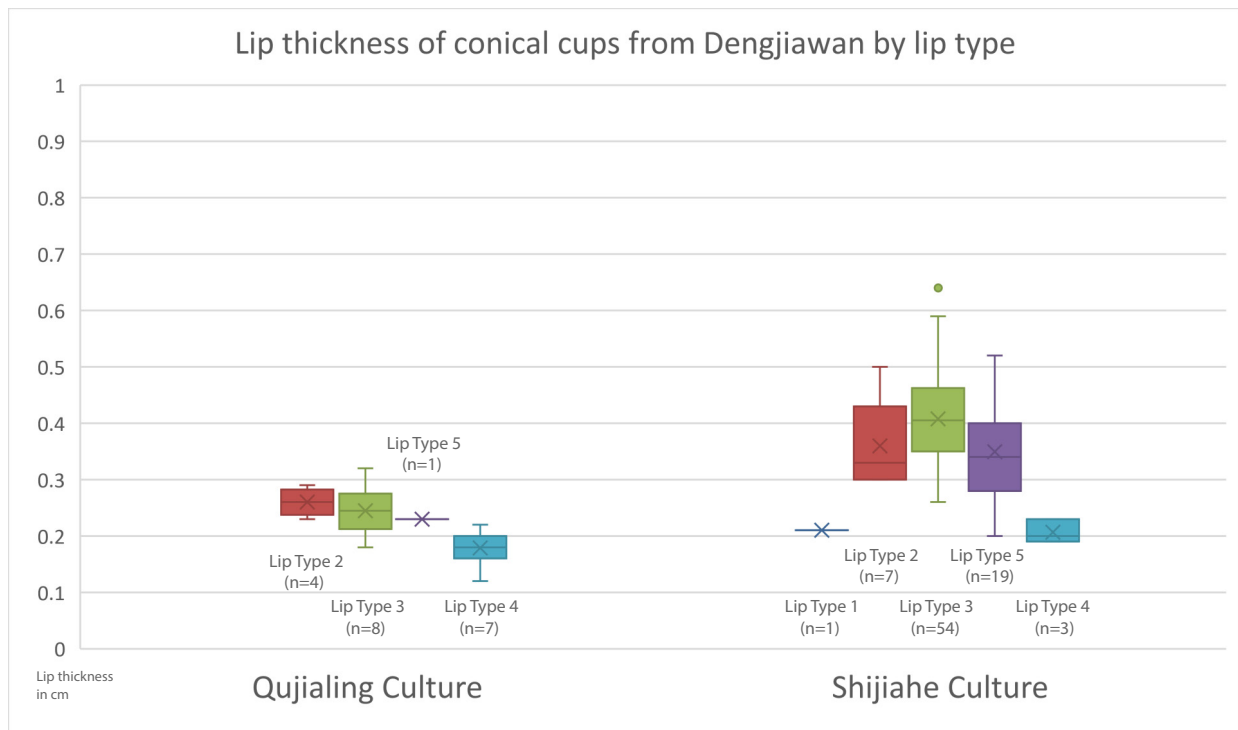


Figure 19: Lip thickness of conical cups from Dengjiawan by lip type

In order to address the fact that we are also dealing with different lip types from flat

(types 1 and 2) through rounded (type 3) to sharp (types 5 and 4), I have taken the cups from Dengjiawan again to see how that impacts lip thickness (**Fig. 19**). The results are not surprising. Sharp lips, especially type 4, are of course thinner than flat or rounded lips. There is little variation among the Qujialing Culture cups, since they all have quite thin lips. The Shijiahe Culture group is dominated by thick, rounded lips, but there are very few instances where the thick walls thin down toward a sharp lip.

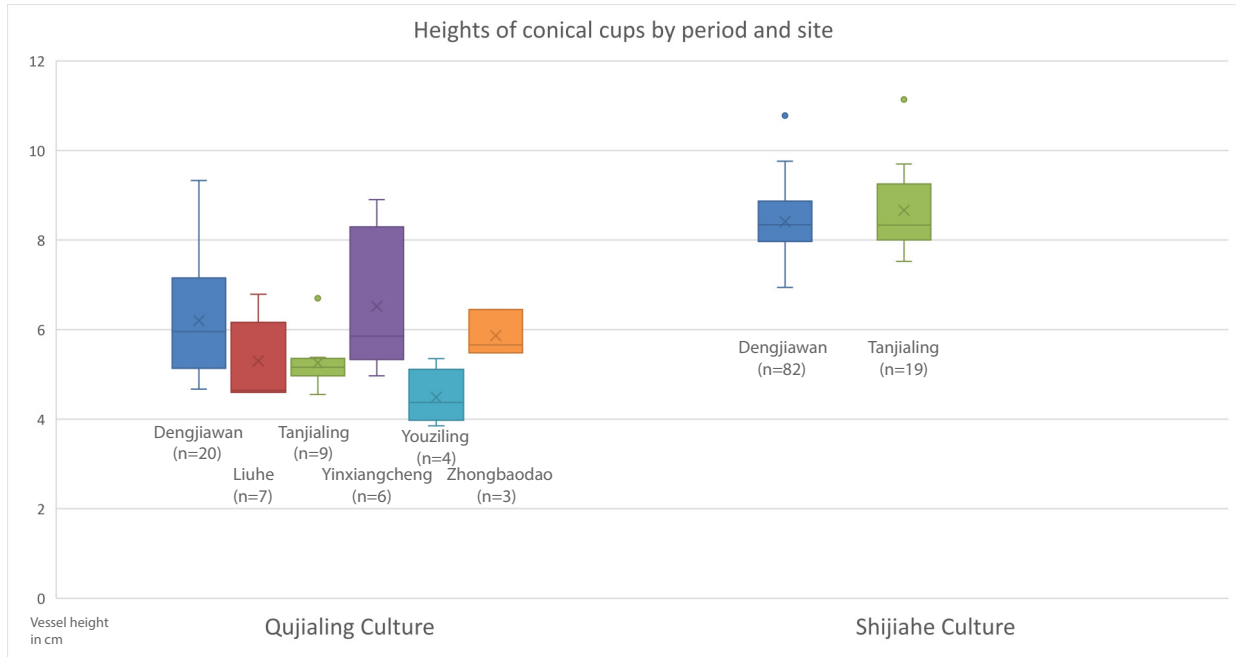


Figure 20: Height of conical cups by period and site

We finally get some notable inter-site variation when it comes to the heights of conical cups of the Qujialing Culture (**Fig. 20**). For example, cups from Youziling are generally shorter than cups from Yinxiangcheng or Zhongbaodao. There is still the problem, however, that the small size of the samples from these sites preclude any confident statements. Shijiahe Culture cups are on average taller than Qujialing Culture cups and it deserves notice that there is less variation among them - all heights fall within a range of a few centimeters. To be fair, my sample of Shijiahe Culture cups only covers Dengjiawan and Tanjialing, which are both parts of the larger Shijiahe site. Thus, we cannot see if the decrease in height variability among the Shijiahe Culture cups extends to a regional level.

The base diameters show a similar picture to the vessel heights in that there is some

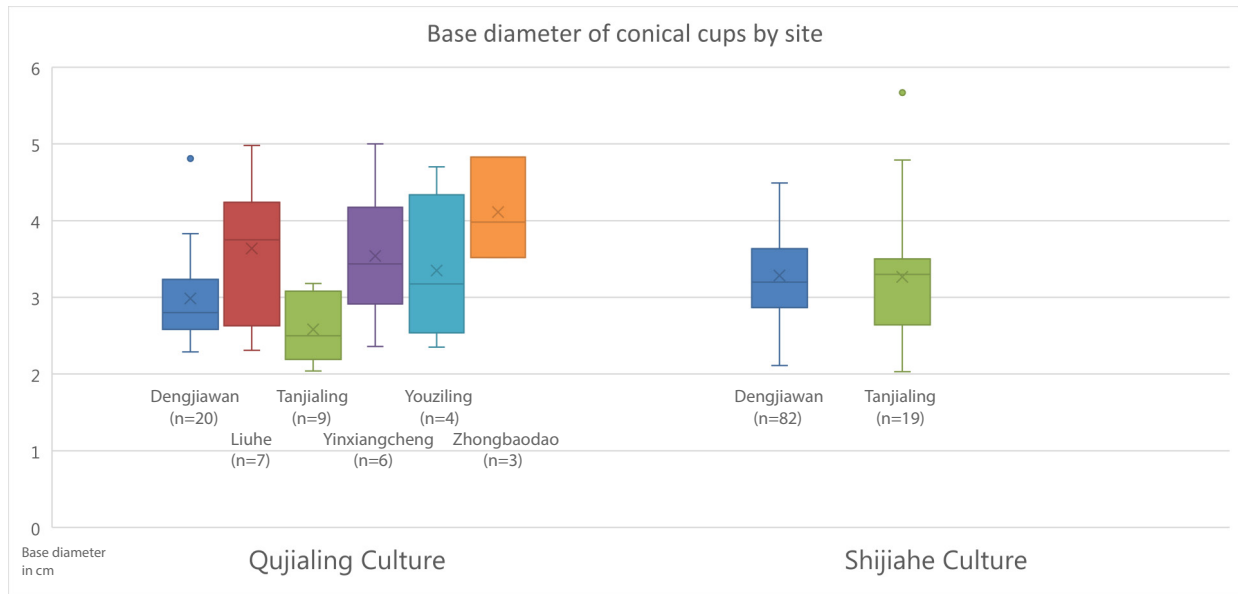


Figure 21: Base diameter of conical cups by period and site

variability among Qujialing Culture sites (**Fig. 21**). What is also visible among vessel heights, but even more pronounced here, is that in the Qujialing Culture period, the sites of Dengjiawan and Tanjialing, even with their larger sample sizes, show less internal variation than the sites of Liuhe, Yinxiangcheng, Youziling, and Zhongbaodao with their smaller sample sizes. We could take this to indicate that the forms and measurements of conical cups from Shijiahe were more fixed than at other sites, which would not be contradicted by the other charts showing mouth diameter and lip thickness.

Conclusion

No bold new insights are revealed about the conical cups, which has to do in large part with the uneven distribution of the data. The fact that 90% of the cups analyzed here are from either Dengjiawan or Tanjialing, which are both part of the same site cluster, does not help the inter-site comparison. At least we have seen the evident differences between Qujialing Culture cups and Shijiahe Culture cups represented in these charts for proof of concept - the method works, but the problem lies in the sample. In addition, the comparably low variability among cups from Dengjiawan and Tanjialing when compared to other sites could

be an indicator of a development that is worth pursuing. Does the Shijiahe site feature cups that are overall more standardized because they were produced by specialized potters there? Could the large deposit of conical cups at the Sanfangwan locality of the Shijiahe site be the sign of a production center after all? As the excavation of that deposit is slated for the near future, this kind of simple quantitative study should be the first step in elucidating the significance of the conical cups in the ceramic repertoire of their time.

Small tripodal jars

Introduction

Small tripodal jars appear in large quantities in assemblages of the Youziling Culture (Inter-regional periods 3 and 4), Pre-Qujialing Culture (Period 5), and Qujialing Culture (Period 6). I had access to a reasonably large collection of them from the sites of Liuhe, Tanjialing, and Youziling, consisting of 87 vessels altogether (**Tab. 41 - 43**). Apart from their ubiquity and extent over multiple periods and sites, what makes these vessels suited to this kind of study is that from a standpoint of qualitative typology, they look very similar throughout the time periods. There has been some discussion about the significance of different kinds of legs, but since this study is mainly concerned with the rims, I will leave the legs aside for now. Hence, similar to, say, the conical cups of the Qujialing Culture only, the variation is not apparent to superficial observation and has to be teased out by quantitative analysis. The main questions to ask of this data set are: 1) Do we see any changes between the time periods (and archaeological cultures) that we did not detect before? 2) Does the variability change in between time periods? It was hard for me to tell with these vessels if any of them were wheel-made. Can we see a decrease in variability indicating an increase in standardization nevertheless? 3) How does the inter-site variation behave over time?



Figure 22: Three examples of small tripodal jars from Tanjialing (Shijiahe Kaogudui 2011: color pl. 12,2; 10,5; 11,2)

Discussion

The variables under scrutiny here are mouth diameter, lip thickness, and rim width. The latter value indicates the width of the part of the rim that is bent outward, which is the case for all jars included here. Looking at the interdependency of these variables, there is a moderate to strong correlation between the mouth diameter and the rim width ($r=0.669$, $n=86$). The lip thickness, on the other hand, is weakly correlated with the mouth diameter ($r=0.190$, $n=86$) and the rim width ($r=-0.145$, $n=86$). There is quite a large variety of rim types, although they are generally similar to each other. For example, as noted above, all jars feature rims that are bent outward. Most of them are bent outward in a straight way (type b), but many are also curved upward (type h) and a few curved downward (type m). Furthermore, there are many different lip types, including flat (types 1 and 2), rounded (type 3), sharp (types 5 and 4), and rounded but thickened towards the vessel interior (types 9 and 10). We will have to keep this variety in mind when looking at the charts.

The mouth diameter values stay quite even over time (**Fig. 23**). Unfortunately, we have only small datasets for Period 3 and for Liuhe and Youziling in Period 6. We have a notable observation to make in terms of internal variety, however. Namely, that Tanjialing, despite high sample sizes, shows little variation in periods 4 and 5, not taking into account a few outliers. This is despite a large variety of rim types during these periods.

Looking at the lip thickness, we see Tanjialing keeping consistent throughout time and Liuhe generally falling in line with that (**Fig. 24**). Youziling is visibly veering away from

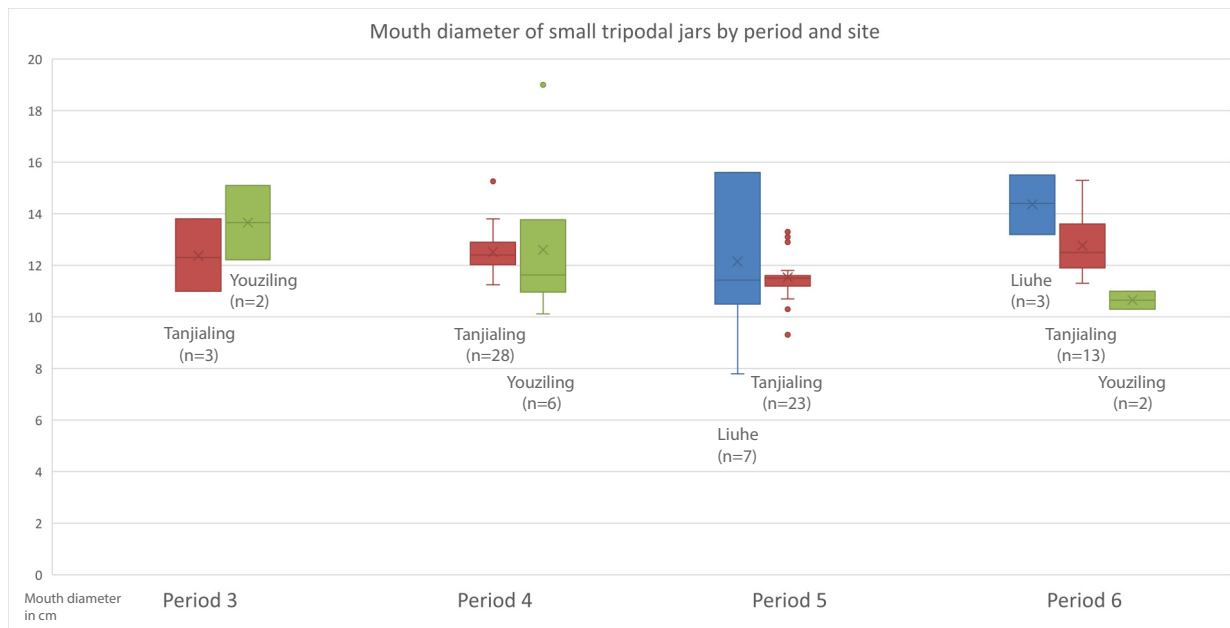


Figure 23: Mouth diameter of small tripod jars by period and site

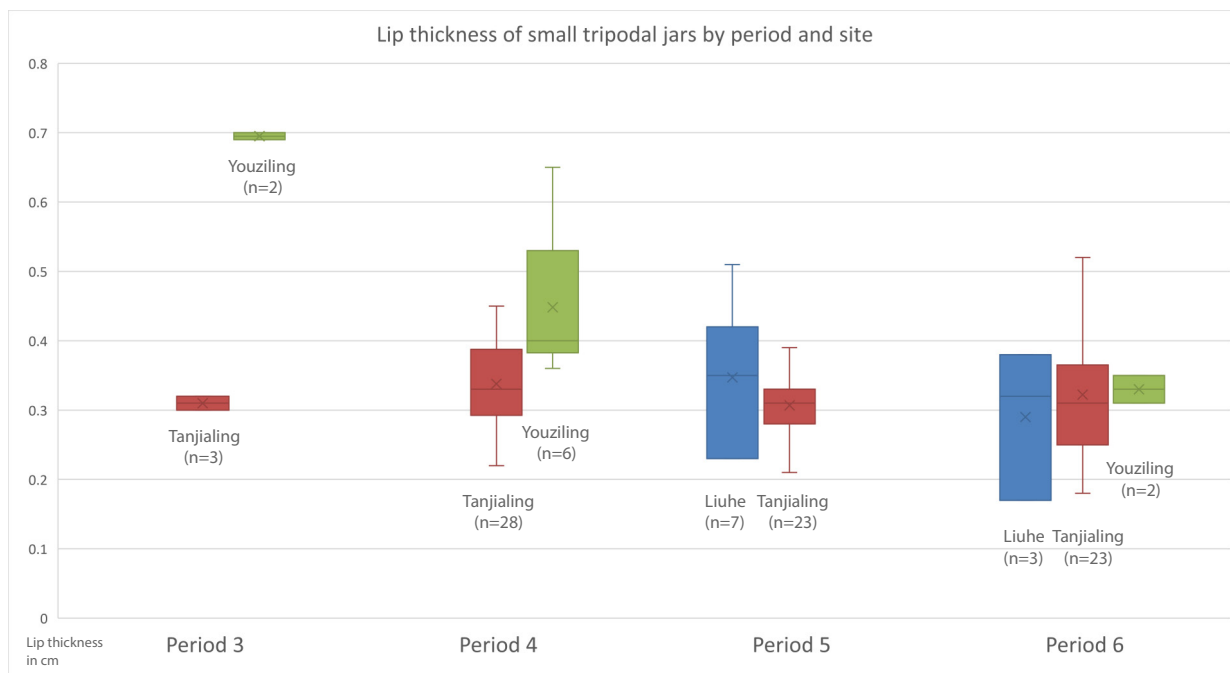


Figure 24: Lip thickness of small tripod jars by period and site

that common average in periods 3 and 4, though, granted, with small sample sizes.

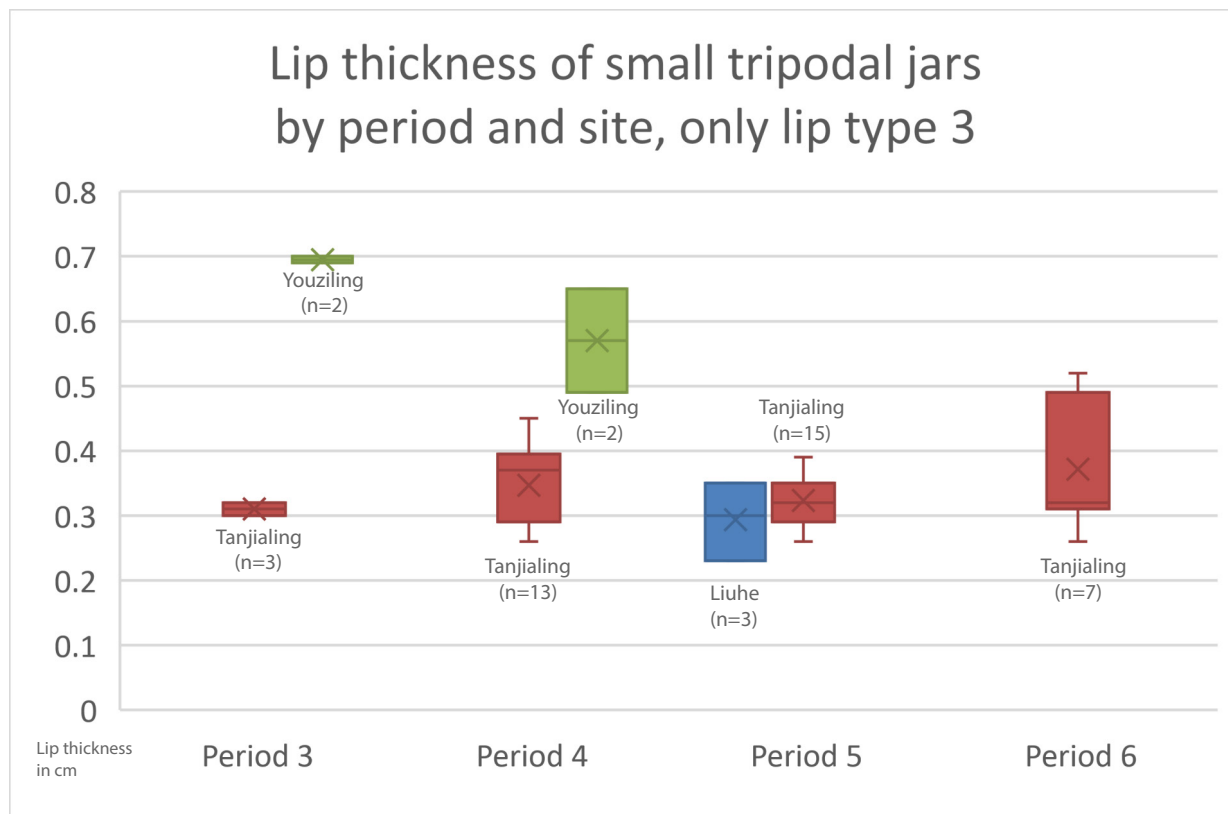


Figure 25: Lip thickness of small tripodal jars by period and site, only lip type 3

If we isolate the most common lip type, lip type 3 (the rounded lip), the difference between Youziling and Tanjialing becomes more pronounced as Youziling shows thicker lips in both Youziling Culture periods (**Fig. 25**). Again, we are dealing with very small sample sizes for Youziling here, but this serves to emphasize the contrasting phenomenon in Tanjialing where lip thickness stays consistent.

Turning to the rim widths, we repeat the observation that Tanjialing displays a strong internal consistency, whereas the values from Youziling stray to a large extent (**Fig. 26**). Liuhe is keeping parallel to Tanjialing, as it did concerning lip thickness.

Even if we narrow it down to the most common rim type, namely type b, Youziling still displays a large variety of rim width values in period 4 (**Fig. 27**).

