



INTRODUCTION TO CHINESE CULTURE

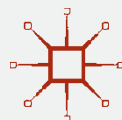
CULTURAL HISTORY

ARTS

FESTIVALS

RITUALS

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TRANSLATED BY KAIJU CHEN, XIYUAN XIONG, WENQUAN WU, ET AL.



Introduction to Chinese Culture

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Editors

Introduction to Chinese Culture

Cultural History, Arts, Festivals and Rituals

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We were approached in 2012 by Professor Xu Guobin, Editor in Chief of the original works *Essentials of Chinese Culture* and *Essentials of Western Culture*, proposing that my research team translate these two books into English and publish them in English-speaking countries. Almost at the same time I was contacted with a publishing proposal by Alisa Pulver, Senior Editor at Palgrave Macmillan. Without the trust and unfailing support of these two parties over the following years, this large translation project—based on the 1.1 million Chinese characters in the original works to be translated for a series of four books, amounting to nearly 400,000 English words—would not have happened so soon after the publication of the original works. The copyright holder, South China University of Technology Press, showed immediate support for our translation project, and our particular gratitude goes to their editors and coordinators: Ms. Qiao Li and Ms. Wu Cuiwei.

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At the review stage, four professors proofread and made invaluable suggestions and corrections: Professor Li Ming proofread *Introduction to Chinese Culture*; Professor Chu Dongwei proofread *Understanding Chinese Culture*; Professor Chen Kaiju proofread *Introduction to Western Culture*; and Professor He Zhigang proofread *Understanding Western Culture*.

Australian translation expert Alex Graeme-Evans reviewed *Introduction to Chinese Culture* and *Understanding Chinese Culture* during the second review round. The leading translators and Ms. Xue Ping carried out the final formal review, wrote the chapter abstracts for each book, and translated all the references.

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However, due to the scale of the project, the need to shorten the original texts, and stylistic choices made by different translators and reviewers, there may still be problems, which, of course, are the responsibility of the leading translators. We sincerely welcome criticisms and suggestions from readers, critics, and editors so that improvements can be made in later editions.

CONTENTS

| | | |
|----------|---|----------|
| 1 | Cultural Progress | 1 |
| 1.1 | <i>The Pre-Qin Period: The Budding Stage of Chinese Culture</i> | 2 |
| 1.1.1 | <i>Pre-Xia Culture</i> | 2 |
| 1.1.2 | <i>Culture of the Xia, Shang, and Zhou Dynasties</i> | 2 |
| 1.1.2.1 | <i>Rites and Music</i> | 3 |
| 1.1.2.2 | <i>Religion and Belief</i> | 3 |
| 1.1.2.3 | <i>Birth of Chinese Character Writing</i> | 3 |
| 1.1.2.4 | <i>Bronze Wares</i> | 4 |
| 1.1.2.5 | <i>Astronomy and Calendar</i> | 4 |
| 1.1.3 | <i>The Spring and Autumn Period and the Warring States Period</i> | 4 |
| 1.1.3.1 | <i>The Hundred Schools of Thought</i> | 5 |
| 1.1.3.2 | <i>Literary Classics</i> | 7 |
| 1.1.3.3 | <i>Set of Bells</i> | 8 |
| 1.2 | <i>Chinese Culture Takes Shape</i> | 8 |
| 1.2.1 | <i>Cultural Achievements of the Qin and Han Dynasties</i> | 8 |
| 1.2.1.1 | <i>Confucianism as the Dominant School of Thought</i> | 9 |
| 1.2.1.2 | <i>Unification of Culture in the Early Qin Dynasty</i> | 9 |
| 1.2.1.3 | <i>Fu and Yuefu</i> | 10 |
| 1.2.1.4 | <i>Thriving of Historiography</i> | 10 |
| 1.2.1.5 | <i>Sophisticated Science and Technology</i> | 10 |

| | | |
|---------|--|----|
| 1.2.1.6 | <i>The Silk Road</i> | 12 |
| 1.2.1.7 | <i>Architecture</i> | 12 |
| 1.2.2 | <i>From the Wei to the Southern and Northern Dynasties</i> | 13 |
| 1.2.2.1 | <i>Co-existence of Confucianism, Taoism, and Buddhism</i> | 13 |
| 1.2.2.2 | <i>Novelty in Literature</i> | 15 |
| 1.2.2.3 | <i>Achievements in Painting and Calligraphy</i> | 15 |
| 1.2.2.4 | <i>Zu Chongzhi's Pi and Jia Sixie's Qi Min Yao Shu</i> | 15 |
| 1.3 | <i>From Sui to Song: Thriving Stage of Chinese Culture</i> | 16 |
| 1.3.1 | <i>Culture of the Sui and Tang Dynasties</i> | 16 |
| 1.3.1.1 | <i>Imperial Examination System of the Sui and Tang Dynasties</i> | 16 |
| 1.3.1.2 | <i>Poetry of the Tang Dynasty</i> | 17 |
| 1.3.1.3 | <i>Calligraphy, Painting, Music, and Dance</i> | 19 |
| 1.3.1.4 | <i>Architecture in the Sui and Tang Dynasties</i> | 21 |
| 1.3.2 | <i>Culture of the Song Dynasty</i> | 22 |
| 1.3.2.1 | <i>The Rise of Neo-Confucianism</i> | 22 |
| 1.3.2.2 | <i>Song Ci (Poetry of the Song Dynasty)</i> | 23 |
| 1.3.2.3 | <i>Education in the Song Dynasty</i> | 25 |
| 1.3.2.4 | <i>Calligraphy and Painting in the Song Dynasty</i> | 25 |
| 1.3.2.5 | <i>Historiography in the Song Dynasty</i> | 26 |
| 1.3.2.6 | <i>Technology in the Song Dynasty</i> | 26 |
| 1.4 | <i>From the Yuan to Qing Dynasties: Consolidation of Chinese Culture</i> | 28 |
| 1.4.1 | <i>Practical Science in the Ming and Qing Dynasties</i> | 28 |
| 1.4.2 | <i>Introduction of Christianity and Islam</i> | 29 |
| 1.4.3 | <i>Academic Integration</i> | 30 |
| 1.4.4 | <i>Zaju and Novels</i> | 30 |
| 1.4.5 | <i>Cultural Exchange Between China and the West</i> | 31 |
| 1.4.6 | <i>Architecture of the Yuan, Ming, and Qing Dynasties</i> | 32 |
| 1.4.6.1 | <i>Dadu City of the Yuan Dynasty (Beijing)</i> | 32 |
| 1.4.6.2 | <i>The Imperial Palace</i> | 32 |
| 1.4.6.3 | <i>The Ming Tombs</i> | 32 |
| 1.4.6.4 | <i>Suzhou Garden</i> | 32 |
| 1.4.6.5 | <i>Old Summer Palace</i> | 33 |

| | | |
|---------|--|----|
| 1.5 | <i>Chinese Culture in Modern Times</i> | 33 |
| 1.5.1 | <i>The Evolution of Political Thought</i> | 33 |
| 1.5.1.1 | <i>“Opening the Eyes to See the World”</i> | 33 |
| 1.5.1.2 | <i>The Westernization Movement and Bourgeois Reform Thought</i> | 34 |
| 1.5.1.3 | <i>Revolutionary Thought and the Kuomintang</i> | 34 |
| 1.5.1.4 | <i>Marxism and the Communist Party of China</i> | 35 |
| 1.5.1.5 | <i>Mao Zedong Thought</i> | 35 |
| 1.5.1.6 | <i>Deng Xiaoping Theory</i> | 36 |
| 1.5.1.7 | <i>The CCP’s Scientific Outlook on Development</i> | 36 |
| 1.5.2 | <i>Culture and Education</i> | 37 |
| 1.5.2.1 | <i>The Imperial University of Peking and Tsinghua University</i> | 37 |
| 1.5.2.2 | <i>Overseas Education</i> | 37 |
| 1.5.2.3 | <i>Literature</i> | 37 |
| 1.5.2.4 | <i>History</i> | 38 |
| 1.5.2.5 | <i>Rapid Development of the News Publishing Industry</i> | 38 |
| 1.5.3 | <i>Art</i> | 39 |
| 1.5.3.1 | <i>The Introduction of Western Music</i> | 39 |
| 1.5.3.2 | <i>Great Talents in Painting</i> | 39 |
| 1.5.4 | <i>Military Industry, Transportation, and Space Technology</i> | 39 |
| 1.5.4.1 | <i>Modern Military Industry</i> | 39 |
| 1.5.4.2 | <i>Transportation</i> | 40 |
| 1.5.4.3 | <i>Two Bombs and One Satellite</i> | 40 |
| 1.5.4.4 | <i>Space Technology</i> | 40 |
| | <i>References</i> | 41 |
| 2 | Geography and Tourism | 43 |
| 2.1 | <i>Geographical Features</i> | 43 |
| 2.1.1 | <i>Location, Landforms, and Climate</i> | 43 |
| 2.1.2 | <i>Mineral Resources</i> | 45 |
| 2.1.3 | <i>Mountains, Major Bodies of Water, and Islands</i> | 45 |
| 2.1.3.1 | <i>Mountains</i> | 45 |
| 2.1.3.2 | <i>Rivers</i> | 45 |

| | | |
|---------|--|----|
| 2.1.3.3 | <i>Lakes</i> | 46 |
| 2.1.3.4 | <i>Seas</i> | 47 |
| 2.1.3.5 | <i>Islands</i> | 47 |
| 2.2 | <i>Tourism Resources</i> | 48 |
| 2.2.1 | <i>Natural Heritage</i> | 48 |
| 2.2.1.1 | <i>Wulingyuan Scenic and Historic Interest Area</i> | 48 |
| 2.2.1.2 | <i>Jiuzhaigou Valley Scenic and Historic Interest Area</i> | 49 |
| 2.2.1.3 | <i>Huanglong Scenic and Historic Interest Area</i> | 50 |
| 2.2.1.4 | <i>Stone Forest Scenic Area in Kunming</i> | 51 |
| 2.2.2 | <i>Cultural Heritage</i> | 52 |
| 2.2.2.1 | <i>The Great Wall</i> | 52 |
| 2.2.2.2 | <i>Mausoleum of the First Qin Emperor</i> | 53 |
| 2.2.2.3 | <i>Imperial Palace of the Ming and Qing Dynasties in Beijing</i> | 54 |
| 2.2.2.4 | <i>Lushan National Park</i> | 55 |
| 2.2.3 | <i>Natural and Cultural Heritage (Mixed Heritage)</i> | 55 |
| 2.2.3.1 | <i>Mount Taishan</i> | 55 |
| 2.2.3.2 | <i>Mount Emei Scenic Area</i> | 57 |
| 2.3 | <i>Landscapes</i> | 58 |
| 2.3.1 | <i>Guilin</i> | 58 |
| 2.3.2 | <i>West Lake Cultural Landscape of Hangzhou</i> | 60 |
| 2.3.3 | <i>Mountain Resort of Chengde and Its Outlying Temples</i> | 61 |
| 2.3.4 | <i>Classical Gardens of Suzhou</i> | 62 |
| 2.3.5 | <i>The Riyuetan Lake Scenic Spot</i> | 62 |
| 2.3.6 | <i>Yangtze Gorges Scenic Spot</i> | 63 |
| | <i>References</i> | 65 |
| 3 | Traditional Chinese Medicine and Chinese Materia Medica | 67 |
| 3.1 | <i>TCM's Theoretical System</i> | 67 |
| 3.1.1 | <i>Formation of TCM's Theoretical System</i> | 68 |
| 3.1.2 | <i>Development of TCM's Theoretical System</i> | 69 |
| 3.1.2.1 | <i>A Wealth of Practice in the Wei to the Tang Dynasties</i> | 69 |
| 3.1.2.2 | <i>Contention and Breakthrough in the Song to Yuan Dynasties</i> | 70 |

| | | | |
|-----|---------|---|----|
| | 3.1.2.3 | <i>Integration in the Ming and Qing Dynasties</i> | 70 |
| | 3.1.2.4 | <i>Deepening Development in Modern Times</i> | 71 |
| 3.2 | | <i>TCM's Philosophical Background</i> | 71 |
| | 3.2.1 | <i>Essential Qi Doctrine</i> | 72 |
| | 3.2.2 | <i>Yin–Yang Theory</i> | 72 |
| | 3.2.2.1 | <i>Explaining the Human Body's Organic Structure</i> | 73 |
| | 3.2.2.2 | <i>Explaining the Human Body's Physiological Functions</i> | 73 |
| | 3.2.2.3 | <i>Explaining Pathological Changes</i> | 73 |
| | 3.2.3 | <i>Five Phases Theory</i> | 74 |
| | 3.2.3.1 | <i>Explaining the Five Zang Organs' Physiological Functions</i> | 74 |
| | 3.2.3.2 | <i>Explaining the Interrelations Among the Five Zang Organs</i> | 75 |
| 3.3 | | <i>TCM's Understanding of Disease, Diagnosis and Treatment, and Health Preservation</i> | 76 |
| | 3.3.1 | <i>TCM's Understanding of Disease</i> | 76 |
| | 3.3.1.1 | <i>Etiology</i> | 76 |
| | 3.3.1.2 | <i>Theory of Pathomechanism</i> | 77 |
| | 3.3.2 | <i>TCM'S Diagnostic Methods</i> | 79 |
| | 3.3.2.1 | <i>Inspection</i> | 79 |
| | 3.3.2.2 | <i>Auscultation and Olfaction</i> | 80 |
| | 3.3.2.3 | <i>Inquiry</i> | 80 |
| | 3.3.2.4 | <i>Palpation and Pulse-Taking</i> | 80 |
| | 3.3.3 | <i>Therapeutic Methods Used in TCM</i> | 81 |
| | 3.3.3.1 | <i>Pharmacotherapy</i> | 81 |
| | 3.3.3.2 | <i>Acupuncture-Moxibustion</i> | 83 |
| | 3.3.4 | <i>TCM'S Primary Methods of Health Preservation</i> | 84 |
| | 3.3.4.1 | <i>Following Time</i> | 84 |
| | 3.3.4.2 | <i>Regulating Emotions</i> | 85 |
| | 3.3.4.3 | <i>Moderating Diet</i> | 85 |
| | 3.3.4.4 | <i>Regularizing Daily Life</i> | 85 |
| | 3.3.4.5 | <i>Physical Exercises</i> | 85 |
| | 3.3.4.6 | <i>Acupuncture-Moxibustion: Medicines</i> | 86 |

| | | |
|---------|--|-----|
| 3.4 | <i>Chinese Materia Medica and Application</i> | 86 |
| 3.4.1 | <i>Performance of Chinese Materia Medica</i> | 86 |
| 3.4.1.1 | <i>Four Properties and Five Flavors</i> | 87 |
| 3.4.1.2 | <i>Ascending and Descending, Floating, and Sinking</i> | 87 |
| 3.4.1.3 | <i>Channel Tropism</i> | 88 |
| 3.4.2 | <i>Concerted Application and Contraindication of Chinese Materia Medica</i> | 88 |
| 3.4.2.1 | <i>Concerted Application</i> | 88 |
| 3.4.2.2 | <i>Contraindications</i> | 89 |
| 3.4.3 | <i>Prescriptions and Medication</i> | 90 |
| 3.4.3.1 | <i>Principles for the Composition of Prescriptions</i> | 90 |
| 3.4.3.2 | <i>Application of Prescriptions</i> | 90 |
| | <i>References</i> | 91 |
| 4 | Music | 93 |
| 4.1 | <i>Music in Remote Antiquity</i> | 94 |
| 4.2 | <i>Music in the Xia and Shang Dynasties</i> | 94 |
| 4.3 | <i>Music in the Western and Eastern Zhou Dynasties</i> | 95 |
| 4.4 | <i>Music in the Qin and Han Dynasties</i> | 98 |
| 4.5 | <i>Music in the Three Kingdoms, the Jin, and the Southern and Northern Dynasties</i> | 99 |
| 4.6 | <i>Music in the Sui and Tang Dynasties</i> | 99 |
| 4.7 | <i>Music in the Song, Jin, and Yuan Dynasties</i> | 101 |
| 4.8 | <i>Music in the Ming and Qing Dynasties</i> | 103 |
| 4.9 | <i>Music in Modern Times</i> | 105 |
| | <i>References</i> | 112 |
| 5 | Arts and Crafts | 113 |
| 5.1 | <i>Arts and Crafts in the Xia, Shang, and Zhou Dynasties</i> | 113 |
| 5.1.1 | <i>Prehistoric Arts and Crafts</i> | 114 |
| 5.1.2 | <i>Bronze Craft in the Shang and Zhou Dynasties</i> | 116 |
| 5.2 | <i>Arts and Crafts in the Han and Tang Dynasties</i> | 119 |
| 5.2.1 | <i>Arts and Crafts in the Han Dynasty</i> | 120 |
| 5.2.2 | <i>Arts and Crafts in the Tang Dynasty</i> | 121 |
| 5.3 | <i>Arts and Crafts in the Song and Yuan Dynasties</i> | 123 |
| 5.3.1 | <i>Arts and Crafts in the Song Dynasty</i> | 123 |
| 5.3.2 | <i>Arts and Crafts in the Yuan Dynasty</i> | 125 |

| | | |
|----------|---|-----|
| 5.4 | <i>Arts and Crafts in the Ming and Qing Dynasties</i> | 126 |
| 5.4.1 | <i>Furniture Handicrafts in the Ming and Qing Dynasties</i> | 126 |
| 5.4.2 | <i>Metal Crafts and Lacquerwares in the Ming and Qing Dynasties</i> | 127 |
| 5.4.3 | <i>Ceramics in the Ming and Qing Dynasties</i> | 128 |
| | <i>References</i> | 131 |
| 6 | Astronomy and the Calendar | 133 |
| 6.1 | <i>Ancient Astronomy and the Calendar</i> | 133 |
| 6.1.1 | <i>An Overview of Ancient Chinese Astronomy and the Calendar</i> | 133 |
| 6.1.2 | <i>Introduction of Ancient Chinese Astronomy</i> | 135 |
| 6.1.2.1 | <i>Astronomy in the Xia, Shang, and Zhou Dynasties</i> | 135 |
| 6.1.2.2 | <i>Astronomy in the Qin and Han Dynasties</i> | 136 |
| 6.1.2.3 | <i>Astronomy in the Wei, Jin, and Southern and Northern Dynasties</i> | 137 |
| 6.1.2.4 | <i>Astronomy in the Sui and Tang Dynasties</i> | 138 |
| 6.1.2.5 | <i>Astronomy in the Song Dynasty</i> | 139 |
| 6.1.2.6 | <i>Astronomy in the Liao, Jin, and Yuan Dynasties</i> | 140 |
| 6.1.2.7 | <i>Astronomy in the Ming Dynasty</i> | 140 |
| 6.1.2.8 | <i>Astronomy in the Qing Dynasty</i> | 141 |
| 6.1.3 | <i>Famous Ancient Chinese Calendars</i> | 142 |
| 6.1.3.1 | <i>The Quarter Calendar</i> | 142 |
| 6.1.3.2 | <i>The Qianxiang Calendar</i> | 142 |
| 6.1.3.3 | <i>The Daming Calendar</i> | 143 |
| 6.1.3.4 | <i>The Dayan Calendar</i> | 143 |
| 6.1.3.5 | <i>The Twelve Solar Terms Calendar</i> | 144 |
| 6.1.3.6 | <i>The Shoushi Calendar</i> | 144 |
| 6.1.3.7 | <i>The Chongzhen Almanac</i> | 145 |
| 6.1.3.8 | <i>The Shixian Calendar</i> | 145 |
| 6.2 | <i>Famous Ancient Astronomical Institutions and Figures</i> | 146 |
| 6.2.1 | <i>Ancient Astronomical Institutions</i> | 146 |
| 6.2.2 | <i>Famous Ancient Astronomical Figures</i> | 147 |
| 6.2.2.1 | <i>Gan De</i> | 147 |
| 6.2.2.2 | <i>Luoxia Hong (140–87 BC)</i> | 148 |

| | | |
|---------|---|-----|
| 6.2.2.3 | <i>Zhang Heng (AD 78–139)</i> | 148 |
| 6.2.2.4 | <i>Zu Chongzi (429–500)</i> | 148 |
| 6.2.2.5 | <i>Yixing (683–727)</i> | 149 |
| 6.2.2.6 | <i>Shen Kuo (1031–1095)</i> | 149 |
| 6.2.2.7 | <i>Guo Shoujing (1231–1316)</i> | 150 |
| 6.2.2.8 | <i>Xu Guangqi (1562–1633)</i> | 150 |
| 6.2.2.9 | <i>Li Shanlan (1811–1882)</i> | 151 |
| 6.3 | <i>Ancient Astronomical Instruments</i> | 151 |
| 6.3.1 | <i>Astronomical Observation Instruments</i> | 151 |
| 6.3.1.1 | <i>Armillary Sphere (Hunyi)</i> | 151 |
| 6.3.1.2 | <i>Celestial Sphere</i> | 152 |
| 6.3.1.3 | <i>Water-Powered Armillary Sphere</i> | 152 |
| 6.3.2 | <i>Ancient Timing Instruments</i> | 153 |
| 6.3.2.1 | <i>Gnomon Shadow Template (Guibiao)</i> | 153 |
| 6.3.2.2 | <i>Sundial (Rigui)</i> | 153 |
| 6.3.2.3 | <i>Leakage Clepsydra (Louke)</i> | 153 |
| 6.3.3 | <i>Major Contemporary Chinese Observatories</i> | 154 |
| 6.3.3.1 | <i>Purple Mountain Observatory of the Chinese Academy of Sciences</i> | 154 |
| 6.3.3.2 | <i>Shanghai Astronomical Observatory of the Chinese Academy of Sciences</i> | 154 |
| 6.3.3.3 | <i>Shaanxi Observatory of Chinese Academy of Sciences</i> | 155 |
| 6.3.3.4 | <i>Yunnan Observatory of the Chinese Academy of Sciences</i> | 155 |
| 6.3.3.5 | <i>National Astronomical Observatory of the Chinese Academy of Sciences</i> | 156 |
| | <i>References</i> | 156 |
| 7 | Chinese Architecture and Gardens | 157 |
| 7.1 | <i>Ancient Chinese Architecture</i> | 157 |
| 7.1.1 | <i>Stages of Development of Ancient Chinese Architecture</i> | 157 |
| 7.1.1.1 | <i>Ancient Chinese Architecture of Primitive Society</i> | 158 |
| 7.1.1.2 | <i>Ancient Chinese Architecture of the Slave-Based Society</i> | 158 |
| 7.1.1.3 | <i>Ancient Chinese Architecture of the Feudal Society</i> | 158 |

| | | |
|---------|---|-----|
| 7.1.2 | <i>Features of Ancient Chinese Architecture</i> | 159 |
| 7.1.2.1 | <i>Layout of Royal Buildings</i> | 160 |
| 7.1.2.2 | <i>Main Features of Ancient Chinese Architecture</i> | 160 |
| 7.1.3 | <i>Artistic Features of Ancient Chinese Architecture</i> | 162 |
| 7.1.3.1 | <i>The Decorated Roof</i> | 162 |
| 7.1.3.2 | <i>Artistic Foils on Buildings</i> | 162 |
| 7.1.3.3 | <i>Application of Color</i> | 162 |
| 7.2 | <i>Chinese Residential Architecture</i> | 163 |
| 7.2.1 | <i>Features and Forms of Chinese Residential Buildings</i> | 163 |
| 7.2.2 | <i>Typical Local or National Residential Buildings in China</i> | 163 |
| 7.2.2.1 | <i>Traditional Courtyard-Style Residential Buildings</i> | 163 |
| 7.2.2.2 | <i>Jiangnan Residential Buildings</i> | 164 |
| 7.2.2.3 | <i>Cave Dwellings in the Central Region of the Yellow River Basin</i> | 164 |
| 7.2.2.4 | <i>Residential Buildings of Log Cabin Construction</i> | 164 |
| 7.2.2.5 | <i>Ganlan Residential Buildings</i> | 164 |
| 7.2.2.6 | <i>Hakka Earth Building and Round-Dragon House</i> | 164 |
| 7.2.2.7 | <i>Blockhouses of the Zang and Qiang Ethnic Groups</i> | 165 |
| 7.2.2.8 | <i>The Mongolian Yurt</i> | 165 |
| 7.3 | <i>Chinese Landscape Architecture</i> | 165 |
| 7.3.1 | <i>Stages of Development of Chinese Landscape Architecture</i> | 165 |
| 7.3.1.1 | <i>From the Shang Dynasty to the Southern and Northern Dynasties</i> | 166 |
| 7.3.1.2 | <i>The Sui and Tang Dynasties</i> | 166 |
| 7.3.1.3 | <i>The Song, Liao, and Jin Dynasties</i> | 167 |
| 7.3.1.4 | <i>From the Yuan to the Qing dynasties</i> | 167 |
| 7.3.2 | <i>Royal Gardens</i> | 168 |
| 7.3.2.1 | <i>Distribution of Royal Gardens</i> | 168 |
| 7.3.2.2 | <i>Features of Royal Gardens</i> | 168 |
| 7.3.2.3 | <i>Artistic Achievements of Royal Gardens</i> | 169 |
| 7.3.2.4 | <i>Typical Royal Gardens</i> | 170 |
| 7.3.3 | <i>Private Gardens</i> | 170 |
| 7.3.4 | <i>Temple Gardens</i> | 171 |

| | | |
|----------|---|-----|
| 7.3.5 | <i>Regional Characteristics of Chinese Gardens</i> | 172 |
| 7.3.5.1 | <i>Gardens in the North</i> | 172 |
| 7.3.5.2 | <i>Lingnan Gardens</i> | 172 |
| 7.3.5.3 | <i>Jiangnan Gardens</i> | 173 |
| 7.3.6 | <i>Landscape Gardening Art</i> | 173 |
| 7.3.6.1 | <i>Spiritual Expression</i> | 173 |
| 7.3.6.2 | <i>Landscape Design</i> | 174 |
| 7.3.6.3 | <i>Waterscape and Rockery Scenery in the Garden</i> | 175 |
| 7.3.7 | <i>Architectural Elements in the Garden</i> | 176 |
| 7.4 | <i>Classic Books and Famous Craftsmen in Architecture</i> | 176 |
| 7.4.1 | <i>Classic Books on Ancient Chinese Architecture</i> | 176 |
| 7.4.2 | <i>Famous Craftsmen of Ancient Garden Architecture</i> | 177 |
| 7.4.3 | <i>Modern and Contemporary Chinese Gardens</i> | 178 |
| 7.4.3.1 | <i>Sun Yat-sen Mausoleum in Nanjing</i> | 178 |
| 7.4.3.2 | <i>Sun Yat-sen Memorial Hall in Guangzhou</i> | 179 |
| 7.4.3.3 | <i>The Great Hall of the People</i> | 179 |
| 7.4.3.4 | <i>Nanjing Yangtze River Bridge</i> | 180 |
| | <i>References</i> | 180 |
| 8 | Clothing, Food, Housing and Transportation | 181 |
| 8.1 | <i>Ancient Chinese Costume</i> | 181 |
| 8.1.1 | <i>Origination of Costumes</i> | 181 |
| 8.1.2 | <i>Costumes in the Xia, Shang and Zhou Dynasties</i> | 182 |
| 8.1.3 | <i>Costumes from the Qin Dynasty to the Southern and Northern Dynasties</i> | 183 |
| 8.1.4 | <i>Splendid Costumes in the Sui, the Tang, and Five Dynasties</i> | 184 |
| 8.1.5 | <i>Costumes in the Song Dynasty</i> | 184 |
| 8.1.6 | <i>The Unique Costume of the Yuan Dynasty</i> | 185 |
| 8.1.7 | <i>The Complex and Diverse Clothing Systems in the Ming Dynasty</i> | 185 |
| 8.1.8 | <i>Elegant and Luxuriant Costumes in the Qing Dynasty</i> | 186 |
| 8.2 | <i>Food Culture in Ancient China</i> | 187 |
| 8.2.1 | <i>The Origin of Food Culture</i> | 187 |
| 8.2.2 | <i>Classification of Food in Ancient Times</i> | 188 |
| 8.2.2.1 | <i>Shu in the Shang Dynasty</i> | 188 |
| 8.2.2.2 | <i>Ji in the Zhou Dynasty</i> | 188 |
| 8.2.2.3 | <i>The Five Cereals</i> | 189 |

| | | |
|---------|---|-----|
| 8.2.2.4 | <i>Rice</i> | 189 |
| 8.2.2.5 | <i>Staple Food and Subsidiary Food</i> | 189 |
| 8.2.3 | <i>Eating Utensils and Methods of Food-Making</i> | 189 |
| 8.2.4 | <i>Changes of Diet Systems in Ancient Times</i> | 190 |
| 8.3 | <i>Dwellings of Ancient Chinese</i> | 192 |
| 8.3.1 | <i>The Origin of Architecture</i> | 192 |
| 8.3.2 | <i>Cities and Urban Architecture in Ancient China</i> | 192 |
| 8.3.3 | <i>Living Habits and Interior Design in Ancient China</i> | 195 |
| 8.4 | <i>Transportation in Ancient Times</i> | 196 |
| 8.4.1 | <i>Transportation in the Prehistoric Age</i> | 196 |
| 8.4.2 | <i>Transportation in the Xia, Shang, and Zhou Dynasties</i> | 197 |
| 8.4.2.1 | <i>Transportation in the Xia Dynasty</i> | 197 |
| 8.4.2.2 | <i>Transportation of the Shang Dynasty</i> | 197 |
| 8.4.2.3 | <i>Transportation of the Zhou Dynasty</i> | 197 |
| 8.4.3 | <i>Transportation from the Qin to the Tang Dynasties</i> | 199 |
| 8.4.4 | <i>Transportation from the Song to the Qing Dynasties</i> | 201 |
| | <i>References</i> | 203 |
| 9 | Customs and Etiquette | 205 |
| 9.1 | <i>An Overview of Chinese Customs and Etiquette</i> | 205 |
| 9.1.1 | <i>Li, Liyi, and Etiquette</i> | 206 |
| 9.1.2 | <i>Characteristics of Etiquette</i> | 206 |
| 9.1.3 | <i>Role of Folk Etiquette</i> | 207 |
| 9.2 | <i>Etiquette in Daily Life</i> | 207 |
| 9.2.1 | <i>Birth Ceremony</i> | 208 |
| 9.2.2 | <i>Enlightenment Rite</i> | 211 |
| 9.2.3 | <i>Puberty Rite</i> | 211 |
| 9.2.4 | <i>Wedding Ceremony</i> | 212 |
| 9.2.5 | <i>Birthday Rite and Longevity Rite</i> | 213 |
| 9.2.6 | <i>Funeral Rites</i> | 214 |
| 9.2.6.1 | <i>Funeral Vigil</i> | 214 |
| 9.2.6.2 | <i>Funeral Rite</i> | 216 |
| 9.2.6.3 | <i>Sacrificial Rites</i> | 217 |
| 9.3 | <i>Family Rituals</i> | 218 |
| 9.3.1 | <i>The Rite Between Father and Son</i> | 219 |
| 9.3.2 | <i>The Rite Between Husband and Wife</i> | 219 |
| 9.3.3 | <i>The Rite Between Brothers and Sisters</i> | 220 |
| 9.3.4 | <i>The Rite for the Young Woman</i> | 221 |

| | | |
|----------|---|-----|
| 9.4 | <i>Social Etiquette</i> | 222 |
| 9.4.1 | <i>Manner Etiquette</i> | 222 |
| 9.4.1.1 | <i>Appellation</i> | 222 |
| 9.4.1.2 | <i>Greeting Etiquette</i> | 222 |
| 9.4.1.3 | <i>Visit and Social Activity</i> | 223 |
| 9.4.1.4 | <i>Catering and Gift Presenting</i> | 224 |
| 9.4.1.5 | <i>Respect Elders and Teachers</i> | 225 |
| 9.4.2 | <i>Letter Etiquette</i> | 226 |
| | <i>References</i> | 226 |
| 10 | Traditional Festivals | 229 |
| 10.1 | <i>Characteristics of Traditional Chinese Festivals</i> | 230 |
| 10.1.1 | <i>Focus on Agriculture</i> | 230 |
| 10.1.2 | <i>Secularity</i> | 232 |
| 10.2 | <i>Four Major Festivals</i> | 234 |
| 10.2.1 | <i>Spring Festival</i> | 234 |
| 10.2.2 | <i>The Clear and Bright Festival or the Qingming Festival</i> | 236 |
| 10.2.2.1 | <i>Eating Cold Food</i> | 237 |
| 10.2.2.2 | <i>Sweeping the Grave</i> | 237 |
| 10.2.2.3 | <i>Going Hiking in the Suburbs</i> | 238 |
| 10.2.2.4 | <i>Wearing and Transplanting Willow Twigs</i> | 238 |
| 10.2.3 | <i>The Dragon Boat Festival or the Duanwu Festival</i> | 239 |
| 10.2.3.1 | <i>Origin</i> | 239 |
| 10.2.3.2 | <i>Customs</i> | 239 |
| 10.2.4 | <i>The Mid-Autumn Festival</i> | 241 |
| 10.3 | <i>Other Festivals</i> | 243 |
| 10.3.1 | <i>The Lantern Festival or the Yuanxiao Festival</i> | 243 |
| 10.3.2 | <i>The Double Seventh Festival or the Magpie Festival</i> | 245 |
| 10.3.3 | <i>The Double Ninth Festival</i> | 246 |
| 10.4 | <i>Festivals of China's Minorities</i> | 248 |
| 10.4.1 | <i>Massive Participation</i> | 248 |
| 10.4.2 | <i>Recreational Activities in the Festivals</i> | 249 |
| 10.4.3 | <i>Social Purposes</i> | 250 |
| 10.4.4 | <i>Religious Purposes</i> | 251 |
| | <i>References</i> | 251 |



CHAPTER 1

Cultural Progress

Chinese culture has been constantly evolving since the dawn of history. It includes nearly all aspects of human experience—ideas, philosophy, education, religion, literature, art, language, astronomy, geography, science, technology, publishing, printing, exhibitions, cultural relic collection, fashion, food, lifestyles, travel, values, trends, and ethnic customs.

