

Contents

List of Figures.....	xi
List of Tables.....	xvii
Preface.....	xxi
Abstract.....	xxiii
1. Introduction.....	1
1.1. Research topic and the study area.....	1
1.2. Previous studies on Majiayao-style pottery technology	4
1.3. Structure of this book.....	8
2. Theoretical Framework.....	9
2.1. Why are we using technological knowledge to investigate past communities?	9
2.2. Concepts for reconstructing technological knowledge: chaîne opératoire and technological choices	10
2.3. The social aspect of technological knowledge.....	10
2.4. Strategies of transmission and preservation of technological knowledge within social frameworks.....	11
Part I: Chaîne Opératoire and Technological Choices in Majiayao-style Pottery Production	
3. Material and Methods	17
3.1. Archaeological and geological materials	17
3.1.1. Archaeological material: complete vessels	17
3.2. Methods.....	19
3.2.1. Macroscopic examination	19
3.2.2. Experimental firings.....	21
3.2.3. Thin-section petrography	24
4. Raw Materials	27
4.1. Introduction.....	27
4.2. Geological setting of the study area.....	27
4.2.1. Tao River Valley.....	27
4.2.2. Huangshui River Valley	30
4.2.3. Yellow River Valley	32
4.2.4. Summary	34
4.3. Petrographic study of the pottery samples	34
4.3.1. Majiayao	34
4.3.2. Waguazui.....	46
4.3.3. Zhujiazhai	48
4.3.4. Luohantang	57
4.3.5. Summary of petrographic characteristics of pottery from all sites	67
4.4. Analysis of geological samples.....	70
4.4.1. Macroscopic analysis	70
4.4.2. Thin-section petrography of geological samples	76
4.4.3. Discussion: Technological choices in raw material selection and paste preparation.....	82
5. Construction Techniques.....	85
5.1. Step 1: Constructing the lower body.....	85
5.2. Step 2: Letting the lower body dry for a short period so it can support the upper part	92
5.3. Step 3: Further shaping the lower body by beating with percussion tools and scraping	92
5.4. Step 4: Constructing the upper body on top of the lower body	97
5.5. Step 5: Building the neck.....	98
5.6. Step 6: Finishing the rounded shape of the neck and rim by drawing on a turntable.....	100
5.7. Step 8: Building and attaching the handles/grips and lids	103
5.8. Summary	105

6. Decoration and Surface Treatment	107
6.1. Introduction.....	107
6.2. Painted vessels	107
6.2.1. Burnishing: before or after paint application?	107
6.2.2. Pigments and paint application	111
6.2.3. Slip coating	112
6.3. Cord-impressed and appliqué decoration.....	113
6.4. Summary	115
6.4.1. Paint	116
6.4.2. Cord-impression and appliqué	117
7. Firing.....	119
7.1. Archaeological evidence for Majiayao-period pottery kilns.....	119
7.2. Firing conditions	120
7.3. Summary	123
8. Summary of Part I	125
Part II: Technological Knowledge and Social Knowledge in Neolithic Northwest China	
9. Discussion: Technological Knowledge and Social Knowledge in Neolithic Northwest China	129
9.1. Part 1: Recognisable style	129
9.1.1. Majiayao: combination of fabric, decoration type, and firing pattern.....	129
9.1.2. Waguanzui: combination of fabric, decoration and firing pattern.....	132
9.1.3. Zhujiazhai: combination of fabric, decoration and firing pattern.....	133
9.1.4. Luohantang: combination of fabric, decoration and firing pattern.....	138
9.1.5. All sites' trends: comparative discussion.....	142
9.2. Part 2: Connectivity between distant communities through shared technological and social knowledge	148
10. Conclusion	151
11. References	153

The following material can be accessed online:

- Annex 1: List of complete pottery vessels analysed in this book - doi.org/10.30861/9781407360317/dataset1
- Annex 2: Pottery vessels – macroscopic analysis - doi.org/10.30861/9781407360317/dataset2
- Annex 3: Pottery sherds – macroscopic analysis - doi.org/10.30861/9781407360317/dataset4
- Catalogue 1: Pottery fabric groups - doi.org/10.30861/9781407360317/catalogue1
- Catalogue 2: Fabric groups of fired geological samples - doi.org/10.30861/9781407360317/catalogue2
- Catalogue 3: Pottery sherds (CNP) - doi.org/10.30861/9781407360317/catalogue3
- Catalogue 4: Geological samples (GSC) - doi.org/10.30861/9781407360317/catalogue4