If in turn we only look at Tanjialing while distinguishing between rim type b (the rim bent straight outward) and type h (the rim bent outward and curved upward), it becomes

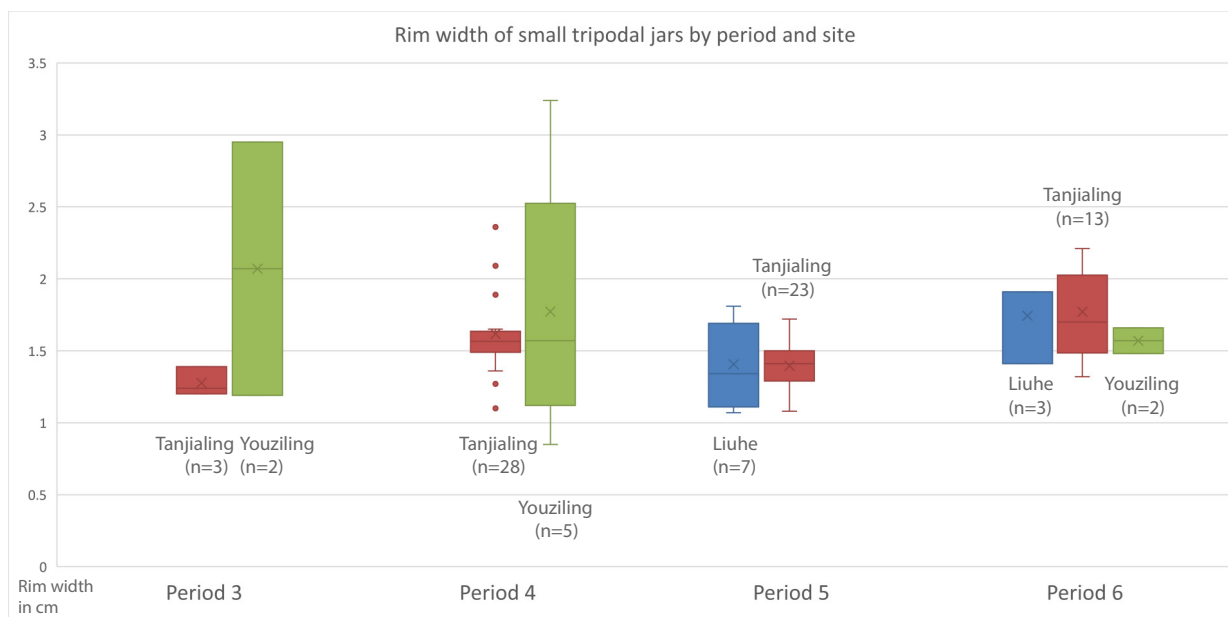


Figure 26: Rim width of small tripodal jars by period and site

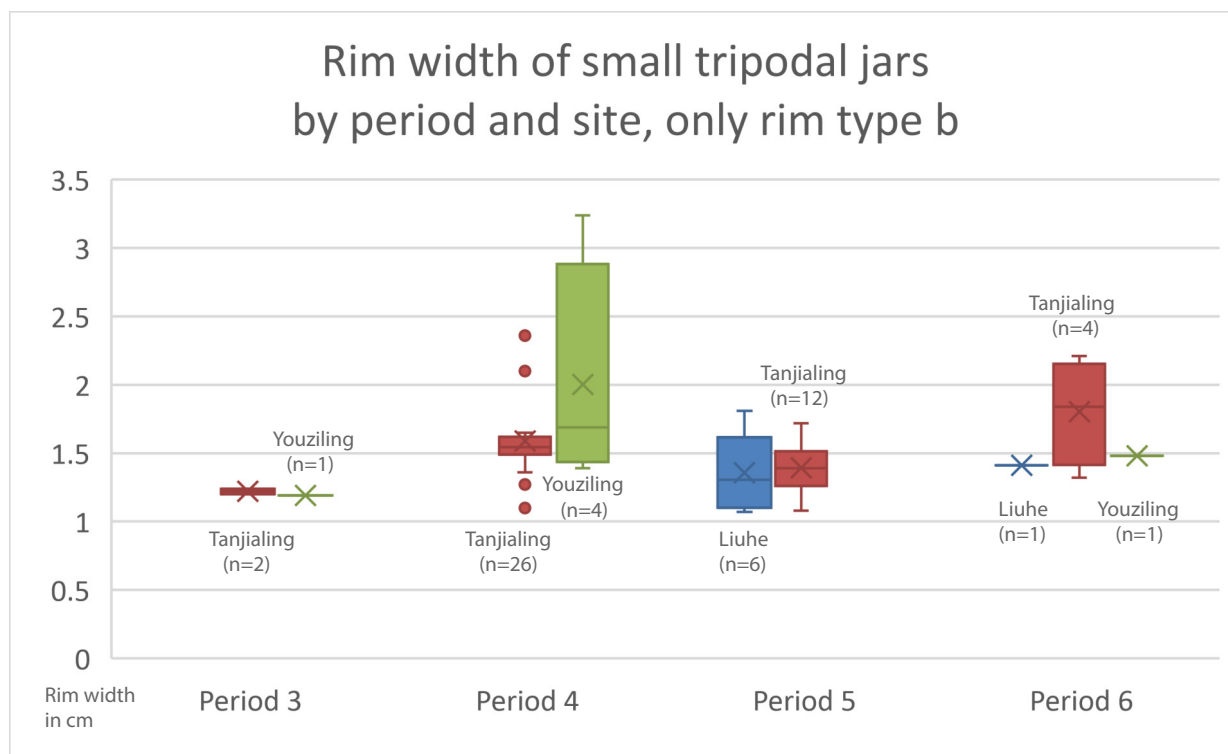


Figure 27: Rim width of small tripodal jars by period and site, only rim type b

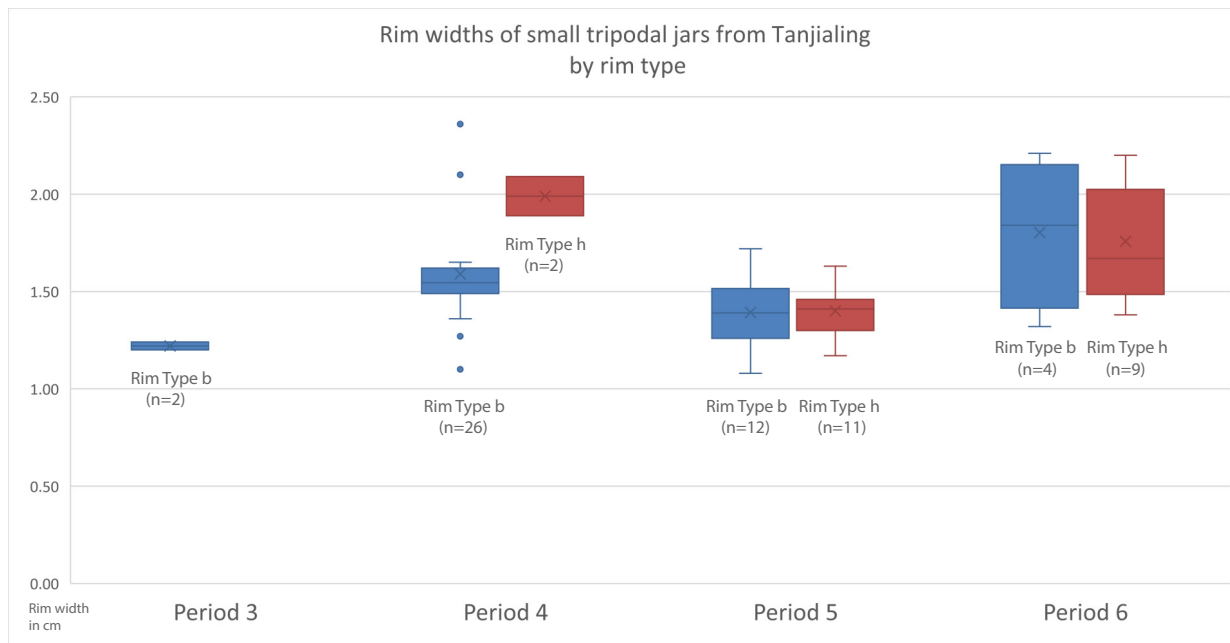


Figure 28: Rim width of small tripod jars from Tanjialing by rim type

apparent that the different types have no impact on the rim width (**Fig. 28**). The two wider-than-average h rims in period 4 can be considered outliers in this case. This chart also illustrates how the type h rim appears in the late Youziling Culture and becomes more common towards the Qujialing Culture, while the relative amount of straight type b rims decreases. We could already see this phenomenon in the rim tables derived from the site catalogue, where a parallel development occurs among larger jars.

Conclusion

We did not observe a significant number of changes between the different time periods for any of the aspects I mentioned in the introductory questions. Granted, this may again be due to a lack of data, especially concerning period 3 and any sites other than Tanjialing. The notable difference instead occurs between different sites, namely Tanjialing and Youziling. For Youziling, a larger sample would be needed to ascertain if the large variability during the Youziling Culture suggested here actually holds up. What we can say for certain is that there is a remarkable consistency among all values at Tanjialing. Small tripod jars apparently had their established measurements there that did not vary much over the course

of centuries. Even the introduction of the potter's wheel did not seem to change that fact. This result aligns with our observations regarding conical cups from the Shijiahe site.

Apart from the much too small sample from period 3, there is a notable lack of data from period 7, the Late Qujialing Culture. The vessels I studied from Tanjialing did in fact include one small tripodal jar from period 7, but I left it out of this analysis, since a single specimen obviously has little significance to contribute. Period 7 is also not too well represented among publications of the Handong Region, so the question if small tripodal jars still played a role at that time has to await further research and publication. In addition, the dataset presented here evidently only covers the Handong Region. It is mentioned in numerous articles that small tripodal jars also occur in the Western Jiangnan Plain, however. This study would be greatly complemented by data from that region, especially considering the insights that might be gained concerning the relationship between the Youziling Culture and the Daxi Culture.

Miniature vessels of the Pre-Qujialing Culture

Introduction

Miniature vessels are probably the most conspicuous characteristic of the Pre-Qujialing Culture. I call them miniature vessels because they are very small, although they do not seem to be direct miniatures of larger vessel types. Most of them have the polished black surface that would contribute to their time period being called the "Black Pottery Horizon", although there are some grey examples as well. The function of these tiny jars and bottles is unclear, but it is notable that they appear predominantly in mortuary contexts. The assumption that they have been produced exclusively as burial goods cannot be proven at this stage, yet it does not seem far-fetched. My main reason for including this rather peculiar sort of pottery in this study is that I had access to a large amount of it. I was able to obtain measurements of 56 miniature vessels from Liuhe and 114 miniature vessels from Longwangshan (**Tab. 44 - 53**). The Longwangshan cemetery is particularly interesting, since many of its



Figure 29: Miniature vessels from Longwangshan burials M11, M16, and M42 in comparison. Top row: M11:82, M11:69, M11:81; mid row: M16:4, M16:18, M16:17; bottom row: M42:39, M42:45, M42:40. (Photo: R. Ehrich)

burials contain large amounts of these miniature vessels along with ceramics of regular size. This can provide us with detailed insight into how certain pottery types and their traits are distributed within one site, even though on a macroscopic scale this type only covers one time period.⁶² In addition, there is a pattern I noticed when looking at the vessels arrayed by burial context (**Fig. 29**). These miniature jars and bottles can be put into distinct groups according to some details of their appearance, such as the presence of a short neck or the base being a ring base, a stand ring, or just a flat base. As it appears, each of these groups is exclusive to the one burial it is from, meaning that vessels that belong to one group will not occur in more than one burial. Naturally, since not all the assemblages from Longwangshan have been restored in the laboratory yet, I could not test if there are any exceptions to this rule. But on a superficial glance, it seems to hold up. The question now is if it is reflected in the quantitative data as well.

Discussion

The variables that are of relevance here partly depend on the specific shape of the vessel. Mouth diameter and lip thickness are applicable for all vessels, but neck height obviously only applies to vessels that have a discernable neck, whereas rim width only applies to vessels with rims that are bent outward (types b and h). Generally speaking, there is a weak correlation between mouth diameter and lip thickness of miniature vessels ($r=0.179$, $n=168$), which is congruent with our observations for other vessel types. For vessels with necks, the correlations are very weak between neck height and mouth diameter ($r=0.013$, $n=59$) and between neck height and lip thickness ($r=0.036$, $n=59$) - the height of the neck is completely independent from other rim parameters. The same is true of the rim width, where applicable, whose correlation with the mouth diameter ($r=-0.058$, $n=117$) and the lip

⁶²There is probably an overlap with the Early Qujialing Culture of period 6 though. There is at least one miniature vessel from Qujialing Culture contexts from Liuhe and several burials at Longwangshan contain, apart from the miniature pottery, vessels which are characteristic of the Qujialing Culture, such as double-bellied dishes. This leads me to believe that there was some overlap between Pre-Qujialing Culture and Qujialing Culture assemblages at Longwangshan. Furthermore, there are examples of miniature vessels from the Qujialing Culture in other regions, such as the Three Gorges, but it is unclear if they are related at all to the characteristic miniature vessels of the Pre-Qujialing Culture dealt with here.

thickness ($r=-0.096$, $n=117$) are very weak as well. Once again this demands that we look at these variables separately.



Figure 30: Mouth diameter of miniature vessels by burial

To start off, **Fig. 30** is a plot of mouth diameters distinguished not only between the sites of Liuhe and Longwangshan, but also by burial. I only included the burials here that contained multiple miniature vessels. The difference between the two sites is striking. The vessels from Liuhe have similar mouth diameters across the burials, while the values per burial can vary within a range of up to 3 cm. At Longwangshan, on the other hand, the mouth diameters of vessels in different burials occupy different parts of the spectrum with only some overlap. In addition, the variance in each burial is about 1 cm or less with the exception of burial M11. In order to determine what causes this wide range in M11, we have to distinguish different rim types.

The plotting of mouth diameter by rim type shows that the only rim type that Liuhe and Longwangshan have in common is 3b3, a rim that is bent straight outward with a rounded lip (**Fig. 31**). Otherwise, the miniature jars from Liuhe usually have necks and lips that are bent on the outside and curved on the inside (type 11). At Longwangshan we can distinguish two groups of rim types. With narrower mouths, we have necked vessels with rims that extend straight outward (type 1a5) or that curve outward (types 2k3 and 2k5). These vessels form rim type group 1. The second group consists of vessels with rims that

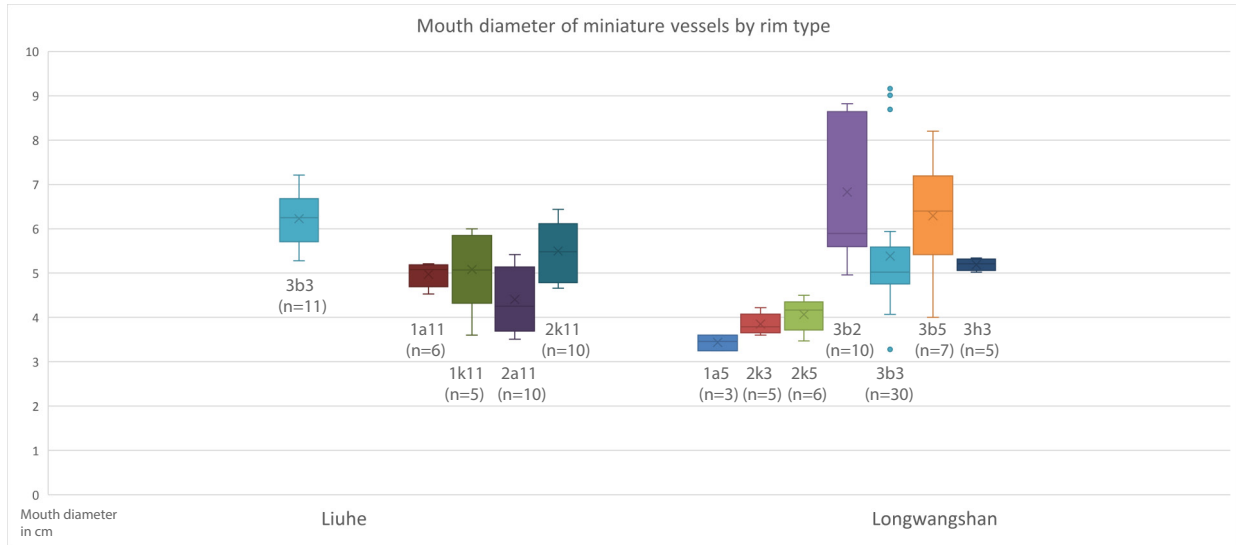


Figure 31: Mouth diameter of miniature vessels by rim type

are bent outward (types 3b2, 3b3, 3b5, and 3h3). This is rim type group 2.

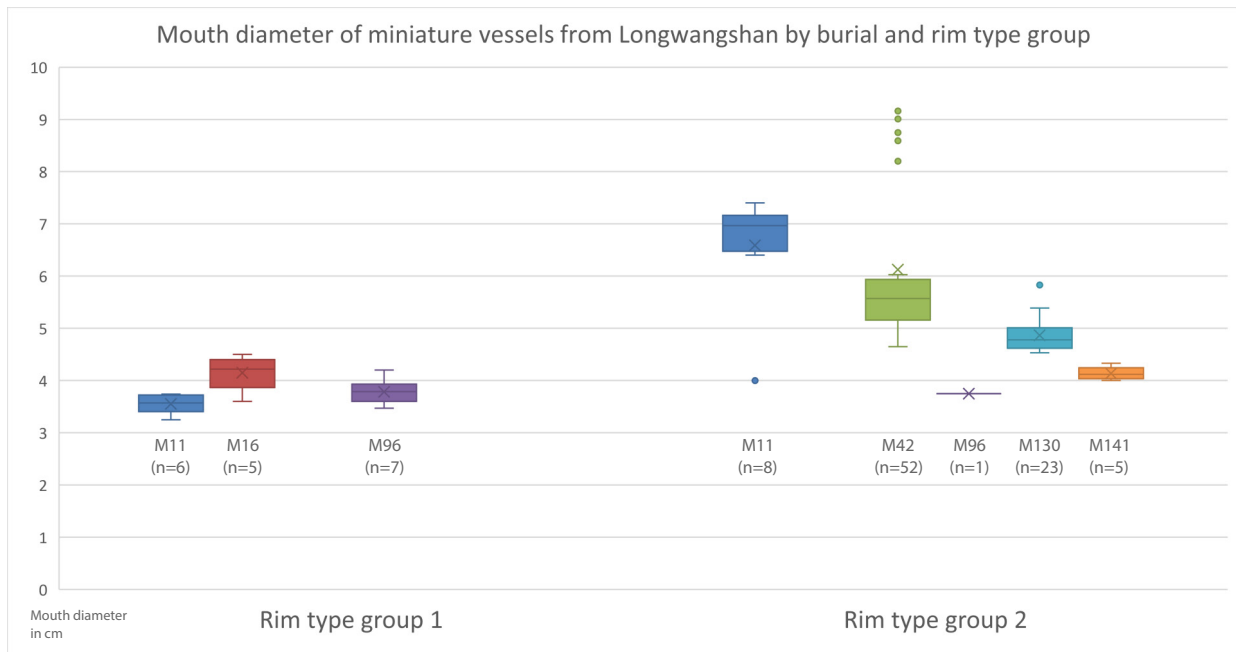


Figure 32: Mouth diameter of miniature vessels from Longwangshan by burial and rim type group

Once we have plotted the two rim type groups present at Longwangshan onto the different burials, we can see that the large overall variability of the mouth diameter in M11 is caused by the presence of vessels from different rim type groups (**Fig. 32**). Once the two vessel types contained in M11 have been separated, it is evident that the variance of the mouth

diameter for each type is quite low. Furthermore, aside from M11 and M96, all other burials each contain only vessels of one of the rim type groups.

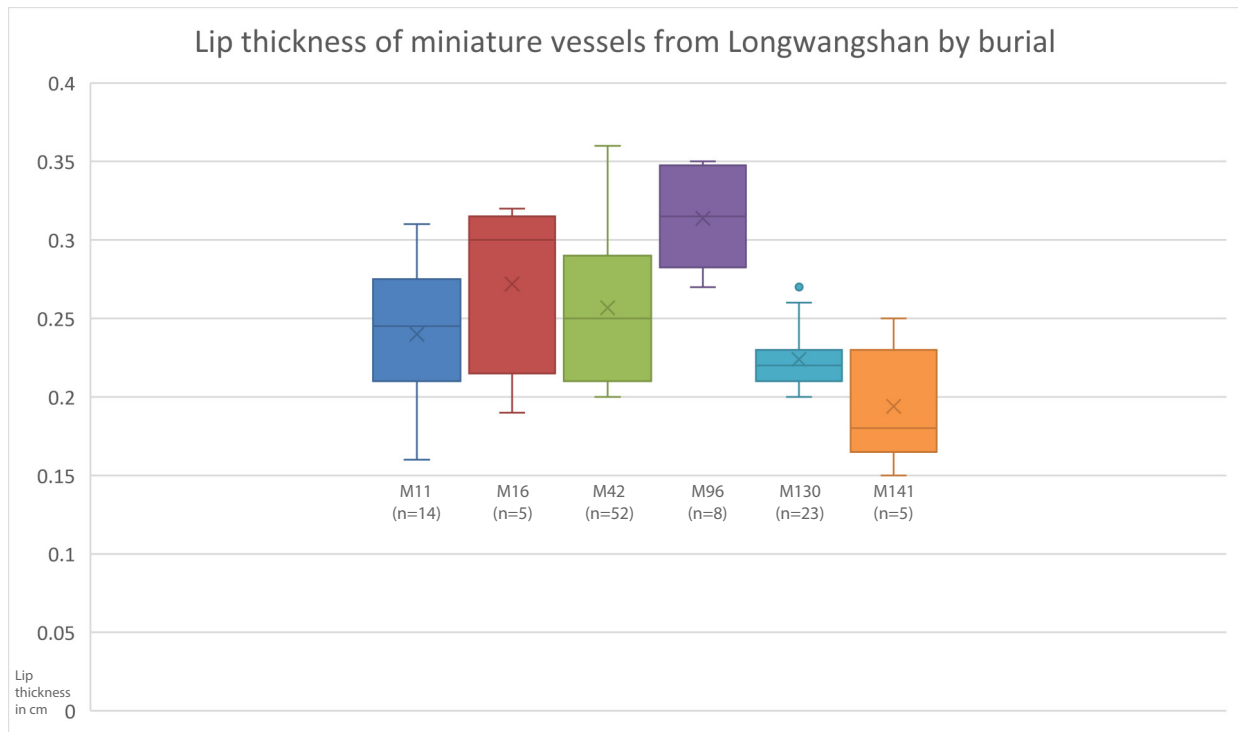


Figure 33: Lip thickness of miniature vessels from Longwangshan by burial

The lip thickness of vessels from Longwangshan shows considerably more overlap between burials than the mouth diameter (**Fig. 33**). This can be explained by there being way less range for the lip thickness to vary in among such small vessels. A much thinner lip would be harder to produce whereas a much thicker lip would constrain the mouth too much. Furthermore, there is still more variety in lip thickness between burials at Longwangshan than at Liuhe (**Fig. 34**). Similar to the mouth diameter, the lip thickness is quite homogenous throughout the burials at Liuhe. I will look at the two variables of neck height and rim width only for Longwangshan.

There is some overlap among neck heights at Longwangshan (**Fig. 35**). The necks from M11 and from M96 evidently fall into the same range. Of course, this does not have to mean that we are dealing with exactly the same kind of vessel in both burials, which is already made clear by the difference in lip thickness among M11 and M96 (**Fig. 33**).

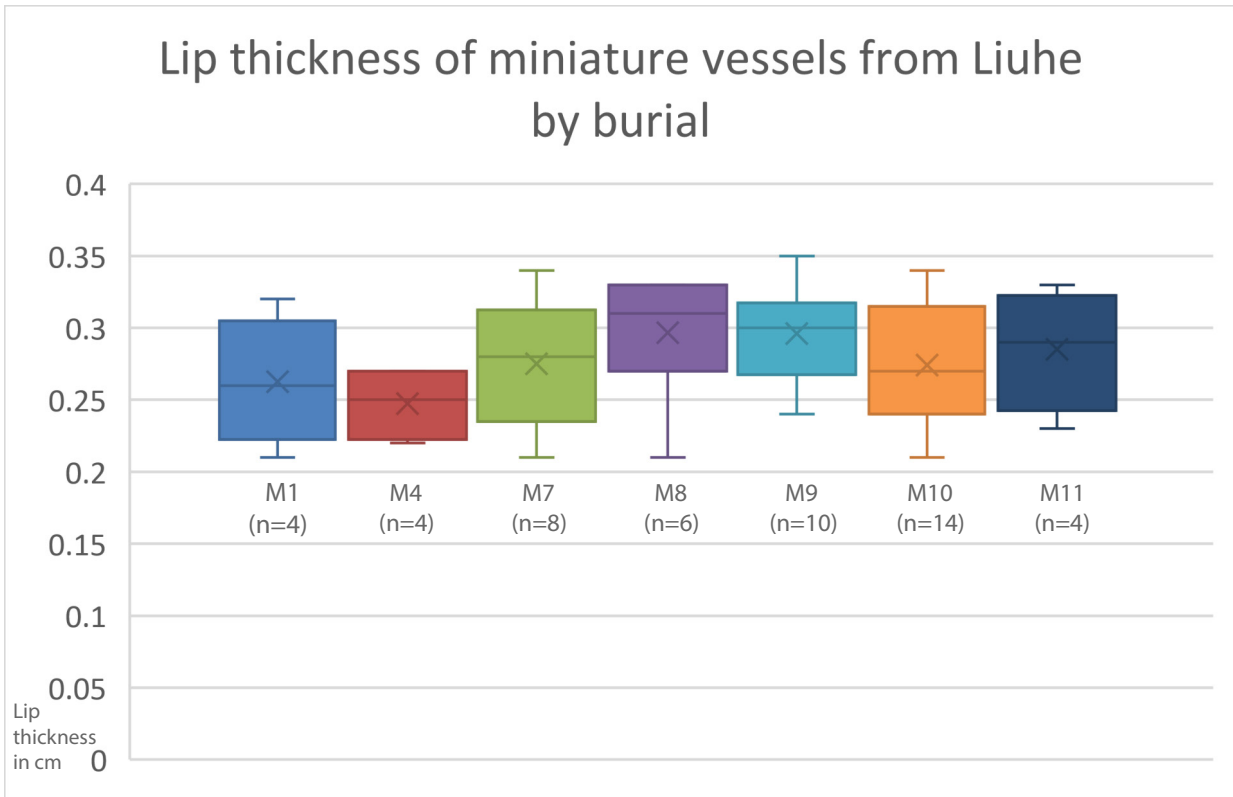


Figure 34: Lip thickness of miniature vessels from Liuhe by burial

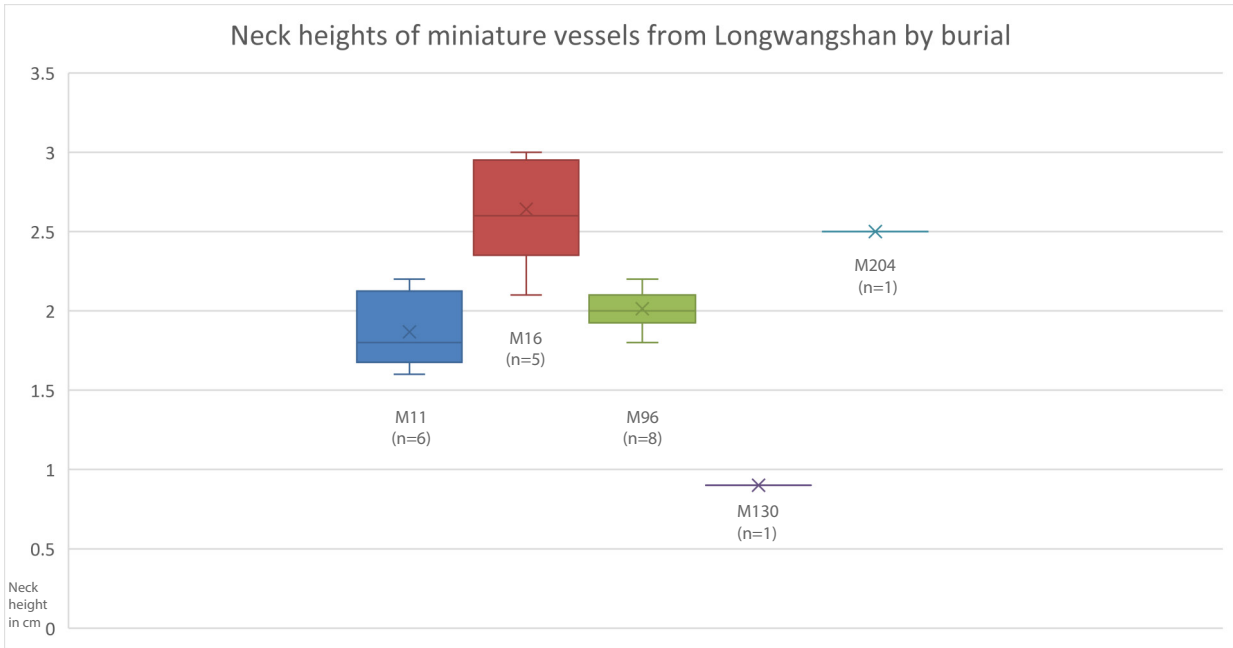


Figure 35: Neck height of miniature vessels from Longwangshan by burial

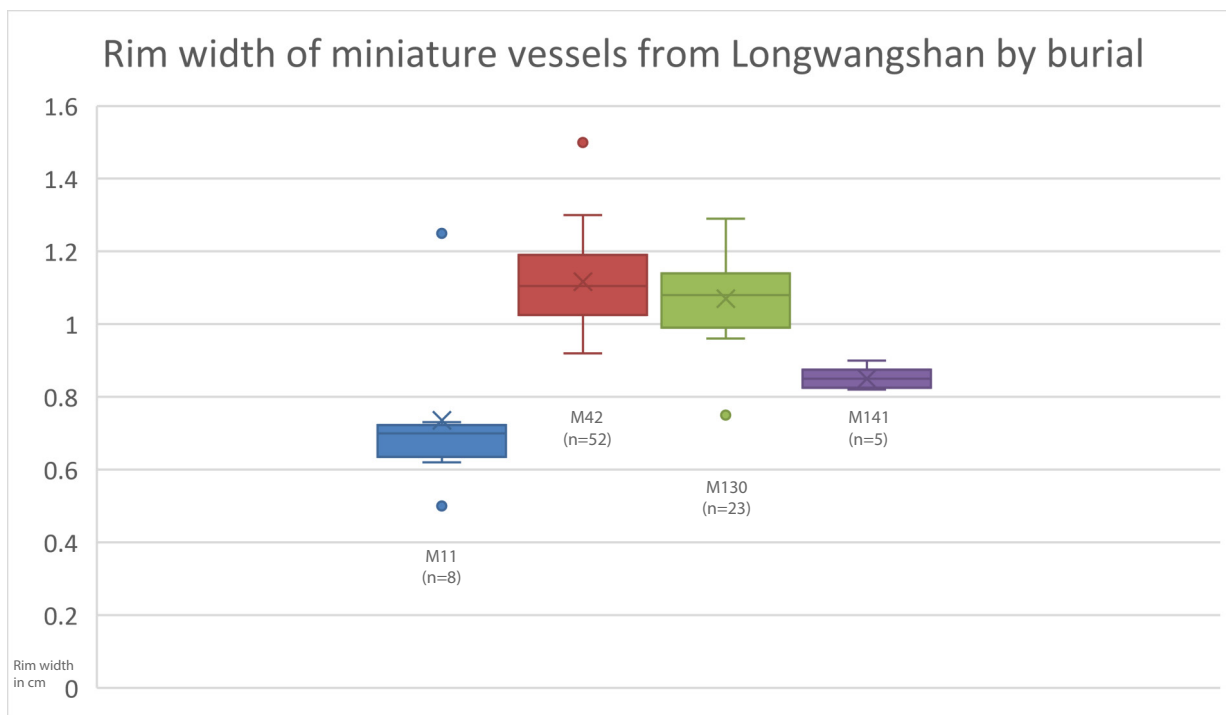


Figure 36: Rim width of miniature vessels from Longwangshan by burial

The rim widths of vessels from four different burials at Longwangshan each take up their own distinct part of the scale again with the exception of M42 and M130, which overlap to a large extent (**Fig. 36**). However, we have already shown that the vessels from these two burials have distinct mouth diameters (**Fig. 30**), so that the overlap here cannot be taken to indicate the same kind of vessel. In addition, it is worth pointing out here once more how little variation there is among the vessels within one burial. The rim widths among the 52 miniature vessels in M42, for example only vary within a range of about 0.5 cm.