China, one of the major strands of human civilization, is a long-established, stable, and diversified country. Its well-recognized pluralism comes from its assimilation with, rather than annihilation of, different cultures. Its invention and popularization of printing, as a world first, made possible the propagation of its own culture to neighboring countries and the rest of the world easily. Since its earliest days as a distinct civilization, China has focused heavily on scholarship and the establishment of certain enduring educational systems, such as its own imperial examination system—most prominent in the age of Confucianism—which in turn promoted the sustained social development of Chinese culture.

1.1 THE PRE-QIN PERIOD: THE BUDDING STAGE OF CHINESE CULTURE

1.1.1 *Pre-Xia Culture*

The era of pre-Xia culture refers to the extended period of maturation before the Qin and Han dynasties more effectively formed the foundation of the Chinese culture that we have to come to appreciate in more modern times. During this early period, China experienced a transition from a relatively primitive society to that of a feudal and self-sustaining agricultural and hierarchical society.

Before the emergence of separate states, there were three clans in the Yellow River and Yangtze River basins. These were referred to as the Huaxia, Barbaroi, and Miaoman. However, with increasing productivity and innovation, these three tribes began to pursue their societal ambitions and dealt with conflicts through a spate of brutal wars.

This regressive development first saw the Huaxia clan, having successfully won several convincing major battles against the other clans, become pre-eminent, such that the Yellow Emperor's armies conquered and enslaved the Miaoman clan and, through the endeavors of several generations of Huaxia emperors (Yao, Shun, and Yu) in a successive string of victories, consolidated their dominance among China's major ethnic groups and other, minority groups of that period. Hence the term *huaxia* became a historically accepted descriptor to refer to individuals of ancient "Chinese ethnicity," and the Yellow Emperors came to be regarded as the primary cultural ancestors of most Chinese, both at home and abroad.

1.1.2 *Culture of the Xia, Shang, and Zhou Dynasties*

China's recorded history is considered today to have commenced during the Xia Dynasty (2100–1600 BC), followed by the Shang (1600–1046 BC) and later the Western and Eastern Zhou dynasties, with the latter consisting of the Spring and Autumn period (770–476 BC) and the Warring States period (475–221 BC). These were all critical periods in the development of China's iconic cultural history. It should be noted that these three dynasties covered a span of over 1800 years. During this extended period of succeeding dynasties, the Huaxia peoples formed a relatively stable and sophisticated community. They established China's first system of slavery, which marked the beginning of its switch from barbarism to more

cultivated ritualistic practices. The Shang Dynasty is regarded by historians as the high point of China's slave-holding society, which gradually came to an end during the Western Zhou Dynasty with the emergence of a more agrarian, feudalistic system of governance.

1.1.2.1 *Rites and Music*

As mentioned above, China's notable propensity for ritualistic ceremonies first emerged during the Xia Dynasty and was later refined during the Shang and Zhou dynasties. Drawing on this wealth of precedent, the Duke of Zhou, the chief assistant to the king, perfected and promoted political and cultural patterns such as the nine-square field system, the system of enfeoffment, patriarchal clans, and detailed ritual systems, which is referred to today as the splendor of the Western Zhou period. Such culture-driven mindsets covered politics, ways of thinking, family life, and education.

Literature flourished during this period, as is recorded in *Rites of Zhou* (*Zhou Li* 周礼), *Etiquettes and Ceremonies* (*Yi Li* 仪礼) and the *Book of Rites* (*Li Ji* 礼记). Hence it can be said that the establishment and consolidation of China's ceremonial culture, as we understand it today, was largely formulated in the course of the Zhou Dynasty, and over the next 3000 years became the accepted cultural pattern pursued by later monarchs in the Qin and Han dynasties.

1.1.2.2 *Religion and Belief*

The system of rule by divine right was prevalent in ancient China for millennia. Likewise, belief in the gods is recorded repeatedly in ancient classics such as *The Book of Documents* (*Shang Shu* 尚书), *The Book of Songs* (*Shi Jing* 诗经), and others. The worship of ghosts and gods was most prominent in the Shang Dynasty, when people would consult with the gods through means of divination on literally every decision they made, both critical and trivial. Most of the nearly 100 000 oracle bones found in Yin Dynasty ruins are records of sacrifice and divination.

1.1.2.3 *Birth of Chinese Character Writing*

China's unique character-style writing has a long history. The oracle inscriptions found in the Yin ruins are considered the first Chinese characters that have been re-discovered to date. In the sixteenth century BC, the Shang Dynasty established an unprecedentedly powerful system based on slavery, which over time put an end to their nomadic ways. This in turn

created a less nomadic cultural focus, and they chose the city of Yin as their established capital. As their way of life became more settled, a more complex and civilized set of cultural values developed. The appearance of oracle inscriptions marked the maturity of Chinese characters as a form of writing. This in turn initiated great advances in the natural sciences and scholastic thinking.

During the Shang Dynasty, with the improvement of casting techniques, bronze wares became a commonly manufactured item, with stylish characters called epigraphs carved into them. During the Zhou Dynasty, the forms of such inscriptions underwent many changes, and the typeface was gradually fixed and increasingly standardized. Such developments then paved the way for the unification of Chinese characters, which had come to full fruition by the time of the Qin Dynasty.

1.1.2.4 Bronze Wares

An important development during the Xia Dynasty was the emergence of the smelting and casting of metal wares in bronze wares. In the later Shang and Zhou dynasties, such materials were mainly used for sacrificial vessels and weapons. For example, the tripod symbolized the monarchy and hierarchy in sacrifices. This sophisticated manufacturing technique is exemplified by the Simuwu Cauldron, created during the late Shang Dynasty (1600–1046 BC), which weighed in excess of 800 kilograms.

1.1.2.5 Astronomy and Calendar

Chinese astronomy was fairly well developed in the Xia Dynasty. The first calendar of China, the Xia Xiao Zheng, was invented at this time and further matured in the Shang Dynasty. The calendar of the Shang Dynasty was divided into a solar calendar and a lunar one. Hence during the Spring and Autumn period (770–476 BC) and the Warring States period (475–221 BC), the twenty-four solar terms gradually evolved and are still in use today.

1.1.3 The Spring and Autumn Period and the Warring States Period

Great unrest seized China during this time, with slavery per se giving way to a much more hierarchically based system known as feudalism. In this context Chinese civilization attained unparalleled prosperity and saw rapid

growth in productivity; different concepts, theories and principles appeared and this is called by later historians a period of the Contention of the *100 Schools of Thought*.

Furthermore, China's agrarian economy underwent drastic changes as the nine-square field system fell into disuse and much greater emphasis was placed on private land ownership. In the closing days of the Zhou Dynasty, each principality scrambled for supremacy. In order to secure greater civic stability and moral loyalty, dukes and princes paid large amounts of money to recruit celebrated scholars for their advice and overall administrative skills. This then created the rise of a scholarly class gentry to serve as advisers and administrators, and through intense wars and acquisitions, the common person's isolated and static life structure underwent major changes, with political pluralism furnishing the already diverse Chinese culture with a new landed class and the first liberation of thought in the history of China. Representative works of this period, such as the compilation of great works entitled *The Book of Songs* (*Shi Jing* 诗经), and *The Songs of Chu* (*Chu Ci* 楚辞), fostered a vibrant new literary tradition.

1.1.3.1 *The Hundred Schools of Thought*

The Hundred Schools of Thought is a general term to refer to a variety of schools of thought in the pre-Qin period. This was the golden age of Chinese culture, when numerous original thinkers produced a gold mine of brilliant and creative ideas.

Confucianism, represented by Confucius and Mencius, is a school that attaches great importance to kinship and human relations, and to seeking success in the secular world. As the founder of Confucianism, Confucius first presented the concept of virtue or benevolence (*Ren* 仁) as a philosophical category, which constitutes the core and the highest state of Confucius' political and social views.

Other important contributions made by Confucius are the concepts of propriety or rites (*Li* 礼) and the rectification of names (*Zheng ming* 正名). He insisted on the management of state affairs by rites, and held that:

*If names be not correct, language is not in accordance with the truth of things.
If language be not in accordance with the truth of things, affairs cannot be
carried on to success.*¹

¹ Translation by James Legge.

Confucius was also the initiator of private education in ancient China. He initially taught students and promoted educational ideas such as “making no social distinctions in teaching” and “teaching students in accordance with their aptitude.” Later, Mencius put forward the theory of the goodness of human nature, and of morality as inherent in the nature of human beings. Furthermore, he argued that morality develops for the better or the worse only due to one’s own efforts and the influence of one’s surroundings—not unlike modern-day parlance, which states that it is the environment around us that fashions our history and our way of thinking. Confucianism, the cornerstone of Chinese social conventions and theories in the feudal era, was a watershed phenomenon that commenced in the Han Dynasty. It was transformed by the ruling class of successive dynasties and became mainstream thinking among China’s feudal society for a period of over 2000 years

Mohism is named after Mo-tse. It advocates concepts such as universal love and non-offense, benevolence and justice, which are directly opposite to the Confucianist idea of rites and its conservative political beliefs. Its aim was to realize political and economic equality through preaching, which reflects a strong sense of grassroots appeal, and to establish a unified, fair, and reasonable society free of violence against the weak, insult to the poor, prejudice toward the down-and-outs, and cheating of the less intelligent.

Hence, in direct contrast to Confucianist practices, during the settling down period, two notable men, Lao-tse (fifth century BC) and Chuang-tzu (third century BC), emerged as champions of Taoism. Their ethics stood for governance through non-interference, following nature, and wanting less. The first to present the philosophical theory of Tao, Lao-tse put his ideas into a small book, *The Tao Te Ching*.

Furthermore, this dynamic period also saw the emergence of the legalists, of whom the most prominent were Shang Yang (390–338 BC; born Wei Yang) and Han Feizi (Hán Fēi; c. 280–233 BC). This sectional group supported a system of feudalism in place of the system of patriarchies and rites, which promoted a political ideology based on law, statecraft, and dynastic power. Such an approach to life was presented as justified based on the belief that humans, when left to their own devices, were inherently evil by nature and therefore required containment and punishment in order for a society to be well ordered and subservient to its divine lord and master. Other schools made contributions to the prevailing debates of the period as well. One specific example is the book entitled *Art of War* written

by Sun Tzu (*Sun Zi* 孙武). Sun Tzu's perfect application of military dialectics and his considered strategic thoughts have been admired by many generations since. One of his most famous sayings is undoubtedly:

There is no instance of a nation benefitting from prolonged warfare.

1.1.3.2 *Literary Classics*

The Book of Songs and The Songs of Chu

The Book of Songs is a collection of poetry of the pre-Qin period, generally referred to as ballads (*Feng* 风) and laments (*Sao* 骚). Its genre is that of realistic poetry, while *The Songs of Chu* ushers in the age of romanticism. Both have been handed down and have served as inspiration for poetry in later ages. *The Book of Songs* is regarded as the first such collection of poetry in Chinese literary history, and categorizes 305 poems into three parts: *Feng* (ballads), *Ya* (odes), and *Song* (hymns).

A new style of poem was developed by Qu Yuan during the Warring States period (475–221 BC). After his death, a considerable number of writers favoring this poetic style emerged, promoting romanticism and the first era of “belles-lettres” poetry in China. It has been suggested that Qu Yuan is equally as popular as Homer and Dante in world literary history. China's Dragon Boat Festival, celebrated in the fifth lunar month each year, is the greatest commemoration of this great poet and patriot of the Warring States period.

Four Books and Five Classics

The term “Five Classics” originated in the reign of Emperor Wu of the Han Dynasty (206 BC–AD 220). Originally there were six classics: *The Book of Songs*, *The Book of Documents*, *The Book of Rites*, *The Book of Music*, *The Book of Changes*, and *The Spring and Autumn Annals*. These six pre-Qin classics were allegedly revised by Confucius, or possibly by his loyal students shortly after his death. Unfortunately, *The Book of Music* did not survive, having been burned on the specific instructions of the First Emperor of Qin. Notwithstanding this great cultural loss during this period, all the other books were effectively preserved by the disciples of Confucius and have been handed down by their descendants until the present day, and as such constitute the core part of Confucianism and Chinese ancient traditional culture.

Four other works, entitled *The Great Learning*, *Doctrine of the Mean*, *Analects of Confucius*, and *Mencius*, are equally important classics of this

period and became compulsory textbooks for the imperial examination of government scholars from the Southern Song Dynasty (AD 1271–1368) onwards. In addition, another great work produced later, entitled *The Classic of Mountains and Seas*, is a major geographical work focusing on the study of Chinese primitive society that includes names, clans, and ancient Chinese knowledge about the universe, nature, society, and very early Chinese history.

1.1.3.3 *Set of Bells*

Despite the resolve of the First Emperor of Qin to have the classic *Book of Music* destroyed, one feature of this era was a musical instrument, referred to as a “Set of Bells,” which was a type of percussion instrument played during clansman sacrifices and banquets. Such instruments can be traced back to at least the Shang Dynasty (1600–1046 BC) and were also seen during the Spring and Autumn period (770–476 BC) and the Warring States period (475–221 BC). These large instruments, made up of sets of bells and drums, were popular during this period, and one prime exhibit of such a set—in prime condition—is known as the Zeng-hou-yi Bells. They were discovered in Suizhou, Hubei Province, in 1978 and subsequently excavated.

1.2 CHINESE CULTURE TAKES SHAPE

From the Qin Dynasty (221–206 BC) to the Southern and Northern dynasties (AD 420–589), the empiric nature of Chinese culture became much more readily defined. The economic system, bureaucracy, family system, cultural rituals, education system, and ethical norms became more formally established, and served as the model for later generations to follow.

1.2.1 *Cultural Achievements of the Qin and Han Dynasties*

During the late Warring States period, the state of Qin in the northwest had finally conquered the other six states by 221 BC. The establishment of this feudalistic nation was essentially a first for China. In that sense it was epoch-making, even though the Qin Empire lasted but two generations. Notwithstanding this, it is fair to say that the Qin political, economic, and cultural systems that were implemented at that time were to remain and consolidate their influence for more than 2000 years thereafter. On

inheriting these institutional structures from the Qin Dynasty, over the next 400 years the Han Dynasty effectively consolidated the system, and by Emperor Wu's time, it possessed a flourishing economy and strengthened powers.² In hindsight, this represented the heyday of the dynasty, to the extent that China had become the most powerful country in the world at the time.

1.2.1.1 Confucianism as the Dominant School of Thought

After annexing the other six states, the First Emperor of Qin ordered books be burned, and the historical annals of that period allege that some 200 Confucian scholars were buried alive with their books. Moreover, private education, for those who could afford it, was banned in order to prevent political interference in the molding and unification of the seven former states into one huge empire. However, in the successive Han Empire, with Emperor Wu now in control, a reversion back to the promotion of Confucianism as the official ideology of the Chinese imperial state did in fact take place, and over time it became the dominant state ideology. Thus began an age of serious study of Confucian classics.

1.2.1.2 Unification of Culture in the Early Qin Dynasty

On securing his primary objective, the First Emperor of Qin implemented a series of supportive administrative measures to consolidate political unification by means of: the creation of strict written communication procedures; the standardization of measurements; and rules of conduct and standardized civic administration reporting. Small Seal Script was formulated on the basis of the Qin seal script, which then became standardized nationwide. This had the effect of realizing the unification of Chinese characters for the first time in history.

The shape and structure of vehicles and the width of roads were also unified, enabling travel all around the countryside. Currency, weights, and measures were standardized, with gold and copper coins used as currency nationwide. Laws were formulated, which led to the unification of a strong cultural mentality and uniformity, with enfeoffment abolished, so that pre-existing regional barriers were effectively broken down.

² Emperor Wu of the Han Dynasty lived an extremely long life for his era (156–87 BC). His courtesy name was Tong and his birth name was Liu Che. He became the seventh emperor of the Han Dynasty, ruling from 141–87 BC.

1.2.1.3 *Fu and Yuefu*

Fu, or the genre of belles-lettres, first appeared during the Warring States period (475–221 BC) and prevailed in the Han Dynasty (206 BC–AD 220). The thriving of *Fu* promoted the formation of the concept of literature as separate from scholastic writings. Starting from the Qin Dynasty, *Yuefu* originally referred to a description of music, composed by scholars as well as laymen. *Yuefu* inherited realism and inspiration from *The Book of Songs*. “Southeast the Peacock Flies” is a wonderful and famous example of a *Yuefu* ballad.

1.2.1.4 *Thriving of Historiography*

Tremendous progress was made in the area of historiography during the Han Dynasty (206 BC–AD 220). The Chinese people even today take pride in *Shi Ji* by Sima Qian of the Western Han Dynasty, and *The Book of Han* by Ban Gu of the Eastern Han Dynasty. *Shi Ji* narrates over 3000 years of history, from the legendary Yellow Emperor to Emperor Wu of the Han Dynasty. The biographical style initiated by Sima Qian, with emperors at the center of history, was highly praised by the ruling class of successive generations for quite obvious reasons, and became the only accepted pattern for the writing of official histories.

Fortunately later historians adopted the ethic of pursuing the truth and the critical spirit associated with it. In *The Book of Han*, a dynastic history of that period, Ban Gu served as a pioneer by writing in a special biographic style, and as such this work holds an important position in the history of Chinese historiography.

1.2.1.5 *Sophisticated Science and Technology*

Zhang Heng and the Seismometer

The seismometer was invented by Zhang Heng (AD 78–139), the great scientist of the Eastern Han Dynasty, and is understood to be the earliest seismograph device created in the world. Made of refined copper, the seismograph looks like a wine goblet, with a dragon head in each of the eight directions, each holding a copper ball in its mouth. If an earthquake occurs in one direction, the copper ball of that direction will drop from the dragon’s mouth to the mouth of the toad beneath, thus serving effectively as an early warning device and giving direction as to where such a seismic event is happening.

Nine Chapters on Arithmetic

Nine Chapters on Arithmetic, a work with many authors, is a celebrated mathematical text aggregating all the great achievements in mathematics of its time since the pre-Qin period. The definitive edition came into being during the reign of Emperor He of the Western Han Dynasty. The algorithms for positive and negative numbers, proportional algorithms, fraction arithmetic, extraction of square roots, and extraction of cubic roots recorded in the book represented the most advanced algorithms, the formulae for which were created over a thousand years earlier than those later taken up in India and Europe.

Huangdi Neijing, Zhang Zhongjing, and Hua Tuo

Medical developments during the two Han dynasties were reflected in the establishment of a complete system of Chinese medical science and the emergence of eminent doctors. *The Yellow Emperor's Inner Canon* (*Huangdi Neijing*) is China's earliest existing book of medical theories, and the first to render a comprehensive exposition of Chinese medicine. It appeared in the late Warring States period (475–221 BC). It mainly expounds on anatomy, physiology, sphygmology, pathology, pathogenesis, and diagnosis. The book initially established the theoretical system of Chinese medical science, and it has remained an important reference book for clinical practice for several thousand years.

Zhang Zhongjing and Hua Tuo were the two most eminent medical specialists during the Han Dynasty (206 BC–AD 220). Both were active in the late Eastern Han Dynasty. Zhang Zhongjing was revered as a medical sage, while Hua Tuo was highly skilled at surgical operations and anesthesia and in China is deemed to have been the first doctor to perform surgical operations. It is believed his skill was the most advanced in the world at that time, and he was hailed as the founder of surgery in China by later generations of Chinese surgeons who followed closely his pioneering practices.

Cai Lun and Papermaking Technology

Cai Lun of the Eastern Han Dynasty improved on his predecessors' inventions in papermaking technology by boiling bark and raw materials with lime, thus making the plant fiber even thinner, increasing productivity and improving the quality of the paper.

1.2.1.6 The Silk Road

The Han Dynasty (206 BC–AD 220) started a new chapter in cultural communication between China and the West through the Western Regions. Miscellaneous fine goods, especially silk, were transported to the West through the Hexi (literally West of Huanghe River) Corridor of today's Gansu Province and the Western Regions, and China built up a commercial reputation for quality that it maintains to the present from a trade perspective.

1.2.1.7 Architecture

The Chinese system of architecture was initially created during the Qin (221–207 BC) and Han (206 BC–AD 220) dynasties. The architectural relics of the two dynasties are mostly notable for their grandeur. However, during the earlier, more intense Warring States period (475–221 BC), the Huns in the north frequently attacked the Qin, the Zhao, the Yan, and other states. For this reason, these states had no option but to protect themselves by building enclosures and walls around their villages and towns.

Great Wall

After the unification of China, the First Emperor of Qin had the Great Wall fortified and later connected the original walls. The Wall then received additional repair work in several later dynasties. Today, those parts of the Great Wall that are accessible to tourist buses or, in more remote areas, to hikers is still over 5500 kilometers long, and can be readily recognized by satellites circling the planet. Hence, like the Grand Canal, the Great Wall of China is clearly one of the greatest construction projects ever undertaken in world history. For this reason, it has become an enduring symbol of Chinese civilization.

Epang Palace

Built after the First Emperor of Qin's unification of China, the Epang Palace was constructed from wood and rammed earth and remained uncompleted when it was unfortunately burned to ashes by Xiang Yu, the leader of the peasant uprising in the late Qin Dynasty. It is believed that construction of the palace began in 212 BC, but only the front hall had been completed at the time the peasant riot and looting took place. Chinese archaeologists are believed to be still working on the site in recent times. The mausoleum of the First Emperor of Qin, in Lintong

Shaanxi Province, not only has grand surface structures, but also houses numerous burial objects in an underground palace. The excavated terra cotta warriors that have been excavated from the site reflect the vast scale of the project.

Dujiang Dam

This huge dam is located in Chengdu, Sichuan, and was constructed by a team led by Li Bing, the prefecture chief of Shu County, and his son during King Zhao of Qin's reign in the third century BC. This far-sighted piece of inspiration has meant that the Chuanxi (West Sichuan) Plain has been well supplied with water and thus the people living in this area have been able to produce abundant supplies of food to carry them through the harsh winters. Hence this area was appropriately named "the land of abundance." This impressive dam has allegedly survived for over 2000 years without a major failure, due to its original intricate and scientific design.

1.2.2 *From the Wei to the Southern and Northern Dynasties*

The Wei (AD 220–265), Jin (AD 265–420), and Southern and Northern dynasties (AD 420–589) were periods of political chaos. Notwithstanding the comparatively loose control of feudal orthodox ideas, it was an era characterized by scholarly liberty and a creative, lively atmosphere. The migration of northern and western ethnic minorities into the Central Plains accelerated national fusion and brought about a closer integration of diversified cultures. During the late Han Dynasty, Confucianism's decline made way for Xuanxue and Taoism to thrive. Han culture and the cultures that the ethnic minorities brought with them began to merge, culminating in the introduction to China of Buddhism, which later developed into one of the three essential spiritual pillars of Chinese culture.

1.2.2.1 *Co-existence of Confucianism, Taoism, and Buddhism*

The Rise of Xuanxue

The philosophy of Xuanxue, which developed in the period of the Wei and Jin dynasties, explores the arc of the universe and proposes the philosophical categories *you* (Chinese pinyin, meaning "having") and *wu* (not having/nothingness), *ben* (root) and *mo* (branch), and so forth.

Originating during the reign of Zhengshi of Cao Wei, it was developed based on the previous achievements of Lao Tse, Chuang Tse, and *The Book*

of *Changes*, among others. *Xuan* (metaphysics 玄) comes from the first chapter of Lao Tse, meaning profundity. Xuanxue threatened the predominance of Confucianism. Under its influence, a new attitude toward study was introduced that valued idle talk and debate, the quality of learning, the pursuit of argumentation, simplicity, and erudition.

The Rise of Taoism

Taoism as a school of thought originated in the late Spring and Autumn Period, and as a local religion, it first appeared in the Eastern Han Dynasty, and developed in the Wei, the Jin, and the Southern and Northern dynasties. It gradually developed into a complete set of religious ceremonies and commandments. The name Taoism came from Tao, its highest belief. Taoists regard Lao Tse as the founder of the religion; they follow the canons *Tao Te Ching* and *Zhuang Zi*, and aim at immortality. As frequent warfare during this period caused anxiety about life, Taoism, with its emphasis on immortality, began to prevail and flourished during the Sui and Tang dynasties. At this time, Taoism was seen as superior to Confucianism and Buddhism. The two Song dynasties, being the Northern Song (AD 960–1127) and the Southern Song (AD 1127–1279), witnessed another peak in Taoist development.

Prevalence of Buddhism

Buddhism, initiated in India, was introduced into China through the Western Regions. However, Buddhism only circulated among a few people of the upper class during the Eastern Han Dynasty period (AD 25–220). During the Wei (AD 220–265), Jin (AD 265–420), and Southern and Northern dynasties (AD 420–589), regular monasteries were gradually established, and the status and influence of Buddhism was greatly elevated. From such a base Buddhism began to spread widely and replaced Xuanxue as they predominant school of thought.³

³ Xuanxue is a loose term to describe those early features of Chinese philosophy that had existed for several thousand years prior to the rise of Taoism and so forth, traces of which can be found in the *Yi Jing* (*Book of Changes*), an ancient compendium of notes referring to worshipping practices as far back as the seventh century BC. The Warring States period (475–221 BC) was the major philosophical seed bed for the rise of Confucianist, Legalist, Taoist, and Mohist practices, some of which later fell into obscurity.

1.2.2.2 Novelty in Literature

The unparalleled intellectual activity during this period brought new trends in literature. The liberal style of prose was initiated in the Han and Wei dynasties. In poetry, a school arose that focused on descriptions of the countryside and landscape. Tao Yuanming and Xie Lingyun are the most famous poets of this school. Tao Yuanming, the founder of Pastoral Poetry, wrote *The Peach Blossom Spring*, widely read by later generations, while Xie Lingyun, the founder of Landscape Poetry, is known for his *Returning to the Mountains*. Liu Xie's *The Literary Mind and the Carving of Dragons* (*Wen Xin Diao Long*) is a masterpiece of literary criticism.