Conclusion

The metric analysis of miniature vessels from Liuhe and Longwangshan bears results with remarkable implications. First of all, each site shows a completely different pattern within their assemblages. Whereas the burials at Liuhe are filled with miniature vessels of roughly similar dimensions, each burial at Longwangshan contains one or more groups of vessels that are exclusive to that burial and each vessel within each group follows strict parameters to make it almost indistinguishable from other vessels within the same group. This inter-site

difference casts some doubt on the unity of the "Black Pottery Horizon" of the Pre-Qujialing Culture, no matter how similar vessels from different sites may look at first glance.

How can the Longwangshan Phenomenon be explained? It clearly only applies to miniature vessels, not to other ceramic burial goods. Are these temporal signifiers of extremely short-lived fashions among miniature vessel shapes? I find that unlikely, since there appears to be no overlap at all from one burial to another, not one fashion blending into another. I would suggest instead that each group of miniature vessels is linked to the owner of the respective burial. As M11 indicates, there may be more than one group of vessels in each burial. This interpretation dovetails with the assumption that the miniature vessels were produced specifically as burial goods. The truly exciting part is that we are dealing here with variation on an individual level, certainly on the side of the consumer, but possibly also on the side of the producer. Granted, it is conceivable that one specialized potter could produce different batches tailored to the specific demands of each consumer. Equally valid, however, is the assumption that each group of vessels represents the work of an individual potter. Perhaps the tomb owner would produce their own assemblage to prepare for their inevitable burial. Or the task fell to a close member of the family. Leaving this speculation aside, the very likely possibility that we can distinguish the work of individual potters at Longwangshan is very unusual in prehistoric archaeology and provides a unique chance to ceramic analysts for further study.

Future perspectives for the microtypological method in the Middle Yangzi River Region

A major hindrance to this analysis that I have pointed out in abundance is the lack of publications of excavated material, especially in certain regions, such as the Western Jiangnan Plain. The more detailed reports are being published, the better the accuracy of the site catalogue and the resulting tables presented in this chapter. In addition, as I have noted above, collections that have been published are easier to gain access to for further measurements. According to the staff of the Zhijiang City Museum, the full report of the excavations at

Guanmiaoshan should be published in the near future. This site forms the lynchpin of the sequences of archaeological cultures in the whole region. Once it will finally be published, major portion of this thesis will have to be rewritten.

Another type of data that is in need of more thorough publication is ^{14}C dates. In the current state, less than a handful of dates per period have been made public. The schemes presented here could be greatly improved, if the presupposed periods could be reinforced and chronologically anchored through the use of absolute dates. A desirable long-term goal would be the targeted collection of dates to accompany certain styles detected here and trace their development through time in a similar way to what Furholt (2003a) is attempting with European prehistory.

Going along with chronological anchoring should be the spatial anchoring of ceramic styles through sourcing, which would allow us to determine where certain vessels were produced. In addition, we could learn what types of vessels were traded over long distances or where regional centers of ceramic production were located. This approach should be of particular promise with regards to the Shijiahe site, which the data of the conical cups and small tripodal jars hints at being a candidate for possibly even an interregional production center. Once the huge deposit of conical cups at Sanfangwan is excavated, it should provide a perfect dataset to base future studies upon.

Lastly, it deserves pointing out that I constructed all tables in this chapter by hand. This process, of aggregating the numbers from the site catalogue, normalizing the tables, and assigning a color value, can surely be automated if the method proves promising enough to warrant its continued use.

Conclusion

The Danger of Stereotyping

In the last chapter, I have presented some approaches that, when successful, allow for a tracing of styles through time. How can this be translated into archaeological cultures? Cultures are nothing but collections of styles, however, we have seen that bad things happen when specific styles are used to stereotype cultures and the people that create them. Too often the definition of archaeological cultures by certain styles still conjures up an image of the X people defined by artifact type A being in competition with the Y people defined by artifact type B. Not that this can be ruled out entirely. After all, throughout history, people would stereotype the culture of other people, often their opponents, by a specific type of tool, clothing, or weaponry. This would turn a style that the people thus stereotyped might not have been aware of previously into an "active style", which could change from a stereotype into an identity marker. Think of the Saxons, named by the Romans after a short sword they typically use. A situation like that might well have existed in the Neolithic Middle Yangzi River Region. But what objects these signifiers were is impossible for us to know. The question if the people who produced the remains we subsume under the Daxi Culture thought of the people who produced the Youziling Culture remains as "those tripod users" is amusing to ponder, but outside of any serious inquiry.

Cultural change and the potter's wheel

I have mentioned Lin Bangcun's explanation attempt for the expansion of the Qujialing Culture being related to the emergence of the potter's wheel (Lin Bangcun 1996: 71f.). Seeking the connection between processes we see on the distribution map and a technological innovation is of course nothing new. Technology is commonly evoked as the motor for change

in the cultural landscape with the transition from the Neolithic to the Bronze Age or Copper Age or the transition from the Paleolithic or Mesolithic to the Neolithic. But the details of ceramic technology, apart from the ability to produce ceramics in the first place, are often treated in Chinese archaeology as an added feature to a culture that advances just as the culture "advances" rather than as the reason for cultural change in the first place. To reiterate, Lin claims a direct connection between the formation of the Qujialing Culture during the period that he associates with the Late Daxi Culture, but for which I adopted the term Pre-Qujialing Culture here. According to Lin, the causal tie lies in the wheel technology increasing the productivity in ceramic production to a degree that made the emerging Qujialing Culture more "formidable" than other cultures, such as the Daxi Culture. This caused the Qujialing Culture to expand and replace the Daxi Culture among others. Evidently, Lin falls back into the way of thinking that treats archaeological cultures as groups of people in competition with each other and cultural change as one group prevailing over another.

As a side note, Lin also claims a connection between the emergence of the potter's wheel and the prevalence of black pottery during that period. His explanation is that the increased productivity created by the wheel required new firing techniques to keep up with the amount of vessels that could be formed more quickly now (Lin Bangcun 1996: 71). The black color is supposedly the result of higher firing temperatures. There is no technical foundation for this claim, as the black color is clearly the result of firing atmosphere rather than temperature and, as has been shown experimentally, the use of different firing techniques, such as a kiln, does not affect the maximum firing temperature as much as it affects the ability to keep the temperature at a consistent level firing temperature (Gosselain 1992a). Nevertheless, Lin brings up an interesting point in looking for a connection between the emergence of the potter's wheel and the iconic black pottery of the Pre-Qujiailing Culture. Not because of the color, but because of the new shapes and dimensions. I have demonstrated in the last chapter that the burials at the Longwangshan cemetery contained groups of miniature vessels, which were extraordinarily consistent in shape and dimension. Could this be the result of each group having been thrown on the wheel in one batch, possibly off the same

hump? Could the emergence of exciting new wheel-thrown ware be the reason that made putting a lot of tiny vessels with no other perceivable function in the burials so desirable in the first place? Could the tiny size be related to the fact that this made them easier to produce on the wheel, making the miniature pottery a result of the first "trial run" of the potter's wheel? These hypotheses are all very speculative at this point. I have noted the presence of ripples that might indicate a production on the wheel in the case of two miniature vessels from Liuhe and one from Longwangshan. Compared to the large overall number of the vessels I examined, this is not a significant amount at all. The problem here is that the miniature vessels are always finely polished, concealing any marks of their forming process from the surface. Employing petrographic or radiographic methods to identify the production technique could hold some promise for future inquiry.

Returning to Lin's explanation for the expansion of the Qujialing Culture, which we would actually have to call Pre-Qujialing Culture according to the system I adopted here, can we find a narrative that does not rely on the flimsy assumption that being able to throw pottery on the wheel somehow made the "Qujialing People" so strong as to be irresistible to their neighbors? Well, what if it was not the people who were irresistible, but something else? Since archaeological cultures are defined entirely by the spatio-temporal distribution of artifact types and certain features, the explanatory ability of the concept pertains at first only to these artifacts and traits, all connections to the behavior of people have to be inferred. In other words, all that the Pre-Qujialing Expansion tells us directly is that a new style of pottery spread from the Handong Region into other regions. Here is where we can apply the connection to the emergence at that time of the potter's wheel. This is the hypothesis that I would propose as an alternative to Lin Bangcun's: The invention and wide-spread adoption of the potter's wheel in the Handong Region around the start of the Pre-Qujialing Culture at the latest allowed for the creation of new shapes of vessels that were easier to produce on the wheel. This certainly pertains to thin-walled ware, such as the conical cups of the Qujialing Culture, but possibly also to the miniature vessels of the Pre-Qujialing Culture. Other candidates are the iconic double-bellied vessels and shoulder vessels of the Qujialing Culture. The practice of giving the bowls and dishes very high ring bases

in the Qujialing Culture definitely owes to the potter's wheel, as many of these bases still betray their production technique through ripples on the inside. These new vessels, which are notably all related to the functional realm of food and drink consumption, as opposed to cooking and storage, were unlike anything ever seen at their time, in terms of ceramics. If we assume that ceramic ware played a role in conspicuous consumption, not unlikely given their placement in burials and possible use in ritual contexts, then it is not unreasonable to assume that what must have been irresistible as a result of the innovation of the potter's wheel was not the people who invented it, but the pottery they produced. Can we fault the people who were associated with what we term the Daxi Culture for abandoning their old repertoire in favor of that new-fangled ware coming from across the Han River, when these exquisite cups and dishes were all of a sudden all the rage at feasting events? This is not to say that the Pre-Qujialing Expansion describes the direct import of vessels from the Handong Region to neighboring regions. The people of the Western Jiangnan Plain and the Three Gorges Region must have striven to get their hands on this new technology as quickly as possible to keep up. The regional differences among different types of the Qujialing Culture suggest as much. Utilitarian ware, such as vats and large jars, is unfortunately not well represented in the Daxi Culture, Pre-Qujialing Culture, and Qujialing Culture collections, or at least in the publications thereof. But according to the material that is available, there seem to be no major changes on par with the developments among serving ware. There is no evidence for the appearance of the Pre-Qujialing Culture at the Middle Han River yet, although, to be fair, distinguishing it from the Qujialing Culture proper is not as widely accepted yet, which might skew attributions. Around the beginning of the 3rd millennium BC, however, a regional variant of the Qujialing Culture assemblage does replace the local Yangshao Culture repertoire. The development causing this might be similar to what happened in the Jiangnan Plain, albeit with a delay in time.

Admittedly, this hypothesis is still as unproven as Lin Bangcun's. There is only some data presented in the last chapter that hints in this direction. Collections of excavated ceramics have to be made accessible to a more in-depth analysis of production techniques, including petrography and scanning electron microscopy, in order to make pursuing this line

of inquiry possible.

Stacks instead of blocks

Note that in the discussion of the Pre-Qujialing Expansion above, I was referring only to ceramic styles as representatives of the respective archaeological cultures. So far, no major changes in burial customs, for example, or house architecture could be detected in the transition from the Daxi Culture to the Qujialing Culture via the Pre-Qujialing Culture. In the Middle Han River Region, on the other hand, there appear to be customs, at least at some sites, of constructing long row houses and laying large collective burials during the last period of the Yangshao Culture, which disappear during the Qujialing Culture period. However, the chronological resolution is still far from enabling us to ascertain that these idiosyncratic traditions in mortuary ritual and architecture really disappear at exactly the time when Qujialing Culture ceramics are adopted in the region. This is the problem with the traditional conception of archaeological cultures as tight packages of traits: We assume, if not explicitly then often implicitly, that all traits change at the same time with the "changeover" from one culture to another. It sounds unreasonable when put this way, but how often do we find a ceramic sherd of style X and then attribute it to culture X which we know is associated with, say, walled settlements and then conclude that the pottery we found indicates the presence of the "wall-producing culture"? Even though ceramic style X might have been found at all walled settlements in securely dated contexts that are clearly contemporaneous to the walls, this does not preclude the possibility that the ceramic style emerged before the custom of building rammed earth walls and continued into the wall-building phase. Not to speak of regions where the ceramic style is in use, but the construction of rammed-earth walls is not practiced. This is not to say that all these styles are completely independent from each other, each changing at their own pace. That would make any periodization based on artifact types completely futile. And this is clearly not the case, as established sequences of archaeological cultures seem to work well enough so far. But there is the danger that these systems work a bit too smoothly due to confirmation bias. That a certain find fits into the system, because we assume that it has to fit into the system, otherwise we wouldn't know how to describe it.

Cultures as sets of styles, as I described in Chapter 2, can exist because certain traditions⁶³ are definitely connected with each other and change in one can cause change in another. Or styles pertaining to seemingly unrelated fields change at the same time due to a third cause, such as the actual eradication of the people who created them. When one style gets transmitted from one group of people to another, this exchange can ease the transmission of other styles, if intentional or unintentional. Nevertheless, the layered conception of culture outlined in this thesis, in which every individual and every social group constantly participate in and create a number of different cultures, precludes the existence of the rigid cultural blocks that archaeological cultures unfortunately still imply. We should rather envision people in antiquity to carry stacks of traditions with them in all parts of their life, different traditions applying to different situations, and the shift of one part of the stack may or may not cause another part to shift as well (**Fig. 37**).

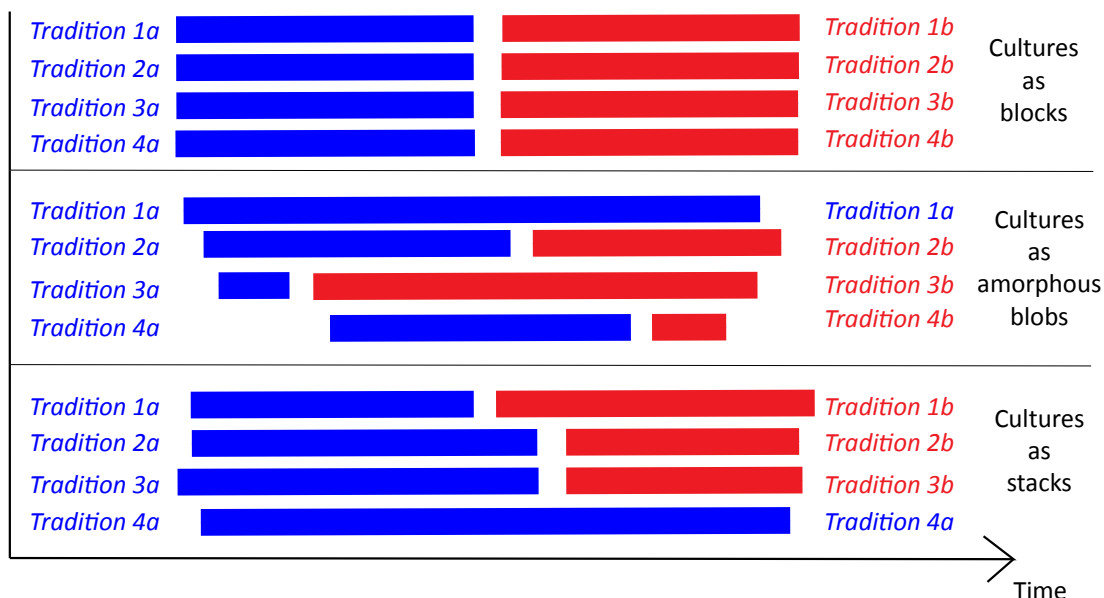


Figure 37: Different models of cultures constituted of traditions and their change over time. Cultures as blocks is how they are traditionally represented as archaeological cultures. Cultures as amorphous blobs is a hypothetical model in which none of the traditions relate to each other. Cultures as stacks is the model aligned most closely with the culture concept presented here.

The solution lies in always being clear, when speaking of cultures, what aspects are being

⁶³Traditions, as defined in Chapter 2, being continuous uses of a style through time.

covered. We can keep terms like "Qujialing Culture" and have the term "culture" actually mean what it says, but only if what it says is: "This is the culture that pertains to the production and use of ceramic vessels of this particular style." As noted above, when we speak of "the expansion of the Qujialing Culture", we thus speak only of "the expansion of the use (and probably production) of the Qujialing Culture ceramic assemblage". Furthermore, as noted in the last chapter, consistent traditions of ceramic styles are better established by looking at certain steps in the ceramic production than by relying merely on a superficial description of their appearance. How other traditions, such as how to lay a grave or how to build a house, relate to the preference of certain ceramic types represented by the Qujialing Culture has to be established in each case by the precise analysis of chronological and spatial relationships. We certainly have the means to do so in current archaeology, although it may still be a tedious and expensive process. The methods presented in this thesis can and should be applied not only to ceramic types, but to other classes of artifacts and features as well, to determine which traditions are consistent enough to be of use in the establishment of a relative chronology. Most important is the rigorous collection of ^{14}C dates or other absolute dates wherever possible and the diligent publication of these dates. Chinese archaeology in particular has got to abandon the idea that a handful of ^{14}C dates per culture are sufficient and relative chronology will do the rest. The compilation of the results in digital databases and the spatial analysis of distributions through GIS are getting more and more straightforward. Once all these steps are being followed and archaeological cultures are thusly reestablished as concepts with some validity in the examination of past human behavior, our picture of the Chinese Neolithic may yet change radically from how it appears now.

Appendix

Site names in Chinese characters

Baishiwan 白狮湾

Baligang 八里岗

Bazifen 八字坟

Bianfan 边畈

Beigongzui 北公咀

Caitai 蔡台

Caojialou 曹家楼

Chaotianzui 朝天嘴

Chegushan 车轱山

Chenghe 城河

Chenjiawan 陈家湾

Cuijiatai 崔家台

Dahechang 大禾场

Dahecun 大河村

Daoshiwan 道师湾

Dasi 大寺

Dataizi 大台子

Dawenkou 大汶口

Daxi 大溪

Dengjiawan 邓家湾

Dengyutai 邓禹台

Diaolongbei 雕龙碑

Diguanfen 翟官坟

Dingjiagang 丁家岗

Dongguan 东关

Doupozui 陡坡嘴

Dujiashanzi 独家山子

Fangyingtai 放鹰台

Fenghuangshan 凤凰山

Fengshan 冯山

Gongjiadagou 龚家大沟

Gongzhai 龚寨

Guangwutai 光武台

Guanmiaoshan 关庙山

Guihuashu 桂花树

Gujiapo 顾家坡

Guojiadaozi 郭家道子

Guojiayuan 郭家垵

Honghuatao 红花套

Huachenggang 划城岗

Huanglianshu 黄谏树

Huangshan 黄山

Huangtugang 黄土岗

Jiantanping 尖滩坪

Jingjiacheng 荆家城

Jingnansi 荆南寺

Jintangzhai 金汤寨
Jiumuyan 九亩堰
Kangjiawan 康家湾
Lengpiya 冷皮垭
Liuguan 柳关
Liuhe 六合
Longwangshan 龙王山
Longzui 龙嘴
Luojiabailing 罗家柏岭
Luosishan 螺蛳山
Majiayi 马家溪
Majiayuan 马家院
Maojiashan 毛家山
Meiziyuan 梅子园
Menbanwan 门板湾
Miaodigou 庙底沟
Mingang 闵岗
Nanzhangjiaying 南张家营
Pannancun 盘南村
Qinglongquan 青龙泉
Qingshuitan 清水滩
Qujialing 屈家岭
Sanbaiqiangang 三百钱港
Sanbuliangdaoqiao 三步两道桥
Sanfangwan 三房湾
Sanyuangong 三元宫
Shijiahe 石家河
Shijiapo 施家坡
Sunjiatai 孙家台

Tachefan 踏车畈
Tangjiagang 汤家岗
Tanjialing 谭家岭
Tanjiaping 覃家坪
Taojiahu 陶家湖
Taosi 陶寺
Tudishan 土地山
Tuojiawan 庾家湾
Wangguliu 王古溜
Wangjiagang 王家岗
Wanjiawan 万家湾
Wangtai 汪台
Wuxiangmiao 伍相庙
Wuying 吴营
Xiangang 下岗
Xiaji 下集
Xiaochang 肖场
Xiaocheng 笑城
Xiaogang 肖岗
Xiawanggang 下王岗
Xigaoying 西高营
Xihuayuan 西花园
Xinmiaozi 新庙子
Xiongjiazui 熊家嘴
Yandui 烟堆
Yangbiling 羊鼻岭
Yangjiawan 杨家湾
Yangmugang 杨木岗
Yangshao 仰韶

Yangwan 杨湾

Yaoyan 窑堰

Yejiawan 叶家湾

Yingkeng 影坑

Yinjialing 殷家岭

Yinxiangcheng 阴湘城

Youziling 油子岭

Zhaicigang 寨茨岗

Zhangjiashan 张家山

Zhaowan 赵湾

Zhongbaodao 中堡岛

Zhongjialing 钟家岭

Zhongtaizi 中台子

Zhongziba 冢子坝

Zhujiatai 朱家台

Zhujiazui 朱家咀

Zijing 紫荆

¹⁴C dates

Lab Number	site	context	site phase	sample material	uncalibrated BP (half-life 5568 yrs)	calibrated BCcal 95.4%	cultural affiliation	Period	source
BK87013	Bianfan	T30(8)		charcoal	5820±80	4882-4487	Bianfan	1, 2	Guo Weimin 2010
BK87010	Bianfan	T47(2)A		charcoal	5175±80	4232-3791	Bianfan	1, 2	Guo Weimin 2010
ZK994	Guanmiaoshan	T58(7) F34	I	charcoal	4980±110	4036-3527	Daxi	2	Li Wenjie 1986
ZK831	Guanmiaoshan	T36(7) H13	I	charcoal	4880±80	3937-3383	Daxi	2	Li Wenjie 1986
GC-83	Xiawanggang	T16(6) posthole	II	charcoal	5709±175	5016-4176	Yangshao	2, 3	Meng Huaping 1997
ZK2506	Diaolongbei	F1		charcoal	4800±105	3893-3357	Yangshao	2, 3	Meng Huaping 1997
ZK2510	Diaolongbei	T2616(4) A		charcoal	4600±125	3639-2943	Yangshao	2, 3	Meng Huaping 1997
ZK2508	Diaolongbei	T2616(4) A		charcoal	4630±105	3640-3033	Yangshao	2, 3	Meng Huaping 1997
ZK2577	Diaolongbei	T2207(4) B		charcoal	4040±100	2881-2306	Yangshao	2, 3	Meng Huaping 1997
ZK2578	Diaolongbei	H29		charcoal	4990±95	3979-3635	Yangshao	2, 3	Meng Huaping 1997
ZK2579	Diaolongbei	H34		charcoal	5120±110	4230-3666	Yangshao	2, 3	Meng Huaping 1997
ZK2580	Diaolongbei	T2308(4) A		charcoal	5130±90	4228-3707	Yangshao	2, 3	Meng Huaping 1997
ZK2581	Diaolongbei	F5		charcoal	4740±85	3694-3356	Yangshao	2, 3	Meng Huaping 1997
ZK2582	Diaolongbei	F6		charcoal	4880±95	3942-3380	Yangshao	2, 3	Meng Huaping 1997
ZK2398	Qujialing	T5(5)	I	charcoal	4951±160	4222-3368	Youziling	3	Guo Weimin 2010
ZK683	Guanmiaoshan	T1(4)	II	charcoal	7345±130	6446-5996	Daxi	3	Li Wenjie 1986
ZK687	Honghuatao	T111(6) H506-50		charcoal on sherd	5605±120	4765-4178	Daxi	3	Li Wenjie 1986
ZK892	Guanmiaoshan	T51(5)B F21	II	charcoal	5145±250	4492-3376	Daxi	3	Li Wenjie 1986
ZK992	Guanmiaoshan	T69(6)	II	charcoal	5048±250	4453-3196	Daxi	3	Li Wenjie 1986
ZK686	Honghuatao	T110(5) F301		charcoal on sherd	4625±300	4046-2504	Daxi	3	Li Wenjie 1986
ZK684	Guanmiaoshan	T6(4)	II	charcoal	4610±90	3634-3037	Daxi	3	Li Wenjie 1986
ZK352	Honghuatao	T110(5) F301		charcoal mixed with mud	4230±115	3311-2479	Daxi	3	Li Wenjie 1986
ZK685	Guanmiaoshan	T9(3)	III	charcoal	4890±70	3931-3521	Daxi	4	Li Wenjie 1986
ZK891	Guanmiaoshan	T51(4)B F22	III	burnt wooden post	4770±110	3891-3136	Daxi	4	Li Wenjie 1986
ZK2507	Diaolongbei	H1		charcoal	4600±120	3639-2945	Yangshao	4, 5	Meng Huaping 1997
ZK2397	Qujialing	bottom of 89M2	III	charcoal	4830±140	3964-3196	Pre- Qujialing	5	Guo Weimin 2010

Table 25: List of ¹⁴C dates, part 1

Lab Number	site	context	site phase	sample material	uncalibrated BP (half-life 5568 yrs)	calibrated BCcal 95.4%	cultural affiliation	Period	source
ZK832	Guanmiaoshan	T51(3)	IV	charcoal	4620±110	3640-3027	Pre-Qujialing	5	Li Wenjie 1986
ZK991	Guanmiaoshan	T76(3)	IV	charcoal	4543±80	3517-2945	Pre-Qujialing	5	Li Wenjie 1986
ZK124	Qujialing	Late I Period cultural layer		charcoal	4024±100	2876-2296	Qujialing	6	Guo Weimin 2010
BK87091	Dengjiawan	T21(4)		charcoal	5039±80	3973-3661	Qujialing	6, 7	Guo Weimin 2010
BK87092	Dengjiawan	H9		charcoal	4811±80	3764-3373	Qujialing	6, 7	Guo Weimin 2010
ZK91	Huanglianshu	F11(2)		charcoal	4097±95	2905-2411	Qujialing	6, 7	Guo Weimin 2010
ZK125	Qujialing	Late II Period cultural layer		decayed wood	4073±160	3082-2143	Qujialing	6, 7	Guo Weimin 2010
BK90141	Xiaojiawuji	H430		charcoal	4379±75	3336-2887	Qujialing	7	Guo Weimin 2010
ZK430	Qinglongquan	F1 D2		charcoal	4369±200	3628-2491	Qujialing	7	Guo Weimin 2010
ZK429	Qinglongquan	T13(6)		charcoal	4213±150	3339-2461	Qujialing	7	Guo Weimin 2010

Table 26: List of ¹⁴C dates, part 2

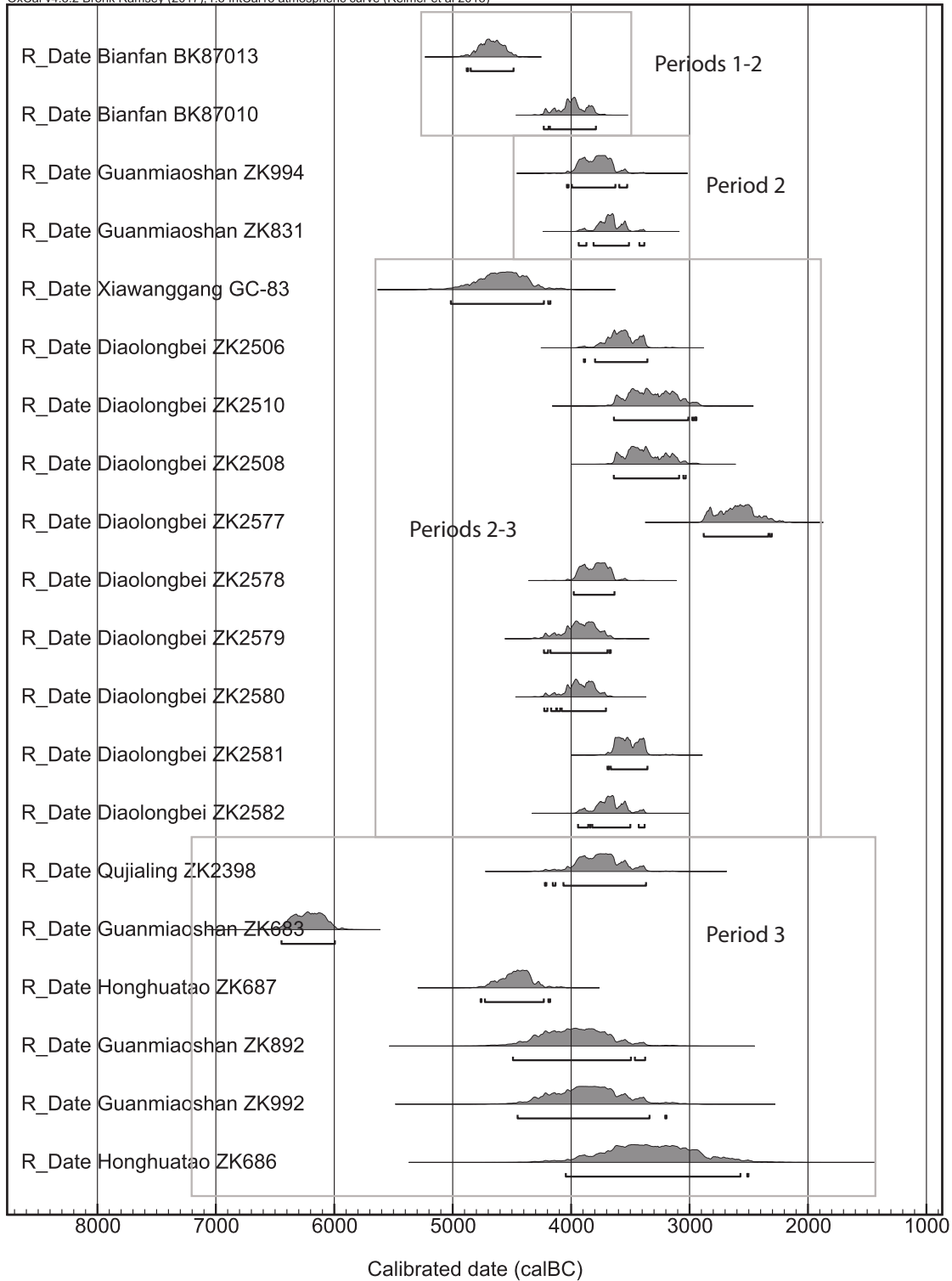


Figure 38: Calibrated ¹⁴C dates, part 1

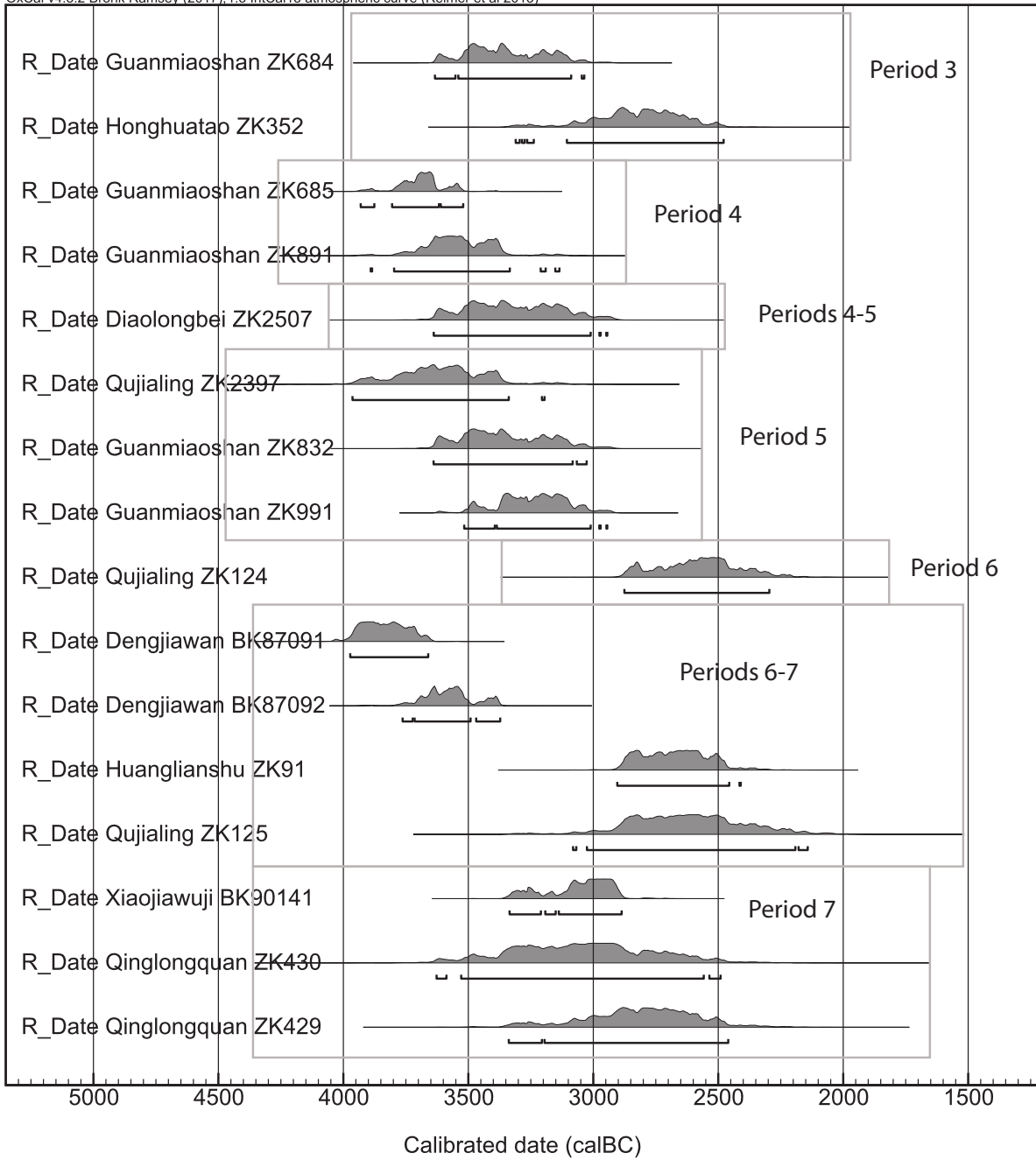


Figure 39: Calibrated ^{14}C dates, part 2

Full rim type tables

Period	Handong Region Site Phases										Score
	miniature necked jars	small necked jars	necked jars	large necked jars	vats	miniature jars	jars	large pots	shoulder vessels		
VII	Qujialing VII, Tanjialing V, Youziling V										4
VI	Luhe IV, Qujialing V, Qujialing VI, Tanjialing IV, Youziling IV										9
V	Luhe II, Luhe III, Qujialing III, Qujialing IV, Tanjialing III, Youziling III										14
IV	Luhe I, Longzui II, Longzui III, Longzui IV, Qujialing II, Tanjialing II, Youziling II										11
III	Longzui I, Qujialing I, Tanjialing I, Youziling I										7
II	Bianfan II										1
I	Bianfan I										1
VII			1k3, 1h3, 2h3								
VI		2b5, 2a8, 2a3	1a3, 2a3, 115, 2a8								
V		2b3	2a5, 1a8, 2a5, 3a3, 2c2								
IV			2a8, 2d5, 1a8, 2b3, 2c3								
III											
II											
I											
VII									1a3, 2a5, 1a4, 2a3, 2a4		
VI											
V											
IV											
III											
II											
I											

Table 27: Rim types of the Handong Region, full, part 1

Period	small cups	cups	large cups	basins	large basins		
VII		1k4	3h3				
VI	1a3	1a4 2a3 3a3	3b3	1b3 2h3 3b3	2m3 2g3 3b3 3d3		
V		1k5 2i5 3i5	3b5		2c3 3d3		
IV		1i3		3i8	3m3 3d5		
III				3i5	3i3		
II							
I							
Period	small bowls	bowls	double-bellied bowls	miniature dishes	small dishes	dishes	double-bellied dishes
VII		1b3	2f5 1b3	1a3 2h2	1c5 1i3 1i8	1a3	1b3
VI		1k3 1b3 1d3 2h3	2c3 2h3	1h3	1h3	1i3 1c3 1d4	1h3
V		1a5	3i3 1f5 3f5	1h3 2h6 1i3	1d3	1b3 1c3 1d3	1h3
IV	1i3	1a4 1i5	3b3	1c3	1i3 1f3 1d3	1i8 1i2 1d3	
III	1i3 1i4				1i5 2a3 2i8 1i8		
II							
I							

Table 28: Rim types of the Handong Region, full, part 2

Period	Western Jiangnan Plain Region Site phases			Score	miniature jars		jars		large jars		bottles		small necked bottles		necked bottles	
	miniature-necked jars	small necked jars	necked jars	large necked jars	small jars	miniature jars	large vats	vats	small pots	pots	small bottles	large bottles	small necked bottles	necked bottles	large necked bottles	small necked bottles
I																
II																
III																
IV																
V																
VI																
I	Guanniaoshan I, Yinxiangcheng I															
II	Guanniaoshan II, Yinxiangcheng II															
III	Guanniaoshan III, Guihuashu I, Yinxiangcheng III															
IV	Guanniaoshan IV, Longwangshan															
V	Guanniaoshan V, Yinxiangcheng IV															
VI	Guanniaoshan VI															

Table 29: Rim types of the Western Jiangnan Plain, full, part 1

Period	small cups	cups	small basins	basins	large basins
I		1a3			
II					
III					
IV	1f3				
V					
VI					
Period	small bowls	bowls	double-bellied bowls	dishes	double-bellied dishes
I					
II					
III	1a8	1f3			
IV	1f5	3i2, 3i5, 3i3		1a2, 1i3, 1k3, 1f3, 1f5	
V					1d5
VI					

Table 30: Rim types of the Western Jiangnan Plain, full, part 2

Period	Three Gorges Region Site phases			Score	small jars		jars	large jars	small pots		large pots	bottles	small necked bottles	shoulder vessels / necked bottles /
	miniature necked jars	necked jars	large necked jars		miniature jars	vats								
V	Qingshuitan III, Zhongbaodao V			4			1k3	2h3	3m8	2b3	3h5			
IV	Zhongbaodao IV			4	2h5		1k2	1k5	3b3	3b8	3j3	3b3	3b8	3h3
III	Daxi III, Qingshuitan II			3			3b5	3i5	3b5	3b10	3m3			
II	Daxi II, Qingshuitan I, Zhongbaodao II, Zhongbaodao III			11			2a8	3i5				3i3		
I	Daxi I, Qingshuitan I, Zhongbaodao I			6	3i5			3b2	3h3					
V		2a3	1k2	1d3	2b3	1k3	1h5	1k3	1h3	1h3	1h3	1h3	1h3	1h3
IV			1k3			1k2	1k2	2a8	2e8	3b2	3c3			
III		1a3	2a3	2a8	1b3	3b3	1a3	1h3	1h3	1h3	1h3	1h3	1h3	1h3
II		1a8	2a2	2f3	2i3	1a3	1a3	1a3	1a3	1a3	1a3	1a3	1a3	1a3
I														

Table 31: Rim types of the Three Gorges Region, full, part 1

Period	small cups	cups	large cups	small basins	basins	large basins
I						
II						
III						
IV						
V						
small bowls						
Period						
I						
II						
III						
IV						
V						
bowls						
double-bellied bowls						
dishes						
double-bellied dishes						

Table 32: Rim types of the Three Gorges Region, full, part 2

Period	cups			large cups	basins			double-bellied dishes	
V	1a3	1k4		3h3	1h3	2d3			
IV	1a5	114	1h5 2b3 3b3		1m3	3d3			
III	1a2	1a4	1c5	1k3	2h3				
II		115		218	2f3	3h3			
I				213	318	3c3			
Period	bowls			large bowls	double-bellied bowls	small dishes	dishes	large dishes	double-bellied dishes
V	112	118	218						
IV		114				213	1b3	1c3	
III		115	2a3	213	313		1h3	1d3	
II	1a3	113					113		
I	1a5	1k3	1k5				218		

Table 34: Rim types of the Middle Han River Region, full, part 2

Vessel measurements

Site	Unit	Cultural affiliation	Rim direction	Rim type	Lip type	Mouth diameter	Lip thickness	Base diameter	Vessel height	traces of production
Dengiawan	T304	Qujialing	1	a	4	11.13	0.12	4.81	6.62	
Dengiawan		Qujialing	1	a	5	6.47	0.23	2.46	7.18	irregular outside surface but smooth slightly rippled inside
Dengiawan		Qujialing	1	a	3	9.1	0.21	3.25	7.08	
Dengiawan		Qujialing	1	a	3	6.58	0.24	2.73	6.30	
Dengiawan	H56:3	Qujialing	1	a	4	7.83	0.18	3.62	5.10	
Dengiawan	T20(5)	Qujialing	1	a	4	8.72	0.20	2.75	4.83	
Dengiawan	T33(5)	Qujialing	1	a	3	8.08	0.28	3.12	7.62	
Dengiawan	T3(6):98	Qujialing	1	a	2	7.00	0.23	2.48	5.00	
Dengiawan	T36H13	Qujialing	1	a	2	9.52	0.26	3.22	9.33	
Dengiawan	T20(5)	Qujialing	1	a	4	8.23	0.22	2.80	5.28	red slip
Dengiawan	T20(5)	Qujialing	1	a	4	8.98	0.16	2.66	5.40	
Dengiawan	T36H13	Qujialing	1	k	3	5.58	0.32	2.29	5.88	
Dengiawan	T20(5)	Qujialing	1	a	3	8.59	0.26	2.80	5.12	
Dengiawan	T20(5)	Qujialing	1	a	4	8.47	0.18	3.01	5.18	
Dengiawan	T33(5)	Qujialing	1	k	3	8.01	0.22	3.07	7.53	red slip
Dengiawan	T33(5)	Qujialing	1	k	3	6.80	0.25	2.62	6.03	
Dengiawan	T20(4)	Qujialing	1	k	4	6.40	0.19	2.38	4.67	
Dengiawan	M1:1	Qujialing	1	a	2	10.70	0.29	3.83	7.36	
Dengiawan	T20(5)	Qujialing	1	a	2	7.35	0.26	2.57	5.58	
Dengiawan	T31(4)	Qujialing	1	a	3	9.61	0.18	3.24	6.88	black paint
Dengiawan	H48:46	Shijiahe	1	a	3	6.0	0.45	2.87	8.73	
Dengiawan	W1:1	Shijiahe	1	k	3	6.00	0.33	2.72	8.60	spiral ripples inside, striations near rim indicate wheel-make
Dengiawan	T102(3)	Shijiahe	1	a	2	5.56	0.50	3.15	8.16	
Dengiawan	T33(2):5	Shijiahe	1	k	3	8.1	0.27	3.60	8.11	spiral bottom

Table 35: Conical cups, part 1. All measurements in cm.

Site	Unit	Cultural affiliation	Rim direction	Rim type	Lip type	Mouth diameter	Lip thickness	Base diameter	Vessel height	traces of production
Dengiawan	AT3(4):48	Shijahe	1	a	5	5.9	0.40	3.06	8.30	
Dengiawan	H16	Shijahe	1	a	3	6.14	0.31	2.86	9.13	slight ripples inside
Dengiawan	T10(3)	Shijahe	1	a	3	6.86	0.42	2.91	9.24	
Dengiawan		Shijahe	1	a	4	5.66	0.20	2.39	7.56	
Dengiawan	H1	Shijahe	1	k	3	7.08	0.33	2.86	7.97	irregular outside surface with finger ripples but in spiraloid pattern; probably still wheel-thrown
Dengiawan		Shijahe	1	k	5	7.1	0.45	3.04	8.17	spiral striations inside
Dengiawan		Shijahe	1	a	3	6.94	0.30	3.37	7.92	
Dengiawan		Shijahe	1	k	3	7.94	0.37	3.68	8.41	
Dengiawan	T10(2)	Shijahe	1	a	3	5.94	0.36	2.88	7.89	ripples on inside
Dengiawan	T1(2):12	Shijahe	1	a	3	6.43	0.41	3.40	8.09	
Dengiawan	H69:34	Shijahe	1	k	3	7.13	0.38	3.19	7.84	spiral bottom
Dengiawan		Shijahe	1	k	3	5.83	0.40	3.07	8.94	ripples on inside of rim
Dengiawan	A(3)	Shijahe	1	k	3	7.30	0.28	3.16	7.17	spiral striations inside
Dengiawan	T53?(2)	Shijahe	1	a	3	7.78	0.38	3.78	8.23	
Dengiawan	H69:33	Shijahe	1	k	3	10.03	0.32	4.17	8.71	
Dengiawan	T33(2)	Shijahe	1	k	3	6.35	0.64	3.20	9.01	
Dengiawan	H4:1	Shijahe	1	a	3	5.79	0.41	2.93	9.04	
Dengiawan	T35(3):29	Shijahe	1	a	5	7.48	0.38	3.61	8.23	clear spiral ripples on inside - clearly wheel-thrown
Dengiawan	AT3(4):68	Shijahe	1	a	5	6.1	0.32	2.95	9.03	
Dengiawan	AT3(4):49	Shijahe	1	a	3	6.69	0.39	3.26	8.29	spiral bottom
Dengiawan		Shijahe	1	a	5	7.06	0.45	3.50	8.70	
Dengiawan	T35(4):60	Shijahe	1	a	5	6.15	0.36	3.20	8.29	spiral bottom

Table 36: Conical cups, part 2. All measurements in cm.

Site	Unit	Cultural affiliation	Rim direction	Rim type	Lip type	Mouth diameter	Lip thickness	Base diameter	Vessel height	traces of production
Dengiawan	T28	Shijahe	1	k	3	7.82	0.29	3.86	7.76	
Dengiawan	T33(2)	Shijahe	1	a	2	6.97	0.33	3.32	7.73	
Dengiawan	T33(2)	Shijahe	1	a	3	6.28	0.38	3.36	8.60	spiral bottom
Dengiawan	T35(2):3	Shijahe	1	a	5	6.83	0.25	3.70	8.05	
Dengiawan	AT9	Shijahe	1	a	3	7.02	0.42	3.68	9.05	
Dengiawan	T10(2)	Shijahe	1	a	3	8.38	0.35	3.54	8.66	
Dengiawan	T8(3):27	Shijahe	1	a	3	5.66	0.50	3.15	7.85	
Dengiawan	T1(4):1	Shijahe	1	a	5	5.32	0.32	2.81	7.70	
Dengiawan	T3(2):5	Shijahe	1	a	3	5.4	0.54	3.22	8.01	
Dengiawan	T35(3):21	Shijahe	1	a	3	6.38	0.50	3.00	7.79	striations inside
Dengiawan	T35(4):35	Shijahe	1	k	3	5.95	0.44	2.76	9.03	
Dengiawan		Shijahe	1	a	3	6.13	0.42	3.02	7.60	
Dengiawan	T8(3):7	Shijahe	1	a	5	5.83	0.44	2.75	8.41	
Dengiawan	T8(3):41	Shijahe	1	a	5	5.2	0.52	2.46	8.14	
Dengiawan	T7:12	Shijahe	1	a	3	5.78	0.49	2.58	8.85	
Dengiawan	T10(6):4	Shijahe	1	a	5	5.46	0.29			
Dengiawan	T3(4? 2?):66	Shijahe	1	a	5	5.51	0.33	2.80	8.39	
Dengiawan	T1	Shijahe	1	a	3	6.05	0.45	3.13	8.33	
Dengiawan	H30:56	Shijahe	1	a	2	7.38	0.30	3.63	7.86	
Dengiawan	T26H2	Shijahe	1	a	1	7.09	0.21	2.66	6.94	
Dengiawan	T35(3):24	Shijahe	1	k	3	7.98	0.50	4.47	9.38	
Dengiawan	AT307(2):2	Shijahe	1	a	3	5.60	0.41	2.84	8.40	
Dengiawan	T35	Shijahe	1	a	3	6.95	0.56	3.48	8.35	spiral bottom
Dengiawan	T101(2E)	Shijahe	1	a	3	10.54	0.32	4.38	9.49	
Dengiawan	H48:28	Shijahe	1	a	3	6.0	0.39	2.80	8.15	
Dengiawan		Shijahe	1	k	4	9.60	0.23	3.70	8.79	spiral bottom
Dengiawan	H54:20	Shijahe	1	a	3	7.27	0.49			spiral bottom
Dengiawan		Shijahe	1	a	2	6.54	0.43	3.30	10.78	
Dengiawan		Shijahe	1	a	3	7.25	0.42	3.65	9.00	
Dengiawan	T35(4)	Shijahe	1	a	3	8.38	0.38	4.49	7.69	spiral bottom
Dengiawan		Shijahe	1	a	3	7.19	0.50	3.46	8.33	spiral striations inside
Dengiawan	T201:14	Shijahe	1	k	2	6.5	0.33	4.21	7.27	spiral bottom
Dengiawan		Shijahe	1	a	5	5.23	0.28	3.07	8.48	spiral bottom

Table 37: Conical cups, part 3. All measurements in cm.