1.2.2.3 Achievements in Painting and Calligraphy

The Wei and Jin dynasties witnessed dramatic developments in calligraphy style, focusing on Regular Script, Cursive Script, and Semi-cursive Script, by a number of eminent calligraphers. For example, the work of Wang Xizhi, hailed as the Sage of Calligraphy, marks the culmination of different styles and possesses its own distinctive quality. His *Lanting Ji Xu* (*Preface to the Poems Composed at the Orchid Pavilion*) is famous worldwide. Another renowned calligrapher was Zhong Yao, whose greatest achievements were his works of Regular Script.

Another masterwork from this period is the tablet of the Wei Dynasty. Painting techniques had gradually matured and a number of famous painters appeared. Honored as the Ancestor of Painting, Gu Kaizhi was versatile and excelled in painting religious frescos and portraits. *Nymph of the Luo River* is one of his most famous works.

1.2.2.4 Zu Chongzhi's Pi and Jia Sixie's Qi Min Yao Shu

The most influential achievement of Zu Chongzhi, a prominent scientist, is the calculation of pi. He was the first in the world to calculate pi to the seventh decimal place. Dedicating his whole life to agricultural research, Jia Sixie systematically summarized the scientific and technological knowledge of agriculture on the banks and mounds of the Yellow River Basin during the Qin and Han dynasties in his book *Qi Min Yao Shu*.

1.3 FROM SUI TO SONG: THRIVING STAGE OF CHINESE CULTURE

The Tang (AD 618–907) and Song (AD 960–1279) dynasties are considered to have been the heyday of China's feudal society. The Sui Dynasty (AD 581–618) had ended the nearly 300-year division between the north and the south, and fostered greater unity and communication between the northern and the southern cultures. In terms of culture, there emerged the High Tang, embodying not only its own cultural aspects, but also adopting special features its rulers considered attractive not only from other Asian cultures but also from the West. Though not powerful in military terms, the Song Dynasty made great advances in economics, politics, and culture. Its cities were prosperous, with booming commercial activities and high levels of education among urban dwellers. Compared with the Tang Dynasty, its culture was less open but more elegant. Eye-catching achievements of the Song Dynasty include *Li Xue* (Neo-Confucianism), *Song Ci* (a variety of poetry), technology, architecture, painting and calligraphy, and ceramics.

1.3.1 *Culture of the Sui and Tang Dynasties*

1.3.1.1 *Imperial Examination System of the Sui and Tang Dynasties*

The talent-selection system of ancient China underwent many shifts in style over the ages. First initiated in the context of a primitive clan society, it was transformed according to a hereditary system served by a slave society, to that of a recommended test system in the early Han Dynasty, and then to a Jiuping Zhongzheng system in the Wei, Jin, Southern and Northern dynasties. This old examination system was then upgraded further to a much stricter imperial examination system in the Sui (AD 581–618) and Tang (AD 618–907) dynasties, which served for many years as the main talent-selection system in the late feudal society. It was considered fairer and more standardized for the examinee and focused more on an examinee's personal capabilities, their competence and knowledge, rather than their familial upbringing, inheritance and social standing. In this way it was a clear departure from the system in which success was related to family ties and "clan" power, such that it broke the monopoly on power that the powerful clans had held for hundreds of years.

This era saw the selection of a wide field of talents from all walks of life, and opened up a potential path to promotion for people who were otherwise looked down upon as commoners. Thus, the cultural center of the nation was able to move downwards as well as upwards, and the foundation of the ruling classes was expanded. Hence from the Tang Dynasty onwards this examination system itself became a major feature of Chinese culture. It also endured for an extraordinarily long period of time, with the last examinations taking place in 1904. Since most examinees were selected from existing schools, this long-standing imperial examination system also served as a natural catalyst for the development of a general public schools system in China, as rudimentary as it might have been at that time.

1.3.1.2 *Poetry of the Tang Dynasty*

For most Chinese literati—those who love and study literature—the most important achievement of Chinese literature is considered to be its poetry, and the peak period of early Chinese poetry is generally accepted as the Tang Dynasty (AD 618–907) era. *Poetry of the Tang Dynasty*, compiled in the Qing Dynasty (AD 1644–1911), alone comprises more than 48,900 poems by more than 2300 poets. During this dynasty, many outstanding poets and poems emerged, with thought and art perfectly combined in a loving union. Due to the sheer volume of work produced, it is categorized according to four distinct periods—Early Tang, High Tang, Middle Tang, and Late Tang—in *The Collection of Tang Poetry*, compiled by Gao Bing during the Ming Dynasty (AD 1368–1644), and poetry critics have tended to apply these categories ever since.

Poetry of the Early Tang

The poetry of the Early Tang Dynasty (AD 618–712) is represented by four great poets—Wang Bo, Yang Jiong, Lu Zhaolin, and Luo Binwang—who actively explored new themes and metrical forms. The typical representatives are Lu's "The Ancient Chang'an," Luo's "On the Capital of Tang," Wang's "On Tengwang Pavilion," and Yang's "Joining the Army." Zhang Ruoxu, another poet of this period, left only a couple of poems in history, but his "Moonlight on the Spring River" has been revered as "the most overwhelming of all Tang poetry." The famous poet Chen Zi'ang made great contributions to poetic theory and was renowned for his propositions or literary requirements of "*fenggu* (风骨 strength of character)" and "*xingji* (兴寄 analogy and contrast)".

Poetry of the High Tang (AD 713–765)

The High Tang Dynasty (AD 713–765) was a special period in China's history characterized by enlightened politics, a prosperous economy, a strong nation, and cultural prosperity. In this context, the poets of the era boldly cultivated a forthright temperament and pursued advanced political ideals. The themes of making a contribution to the country and fighting against the elite by the common people became the core of High Tang poetry. For example, the famous poet Wang Zhihuan wrote in his "On the Stork Tower": "You can enjoy a grander sight, by climbing to a greater height."

Other famous poets of this era include the naturalists Wang Wan and He Zhizhang; the pastoral poets Meng Haoran and Wang Wei; and poets with a firm but beautiful style, such as Cui Hao, Wang Zhihuan, Wang Changling, and Wang Han. There were also frontier fortress poets, such as Gao Shi and Cen Shen, and of course Li Bai and Du Fu, respectively revered as Poet Immortal and Poet Sage. Li Bai, with bold imagination, created a mysterious world, pushing romantic poetry and art to its peak. By contrast, Du Fu, with his profound and forceful thought, depicted a bloom-to-doom transition of the Tang Dynasty before and after the Anshi Rebellion.

Poetry of the Middle Tang (AD 766–835)

When the Anshi Rebellion was over, society had descended into complete chaos. Military governorships plagued the land, with the power of the eunuchs expanded, and clique disputes flooded the whole society, further compounding the sense of crisis. Thus, concepts such as romance and forthrightness, prominent aspects of High Tang poetry, were replaced by depressed, anxious and sorrowful moods.

Poets such as Liu Changqing, Wei Yingwu, Liu Zongyuan, and Liu Yuxi turned from the depiction of nature to the expression of inner anxiousness. The Yuan–Bai School, represented by Yuan Zhen and Bai Juyi argued that "Articles should reflect the time; poems should reflect the current affairs." Their poems were mainly about public weal and woe, and social evils. The Han–Meng School, represented by Han Yu, Meng Jiao, Jia Dao, and Li He, proposed that poets should "avoid using cliché" and argued that "injustice provokes outcry." They made bold innovations in poetic language to express their own thoughts.

Poetry of Late Tang (AD 836–907)

With corrupt politics, domestic troubles, and foreign invasion on the horizon, China was on the brink of imminent subjugation. Facing this reality, poets were lamenting and searching for positive examples of substance,

such as “The setting sun seems so sublime; O but it’s dying time,” as stated in Li Shangyin’s “On the Plain of Tombs.”

1.3.1.3 *Calligraphy, Painting, Music, and Dance*

Painting

Painting in the Sui (AD 581–618) and Tang (AD 618–907) dynasties, and especially in the Tang, features bright colors, gorgeousness, and magnificent style, and covers a wide range of subjects. There were a number of famous masters in the early Tang Dynasty, including Yan Lide, Yan Liben, Zhang Xuan, Li Sixun, Wang Wei, Han Gan, and Wu Daozi, collectively known as the Painting Giants. Yan Liben’s figure painting has symmetric composition, skillful techniques, and vivid description. Yan’s representative works are “Bunian Tu” and “Emperors.” Wang Wei built on previous developments in landscape painting in the former dynasties. He was the first to draw ink landscape painting, known as “Painting in poetry, and poetry in painting.” He is also regarded as the forefather of the Southern School of painting.

By contrast, Wu Daozi’s frescos are vivid, especially his depictions of clothing, known as the “Wu style (with clothes in his paintings looking like they are blowing in the wind).” He founded Baimiao (outline drawing), in which only sketches are needed to make a picture. Together with Zhang Sengyao, they are collectively referred to as the “sparse painters.” The achievements in mural art in this period were unprecedented: the Mogao Grottoes in Dunhuang Gansu Province and the Thousand-Buddha Cave in Kuche Kizil Xinjiang are among the world-renowned art treasures from the Tang Dynasty.

Sculpture

Sculpture was also further developed in these two dynasties: the Mogao Grottoes in Dunhuang, the Longmen Grottoes, and the Leshan Giant Buddha are typical examples. Among the most famous sculptors is Yang Huizhi, known as the Sculpture Giant. The construction of the grottoes of Dunhuang began in the Sixteen States period.⁴ Subsequently, many

⁴The period of the “Sixteen States” is normally referred to as that of the “Sixteen Kingdoms,” which lasted for a relatively short period in China’s long history (AD 304 to 439). During this period the governance of northern China was broken up into a series of short-lived sovereign city states, most of which were founded by ethnic minority groups who

dynasties continuously cut grottoes in Dunhuang, but the works carried out during the Tang Dynasty are rated to be of the highest value. The grottoes of Dunhuang gradually become a treasure house of broad and profound Buddhist art. It includes building, painting, and sculpture, all of which express Chinese national characteristics.

Ceramics

Chinese ceramics can be divided into three stages: pottery, primitive porcelain, and porcelain. The third stage, which began in the Sui (AD 581–618) and Tang (AD 618–907) dynasties, is characterized by high-temperature baking. Porcelain is widely used due to its firm texture. It was not until the Tang Dynasty that the concept of the *Yao* (kiln) came into being. Pottery and pottery figurines from this period usually feature yellow, green, and blue glazes, and are therefore referred to as “Tang Tri-colored.” A famous example from this period is the “Camel Carrying Musicians.”

Primitive blue and white porcelain (BWP) appeared in the Tang and Song dynasties, while mature BWP was produced in the Hutian Kiln in Jingdezhen Jiangxi Province during the Yuan Dynasty. The BWP of the Ming Dynasty was the mainstream. The art of producing BWP reached its peak during the Kangxi Emperor period. In both the Ming (AD 1368–1644) and Qing (AD 1644–1911) dynasties, there were various derivatives such as five-colored BWP, peacock green glaze BWP, pea green glaze BWP, red BWP, yellow BWP, and crackle glaze BWP.

Calligraphy

Calligraphy in this period reached a new level of sophistication, with the emergence of a large number of famous calligraphers: Yu Shinan, Ouyang Xun, Chu Suiliang, and Xue Ji from the Early Tang; Yan Zhenqing and Zhang Xu in the High Tang, with Zhang Xu revered as the Cursive Script Master; Liu Gongquan in the Middle Tang. Yan Zhenqing, in absorbing his predecessors' achievements and adding his own features, formed the Yan School, referred to as the high point in Regular Script for that period. On the other hand, Liu Gongquan was famous for the neatness of his script and his patriotic love of his emperor. Such work became quite influential and served as the foundation for the development of later Chinese characters.

had previously settled in northern China and had participated in the overthrow of the Western Jin Dynasty (AD 265–316) in the early fourth century, and then were subsumed on the reunification of the north in the Northern Wei Dynasty in the fifth century.

From such historiography it can be seen that the current structure of modern Chinese characters was essentially derived from the work of the Liu School of script writers.

Music and Dance

In the Wei (AD 220–265), Jin (AD 265–429), and Southern and Northern (AD 420–589) dynasties, due to the expansion of cultural exchanges, the forms and content of music became much richer. However, because of separatist unrest, the government during these periods failed to collect most of the creative folk music being generated at the time. Nevertheless, during the Sui (AD 581–618) and Tang (AD 618–907) dynasties, Chinese folk music entered into a golden period of development. In the Sui Dynasty (AD 581–618), music organizations were set up, such as the Taile, Qingshang, and Guchui music office organizations, with folk music at that time proving to be very popular. During this period dances on banquet days gained unprecedented popularity. Meanwhile, as both national and international cooperation deepened, music and dance absorbed the essentials of other forms from both home and abroad. Hence many types of dances were performed, including soft dance, short dance, and sword dance. It is worth noting a special feature of this period, the famous “Feather Dress Dance.” This was initially a solo dance devised by Yang Yuhuan, who later choreographed it to serve as a group dance extravaganza, which became an impressive representative of Chinese–Indian dance style.

1.3.1.4 Architecture in the Sui and Tang Dynasties

The Grand Canal

China’s water transportation structures have since ancient times been a key element in the country’s environmental landscape. The play *Yu Gong*, based on the story of King Yu combating the flood, reflects well the environmental challenges that were perennially faced by China’s ancient and extensive water transportation system. Waterway construction during the Han Dynasty (206 BC–AD 220) was greatly advanced, while the most famous project was the construction of the Grand Canal in the Sui (AD 581–618) and Tang (AD 618–907) dynasties. It was during the reign of the Suiyang Emperor (AD 569–618), affectionately known as Emperor Ming (nicknamed Amo), that large-scale integrated digging began, in order to link the heroic works commenced 1000 years earlier—in 480 BC, the construction of a canal joining the Yangtze River to the Huai River,

and later the Yellow River to the Huai River. The Grand Canal starts from Yuhang, via Jiangdu and Luoyang, and progresses up to the northern city of Zhuojun. The main reason for its creation was to facilitate the transport of food products from the southern grain-growing provinces to China's northern provinces with their shorter summers, and in particular the principal city of Beijing.

The canal has three sections: the Tongji Canal, the Yongji Canal, and the Jiangnan River; and it connects five waterways: the Haihe, Yellow, Huaihe, Yangtze, and Qiantang rivers, forming the longest man-made waterway in the world—1100 miles from Beijing in the north to the city of Hangzhou in the south. Ever since its completion in AD 690 it has played a significant role in facilitating north–south economic and cultural exchanges and the consolidation of national unity. The canal was upgraded during Tang Xuanzong's (AD 685–762) reign. Today, after countless dredgings and extensive rebuilding, it remains the world's longest navigation canal.

Zhaozhou Bridge

Zhaozhou Bridge, also known as Anji Bridge, was designed by Li Chun, who presided over the construction, and was built in Zhaoxian County, Hebei Province in AD 591–599. The famous bridge is the oldest extant one-vault arch stone bridge in China. It was the first such bridge to employ a shoulder-arch style and four-vault design. Even in today's era of high technology, the Zhaozhou Bridge style of construction is still widely used in modern reinforced concrete bridges.

1.3.2 Culture of the Song Dynasty

1.3.2.1 The Rise of Neo-Confucianism

Neo-Confucianism is in fact a high-level development of Confucianism, Taoism, and Buddhism. It was formed in the middle of the Northern Song Dynasty period. During the Yuan Dynasty, it played an important role in controlling social politics, the economy, and culture, and it had a profound effect on all aspects of Chinese society thereafter. The Neo-Confucianism of the Song Dynasty can be divided into three periods: beginning, foundation, and peak. The originator of Neo-Confucianism was Zhou Dunyi in the Northern Song Dynasty (AD 960–1127). He combined ancient concepts, including yin and yang, the five elements, and dynamic and static, and established the ontology that “Wu Chi leads to Tai

Chi,” holding to the precept that the origin of the world is the real but invisible matter. He constructed the “Tai Chi Symbol,” providing direction for the development of Neo-Confucianism.

School of Principle

According to this basic theory, Neo-Confucianism can be divided into two precepts. The first is referred to as the School of Principle, led by Zhou Dunyi and Cheng Yi in the Northern Song Dynasty, and Zhu Xi in the Southern Song Dynasty. They believed that there existed a “Heavenly Principle” before the universe came into being. It determined the destiny of nature and humans. They considered the ethical principles of Confucianism as the universal law, which was a solid basis of ontology. Zhu Xi, the most influential scholar in the history of Neo-Confucianism, absorbing the theories of Zhou Dunyi, Zhang Zai, Cheng Hao, and Cheng Yi, put forward the slogan “save Heaven Principle, abandon Human Desire” and required that people abide by feudal ethics and remain subject to feudal rule. His theories were later elevated to orthodoxy by the rulers. For example, under the rule of law a man needs to be protected from himself by firm laws, and if they are disobeyed he will be punished through the medium of trials and court systems in the name of justice.

School of the Mind

The other precept is referred to as the School of the Mind, represented by Shao Yong and Cheng Hao in the Northern Song Dynasty, by Lu Jiuyuan in the Southern Song Dynasty and later by Wang Yangming in the Ming Dynasty. They argued that the “Heaven Principle” was in the heart of man, and therefore “the universe was my heart, my heart was the universe.” They considered the human heart (or mind) as the moral subject which determined the moral law, focusing on the initiative of the subject in moral practice. The School of Principle and its later development (the School of Mind) stressed the ethical subject, and so pushed to the extreme the traditional spiritual emphasis on ethics, which resulted in a complex cultural effect. Neo-Confucianism lasted from the eleventh century to the middle of the seventeenth century, influencing Chinese culture for more than 600 years, and remains to this day a milestone in the history of Chinese thought.

1.3.2.2 Song Ci (Poetry of the Song Dynasty)

In the history of literature, the Song Dynasty (AD 960–1279) is famous for its *Ci*. There appeared during this period many masterpieces by great writers. In contrast to the poetry of the Tang Dynasty, *Ci* stems from folk

songs and possesses two characteristics. One is that *Ci* belongs to “song,” which means it is more musical; the other is that *Ci* is more concentrated and typical in showing the temperament of the Chinese literati.

Ci as a public medium first appeared in the Sui Dynasty (AD 581–618), but became more entrenched and popular in the Tang Dynasty (AD 618–907), with the composition of the music more prominent than the singing until much later in that dynasty, hence the composing of *Ci* was generally more popular at that time. One of the most renowned artists was Wen Tingjun. Under his influence, there emerged the School of Depicting Women in the Five Dynasties and Ten Kingdoms era (AD 907–960). Li Yu, Emperor of the Southern Tang, was the most influential supporter of this style.

In the Song Dynasty (AD 960–1279), the creation of *Ci* became even more spectacular in the work of a great number of outstanding writers. The renowned written work entitled “Eight Giant Literati in Tang and Song” lists six of them: Ouyang Xiu, Zeng Gong, Wang Anshi, Su Xun, Su Shi, and Su Zhe. With extensive support, great masterpieces were written in a wide variety of styles and genres. In terms of posterity, many experts in this field consider *Ci* to be the most influential literary achievement in the Song Dynasty.

Hence it can be seen that in terms of historical evolution, Tang poetry and Song *Ci* have become the predominant representatives of ancient Chinese culture. The style of works from the Southern Song Dynasty is slow, descriptive, and elegant, while that of the Northern Song is slow, fresh, and implicit, due to its inheritance from the late Tang Dynasty. The most famous artists of this genre are Fan Zhongyan, Ouyang Xiu, Yan Shu, and Liu Yong. Liu Yong was famous for his slow *Ci* presentations that emphasize the use of multiple levels of expression. The main representative in the middle period of the Northern Song Dynasty is Su Shi. He reformed the *Ci* style to be bold and vigorous. In the late Northern Song Dynasty, there existed two schools: the Bold, led by Huang Tingjian, and the Graceful, led by Qin Guan and Zhou Bangyan.

In the early Southern Song Dynasty, Chinese society was in complete turmoil, and hence the reflective content of *Ci* became sad and dreary, of which the work of Li Qingzhao is a classic example. She was a representative of the Graceful school. Later styles changed again, with famous writers such as Xin Qiji and Lu You coming onto the scene, and in the late Southern Song Dynasty, the Elegant School, led by Jiang Kui, Wu

Wenying, and later Wen Tianxiang, came to the fore. In later dynasties *Ci*'s popularity declined as it came to be considered old-fashioned, and other literary forms took its place.

1.3.2.3 *Education in the Song Dynasty*

China's ancient education system was initially created in the Pre-Qin period, but more formally developed in the Han (206 BC–AD 220) and Wei dynasties (AD 220–265). In the Sui (AD 581–618) and Tang dynasties (AD 618–907) it became further developed, and especially so in the Song Dynasty, which augured well for the development of China's ongoing culture. During this period the ruling class attached great importance to education, stressing "Literary Governance" and "Cultural Education," which remained an important social policy and priority commitment in respect to the development of local schools. At that time there were three movements that promoted education: the Qingli Movement chaired by Fan Zhongyan, the Xining Movement presided over by Wang Anshi, and the Chongning Movement led by Cai Jing. These were groundbreaking times in terms of public awareness of the need to establish an official education system, with educational administrative bodies responsible for local official schools, which were permitted to offer a diversity of categories of learning. Classical academies were also created, a number of which survive to this day, for example the Bailudong, Yuelu, Shigu, Suiyang, and the Songyang.

1.3.2.4 *Calligraphy and Painting in the Song Dynasty*

There was a special agency for leading painting talents in the Shang Dynasty. Since the Tang and the Five Dynasties, division of labor gradually became clear, painting academy appeared. In the Northern and Southern Song Dynasties, academy system was the most complete. Zhao Jishi, a famous painter, founded the first Chinese Royal Academy of painting. The Song Dynasty produced the famous flower-bird painter Huang Quan, the landscape painter Jing Hao, the figure painter Li Gonglin, and other famous painters such as Mi Fu and Fan Kuan. The most famous painting of the Song Dynasty is unquestionably Zhang Zeduan's "Riverside Scene at Qingming Festival," which is 528.7 centimeters in length. It is a panoramic view of the living conditions of Chinese society at that time.

Famous calligraphers in the Song Dynasty included Su Shi, Huang Tingjian, Mi Fu, and Cai Xiang. Their works embodied the rule-to-interest transition of calligraphy style in the earlier Tang Dynasty (AD 618–907).

Another achievement in the Song Dynasty was a new character style—referred to as the Song Style. It originated with printing artisans of the Song Dynasty, and was taken up by later generations for use in book printing.

1.3.2.5 *Historiography in the Song Dynasty*

The Song Dynasty (AD 960–1279) is an important period in the development of Chinese historiography. Key works of the period include the *Five Dynasties' History*, supervised by Xue Juzheng; Ouyang Xiu's *New Five Dynasties' History*; and *New Book of Tang*, compiled by Song Qi and Ouyang Xiu. However, the most outstanding analytical history produced in this era is *Zizhitongjian* (*History as a Mirror*), which was compiled by Sima Guang, Liu Nu, and Fan Zuyu. It comprises 294 volumes in total, providing historical experience and lessons in life that no other set of history books could possibly offer. Thus, “Tongjianxue” (study of this book) was formed. It was related to “Historical Records” in the eyes of later generations, and is generally referred to among Chinese who possess a love of history as China’s “best ancient history book.”

1.3.2.6 *Technology in the Song Dynasty*

The rapid development of science and technology in the course of the Song Dynasty commanded great respect from the rest of the world, for it consisted essentially of an all-round development process, including advances in geography, geology, medicine, metallurgy, shipbuilding, and textiles. As for the famous Four Great Inventions—papermaking, printing, gunpowder, and the compass—the Song Dynasty created three of those, to its great credit.

Papermaking was first invented in the Han Dynasty (206 BC–AD 220) and then developed further in the Tang Dynasty (AD 618–907) with the government of that time setting up many paper mills, such that by the Song Dynasty, papermaking as a new technology had become even more sophisticated.

Chinese ancient printing processes went through two stages of development, beginning with woodblock printing and progressing to movable-type printing. Woodblock printing had been invented in the Sui and Tang dynasties, with its origins in the engraving of Buddha statues, Buddhist scriptures, poems and calendars, medicine books, and so on. However, in the Song Dynasty, woodblock printing made remarkable progress, expanding further into both copperplate and color printing.

A quantum leap forward in this field occurred during the period 1041–1048, when Bi Sheng invented movable-type printing, which was both time-saving and material-saving. It became a milepost in world printing history. The popularization of printing and its far greater speed and ease of production was certainly a turning point in history in terms of tangible means for the spread of culture, education, and thereby cultivation of talents. In addition, the transmission of traditions was made easier and more accurate through printing in the form of books on quality parchment paper, and was no longer dependent on them being passed down orally by village elders, who at any moment might become deceased.

The compass, based on the use of magnetic forces, was another great invention of this period in China. Compass could be structured by different methods, including water-floating, thread-suspending, and claw-pointing. It is interesting to note that the compass was initially employed as one of the tools of a Feng Shui master, who would use it in ceremonial investigations. Only later, in the late Northern/Southern Song dynasties, was it developed further for use as a tool for navigation.

It was thanks to the invention of the compass that the famous imperial eunuch Admiral Zheng He was able to gain clearance from the Yongle Emperor (AD 1403–1424) to engage in his famous seven voyages in a flotilla of massive seagoing junks, on a scale which the world had never seen before, nor has it seen since. These Chinese seagoing junks were of such dimensions that they made the Western seagoing vessels of that period appear to be minute midgets by comparison in terms of size, dimensions, and sail area.

By means of the Silk Road, or perhaps otherwise, the compass was introduced into Arabia and Europe during the twelfth and thirteenth centuries. It revolutionized long-distance sea travel and enabled a more complete mapping of the world's land surfaces.

Gunpowder was initially invented for use as a device of war, to break down defense barricades of stone and stout timbers around cities or townships using heavy cast iron cannons. The invention was considered to be the work of wizards' alchemy in the Wei and Jin dynasties. It was first recorded as being used in military applications in the Northern Song Dynasty in the course of the Anti-Jin War. Such magical weapons of formidable destruction that could in time destroy a city wall were given special names, such as "Bang Cannon" and "Zhentianlei (Shaking-the-Sky Thunder)."

In addition to the development of these Four Great Inventions, the Song Dynasty also witnessed other major inventions in the fields of astronomy, mathematics, medicine, and architecture. A famous book entitled *Brush Talks from Dream Brook*, written at the time by a notable scientist, Shen Kuo, in the Northern Song Dynasty, covers in detail the major scientific achievements of the Song Dynasty. This magnum opus consists of no less than thirty volumes, and covers subjects such as mathematics, astronomy, geography, geology, meteorology, physics, chemistry, metallurgy, water conservancy, weapons, architecture, medicine, flora, and fauna. It is a monumental work that records the highest achievements of Chinese science and technology at that time.

1.4 FROM THE YUAN TO QING DYNASTIES: CONSOLIDATION OF CHINESE CULTURE

The Yuan Dynasty (1271–1368), although not long-lasting, was a dynasty of national integration with active communication exchanges between the Chinese and Western cultures, which helped promote cultural diversity.

In the Ming Dynasty (1368–1644), creative ideas were not encouraged and experimentation was officially not permitted. However, the shipbuilding industry was advanced at the time, and Jesuits started to bring Western science and technology to China.

In the Qing Dynasty (1644–1911), Chinese political and economic development experienced another prosperous period in the so-called Kang-Qian Golden Age. However, a closed-door policy to the West cut down meaningful discourse just at the time when major advances in the areas of industrial development and the sciences were rapidly advancing from the early eighteenth century onwards in the West.

1.4.1 *Practical Science in the Ming and Qing Dynasties*

Notwithstanding international affairs, the Ming and Qing dynasties experienced early enlightenment with the emergence of a number of progressive thinkers, such as Huang Zongxi, Gu Yanwu, Wang Fuzhi, and Fang Yizhi, who criticized the feudal autocracy and obscurantism then in existence, and proposed that a state or society should not be ruled based on issues such as ownership of wealth and personal belongings (Wang Fuzhi), but rather a law of caring and “Everyone is responsible for his country” (Gu Yanwu). Such acolytes wished to see a shift away from the then

existing fiefdom mentality to a more rational balance for China's society in which "both agriculture and business are the fundamentals" for China's further development. The major criticism then starting to be raised was that the Confucian-style imperial examination system was out of touch with the realities of the fast-growing industrial age of the nineteenth and twentieth centuries, and that a new ideological and cultural system needed to be put in its place at the earliest opportunity. Hence as the long-lived Qing Dynasty (1644–1911) was drawing to a close, influential Chinese writers such as Gong Zizheng argued that it was time to review China's traditional cultural values and thoughts and to begin a modern transformation by initiating a new era of cultural integration.

1.4.2 *Introduction of Christianity and Islam*

Christianity was introduced into China as early as the Tang Dynasty (AD 618–907). In the Ming and Qing dynasties, with the founding of colonies around the globe by European powers, Western missionaries saw China as a vast source of new opportunities. For instance, the famous missionary Matteo Ricci, with courage and wisdom, not only kept a foothold in China but also attracted a number of Christian followers, including several influential Chinese such as Xu Guangqi, Li Zhizao, and Yang Tingyun.

Later famous missionaries including Johann Adam Schall von Bell and Ferdinand Verbiest played an important go-between broker's role in promoting cultural exchanges between China and Western nations in areas such as Western science, philosophy, as well as religious perspectives into China of the one part, and on the other exposing Westerners to the uniqueness of Chinese culture, its philosophies and religions such as Buddhism, Islam, and Taoism.

In the Ming and the Qing dynasties, Islam in particular spread widely across China and took on specific Chinese features, which were shaped through the formation of ten ethnic groups including the Uighur, Hui, Kazak, Tajik, Kirgiz, Uzbek, Salar, Bao'an, Tatar, and Dongxiang. Islam played a positive role in the formation of these nationalities. Furthermore, in the establishment of the Ming Dynasty, the Hui made great contributions to national unification. Therefore, Islam underwent extensive development in the Ming Dynasty. The famous extant mosques in China, such as the Dongsì Area in Beijing, the mosque in Chengde Hebei Province, and the mosque in Lhasa Tibet, were created or rebuilt in the Ming and Qing dynasties.

1.4.3 *Academic Integration*

In the course of the Ming (1368–1644) and Qing (1644–1911) dynasties, the traditional academic focus of successful scholars was as follows: to effect empirical research tasks which relate to ancient literature, and to compile large series and collections comprising primarily reflections on past achievements and not so much new discoveries. In terms of book research, rulers of the Ming and Qing dynasties mobilized a large amount of manpower to collect and list systematically the classic books that had been written in China over thousands of years and to look after and preserve editions or copies of the obvious “showpiece” giant cultural works, such as *Yongle Encyclopedia*, *Collection of Ancient and Modern Books*, *Kangxi Dictionary*, and the ancient *Si Ku Quan Shu* (a complete library of the four branches of literature).

During the Ming and Qing dynasties, a number of science and technology works of major literary merit were completed, including Li Shizhen’s *Compendium of Materia Medica*, Pan Jixun’s *A Glance of River Engineering*, Xu Guangqi’s *The Book of Agriculture*, Song Yingxing’s *Exploitation of the Works of Nature*, Xu Xike’s *Travels of Xu Xike*, and Fang Yizhi’s *Physics Knowledge*.

1.4.4 *Zaju and Novels*

Zaju (a variety of drama) appeared in the Jin Dynasty and became popular in the Yuan Dynasty. It consisted of a combination of *Zaju* of the Song Dynasty, drama of the Jin Dynasty, Shaanxi drama, and Northern folk songs. This form of singing achieves its dramatic effect by its lyrics and tune. Its form is that of narrative, but the tone and presentation is lyrical. Guan Hanqing was one of the most outstanding Yuan Dynasty writers, known as the Legendary Leader. He created over sixty masterpieces, among which *Injustice to Dou E* was the most famous work. Other famous works include Wang Shifu’s *The West Chamber*, Bai Pu’s *Wutong Yu*, and Yang Xianzhi’s *A Rainy Night in the Riverside Station of Xiaoxiang*. Experts and critics are of the view that the Yuan *Zaju* marks the essential foundation stone of Chinese cultural drama, and through it China has become an opera giant on the world stage.

A “novel” is a written work that tells a story about the happenings and personal recollections or feelings of a person or people in certain situations to which their readers can relate well. This was a very popular form of literature

in the Ming and Qing dynasties. This literary genre appeared in China beginning with the “Ghost Stories” of the Wei and Jin dynasties (AD 220–420), then continued on in the later Tang, Song, Yuan, Ming, and Qing dynasties, when both its ideological content and its artistic techniques reached a very fine level of storytelling. The most famous and highly regarded great masterpieces of China include Luo Guanzhong’s *The Romance of the Three Kingdoms*, Shi Nai’an’s *Water Margin*, Wu Cheng’en’s *Journey to the West*, and Cao Xueqin’s *A Dream of Red Mansions*. In addition, Lanlin Xiaoxiaosheng’s *Jin Ping Mei*, Feng Menglong’s *San Yan* (“三言”: *Yushi Mingyan*, or common words to enlighten the world; *Jingshi Tongyan*, or common sense words to warn the world; and *Xingshi Hengyan*, or eternal words to awaken the world), together with Ling Chuchu’s editing of *Er Pai* (“二拍”: *First Strike Surprises* and *Second Strike Surprises*), Pu Songling’s *Liaozhai Zhiyi* (*Records of Wonders*), and Wu Jingzi’s *The Scholars*, are all widely accepted as Chinese masterpieces.

1.4.5 Cultural Exchange Between China and the West

The cultural exchange between China and foreign countries in the Yuan Dynasty (AD 1271–1368) was as productive as it could ever have been, and quite opposite to that during the troublesome and traumatic Qing Dynasty. The reason is by that time there was frequent communication between civilizations of the East and West. Transportation in and out of China was quite smooth, and it allowed visiting envoys to have a more accurate and better understanding of China’s concerns and aspirations. Most people are familiar with the legendary Marco Polo, who arrived in Dadu (now Beijing) in 1275, and was in service to the imperial government until 1292, when he left China for good. His recollections of that period, *Travels of Marco Polo*, gave high praise to life in China at that time.

In terms of maritime affairs, the shipbuilding industry prospered and the Yuan Dynasty conducted valuable cultural exchanges with the many Western countries with which it traded. Furthermore, over 140 countries had built meaningful economic and trade connections with China via the maritime Silk Road, while the number had only reached fifty in the Song Dynasty.

During the Ming Dynasty, China’s sea power had been greatly developed. From 1405 to 1433, the famous imperial eunuch Admiral Zheng He completed no less than seven major tributary visitations with a large flotilla of oceangoing junks to countries in Southeast Asia, South Asia,

and East Africa. In the course of these lengthy voyages he visited thirty countries and regions, promoting the development of East–West economic and cultural exchanges.

1.4.6 *Architecture of the Yuan, Ming, and Qing Dynasties*

The Yuan, Ming, and Qing dynasties were also periods of great civil development in terms of Chinese architecture and construction technology.

1.4.6.1 *Dadu City of the Yuan Dynasty (Beijing)*

Dadu became the largest newly built city and China's new capital in the early 1400s by order of Zhu Di, the Yongle Emperor, after seizing control of the empire, as the fourth son of the Hongwu Emperor, who was the founder of the Ming Dynasty. Immediately prior to that, Nanjing in the south had been China's capital. He then personally directed an ambitious new building program that would make Beijing well known internationally as one of the world's most majestic cities of that period.

1.4.6.2 *The Imperial Palace*

The Imperial Palace was built to the same design as a palace first constructed in the earlier Yuan Dynasty. The whole complex was symmetrically distributed, with a clear spatial hierarchy according to its functional purpose. It is currently the world's largest wooden building.

1.4.6.3 *The Ming Tombs*

This historic site houses the mausoleums of thirteen emperors. It is located in Tianshou Mountain in Changping County, northwest of Beijing. It is the most complete and the best at taking use of topography.

1.4.6.4 *Suzhou Garden*

In its heyday in the Ming Dynasty, the Suzhou Garden was a private garden, a beautiful site framed by distant mountains, water, spring, and stone, together with flowers, grass, and trees, with wood as its primary background. To increase the sense of tranquility and relaxation it also featured booths, stands, pavilions, and platforms where one could greet close friends, yet be close to the beauty that only nature can provide. The garden possesses a unique style. The most famous vistas are four separately sculptured gardens: Zhuozheng Garden, Liu Garden, Lion's Woods, and Canglang Pavilion.

1.4.6.5 *Old Summer Palace*

The Old Summer Palace of the Qing Dynasty is located in northwest Beijing and contains the Changchun Garden and Yichun Gardens. It is based on the traditional garden art of China. It was in the past designated as a royal garden with high artistic merit, and was known as “the best Garden among a thousand Gardens.” Unfortunately, in 1860, it was destroyed by the Allied forces.

1.5 CHINESE CULTURE IN MODERN TIMES

The First Opium War in 1840 marked the start of the modern era in China. It was at this point that Chinese officials and academics with a sense of vision began to look to the West to search for a way to make their nation stronger by observing and adopting where appropriate Western ways of doing business and to keep pace with technological developments occurring overseas.

1.5.1 *The Evolution of Political Thought*

1.5.1.1 *“Opening the Eyes to See the World”*

The defeat of China in the First Opium War in 1840 undermined the previously unspoken belief that China could be a nation unto itself. Among the ranks of the Chinese bureaucracy, it became painfully clear that if China wished to keep pace with the nations around it and not be left behind due to a lack of modern inventiveness, which had previously been one of its great strengths, it would need to engage in and closely study overseas developments.

Lin Zexu, referred to as “the first modern Chinese eyes to see the world,” wrote an extensive book titled *Records of Four Continents*. Wei Yuan, in *Records of Maritime Countries*, proposed that there should be a healthy “debate between China and foreign countries.” In the late nineteenth century, Yan Fu translated the most advanced Western scientific and cultural achievements into Chinese, including evolutionary theory, British classical economics, sociological theory, logic, and methodology. These initiatives were undoubtedly constructive in fostering and promoting cultural exchange with the West.

1.5.1.2 *The Westernization Movement and Bourgeois Reform Thought*

After the Second Opium War (1858–1860), Prince Gong (Yi Xin) and officials such as Zeng Guofan, Zhang Zhidong, Li Hongzhang, and Zuo Zongtang began a Westernization Movement in order to introduce new modern Western technologies to Chinese business entrepreneurs, hoping to make China stronger and wealthier and to make the Qing Dynasty more stable.

This Westernization Movement started its mission by focusing on issues relating to military practices and equipment and Western finance, then manufacturing, transportation, finance, postal services, and publishing. This movement was very much in favor of the practice of sponsoring Chinese academic scholars going overseas. However, unfortunately the Westernization Movement proved a total failure when the imperial navy was destroyed in the war against Japan in 1894–1895.

Realizing that introducing Western science and technology had done little to make the nation rich and powerful, many scholars turned to political reform. The 1898 Reform Movement, consisting of Kang Youwei, Liang Qichao, Tan Sitong, and Yan Fu as key representatives of the Westernization Movement, has been accredited with being the first Chinese ideological liberation movement in modern history. These men proposed that China should learn about not only Western science and technology, but also Western culture, including its political systems. In their meetings they put forward a comprehensive set of political, economic, cultural, military, and other domestic reforms. Sadly, such developmental work was only allowed to continue for a short period of 103 days, after which many of the reformers were arrested and executed by the imperial government.

1.5.1.3 *Revolutionary Thought and the Kuomintang*

With the failure of the official reform movements, concerned townsfolk established their own local reform groups, one of which was the Huaxing Association led by Huang Xing and Song Jiaoren; others included the Scientific Continuation School, led by Lü Dasen, Liu Jing'an, and others, and the Guangfu Association, led by Cai Yuanpei and Zhang Taiyan. The 1911 Revolution, led by Sun Yat-sen, Huang Xing, and Song Jiaoren, was essentially a middle-class democratic revolution that represented a giant shift in China's political system. It not only ended the 2000-year feudal autocratic monarchy, but also served to spread democratic revolutionary ideas among rank-and-file working people.

Modern institutional products, such as a constitution, a parliament, and a republic, appeared for the first time in China. When the 1911 Revolution failed, Sun Yet-sen absorbed the political theory of the Western democracies and unremittingly applied it in practice, putting forward three fundamental principles: a people's nation, a people's right, and a people's livelihood. Its goal was to establish a middle-class democratic republic. In August 1912, the Tongmeng Association and other parties were reshuffled into what became known as the Kuomintang Association. Then, in 1919, following the end of World War I in Europe, the Chinese National Revolutionary Party was renamed the China-based Kuomintang.

1.5.1.4 Marxism and the Communist Party of China

The rise of the New Culture Movement was a sign of Chinese cultural transformation at the spiritual level. After the 1911 Revolution, democratic and republican ideas won support among the masses. Western enlightenment was further introduced to the Chinese, and a number of academic leaders, such as Chen Duxiu, Li Dazhao, Lu Xun, Cai Yuanpei, and Hu Shi, held high the banner of democracy and science. They launched a New Culture Movement aiming at fundamentally inspiring the national spirit and seeking "national reform." Their focus was primarily on the introduction and spread of Marxism and proletarian culture. It can be argued that for the first time in the history of China, the traditional spiritual culture was under comprehensive review. This laid a foundation for the introduction of Marxism. Subsequently, intellectuals such as Chen Duxiu, Li Dazhao, and Mao Zedong preached the principles of Marxism and set up party branches in different areas. In July 1921, the Communist Party of China (CCP) was founded in Shanghai. Party advocates then worked hard to develop their party roots and sought governance of China in their own right, and in so doing sought to enter a new era by both shaking off the shackles of the conservative past and looking forward to a bright new future.

1.5.1.5 Mao Zedong Thought

Based on the basic theory of Marxism-Leninism, the Chinese Communists, with Mao Zedong as their initial main representative, made a theoretical generalization about China's original experience of revolution, which considered which guiding ideology best suited China's cultural history and living conditions. This treatise is often referred to as *Mao Zedong Thought*.

In his work, Mao Zedong laid down the political ideals, viewpoints, and political objectives required of Chinese Communists, which are: to seek truth from facts, and to be able to stand on one's own feet; and, in adhering to these standards, viewpoints, and methods, to creatively develop Marxism-Leninism by proposing, in a systematic way, Chinese revolutionary scientific theory, strategy, and a series of policies and principles. At the same time, Mao Zedong Thought was the crystallization of collective wisdom. Many outstanding leaders of the party, including Liu Shaoqi, Zhou Enlai, Zhu De, Ren Bishi, Deng Xiaoping, and Chen Yun, made important contributions. For this reason, the CCP has retained Mao Zedong Thought as its guiding ideology to the current day.

1.5.1.6 Deng Xiaoping Theory

Deng Xiaoping Theory, which came to the forefront in the 1970s, represented philosophical advances for China. While acknowledging the negative and positive experiences of China since the foundation of the People's Republic of China, and explaining China's new modern domestic and international priorities, the Chinese Communists, with Deng Xiaoping as the main representative, maintains that it is the duty of all policy-makers to make all decisions on the basis of emancipation of the mind, and seeking truth from the facts.

1.5.1.7 The CCP's Scientific Outlook on Development

In China a new principle was added to the above, namely that there always needs to be a scientific outlook on development. This issue was focused on in a lengthy speech delivered by then President Hu Jintao on July 28, 2003 in which he emphasized "putting people first as its core, establishing a comprehensive infrastructure and the promotion of a balanced all-round development of China's economy, society and people." This speech further argued that all reforms and development should "balance urban and rural development, development among regions, economic and social development, relations between man and nature, and domestic development and opening to the outside world."

This remains the strategic thinking of the CCP, and in October 2007, at the 17th National Congress of the CCP, it was written into the Party Constitution as one of the guiding thoughts of the party.

1.5.2 *Culture and Education*

1.5.2.1 *The Imperial University of Peking and Tsinghua University*

The Imperial University of Peking, founded in 1898, was the earliest National University of modern China. While the modern educational system first became operational in 1902, Tungwen College, founded in 1862 by the Qing government, was also merged into it. The Imperial University of Peking was renamed Peking University in 1912, with Yan Fu as its first president. In 1917, Cai Yuanpei became president, implementing the principle of “free thought, free absorbing.” Peking University attracted a large number of famous scholars, including Chen Duxiu, Lu Xun, and Hu Shih. Tsinghua University’s predecessor was Tsinghua School, founded in 1911. It was the preparatory school set up by the Qing government to prepare students for studying in the United States. In 1912, it was renamed Tsinghua School. In August 1928, the government changed its name to National Tsinghua University, and in 1929 it set up a research institute in every department. In 1937, after the outbreak of the War of Resistance against Japan, Tsinghua University was moved southward to Changsha. Together with Peking University and Nankai University, they jointly established the National Changsha Temporary University. In 1938, this was moved to Kunming and renamed the National Southwest Associated University. In 1946, Tsinghua University moved back to the site of the Tsinghua Yuan in Beijing.

1.5.2.2 *Overseas Education*

China’s modern overseas education program was set in motion for the first time by one important person: Rong Hong. In the 1870s, he proposed an epoch-making idea to the Westernization Movement group: that of sending children to study abroad to experience different cultures. He was in fact the first Chinese to obtain a degree from Yale University in the USA. Beginning in 1872, the Qing government sent thirty young children to study in the United States every year for four consecutive years. Most of these students went on to contribute their talents to China, such as Tang Shaoyi, the first prime minister of the Republic of China, Admiral Cai Tinggan, and Zhan Tianyou, the famous railway engineer.

1.5.2.3 *Literature*

The literature of modern China has witnessed great achievements. This is reflected not only in its distinctive time-honored works, but also in a number of influential writers such as Lu Xun, Ba Jin, and Shen Congwen.

Hu Shi and Chen Duxiu were advocates of modern Chinese and the new literature, while its founder was Lu Xun. From 1918 to 1922, he compiled his short stories into a book called *Cry*. Among his short stories, “Diary of a Madman” was the first fiction written in modern Chinese, which heralded a new chapter in the history of Chinese fiction. Ye Shengtao, an outstanding writer after Lu Xun, put forward the slogan “for life” in literary creation. Among the famous writers of this period were Yu Dafu, Ba Jin, Cao Yu, Lao She, Shen Congwen, Li Yuren, Xu Zhimo, Guo Moruo, Lin Yutang, and Qian Zhongshu.

1.5.2.4 *History*

Unlike their predecessors, modern Chinese historians have, on the one hand, produced Western bourgeois theory, while on the other hand, they have sought to incorporate traditional thought from Chinese culture. They formed a set of historical theories and methods that combined bourgeois evolution theory with Confucian classics. The leading representatives of this group were Xia Cengyou and Wang Guowei. *New Chinese History Textbook of Middle School*, written by Xia Cengyou, broke away from the previous model of dividing history into developmental stages. It mixed the theory of evolution and Confucian classics and proposed the idea of “people’s wisdom,” which was quite innovative. Wang Guowei, a famous thinker in modern China, summed up the scientific way of studying history as “Double Evidence,” meaning the ancient literature and the excavated artifacts. Under his influence, outstanding achievements have been made with respect to oracle bone inscriptions, bronze inscriptions, ancient cultural relics, the history of the Shang and Zhou dynasties, inscribed wooden slips from the Han and Jin dynasties, inscriptions on tablets from the Han and Wei dynasties, literature in Dunhuang, and other historical and geographical data.

1.5.2.5 *Rapid Development of the News Publishing Industry*

Modern China has seen rapid development in terms of journalism and publications. Although in the Song Dynasty there was an official newspaper in a sense, it was very much a tool for the government to spread political information, and its audience was very limited. The rapid development of the news publishing industry began after the Opium Wars. With the influx of foreign missionaries came not only Western printing technology, but also many ideas about how to use the presses and publications. The first Chinese magazine, *Chinese Monthly Magazine*, was published in

1815 in Malacca. The most influential newspaper issued by early missionaries was the *Chinese Globe*, whose articles had great influence at that time. *Declaration*, created in 1872, was one of the most enduring and influential newspapers in modern China. Remarkably, the *Commercial Press*, founded in 1897, has survived a number of historic eras—the Qing Dynasty, the Republic of China, the People’s Republic of China—and so is, in effect, the oldest continuous publishing agency in modern China. It has made great contributions to spreading the Chinese language, as well as introducing new knowledge and new forms of culture.

1.5.3 Art

1.5.3.1 *The Introduction of Western Music*

Western music was popular initially in church and foreign Chinese schools. In the early twentieth century, with the increase in new schools, Western forms of music such as acoustics, orchestral music, and percussion music became popular. Drama was also introduced to China, as were photography and film.

1.5.3.2 *Great Talents in Painting*

Among the great modern painters in China are the traditionalists Wu Changshuo, Qi Baishi, and Huang Binhong, as well as others who have mastered both Chinese and Western styles of painting, such as Xu Beihong, Zhang Daqian, Liu Haisu, and Wu Guanzhong. Wu Changshuo, who worked in metal and stone inscription, created the “heavy, clumsy, big” style, becoming master of the Metal–Stone School; Qi Baishi was accomplished in poetry, *Ci*, painting, and seal; and Xu Beihong, recognizing the advantages of Western painting, reformed the traditional painting style and skills, combining ink painting and oil painting in an original style.

1.5.4 *Military Industry, Transportation, and Space Technology*

1.5.4.1 *Modern Military Industry*

From the mid-1870s, the Westernization Movement began planning for coastal defense. Over a period of ten years, they built three naval forces: the Nanyang, Beiyang, and Fujian navies. Although they were defeated in the War of Resistance against Japan, they laid the foundation for the future. The Anqing Ordnance Factory was founded by Zeng Guofan and

was the first modern military factory in China. Firearms and ammunition were designed and manufactured by the Chinese people; the Jiangnan Manufacturing Bureau was the largest official military enterprise entity in modern China. It included a mechanical school, a cannon-firing school, and a translation office, the latter of which has played a crucial role in spreading Western knowledge.

1.5.4.2 Transportation

Towards the close of the nineteenth century, railways were considered to be the key means of mass transportation across the nation. In 1881, the first Chinese-made railway, the Tangshan–Xugezhuang railway, was put into operation. After 1949, the Lanzhou–Xinjian and Baoji–Chengdu railway lines were built, and in the 1990s, the state invested heavily to speed up the development and modernization of its railway system. At the beginning of the twentieth century, motor vehicles began to appear in Shanghai, and subsequently in every large city. After the foundation of the People’s Republic of China, the government built automobile factories and relatively dense highway networks throughout the country. In 1909, Chinese-American Feng Ru made the first airplane flight in China, marking the beginning of Chinese aviation.

1.5.4.3 Two Bombs and One Satellite

The slogan “Two Bombs and One Satellite” refers to the atomic bomb, guided missiles, and satellites. In June 1964, the first short-range guided missile designed and manufactured in China was launched. In October 1964, China’s first atomic bomb was detonated. In April 1970, the space launch vehicle Long March I successfully sent the first earth satellite Dongfanghong-1 into orbit. This meant that China was staying on track with other advanced countries in the field of space technology.

1.5.4.4 Space Technology

In November 1999, China’s first experimental spacecraft, Shenzhou-1, was successfully launched. On October 15, 2003, Shenzhou-5 became the first successfully launched manned spacecraft, making China the third country, after Russia and the USA, to independently carry out manned space activities. On November 1, 2011, the Shenzhou-8 spacecraft was launched at the Jiuquan Satellite Launch Center. After orbiting the earth for 397 hours, covering a distance of 11 million kilometers, it became the first Chinese spacecraft to stay so long and to go so far in space.

The first Chinese space laboratory, Tiangong-1, was launched at 9:16 p.m. on September 29, 2011. It has had two successful space rendezvous and docking tests with Shenzhou-8 respectively on November 3 and November 14, 2011. This indicated that China's space rendezvous and docking technology has made a major breakthrough, and is clearly an important milestone in the development of China's manned space activity.

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CHAPTER 2

Geography and Tourism

A country's geographical features, such as its location, mountains, rivers, and climate, significantly influence the shaping of its civilization, especially in the early stages of cultural development. This chapter introduces China's wonderful geographical features and tourism resources in order to provide a better understanding and appreciation of Chinese culture.

2.1 GEOGRAPHICAL FEATURES

2.1.1 *Location, Landforms, and Climate*

China is located in eastern Asia and is bordered by the Pacific Ocean on the east. It is the third largest country in the world, covering an area of 9.6 million square kilometers. It stretches some 5200 kilometers from west to east and 5500 kilometers from north to south, with the Heilongjiang River along the northern border of Mohe County and the Zengmu Reef in the South China Sea respectively as the northernmost and southernmost tips. It shares its land border, which stretches for more than 20,000 kilometers, with fourteen neighboring countries.

Its geology is hugely varied and complex across the country, giving rise to a wide variety of landforms ranging from high mountains to inhospitable deserts and fertile plains. From a bird's-eye view, the country has higher elevations in the west and lower elevations in the east, with altitude

gradually descending in a three-step ladder fashion. The highest step of the “ladder” is mainly composed of the Qinghai-Tibetan Plateau, which sits at more than 4000 meters of elevation on average. This plateau is the source of a number of China’s great rivers, including the Yellow River, the Changjiang River, and the Lancang River, and it is the place where we can find Mount Qomolangma, the highest mountain on earth and the main peak of the Himalayas. The second step comprises large basins and plateaus, normally 1000 to 2000 meters above sea level, with the Qinghai-Tibetan Plateau on the west and on the east a number of mountain ranges including the Da Hinggan Range, Taihang Mountains, Wu Mountains, and Xuefeng Mountains. The third (and lowest) step covers the eastern part of the country, with broad plains and hilly lands, mostly below 500 meters in altitude.

Two-thirds of the land mass are rugged plateaus, mountains, and hilly areas, and the rest are mainly basins and plains. Besides the Qinghai-Tibetan Plateau, China’s major plateaus include the Inner Mongolia Plateau, the Loess Plateau, and the Yunnan-Guizhou Plateau. The four basins include the Tarim Basin, the Junggar Basin, the Qaidam Basin, and the Sichuan Basin. The major plains include the Northeast China Plain, the North China Plain, the Middle-Lower Changjiang River Plain, the Pearl River Delta Plain, and the Hetao Plain.

Although the majority of the country is subjected to a monsoon climate, with complicated terrain and varied latitudes of land, China enjoys a diversified climate across its vast territories. For example, in the northeast, summers are hot and dry and winters are freezing cold, but in the southeast, there is plenty of rainfall, semi-tropical summers, and cool winters. Related to climate, the country exhibits the following characteristics:

1. Much of the country is in the northern temperate zone, while at the same time a considerable portion is in the sub-tropical. Thus, light and heat resources in China are abundant.
2. The distribution of water resources is uneven. Rainfall patterns in China are greatly dependent on monsoon activities. The southeast is heavily influenced by the summer monsoons and its average annual rainfall can reach more than 1500 millimeters, while the bulk of the inland northwest regions, where the continental air has a predominant influence on rainfall, receives less than 400 mm of rainfall each year. This pattern of annual rainfall is favorable for growing crops in south-eastern China and raising livestock in the northwest.

3. As a mountainous country with a diversity of climates in different vertical climatic zones, China has developed many types of agriculture on a range of scales, including forestry, animal husbandry, fruit growing, and crops for herbal medicine.

2.1.2 *Mineral Resources*

As one of the few countries that possess a complete variety of ore resources, China ranks third in the world in total reserves of mineral resources. There are more than 200,000 ore deposits or sites with a total of 173 mineral types, among which more than 155 have proven reserves, including eight energy minerals, fifty-four metallic minerals, ninety non-metallic minerals, and three water and gas mineral resources.

2.1.3 *Mountains, Major Bodies of Water, and Islands*

Along the three-step ladder of the country, there are lofty mountains, broad plains, crisscrossed rivers, and lakes.

2.1.3.1 *Mountains*

China has several major mountain ranges running east to west, north to south, and northeast to southwest. China's five most renowned great mountains are Mount Taishan, Mount Huashan, Mount Hengshan in the north, Mount Songshan, and Mount Hengshan in the south, each of which has unique features. Besides their inherent aesthetic value, a number of mountains in China are of great cultural significance, featuring magnificent buildings and pavilions that were used for grand ceremonies of worship by ancient Chinese kings and emperors.

2.1.3.2 *Rivers*

The longest river in China is the Changjiang River. More than 6300 kilometers long, it is the third longest river in the world, surpassed only by the Nile and the Amazon. The basin of the Changjiang River is populated by no less than 300 million people and totals more than 1,800,000 square kilometers, with over 22.53 million hectares of (24.6 million acres) farmland.

The Yellow River is the second longest river in China, with a length of 5464 kilometers and a drainage area of about 750,000 square kilometers.

The Grand Canal, another famous river in China, is about 1782 kilometers long. It is the longest and the oldest non-natural waterway in the world.

2.1.3.3 *Lakes*

There are numerous lakes in China, including Poyang Lake, Dongting Lake, and Taihu Lake. Freshwater lakes represent 45% of the total number.

Poyang Lake, the largest freshwater lake in China, is located in north Jiangxi Province. With an area of about 3583 square kilometers, the lake is fed by the Ganjiang River, the Fujiang River, the Xinjiang River, the Pojiang River, and the Xiujiang River, and in flood seasons it helps regulate the huge amount of water in the middle and lower reaches of the Changjiang River.

Dongting Lake, a large, shallow lake in northeastern Hunan Province, was part of a very large marsh in ancient times. It was formed when rich sediment accumulated in the marsh and it split. Holding 2740 square kilometers of water, the lake is fed by four tributary rivers and stores the floodwater from the Changjiang River. When the dry seasons come, the water stored in the lake flows into the Changjiang River through the opening of the lake. Thus, the lake plays an important role in adjusting the flood of the Changjiang River and brings abundant water, fertile soil, proper temperature, and plentiful rain to its surrounding areas, where farmlands, fishponds, and lotus lakes can be found. Today, due to excessive sedimentary deposits, the lake has split into a number of smaller ones and is no longer what it was before.

Taihu Lake has a total surface area of about 2338 square kilometers. It looks like a bright crescent moon set in the Changjiang River Delta. Based on existing studies, Taihu Lake evolved from a lagoon connecting to the sea.

Hongze Lake lies in the lower reaches of the Huaihe River and the north of the Jiangsu Plain. When the Yellow River changed its course and merged with the Huaihe River, heavy sediment from the Yellow River blocked the course of the Huaihe River and diverted water from it, thus forming Hongze Lake. With an area of 1996 square kilometers, this lake serves as a reservoir for floodwater from the Huaihe River.

Finally, Chaohu Lake, in the middle of Anhui Province, covers an area of 800 square kilometers.

2.1.3.4 *Seas*

The Four Great Seas of China is a collective name for the Bohai Sea, the Yellow Sea, the East China Sea, and the South China Sea. All but the Bohai Sea are marginal seas of the Pacific Ocean.

The Bohai Sea is the major continental sea of the country, and is semi-enclosed by the Liaodong Peninsula, the Shandong Peninsula, and the North China Plain. With rivers such as the Yellow River, the Haihe River, the Liaohe River, and the Luanhe River bringing sediment and fresh water into the sea, it becomes as shallow as only about 20 meters and is low in salinity.

The Yellow Sea is a semi-enclosed sea. Like the Bohai Sea, its innermost gulf in the west borders the East China Sea along a line running from the north bank of the estuary of the Changjiang River to the south side of North Korea's Jeju Island. It covers an area of about 400,000 square kilometers, with an average water depth of about 440 meters. The enormous amount of sand and mud carried into the Yellow Sea by the Yellow River, the Huaihe River, and the Changjiang River makes its water yellowish, hence the name. The Shandong Peninsula divides the sea into two parts—the northern and the southern part. The northern part boasts excellent port conditions, while the southern coast is full of silt.