Site	Unit	Cultural affiliation	Rim direction	Rim type	Lip type	Mouth diameter	Lip thickness	Base diameter	Vessel height	traces of production
Dengiawan		Shijahe	1	k	3	7.61	0.36	3.45	8.03	
Dengiawan	T31(3)	Shijahe	1	a	3	6.33	0.49	2.87	9.76	
Dengiawan	T35(4):63	Shijahe	1	k	5	4.85	0.27	2.74	8.80	
Dengiawan		Shijahe	1	a	3	6.0	0.35	2.92	9.01	
Dengiawan	T35(4)	Shijahe	1	a	5	8.63	0.34	3.80	9.19	
Dengiawan	T302(5):15	Shijahe	1	k	3	7.80	0.31	4.08	7.13	
Dengiawan		Shijahe	1	a	5	5.79	0.36	2.82	9.15	
Dengiawan	T103(3):25	Shijahe	1	k	3	10.5	0.42	4.15	8.26	spiral bottom
Dengiawan		Shijahe	1	k	3	6.90	0.47	3.62	8.58	
Dengiawan	H13	Shijahe	1	a	4	6.41	0.19	2.11	7.96	
Dengiawan		Shijahe	1	k	3	6.10	0.41	3.41	7.55	
Dengiawan		Shijahe	1	k	3	7.52	0.26	4.06	8.40	slight ripples inside
Dengiawan	T53(2):5	Shijahe	1	a	5	7.60	0.20	3.40	8.02	spiral bottom
Dengiawan	T35(4):42	Shijahe	1	k	5	6.5	0.40	3.34	8.13	spiral bottom; red slip
Dengiawan	T31(3)	Shijahe	1	a	3	8.02	0.30	3.76	8.92	spiral striations inside
Dengiawan	T35(3):16	Shijahe	1	a	3	6.24	0.46	2.65	8.67	
Dengiawan	T1(3)	Shijahe	1	a	3	10.13	0.45	4.19	9.52	
Dengiawan		Shijahe	1	a	3	7.59	0.59	3.68	8.27	
Dengiawan	T27(2):4	Shijahe	1	a	2	8.54	0.30	4.20	8.99	
Dengiawan	T35(3):18	Shijahe	1	a	3	6.18	0.50	3.20	7.84	
Dengiawan	T307(3)	Shijahe	1	a	5	5.5	0.28	2.95	8.74	
Dengiawan	T35(3)	Shijahe	1	a	3	6.44	0.38	3.48	8.55	slight ripples inside
Dengiawan	T101(2):38	Shijahe	1	k	3	6.2	0.37	2.86	9.00	
Dengiawan	M40:6	Shijahe	1	k	2	8.99	0.33	2.82	8.74	
Dengiawan	T35(2):5	Shijahe	1	k	3	5.67	0.40	2.78	7.63	spiral striations inside; cut marks on base underside
Liuhe	T35(3)	Qujialing	1	a	5	9.5	0.18	4.24	5.7	painted
Liuhe	H15:12	Qujialing	1	a	4	9.34	0.16	4.98	6.16	

Table 38: Conical cups, part 4. All measurements in cm.

Site	Unit	Cultural affiliation	Rim direction	Rim type	Lip type	Mouth diameter	Lip thickness	Base diameter	Vessel height	traces of production
Liuhe	T32(4)	Qujialing	1	a	4	9.2	0.21	3.75	6.79	
Liuhe	T36(4)	Qujialing	1	a	5	7.41	0.26	2.31	4.6	
Liuhe	T36(4)	Qujialing	1	a	5	7.11	0.22	2.63	4.64	
Liuhe	H20:4	Qujialing	1	a	4	8.36	0.16	3.81	4.61	
Liuhe	T32(5)	Qujialing	1	a	3	9.39	0.24	3.74	4.6	ripples on outside, cut marks on bottom - wheel-thrown
Tanjialing	H23:2	Qujialing	1	k	4	7.20	0.20	2.5	4.55	
Tanjialing	H23:21	Qujialing	1	k	4	8.07	0.22	2.2	4.96	
Tanjialing	H23:18	Qujialing	1	a	4	8.12	0.18	3.05	5.08	
Tanjialing	H23:23	Qujialing	1	a	5	7.72	0.19	2.39	4.98	
Tanjialing	H23:1	Qujialing	1	k	5	7.87	0.24	2.18	5.33	painted red, finely crafted
Tanjialing	H23:81	Qujialing	1	l	5	8.79	0.22	2.58	6.7	painted black, wheel-made
Tanjialing	H23:22	Qujialing	1	k	4	7.87	0.19	2.04	5.38	painted red and black, very finely made, maybe even wheel-thrown
Tanjialing	H2:6	Qujialing	1	a	4	9.29	0.16	3.18	5.16	wheel-made (slight grooves, bottom shows traces of slicing off the hump)
Tanjialing	H1:8	Qujialing	1	a	4	8.46	0.13	3.11	5.18	
Tanjialing	H47:1	Shijiahe	1	k	3	6.42	0.41	2.53	9.68	
Tanjialing	H30:20	Shijiahe	1	l	5	11.61	0.19	5.67	11.14	spiral bottom
Tanjialing	T2626 H35:5	Shijiahe	1	k	5	7.68	0.31	3.15	8.05	
Tanjialing	H59:5	Shijiahe	1	a	3	6.32	0.49	3.50	7.68	
Tanjialing	T2621 H35:31	Shijiahe	1	k	3	6.81	0.37	2.86	9.26	
Tanjialing	H44:26	Shijiahe	1	k	5	6.52	0.27	2.56	9.25	
Tanjialing	H44:8	Shijiahe	1	a	5	11.56	0.24	4.79	9.70	spiral striations, spiral bottom

Table 39: Conical cups, part 5. All measurements in cm.

Site	Unit	Cultural affiliation	Rim direction	Rim type	Lip type	Mouth diameter	Lip thickness	Base diameter	Vessel height	traces of production
Tanjialing	H35(2)	Shijiahe	1	k	3	8.07	0.43	3.39	8.32	
Tanjialing	T19 H1	Shijiahe	1	a	3	7.44	0.38	2.64	7.88	
Tanjialing	T2620(3):1	Shijiahe	1	k	5	6.40	0.36	2.87	9.13	
Tanjialing	H35(2):2	Shijiahe	1	k	5	8.69	0.27	3.64	8.70	spiral bottom
Tanjialing	T2821 H34	Shijiahe	1	a	5	7.57	0.33	3.50	8.33	
Tanjialing	T2620(3):15	Shijiahe	1	a	3	4.64	0.30	2.03	8.00	
Tanjialing	T2620(3):19	Shijiahe	1	k	3	5.58	0.46	2.63	7.95	
Tanjialing	T2210(2A):18	Shijiahe	1	a	5	6.51	0.26	2.80	8.80	
Tanjialing	T2018(5)	Shijiahe	1	a	3	8.03	0.39	3.38	8.93	
Tanjialing	T2020(4):7	Shijiahe	1	a	3	7.11	0.27	3.48	8.27	spiral bottom
Tanjialing	H3:2	Shijiahe	1	k	3	6.46	0.56	3.36	7.52	slight ripples inside
Tanjialing		Shijiahe	1	a	3	5.78	0.63	3.30	8.00	spiral bottom
Yinxiangcheng	T6(3)	Qujialing	1	k	4	6.99	0.13	2.36	5.45	
Yinxiangcheng	T7(3)	Qujialing	1	a	4	8.29	0.10	3.9	5.45	
Yinxiangcheng		Qujialing	1	a	4	7.02	0.09	3.1	4.97	
Yinxiangcheng	H9	Qujialing	1	a	4	9.15	0.10	5	8.9	
Yinxiangcheng	T7H95	Qujialing	1	a	4	7.5	0.18	3.48	8.09	
Yinxiangcheng	T12(4)	Qujialing	1	a	5	8.41	0.19	3.39	6.26	
Youziling	H2	Qujialing	1	a	5	7.2		3.1	4.4	
Youziling	H2	Qujialing	1	a	5	7.7		3.25	4.35	
Youziling	H2	Qujialing	1	a	5	5.9		2.35	3.85	
Youziling	H1:3	Qujialing	1	a	5	6.7				
Youziling	H2	Qujialing	1	a	5	8.95		4.7	5.35	
Zhongbaodao	86YZH177:10	Qujialing	1	l	12	8.3	0.16	4.83	5.48	
Zhongbaodao	86YZWH149:8	Qujialing	1	a	2	7.82	0.25	3.98	6.45	likely wheel-thrown
Zhongbaodao	J3:14	Qujialing	1	a	4	7.97	0.2	3.52	5.66	

Table 40: Conical cups, part 6. All measurements in cm.

Site	Unit	Cultural affiliation	Period	Rim direction	Rim type	Lip type	Mouth diameter	Lip thickness	Rim width
Liuhe	T40(5C)	Pre-Qujialing	5	3	h	1	15.6	0.51	1.69
Liuhe	M3:3	Pre-Qujialing	5	3	b	2	13.3	0.23	1.27
Liuhe	M3:4	Pre-Qujialing	5	3	b	3	10.5	0.35	1.11
Liuhe	M21	Pre-Qujialing	5	3	b	3	11.43	0.3	1.55
Liuhe	M5:5	Pre-Qujialing	5	3	b	2	7.79	0.39	1.07
Liuhe	T42(5)	Pre-Qujialing	5	3	b	3	10.8	0.23	1.34
Liuhe	T39(5):7	Pre-Qujialing	5	3	b	9	15.6	0.42	1.81
Liuhe	T39(4A)	Qujialing	6	3	h	2	14.4	0.38	1.91
Liuhe	M17	Qujialing	6	3	b	9	15.5	0.32	1.41
Liuhe	T14(3)	Qujialing	6	3	h	4	13.2	0.17	1.91
Tanjialing	T1106(4)C:74	Pre-Qujialing	5	3	h	3	11.5	0.32	1.63
Tanjialing	T908(4)A:41	Pre-Qujialing	5	3	b	3	9.31	0.33	1.08
Tanjialing	T1106(4)C:261	Pre-Qujialing	5	3	b	3	11.0	0.29	1.31
Tanjialing	T1108(4):55	Pre-Qujialing	5	3	h	5	13.1	0.26	1.62
Tanjialing	T1107(5)A:55	Pre-Qujialing	5	3	h	5	11.1	0.32	1.42
Tanjialing	T1106(4)B:55	Pre-Qujialing	5	3	h	3	11.3	0.30	1.32
Tanjialing	T1107(4)A:122	Pre-Qujialing	5	3	b	3	11.6	0.28	1.29
Tanjialing	T1108(4):20	Pre-Qujialing	5	3	h	3	11.8	0.33	1.40
Tanjialing	T1106(4):45	Pre-Qujialing	5	3	h	2	13.0	0.35	1.41
Tanjialing	T1008(5)C:1	Pre-Qujialing	5	3	b	3	11.6	0.28	1.72
Tanjialing	H15:3	Pre-Qujialing	5	3	h	3	11.5	0.38	1.30
Tanjialing	T1106(4)C:80	Pre-Qujialing	5	3	b	3	11.4	0.31	1.50
Tanjialing	T1106(4)A:239	Pre-Qujialing	5	3	h	5	13.3	0.29	1.45
Tanjialing	T1008(4):116	Pre-Qujialing	5	3	h	5	12.9	0.28	1.22
Tanjialing	T1007(5):58	Pre-Qujialing	5	3	b	3	11.6	0.31	1.25
Tanjialing	T1108(4):16	Pre-Qujialing	5	3	b	3	11.4	0.33	1.35
Tanjialing	T1007(5)B:18	Pre-Qujialing	5	3	b	5	11.2	0.21	1.57
Tanjialing	T1008(5)C:2	Pre-Qujialing	5	3	b	3	11.3	0.39	1.46
Tanjialing	T1108(5):62	Pre-Qujialing	5	3	h	3	11.2	0.26	1.17
Tanjialing	T1108(4):19	Pre-Qujialing	5	3	b	3	10.3	0.39	1.43
Tanjialing	T1108(4):105	Pre-Qujialing	5	3	h	5	11.6	0.28	1.46
Tanjialing	T1108(5):64	Pre-Qujialing	5	3	b	5	11.5	0.22	1.52
Tanjialing	T1007(5)D:60	Pre-Qujialing	5	3	b	3	10.7	0.35	1.23
Tanjialing	H16:71	Qujialing	6	3	h	3	12.26	0.32	1.60
Tanjialing	H16:20	Qujialing	6	3	h	4	13.02	0.22	1.95
Tanjialing	T2210(6)B	Qujialing	6	3	b	9	11.48	0.29	1.32

Table 41: Small Tripodal jars, part 1. All measurements in cm.

Site	Unit	Cultural affiliation	Period	Rim direction	Rim type	Lip type	Mouth diameter	Lip thickness	Rim width
Tanjialing	T1008(3):96	Qujialing	6	3	h	5	13.2	0.24	1.56
Tanjialing	T2210(3)C:9	Qujialing	6	3	h	3	12.3	0.32	1.67
Tanjialing	H18(2)	Qujialing	6	2	b	2	11.7	0.31	1.98
Tanjialing	T2210 H18(2):18	Qujialing	6	3	b	3	12.5	0.52	2.21
Tanjialing	H16:1	Qujialing	6	3	h	3	13.6	0.31	2.05
Tanjialing	T1007(2)B:17	Qujialing	6	3	b	3	13.6	0.26	1.70
Tanjialing	T1008(3):1	Qujialing	6	3	h	3	15.3	0.38	2.20
Tanjialing	T2210(6)B:2	Qujialing	6	3	h	5	12.1	0.18	1.41
Tanjialing	H18:40	Qujialing	6	3	h	9	13.6	0.35	2.00
Tanjialing	T1108(3)B:37	Qujialing	6	3	h	3	11.3	0.49	1.38
Tanjialing	M7:2	Youziling	4	3	b	2	11.25	0.33	1.62
Tanjialing	M10:3	Youziling	4	3	b	3	12.12	0.29	1.55
Tanjialing	M1:2	Youziling	4	3	b	2	13.00	0.30	1.58
Tanjialing	M1:3	Youziling	4	3	b	2	12.60	0.36	1.47
Tanjialing	T2211(7):45	Youziling	4	3	b	3	15.26	0.38	2.12
Tanjialing	M10:1	Youziling	4	3	b	3	11.84	0.40	1.49
Tanjialing	M14:3	Youziling	4	3	b	2	12.00	0.32	1.49
Tanjialing	M5:8	Youziling	4	3	b	2	12.1	0.40	1.62
Tanjialing	M19:3	Youziling	4	3	b	3	12.9	0.40	1.50
Tanjialing	M14:12	Youziling	4	3	b	2	12.8	0.43	1.61
Tanjialing	M5:2	Youziling	4	3	b	3	12.5	0.37	1.49
Tanjialing	M5:1	Youziling	4	3	b	3	11.8	0.29	1.27
Tanjialing	M3:1	Youziling	4	3	b	2	13.2	0.29	1.49
Tanjialing	M13:4	Youziling	3	3	m	3	12.3	0.30	1.39
Tanjialing	M20:1	Youziling	4	3	b	3	12.4	0.38	1.36
Tanjialing	M10:6	Youziling	4	3	b	2	11.3	0.37	1.58
Tanjialing	T2211(7):13	Youziling	4	3	b	3	12.2	0.28	1.64
Tanjialing	M14:1	Youziling	4	3	b	2	12.2	0.33	1.58
Tanjialing	M7:3	Youziling	4	3	b	2	12.0	0.36	1.54
Tanjialing	T1008(7):4	Youziling	4	3	b	3	13.8	0.26	2.10
Tanjialing	T1106(5)C:12	Youziling	4	3	b	3	12.5	0.32	1.65
Tanjialing	T1106 M7:5	Youziling	4	3	b	1	12.4	0.30	1.61
Tanjialing	T2211(8):61	Youziling	3	3	b	3	13.8	0.31	1.20
Tanjialing	M4:5	Youziling	4	3	b	10	13.2	0.24	2.36
Tanjialing	T1106(6)C:2	Youziling	3	3	b	3	11.0	0.32	1.24
Tanjialing	T1108(7):67	Youziling	4	3	b	3	12.4	0.45	1.10
Tanjialing	M14:9	Youziling	4	3	b	3	12.1	0.39	1.52
Tanjialing	T1008(7):3	Youziling	4	3	h	10	13.8	0.39	2.09
Tanjialing	T1107 M18:1	Youziling	4	3	b	2	12.6	0.31	1.46
Tanjialing	T1106 M4:1	Youziling	4	3	h	10	12.9	0.22	1.89
Tanjialing	T1008(7):1	Youziling	4	3	b	3	11.3	0.30	1.53

Table 42: Small Tripodal jars, part 2. All measurements in cm.

Site	Unit	Cultural affiliation	Period	Rim direction	Rim type	Lip type	Mouth diameter	Lip thickness	Rim width
Liuhe	T40(5C)	Pre-Qujialing	5	3	h	1	15.6	0.51	1.69
Liuhe	M3:3	Pre-Qujialing	5	3	b	2	13.3	0.23	1.27
Liuhe	M3:4	Pre-Qujialing	5	3	b	3	10.5	0.35	1.11
Liuhe	M21	Pre-Qujialing	5	3	b	3	11.43	0.3	1.55
Liuhe	M5:5	Pre-Qujialing	5	3	b	2	7.79	0.39	1.07
Liuhe	T42(5)	Pre-Qujialing	5	3	b	3	10.8	0.23	1.34
Liuhe	T39(5):7	Pre-Qujialing	5	3	b	9	15.6	0.42	1.81
Liuhe	T39(4A)	Qujialing	6	3	h	2	14.4	0.38	1.91
Liuhe	M17	Qujialing	6	3	b	9	15.5	0.32	1.41
Liuhe	T14(3)	Qujialing	6	3	h	4	13.2	0.17	1.91
Tanjialing	T1106(4)C:74	Pre-Qujialing	5	3	h	3	11.5	0.32	1.63
Tanjialing	T908(4)A:41	Pre-Qujialing	5	3	b	3	9.31	0.33	1.08
Tanjialing	T1106(4)C:261	Pre-Qujialing	5	3	b	3	11.0	0.29	1.31
Tanjialing	T1108(4):55	Pre-Qujialing	5	3	h	5	13.1	0.26	1.62
Tanjialing	T1107(5)A:55	Pre-Qujialing	5	3	h	5	11.1	0.32	1.42
Tanjialing	T1106(4)B:55	Pre-Qujialing	5	3	h	3	11.3	0.30	1.32
Tanjialing	T1107(4)A:122	Pre-Qujialing	5	3	b	3	11.6	0.28	1.29
Tanjialing	T1108(4):20	Pre-Qujialing	5	3	h	3	11.8	0.33	1.40
Tanjialing	T1106(4):45	Pre-Qujialing	5	3	h	2	13.0	0.35	1.41
Tanjialing	T1008(5)C:1	Pre-Qujialing	5	3	b	3	11.6	0.28	1.72
Tanjialing	H15:3	Pre-Qujialing	5	3	h	3	11.5	0.38	1.30
Tanjialing	T1106(4)C:80	Pre-Qujialing	5	3	b	3	11.4	0.31	1.50
Tanjialing	T1106(4)A:239	Pre-Qujialing	5	3	h	5	13.3	0.29	1.45
Tanjialing	T1008(4):116	Pre-Qujialing	5	3	h	5	12.9	0.28	1.22
Tanjialing	T1007(5):58	Pre-Qujialing	5	3	b	3	11.6	0.31	1.25
Tanjialing	T1108(4):16	Pre-Qujialing	5	3	b	3	11.4	0.33	1.35
Tanjialing	T1007(5)B:18	Pre-Qujialing	5	3	b	5	11.2	0.21	1.57
Tanjialing	T1008(5)C:2	Pre-Qujialing	5	3	b	3	11.3	0.39	1.46
Tanjialing	T1108(5):62	Pre-Qujialing	5	3	h	3	11.2	0.26	1.17
Tanjialing	T1108(4):19	Pre-Qujialing	5	3	b	3	10.3	0.39	1.43
Tanjialing	T1108(4):105	Pre-Qujialing	5	3	h	5	11.6	0.28	1.46
Tanjialing	T1108(5):64	Pre-Qujialing	5	3	b	5	11.5	0.22	1.52
Tanjialing	T1007(5)D:60	Pre-Qujialing	5	3	b	3	10.7	0.35	1.23
Tanjialing	H16:71	Qujialing	6	3	h	3	12.26	0.32	1.60
Tanjialing	H16:20	Qujialing	6	3	h	4	13.02	0.22	1.95
Tanjialing	T2210(6)B	Qujialing	6	3	b	9	11.48	0.29	1.32

Table 43: Small Tripodal jars, part 3. All measurements in cm.

Site	Unit	Vessel Type	Rim direction	Rim type	Lip type	Mouth diameter	Lip thickness	Rim width	Neck height	vessel height	traces of production
Liuhe	M1	miniature stand ring necked jar	2	a	11	5.22	0.26		1.64	5.59	
Liuhe	M11	miniature stand ring necked jar	2	a	11	5.04	0.23		1.8	6.1	
Liuhe	M4	miniature stand ring necked jar	1	a	11	5.06	0.27		1.5	7.12	
Liuhe	M8	miniature ring-based necked jar	2	k	2	4.91	0.33		2	6.03	
Liuhe	M9	miniature necked jar	3	k	11	5.95	0.3		1.7	6.33	wheel-made?
Liuhe	M10	miniature ring-based necked jar	2	a	11	4.5	0.24		2.3	6.22	
Liuhe	M8	miniature necked jar	3	a	8	5.41	0.33		1.7	5.53	
Liuhe	M10	miniature ring-based necked jar	2	k	11	4.8	0.27		2.1	6.07	
Liuhe	M9	miniature ring-based necked jar	1	k	11	5.07	0.31		2.67	6.26	
Liuhe	M1	miniature stand ring necked jar	2	a	11	4.01	0.26		1.7	5.69	
Liuhe	M10	miniature ring-based necked jar	1	a	11	4.75	0.27		2.2	6.35	
Liuhe	M5	miniature stand ring necked jar	2	a	11	3.59	0.26		1.4	4.57	
Liuhe	T20(2)	miniature ring-based necked jar	1	a	3	4.57	0.27		2.4	5.92	
Liuhe	M7	miniature ring-based necked jar	1	k	11	5.7	0.28		2.3	6.25	

Table 44: Miniature vessels, part 1. All measurements in cm.

Site	Unit	Vessel Type	Rim direction	Rim type	Lip type	Mouth diameter	Lip thickness	Rim width	Neck height	vessel height	traces of production
Liuhe	M7	miniature ring-based necked jar	1	a	11	4.53	0.21		2.1	5.67	
Liuhe	M10	miniature stand ring necked jar	1	k	11	3.6	0.24		1.1	4.56	
Liuhe	M11	miniature ring-based necked jar	1	k	3	5.24	0.28		2.12	6.52	
Liuhe	M9	miniature ring-based necked jar	2	k	11	4.73	0.27		2.3	6.4	
Liuhe	M10	miniature stand ring necked jar	2	a	11	3.73	0.25		1.1	4.72	
Liuhe	M9	miniature ring-based necked jar	2	k	11	4.66	0.24		2	5.87	
Liuhe	M4	miniature ring-based necked jar	1	k	11	5.04	0.27		2.2	6.32	
Liuhe	M9	miniature stand ring necked jar	2	b	3	5.7	0.3	0.6	1.2	6.68	
Liuhe	M10	miniature ring-based necked jar	2	k	11	4.97	0.27		2.4		
Liuhe	M8	miniature necked jar	2	k	11	5.41	0.32		1.5	6	
Liuhe	M10	miniature ring-based necked jar	2	k	3	4.6	0.29		2.3	6.6	
Liuhe	M8	miniature ring-based necked jar	2	a	11	5.11	0.3		2.2	5.9	
Liuhe	M10	miniature stand ring necked jar	2	a	11	3.51	0.21		0.9	4.84	
Liuhe	M9	miniature ring-based jar	3	b	3	7.21	0.26	0.76		6.71	

Table 45: Miniature vessels, part 2. All measurements in cm.

Site	Unit	Vessel Type	Rim direction	Rim type	Lip type	Mouth diameter	Lip thickness	Rim width	Neck height	vessel height	traces of production
Liuhe	M1	miniature stand ring necked jar	2	a	11	5.22	0.26		1.64	5.59	
Liuhe	M11	miniature stand ring necked jar	2	a	11	5.04	0.23		1.8	6.1	
Liuhe	M4	miniature stand ring necked jar	1	a	11	5.06	0.27		1.5	7.12	
Liuhe	M8	miniature ring-based necked jar	2	k	2	4.91	0.33		2	6.03	
Liuhe	M9	miniature necked jar	3	k	11	5.95	0.3		1.7	6.33	wheel-made?
Liuhe	M10	miniature ring-based necked jar	2	a	11	4.5	0.24		2.3	6.22	
Liuhe	M8	miniature necked jar	3	a	8	5.41	0.33		1.7	5.53	
Liuhe	M10	miniature ring-based necked jar	2	k	11	4.8	0.27		2.1	6.07	
Liuhe	M9	miniature ring-based necked jar	1	k	11	5.07	0.31		2.67	6.26	
Liuhe	M1	miniature stand ring necked jar	2	a	11	4.01	0.26		1.7	5.69	
Liuhe	M10	miniature ring-based necked jar	1	a	11	4.75	0.27		2.2	6.35	
Liuhe	M5	miniature stand ring necked jar	2	a	11	3.59	0.26		1.4	4.57	
Liuhe	T20(2)	miniature ring-based necked jar	1	a	3	4.57	0.27		2.4	5.92	
Liuhe	M7	miniature ring-based necked jar	1	k	11	5.7	0.28		2.3	6.25	

Table 46: Miniature vessels, part 3. All measurements in cm.