The East China Sea lies between China's Taiwan Island and Japan's Ryukyu Islands and Kyushu Island. It contains roughly 750,000 square kilometers of water, with the water depth on average 370 meters. Its water regime and submarine topography are more complex than those of both the Bohai Sea and the Yellow Sea.

The South China Sea borders the Islands of Kalimantan in the south, the Philippine Islands in the southeast, and the Indo-China Peninsula in the southwest. The sea has a complex geological structure and diverse types of submarine landforms. Covering about 3,500,000 square kilometers, its average depth is 1140 meters.

2.1.3.5 *Islands*

There are more than 5000 islands in China. Taiwan Island is the largest one, with a 1140-kilometer coastline and an area of 35,788 square kilometers. Hainan Island, covering 34,380 square kilometers, is the second largest. Zhoushan Archipelago is China's largest offshore island group, composed of more than 600 islands.

2.2 TOURISM RESOURCES

When people talk about China, they often mention its beautiful cities, amazing scenic spots, and other tourism resources. The historic old cities, such as Beijing, Nanjing, Xi'an, and Luoyang, bring together the essence of Chinese cultural relics. Suzhou and Hangzhou, known as "Paradise on Earth," are among the many enchanting places to visit. Suzhou, often dubbed "the city of gardens" and "Venice of the East," preserves some of China's famous classical gardens, such as the Lion Grove Garden, the Lingering Garden, and the Humble Administrator's Garden. These are typical examples of ancient Chinese classical gardens built in the southern area of the lower reaches of the Changjiang River. The scenery of Hangzhou is exquisite as well. The West Lake in Hangzhou, with three sides enclosed by hills, looks like a big beautiful shining pearl embedded in the west of the city and attracts countless numbers of international visitors throughout the year. As of July 2015, China was host to forty-eight UNESCO World Heritage sites, including thirty-four cultural, ten natural, and four mixed sites. Some of these sites are discussed below.

2.2.1 *Natural Heritage*

China boasts many natural heritage sites, including the national tourist attractions Wulingyuan in Hunan Province, the Jiuzhaigou Valley in Sichuan Province, and Huanglong in Sichuan Province; the Converging of Three Rivers in Yunnan Province; the Panda Habitat in Sichuan Province; the Karst Landscape in South China; Sanqingshan Mountain in Jiangxi Province; and Danxiashan Mountain in Guangdong Province.

2.2.1.1 *Wulingyuan Scenic and Historic Interest Area*

Wulingyuan is located in northwest Hunan Province. It was first discovered in the early 1980s. As one of China's key national scenic areas, it consists of four major subsections—Zhangjiajie, Suoxiyu, Tianzishan, and the newly discovered Yangjiajie Scenic Area—and occupies some 500 square kilometers in total, with the central part being over 26,000 hectares. The area features more than 3000 bizarre narrow quartz sandstone pillars and peaks, most of which exceed 200 meters in height, making them a rare formation. The area is surrounded by spectacular ravines and gorges dotted with crystal-clear streams and pools and cascading waterfalls. There are also broken ridges, precipitous cliffs, two natural bridges,

and at least forty amazing caves, with the most famous one being the 7.5-kilometer Yellow Dragon Cave in Suoxiyu Valley.

In the Zhangjiajie National Forest Park alone, there are 800 waterfalls, brooks, pools, and springs, each boasting its own charm. One of the brooks is the Gold Whip Brook, which is more than 10 kilometers long, meandering through the gorges and canyons from this national forest park up to the Suoxiyu Nature Reserve, making quite a unique landscape of reflected mountains and waters in its crystal water. Mysteriously veiled in the ever-changing mists and clouds, all the landforms bring visitors into a fabulous wonderland and a magnificent gallery of pure natural arts.

Besides its abundant water, Wulingyuan enjoys luxuriant vegetation and well-preserved dense virgin forests, which provide the perfect habitat for a large number of rare plants and endangered animal species. The most recognizable plants are the pine trees, which are present in large numbers (about 108,000), many of them taking on interesting and special shapes. Some of the plants are known as “living historical relics” of natural heritage because they have been alive since ancient times.

Surprisingly, Wulingyuan is also a famous geo-park. The Devonian sandstones and siltstones on Wulingyuan Echo Wall and the ripple marks of the rock paintings by the Jumping Fish Pond are rare geological relics, serving as evidence for the study of the ancient environment and the evolution of sea and land. The coral fossils distributed in the Permian strata of the Tianzishan Mountain are superior materials for sculpture.

2.2.1.2 Jiuzhaigou Valley Scenic and Historic Interest Area

Jiuzhaigou, literally the Nine Village Valley, gets its name from the nine Tibetan villages nestling in the vicinity. It lies in the north of the Gaerna Peak of the southern end of the Minshan mountain range, a transition belt from the Qinghai-Tibetan Plateau to the Sichuan Basin. Named a UNESCO World Heritage site in 1992, Jiuzhaigou is famous for its complicated geological structure characterized by sharp contrasts in height and climate between its different parts, with the major valleys in a Y shape and with a total length of over 50 kilometers.

Stretching over 72,000 hectares, Jiuzhaigou ranges from 2000 to 4500 meters in elevation and is endowed with stratified forest ecosystems. More than half of its core scenic area is clothed with virgin forests containing a wide variety of plants. The existing natural forests occupy nearly 30,000 hectares and provide important habitat for numerous endangered species of plants, birds, and animals. At least 2000 kinds of vegetation, 170 kinds

of vertebrates, and some 140 bird species (seventeen of them under state protection) are found in the valley. It is also home to giant pandas and Sichuan takins. With thick moss and lichen, as well as animal hair and bird feathers, carpeting the forest floor, it is one of the most captivating places on earth.

With remarkable natural beauty, Jiuzhaigou looks like a dream paradise. The crystal lakes, long waterfalls, colorful forests, and snow-capped mountains look like a fantastic fairyland. The water in Jiuzhaigou is a branch source of the Jialing River, one of the most important tributaries of the Changjiang River. The majestic waterfalls, stunning, brightly colored alpine travertine lakes, and crystal streams flow through the forests and the shallows, shining like necklaces. The waters are extremely pleasing to the eye and add to the charm and vividness of the landscape.

Jiuzhaigou also appeals to visitors with its well-preserved Quaternary Glaciations. The high-altitude karst landforms carved by glacial hydrologic tectonic activities are a valuable resource for geologic studies. There are unique U-shaped glaciated valleys, widely distributed, long conical karst formations and glacier cirques, and hanging valleys which extend to as high as 2800 meters above sea level. The well-preserved valley soil, derived from the limestone rock, takes on variable colors and textures. On the higher mountain slopes, the poorly developed soil is skeletal or permanently frozen.

2.2.1.3 Huanglong Scenic and Historic Interest Area

Situated near Jiuzhaigou within the Minshan Mountains, the Huanglong area stretches across three geo-tectonic units in northwest Sichuan Province. It covers large valleys of China's easternmost glaciers and permanently snow-capped peaks, seven of which rise up to 5000 meters in altitude. In its coverage of over 1340 square kilometers, there are also spectacular limestone formations and hot springs, travertine lakes, waterfalls, and superlative forests and mountain scenery.

Xuebaoding, the highest peak in the Minshan Mountains, is 5588 meters in elevation. Melted snow flows down from the peak along the hillsides, converging in brooks and streams and the plunging waterfalls. Flying down along the peaks at tremendous speed, the waterfalls split at the peak sides and feed numerous pools. The pool water, mixed with other substances, shines under the sun and takes on a wide variety of colors. One of the scenic spots, Huanglong Valley, boast more than 3400 multi-colored pools of different sizes, ranging from several to more than 1000

square meters. In an overall form of terraced fields, the pools have been called “a wonder of the world” and “a fairyland on earth.”

Huanglong Valley, literally meaning Yellow Dragon Valley, is another attraction of the area. The layered calcium-carbonated deposit patterns in the valley resemble a golden dragon winding its way through the virgin forests, stone mountains, and glaciers. A unique and peaceful valley 7500 meters long and 1500 meters wide, it boasts the famous Huanglong Temple, built in the Ming Dynasty (1368–1644) for the worship of the yellow dragon—God of the local people.

The spectacular travertine formations of Huanglong make it one of the world’s best natural travertine museums. The travertine landscape comprises plunging waterfalls, colorful pools, hot springs, clear lakes, and exquisite caves, all in harmony with the scattered villages, temples, and farms, and effortlessly blends with the local customs such as dancing and music, creating a seamless integration of a gorgeous plateau landscape, specific local customs, and human civilization.

In addition to its unique landscape, it is also home to diverse forest ecosystems and a large variety of rare wildlife. More than 1500 rare species of vascular plants inhabit the area, most of which can be found only in China and eleven of which are under national protection. It is also home to a great number of endangered animals, including giant pandas, Sichuan golden snub-nosed monkeys, Sichuan takins, and clouded leopards.

2.2.1.4 Stone Forest Scenic Area in Kunming

The Stone Forest Scenic Area is about 86 kilometers to the east of Kunming City. Dominated by its karst landforms, the area covers 400 square kilometers and consists of seven sub-areas.

Covering 400 square kilometers, the area is dotted with hundreds of huge stone clusters, which as a whole look like an impenetrable black forest. Among these is a stone forest named Liziying, known as the most impressive one and a wonder. The stones in this forest come in various shapes and sizes and all have distinct features. Some look like animals, such as horses, peacocks, phoenixes, and elephants, while others resemble figures from everyday life or novels, allowing visitors to give free rein to their imaginations. Taking the winding paths between the stone peaks and marveling at the intricate natural stone masterpieces, visitors may feel as if they are in a fairyland maze.

Over 3 billion years ago, this part of the forest was an ocean. Its present shape is the result of a long period of geological transformation. It contains a wide variety of types of karst stone forest landscapes seen around

the world, including in America and Africa. The spectacular formations bewitch the world's karst experts, and from both a scientific and an aesthetic perspective, it is known as "the world's karst stone forest museum."

A large proportion of the world's stone forests are inaccessible to visitors, either because they are too dangerous or too secluded to be easily reached. Fortunately, the Stone Forest Scenic Area in Kunming is an exception. Convenient transportation options are available to tourists, making it easy to get to the area and fully appreciate the scenery. On this land with an elevation change of less than 500 meters from the lowest part to the highest point is a well-proportioned distribution of numerous stone peak clusters, buds, dolines, karst lakes, subterranean rivers, and stone pillars, cliffs, and peaks. The view changes based on the direction one is facing and presents a rich feast for the eyes, making this karst plateau landscape a "sculpture museum of nature."

The stone pillars, cliffs, and peaks assume a thousand different shapes, all fanciful and picturesque. The large size of some of the stone pillars, reaching a height of 40 to 50 meters, is what first impresses visitors the most, as expressed in the comment: "The stones look big both from far away and from near. They really are big stones, in fact HUGE!" The unique stones not only make the Stone Forest an ideal destination for large groups of visitors from all over the world, but also give it a dreamlike aura that has been eulogized by countless writers and poets throughout the ages. These breathtakingly grotesque stones, seemingly posing in the shape of animals, plants, birds, and even figures from Chinese myths, appear life-like.

2.2.2 *Cultural Heritage*

2.2.2.1 *The Great Wall*

The Great Wall is one of the world's most awesome ancient defensive structures. Constructed over a period of more than 2000 years, it totals a length of more than 20,000 kilometers. Such a huge project is rare in the world and deserves its place among "the seven wonders of the medieval world," together with the Colosseum in Rome and the Leaning Tower of Pisa.

The earliest part of the Great Wall was a line of fortresses built in the ninth century BC to fend off the raids of a northern nomadic tribe. During the Warring States period (c. 475–221 BC), all of the seven states were

engaged in erecting walls to defend themselves. The walls they built stretched in four directions, varying in length from several hundred to one or two thousand kilometers.

In 221 BC, the king of the State of Qin conquered all the other warring states and united them. He founded a centralized, unified feudal empire and became the first emperor in China, historically called Qin Shi Huang. In order to defend his empire against attack by the northern nomadic tribes and other potential enemies, he ordered his citizens to connect the various walls and create numerous new sections. The wall stretched from Lintao, in what is now Gansu Province, in the west to Liaodong, in what is now Liaoning Province, in the east, covering a formidable 10,000 *li* (1 *li* \approx 0.5 kilometer), hence the name Ten Thousand Li Great Wall. For clarity, the walls constructed prior to the Qin Dynasty will be referred to as the Pre-Qin Great Wall.

During the approximately thirteen dynasties that followed, from the Han to the Qing, almost all emperors made efforts to extend and improve the defensive system of the walls. The largest-scale walls, some more than 5000 kilometers long, were under construction during the Han, Jin, and Ming dynasties. Even as late as the seventeenth and eighteenth centuries, during the reign of Emperor Kangxi of the Qing Dynasty, construction continued on the fortifications.

2.2.2.2 *Mausoleum of the First Qin Emperor*

The Mausoleum is the tomb of Qin Shi Huang, situated at the northern foot of Lishan Mountain in a suburb of Lintong County, 35 kilometers east of Xi'an. Construction began in 246 BC and was only completed thirty-eight years later. The first large-scale tomb of Chinese monarchs, its perfect design is a source of pride and a precious heritage of the nation.

The grave mound, reaching a height of 51.3 meters with a bottom circumference of about 1700 meters, sat within a rectangular, double-walled enclosure oriented from north to south. Historical records show that the complex housed a wide variety of ancient palaces and numerous priceless treasures. In the area surrounding the mausoleum, more than 400 accompanying burial pits and tombs of different shapes have been found.

The Terra Cotta Army pits are located about 1.5 kilometers to the east of the tomb mound. At present, three of the pits have been excavated. These pits contain thousands of life-size terra cotta soldiers and horses, bronze chariots, and weapons, representing the highest achievements of

sculpture in the Qin Dynasty. The pits are all crypt-type constructions, with walls fortified with wooden columns, earth, and reeds and the floor covered with black bricks. In the pits, the warriors and horses are marshaled into a well-organized battle array, vividly symbolizing the “royal army” protecting the underground imperial city. Judging by the structure of the pits, the weapons, the soldiers, and the war chariots, Pit 1 represents the main body of the army, Pit 2 makes up the mixed force of infantry and cavalry, and the headquarters of the armies in the other two pits is located in Pit 3.

In December 1980, two large-scale models of painted bronze chariots and horses were unearthed to the west of the mausoleum. With very complex structures, they are exquisite masterpieces of China’s bronze heritage. Along with the terra cotta figures, they provide a wealth of archaeological evidence about the mausoleum site, its history, bronze processing and casting technology, and chariot assembly in the Qin Dynasty.

2.2.2.3 *Imperial Palace of the Ming and Qing Dynasties in Beijing*

The Imperial Palace (previously known as the Forbidden City) is a unique building complex situated in the center of the city. As the seat of supreme power for nearly 500 years, it served twenty-four emperors of two successive dynasties, that is, the Ming and Qing dynasties. Constructed between 1406 and 1420, its history spans more than 600 years. Containing at least 9000 distinct rooms and covering more than 720,000 square meters, it is known as the largest complete complex of ancient buildings and “the Sea of Regal Buildings.” Its fantastic layout, spatial arrangement, grand design, and decoration are all unparalleled architectural masterpieces.

The palace has a city wall with a moat around it. The wall is nearly 10 meters high, 8.62 meters wide at the base, and 3420 meters in circumference. The moat is 52 meters wide and 6 meters deep. There are four entrance gates in the wall. At each of the four corners of the wall sits a tower with three intricate layers of roofing, boasting seventy-two exquisite and well-designed ridges, all exemplifying the best of ancient Chinese architecture.

A central north–south axis, which is also the central axis of the whole city, divides the complex in half. The main buildings of the complex are constructed along the central axis, while the two halves are symmetrical and contain a large number of other buildings comprising two courts: the outer court and the inner court. The outer court consists mainly of three magnificent and solemn halls. There are two groups of buildings

on each side of the three great halls. The inner court comprises three principal parts. Six palaces are situated on both sides of the central part respectively.

Today the palace serves as a museum where paintings, pottery, bronze wares, inscribed wares, toys, jewelry, clocks, court articles, and so on are displayed. The collection contains approximately 1,052,653 art treasures, many of which are unique and priceless.

2.2.2.4 Lushan National Park

Lushan boasts not only unrivaled natural beauty, but also splendid cultural value. Since ancient times, Chinese men of letters have been visiting the mountain and writing poems in praise of it, of which over 4000 are known. Located in the south of Jiujiang City in Jiangxi Province, it adjoins the Changjiang River and Poyang Lake. The park occupies about 302 square kilometers, wide from north to south and narrow from west to east. There are more than ninety peaks in the park, with the highest one being about 1473.4 meters in altitude. Between the peaks, there are numerous ravines, dotted with caves, waterfalls, and streams, giving rise to great topographic diversity and complexity.

As one of the cradles of Chinese civilization, Lushan preserves some historical buildings and cultural features, such as Buddhist and Taoist temples and the Neo-Confucianism White Deer Cave Academy. The noted Donglin Temple is nestled at the foot of the mountain, built by an eminent monk who founded Jingtuzong, a faction of Buddhism. There are also examples of Roman, Gothic, and Japanese architectural styles and Islamic mosques. In great harmony with nature, the buildings enhance the aesthetic and cultural value of the unique landscape. Lushan enjoys a cool and misty climate in summer, and looks extraordinarily charming and fantastic.

2.2.3 Natural and Cultural Heritage (Mixed Heritage)

Four of China's mixed world heritage scenic spots are discussed below.

2.2.3.1 Mount Taishan

Mount Taishan rises abruptly from the immense plain at the north of Tai'an City of central Shandong Province, with its highest peak reaching approximately 1532.7 meters above sea level. Due to its exceptional historic and aesthetic value, it is considered the greatest of China's Five Great Mountains and one of the iconic symbols of the spirit of the Chinese people.

The mountain is renowned for its overlapping peaks, its massive body, the ever-changing clouds and mists, the green pine forests, and the impressive rocks. All these bring visitors into a land of grandeur, serenity, delightfulness, and mysterious uniqueness.

The colorful ring of light appearing on the peak is an important symbol of the mountain. It is a rare occurrence, appearing only in the early morning or toward the evening of a day when thick mists and fog surround the mountain. Following the sun's rays with one's eyes at the mountain top, a visitor may have a chance to see, against the misty background, a ring of light with blue inner circles and red outer circles, in the middle of which is cast the whole profile or head of the visitor. In this case, the ring of light looks like halos glowing above an image of the Buddha, so it is called the Light of Buddha or the Holy Light. The ring is actually a diffraction of light in response to certain conditions. Records show that the light usually appears when sunlight slants through the fog from June to August each year.

Mount Taishan is also known for its 1696 existing inscriptions, mostly on precipices and steles, inscribed by ancient Chinese emperors and celebrities. Most are delicate designs in elegant fonts and contain beautiful diction, serving as a cherished record of the history of the mountain and also as one of its marvelous attractions.

The Yellow River region is one of the cradles of ancient Chinese culture, as is evident in the Dawenkou Culture Relics at its southern foot and the Longshan Culture Relics at its northern foot, which show that the mountain has been explored since very early times. Culturally significant areas of the mountain also include the fossil remains of the Qiyuan people who lived here 400,000 years ago, and of the Xintai people who lived here 50,000 years ago. Along with the ruins of the 500 kilometer-long great wall built in the Warring States period (475–221 BC), there are scenic spots associated with the activities of Confucius, for example the Confucius Ascending Archway, the Archway for Watching the State of Wu, the Spot for Belittling the World, the Confucius Temple, the Stone for the Overlooking State of Lu, and the Tiger Ditch.

The most venerated of China's Five Great Mountains, Mount Taishan was a sacred symbol of state political power in ancient times. It was a place for the monarchs to hold worship ceremonies, such as sacrifices to heaven and to the earth. In the Pre-Qin period, a total of seventy-two monarchs or princes climbed the mountain to offer sacrifices to heaven. In ancient times, twenty-seven worship ceremonies were held there. Many famous cultural scholars, artists, and men of letters have been interested in and

inspired by these holy sacrifices as well as the magnificent scenery, producing thousands of great works of art, including poems, prose, and inscribed stone tablets, that have been passed on from generation to generation. The most famous masterpieces include Confucius' "The Song of Hills," Sima Qian's *The Feng and Shan Sacrifices of Emperor Wu of Han*, Cao Zhi's "Of the Flying Dragon," Li Bai's "Of Mount Taishan," and Du Fu's "Of Mount Taishan." Priceless treasures also include the murals painted in the Song Dynasty at the Tiankuangdian Palace and the colored statues of arhats made in the Song Dynasty at the Lingyansi Temple. In addition, various styles of Chinese calligraphy can be found on the inscribed stone tablets. All these make the mountain an exhibition hall of ancient Chinese calligraphy and stone inscription art. Ninety-seven intact ancient sites and twenty-two ancient architectural complexes provide ample sources for the study of the history of ancient Chinese architecture.

2.2.3.2 Mount Emei Scenic Area

Mount Emei sits at the transition zone between the Sichuan Basin and the Qinghai-Tibetan Plateau. It is one of the Four Sacred Buddhist Mountains of China, famous for its striking natural beauty and its long history of mystic Buddhist culture. It is popular with people from all over the world because its natural beauty is in exquisite harmony with the civilization that has arisen here. People are enchanted by its grandness, elegance, mystery, and holiness. The most noted natural wonders include the Smoke Cloud in the Thunder Cave, the Morning Rain at Hongchun, the Snow on the Daping Peak, and fabulous attractions such as the cloud sea, the sunrise, the Buddhist light, the sacred lamp, the sunlight, and the sunset glow, which can be enjoyed from the Golden Summit of the mountain.

Mount Emei is the highest of the Four Sacred Buddhist Mountains of China. Its highest peak, Wanfoding Summit, reaches 3099 meters above sea level, more than 1000 meters higher than Mount Huashan, which is the highest of China's Five Great Mountains. The three main peaks of Emei pierce the blue sky side by side. Overlooked from the top of the peaks, the sea of clouds rises slowly through the overlapped mountains under the blue sky, making ever-changing and pleasing patterns. The 3079.3 m-high Golden Summit, where the famous Huazang Temple is located, is the highest point that tourists can reach.

With 87% of its area containing exceptionally diverse vegetation, Mount Emei is a huge natural arboretum. There are more than 3000 types of plants in diverse vegetation belts based on a vertical zone. The wild profusion of

vegetation, the lush trees, the exquisitely contoured peaks, and the colorful scenery all make it a graceful and elegant place.

The architecture of the Buddhist temples is an integral part of the landscape. There are more than thirty temples, which are both awesome and elegant, built in the traditional style of the local houses and adorned with graceful and natural decoration, evidence of the great ingenuity and originality employed in choosing the sites and in designing and constructing the temples. The exquisite artistry of the temples on Mount Emei serves as a model for those on other famous scenic mountains.

Mount Emei is characterized by a subtle blend of Buddhist culture and nature. Archaeological evidence shows that people were present on the mountain as early as 10,000 years ago. Over the course of history, Chinese people created the glorious culture and rich historical legacy of the mountain. According to related documents and historical sites and relics, the rich culture of Mount Emei has existed for more than 2000 years. The introduction of Buddhism to Emei and the construction of the temples on the mountain add a mystical aura to this holy land. Religion (especially Buddhism), a dominant part of the colorful and distinct Emei culture, is represented in every element of the enigmatically charming architecture, sculptures, religious artifacts, music, and paintings.

2.3 LANDSCAPES

2.3.1 *Guilin*

Guilin, a renowned national tourist city, is situated in the northeastern corner of Guangxi Zhuang Autonomous Region. The name Guilin, meaning “laurel forest” in Chinese, comes from the abundant sweet-scented Osmanthus and trees that grow on the west bank of the Lijiang River where it is located. The topography here is dominated by typical karst landforms. “Guilin Scenery” is a general name for its abundant tourist resources, including the hills, waters, karst caves, monuments, and stone inscriptions. The Lijiang River meandering at the foot of the mountains is as clear as a mirror. These peculiar and isolated hills rise out of the ground and surround numerous bizarre and fantastic-looking caves, in which are found rocks in all shapes and sizes. The strangely shaped peaks, limpid waters, fantastic caves, and spectacular rocks are referred to as “the four unique scenic features” of Guilin, whose extraordinary beauty has inspired the saying, “Guilin’s scenery surpasses all others in the world.”

While the whole area is gorgeous, the most awesome scenery is found along the Lijiang River, especially in Yangshuo and the surrounding countryside. There is a poem describing how Chinese people revere the beauty of Yangshuo:

Guilin's scenery beats all the others in the world, but yet again on reflection
Yangshuo's surpasses Guilin's! Clear water mirrors the fascinating peaks,
and all of them are fairylands.

It is a pleasant journey along the Lijiang River from Yangshuo to Guilin. Soon after the cruise ship leaves the riverbank on a sunny morning, visitors can enjoy the sun shining on the top of one of the peaks far away. The sunshine pierces through the white clouds above the mountains and bathes everything in light. The sparkling river and the reflections of the mountains in the water add to the beauty. Compared with the heroic and massive mountains in the north of China, those in Guilin are more graceful and delicate. The mountains in Guilin display varied shapes and postures. For example, the Yunufeng Peak looks like a slim and graceful girl with her hair in a bun, and the Wangfuya Cliff is like a woman, deeply in love with her husband, who overlooks the path by which he returns home. Another of the peaks resembles a little boy who serves an ancient Chinese scholar accompanying his master on the way to the capital for the imperial examination. Others suggest a jumping carp, a resting snail, a camel at an oasis, and so on. Among the peaks, the Nine-Horse Fresco Hill is perhaps the most impressive to visitors. The scenery of Guilin is often described by as looking just like a traditional Chinese painting.

With a history that dates back more than 2000 years, Guilin is of profound cultural significance. It was originally an ordinary county set up by Qin Shi Huang after he unified the area south to the Five Ridges (which is called Lingnan, approximately the present Guangdong Province, Guangxi Zhuang Autonomous Region, and part of Hunan Province and Jiangxi Province). The area became a site of strategic importance, providing access to the sea in the south and to the Central Plains in the north, when the subjects of Qin Shi Huang obeyed his order to dig the Lingqu Canal to connect the Xiangjiang and Lijiang rivers. Following the Song Dynasty and up until the founding of New China, it enjoyed a reputation as the Capital of the Southwest Region and remained the political, economic, and cultural center of Guangxi Zhuang Autonomous Region. Over its long history, Guilin has inspired many generations of

great writers, scholars, and calligraphers. Many artists have created masterpieces there, including numerous popular verses, prose, and over 2000 carvings and precipice inscriptions, which have been passed down to the present day. All these great works, as well as the numerous unique monuments and historic sites, leave the visitor with the following impression: “Visiting the mountains in Guilin, you feel as if you were enjoying wonderful history books and beautiful pictures.” For hundreds of years, this reputation has drawn visitors to Guilin.

2.3.2 *West Lake Cultural Landscape of Hangzhou*

The West Lake Cultural Landscape of Hangzhou is nestled in the western corner of Hangzhou City, Zhejiang Province. It is famous for its historical connections and natural beauty. Referred to as “heaven on earth,” it hosts numerous spots of historic interest and scenic beauty, including the West Lake, the surrounding hills and mountains, the temples, the pagodas, the pavilions, the gardens, the ornamental trees, and other attractive sights.

The West Lake covers about 5.64 square kilometers of water, roughly with a circumference of 15 kilometers and an average depth of 1.21 meters. At the center of the lake are three islets: Lesser Yingzhou, Mid-Lake Pavilion, and Ruangong Dun. Across its glittering blue water are the Su and the Bai causeways, which with the Yanggong Causeway divide the lake into five areas: Outer West Lake, West Inner Lake, North Inner Lake, Little South Lake, and Yue Lake.

Surrounding the West Lake on three sides are miraculously shaped hills and mountains, all less than 400 meters tall, covered with serene forests and murmuring springs. To the southwest are Longjing Mountain, Li An Shan, Yanxia Mountain, Phoenix Mountain, the South Peak, Nanping Mountain, and Wu Hill. In the opposite direction are the Northern Mountains, including Linying Mountain, the North Peak, Xiangyu Mountain, Qixia Mountain, and Baoshi Mountain. Facing each other across a great distance, the North Peak and the South Peak set each other off joyfully, and make one of the greatest attractions. All these mountains give the West Lake the appearance of a shining pearl.

The West Lake has been given a variety of names throughout history, including Wulin Shui, Qiantang Lake, and Xizi Lake. The widely accepted name West Lake first appeared in the Song Dynasty. When the Southern Song Dynasty made Hangzhou its capital, the West Lake entered its heyday and began to gain renown for its beauty. Ten most beautiful scenes

of the lake have been chosen ever since the Song Dynasty, which include Moon over the Peaceful Lake in Autumn, Dawn on the Su Causeway in Spring, Remnant Snow on the Bridge in Winter, and Leifeng Pagoda in the Sunset. In 1985 and 2007, two distinct sets of “Ten New Scenes of the West Lake” were selected, but both collections are less recognizable than those in the Song list.

2.3.3 *Mountain Resort of Chengde and Its Outlying Temples*

The Mountain Resort of Chengde, roughly 230 kilometers from Beijing, is found in the ravines to the north of the downtown area against the western bank of the Wulie River. It is a vast complex of ancient imperial palaces, gardens, and magnificent temples, where the emperors of the Qing Dynasty escaped the summer heat and conducted their administrative business. It was originally erected in 1703, and construction was carried out for eighty-nine years across three successive reigns, the Kangxi, the Yongzheng, and the Qianlong. The resort, whose winding walls are 10,000 meters long in total, occupies an area of about 5,640,000 square meters. Being twice the size of the Summer Palace in Beijing, and eight times larger than the Beihai Park, it is the largest classical existing imperial garden in China. The Mountain Resort includes the palace area and the surrounding area. The landscape consists of three scenic elements—lakes, plains, and mountains—and dotted with seventy-two scenic spots designated by Emperor Kangxi (r. 1661–1722) and Emperor Qianlong (r. 1735–1796) and more than 100 buildings of various styles of construction, such as halls, towers, pagodas, gates, chambers, corridors, pavilions, nunneries, and temples.

Compared with the Forbidden City in Beijing, the Mountain Resort was designed with simplicity and charming wildness. Most of the views were designed to follow the topography of the hills and water, with artistic renditions of the scenery elements of northern China and the lower Yangtze Valley. It is distinguished by its natural and harmonious layout: the hills are dotted with gardens, and the gardens are surrounded by hills. Additionally, the Mountain Resort and its outlying temples, although they are closely linked parts of the complex, are in delightful contrast with each other—the Mountain Resort is of elegant simplicity, while the temples are sumptuous and resplendent. Because of its rich historical and cultural heritage, as well as the Mountain Resort and its outlying temples, Chengde is appraised as one of the key national cultural protection relic units, one of

the national top ten scenery resorts, and one of the forty-four major national scenic spots. Accordingly, Chengde is designated as one of the top twenty-four most famous national historic and cultural cities.

2.3.4 *Classical Gardens of Suzhou*

Suzhou, one of China's most famous national historical and cultural cities, enjoys a worldwide reputation for its elegant scenery and classical gardens. The gardens date back to the time when the city was set up as the capital of Kingdom Wu of the Spring and Autumn period. These private gardens emerged in the Five Dynasties, were developed in the Song and Ming dynasties, and finally reached their apex in the Qing Dynasty, by the end of which more than 170 gardens had been constructed. Today, more than sixty of these gardens remain well preserved, and nineteen of these are open to the public. These small gardens are renowned for their profound integration of exquisite artisanship, artistic elegance, and rich cultural implications. As outstanding examples of Chinese classical gardens, they demonstrate how ancient Chinese intellectuals harmonized conceptions of aestheticism in a culture of reclusion within an urban living environment. Four of these gardens, namely the Surging Waves Pavilion, the Lion Grove Garden, the Humble Administrator's Garden, and the Lingering Garden, are typical examples of the classical gardens of Suzhou, because they respectively represent the different styles of garden architecture of the Song (960–1279), Yuan (1271–1368), Ming (1368–1644), and Qing (1644–1911) dynasties.

2.3.5 *The Riyuetan Lake Scenic Spot*

Riyuetan is the only natural pool on Taiwan Island, formed by the water accumulating from the fault basin between Yushan and Alishan. Resting in the mountains, the pool mirrors the peaks in its vast expanse of crystalline water, all together making a charming picture. A more elegant, tranquil, and poetic picture is drawn at dusk, when the sunset and the new moon are both reflected in the pool in a delightful contrast. Riyuetan, literally “the Sun Moon Lake” in Chinese, takes its name from its shape. Divided by Guanghua Islet, which looks from a distance like a pearl floating on the surface of the water, the pool is shaped like a crescent moon in the southern part and a sun in the north, hence the name.

About 760 meters above sea level, the lake covers 9 square kilometers, with a perimeter of 35 kilometers. It is the largest natural freshwater lake in Taiwan Province and one of the famous rare alpine lakes of China, treasured as the Heavenly Pool of Taiwan Island. Nestling in the green mountains, and embracing the green pearl-like islet, the lake presents a picturesque landscape, changing throughout the year and even throughout the day. On average, the temperature is no higher than 22 °C in July, and is no lower than 15 °C in January. This scenic spot, with its refreshing and pleasant climate, is a popular summer destination.

2.3.6 *Yangtze Gorges Scenic Spot*

Yangtze Gorges Scenic Spot covers the grand canyon area along the upper reaches of the Changjiang River. It includes the Three Gorges, as well as the wide valleys and small gorges in between. The Three Gorges is a collective name for the three major gorges of the Changjiang River, namely Qutang Gorge, Wu Gorge, and Xiling Gorge. It starts at Baidicheng in Fengjie County, Chongqing and ends at Nanjin Pass in Yichang, Hubei Province, spanning roughly 191 kilometers. The Three Gorges is famous for its magnificent landscape and rich cultural content. On both sides of the gorges stand fantastic mountain ranges, soaring into the mist and clouds. Precipitous hills, steep cliffs, grotesque rocks, and a large number of miraculous caves are secluded in the mountains. Mingled with the gorges are numerous hazardous rugged shoals. Turbulent rapids rush along the shoals and reverberate off the banks. Three magical ancient rivers, the Daning, Xiangxi, and Shennongxi, run through the Three Gorges, adding to the brilliance and mystery of this scenic spot.

The Three Gorges is one of the cradles of ancient Chinese culture. It has inspired countless Chinese people, including some famous historical figures and poets. The deep canyon was the battlefield on which many heroes in the age of the Three Kingdoms fought. The Daxi culture, deeply rooted in the Three Gorges, has radiated splendor throughout history. The local area of the Three Gorges is also the birthplace of the great patriotic poet Qu Yuan and the well-known beautiful queen Wang Zhaojun. In addition, a number of ancient poets, such as Li Bai, Bai Juyi, Liu Yuxi, Fan Chengda, Ouyang Xiu, Su Shi, and Lu You, visited the region and, deeply moved by its magnificence, left behind widely read great poems describing their fondness of and admiration for the place. World-famous historical sites such as Baidi City, the Huangling Temple, and Nanjing Pass also serve to enhance the beauty of the landscape.

China's Forty-Eight UNESCO World Heritage Sites (as of July 2015)

1. Cultural Heritage

- Ancient Building Complex in the Wudang Mountains (1994)
 Ancient City of Ping Yao (1997)
 Ancient Villages in Southern Anhui—Xidi and Hongcun (2000)
 Capital Cities and Tombs of the Ancient Koguryo Kingdom (2004)
 Classical Gardens of Suzhou (1997)
 Cultural Landscape of Honghe Hani Rice Terraces (2013)
 Dazu Rock Carvings (1999)
 Fujian Tulou (2008)
 Historic Centre of Macao (2005)
 Historic Ensemble of the Potala Palace, Lhasa (1994)
 Historic Monuments of Dengfeng in “The Centre of Heaven and Earth” (2010)
 Imperial Palaces of the Ming and Qing Dynasties in Beijing and Shenyang (1987)
 Imperial Tombs of the Ming and Qing Dynasties (2000)
 Kaiping Diaolou and Villages (2007)
 Longmen Grottoes (2000)
 Lushan National Park (1996)
 Mausoleum of the First Qin Emperor (1987)
 Mogao Caves (1987)
 Mount Qingcheng and the Dujiangyan Irrigation System (2000)
 Mount Wutai (2009)
 Mountain Resort and its Outlying Temples, Chengde (1994)
 Old Town of Lijiang (1997)
 Peking Man Site at Zhoukoudian (1987)
 Silk Roads: the Routes Network of Chang'an–Tianshan Corridor (2014)
 Site of Xanadu (2012)
 Summer Palace, an Imperial Garden in Beijing (1998)
 Temple and Cemetery of Confucius and the Kong Family Mansion in Qufu (1994)
 Temple of Heaven: an Imperial Sacrificial Altar in Beijing (1998)
 The Grand Canal (2014)
 The Great Wall (1987)
 West Lake Cultural Landscape of Hangzhou (2011)
 Yin Xu (2006)
 Yungang Grottoes (2001)
 Tusi Sites (2015)

2. Natural Heritage

- Chengjiang Fossil Site (2012)
 China Danxia (2010)
 Huanglong Scenic and Historic Interest Area (1992)
 Jiuzhaigou Valley Scenic and Historic Interest Area (1992)
 Mount Sanqingshan National Park (2008)

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- Sichuan Giant Panda Sanctuaries—Wolong, Mt. Siguniang and Jiajin Mountains (2006)
 - South China Karst (2007)
 - Three Parallel Rivers of Yunnan Protected Areas (2003)
 - Wulingyuan Scenic and Historic Interest Area (1992)
 - Xinjiang Tianshan (2013)
 - 3. Mixed Heritage
 - Mount Emei Scenic Area, including Leshan Giant Buddha Scenic Area (1996)
 - Mount Huangshan (1990)
 - Mount Taishan (1987)
 - Mount Wuyi (1999)
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Traditional Chinese Medicine and Chinese Materia Medica

As a time-honored tradition, traditional Chinese medicine (hereinafter referred to as TCM) is an amalgam of Chinese people's experience and wisdom accumulated over many thousands of years of struggle against diseases. TCM is famous worldwide for its integrated system, profound theoretical system, superb medical techniques, and useful literature. Apart from its significant contributions to the prosperity of the Chinese nation, TCM has also influenced the development of medicine around the world. Even nowadays, with rapid developments in science and technology, TCM is still reputed for its rich cultural connotations, its remarkable clinical efficacy, and its expert use of natural medicine and natural therapies. This chapter provides a brief introduction to TCM's theoretical system, unique philosophical foundation, and understanding of diseases, diagnosis, therapy, health care, and Chinese materia medica.

3.1 TCM's THEORETICAL SYSTEM

Built upon traditional Chinese culture, TCM is the scientific study of human life, health, and disease. Although categorized as a natural science, TCM possesses distinctive features of social science and has been profoundly influenced by ancient Chinese philosophy.

3.1.1 *Formation of TCM's Theoretical System*

TCM's theoretical system may date back as far as the Spring and Autumn period (770–476 BC) and the Warring States period (475–221 BC), during which *The Yellow Emperor's Inner Canon* (*Huangdi Neijing*) was compiled. The earliest extant medical text in China, it expounds systematically on the structure, physiology, and pathology of the human body; records in detail the scientific and systematic medical theories on disease diagnosis and therapy and on health preservation; and summarizes the medical achievements and technologies for the treatment and prevention of disease. The book also demonstrates the interrelationship between heaven, earth, and man from a macro perspective, and elaborates on the law of human life based on ancient Chinese multi-disciplinary theories and methods. Thus, it establishes the theoretical system of TCM. Much of the information compiled in *The Yellow Emperor's Inner Canon* was unknown to the medical communities of other countries at the time.

In terms of morphology, the information provided on the ratio of the lengths of different human bones and blood vessels and the relative size and capacity of internal organs is, generally speaking, consistent with modern interpretations. For example, the ratio between the length of the esophagus and that of the intestines has been recorded as 1:35, quite close to 1:37 held by modern anatomy. As for the circulatory system, the view that “the heart governs blood vessels” was put forward in the essay “Treatise on Fistula” in *Plain Questions* (*Suwen*), and that “(the blood) flows continuously; and runs in endless circles” was recognized in “Treatise on Pain” in *Plain Questions*, over 1000 years earlier than Harvey's discovery in 1628.

Another medical classic comparable in importance to *The Yellow Emperor's Inner Canon* is *Classic on Medical Problems* (*Nanjing*) by Bian Que (a famous doctor of the fourth century BC). He expounded on the human body's structure, physiology, pathology, pathomechanism, diagnosis, therapeutic principle, therapy, and so on in a question-and-answer format, focusing in particular on two aspects—pulse diagnosis and acupuncture-moxibustion—in more detail, providing a theoretical basis for their clinical practice in later ages.

The Western Han and Eastern Han dynasties (206 BC–AD 220) made more remarkable progress in TCM. On the theoretical basis of *The Yellow Emperor's Inner Canon* and *Classic on Medical Problems*, Zhang Zhongjing (AD 150–219), an outstanding physician in the late Eastern Han Dynasty, authored the *Treatise on Cold Damage Disorders and Miscellaneous Illnesses*

(*Shanghan Zabing Lun*). The book comprises two parts, i.e. *Treatise on Cold Damage Disorders* (*Shanghan Lun*) and *Essential Prescriptions of the Golden Casket* (*Jinkui Yaolue*). Further summarizing previous medical achievements and incorporating his own clinical experience, he established the theoretical system of treatment by the exercise of syndrome differentiation of six channels and that of zang–fu organs in diagnosing and treating exogenous and endogenous diseases. This laid a solid foundation for the development of clinical medicine.

In addition, *Shen-nong's Classic of Materia Medica* (*Shennong Bencao Jing*), written in the Han Dynasty in the name of Shen-nong, recorded 365 medicinal items which were divided into top, medium, and low grades based on their effectiveness in preserving health and treating disease, as well as their toxicity level, sorted into four properties (“cold,” “cool,” “warm,” and “hot”) and five flavors (“sour,” “bitter,” “sweet,” “acidic,” and “salty”) and respectively judged in terms of their effect on the internal organs and fourteen meridians. Therefore, this book laid the foundation for the later theoretical system of Chinese materia medica.

3.1.2 Development of TCM's Theoretical System

Based on *The Yellow Emperor's Inner Canon* and the *Treatise on Cold Damage Disorders and Miscellaneous Illnesses*, Chinese physicians have developed the different aspects of TCM's theory and practice.

3.1.2.1 A Wealth of Practice in the Wei to the Tang Dynasties

During its development, TCM's theoretical system has been constantly enriched on the basis of abundant medical practice. For instance, *Canon of the Pulse* (*Mai Jing*) by Wang Shuhe in the Jin Dynasty (AD 265–420) was the first Chinese monograph on sphygmology that systematically explained traditional Chinese pulse diagnosis in terms of its theory and method and described each pulse's clinical significance; in *Canon of Acupuncture and Moxibustion* (*Zhenjiu Jiayi Jing*) by Huangfu Yi in the Jin Dynasty, meridians, acupoints, and the method and theory of acupuncture–moxibustion therapy were expounded on more thoroughly; Chao Yuanfang in the Sui Dynasty (AD 581–618) described the cause, pathology, and clinical symptoms of various diseases in more detail in his *General Treatise on the Cause and Symptoms of Diseases* (*Zhubing Yuan Hou Lun*); *Invaluable Prescriptions for Ready Reference* (*Qianjin Fang*)

by Sun Simiao in the Tang Dynasty (AD 618–907) made great progress on prescription and therapy, especially the system of treatment based on syndrome differentiation.

3.1.2.2 *Contention and Breakthrough in the Song to Yuan Dynasties*

In an atmosphere of “everyone airing his own views and contending with each other,” in which physicians shared what they learned from their own practice of medicine, breakthroughs were made in the theory of TCM. For example, Chen Wuzhe in the Song Dynasty (AD 960–1279) put forth the famous etiological theory known as “The Three Categories of Pathogenic Factors” in his work *Treatise on Three Categories of Pathogenic Factors* (*Sanyin Jiyi Bingzheng Fanglun*); *Key to Therapeutic of Children Disease* (*Xiaouer Yaozheng Zhijue*) by Qian Yi in the Song Dynasty pioneered the practice of syndrome differentiation and treatment of zang–fu organs. In the Jin (AD 1115–1234) and Yuan (AD 1271–1368) dynasties, there appeared four main medical schools with distinctive features, represented by Liu Wansu, Zhang Congzheng, Li Gao, and Zhu Danxi. Their theories—the theory of fire heat, theory of purgation, theory of reinforcing the earth, and theory of nourishing yin—are different but innovative, thereby enriching traditional Chinese medicine and pharmacology.

3.1.2.3 *Integration in the Ming and Qing Dynasties*

Numerous masterpieces were produced at this stage. Li Shizhen in the Ming Dynasty (AD 1368–1644) comprehensively sorted out and summarized the botanical knowledge he had gained from his personal practice and wrote *Compendium of Materia Medica* (*Bencao Gangmu*), fifty-two volumes recording 1892 kinds of medicines and 1160 sketches in total; the Qing (AD 1644–1911) government organized the compilation of *Golden Mirror of Medicine* (*Yingzong Jinjian*); and Chen Menglei compiled *Great Collection of Ancient and Modern Books: Encyclopedia of Medicine* (*Gujin Tushu Jicheng: Yibu Quanlu*)—all of which were influential worldwide. Meanwhile, many original ideas put forward on the above basis pushed the theoretical system of TCM to develop further. In his *Treatise of Epidemic Diseases* (*Wenyi Lun*), Wu Youke in the Ming Dynasty proposed that plague diseases were caused by abnormal qi (air) existent in the universe that caused infection via the mouth and nose rather than the surface of the skin, thereby greatly advancing the development of the etiology of epidemic febrile diseases (plague diseases in particular).

By the Qing Dynasty a complete theoretical system for epidemic febrile diseases in terms of pathology, symptoms, pulse-taking, and treatment had been created by physicians specializing in epidemic febrile diseases, such as Ye Tianshi and Wu Jutong, who developed the theory and method of treating epidemic febrile diseases based on syndrome differentiation with the four systems—*Wei* (Defense), *Qi* (Energy), *Ying* (Construction), and *Xue* (Blood)—and the Triple Burner (one of six internal organs) at the core. Wang Qingren in the Qing Dynasty, who paid particular attention to anatomy, authored the book *Correction on Errors in Medical Classics* (*Yilin Gaicuo*), where he corrected the errors in medical classics on human anatomy and developed the theory of diseases caused by blood stasis.

3.1.2.4 Deepening Development in Modern Times

In recent times there has been a massive importation of Western medicine into China, and as a consequence traditional Chinese and Western medicines have been gradually integrated through mutual development. For instance, in *Records of Chinese Medicine with Reference to Western Medicine* (*Yixue Zhongzhongcanxi Lu*), Zhang Xichun advocates for traditional Chinese and Western medicines to draw on each other's strengths to achieve mutual progress. With the rapid advances in science and technology, it is much more favorable to study traditional Chinese medicine based on the multi-disciplinary method which is applied in modern science, and fruitful results have been achieved in the promotion of its theory and clinical practice. TCM is thereby constantly making new breakthroughs.

3.2 TCM'S PHILOSOPHICAL BACKGROUND

Classical Chinese philosophy, having been applied to all domains of TCM with significant impact, turns out to be the unique methodology behind TCM's theoretical system and the guide to its practice.

Qi, yin-yang, and five phases are important concepts as well as the most basic models of thought in TCM. Under the influence of the pre-Qin period's philosophical thought explaining the origins of the universe as well as the composition and rules regarding change of things with qi, yin-yang, and five phases, TCM employs the model of "qi—yin-yang—five phases" to illustrate human life's essential energy, physiological functions, pathological changes, diagnosis, and treatment.

3.2.1 *Essential Qi Doctrine*

The so-called “essential qi” refers to the fundamental substance constituting the world that is invisible and in constant motion. Ancient Chinese philosophers regarded qi as the source of the universe and believed that all creatures originated from the integration of qi in the heaven and the earth.

TCM extends this idea regarding the vital essence of qi and the origin of life. Human beings are created from the unity of celestial Qi and terrestrial qi, which is the basic component of the human body. As stated in *The Yellow Emperor’s Inner Canon*, “man depends on celestial Qi and terrestrial qi to exist and abides by the principles of the four seasons to live” (*Plain Questions*). Human beings acquire the congenital qi from the maternal parent before birth, then inhale the air through the lungs and the nutrients from water and food through the spleen and stomach after birth. These three become integrated and turn into the vital essence of the human body through transformation, promoting the regular activities of physiological functions. The physiological activities proceed as normal and the human body demonstrates exuberant vitality in the case of sufficient vital essence, while the symptom of asthenia occurs in all or part of the body in the case of depletion of the vital essence. In the meantime, the movement of, and the balance between, qi ensures normal life activities. If the ascending, descending, exiting, and entering movements of qi go smoothly, the human body will be in a healthy state; otherwise, various pathological syndromes will be induced by the disturbance of the qi’s dynamic. For example, the counter flow of qi, that is, more ascending than descending movement, will result in coughing, asthma, belching, and so on. Provided the method of descending qi or that of moving qi is adopted correspondingly in the treatment, a favorable effect will be attained.

3.2.2 *Yin–Yang Theory*

In “Notes to the *Book of Changes*” (Yi Zhuan), yin and yang are used as the model and method to describe and explain all of life’s phenomena. Yin–yang theory has been drawn on by TCM to expound on human life activity, organic structure, physiological functions, and physical properties of the entire body and its parts as well as the fundamental rules of diagnosis and therapy, and runs through the principles, methods, recipes, and medicines of TCM.

3.2.2.1 *Explaining the Human Body's Organic Structure*

According to the opposition and unity of yin and yang, the human body is conceived as an organic whole combining yin and yang, and every organic structure can be identified as yin or yang in light of its location and function. As explained in *The Yellow Emperor's Inner Canon*, the external part of the human body pertains to yang while the internal part is yin; the back is yang and the abdomen is yin; concerning the zang–fu organs, the five zang organs (liver, heart, lung, spleen, and kidney) are yin while the six fu organs (gallbladder, stomach, large intestine, small intestine, urinary bladder, and triple burner) are yang (*Plain Questions*).

3.2.2.2 *Explaining the Human Body's Physiological Functions*

TCM believes that normal life activities are the result of harmony between yin and yang. *The Yellow Emperor's Inner Canon* repeatedly states that yin and yang are the basis of life and refers to the healthy physiological state of the organism as that of equilibrium between yin and yang and thus the preservation of vitality. It holds that life activity is a process wherein yin and yang constrain one another, increasing and decreasing in order to achieve dynamic harmony. If yin and yang become separated and no longer serve to balance one another, human life will come to an end: “the separation of yin and yang will inevitably exhaust essence and Qi” (*Plain Questions*).

3.2.2.3 *Explaining Pathological Changes*

The harmony between yin and yang within the human body is fundamental to normal life activities. Thus, an imbalance of yin and yang is an essential reason for disease and pathological processes.

An abnormal exuberance of either yin or yang is a pathological change in which the level of either yin or yang is above normal. In *Plain Questions*, it is pointed out that “the predominance of yin results in the disorder of yang, the predominance of yang leads to the disorder of yin; the predominance of yang generates heat and the predominance of yin produces cold.”

An abnormal deficiency of either yin or yang is a pathological change in which the level of either of yin or yang is below normal. Grounded on the principle of a yin–yang dynamic equilibrium, the deficiency of either yang or yin is bound to generate the relative exuberance of its opponent. Yang deficiency is detrimental to the yang qi in the human body, which therefore cannot constrain yin, resulting in a relative excess of yin and then cold syndrome. Yin deficiency is detrimental to the yin qi in the human body, which therefore fails to constrain yang, causing a relative excess of yang and then heat syndrome.

3.2.3 *Five Phases Theory*

Five phases theory is a world outlook and methodology in ancient Chinese philosophy that understands, explains, and explores cosmic laws by the five elemental qualities (wood, fire, earth, metal, and water) and the changing rules of mutual generation and overcoming between them. It is applied to medical science by the method of analogy and association in *The Yellow Emperor's Inner Canon*, where attributes of the human body's tissues and organs, such as the zang–fu organs and meridians, are explained with the five phases' characters; the mutual relations among various physiological functions are analyzed by the relationships of generation and subjugation among the five phases; and the influence of pathological changes in zang–fu organs is explained by the “mother–son” mutual generation among the five phases to guide the clinical practice.

3.2.3.1 *Explaining the Five Zang Organs' Physiological Functions*

Five phases theory treats the visceral organs as five functional systems by breaking down their anatomical boundaries. That is, in light of five phases theory, the human body is regarded as a system of zang–fu structure which centers on the five zang organs (liver, heart, spleen, lung, and kidney), is assisted by the six fu organs (gallbladder, small intestine, stomach, large intestine, urinary bladder, and triple burner), presides over the five body constituents (tendon, vessel, muscle, skin, and bone), opens at the five sensory organs (eyes, tongue, mouth, nose, and ears), and manifests splendor in the body surface (nails, complexion, lips, body hair, and hair), thereby linking up the human body's various tissues and organs correspondingly. Not only are the five organs physiologically interrelated and mutually coordinated to collectively accomplish the overall physiological activities, but they are also linked organically with factors in nature such as time, space, smell, color, and so on.

For example, *Plain Questions* outlines the following:

the eastern region is green-blue in color. Having entered the body, it communicates with the liver; its orifice opens in the eye, and stores essence in the liver, such that it causes a biological shock to the body. Its flavor is sour; its class is herbs and trees. Hence, one knows that (its) diseases are located in the tendons.

Therefore, east, spring, green-blue, and sour in the natural world are systematically associated via the wood phase among the five phases with the liver, tendons, and eyes of the human body, embodying the functional network of the correspondence between human beings and the universe as well as communication between the exterior and the interior.

3.2.3.2 Explaining the Interrelations Among the Five Zang Organs

The theory of generation, overcoming, restriction, and transformation among the five phases is used to explain the mutually generating yet restricting relations among the five zang organs. Mutual generation among the five phases accounts for the connection between the five zang organs. For instance, the liver–wood generates the heart–fire, since the blood stored in the liver can correct for an insufficient amount in the heart. Equally, mutual overcoming among the five phases accounts for that among the five zang organs. For instance, the kidney–water overcomes the heart–fire in that the kidney–water moistens the wound to prevent hyperactivity of the heart–fire.

In addition, five phases theory can also explain the progress of disease among the zang–fu organs, for example, “the diseased mother-organ disorder affecting the child-organ” and “the diseased child-organ involving the mother-organ.” Mutually generating yet subjugating relations can be used as a guide in the prevention and treatment of clinical disease; the law of mutual generation can be used to “reinforce the mother in deficiency syndrome, reduce the son in excess syndrome,” for example, that of nourishing the kidney to nurture the liver in the treatment of liver–yang hyperactivity; and the law of mutual overcoming can be used to “repress the violent to support the weak.” As it should be, not all diseases can be treated by the law of mutual generation and mutual overcoming among the five phases, and treatment will still be based on syndrome differentiation.

TCM developed out of the study of human life and diseases using a philosophical methodology from a macro perspective, beginning at a time when science was underdeveloped. It has established a unique theoretical system and numerous preventive and therapeutic methods whose effectiveness has been continually reinforced. At the same time, TCM differs from modern medicine in its methods of thought and research perspectives and is therefore highly complementary to modern medicine.

3.3 TCM'S UNDERSTANDING OF DISEASE, DIAGNOSIS AND TREATMENT, AND HEALTH PRESERVATION

TCM views the human body as an organic unity comprising the heart as the governor, the five zang organs as the center, the six fu organs, and the body's constituent parts and orifices, which are linked up by meridians where qi, blood, and bodily fluids flow regularly—apart from in the zang-fu organs. The zang-fu organs, qi, blood, bodily fluids, constituent parts, and orifices mutually coordinate and reinforce their physiological functions so as to maintain the relative balance and stability between the internal and external environments and the human body's normal life activities. TCM has also developed a complete and unique understanding of disease, diagnosis and treatment, and health preservation based on its mastery of the healthy human body and the rules of physiological activities as well as its summary of various clinical disease manifestations.

3.3.1 *TCM's Understanding of Disease*

TCM believes the organism will maintain a healthy state, that is, the so-called “relative equilibrium of yin–yang,” provided there is relative harmony within the organism as well as between the organism and the internal and external environments during man's adaptation to and transformation of the natural environment. Nevertheless, under the effect of some etiological factors, the struggle between vital qi and pathogen will result in an imbalance within the organism as well as between the organism and the internal and external environments. As a consequence, a series of clinical manifestations and signs will appear and affect the organism's normal capacity to undertake daily activities and work in varying degrees and thus bring forth disease. Based on this understanding of disease, TCM has a comprehensive yet dynamic approach to the concept of disease occurrence and development from the distinctive perspectives of etiology, pathomechanism, and so forth.

3.3.1.1 *Etiology*

The etiological factor, also known as the pathogenic factor, is the cause of disease. Etiology embodies the guiding concept of holism in TCM and extensively applies analogies to it. The primary methods used to explore the etiology are, first, “seeking disease cause from syndrome differentiation,” and second, “determining treatment according to cause.”

1. “Seeking disease cause from syndrome differentiation” is the method of inquiring into the cause of a disease by comprehensive analysis of its clinical manifestations. For example, under the inspiration of the swift and active wind in nature, the etiological factor of mobile aches in joints all over the body is clinically epitomized as wind-pathogen. Targeted at the clear etiological factor, treatment by simply taking medicine that dispels wind and alleviates pain proves effective. Taking the concept of holism as the starting point, the conduct of dialectical analysis in exploring etiology means that the method of seeking disease cause from syndrome differentiation is more widely used and also proves more accurate than the common method of seeking disease cause by inquiry.
2. “Three categories of pathogenic factors” is a disease classification system first proposed by Chen Wuze in the Song Dynasty which is highly praised and still in use today. According to this system, disease causes can be classified as exogenous, endogenous, and non-exogenous pathogenic factors. Exogenous pathogenic factors are those which come from nature and usually invade the human body through the skin, mouth, and nose, such as the six common natural climates—wind, cold, summer heat, humidity, dryness, and fire—which, though normally harmless, can in excess become the six climatic exopathogens. Opposite to exogenous pathogenic factors are endogenous pathogenic factors that directly impair the zang-fu organs due to an individual’s excessive emotion or behavior, including the extreme effects of “joy, anger, anxiety, thought, sorrow, fear, and fright,” overwork, too much leisure, improper diet, and so forth. Apart from these two types of pathogenic factors, the pathological product produced in one disease may also become that of another disease, which is called pathological product or secondary cause of disease and commonly includes three categories: wet phlegm, extravasated blood, and calculus. Thus, whether the cause is external or internal, TCM takes note of relativity: climate, emotion, labor and rest, and diet, though ordinary, will cause disease when an individual’s ability to endure them is surpassed.

3.3.1.2 *Theory of Pathomechanism*

Pathomechanism, that is, the mechanism of disease occurrence, development, and change, is the internal basis for the clinical manifestations, development, prognosis, diagnosis, and treatment of a disease. It associates local pathological changes with the systemic condition of the body

and explores the developmental and prognostic rules of disease with the aid of the interrelated yet mutually restricting relations between the zang–fu organs and the meridians. In TCM, every disease is believed to be an integrated pathological process that takes place locally and systemically—there is neither simply locally pathological change nor totally systemic pathological change. Besides, mutual generation and subjugation among the five phases are usually used to explain the pathological effects and the transmission rules of disease among the zang–fu organs. Common basic pathomechanisms include the alternate waning and waxing of pathogenic and healthy qi, the disharmony of yin–yang, and the disorder of qi and blood.