Site	Unit	Vessel Type	Rim direction	Rim type	Lip type	Mouth diameter	Lip thickness	Rim width	Neck height	vessel height	traces of production
Liuhe	M8	miniature tripod jar	3	b	3	5.71	0.21	0.83		6.21	
Liuhe	M9	miniature tripod jar	3	b	3	6.22	0.3	0.75		5.8	
Liuhe	M11	miniature tripod jar	3	b	3	6.07	0.33	0.8		6.01	
Liuhe	M8	miniature tripod jar	3	b	3	6.25	0.29	0.72		5.6	
Liuhe	M10	miniature tripod jar	3	b	3	5.48	0.26	1.07		5.75	spiral inner bottom and striations on inside suggest wheel make
Liuhe	M10	miniature tripod jar	3	b	3	6.39	0.33	0.9		6	
Liuhe	M7	miniature tripod jar	3	b	3	5.28	0.29	0.88		5.22	
Liuhe	M7	miniature tripod jar	3	c	5	6.51	0.23	0.82		5.93	
Liuhe	M7	miniature tripod necked jar	2	k	11	6.01	0.28			7.87	
Liuhe	M4	miniature tripod jar	3	b	5	6.48	0.22	0.89		5.08	
Liuhe	M9	miniature tripod jar	3	b	3	6.3	0.35	0.88		6.01	
Liuhe	M4	miniature tripod jar	3	b	3	6.91	0.23	0.88		5.92	
Liuhe	M9	miniature tripod necked jar	1	k	11	6.00	0.29		2.5	7.07	
Longwanshan	M11	miniature ring-based jar	3	b	5	6.40	0.22	0.68		6.7	
Longwanshan	M11	miniature ring-based jar	3	b	5	7.08	0.31	0.70		6.55	

Table 47: Miniature vessels, part 4. All measurements in cm.

Site	Unit	Vessel Type	Rim direction	Rim type	Lip type	Mouth diameter	Lip thickness	Rim width	Neck height	vessel height	traces of production
Longwanshan	M11	miniature ring-based jar	3	c	3	6.7	0.25	0.62		6.19	cutouts of openwork ring base not removed - not for use vessel?
Longwanshan	M11	miniature ring-based jar	3	b	5	7.19	0.27	0.70		6.12	
Longwanshan	M11	miniature bottle	1	a	5	3.46	0.23		2.2	5.77	
Longwanshan	M11	miniature tripod jar	3	c	4	7.4	0.26	0.70		5.42	
Longwanshan	M11	miniature ring-based jar	3	c	3	6.9	0.29	0.50		6.8	
Longwanshan	M11	miniature bottle	1	k	4	3.74	0.16		2.1	5.26	
Longwanshan	M11	miniature bottle	1	k	5	3.72	0.21		1.8	5.88	
Longwanshan	M11	miniature bottle	1	a	5	3.25	0.30		1.6	5.11	
Longwanshan	M11	miniature tripod jar	3	c	5	7.03	0.25	0.73		5.5	
Longwanshan	M11	miniature jar	3	m	4	4.00	0.16	1.25		4.64	
Longwanshan	M11	miniature bottle	1	k	3	3.54	0.24		1.7	5.41	
Longwanshan	M11	miniature bottle	1	a	5	3.6	0.21		1.8	5.28	
Longwanshan	M118	miniature jar	3	b	3	3.28	0.25	1.6		4.71	
Longwanshan	M121	miniature jar	3	b	3	4.72	0.30	1.55		4.56	
Longwanshan	M126	miniature jar	3	b	3	5.17	0.22	1.04		4.72	
Longwanshan	M128	miniature jar	3	b	3	4.5	0.37	1.90			
Longwanshan	M130	miniature jar	3	h	3	5.1	0.21	0.97		3.3	
Longwanshan	M130	miniature jar	3	b	3	4.98	0.22	1.17		4.18	

Table 48: Miniature vessels, part 5. All measurements in cm.

Site	Unit	Vessel Type	Rim direction	Rim type	Lip type	Mouth diameter	Lip thickness	Rim width	Neck height	vessel height	traces of production
Longwanshan	M130	miniature jar	3	b	3	4.77	0.20	1.08		3.94	
Longwanshan	M130	miniature jar	3	b	3	4.7	0.22	1.06		3.82	
Longwanshan	M130	miniature jar	3	b	3	5.01	0.22	1.21		3.92	
Longwanshan	M130	miniature jar	3	b	3	4.81	0.21	1.29		3.92	
Longwanshan	M130	miniature jar	3	b	3	4.62	0.22	1.03		3.5	
Longwanshan	M130	miniature jar	3	b	3	4.93	0.25	0.99		3.33	
Longwanshan	M130	miniature jar	3	b	3	4.68	0.20	0.96		3.14	
Longwanshan	M130	miniature jar	3	m	3	5.39	0.21	1.20		3.65	
Longwanshan	M130	miniature necked jar	3	b	3	4.56	0.22	0.75	0.9	4.63	
Longwanshan	M130	miniature jar	3	m	3	4.79	0.21	1.12		4.11	
Longwanshan	M130	miniature jar	3	b	3	5.2	0.22	1.09		4.27	
Longwanshan	M130	miniature jar	3	b	3	4.80	0.22	0.96		3.3	
Longwanshan	M130	miniature jar	3	b	3	4.75	0.26	0.96		3.49	
Longwanshan	M130	miniature jar	3	b	3	4.59	0.21	1.08		4.2	
Longwanshan	M130	miniature jar	3	b	3	4.78	0.23	1.1		3.92	
Longwanshan	M130	miniature jar	3	b	3	5.16	0.24	1.09		3.5	
Longwanshan	M130	miniature jar	3	b	3	4.53	0.22	1.12		3.62	
Longwanshan	M130	miniature jar	3	b	3	4.71	0.24	1.08		4.48	
Longwanshan	M130	miniature jar	3	b	3	4.6	0.23	1.01		3.74	
Longwanshan	M130	miniature jar	3	b	3	5.83	0.22	1.16		3.6	
Longwanshan	M130	miniature jar	3	b	3	4.61	0.27	1.14		3.9	

Table 49: Miniature vessels, part 6. All measurements in cm.

Site	Unit	Vessel Type	Rim direction	Rim type	Lip type	Mouth diameter	Lip thickness	Rim width	Neck height	vessel height	traces of production
Longwanshan	M141	miniature jar	3	b	3	4.07	0.25	0.90		3.56	
Longwanshan	M141	miniature jar	3	b	3	4.33	0.21	0.82		2.98	
Longwanshan	M141	miniature jar	3	b	4	4.12	0.18	0.85		3.38	
Longwanshan	M141	miniature jar	3	b	5	4.00	0.18	0.83		3.2	
Longwanshan	M141	miniature jar	3	b	4	4.16	0.15	0.85		3.1	
Longwanshan	M156	miniature jar	3	b	3	4.92	0.31	0.97		3.78	
Longwanshan	M16	miniature ring-based bottle	2	k	3	3.60	0.32		2.1	6.36	
Longwanshan	M16	miniature ring-based bottle	2	k	5	4.13	0.19		2.6	7.05	
Longwanshan	M16	miniature stand ring bottle	2	k	5	4.50	0.30		2.6	6.81	
Longwanshan	M16	miniature ring-based bottle	2	k	3	4.22	0.31		2.9	6.92	
Longwanshan	M16	miniature stand ring bottle	2	k	5	4.30	0.24		3.0	7.24	
Longwanshan	M204	miniature necked jar	2	l	5	4.31	0.29		2.5	6.52	ripples on inside of neck
Longwanshan	M26	miniature jar	3	b	3	4.78	0.20	1.18		4.29	
Longwanshan	M42	miniature jar	3	b	2	5.76	0.23	1.09		4.27	
Longwanshan	M42	miniature jar	3	h	3	5.02	0.24	1.01		3.69	
Longwanshan	M42	miniature jar	3	h	3	5.34	0.32	1.19		3.49	
Longwanshan	M42	miniature jar	3	b	3	5.60	0.25	1.30		4.25	
Longwanshan	M42	miniature jar	3	b	3	5.85	0.21	1.08		4.49	

Table 50: Miniature vessels, part 7. All measurements in cm.

Site	Unit	Vessel Type	Rim direction	Rim type	Lip type	Mouth diameter	Lip thickness	Rim width	Neck height	vessel height	traces of production
Longwanshan	M42	miniature jar	3	b	3	5.82	0.21	1.13		4.27	
Longwanshan	M42	miniature jar	3	b	5	5.76	0.20	1.21		4.93	
Longwanshan	M42	miniature jar	3	b	3	5.54	0.28	1.18		4.19	
Longwanshan	M42	miniature jar	3	h	2	5.92	0.30	1.20		4.72	
Longwanshan	M42	miniature jar	3	b	3	5.90	0.25	1.16		4.2	
Longwanshan	M42	miniature jar	3	b	3	4.90	0.29	1.02		3.99	
Longwanshan	M42	miniature jar	3	b	3	5.39	0.29	1.11		4.93	
Longwanshan	M42	miniature jar	3	b	3	5.49	0.32	1.50		4.15	
Longwanshan	M42	miniature tripod jar	3	b	2	8.82	0.34	1.02		5.3	
Longwanshan	M42	miniature jar	3	b	3	5.94	0.20	1.09		4.73	
Longwanshan	M42	miniature jar	3	b	3	5.89	0.24	1.19		4.41	
Longwanshan	M42	miniature tripod jar	3	b	2	8.59	0.34	1.10		5.46	
Longwanshan	M42	miniature tripod jar	3	b	3	8.69	0.21	1.00		5.25	
Longwanshan	M42	miniature jar	3	h	3	5.29	0.29	1.24		4.54	
Longwanshan	M42	miniature jar	3	b	2	6.03	0.29	1.29		4.67	
Longwanshan	M42	miniature jar	3	b	3	5.48	0.21	1.06		4.89	
Longwanshan	M42	miniature tripod jar	3	b	5	8.20	0.30	0.98		5.41	
Longwanshan	M42	miniature tripod jar	3	b	3	9.16	0.25	1.11		5.61	
Longwanshan	M42	miniature jar	3	b	2	5.68	0.28	1.17		4.91	
Longwanshan	M42	miniature tripod jar	3	h	2	8.80	0.36	1.00		5.32	
Longwanshan	M42	miniature ring-based jar	3	b	3	9.24	0.24	1.00		5.47	

Table 51: Miniature vessels, part 8. All measurements in cm.

Site	Unit	Vessel Type	Rim direction	Rim type	Lip type	Mouth diameter	Lip thickness	Rim width	Neck height	vessel height	traces of production
Longwanshan	M42	miniature tripod jar	3	b	3	8.75	0.25	1.21		5.03	
Longwanshan	M42	miniature tripod jar	3	b	2	8.79	0.29	0.94		5.66	
Longwanshan	M42	miniature tripod jar	3	b	2	8.59	0.30	1.16		6.14	
Longwanshan	M42	miniature jar	3	b	3	4.89	0.26	1.09		3.41	
Longwanshan	M42	miniature jar	3	b	3	5.01	0.24	1.12		3.8	
Longwanshan	M42	miniature jar	3	b	3	5.5	0.21	1.10		4	
Longwanshan	M42	miniature jar	3	h	3	5.21	0.22	1.21		4.57	
Longwanshan	M42	miniature jar	3	b	2	5.40	0.21	1.20		4.22	
Longwanshan	M42	miniature jar	3	b	3	5.70	0.20	1.16		4.9	
Longwanshan	M42	miniature jar	3	b	3	5.16	0.25	1.01		4.16	
Longwanshan	M42	miniature jar	3	b	3	5.00	0.25	1.01		3.5	
Longwanshan	M42	miniature jar	3	b	3	4.65	0.20	1.04		4.16	
Longwanshan	M42	miniature jar	3	b	3	5.16	0.21	1.18		3.66	
Longwanshan	M42	miniature jar	3	b	2	4.96	0.28	1.01		4.11	
Longwanshan	M42	miniature jar	3	b	2	5.66	0.27	1.10		4.58	
Longwanshan	M42	miniature jar	3	b	3	5.73	0.25	1.21		4.99	
Longwanshan	M42	miniature jar	3	b	3	5.49	0.24	1.09		5.06	
Longwanshan	M42	miniature jar	3	b	5	5.42	0.20	1.19		4.01	
Longwanshan	M42	miniature jar	3	b	3	5.50	0.30	1.20		4.59	
Longwanshan	M42	miniature jar	3	b	3	4.99	0.27	1.09		4.93	
Longwanshan	M42	miniature tripod jar	3	b	3	9.01	0.26	0.92		5.19	

Table 52: Miniature vessels, part 9. All measurements in cm.

Site	Unit	Vessel Type	Rim direction	Rim type	Lip type	Mouth diameter	Lip thickness	Rim width	Neck height	vessel height	traces of production
Longwanshan	M42	miniature jar	3	b	3	5.06	0.29	1.11		4.17	
Longwanshan	M42	miniature jar	3	b	3	5.03	0.20	1.00		3.76	
Longwanshan	M42	miniature jar	3	b	3	4.94	0.30	1.04		4.26	
Longwanshan	M42	miniature jar	3	b	3	5.09	0.25	1.09		3.75	
Longwanshan	M42	miniature jar	3	b	3	5.74	0.21	1.18		4.5	
Longwanshan	M96	miniature ring-based bottle	2	k	5	4.20	0.29		1.8	5.92	
Longwanshan	M96	miniature ring-based bottle	2	k	3	3.71	0.28		2.2		
Longwanshan	M96	miniature ring-based bottle	2	k	5	3.80	0.30		2	6.31	
Longwanshan	M96	miniature ring-based bottle	1	b	3	3.75	0.33	0.58	1.9	6.33	
Longwanshan	M96	miniature stand ring bottle	2	k	3	3.93	0.35		2	6.38	
Longwanshan	M96	miniature ring-based bottle	2	k	5	3.47	0.27		2.1	5.84	
Longwanshan	M96	miniature stand ring bottle	2	k	3	3.79	0.34		2	6.2	
Longwanshan	M96	miniature ring-based bottle	1	k	3	3.60	0.35		2.1	6.27	

Table 53: Miniature vessels, part 10. All measurements in cm.

Bibliography

- An Zhimin 安志敏 (1959). Zhongguo xinshiqishidai kaoguxue shang de zhuyao chengjiu 中国新石器时代考古学上的主要成就. *Wenwu* 10, 19–23.
- An Zhimin 安志敏 (1987). Shilun wenming de qi yuan 试论文明的起源. *Kaogu* 5, 453–457.
- An Zhimin 安志敏 (1999). Guanyu kaoguxue wenhua jiqi mingming wenti 关于考古学文化及其命名问题. *Kaogu* 1, 81–89.
- Arkush, R. D. (1981). *Fei Xiaotong and Sociology in Revolutionary China*. Cambridge, MA, London: Harvard University Press.
- Assmann, J. (1992). *Das kulturelle Gedächtnis: Schrift, Erinnerung und politische Identität in frühen Hochkulturen*. Munich: C. H. Beck.
- Bagley, R. W. (2001). *Ancient Sichuan: Treasures from a Lost Civilization*. Seattle: Seattle Art Museum.
- Bai Jiujiang 白九江 (2003). Yichang Zhongbaodao yizhi Daxi, Qujialing he Shaopengzui sanzong wenhua yinsu de fenxi 宜昌中堡岛遗址大溪、屈家岭和哨棚嘴三种文化因素的分析. *Jiangnan Kaogu* 2, 46–54.
- Barth, F. (1969). *Ethnic Groups and Boundaries: The Social Organization of Culture Difference*. Boston: Little, Brown and Company.
- Beijing Daxue Kaogu Shixidui 北京大学考古实习队 and Henan Sheng Nanyang Shi Wenwu Yanjiusuo 河南省南阳市文物研究所 (1996b). 1991 nian Tang Bai He liuyu ji Huaiyuan shiqian yizhi de kaogu diaocha 1991年唐白河流域及淮源史前遗址的考古调查. *Jiangnan Kaogu* 2, 1–10.
- Beijing Daxue Kaogu Shixidui 北京大学考古实习队 and Henan Sheng Nanyang Shi Wenwu Yanjiusuo 河南省南阳市文物研究所 (1998a). Henan Dengzhou Baligang yizhi fajue jianbao 河南邓州八里岗遗址发掘简报. *Wenwu* 9, 31–45.

- Beijing Daxue Kaoguxue Xi 北京大学考古学系 and Nanyang Diqu Wenwu Yanjiusuo 南阳地区文物研究所 (1994). Henan Dengzhou Baligang yizhi de diaocha yu shijue 河南邓州八里岗遗址的调查与试掘. *Huaxia Kaogu* 2, 1–5.
- Beijing Daxue Kaoguxue Xi 北京大学考古学系 and Nanyang Diqu Wenwu Yanjiusuo 南阳地区文物研究所 (1997). Henan Dengzhou Shi Baligang yizhi 1992 nian de fajue yu shouhuo 河南邓州市八里岗遗址1992年的发掘与收获. *Kaogu* 12, 1–7.
- Binford, L. R. (1962). Archaeology as Anthropology. *American Antiquity* 28(2), 217–225.
- Binford, L. R. (1965). Archaeological Systematics and the Study of Culture Process. *American Antiquity* 31(2), 203–210.
- Binford, L. R. (1978). Dimensional Analysis of Behavior and Site Structure : Learning from an Eskimo Hunting Stand. *American Antiquity* 43(3), 330–361.
- Bishop, C. W. (1940). Beginnings of Civilization in Eastern Asia. *Antiquity* 14(55), 301–316.
- Bourdieu, P. (1977). *Outline of a theory of practice*. Cambridge: Cambridge University Press.
- Brumann, C. (1999). Writing for Culture: Why a Successful Concept Should Not Be Discarded. *Current Anthropology* 40(February), 1–27.
- Cai Fengshu 蔡凤书 (1988). Zhonghua wenming qiuyuan "xinshuo" boyi 中华文明起源“新说”驳议. *Wenshizhe* 4, 12–15.
- Caldwell, J. R. (1964). Interaction Spheres in Prehistory. In J. R. Caldwell and R. L. Hall (Eds.), *Hopewellian Studies*, pp. 133–143. Springfield: Illinois State Museum.
- Cameron, C. (1998). Coured Adobe Architecture, Style, and Social Boundaries in the American Southwest. In M. Stark (Ed.), *The Archaeology of Social Boundaries*, pp. 183–207. Washington and London: Smithsonian Institution Press.

- Carr, C. (1995). Building a Unified Middle-Range Theory of Artifact Design. Historical Perspectives and Tactics. In C. Carr and J. Neitzel (Eds.), *Style, society, and person: Archaeological and ethnological perspectives*, pp. 151–170. New York: Plenum Press.
- Chang Jiang Liuyu Guihua Bangongshi Kaogudui Henan Fendui 长江流域规划办公室考古队河南分队 (1990). Henan Xichuan Huanglianshu yizhi fajue baogao 河南浙川黄谏树遗址发掘报告. *Huaxia Kaogu* 3, 1–69.
- Chang Jiang Liuyu Guihua Bangongshi Kaogudui 长江流域规划办公室考古队 (1985). 1976 nian Qing Jiang xiayou yan'an kaogu diaocha jianbao 1976 年清江下游沿岸考古调查简报. *Jiangnan Kaogu* 4, 20–23.
- Chang Kwang-chih 张光直 (1976). *Early Chinese Civilization: Anthropological Perspectives*. Cambridge, MA, London: Harvard University Press.
- Chang Kwang-chih 张光直 (1986). *The archaeology of ancient China* (Fourth Ed. ed.). New Haven and London: Yale University Press.
- Chang Kwang-chih 张光直 (2004). Lun "Zhongguo wenming de qiyuan" 论"中国文明的起源". *Wenwu* 1, 73–82.
- Changban Kaogudui Henan Fendui 长办考古队河南分队 (1989). Xichuan Xiaji xinshiqishidai yizhi fajue baogao 浙川下集新石器时代遗址发掘报告. *Zhongyuan Wenwu* 1, 1–19.
- Changban Wenwu Kaogudui Zhishu Gongzuodui 长办文物考古队直属工作队 (1961). 1958 zhi 1961 nian Hubei Yun Xian he Jun Xian fajue jianbao 一九五八至一九六一年湖北郧县和均县发掘简报. *Kaogu* 10, 519–530.
- Chen Shengqian 陈胜前 (2009). Kaoguxue de wenhuaguan 考古学的文化观. *Kaogu* 10, 59–67.
- Chen Wen 陈文 (2001). Qujialing wenhua de jieding yu fenqi 屈家岭文化的界定与分期. *Kaogu* 4, 63–77.

- Chen Xingcan 陈星灿 (1987). Wenming zhuyinsu de qiyuan yu wenming shidai - Jianlun Hongshan Wenhua hai mei you jinru wenming shidai 文明诸因素的起源与文明时代 — 兼论红山文化还没有进入文明时代. *Kaogu* 5, 458–461; 437.
- Chen Xingcan 陈星灿 and M. Fiskesjö (2014). Oscar Montelius and Chinese Archaeology. *Bulletin of the History of Archaeology* 24(10), 1–10.
- Childe, V. G. (1929). *The Danube in Prehistory*. Oxford: Oxford University Press.
- Cooper, G. (1973). An Interview With Chinese Anthropologists. *Current Anthropology* 14(4), 480–482.
- Courty, M. A. and V. Roux (1995). Identification of wheel throwing on the basis of ceramic surface features and microfabrics. *Journal of Archaeological Science* 22(1), 17–50.
- Dietler, M. and I. Herbich (1998). Habitus, Techniques, Style: An Integrated Approach to the Social Understanding of Material Culture and Boundaries. In M. Stark (Ed.), *The Archaeology of Social Boundaries*, pp. 232–263. Washington and London: Smithsonian Institution Press.
- Ebo Sanxia Kaogudui Di Sanzu 鄂博三峡考古队第三组 (1989). Yichang Xian Zhujiatai yizhi shijue 宜昌县朱家台遗址试掘. *Jiangnan Kaogu* 2, 22–26.
- Eggert, M. H. K. (1978). Zum Kulturkonzept in der prähistorischen Archäologie. *Bonner Jahrbücher* 178, 1–20.
- Eggert, M. H. K. (2000). *Prähistorische Archäologie: Konzepte und Methoden*. Tübingen and Basel: A. Francke.
- Emberling, G. (1997). Ethnicity in Complex Societies: Archaeological Perspectives. *Journal of Archaeological Research* 5(4), 295–344.
- Fan Li 樊力 (2000). Yu Xinan Diqu xinshiqi wenhua de fazhan xulie jiqi yu linjin diqu de guanxi 豫西南地区新石器文化的发展序列及其与邻近地区的关系. *Kaogu Xuebao* 2, 147–182.

- Fang Xisheng 方西生 (1995). Qujialing wenhua 屈家岭文化. In Yang Baocheng 杨宝成 (Ed.), *Hubei kaogu faxian yu yanjiu* 湖北考古发现与研究, pp. 44–59. Wuhan: Wuhan Daxue Baoshe.
- Flad, R. and P. Chen (2013). *Ancient Central China: Centers and Peripheries Along the Yangzi River*. Cambridge, UK: Cambridge University Press.
- Furholt, M. (2003a). Absolutchronologie und die Entstehung der Schnurkeramik. *Jungstein-SITE* (December 16 2003).
- Furholt, M. (2003b). *Die absolutchronologische Datierung der Schnurkeramik in Mitteleuropa und Südkandinavien* (Universit ed.). Bonn: Rudolf Habelt.
- Furholt, M. (2008). Pottery, cultures, people? The European Baden material re-examined. *Antiquity* 82, 617–628.
- Furholt, M. (2014). What is the Funnel Beaker complex? Persistent troubles with an inconsistent concept. In M. Furholt, M. Hinz, D. Mischka, G. Noble, and D. Olausson (Eds.), *Landscapes, Histories and Societies in the Northern European Neolithic*, pp. 17–26. Bonn: Rudolf Habelt.
- Gosselain, O. P. (1992a). Bonfire of the enquiries. Pottery firing temperatures in archaeology: What for? *Journal of Archaeological Science* 19(3), 243–259.
- Gosselain, O. P. (1992b). Technology and Style: Potters and Pottery among Bafia of Cameroon. *Man* 27(3), 559–586.
- Gosselain, O. P. (1998). Social and Technical Identity in a Clay Crystal Ball. In M. Stark (Ed.), *The Archaeology of Social Boundaries*, pp. 78–106. Washington and London: Smithsonian Institution Press.
- Gosselain, O. P. (2000). Materializing Identities: An African Perspective. *Journal of Archaeological Method and Theory* 7(3), 187–217.

- Gosselain, O. P. (2011). Fine if I Do, Fine if I Don't. Dynamics of Technical Knowledge in Sub-Saharan Africa. In B. Roberts and M. Vander Linden (Eds.), *Investigating Archaeological Cultures: Material Culture, Variability, and Transmission*, pp. 211–227. Berlin: Springer Science and Business Media.
- Guo Jingyun 郭静云 (2013). *Xia Shang Zhou: Cong shenhua dao shishi* 夏商周: 从神话到史实. Shanghai: Shanghai Guji Chubanshe.
- Guo Lixin 郭立新 (2004). Tansuo yu lunzheng: Chang Jiang zhongyou xinshiqishidai wanqi de wenhua puxi 探索与论争: 长江中游新石器时代晚期的文化谱系. *Jiangnan Kaogu* 3, 69–74.
- Guo Lixin 郭立新 (2005). *Chang Jiang zhongyou diqu chuqi shehui fuzahua yanjiu: 4300 B.C. – 2000 B.C.* 长江中游地区初期社会复杂化研究: 4300 B.C. – 2000 B.C. Shanghai: Shanghai Guji Chubanshe.
- Guo Weimin 郭伟民 (2010). *Xinshiqi shidai Liyang Pingyuan yu Handong Diqu de wenhua he shehui* 新石器时代澧阳平原与汉东地区的文化和社会. Beijing: Cultural Relics Press.
- Guo Yanli 郭妍利 (2004). Kaoguxue wenhua yu kaoguxue de zuwenhua 考古学文化与考古学的族文化. *Dongnan Wenhua* 1, 11–15.
- Guojia Wenwuju Sanxia Kaogudui 国家文物局三峡考古队 (1989a). Hubei Yichang Zhongbaodao yizhi fajue jianbao 湖北宜昌中堡岛遗址发掘简报. *Wenwu* 2, 32–40; 61.
- Guojia Wenwuju Sanxia Kaogudui 国家文物局三峡考古队 (1989b). Hubei Zigui Chaotianzui yizhi fajue jianbao 湖北姊归朝天嘴遗址发掘简报. *Wenwu* 2, 41–51.
- Guojia Wenwuju Sanxia Kaogudui 国家文物局三峡考古队 (2001). *Chaotianzui yu Zhongbaodao* 朝天嘴与中堡岛. Beijing: Cultural Relics Press.
- Guojia Wenwuju 国家文物局 (2002). *Zhongguo wenwu dituji Hubei fence* 中国文物地图集湖北分册. Beijing: Cultural Relics Press.