1. The alternate waning and waxing of pathogenic and healthy qi occurs in the struggle between pathogenic qi and physical resistance during the onset and development of disease. The moment pathogenic qi invades the human body, healthy qi will interact with it: on the one hand, pathogenic qi impairs healthy qi in the body, while on the other hand, the latter endeavors to fight against the former. During the struggle between pathogenic and healthy qi, the change in their relative force affects the disease's occurrence and development, the deficiency and excess of pathogenesis and disease syndromes, and thus the disease prognosis directly. For example, if pathogenic qi is in a hyperactive state, the struggle will be violent, resulting in more violent symptoms called “sthenic syndromes”; provided pathogenic qi is deficient and depleted, vital qi will fail to fight, usually causing “deficiency syndromes” such as weakness, regression, and deficiency.
2. Yin–yang disharmony can also cause disease. Yin and yang in the human body are dominant in regulating the body's metabolism and physiological functional activities. Yang qi is mainly responsible for warming the organism, guarding the outside of the body against pathogens, exciting the spirit, and promoting the functional activities of the zang–fu organs, while yin qi is responsible for promoting the body's moistening, nourishing, internal defense, and tranquility. Provided that relative harmony is reached between yin and yang in the human body, its dynamic and static activities will be proper, qi dynamics will ascend and descend regularly, the systemic physiology will function normally, and thus the human body will be healthy. However, if there is disharmony, be it locally or systemically, disease will result. Therefore, yin–yang disharmony is the most fundamental

pathogenesis in various pathological changes in the human body and affects the body's various functional and organic pathological changes, which is usually seen in yin and yang excess, yin or yang deficiency, yin–yang mutual loss, yin–yang mutual transformation, or yin–yang non-existence.

3. Qi and blood serve as the material basis for the functional activities of zang–fu organs, meridians, and other tissues and organs. Human activities rely primarily on the acquired qi, blood, and bodily fluids from metaplasia, which are transported all over the body through meridians to nourish the zang–fu organs so they can carry out their functional activities. The disorder of qi and blood is bound to affect various physiological functions of the zang–fu organs, meridians, and others, as a consequence of which disease occurs. It has been stated in *Plain Questions* that “the disharmony between qi and blood causes all kinds of diseases.” Generally speaking, the disorder of qi mainly takes on pathological manifestations of qi deficiency, such as the deficiency in qi's generation and transformation or the depletion of qi, or the pathological states of disorder in qi activity such as qi stagnation, counter flow of qi, and qi collapse caused by the disorder in qi's movement. The disorder of blood is mainly manifested in the disordered circulation of blood or blood deficiency, with decreased nourishing function caused by the deficiency in blood's generation and transformation or the depletion of blood.

3.3.2 TCM'S Diagnostic Methods

The four diagnostic methods—inspection, auscultation and olfaction, inquiry, and palpation and pulse-taking—were established in *The Yellow Emperor's Inner Canon*, among which inspection, particularly complexion inspection and tongue inspection, and pulse-taking in palpation are distinctive in TCM. Yet, as each of the four diagnostic methods offers unique insights and information in clinical practice, they should be applied together when examining the patient's health and collecting clinical materials from different aspects and cannot be replaced.

3.3.2.1 Inspection

The inspection method involves inspecting disease symptoms on the body's surface to diagnose the pathological changes in the zang–fu organs, qi, and blood. It can be roughly divided into two aspects: one is the observation of the patient's mental state, complexion, and physique, and the

other is the inspection of specific body parts such as the tongue. In particular, changes in the mental state, complexion, and tongue are closely related to the deficiency and excess of zang–fu organs and the repletion and depletion of qi and blood. For this reason, inspection ranks as the first among the four diagnostic methods.

3.3.2.2 *Auscultation and Olfaction*

Auscultation and olfaction involve listening to the sounds and smelling the odors of a patient. As all sounds and odors come from zang–fu organs' physiological activities and pathological changes, doctors can examine the patient's condition by listening to the anomalous changes in the sounds and smelling those in the odors.

3.3.2.3 *Inquiry*

Inquiry applies not only to the history of the present illness and the past medical history, as in modern medicine, but also to the patient's mentality and emotions, living conditions, living habits, and so on, as emphasized in *The Yellow Emperor's Inner Canon*. It is also highlighted that the doctor should respect the patient's privacy and learn comprehensively about the patient as well as his or her condition with a sincere attitude, patience, and attentiveness, demonstrating their care and sympathy for the patient.

3.3.2.4 *Palpation and Pulse-Taking*

Palpation and pulse-taking is a time-honored and distinctive diagnostic method of TCM. It is believed that Bian Que was expert in diagnosing diseases by pulse-taking. Practiced and developed by doctors of later generations, pulse-taking has not only approached perfection theoretically, but also established its method and been applied extensively. The method of pulse-taking can be classified according to body parts, for example pulse-taking over *cunkou* (radial artery on the wrist), over three parts (the head, hands, and feet) with nine palpation sites, over both *renying* (common carotid artery) and *cunkou*, Zhongjing's diagnostic method over three parts (*cunkou*, *fuyang*—anterior tibial pulse, and *taixi*—pulse near the KI 3 point), and so on.

Conveying both physiological and pathological information about the body part, pulse manifestations—the appearance of the pulse's rebound as felt by the fingers—serve as the window through which doctors can learn about the meter of the human body. In light of the main factors constituting pulse manifestation, it can be described from eight aspects: location,

beats in one breath, length, width, force, fluency, tensility, and evenness. Fourteen kinds of pulse are commonly seen: floating pulse, deep pulse, slow pulse, rapid pulse, slippery pulse, hesitant pulse, stringy pulse, tight pulse, moderate pulse, surging pulse, thready pulse, irregular-rapid pulse, irregularly intermittent pulse, and regularly intermittent pulse. Nevertheless, clinical pulse manifestations are often mixed since most abnormal pulses are composed of more than two single pulses.

3.3.3 *Therapeutic Methods Used in TCM*

Under the guidance of the concept of holism, TCM has established many therapeutic principles, including “treatment aimed at its root causes,” “strengthening healthy qi to eliminate pathogenic factor,” “regulating yin and yang,” and “treating diseases in accordance with three conditions” (i.e., the climatic and seasonal condition, geographic locality, and the patient’s condition), and developed acupuncture-moxibustion, massage, and other therapeutic methods that are simple, convenient, and inexpensive but effective. Special therapeutic methods commonly used in TCM include pharmacotherapy, acupuncture-moxibustion, and massage.

3.3.3.1 *Pharmacotherapy*

Pharmacotherapy is the method of treating disease with medicines, one of the most common clinical therapies. Though numerous methods of pharmacotherapy were recorded in *The Yellow Emperor’s Inner Canon*, the complexity of diseases with clinical symptoms requires a diversity of therapies, many of which have been developed in later medical practice. During the Qing Dynasty, Zhong Chengling, in *Medical Insights (Yixue Xinwu)*, divided up the various therapies for treating clinical disease into “eight methods”—diaphoresis method, emesis method, purgative method, harmonizing method, warming method, clearing method, resolving method, and tonifying method—which are still in use today.

Diaphoresis

Diaphoresis aims to resolve the six climatic exopathogens on the body’s surface through perspiration by opening up and dredging muscular interstices, regulating ying-qi (nutrient qi) and wei-qi (defense qi), and dispersing outward lung qi. This method is suitable for exogenous febrile diseases with exterior syndromes, measles failing to erupt, sores and carbuncles coming on, and so forth.

Emesis Method

The emesis method aims to get sputum, food, toxicants, and other factors retained in the throat, chest, diaphragm, and gastric system to be spit out from the mouth by means of emetic therapy.

Purgative Method

The purgative method aims at flushing out pathogens from the intestines to eliminate conditions such as constipation caused by food retention, dry stool, coagulated cold, blood stasis, phlegm stagnation, or dropsy in the intestines.

Harmonizing Method

By relieving semi-exterior and -interior pathogens, or the syndrome of zang-fu and yin-yang disharmony, through reconciliation and harmonization, the harmonizing method is an option for treating syndromes of pathogenic qi invading Shaoyang, the disharmony between liver and spleen, intermingled cold and heat, and so forth.

Clearing Method

The clearing method aims to eliminate the interior heat pathogen by clearing heat, discharging fire, detoxification, cooling the blood, and so on. It is suitable for syndromes of heat pathogen congesting the interior, such as interior heat syndrome and deficient heat syndrome.

Warming Method

The warming method aims to treat interior cold syndromes by warming the interior to dispel cold, which is suitable for treating deep cold and obstinate cold, cold fluid retained internally, cold and dampness congealing, and yang-qi decline in zang-fu organs.

Resolving Method

The resolving method is used to gradually eliminate and disperse tangible pathogens formed by qi, blood, phlegm, food, water, and parasites through abductive dispersion of food stagnation, promoting the flow of qi and blood circulation, resolving phlegm and disinhibiting water, expelling parasites, and so on.

Tonifying Method

The tonifying method is primarily applied in the treatment of various asthenia syndromes; the aim is to tonify the human body's qi, blood, and yin-yang, which is a suitable treatment for various deficiency syndromes.

These eight therapeutic methods are used to treat different syndromes of the exterior, interior, cold, heat, deficiency, and excess. Nevertheless, the pathogenetic condition is usually so complex that the disease needs to be treated with a variety of therapeutic methods simultaneously rather than relying on one single method. Therefore, though categorized into eight methods, they are quite changeable if used cooperatively.

3.3.3.2 Acupuncture-Moxibustion

Acupuncture-moxibustion is a means of treating disease that is peculiar to TCM. Originating as early as the Stone Age, it has remained popular for thousands of years due to its wide range of indications, remarkable effectiveness, convenience of application, affordability, and safety.

Acupuncture-moxibustion, composed of acupuncture and moxibustion, produces a therapeutic effect on internal body diseases by using needling instruments and moxa to stimulate respective superficial structures of the body. Although their instruments and methods of manipulation differ, both acupuncture and moxibustion take the theory of meridians as their theoretical basis and produce the effect of disease prevention and therapy by stimulating acupoints on the body's surface to regulate yin-yang, strengthen vital qi, eliminate pathogens, and promote qi and blood circulation. Therefore, on the basis of the theory of meridians, the understanding of acupoints is important to the practice of acupuncture-moxibustion.

Acupoints are the body locations where the qi in zang-fu organs and meridians is infused into the body surface as well as where acupuncture-moxibustion is applied. *The Spiritual Pivot (Lingshu)* describes the close relationship between meridians and acupoints, saying that "there are about 365 joints all over the human body ... the so-called joints are the places where essential qi flows in and out." All acupoints are considered to be located along different meridians respectively, which in turn belong to certain zang-fu organs, thus making the interrelation between acupoints, meridians, and zang-fu organs an inseparable one.

Acupoints are divided into fourteen-meridian points, extra points, and ashi points. Among them, the fourteen-meridian points ("meridian points" for short) are located along the twelve meridians, the *Du Mai* (governor vessel), and the *Ren Mai* (conception vessel); there are

361 points in all (each with a name of its own) and they consist of the major body of acupoints. The other acupoints with fixed locations and relatively special therapeutic effects are termed “extra points.” Since extra points don’t belong to the fourteen meridians but still have fixed names, specific locations, and special therapeutic effects on some syndromes, they are also called “extra nerve points.” In addition, the other category of acupoints that takes the patient’s local pains or sensitive points of pain as acupoints are called “ashi points.” Albeit without specific names, fixed locations, or definite indications, ashi points always bring about surprising effects if the acupuncture-moxibustion is applied where the reactions of local soreness, numbness, distention, pain, and heavy sensation, or fleck, color change, cirrhosis, and swelling, occur.

3.3.4 *TCM’S Primary Methods of Health Preservation*

In TCM, the human lifespan is called one’s allotted span, that is, the natural span of life. TCM has established the principle of health preservation as the “spirit coming first and peace valued,” determined comprehensive methods to nurse one’s body and preserve one’s health involving both spiritual and daily life, and invented many health preservation techniques such as expiration and inspiration, and physical and breathing exercises. These methods mainly serve to balance yin and yang, strengthen the five zang organs, preserve the spirit, dredge the meridians, and regulate qi and blood. The specific content is not limited to one method but can be practiced in diverse ways and with different methods simultaneously. Nevertheless, the implementation of health preservation methods varies across individuals, places, and time.

3.3.4.1 *Following Time*

Following time means one should defend oneself against cold and avoid summer heat in light of climate changes, and nurse the body by complying with the characteristics of the four seasons, time, and climate. Health should be preserved comprehensively through the aspects of spirit, daily life, diet, and exercise, in compliance with the change rules of the four seasons and yin–yang. In the meantime, the six climatic exopathogens should be guarded against in a timely fashion: warm wind in the spring, intense heat in the summer, dryness in the autumn, and bitter cold in the winter; and pathogenic qi should be guarded against during extended drought and extreme heat, as well as damp heat and dirt.

3.3.4.2 *Regulating Emotions*

Regulating emotions refers in general to seven emotions: joy, anger, anxiety, thought, sorrow, fear, and fright. TCM regards emotions as being generated from qi in the five zang organs, whose disorder will affect bodily health. Experts in health preservation attach great importance to emotions and advocate the regulation of the seven emotions to prolong life. It has been suggested in *Spiritual Pivot* that those who are wise in health preservation should be adept at utilizing their subjective initiative to dissolve the seven emotions before they arise, and at making the most of favorable emotions' function in regulating and smoothing the flow of qi and blood to protect the mind and the body. Additionally, it particularly advocates maintaining a peaceful and tranquil mentality free of distracting thoughts, and nourishing the spirit by living calmly and peacefully, to attain a state, as described in *Plain Questions*, of "keeping the mind pure and free from any avarice, genuine qi flowing harmoniously in the body" and "keeping essence and spirit inside, diseases having no way to occur."

3.3.4.3 *Moderating Diet*

One is supposed to eat and drink in moderation and to take a scientific approach to food choices, rather than eating as one pleases. The intake of cereals, meat, fruits, and vegetables should be well balanced, with no particular food being favored; the degree of hunger and satiety should be moderate; three meals should be taken at regular times of day; appetite should be controlled, with simple, lighter flavors treated as a delicacy; and during the meal, one should remain at peace, concentrate, and take delight in the meal, avoiding depression, anger, worry, fright, and absentmindedness.

3.3.4.4 *Regularizing Daily Life*

There are certain rules for daily life that conform to the human body's physiological mechanism, that is, working and resting according to a schedule, in moderation, and in a timely manner. In other words, one's daily routine should comply with the four seasons and the alternation of day and night; one should strike a proper balance between work and rest based on one's individual physique; and couples should be amiable with each other and be moderate in sexual intercourse.

3.3.4.5 *Physical Exercises*

One should undertake physical and breathing exercises. The five mimic-animal exercises devised by Hua Tuo are often used for keeping fit.

Other popular exercises include Chinese shadowboxing, eight-sectioned exercise, and the changing tendon exercise.

3.3.4.6 *Acupuncture-Moxibustion: Medicines*

Acupuncture dredges meridians and moxibustion warms splenic activities to overcome deficiency, and when combined with massage, they are effective in disease prevention and health care. The so-called “remedies by medicines” refers to the use of pharmaceuticals to regulate yin and yang, tonify zang-fu organs and harmonize the flow of qi and blood; individuals can take restoratives as appropriate to their age, physique, and gender.

3.4 CHINESE MATERIA MEDICA AND APPLICATION

Chinese materia medica are the fruits of the Chinese people’s creative exploitation of natural resources, including herbs, animal substances, minerals, and medicines from other resources. Because plant-based elements and extracts are by far the most common type, the term “herbology” was widely used until modern times, when Western medicine and pharmacology became widespread in China and the term “Chinese materia medica” gradually replaced it. Based on physicians’ extensive practical experience, the materia medica is constantly enriched and more fully recorded and passed down.

3.4.1 *Performance of Chinese Materia Medica*

“Performance” refers to the property and efficacy of Chinese materia medica. All medicines have certain properties to address certain symptoms, and such properties are referred to as medicine bias in TCM. These characters (or biases), for example, the potentiality to rectify yin-yang excess or deficiency occurring in a disease, are the performances, namely, the drug effects of Chinese materia medica. Since diseases can be divided into cold and heat syndromes in nature, being upward, downward, and inward in tendency, those located in zang-fu organs and those in meridians, and deficiency and excess syndromes, Chinese materia medica have their own characters as well, such as property and flavor, channel tropism, ascending and descending, floating and sinking, and reinforcing and reducing.

3.4.1.1 *Four Properties and Five Flavors*

The earliest record of the theory on four properties and five flavors can be found in the preface of *Shen-nong's Materia Medica*, which states that “the medicines have five flavors of sour, salty, sweet, bitter, and acrid and four properties of cold, hot, warm and cool.” By pairing the four properties with the five flavors to jointly indicate the properties of a medicine, this book initiated the materia medica compilation style of indicating the property of a medicine before describing its efficacy and primary indications.

Four Properties

The four properties refer to the cold, hot, warm, and cool properties of medicines, generalized from the reactions that take place between the medicine and the organism. They are relative to the cold and heat properties of disease. In addition, there is a neutral property, namely, a mild property of a medicine. Generally speaking, most of the cold and cool medicines have the functions of clearing heat, detoxicating, discharging fire, cooling the blood, and nourishing yin, which can alleviate or eliminate heat syndromes. Most of the hot and warm medicines have the functions of warming the spleen and stomach, dispersing cold, supporting yang, and tonifying fire.

Five Flavors

The five flavors of medicines are acrid, sweet, sour, bitter, and salty, which not only reflect their true tastes but also their general effects. For example, acrid medicines are effective in relieving exterior syndromes by dispersion, promoting the circulation of qi, and invigorating the circulation of blood.

3.4.1.2 *Ascending and Descending, Floating, and Sinking*

Ascending, descending, floating, and sinking refer to four ways that medicines act on the human body. Ascending indicates lifting; descending, lowering the adverse qi; floating indicates dispersing upward; and sinking, discharging downward. Since the pathological location can be upper, lower, exterior, or interior, and disease tendency can be rising or sinking, the therapeutic medicines ought to have tendencies to ascend, descend, float, or sink respectively so as to help regulate the disordered activities of qi in zang-fu organs or expel the pathogen outward in light of its general trend. For the sake of medicines' success in reaching pathological locations, pathogenic factors in the upper and exterior locations should be

treated with ascending and floating medicines, and those in lower and interior locations with descending and sinking medicines. Lowering the adversely rising pathogenic heat and lifting the sinking pathogenic heat is the general rule that must be mastered in the use of Chinese materia medica.

3.4.1.3 Channel Tropism

Channel tropism refers to a rule of medication that certain medicines have special therapeutic effects for diseases in certain zang-fu organs and meridians. For instance, diseases in the lung channel always cause the syndromes of cough, asthma, and phlegm; since almond can relieve cough and asthma, almond should be classified in the lung channel. Since medicines vary in channel tropism, medicines with the same property and flavor differ in their effect or action location. For example, while baical skullcap root, goldthread root, and amur cork-tree all belong to the category of heat-clearing medicines with bitter flavor and cold nature, baical skullcap root is in the lung channel and thus is effective in clearing lung heat, goldthread root is in the heart and stomach channels and thus is effective in discharging heart heat and clearing stomach heat, and amur cork-tree is in the kidney channel and thus is effective in discharging ministerial (liver and kidney) fire.

3.4.2 Concerted Application and Contraindication of Chinese Materia Medica

3.4.2.1 Concerted Application

Concerted application means applying two or more medicines selectively according to the patient's conditions and the drugs' properties. Since disease occurrence and development tend to be complicated and changeable, more than two medicines are often required simultaneously in clinical treatment. When used in combination, medicines will interact with each other. For example, some can increase or decrease the original efficacy, some may inhibit or eliminate the side effects, and some will produce or reinforce toxic side effects. Therefore, one must be selective in using more than one medicine. The application of a single medicine and the relations of concerted application between medicines are called "seven relations" in TCM.

Mutual Promotion

Medicines with similar performance can be used in synergy to reinforce the therapeutic effect.

Mutual Enhancement

Medicines with different performances used in company can be mutually enhanced in the therapeutic effect.

Incompatibility

One medicine's toxic side effects can be mitigated or eliminated by another.

Mutual Detoxication

One medicine can mitigate or eliminate another medicine's toxic side effects.

Mutual Inhibition

Two medicines used together can reduce or even lose their efficacy due to their mutual restraint.

Clashing

Two medicines used together can produce toxic reactions or side effects.

Furthermore, some medicines are used singly in treatment without the assistance of another, such as pure ginseng decoction and other simple recipes.

3.4.2.2 Contraindications

There are three major contraindications in using medicines:

Incompatibility of Medicines in a Prescription

Two medicines used in combination may produce toxic side effects or reduce or eliminate the therapeutic efficacy. There are accounts of "eighteen clashes" and "nineteen incompatibilities" by the predecessors, in which "clash" refers to the "clashing" in seven relations and "incompatibility" to the "mutual inhibition."

Contraindication During Pregnancy

During pregnancy, some medicines may cause fetal irritability and even abortion. In light of their impact on the fetus, these medicines can be

divided into forbidden ones and those to be used with caution. Most of the forbidden ones are highly toxic or very strong in effect, while those to be used with caution may be used according to the pregnant woman's conditions; however, these optional medicines should be avoided as much as possible to prevent accidents.

Dietary Restrictions While Taking Medicine

Certain foods should not be consumed while taking certain medicines. For example, raw or cold food should be restricted while taking a sudorific.

3.4.3 Prescriptions and Medication

In the practice of TCM's medication, medicines (mostly herbs) of different properties are normally applied concertedly to achieve special treatment effect. A prescription or formula is produced by combining medicines according to certain standards in apportioned dosages. Prescriptions composed of medicines selected and combined on the basis of the dialectical method is a comparatively advanced form of the concerted application of medicines.

3.4.3.1 Principles for the Composition of Prescriptions

In TCM, "sovereign, minister, assistant and envoy" epitomize the principal and subordinate relations between medicines combined in a prescription. A prescription with reliable curative effect must be well targeted, accurate in composition, and clear in prescription analysis, and the constituent medicines should be as few but highly effective as possible.

With the exception of sovereign medicines, the other medicines may not be included in a simple prescription. A complicated prescription may contain two or more sovereign medicines along with minister medicines, assistant medicines, and envoy medicines.

3.4.3.2 Application of Prescriptions

The composition of prescriptions, while it follows rigorous principles, is quite flexible as well.

Variation in the Addition/Subtraction of Medicines

The addition/subtraction of medicines, also called "formula variation in accordance with syndromes," means that for the same principal syndrome, some medicines may be added or subtracted according to changes in the accompanying syndromes to better meet the therapeutic need.

Variation in the Addition/Subtraction of Doses

This variation is not in the number of constituent medicines in a prescription but in their respective doses, so as to vary the prescription's effect and primary indications' main aspects.

Medicines are prepared in certain sizes or forms according to the clinical needs of Chinese herbal therapy, such as a decoction, balls, tablets, or wine. There are many preparations, such as tablets and injections, that are increasingly used in TCM with the constant mutual development of Chinese and Western medicines. Additionally, many innovations have been made in the quality and crafting of traditional preparations.

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CHAPTER 4

Music

The practice of arts such as music is an expression of people's aspiration for and pursuit of beauty and is thus of great cultural significance. Throughout thousands of years of development, Chinese music has contributed to Chinese culture by embodying the Chinese people's call for freedom and truth, making independent progress while learning from Western styles along the way. This chapter focuses on the history and development of Chinese music, examining its heritage and innovations by observing the changes in its artistic styles and aesthetic standards.

Chinese music is an indispensable part of the world's musical heritage. Having developed, over thousands of years, a unique system of musical styles, Chinese music abounds in cultural treasures to be explored and savored. The origin of music in China can be traced back to the reign of the Yellow Emperor, over 7000 years ago. Beginning with the bone flutes of the Neolithic Age, Chinese music continued to develop during the Xia and the Shang dynasties, producing the ceremonial musical system of the Zhou Dynasty and achieving remarkable progress in both royal and folk styles from the Qin (221–207 BC) to the Qing (AD 1644–1911) dynasties of the feudal era. Great achievements were seen on all musical fronts, including the study of temperament, *Yuefu* music, dance songs, musical instruments, and drama. In modern times, as China opens up to the outside world,

Chinese and Western music are being integrated to form new styles. After thousands of years of renovation and development, Chinese music has become an invaluable gem in the musical culture of mankind.

4.1 MUSIC IN REMOTE ANTIQUITY

The enlightenment period of Chinese music came 2000 years before the reign of the Yellow Emperor, the ancestral deity of the Chinese people. It is estimated that between 6700 and 7000 years ago, our ancestors of the Neolithic Age were already capable of making bone flutes and *Taoxun*. These musical instruments, though primitive, indicate that people at that time were already capable of aesthetic appreciation in music.

According to historical records, ancient Chinese musical culture was characterized by the combination of singing, dancing, and instrumental accompaniment, an example of which may be seen in the records of the music and dance of the *Getian* (葛天氏) tribe: “three men danced with tails of oxen in their hands as they sang eight songs.” The content of music at that time was concerned with “respecting the rules of heaven,” “growing good crops,” and “learning from the movement of animals.” These themes demonstrated our ancestors’ understanding of agriculture, animal husbandry, and the laws of nature. These primitive musical forms also had much to do with the symbolic totems of tribes. For example, cloud was the totem of the Yellow Emperor’s tribe; therefore, their tribal dance was entitled *Yunmen*, literally “The Gate of Clouds.” The forms and styles of ancient music during this period can be seen in the “Song of Waiting,” composed by the daughter of Lady Tushan, in which the lyrics consist of only a single line repeated again and again—“*houren xiqi*,” of which only *houren* has an actual meaning. This can be seen as the beginning of music—a language style that had yet to reach maturity.

4.2 MUSIC IN THE XIA AND SHANG DYNASTIES

Chinese society in the Xia (?2100–?1600 BC) and Shang (?1600–?1046 BC) dynasties was based on a system of slavery. According to historical documents, arts such as music and dance during this period had gradually become a privilege of the slave-owning class, and the predominant musical theme changed from the primitive worship of totems to praising man’s power in conquering nature. For example, the musical dance *Da Xia* tells the story of Da Yu, an ancient king who regulated the rampant floods of

his time to save the people of his kingdom. The story of Tang, the First Emperor of the Shang Dynasty, who led his people to overthrow the tyrant of the Xia Dynasty, Jie, was also made into a musical dance entitled *Da Xie*. Witchcraft was very popular during the Shang Dynasty, so professional witches and wizards—known in ancient China as *Wu* and *Xi* respectively—appeared during this period. Their job was to dance and sing on ceremonial occasions, and they made a living by sponging off slave owners. These were the first people to make a career of music. Slave owners used music and dance not only to pay tribute to the deities and their ancestors, but for their own pleasure as well. In fact, they were so fond of music, they had their musicians buried alive as sacrifices when they died. While this barbaric practice demonstrates the cruelty of the slave-owning class as a whole, it also shows that social productivity at the time had developed sufficiently to allow for the rapid growth of a musical culture.

Historical records reveal that drums made from crocodile skin were used in the Xia Dynasty. Archaeologists have unearthed wooden drums covered with snake skin, copper drums decorated with twin birds and mystical beasts, and delicate stone gongs, all of them dating back to the Shang Dynasty. In the Bronze Age, traditional Chinese chimes and cymbals also appeared during the Shang Dynasty, most of them arranged in groups of three. The appearance of percussion instruments demonstrates one widely acknowledged truth in the history of musical instruments: that percussion instruments always developed ahead of the rest. The *Taoxun*, a type of idiophone first invented in 5000 BC, developed from its primitive form with only one or two sound holes, to the newer models with five sound holes capable of playing twelve and a half tones. We may deduce from the tones of the *Taoxun* that the concept of the pentatonic scale emerged in China during the late Neolithic Age, while the seven-note scale appeared in the Shang Dynasty at the latest.

4.3 MUSIC IN THE WESTERN AND EASTERN ZHOU DYNASTIES

The Western (?1046–771 BC) and the Eastern Zhou dynasties (770–256 BC) witnessed the decline of the slave society and the steady rise of the feudal class. In the Western Zhou Dynasty, the royal court boasted a complete system of ceremonial music. Officers of different ranks deployed their bands of musicians according to their status. In summarizing the epic musical productions composed prior to this period, the people of Zhou

singled out six great works known in summary as *Liu Dai Ge Wu* (*The Music and Dances of Six Dynasties*), which includes *Yun Men*, composed during the rule of the Yellow Emperor; *Xian Chi*, during the rule of Emperor Yao; *Shao*, during the rule of Emperor Shun; *Da Xia*, during the rule of Emperor Yu; *Da Huo*, from the Shang Dynasty; and *Da Wu*, from the Zhou Dynasty. The collection of folk songs was institutionalized during the Zhou Dynasty in order to observe folk customs, and as a result of this, a large number of folk songs were preserved, which were later compiled by Confucius into the first collection of poems in China, *Shi Jing*, during the Spring and Autumn period. This collection includes a total of 305 musical poems (poems that can be sung as lyrics) composed during a period of over 500 years, from the early Western Zhou Dynasty to the middle of the Spring and Autumn period.

Shi Jing contains three parts, i.e., Feng (风 literally meaning wind, referring to folk songs), Song (颂, literally meaning eulogy) and Ya (雅, meaning elegance). Feng is considered to be the best part, which is comprised of over 160 entries, including “Zhou Nan,” “Shao Nan,” “Bei Feng,” “Yong Feng,” “Wei Feng,” “Wang Feng,” “Zhen Feng,” “Qi Feng,” “Wei Feng,” “Tang Feng,” “Qin Feng,” “Chen Feng,” “Hui Feng,” “Cao Feng,” and “Bin Feng,” known collectively as the “Wind of 15 Countries.” These songs, or musical poems, originated from popular folk songs in the Henan, Hubei, Shaanxi, Shandong, and Shanxi areas, especially in Henan. The part called Ya in *Shi Jing* is divided into two sections, i.e., “Da Ya” and “Xiao Ya” (namely, “Major Court Hymns” and “Lesser Court Hymns”), which contain the works of literati. The Song is dedicated to epic songs used for ceremonial occasions. Judging from the existing text of *Shi Jing*, the songs included in the book fall into ten structural categories, and the climax at the end of each song was known as “Luan.” At about the same time as the completion of *Shi Jing*, Qu Yuan, the famous patriotic poet of the state of Chu, compiled *Jiu Ge* from some of the ceremonial songs of his state. This is a collection that is rich in local characteristics of the Chu area.