- Gupta-Agarwal, S. (2015). *Understanding transmission of skill as influencing continuity or change through locally manufactured utilitarian ware at Greco Roman Karanis*. Ph. D. thesis, University of California, Los Angeles.
- Hachmann, R. (1973). Die östlichen Grenzen der Michelsberger Kultur. In B. Chropovský (Ed.), *Symposium über die Entstehung und Chronologie der Badener Kultur*, pp. 79–109. Bratislava: Slowakische Akademie der Wissenschaften.
- Hawkes, C. (1954). Archeological Theory and Method: Some Suggestions from the Old World. *American Anthropologist* 56(2), 155–168.
- He Jiejun 何介钧 (1982a). Chang Jiang zhongyou yuanshi wenhua chulun 长江中游原始文化初论. *Hunan Kaogu Jikan* 1, 47–67.
- He Jiejun 何介钧 (1982b). Shilun Daxi wenhua 试论大溪文化. In Z. kaogu xuehui 中国考古学会 (Ed.), *Zhongguo kaogu xuehui di erci nianhui 中国考古学会第二次年会 (1980)*, pp. 116–123. Beijing: Cultural Relics Press.
- He Jiejun 何介钧 (1986). Dongting Hu Qu xinshiqishidai wenhua 洞庭湖区新石器时代文化. *Kaogu Xuebao* 4, 385–408.
- He Jiejun 何介钧 (1987). Guanyu Daxi wenhua Guanmiaoshan leixing de fenqi wenti 关于大溪文化关庙山类型的分期问题. *Jiangnan Kaogu* 2, 69–78.
- He Jiejun 何介钧 (1989). Lun Qujialing wenhua Huachenggang leixing de fenqi 论屈家岭文化划城岗类型的分期. *Kaogu* 4, 340–347.
- He Nu 何弩 (2013). The Longshan Period Site of Taosi in Southern Shanxi Province. In A. P. Underhill (Ed.), *A Companion to Chinese Archaeology*, Chapter 13, pp. 255–276. Chichester: Wiley-Blackwell.
- Hegmon, M. (1998). Technology, Style, and Social Practices: Archaeological Approaches. In M. Stark (Ed.), *The Archaeology of Social Boundaries*, pp. 264–280. Washington and London: Cambridge University Press.

- Hein, A. (2016). The Problem of Typology in Chinese Archaeology. *Early China* 39(February), 1–32.
- Henan Sheng Bowuguan 河南省博物馆 and Chang Jiang Liuyu Guihua Bangongshi Wenwu Kaogudui Henan Fendui 长江流域规划办公室文物考古队河南分队 (1972). Henan Xichuan Xiawanggang yizhi de shijue 河南淅川下王岗遗址的试掘. *Wenwu* 10, 6–15; 28.
- Henan Sheng Wenhuaaju Wenwu Gongzuodui 河南省文化局文物工作队 (1962). Henan Zhenping Zhaowan xinshiqishidai yizhi de fajue 河南镇平赵湾新石器时代遗址的发掘. *Kaogu* 1, 23–27.
- Henan Sheng Wenhuaaju Wenwu Gongzuodui 河南省文化局文物工作队 (1963). Henan Tanghe Zhaicigang xinshiqishidai yizhi 河南唐河寨茨岗新石器时代遗址. *Kaogu* 12, 641–645; 667.
- Henan Sheng Wenwu Yanjiusuo 河南省文物研究所 and Chang Jiang Liuyu Guihua Bangongshi Kaogudui Henan Fendui 长江流域规划办公室考古队河南分队 (1989). *Xichuan Xiawanggang* 淅川下王岗. Beijing: Cultural Relics Press.
- Henan Sheng Wenwu Yanjiusuo 河南省文物研究所 and Mianchi Xian Wenhuaquan 淅川县文化馆 (1985). Mianchi Yangshao yizhi 1980 - 1981 nian fajue baogao 淅池仰韶遗址1980—1981年发掘报告. *Shiqian Yanjiu* 3.
- Hodder, I. (1990). Style as Historical Quality. In M. Conkey and C. Hastorf (Eds.), *The Uses of Style in Archaeology*, pp. 44–51. New York: Cambridge University Press.
- Hodder, I. and S. Hutson (2003). *Reading the past: Current approaches to interpretation in archaeology* (Third Edit ed.), Volume XXXIII. Cambridge: Cambridge University Press.
- Huang He Shuiku Kaogu Gongzuodui Henan Fendui 黄河水库考古工作队河南分队 (1960). Shanxi Pinglu xinshiqishidai yizhi fucha shijue jianbao 山西平陆新石器时代遗址复查试掘简报. *Kaogu* 8, 5–7.
- Hubei Sheng Bowuguan Kaogubu 湖北省博物馆考古部 (1984). Zigui Gongjiadagou yizhi de diaocha shijue 秭归龚家大沟遗址的调查试掘. *Jiangnan Kaogu* 1, 3–20.

- Hubei Sheng Bowuguan 湖北省博物馆, Fang Xian Wenhua guan 房县文化馆, and Wuhan Daxue Kaogu Zhuanye Qiliuji 武汉大学考古专业七六级 (1982). Fang Xian Yangbiling yizhi diaocha jianbao 房县羊鼻岭遗址调查简报. *Jiangnan Kaogu* 1, 59–65.
- Hubei Sheng Bowuguan 湖北省博物馆 and Jiangling Kaogu Gongzuozhan 江陵考古工作站 (1988). Yichang Wuxiangmiao xinshiqishidai yizhi fajue jianbao 宜昌伍相庙新石器时代遗址发掘简报. *Jiangnan Kaogu* 1, 9–14.
- Hubei Sheng Bowuguan 湖北省博物馆, Wuda Kaogu Zhuanye 武大考古专业, and Fang Xian Wenhua guan 房县文化馆 (1984). Fang Xian Qilihe yizhi fajue de zhuyao shouhuo 房县七里河遗址发掘的主要收获. *Jiangnan Kaogu* 3, 1–12.
- Hubei Sheng Bowuguan 湖北省博物馆 and Wuhan Daxue Lishi Xi Kaogu Zhuanye 武汉大学历史系考古专业 (1983). Dangyang Fengshan, Yangmugang yizhi shijue jianbao 当阳冯山、杨木岗遗址试掘简报. *Jiangnan Kaogu* 1, 43–50.
- Hubei Sheng Jingmen Shi Bowuguan 湖北省荆门市博物馆 (1997). Jingmen Majiayuan Qujialing wenhua chengzhi diaocha 荆门马家院屈家岭文化城址调查. *Wenwu* 7, 49–53.
- Hubei Sheng Jingzhou Diqu Bowuguan 湖北省荆州地区博物馆 (1976). Hubei Songzi Xian Guihuashu xinshiqishidai yizhi 湖北松滋县桂花树新石器时代遗址. *Kaogu* 3, 187–196; 160.
- Hubei Sheng Jingzhou Diqu Bowuguan 湖北省荆州地区博物馆 (1994). Hubei Jingshan Youziling xinshiqishidai yizhi de shijue 湖北京山油子岭新石器时代遗址的试掘. *Kaogu* 10, 865–876; 918.
- Hubei Sheng Wenwu Guanli Weiyuanhui 湖北省文物管理委员会 (1964). Hubei Jingshan Zhujiazui xinshiqi yizhi di yici fajue 湖北京山朱家咀新石器遗址第一次发掘. *Kaogu* 5, 215–219.
- Hubei Sheng Wenwu Kaogu Yanjiusuo 湖北省文物考古研究所 (1991). Hubei Jiangling Zhujiatai yizhi fajue jianbao 湖北江陵朱家台遗址发掘简报. *Jiangnan Kaogu* 3, 1–13.

- Hubei Sheng Wenwu Kaogu Yanjiusuo 湖北省文物考古研究所 (1999). Chang Jiang Sanxia Gongcheng Daba Qu Baishiwan yizhi fajue jianbao 长江三峡工程坝区白狮湾遗址发掘简报. *Jiangnan Kaogu* 1, 1–10.
- Hubei Sheng Wenwu Kaogu Yanjiusuo 湖北省文物考古研究所 (2008a). Hubei Sheng Tianmen Shi Longzui yizhi 2005 nian fajue jianbao 湖北省天门市龙嘴遗址2005年发掘简报. *Jiangnan Kaogu* 4, 3–13; 30.
- Hubei Sheng Wenwu Kaogu Yanjiusuo 湖北省文物考古研究所 (2008b). Hubei Suizhou Shi Huangtugang yizhi xinshiqishidai huanhao de fajue 湖北随州市黄土岗遗址新石器时代环境的发掘. *Kaogu* 11, 3–14.
- Hubei Sheng Wenwu Kaogu Yanjiusuo 湖北省文物考古研究所 (2011). Hubei Yun Xian Zhongtaizi yizhi fajue baogao 湖北郧县中台子遗址发掘报告. *Jiangnan Kaogu* 1, 3–41.
- Hubei Sheng Wenwu Kaogu Yanjiusuo 湖北省文物考古研究所 (2016). Shijiahe yizhi 2015 nian fajue de zhuyao shouhuo 石家河遗址2015年发掘的主要收获. *Jiangnan Kaogu* 1, 36–41.
- Hubei Sheng Wenwu Kaogu Yanjiusuo 湖北省文物考古研究所 and Beijing Daxue Kaogu Wenbo Xueyuan 北京大学考古文博学院 (2012a). Hubei Tianmen Shi Shijiahe gucheng Sanfangwan yizhi 2011 nian fajue jianbao 湖北天门市石家河古城三房湾遗址2011年发掘简报. *Kaogu* 8, 29–41.
- Hubei Sheng Wenwu Kaogu Yanjiusuo 湖北省文物考古研究所 and Beijing Daxue Kaogu Wenbo Xueyuan 北京大学考古文博学院 (2015b). Hubei Tianmen Shi Shijiahe gucheng Tanjialing yizhi 2011 nian de fajue 湖北天门市石家河古城谭家岭遗址2011年的发掘. *Kaogu* 3, 51–73.
- Hubei Sheng Wenwu Kaogu Yanjiusuo 湖北省文物考古研究所 and Hubei Sheng Wenwuju Nanshuibeidiao Bangongshi 湖北省文物局南水北调办公室 (2008). Hubei Yun Xian Dasi yizhi 2006 nian fajue jianbao 湖北郧县大寺遗址2006年发掘简报. *Kaogu* 4, 3–13.

Hubei Sheng Wenwu Kaogu Yanjiusuo 湖北省文物考古研究所, Hubei Sheng Wenwuju Nanshuibeidiao Bangongshi 湖北省文物局南水北调办公室, and Yunxi Xian Bowuguan 郧西县博物馆 (2013). Hubei Yunxi Tuojiawan yizhi fajue baogao 湖北郧西庾家湾遗址发掘报告. *Kaogu Xuebao* 1, 59–110.

Hubei Sheng Wenwu Kaogu Yanjiusuo 湖北省文物考古研究所, Jingmen Shi Bowuguan 荆门市博物馆, and Jingshan Xian Bowuguan 京山县博物馆 (1998). Qujialing yizhi zhouwei you xin faxian yipi Qujialing wenhua yizhi 屈家岭遗址周围又新发现一批屈家岭文化遗址. *Jiangnan Kaogu* 2, 21–25.

Hubei Sheng Wenwu Kaogu Yanjiusuo 湖北省文物考古研究所 and Jingmen Shi Wenwu Kaogu Yanjiusuo 荆门市文物考古研究所 (2008). Hubei Jingmen Longwangshan xinshiqishidai mudi fajue jianbao 湖北荆门龙王山新石器时代墓地发掘简报. *Jiangnan Kaogu* 4, 23–30.

Hubei Sheng Wenwu Kaogu Yanjiusuo 湖北省文物考古研究所 and Jingshan Xian Bowuguan 京山县博物馆 (2008). Hubei Jingshan Qujialing yizhiqun 2007 nian diaocha baogao 湖北京山屈家岭遗址群2007年调查报告. *Jiangnan Kaogu* 2, 10–26.

Hubei Sheng Wenwu Kaogu Yanjiusuo 湖北省文物考古研究所, Shiyan Shi Bowuguan 十堰市博物馆, and Yun Xian Bowuguan 郧县博物馆 (1996). Nanshuibeidiao Gongcheng Danjiangkou Shuiku Yun Xian Yanmo Qu xinshiqishidai kaogu diaocha 南水北调工程丹江口水库郧县淹没区新石器时代考古调查. *Jiangnan Kaogu* 2, 11–19.

Hubei Sheng Wenwu Kaogu Yanjiusuo 湖北省文物考古研究所 and Tianmen Shi Bowuguan 天门市博物馆 (2007). Hubei Tianmen Xiaocheng chengzhi fajue baogao 湖北天门笑城城址发掘报告. *Kaogu Xuebao* 4, 469–488.

Hubei Sheng Wenwu Kaogu Yanjiusuo 湖北省文物考古研究所 and Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo 中国社会科学院考古研究所 (1994). Hubei Shijiahe Luojiabailing xinshiqishidai yizhi 湖北石家河罗家柏岭新石器时代遗址. *Kaogu Xuebao* 2, 191–229.

- Hubei Sheng Wenwuju 湖北省文物局 (2007). *Hubei Sheng Nanshuibeidiao zhongyao kaogu faxian I* 湖北省南水北调工程重要考古发现I. Beijing: Cultural Relics Press.
- Hubei Sheng Yichang Diqu Bowuguan 湖北省宜昌地区博物馆 and Sichuan Daxue Lishi Xi Kaogu Zhuanye 四川大学历史系考古专业 (1983). Yichang Xian Qingshuitan xinshiqishidai yizhi de fajue 宜昌县清水滩新石器时代遗址的发掘. *Kaogu yu Wenwu* 2, 1–17.
- Hubei Sheng Yichang Diqu Bowuguan 湖北省宜昌地区博物馆 and Sichuan Daxue Lishi Xi Kaogu Zhuanye 四川大学历史系 (1987). Yichang Zhongbaodao xinshiqishidai yizhi 宜昌中堡岛新石器时代遗址. *Kaogu Xuebao* 1, 45–97.
- Hunan Sheng Bowuguan 湖南省博物馆 (1972). Li Xian Mengxi xinshiqishidai yizhi shijue jianbao 澧县梦溪新石器时代遗址试掘简报. *Wenwu* 2, 31–35.
- Hunan Sheng Bowuguan 湖南省博物馆 (1979). Li Xian Mengxi Sanyuangong yizhi 澧县梦溪三元宫遗址. *Kaogu Xuebao* 4, 461–489.
- Jia Hanqing 贾汉清 (2004). Cong Gujiapo mudi de fajue kan shiqian shidai wenhua jiaocha didai de buluo chongtu 从顾家坡墓地的发掘看史前时代交叉地带的部落冲突. *Huaxia Kaogu* 4, 77–86.
- Jinancheng Wenwu Kaogu Fajuedui 纪南城文物考古发掘队 (1977). Jiangling Maojiashan fajueji 江陵毛家山发掘记. *Kaogu* 3, 158–165; 209.
- Jingmen Shi Bowuguan 荆门市博物馆 (1987). Jingmen Shi Jingjiacheng xinshiqishidai yizhi diaocha 荆门市荆家城新石器时代遗址调查. *Jiangnan Kaogu* 2, 32–36.
- Jingmen Shi Bowuguan 荆门市博物馆 (1992). Hubei Jingmen Shi xinshiqishidai yizhi diaocha 湖北荆门市新石器时代遗址调查. *Kaogu* 6, 489–495; 521.
- Jingmen Shi Bowuguan 荆门市博物馆 and Li Zhaohua 李兆华 (1988). Jingmen Shi xinshiqishidai yizhi diaocha jianbao 荆门市新石器时代遗址调查简报. *Jiangnan Kaogu* 4, 23–32.

- Jingmen Shi Wenwu Kaogu Yanjiusuo 荆门市文物考古研究所 (2008). Hubei Jingmen Shi Hougang Chenghe chengzhi diaocha baogao 湖北荆门市后港城河城址调查报告. *Jiangnan Kaogu* 2, 27–34.
- Jingzhou Bowuguan 荆州博物馆 (1998). Hubei Jingzhou Shi Yinxiangcheng yizhi 1995 nian fajue jianbao 湖北荆州市阴湘城遗址1995年发掘简报. *Kaogu* 1, 17–28; 71.
- Jingzhou Bowuguan 荆州博物馆 (2009). *Jingzhou Jingnansi* 荆州荆南寺. Beijing: Cultural Relics Press.
- Jingzhou Bowuguan 荆州博物馆 and Fugang Jiaoyu Weiyuanhui 福冈教育委员会 (1997). Hubei Jingzhou Shi Yinxiangcheng yizhi dong chengqiang fajue jianbao 湖北荆州市阴湘城遗址东城墙发掘简报. *Kaogu* 5, 1–10; 24.
- Jingzhou Diqu Bowuguan 荆州地区博物馆 and Beijing Daxue Kaogu Xi 北京大学考古系 (1989). Hubei Jiangling Jingnansi yizhi di yi, erci fajue jianbao 湖北江陵荆南寺遗址第一、二次发掘简报. *Kaogu* 8, 679–692; 698.
- Jingzhou Diqu Bowuguan 荆州地区博物馆 and Beijing Daxue Kaoguxue Xi 北京大学考古学系 (1993). Tianmen Dengjiawan yizhi 1987 nian chun fajue jianbao 天门邓家湾遗址1987年春发掘简报. *Jiangnan Kaogu* 1, 1–13; 50.
- Jingzhou Diqu Bowuguan 荆州地区博物馆 and Zhongxiang Xian Bowuguan 钟祥县博物馆 (1987). Zhongxiang Liuhe yizhi 钟祥六合遗址. *Jiangnan Kaogu* 2, 1–31.
- Kluckhohn, C. (1960). The moral order in the expanding society. In C. Kraeling and R. Adams (Eds.), *City Invincible: A symposium on urbanization and cultural development in the ancient near east held at the Oriental Institute of the University of Chicago, December 4-7, 1958*, pp. 391–404. Chicago: University of Chicago Press.
- Kroeber, A. and C. Kluckhohn (1952). *Culture: A critical review of concepts and definitions*. Cambridge, MA: Peabody Museum.
- Kuper, A. (1999). *Culture: The Anthropologists' Account*. Cambridge, MA, London: Harvard University Press.

- Li, L., L. Wu, C. Zhu, F. Li, and C. Ma (2011). Relationship between archaeological sites distribution and environment from 1.15 Ma BP to 278 BC in Hubei Province. *Journal of Geographical Sciences* 21(5), 909–925.
- Li Longzhang 李龙章 (1987). Cong Huachenggang zhongyi qi yicun kan Daxi wenhua yu Qujialing wenhua de guanxi 从划城岗中一期遗存看大溪文化与屈家岭文化的关系. *Jiangnan Kaogu* 4, 45–54.
- Li Taoyuan 李桃元 and Xia Feng 夏丰 (2001). Hubei Yingcheng Taojiahu gu chengzhi diaocha 湖北应城陶家湖古城址调查. *Wenwu* 4, 71–76.
- Li Wenjie 李文杰 (1979). Shilun Daxi wenhua yu Qujialing wenhua, Yangshao wenhua de guanxi 试论大溪文化与屈家岭文化、仰韶文化的关系. *Kaogu* 2, 161–164; 185.
- Li Wenjie 李文杰 (1986). Daxi wenhua de leixing he fenqi 大溪文化的类型和分期. *Kaogu Xuebao* 2, 131–152.
- Li Wenjie 李文杰 (1988). Shitan kuailun suo zhi taoqi de shibie - Cong Daxi wenhua wanqi lunzhi taoqi tanqi 试谈快轮所制陶器的识别——从大溪文化晚期轮制陶器谈起. *Wenwu* 10, 92–94.
- Li Xinwei 李新伟 (2013). The Later Neolithic Period in the Central Yellow River Valley Area, c.4000-3000 BC. In A. P. Underhill (Ed.), *A Companion to Chinese Archaeology*, pp. 213–235. Chichester: Wiley-Blackwell.
- Li Zegao 黎泽高 (1991). Zhicheng Shi xinshiqi wenhua gaishu 枝城市新石器文化概述. *Jiangnan Kaogu* 1, 20–26.
- Liaoning Sheng Wenwu Kaogu Yanjiusuo 辽宁省文物考古研究所 (1986). Liaoning Niuhe-liang Hongshan wenhua "nüshenmiao" yu jishizhongqun fajue jianbao 辽宁牛河梁红山文化"女神庙"与积石家群发掘简报. *Wenwu* 8, 1–17.
- Lin Bangcun 林邦存 (1994). Qujialing yizhi yu Qujialing wenhua de fenqi 屈家岭遗址与屈家岭文化的分期. *Zhongguo Wenwubao* 2, 3.

- Lin Bangcun 林邦存 (1996). Lun Qujialing wenhua xingcheng de niandai he zhuyao chengyin 论屈家岭文化形成的年代和主要成因. *Jiangnan Kaogu* 2, 66–73.
- Lin Xiang 林向 (1982). Daxi wenhua yu Wushan Daxi yizhi 大溪文化与巫山大溪遗址. In Zhongguo kaogu xuehui 中国考古学会 (Ed.), *Zhongguo kaogu xuehui di erci nianhui* 中国考古学会第二次年会 (1980), pp. 124–132. Beijing: Cultural Relics Press.
- Liu Li 刘莉 (2004). *The Chinese Neolithic: Trajectories to Early States*. Cambridge, UK: Cambridge University Press.
- Liu Li 刘莉 and Chen Xingcan 陈星灿 (2012). *The Archaeology of China: From the Late Paleolithic to the Early Bronze Age*. New York: Cambridge University Press.
- Lu Depei 卢德佩 (1985). Lun Exi Daxi wenhua 论鄂西大溪文化. *Jiangnan Kaogu* 1, 71–76.
- Lu Depei 卢德佩 (1994). Hubei Yichang Zhongbaodao faxian yuanshi shehui qunti qi wukeng 湖北宜昌中堡岛发现原始社会群体器物坑. *Jiangnan Kaogu* 4, 91.
- Luhmann, N. (1997). *Die Gesellschaft der Gesellschaft*. Berlin: Suhrkamp.
- Lüning, J. (1972). Zum Kulturbegriff im Neolithikum. *Prähistorische Zeitschrift* 47, 145–173.
- Lyman, R. L., T. L. VanPool, and M. J. O'Brien (1997). *The Rise and Fall of Culture History*. New York: Plenum Press.
- MacEachern, A. S. (1998). Scale, Style, and Cultural Variation: Technological Traditions in the Northern Mandara Mountains. In M. Stark (Ed.), *The Archaeology of Social Boundaries*, pp. 107–131. Washington and London: Smithsonian Institution Press.
- Meng Huaping 孟华平 (1992). Lun Daxi wenhua 论大溪文化. *Kaogu Xuebao* 4, 393–412.
- Meng Huaping 孟华平 (1993). Xiajiang diqu xinshiqishidai yicun de puxi yanjiu 峡江地区新石器时代遗存的谱系研究. *Huaxia Kaogu* 3, 35–54.

- Meng Huaping 孟华平 (1997). *Chang Jiang zhongyou shiqian wenhua jiegou* 长江中游史前文化结构. Wuhan: Chang Jiang Wenyi Chubanshe.
- Meng Yuanzhao 孟原召 (2011). Qujialing wenhua de beiqian 屈家岭文化的北渐. *Huaxia Kaogu* 3, 51–63.
- Menghin, O. (1952). Urgeschichtliche Grundfragen. In F. Kern (Ed.), *Historia Mundi* 1, pp. 229–258. Bern: Francke Verlag.
- Moore, J. D. (2009). *Visions of Culture. An Introduction to Anthropological Theories and Theorists* (Third Edit ed.). Lanham, MD, and Plymouth: Altamira Press.
- Narr, K. J. (1984). Kulturelle Vereinheitlichung und sprachliche Zersplitterung: Ein Beispiel aus dem Südwesten der Vereinigten Staaten. In Rheinisch-Westfälische Akademie der Wissenschaften (Ed.), *Studien zur Ethnogenese*, pp. 57–99. Opladen: Westdeutscher Verlag.
- Pu Xianjun 蒲显钧 and Cai Xianqi 蔡先启 (1980). Xiaogan Diqu liangchu xinshiqi yizhi diaocha 孝感地区两处新石器遗址调查. *Jiangnan Kaogu* 2, 93–94.
- Qi Guojun 祁国钧 (1986). Shilun Qujialing wenhua de leixing yu xiangtong wenti 试论屈家岭文化的类型与相间问题. *Jiangnan Kaogu* 4, 49–59.
- Qin Ling 秦岭 (2013). The Liangzhu Culture. In A. P. Underhill (Ed.), *A Companion to Chinese Archaeology*, Chapter 28, pp. 574–596. Chichester: Wiley-Blackwell.
- Qujialing Kaogu Fajuedui 屈家岭考古发掘队 (1992). Qujialing yizhi di sanci fajue 屈家岭遗址第三次发掘. *Kaogu Xuebao* 1, 63–96.
- Ren Xinyu 任新雨 (2001). Shilun Exibei Diqu de "Yangshao Wenhua" he "Qujialing Wenhua" 试论鄂西北地区的“仰韶文化”和“屈家岭文化”. *Jiangnan Kaogu* 4, 32–39.
- Renfrew, C. (1972). *The Emergence of Civilization: The Cyclades and the Aegean in the Third Millennium BC*. London: Methuen.
- Roberts, B. and M. Vander Linden (2011). *Investigating Archaeological Cultures: Material Culture, Variability, and Transmission*. Berlin: Springer Science and Business Media.

- Roux, V. (2007). Ethnoarchaeology: A non historical science of reference necessary for interpreting the past. *Journal of Archaeological Method and Theory* 14(2), 153–178.
- Shandong Sheng Wenwu Guanlichu 山东省文物管理处 and Jinan Shi Bowuguan 济南市博物馆 (1974). *Dawenkou: Xinshiqishidai muzang fajue baogao* 大汶口:新石器时代墓葬发掘报告. Beijing: Cultural Relics Press.
- Shao Xing 绍兴 (1984). Shilun Anxiang Huachenggang yizhi de liangge wenti 试论安乡划城岗遗址的两个问题. *Jiangnan Kaogu* 3, 49–55.
- Shen Qianghua 沈强华 (1986). Shilun Qujialing wenhua de diyu leixing 试论屈家岭文化的地域类型. *Kaogu yu Wenwu* 2, 37–44.
- Shen Qianghua 沈强华 (1994). Exi diqu Daxi wenhua de quxiang he Qujialing wenhua de lai yuan 鄂西地区大溪文化的去向和屈家岭文化的来源. *Jiangnan Kaogu* 4, 41–47.
- Shen Qianghua 沈强华 (1998). Youziling yi qi yicun shixi 油子岭一期遗存试析. *Kaogu* 9, 53–63.
- Shihe Kaogudui 石河考古队 (1994). Hubei Tianmen Shi Dengjiawan yizhi 1992 nian fajue jianbao 湖北天门市邓家湾遗址1992年发掘简报. *Wenwu* 4, 32–41.
- Shijiahe Kaogudui 石家河考古队 (1999). *Xiaojiawuji* 肖家屋脊. Beijing: Cultural Relics Press.
- Shijiahe Kaogudui 石家河考古队 (2003). *Dengjiawan* 邓家湾. Beijing: Cultural Relics Press.
- Shijiahe Kaogudui 石家河考古队 (2011). *Tanjialing* 谭家岭. Beijing: Science Press.
- Shilongguo Jiang Shuiku Zhihui bu Wenwu Gongzuodui 石龙过江水库指挥部文物工作队 (1956). Hubei Jingshan, Tianmen kaogu fajue jianbao 湖北京山、天门考古发掘简报. *Kaogu Tongxun* 3, 11–21.
- Shiyan Shi Bowuguan 十堰市博物馆 (1996). Shiyan Shi Jiang He yan'an liangchu gu yizhi diaocha 十堰市羣河沿岸两处古遗址调查. *Jiangnan Kaogu* 2, 41–44.

- Shiyan Shi Bowuguan 十堰市博物馆 (1997). Yun Xian Meiziyuan yizhi diaocha jianbao 郧县梅子园遗址调查简报. *Jiangnan Kaogu* 3, 14–26; 91.
- Shiyan Shi Bowuguan 十堰市博物馆 and Fang Xian Bowuguan 房县博物馆 (1998). Fang Xian Yangbiling yizhi zai diaocha 房县羊鼻岭遗址再调查. *Jiangnan Kaogu* 2, 11–15; 25.
- Sichuan Chang Jiang Liuyu Wenwu Baohu Weiyuanhui Wenwu Kaogudui 四川长江流域文物保委员会文物考古队 (1961). Sichuan Wushan Daxi xinshiqishidai yizhi fajue jilue 四川巫山大溪新石器时代遗址发掘记略. *Wenwu* 11, 15–21; 60.
- Sichuan Sheng Bowuguan 四川省博物馆 (1959). Sichuan Sheng Chang Jiang Sanxia shuiku kaogu diaocha jianbao 四川省长江三峡水库考古调查简报. *Kaogu* 8, 398–403.
- Sichuan Sheng Bowuguan 四川省博物馆 (1981). Wushan Daxi yizhi di sanci fajue 巫山大溪遗址第三次发掘. *Kaogu Xuebao* 4, 461–490.
- Stark, M. (1998). *The Archaeology of Social Boundaries*. Washington and London: Smithsonian Institution Press.
- Strahm, C. (1995). *Das Glockenbecherphänomen* (Freiburger ed.). Freiburg: Institut für Ur- und Frühgeschichte der Universität Freiburg i. Br.
- Su Bingqi 苏秉琦 (1986). Liaoxi guwenhua gucheng guguo - Jiantan dangqian tianye kaogu gongzuo de zhongdian huo da keti 辽西古文化古城古国 — 兼谈当前田野考古工作的重点或大课题. *Wenwu* 8, 41–44.
- Su Bingqi 苏秉琦 (1991). Guanyu chongjian Zhongguo shiqianshi de sikao 关于重建中国史前史的思考. *Kaogu* 12, 1109–1118.
- Su Bingqi 苏秉琦 and Yin Weizhang 殷玮璋 (1981). Guanyu kaoguxue wenhua de quxi leixing wenti 关于考古学文化的区系类型问题. *Wenwu* 5, 10–17.
- Sun Bo 孙波 (2013). The Longshan Culture of Shandong. In A. P. Underhill (Ed.), *A Companion to Chinese Archaeology*, pp. 435–458. Chichester: Wiley-Blackwell.

- Tong Enzheng 童恩正 (1989). Youguan wenming qiyuan de jige wenti - Yu An Zhimin xiansheng shangque 有关文明起源的几个问题-与安志敏先生商榷. *Kaogu* 1, 51-59; 32.
- Trigger, B. (1978). The Development of the Archaeological Culture in Europe and America. In B. Trigger (Ed.), *Time and Traditions: Essays in Archaeological Interpretation*, pp. 75-95. Edinburgh: Edinburgh University Press.
- Trigger, B. (2003). *Understanding Early Civilizations: A Comparative Study*. Cambridge, UK: Cambridge University Press.
- Trigger, B. (2006). *A History of Archaeological Thought* (Second Ed. ed.). Cambridge: Cambridge University Press.
- Tylor, E. B. (1920). *Primitive Culture*. New York: J. P. Putnam's Sons.
- Veit, U. (1984). Gustaf Kossinna und V. Gordon Childe: Ansätze zu einer theoretischen Grundlegung der Vorgeschichte. *Saeculum* 35, 326-364.
- von Falkenhausen, L. (1993). On the historiographical orientation of Chinese archaeology. *Antiquity* 67, 839-849.
- von Falkenhausen, L. (1996). The regionalist paradigm in Chinese archaeology. In P. Kohl and C. Fawcett (Eds.), *Nationalism, Politics and the Practice of Archaeology*, pp. 198-217. Cambridge: Cambridge University Press.
- Wang Jie 王杰 (1984). Dui Daxi wenhua zhong jige wenti de tantao 对大溪文化中几个问题的探讨. *Jiangnan Kaogu* 1, 61-68.
- Wang Jie 王杰 (1985). Qujialing wenhua yu Daxi wenhua guanxi zhong de wenti tantao 屈家岭文化与大溪文化关系中的问题探讨. *Jiangnan Kaogu* 3, 34-40.
- Wang Jie 王杰 (1987). Qujialing yizhi xiaceng yu Daxi wenhua wanqi shi tonglei wenhua xingzhi de yicun ma 屈家岭遗址下层与大溪文化晚期是同类文化性质的遗存吗? . *Jiangnan Kaogu* 2, 64-68.
- Wang Jie 王杰 (1990). Shilun Hunan Daxi wenhua 试论湖南大溪文化. *Kaogu* 3, 239-254.

- Wang Jie 王杰 (1995). Diaolongbei xinshiqishidai yizhi fajue shouhuo 雕龙碑新石器时代遗址发掘收获. *Jiangnan Kaogu* 3, 43–48.
- Wang Jie 王杰 (1997). Hubei Zaoyang Diaolongbei yizhi de kaogu shouhuo 湖北枣阳雕龙碑遗址的考古收获. *Jiangnan Kaogu* 4, 23–26; 14.
- Wang Jie 王杰 and Tian Fuqiang 田富强 (1989). Shilun Daxi wenhua yu qita yuanshi wenhua de guanxi 论大溪文化与其它原始文化的关系. *Jiangnan Kaogu* 2, 41–44.
- Wang Jin 王劲 (1980). Jiangnan diqu xinshiqi wenhua zonglun 江汉地区新石器文化综论. *Jiangnan Kaogu* 1, 7–16.
- Wang Jin 王劲 (2010). Qujialing wenhua suyuanbian 屈家岭文化溯源辨. *Jiangnan Kaogu* 4, 63–75.
- Wang Jin 王劲, Wu Ruisheng 吴瑞生, and Tan Weisi 谭维四 (1955). Hubei Jingshan Xian Shilongguo Jiang Shuiku gongcheng zhong faxian de xinshiqishidai yizhi jianbao 湖北京山县石龙过江水库工程中发现的新石器时代遗址简报. *Wenwu Cankao Ziliao* 4, 41–46.
- Wang Renxiang 王仁湘 (1999). Kaoguxue wenhua de mingming yuanze yu chengxu wenti 考古学文化的命名原则与程序问题. *Wenwu Jikan* 3, 18–23.
- Wang Shihe 王世和 and Zhang Hongyan 张宏彦 (1987). 1982 nian Shang Xian Zijing xinshiqishidai yizhi de fajue 1982年商县紫荆新石器时代遗址的发掘. *Wenbo* 3, 3–15.
- Wang Wei 王巍 (2014). Kaoguxue wenhua jiqi xiangguan wenti tantao 考古学文化及其相关问题探讨. *Kaogu* 12, 64–76.
- Welsch, R. L. and J. E. Terrell (1998). Material Culture, Social Fields, and Social Boundaries on the Sepik Coast of New Guinea. In M. Stark (Ed.), *The Archaeology of Social Boundaries*, pp. 50–77. Washington and London: Smithsonian Institution Press.
- Wiessner, P. (1985). Style or Isochrestic Variation ? A Reply to Sackett. *American Archaeology* 50(1), 160–166.

- Wiessner, P. (1990). Is There a Unity to Style? In M. W. Conkey and C. A. Hastorf (Eds.), *The Uses of Style in Archaeology*, pp. 105–112. Cambridge: Cambridge University Press.
- Wobst, M. (1977). Stylistic behavior and information exchange. In C. Cleland (Ed.), *For the director: Research essays in honor of J. B. Griffin*. Ann Arbor: Museum of Anthropology, University of Michigan.
- Wotzka, H.-P. (1993). Zum traditionellen Kulturbegriff in der prähistorischen Archäologie. *Paideuma* 39, 25–43.
- Wuhan Daxue Kaogu Jiaoyanshi 武汉大学考古教研室 and Fang Yin 方殷 (1983). Suizhou Xihuayuan, Miaotaizi yizhi fajue jianshu 随州西花园、庙台子遗址发掘简述. *Jiangnan Kaogu* 3, 12–13.
- Wuhan Daxue Kaogu Xi 武汉大学考古系 and Hubei Sheng Wenwu Kaogu Yanjiusuo 湖北省文物考古研究所 (2010). Hubei Yun Xian Qinglongquan yizhi 2008 niandu fajue jianbao 湖北郧县青龙泉遗址2008年度发掘简报. *Jiangnan Kaogu* 1, 15–31.
- Wuhan Daxue Lishi Xi Kaogu Jiaoyanshi 武汉大学历史系考古教研室, Xiangfan Shi Bowuguan 襄樊市博物馆, and Yicheng Xian Bowuguan 宜城县博物馆 (1988). Hubei Yicheng Caojialou xinshiqishidai yizhi 湖北宜城曹家楼新石器时代遗址. *Kaogu Xuebao* 1, 51–72.
- Wuhan Daxue Lishi Xi Kaogu Zhuanke 武汉大学历史系考古专业 (1988). Qingshuitan yizhi 1984 nian fajue jianbao 清水滩遗址1984年发掘简报. *Jiangnan Kaogu* 3, 1–9.
- Wuhan Daxue Lishi Xueyuan Kaogu Xi 武汉大学历史学院考古系 and Yun Xian Bowuguan 郧县博物馆 (2015). Hubei Yun Xian Jiantanping yizhi fajue jianbao 湖北郧县尖滩坪遗址发掘简报. *Jiangnan Kaogu* 3, 12–27.
- Wuhan Daxue Suizhou Kaogu Fajuedui 武汉大学随州考古发掘队 (1991). Suizhou Xihuayuan yizhi fajue jianbao 随州西花园遗址发掘简报. *Jiangnan Kaogu* 2, 15–22.
- Xia Nai 夏鼐 (1959). Guanyu kaoguxue wenhua shang de dingming wenti 关于考古学文化上的定名问题. *Kaogu* 4, 169–172.

- Xia Nai 夏鼐 (1960). Chang Jiang liuyu kaogu wenti 长江流域考古问题. *Kaogu* 2, 1–3.
- Xia Nai 夏鼐 (1985). *Zhongguo wenming de qi yuan* 中国文明的起源. Beijing: Cultural Relics Press.
- Xiang Xucheng 向绪成 (1983a). Cong Guanmiaoshan yizhi kan Daxi wenhua – Jianping Daxi wenhua de fenqi 从关庙山遗址看大溪文化——兼评大溪文化的分期. *Jiangnan Kaogu* 3, 68–79.
- Xiang Xucheng 向绪成 (1983b). Qianyi Daxi wenhua yu Qujialing wenhua de guanxi – Yu Zhang Zhiheng tongzhi shangque 浅议大溪文化与屈家岭文化的关系——与张之恒同志商榷. *Jiangnan Kaogu* 1, 65–69.
- Xiang Xucheng 向绪成 (1985). Qujialing yizhi xiaceg ji tonglei yicun wenhua xingzhi taolun 屈家岭遗址下层及同类遗存文化性质讨论. *Kaogu* 7, 627–632.
- Xiang Xucheng 向绪成 (1995). Daxi wenhua 大溪文化. In Yang Baocheng 杨宝成 (Ed.), *Hubei kaogu faxian yu yanjiu* 湖北考古发现与研究, pp. 26–43. Wuhan: Wuhan Daxue Baoshe.
- Xiang Xucheng 向绪成 (1998). Guanyu "kaoguxue wenhua" gainian ji xiangguan wenti 关于“考古学文化”概念及相关问题. *Jiangnan Kaogu* 1, 82–89.
- Xiangyang Diqu Bowuguan 襄阳地区博物馆 (1984). Zaoyang Xian Diaolongbei yizhi diaocha jianbao 枣阳县雕龙碑遗址调查简报. *Jiangnan Kaogu* 3, 14–18.
- Xiangyang Diqu Bowuguan 襄阳地区博物馆 (1985). Suizhou jichu gu yizhi diaocha 随州几处古遗址调查. *Jiangnan Kaogu* 2, 9–13; 23.
- Xiaogan Diqu Bowuguan 孝感地区博物馆 (1986). Hubei Xiaogan Diqu gu wenhua yizhi diaocha 湖北孝感地区古文化遗址调查. *Kaogu* 7, 597–606.
- Xiaogan Diqu Bowuguan 孝感地区博物馆 (1990). Hubei Xiaogan Diqu xinshiqishidai yizhi diaocha shijue 湖北孝感地区新石器时代遗址调查试掘. *Kaogu* 11, 981–988.

- Xiaogan Diqu Bowuguan 孝感地区博物馆 (1993). Hubei Sheng Hanchuan Xian kaogu diaocha jianbao 湖北省汉川县考古调查简报. *Kaogu* 8, 694–700.
- Xiaogan Diqu Bowuguan 孝感地区博物馆 and Yingcheng Shi Bowuguan 应城市博物馆 (1989). Yingcheng Shi xinshiqishidai yizhi diaocha 应城市新石器时代遗址调查. *Jiangnan Kaogu* 2, 5–14.
- Xiaogan Shi Bowuguan 孝感市博物馆 (1993). Hubei Anlu Shi xinshiqishidai yizhi diaocha 湖北安陆市新石器时代遗址调查. *Jiangnan Kaogu* 4, 1–6; 17.
- Yan Wenming 严文明 (1985). Xinshiqi shidai kaogu yanjiu de liangge wenti 新石器时代考古研究的两个问题. *Wenwu* 8, 9–15.
- Yan Wenming 严文明 (1987). Zhongguo shiqian wenhua de tongyixing yu duoyangxing 中国史前文化的统一性与多样性. *Wenwu* 3, 38–50.
- Yang Yubin 杨育彬 (2001). Shilun Henan jingnei Dawenkou Wenhua yu Qujiang Wenhua - Jinian Su Bingqi shi danchen jiushi zhounian 试论河南境内大汶口文化与屈家岭文化——纪念苏秉琦师诞辰九十周年. In Su Bai 宿白 (Ed.), *Su Bingqi yu dangdai Zhongguo kaoguxue* 苏秉琦与当代中国考古学, pp. 286–298. Beijing: Science Press.
- Yasuda, Y. (2013). *Water Civilization: From Yangtze to Khmer Civilizations*. Tokyo: Springer Japan.
- Yichang Bowuguan 宜昌博物馆 (1996). Hubei Yichang Shi Zhongbaodao yizhi xiqu 1993 nian fajue jianbao 湖北宜昌市中堡岛遗址西区1993年发掘简报. *Kaogu* 9, 23–28; 61.
- Yichang Diqu Bowuguan 宜昌地区博物馆 (1984). Yichang Xian Yangjiawan xinshiqishidai yizhi 宜昌县杨家湾新石器时代遗址. *Jiangnan Kaogu* 4, 27–37.
- Yin, H., G. Liu, J. Pi, G. Chen, and C. Li (2007). On the river-lake relationship of the middle Yangtze reaches. *Geomorphology* 85(3-4), 197–207.
- Yoffee, N. (2005). *Myths of the Archaic State: Evolution of the Earliest Cities, States, and Civilizations*. Cambridge, UK: Cambridge University Press.

- Yu Weichao 俞伟超 and Zhang Zhongpei 张忠培 (1984). Postscript. In *Su Bingqi kaoguxue lunshu xuanji* 苏秉琦考古学论述选集, pp. 321–338. Beijing: Cultural Relics Press.
- Yunmeng Xian Bowuguan 云梦县博物馆 (1987). Hubei Yunmeng xinshiqishidai yizhi diaocha jianbao 湖北云梦新石器时代遗址调查简报. *Kaogu* 2, 97–104.
- Zhang Chi 张弛 (2003). *Chang Jiang zhongxiayou diqu shiqian juluo yanjiu* 长江中下游地区史前聚落研究. Beijing: Cultural Relics Press.
- Zhang Chi 张弛 (2013). The Qujialing-Shijiahe Culture in the Middle Yangzi River Valley. In A. P. Underhill (Ed.), *A Companion to Chinese Archaeology*, Chapter 25, pp. 510–534. Chichester: Wiley-Blackwell.
- Zhang Jiangkai 张江凯 and Wei Jun 魏峻 (2004). *Xinshiqi shidai kaogu* 新石器时代考古. Beijing: Cultural Relics Press.
- Zhang Quanmin 长全民 (2004). Kaoguxue wenhua de lilun yu fangfa 考古学文化的理论与方法. *Zhongguo Shehui Kexueyuan Yanjiushengyuan Xuebao* 1, 126–131.
- Zhang Xuqiu 张绪球 (1987a). Han Jiang dongbu diqu xinshiqishidai wenhua chulun 汉江东部地区新石器时代文化出论. *Kaogu yu Wenwu* 4, 56–66.
- Zhang Xuqiu 张绪球 (1987b). Jiangnan diqu yi hei tao wei zhu de yuanshi wenhua yicun 江汉地区以黑陶为主的原始文化遗存. In Hubei Sheng Kaogu Xuehui 湖北省考古学会 (Ed.), *Hubei Sheng kaogu xuehui lunwen xuanji 1* 湖北省考古学会论文选集 1, pp. 26–34. Wuhan: Wuhan Daxue Xuebao Bianjibu.
- Zhang Xuqiu 张绪球 (1991). Shijiahe Wenhua de taosupin 石家河文化的陶塑品. *Jiangnan Kaogu* 3, 55–60.
- Zhang Xuqiu 张绪球 (1992). *Chang Jiang zhongyou xinshiqishidai wenhua gailun* 长江中游新石器时代文化概论. Wuhan: Hubei Kexue Jishu Chubanshe.
- Zhang Xuqiu 张绪球 (2004). *Qujialing wenhua* 屈家岭文化. Beijing: Cultural Relics Press.

- Zhang Xuqiu 张绪球, He Dezhen 何德珍, and Wang Yunxin 王运新 (1982). Shilun Daxi wenhua taoqi de tedian 试论大溪文化陶器的特点. *Jiangnan Kaogu* 2, 13–19.
- Zhang Zhiheng 张之恒 (1982). Shilun Daxi wenhua 试论大溪文化. *Jiangnan Kaogu* 1, 66–71.
- Zhang Zhiheng 张之恒 (2004). *Zhongguo xinshiqishidai kaogu* 中国新石器时代考古. Nanjing: Nanjing Daxue Chubanshe.
- Zhao Chunqing 赵春青 (2011). Zhongguo shiqian chengzhi yanjiu de guoqu, xianzai yu weilai 中国史前城址研究的过去、现在与未来. *Zhongguo Shehui Kexueyuan Gudai Wenming Yanjiu Zhongxin Tongxun* 21.
- Zheng Guang 郑光 (1988). Zhongguo xinshiqi shidai yu Zhongguo gudai wenming 中国新石器时代与中国古代文明. *Huaxia Kaogu* 2, 51–61.
- Zheng Jiexiang 郑杰祥 (1983). Qujialing wenhua yuanyuan shitan 屈家岭文化渊源试探. In Henan Sheng Kaogu Xuehui 河南省考古学会 (Ed.), *Chu wenhua yanjiu lunwenji* 楚文化研究论文集, pp. 194–206. Zhengzhou: Henan Renmin Chubanshe.
- Zhengzhou Daxue Lishi Xueyuan Kaogu Xi 郑州大学历史学院考古系 and Henan Sheng Wenwuju Nanshuibeidiao Wenwu Baohu Bangongshi 河南省文物局南水北调文物保护办公室 (2011). Henan Xichuan Wuying yizhi Qujialing Wenhua yicun fajue jianbao 河南淅川吴营遗址屈家岭文化遗存发掘简报. *Jiangnan Kaogu* 2, 3–13.
- Zhengzhou Shi Wenwu Kaogu Yanjiusuo 郑州市文物考古研究所 (2001). *Zhengzhou Dahecun* 郑州大河村. Beijing: Science Press.
- Zhijiang Xian Bowuguan 枝江县博物馆 (1992). Hubei Zhijiang xinshiqishidai yizhi diaocha 湖北枝江新石器时代遗址调查. *Kaogu* 2, 97–106; 177.
- Zhongguo Kexueyuan Kaogu Yanjiusuo Hubei Fajuedui 中国科学院考古研究所湖北发掘队 (1962). Hubei Huanggang Luosishan yizhi de tanjue 湖北黄冈螺蛳山遗址的探掘. *Kaogu* 7, 339–344.

- Zhongguo Kexueyuan Kaogu Yanjiusuo 中国科学院考古研究所 (1959). *Miaodigou yu Sanliqiao* 庙底沟与三里桥. Beijing: Science Press.
- Zhongguo Kexueyuan Kaogu Yanjiusuo 中国科学院考古研究所 (1961). *Xin Zhongguo de kaogu shouhuo* 新中国的考古收获. Beijing: Cultural Relics Press.
- Zhongguo Kexueyuan Kaogu Yanjiusuo 中国科学院考古研究所 (1965). *Jingshan Qujialing* 京山屈家岭. Beijing: Science Press.
- Zhongguo Lishi Bowuguan Kaogubu 中国历史博物馆考古部, Shanxi Sheng Kaogu Yanjiusuo 山西省考古研究所, and Yuanqu Xian Bowuguan 垣曲县博物馆 (1986). 1982-1984 nian Shanxi Yuanqu Gucheng Dongguan yizhi fajue jianbao 1982 -1984 年山西垣曲古城东关遗址发掘简报. *Wenwu* 6, 27-38.
- Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 中国社会科学院考古研究所湖北工作队 (1981). Hubei Zhijiang Xian Guanmiaoshan xinshiqishidai yizhi fajue jianbao 湖北枝江县关庙山新石器时代遗址发掘简报. *Kaogu* 4, 289-297.
- Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubei Gongzuodui 中国社会科学院考古研究所湖北工作队 (1983). Hubei Zhijiang Guanmiaoshan yizhi di erci fajue 湖北枝江关庙山遗址第二次发掘. *Kaogu* 1, 17-29.
- Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubeidui 中国社会科学院考古研究所湖北队 (1992). Hubei Zaoyang Shi Diaolongbei xinshiqishidai yizhi shijue jianbao 湖北枣阳市雕龙碑新石器时代遗址试掘简报. *Kaogu* 7, 589-606.
- Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo Hubeidui 中国社会科学院考古研究所湖北队 (2000). Hubei Zaoyang Shi Diaolongbei yizhi 15 hao fangzhi 湖北枣阳市雕龙碑遗址15号房址. *Kaogu* 3, 45-58.
- Zhongguo Shehui Kexueyuan Kaogu Yanjiusuo 中国社会科学院考古研究所 (1991). *Qinglongquan yu Dasi* 青龙泉与大寺. Beijing: Science Press.
- Zhongxiang Shi Bowuguan 钟祥市博物馆 (2010). Hubei Zhongxiang Cuijiatai xinshiqishidai yizhi diaocha jianbao 湖北钟祥崔家台新石器时代遗址调查简报. *Jiangnan Kaogu* 2, 3-9.

Zhu Junying 朱俊英 (1999). Tianmen Zhangjiashan xinshiqishidai yizhi kaogu fajue qude zhongyao chengguo 天门张家山新石器时代遗址考古发掘取得重要成果. *Jiangnan Kaogu* 2, 41–42.

Zhu Naicheng 朱乃诚 (1993). Qujialing xiaceng yicun de wenhua xingzhi he Qujialing wenhua de lai yuan 屈家岭下层遗存的文化性质和屈家岭文化的来源. *Kaogu* 8, 734–740.

Zou Heng 邹衡 (1987). Zhongguo wenming de dansheng 中国文明的诞生. *Wenwu* 12, 69–74, 85.