Music was an integral part of daily life in the Zhou Dynasty and was important element in many aspects of social life. The story of the famous musician Yu Boya and his good friend Zhong Ziqi, who was keenly appreciative of his talent, originated during this period. This story reflects progress in the art of instrumental performance as well as artistic appreciation of music. Players of *Guzhen*—a seven-stringed plucked instrument popular in ancient China—summarized their art as follows: “Only when you

understand music in your heart will you then be able to play music on the strings.” It was said that the voice of Qin Qing, a famous singer at the time, “Rang through the forest and clouds” as she sang. The voice of another singer, Han E, was said to be so beautiful that it “resonated within the house for three days” after she sang. All these indicate a high level of achievement in vocal music.

Further evidence of the advanced level of development of the musical culture of the Zhou Dynasty may be found in ancient musical instruments discovered in the Tomb of Marquis Yi of Zeng (曾侯乙), dating back to the Warring States period. This underground treasury of music rivaled the Egyptian pyramids in its richness. Altogether 124 musical instruments of eight different types were unearthed here, covering the entire category of instruments in the Zhou Dynasty: *Jin* (metal), *Shi* (stone), *Si* (silk or string), *Zhu* (bamboo), *Pao* (gourd), *Tu* (earth), *Ge* (leather), and *Mu* (wood)—known in summary as “*Ba Yin*,” or “Eight Tones.” The most important were sixty-four sets of chimes, arranged in groups on a three-shelfed rack, with a total weight of 5000 kilograms, capable of producing sounds ranging across five octaves. Like most chimes of the Zhou and Shang dynasties, each of these chimes is capable of producing two different notes, achieved by a process known as *Xuan Gong* (literally, a shift of the Gong note), as indicated in previously discovered documents describing this technique. In this way, all twelve semitones of the alto may be produced. Inscriptions are found on sets of chimes and qings (cup-shaped bells used in ritual music), depicting the musical theories of all the states, which is considered proof of the advanced state of the study of temperament in the Zhou Dynasty.

The twelve-note temperament system had already been established in the Zhou Dynasty, as had the pentatonic scale, which included Gong, Shang, Jiao, Zhi, and Yu. People of the Zhou Dynasty considered Gong the most important note of the five, and a shift of this note was known as *Xuan Gong*. One of the most outstanding achievements in the study of temperament during this period was the three-scale fall and rise system proposed in *Guan Zi*—a collection of theories from various schools of the pre-Qin period. This method determines the chord length of all the notes using the length of the chord for the Gong note as reference. For example, the chord for the Zhi note is 30% longer than that for the Gong note, the chord for the Shang note is 30% shorter than that for the Zhi note, and so on. In this way, the chord lengths of all twelve semitones in the octave were calculated, and so was established the three-scale fall and rise system. This tuning system was established through the interactions between the

five pentatonic notes, so the notes it produced were higher than those of the twelve-tone equal temperament, resulting in musicians' inability to restore the note of Huang Zhong, a problem which made the process of *Xuan Gong* inconvenient. Nevertheless, this tuning system does embody the beauty of monophonic music to the greatest extent, and therefore is still in use today.

4.4 MUSIC IN THE QIN AND HAN DYNASTIES

A governmental department was established to take charge of music in the Qin Dynasty (221–206 BC), and the department was named Yuefu in the Han Dynasty (206 BC–AD 220). It inherited the practice of collecting, categorizing, and recomposing folk songs institutionalized during the Zhou Dynasty, and a great many musicianors were hired to play music at royal banquets, *Jiao Si* (郊祀, to worship ancestors out of the town) rituals, and court celebrations. *Yuefu* originally denoted the lyrics used in *Yuefu* songs, but the meaning of the word soon expanded to include all rhythmic and non-rhythmic lyrics, as well as certain dramas and musical instruments. The majority of songs in the Han Dynasty were *Xiang He* songs, a musical style which developed from its initial form of secco chorus performed by one lead singer and three accompanists to the *Xiang He* concert in which instrumental accompaniments were used, adopting a general structure of *Yan-Qu-Luan* (literally: prologue, music, and climax) in its composition. The *Xiang He* style had a significant amount of influence on the music of the Sui and Tang dynasties.

Gu Chui (“gu” means drum, and “chui” means blowing) music sprang up in the northwestern border area of China during the Han Dynasty. It is a colorful form of instrumental ensemble composed of various wind and percussion instruments, covering such styles as *Heng Chui*, *Qi Chui*, *Huangmen Gu Chui*, and so on. Performers of *Gu Chui* music played their instruments either on horseback or in the midst of a march. *Gu Chui* music was played as military music, at royal banquets, and for civilian entertainment. Its influence can still be seen in folk wind and percussion music. Another music-related artistic form in the Han Dynasty was *Bai Xi* (a hundred performances), which integrated singing, dance, acrobatics, and sumo. Important achievements in the study of temperament in the Han Dynasty were embodied in the further division of the eight octave notes into sixty sub-notes. Although doing so cannot help the actual playing of instruments in any way, it demonstrated a tendency for intricacy in temperament studies, and achieved—at least theoretically—the effect of fifty-three equal temperaments.

4.5 MUSIC IN THE THREE KINGDOMS, THE JIN, AND THE SOUTHERN AND NORTHERN DYNASTIES

The Qing Shang musical style, developed from the Xiang He songs of the Han Dynasty, was so appreciated by the Wei regime of northern China that they established a Qing Shang department dedicated to its study. The military conflicts of the Eastern and Western Jin dynasties enabled Qing Shang music to spread to the southern regions, where it became integrated with the Wu Ballads and the Western Songs, forming a new, combined style which later circulated back to northern China. After the establishment of the Silk Road in the Han Dynasty, the musical styles of the western regions had begun to spread into China, among them the Qiuci music, which was brought to central China by Lü Guang (AD 338–399), emperor of the Later Liang (AD 386–403). This demonstrates that ethnic musical styles were commonly exchanged at that time. The techniques of *Guguin*, the most representative musical instrument in ancient China, matured during this period, spawning outstanding achievements such as *Qin Cao*, a professional book by Cai Hu dedicated to explaining the titles of *Guguin* scores, and *Qin Fu* by Ji Kang, which explained the overtone of the note Zhi.

Many of the literati of the time were also *Guguin* instrumentalists, among them Ji Kang and Ruan Ji, and a number of famous works were composed during this period, including *Guang Lingsan*, *Jiu Kuang*, and *Yi Lancao*. Dramatic performances featuring plots with characters, singing, dance, and pipe accompaniment—an embryonic form of drama—also became popular in the late Southern and Northern dynasties. Important achievements in temperament study during this period included a new method to adjust the openings of flutes, proposed by Xun Mao, and the establishment of a new temperament system by He Chengtian (AD 370–447) of the Song Dynasty (AD 420–479), who improved on the existing three-scale fall and rise system to build a temperament scale very similar to the twelve equal notes scale we know today, while providing a preliminary solution to the problem of the inability to restore the note of Huang Zhong (one of the six Yang musical notes).

4.6 MUSIC IN THE SUI AND TANG DYNASTIES

The political unification of China was achieved in the Sui (AD 581–618) and Tang (AD 618–907) dynasties. The Tang Dynasty saw a prolonged period of political stability, economic prosperity, and open foreign policy encouraging cultural exchange, which, combined with the fusion of the

music and culture of multiple nationalities begun in the Wei and Jin dynasties (AD 265–420), resulted in an upsurge in musical achievements marked by outstanding developments in vocal music and dance.

The music played at royal banquets in the Tang Dynasty was known as Yan (燕, meaning entertainment) music, which included *Qi Bu Yue* (seven-melody music) and *Jiu Bu Yue* (nine-melody music) of the Sui and Tang dynasties. These musical styles were adopted from different nationalities, ethnic regions, and even foreign countries, among them the *Qing Shang* music of Han nationality, *Xi Liang* music from Gan Su, *Gao Chang* music from Turpan, *Qinci* music from Kuqa, *Kang Guo* music from Samarkand, *An Guo* music from Bukhara, *Tian* music from India, and *Gao Li* music from Korea, with *Qinci* music and *Xi Liang* music considered the most important. There were two types of Yan music at the time: *Li Bu Ji* and *Zuo Bu Ji* (literally: standing art and sitting art), categorized according to the stance of the musicians as they played. According to a poem entitled “Li Bu Ji” by the great poet Bai Juyi, instrumentalists of *Zuo Bu Ji* were generally more skillful than those of *Li Bu Ji*. The Tang concert, an extremely popular form of dramatic performance at the time, is an outstanding example of the many achievements of Yan music. It established the structural form of *San Xu-Zhong Xu-Po* (discursive prelude—middle prelude—break or all-inclusiveness) by taking the traditions of the *Xiang He* concert and integrating the essence of music from all nationalities included in *Jiu Bu Yue*. The book *Jiao Fang Lu* (Records of the Musical Department) lists a total of forty-six Tang concert operas, one of which, the *Melody of White Feather Garments*, renowned for its fresh and elegant style, was written by the famous Chinese emperor and musician Tang Xuanzong. Bai Juyi, a famous poet, had written vividly about the *Melody* in one of his poems, which bears the same name as the opera.

Another sign of the progress in musical culture during the Tang Dynasty may be found in the establishment of a series of institutions dedicated to musical education, such as Jiao Fang, Li Yuan (Pear Garden, where actors live), Da Yue Shu (Division of Great Music), Gu Chui Shu (Division of Drum and Blowing Music), and a sub-division of Li Yuan that specialized in teaching children to play music. These institutions, with their strict standards of evaluation, turned out many talented musicians. Tang poems, unrivaled in the history of poetry in China, can also be sung as lyrics. Singers of Tang prided themselves on being able to sing works by famous poets; and the poets themselves judged how successful their poems were based on their popularity as lyrics. The *Pipa* was one of the primary instruments used by bands in the Tang Dynasty, and the

version in use at that time was very similar to the model we use today—in fact, some structural traits and playing methods of the *Pipa* from the Tang Dynasty can still be seen today in the *Nanqu* style of Fujian Province, and in *Pipa* performances in Japan. The eighty-four-tone and twenty-eight-tone temperament systems for Yan music were established under the influence of *Qinci* music theories, and Cao Rou (AD 730–?), a musician of the Tang Dynasty, invented a new method to transcribe *Guguin* scores, known as *Jian Zi Pu*, which has remained in use until modern times.

4.7 MUSIC IN THE SONG, JIN, AND YUAN DYNASTIES

The development of musical culture in the Song (AD 960–1279), Jin (AD 1115–1234), and Yuan (AD 1271–1368) dynasties was marked by the flourishing of folk music, which was more fully developed at this time than in any previous dynasties. “Leisure Venues” catering to the citizen class, such as *Wa She* and *Gou Lan*, were established, offering customers a wide variety of performances including singing and drama. Two of the most important musical forms at that time were *Chan Ling* (缠令) and *Chan Da* (缠达), both of which had an impact on the forms of later dramas and instrumental music. *Gu Zi Ci*, a type of stage performance which combined talking and singing, evolved later into the *Guci* shows which flourished in the Qing Dynasty. *Zhu Gong Diao* is another form of talking and singing performance which matured during this period. Unlike *Gu Zi Ci*, performers of *Zhu Gong Diao* tended to place more emphasis on singing than on talking.

Inheriting the developments of *Zi Ci* during the Sui and Tang dynasties, the writing of patterned lyrics in the Song Dynasty flourished. The musical poetry at the time was classified by its *Ci Pai* (which denotes the rhythms or formats of poems) into the categories *Yin*, *Man*, *Jin*, *Pai*, and *Ling*. Various techniques of *Tian Ci*—the process of writing lyrics in line with an existing *Ci Pai*—had also been developed, including *Tan Po*, *Jian Zi*, and *Tou Sheng*. Jiang Kui (AD 1154–1221), a musician of the Southern Song Dynasty, was not only a writer of lyrics, but a composer of rhythms. Seventeen of his complete musical poems and one of the Qin rhythms he composed—*Gu Yuan* (Lamenting the Ancient)—were handed down to this day, most of them expressing the author’s deep concern for his country and its people in a mood of desolation, as represented in such works as “Yangzhou Man (Yangzhou to the Tune of Man),” “Ge Xi Mei Ling (Plums Along Gexi Brook to the Tune of Ling),” and “Xing Hua Tian Ying (Shadows of Apricot Blossoms).” “Xiao Xiang Shui Yun (Water and Clouds of the Xiao and Xiang Rivers),” a *Guguin* masterpiece by Guo

Chuwang (AD 1190–1260) established a first in *Gugin* music with its unique style and patriotic theme, expressing the author's profound love for the natural beauty of his country. In terms of the development of bow instruments, the Hobus was first mentioned in historical records of the Song Dynasty, and the appearance of the *Sanxian*—literally “three strings”, referring to a national musical instrument of the Mongolian nationality—during the Yuan Dynasty was also a noteworthy event. The study of scale for Yan music began in the Song Dynasty, and the Gong Chi musical score system was first proposed in such books as *Ci Yuan* by Zhang Yan (AD 1248–?1320) and *Meng Xi Bi Tan* by Shen Kuo (AD 1031–1095)—an embryonic form of the *Gong Chi* musical scores used today.

Chinese dramas also matured during the Song Dynasty, which was marked by the appearance of *Nanxi* (南戏, literally south drama), also known as *Wenzhou Zaju* (Zaju 杂剧, literally meaning miscellaneous drama) or *Yongjia Zaju*, during the Southern Song Dynasty. This is a form of dramatic performance characterized by colorful and natural music. *Nanxi* started out as folk tunes unregulated by the rules of official music. Later, as it began to conform to established tunes, a new form of drama which integrated the musical phrases of different tunes into a single performance was founded, known as *Jiqu* (集曲, collection of tunes). Various forms of singing, such as solo, chorus, and musical dialogue, were employed in *Nanxi* performances. Examples of *Nanxi* dramas, such as *Zhang Xie Zhuang Yuan*, can be found in the *Yongle Canon*, a royal encyclopedia of the Ming Dynasty.

Chinese drama reached its peak during the Yuan Dynasty with the appearance of the *Yuan Zaju*. *Yuan Zaju* was first popularized in Northern China, and later spread to the southern regions, resulting in an integration of northern and southern styles. Notable dramatists of *Yuan Zaju* included Guan Hanqin, Ma Zhiyuan, Zheng Guangzu, Bai Pu, Wang Shipu, and Qiao Jipu, known as the “Six Great Dramatists.” Typical works of *Yuan Zaju* such as *Dou E Yuan* (Dou E's Unjustness) and *Dan Dao Hui* (Guan Yu the General Attending a Negotiation Alone) by Guan Hanqing, and *Xi Xiang Ji* (Story of the Western Chamber) by Wang Shipu, were often strict in their structure, with each performance composed of four episodes and one prologue, and each episode composed of only one tune. These rules are not rigid, though. Wang Shipu's *Xi Xiang Ji* is composed of as many as twenty episodes, categorized into five volumes. The influence of *Yuan Zaju* on drama of southern China facilitated the maturity of *Nanxi* (known during the early Yuan and Ming dynasties as “epics”), which spawned a series of classics such as *Bai Yue Ting* (Moon Worshipping Yard) and *Pi Pa*

Ji (Story of Pipa, a Musical Instrument), most of which are still performed today. The stylistic difference between southern and northern dramas emerged at this time, with northern dramas characterized by vigorous and bold tones based primarily on the seven-note temperament, and southern dramas by an elegant and mild style based primarily on the pentatonic scale. Professional books on drama began to appear in the Yuan Dynasty due to the rapid development of dramatic art, namely, Yan Nan Zhi An's (燕南芝庵, whose identity is obscure) *Chang Lun* (A Treatise on Singing) and Zhou Deqing's (AD 1277–1365) *Zhong Yuan Yin Yun* (Phonetics of the Dialect of Central China), the latter of which was the first book on the theme of temperament in northern dramas. In *Zhong Yuan Yin Yun*, Zhou Deqing divided the pronunciation of the northern Chinese language into nineteen tones, and identified four types of stress in pronouncing words: *Yin Ping*, *Yang Ping*, *Shang Sheng*, and *Qu Sheng*. His study had a significant amount of influence on later temperament studies and the development of the dramatic arts in later years.

4.8 MUSIC IN THE MING AND QING DYNASTIES

The emergence of a capitalist economy, characterized by the growth of the citizen class and the subsequent development of folk music, occurred during the Ming (AD 1368–1644) and Qing (AD 1644–1911) dynasties. Folk songs of the Ming Dynasty were so abundant and contained such a variety of content that they were almost “learned and sung by everyone,” regardless of “age and gender.” The collecting and posting of folk songs became a fashion of the time, and many privately compiled collections of Guqin scores, drama scripts, and scriptures were published, for example *Shan Ge* (literally mountain songs) edited by Feng Menglong, and *Shen Qi Mi Pu* (Miraculous Private Notes) edited by Zhu Quan. The singing and talking performances of the Ming and Qing dynasties flourished, important examples of which were *Tanci* (弹词, lyrics accompanying string music) of southern China, *Guci* (鼓词, literally drum lyrics) and *Paiziqu* (牌子曲, tunes of fixed format) of northern China, and *Qin* storytelling. The most influential style of southern *Tanci* was the *Suzhou Tanci*, characterized by its elegance and fluency.

Three different styles of talking and singing performances sprang up in Su Zhou during this period: the bold and desolate *Chen Diao*, represented by Chen Yuqian the vigorous and fluent *Ma Diao*, represented by Ma Rufe; and the graceful and beautiful *Yu Diao*, represented by Yu Xiushan. Many new styles subsequently appeared. In northern China, *Shandong Dagū*, *Muban Dagū*, *Xihe Dagū*, and *Junyun Dagū* were considered to be of

greatest importance among *Guci* performances of the time. Various styles of talking and singing performances also flourished, for example *Dan Xian* (single string) and *Henan Dadiao* of the Paiziqu style, *Shandong Qinshu* and *Sichuan Yangqin* of the Qinshu style, and *Zhejiang Daoqing*, *Shanxi Daoqing*, and *Hubei Yugu* of the Daoqing style. Even the ethnic minorities created their own styles of talking and singing, for example the monologue storytelling of Mongolia and the *Daben* music of the Bai nationality.

Traditional music and dance styles of all nationalities in China saw further development during the Ming and Qing dynasties, such as *Yangge* of the Han nationality; *Muqam* of the Uyghur nationality; *Nang-ma* of the Tibetans; the “Bronze Drum” dance of the Zhuang nationality; the Peacock Dance of the Dai nationality; the Moon Dance of the Yi nationality; and the *Lusheng* dance of the Miao nationality. The development of drama, characterized by the use of common, systematic tunes known as *Sheng Qiang* (声腔, literally voice tones), reached a new peak. The four most frequently used types of *Sheng Qiang* during the early Ming Dynasty were *Hai Yan*, *Yu Yao*, *Ye Yang*, and *Kun Shan*, which are originally names of four places. The tune of *Kun Shan*, improved by musicians such as Wei Liangpu of Jiang Su, won great popularity among people at the time with its fluent, delicate rhythms and intricate structure. The integration of southern and northern dramas influenced the *Kun Shan* tune, giving rise to *Kunju*, the most highly praised form of dramatic performance of its time. The earliest *Kunju* drama was *Huan Sha Ji* (Story of Xishi the Beauty), written by Liang Chenyu of the Ming Dynasty. Other works of this style include *Mu Dan Ting* (The Peony Yard), written by Tang Xianzu of the Ming Dynasty, and *Chang Sheng Dian* (Long Life Palace, or the Love Story Between Emperor Tang Xuanzong and Empress Yang Yuhuan), written by Hong Sheng of the Qing Dynasty. The influence of the *Yi Yang* tune can be seen mainly in less prominent drama styles which use local dialects, which served to promote the development of local drama, for example the High-Tune dramas.

The Bangzi (梆子, a traditional Chinese percussion instrument) opera, represented by the Shaanxi opera, developed rapidly during the late Ming Dynasty and the early Qing Dynasty. Its influence can be seen in such styles as *Puzhou Bangzi* of Shanxi, *Tongzhou Bangzi* of Shaanxi, *Hebei Bangzi*, and *Henan Bangzi*. This bold and resounding style was soon popularized throughout northern China, and it later evolved into the world-famous Peking opera through the integration of the *Xipi* and *Erhuang* tunes—both of which musical tunes were from the Bangzi style.

The development of musical instruments in the Ming and Qing dynasties was characterized by the ensemble of different instruments, for

example the wind music band of the Zhihua Temple, Hebei Blowing-song, Jiangnan Sizhu (string and wind music south of Yangtze River), and the repetitious gong drum ensemble. Well-known musical works of these styles were quite popular, including *Ping Sha Luo Yan* (literally “wild geese on the beach”) of the Ming Dynasty, *Liu Shui* (“running water”) of the Qing Dynasty, *Yang Guan San Die* (“a parting tune with a thrice repeated refrain”), and *Hu Jia Shi Ba Pai* (“hujia eighteen meters”). Famous *Pipa* melodies composed during this period include *A Vulture Hunting the Swan* and *Ambush from Ten Sides*, along with theoretical works on *Pipa* such as *The Tablature of Pipa*, written by Hua Qiuping during the Qing Dynasty.

4.9 MUSIC IN MODERN TIMES

The modern history of China, beginning with the Opium War in 1840, covers a turbulent historical period including the Taiping rebellion (AD 1851–1864) and other peasant revolutions, the reform movement of 1898, the revolution of 1911, and the new democratic revolution which gave birth to the Chinese Communist Party and the People’s Republic of China (PRC). In the 100 years or so, modern musical styles were rapidly incorporated into a new strain of Chinese music, while traditional styles of music and dance continued to develop.

The growth of traditional music was driven by the interest in “revolutionary songs” which served the purpose of propagation for revolutions. Examples of such works include “Hong Xiuquan’s Rebellion,” which tells the story of the Taiping rebellion; “The Song of Ejectment,” which protests against the Russian invasion of northern China; “Holding Out,” which condemns the warlord’s treachery against China and its people; and “Suffering of the People.” More outstanding songs of this genre could be found in the red bases—areas occupied by the communist forces—and the borderlands of China, such as “Tian Xin Shun (Heavenly Heart in Harmony)” and “The Embroidered Tablet.” Peking drama stood out among dramatic productions, enjoying great popularity throughout China with the excellent performances of such famous actors as Cheng Changgeng, Tan Xinpei, Mei Lanfang, Cheng Qiuyan, and Zhou Xinfang. Local opera styles also developed, and instrumental music was characterized by the formation of local bands, such as the “Heavenly Rhythms” and the “Band of Great Harmony.” The art of instrumental music was deeply rooted in people’s daily lives, and many outstanding folk musicians

emerged and contributed to the modern development of folk music. Hua Yanjun, a folk musician known to many as “Ah-Bing the Blind,” composed the *Erhu* melodies “Reflection of the Moon upon the Fountain” and “Whispering Pines,” and the *Pipa* music “Da Lang Tao Sha” (literally: strong waves lapping a sandy shore). Another musician, Liu Tianhua, studied the handling of *Erhu* and composed twelve *Erhu* solos, including “Beautiful Night,” “To the Light,” and “Bing Zhong Yin” (literally: moaning in sickness). The publication of scores for various instruments also became common during this period.

Western music began to be introduced into China during the Yuan and Ming dynasties, but its cultural influence became apparent only after the beginning of the “school songs” movement during the late Qing Dynasty, which was supported by many intellectuals of the time as a means to promote the introduction of Western learning and to encourage people to revitalize China and strengthen its military power. School songs were composed as musical teaching materials for students. They are characterized by such themes as patriotism, anti-imperialism, and promoting Western science and civilization. Examples of these songs include “Chinese Youths” and “Exercise Music: Military Style”, which not only spread through schools, but became popular with people of all sectors of society. School songs were usually written with foreign rhythms, though Chinese rhythms and a small number of original compositions were also used. Li Shutong’s masterpiece, “Farewell,” was written to the rhythm of “Dreaming of Home and Mother,” a song by John Pond Ordway, an American folk musician of the late eighteenth century. Western music became more widespread in China after the May 4th Movement, spawning a series of music associations such as the Peking University Music Club, the Traditional Chinese Music Improvement Society, and the National Association of Vocational Education, that sought to improve Chinese music by learning from foreign artistic styles.

It was on the basis of these associations, or societies, that professional music education truly began in China. Xiao Youmei, a famous composer, established the first institution of formal music education, the State Academy of Music, in Shanghai during the 1920s. He devoted his life to promoting music education and contributed greatly to its expansion in the twentieth century. In his time, people rarely applied for music academies because of an established bias against musicians. From the very beginning, Xiao Youmei ran his academy with strict discipline and rigorous evaluation standards to ensure the quality of students. Ding Shande, who later

became a famous musician, applied for the academy in 1928 as a self-taught *Pipa* player. Xiao Youmei recognized his potential and accepted him. Xian Xinghai was also a student of the academy. When he arrived from Beijing, he was too poor to make ends meet, let alone pay tuition, so Xiao Youmei provided him with a work-study program.

Zhao Yuanren, a famous linguist and composer during the May 4th Movement period, was one of the first professional composers in China. Using traditional Chinese music, and integrating the pronunciation of the Chinese language with musical tunes, Zhao Yuanren produced a number of works including “Mai Bu Yao” (literally: song of a cloth seller) and “Jiao Wo Ru He Bu Xiang Ta” (literally: How could I possibly forget about him?), both of which are still sung today. Liu Tianhua, another musician of the time, established the Traditional Chinese Music Improvement Society to promote the development of Chinese music by borrowing from Western styles. His contributions include *Erhu* solos such as “Guang Ming Xing” (literally: heading for the light), “Empty Space Mountain Bird Twitter,” and “Bing Zhong Yin” (literally: moaning in sickness), as well as his proposal to make *Erhu* a formal part of music education. Li Jinhui was an extremely productive writer of musical drama for children. His works include “Little Painter,” “The Sparrow and the Boy,” and “Poor Qiuxiang,” all of which are among the earliest attempts by Chinese artists to reform the Chinese dramatic style.

Wang Guangqi, as one of the first generation of modern Chinese musicians, was well known for his trail-blazing contributions in the field of Chinese music history and comparative musicology. In the 1930s, Huang Zi, a famous music educationalist and composer, contributed greatly to the consolidation and improvement of professional music education. He trained scores of professional musicians, among them Liu Xue'an, Jiang Dingxian, and He Lvding, and wrote many songs which are still enjoyed today, such as “Mei Gui San Yuan” (literally: three wishes of the rose) and “Nan Xiang Zi,” not to mention China's first oratorio, “Song of Eternal Sorrow.” Professional music development of this period centered upon vocal music, while instrumental music lagged behind. Nevertheless, some quality works of instrumental music were produced, among them the piano pieces “Shepherd's Piccolo” by He Lvding and “Flower Drum” by Qu Wei, the violin solo “Mongolia Suite,” the orchestration “Shaan Bei Suite” by Ma Ke, and national instrumental pieces such as “Moonlight of Spring River.”

The modern history of China was not simply incessant wars and conflicts, but was rich in distinguished national musicians and musical works. During the Northern Expedition, Chinese musicians wrote a great many “revolutionary” songs to boost the morale of the Kuomintang army. Many of these songs were composed by simply adopting the rhythms of foreign folk songs and combining them with new, original lyrics. Many songs were written to encourage people to fight against Japanese invaders during China’s War of Resistance against Japanese Aggression, among them the “Yellow River Chorus” by Xian Xinghai, which embodied the Chinese people’s resolve for national resistance, and Nie Er’s “March of the Volunteers,” which was originally intended as the interlude for a movie. After the establishment of the People’s Republic of China, “March of the Volunteers” was formally designated as China’s national anthem.

New developments took place in music after the establishment of the PRC, and a great many famous composers and singers appeared during this period. One of them was Guo Lanying, a well-known performer of Jin opera and the founder of Chinese national song and opera. She won wide acclaim for her sublime voice and her talent in performing as a principal actor in both the affiliated theatre of the Central Academy of Drama and the Central Ensemble of Songs and Dances. As the leading actor in *White-Haired Girl* and *Peasant Takes a Wife*, her performances embodied a perfect combination of acting and singing. She was also the singer with the widest repertoire, including “Nanniwan,” “Gan Sheng Ling” (literally: mule transportation), “Northern Wind,” “Flowers Are Red,” and “My Motherland,” which was used as the interlude in the movie *Shang Gan Hill*, all of them national classics that remain popular today. Apart from her trail-blazing, if not historical, achievements in the performing arts, Guo Lanying also dedicated herself to the cause of international art exchange. She visited over twenty countries and regions including the Soviet Union, Italy, and Japan as an emissary and promoter of Chinese arts.

The playing of Western music was forbidden during the Cultural Revolution, and Chinese stages became flooded with model operas and songs of political propaganda, cutting off all established ties for musical exchange with other countries. This period of political turmoil greatly hampered the development of Chinese music, but did not stop it.

Model opera—politically “correct” operas written during the Cultural Revolution—contributed nonetheless to the development of Chinese drama by introducing foreign orchestral accompaniment into traditional

Peking opera, which was a remarkable attempt to combine Chinese and Western styles. A good example of this was the model opera *Zhi Qu Wei Hu Shan* (literally: the surprise attack on Weihu Mountain), in which the orchestral movement “Heading for the Den” matched perfectly the voice of the Peking opera actors.

After the Cultural Revolution, the economy and art both boomed with the reform and opening up to the outside world. Shi Guangnan was known as the “Singer of His Time” and “Musician of the People” for his graceful and accessible works, such as the very culturally distinct song “Singing with the Tambourine Beats,” which was enormously popular at the time. However, he was accused of revisionism and prosecuted during the Cultural Revolution because of his works. The Cultural Revolution ended in 1976 with the fall of the Gang of Four, and Shi Guangnan, driven by the happiness which bloomed in the hearts of all Chinese people, embodied the spirit of this blissful moment with his masterpiece, “The Song of Toasts,” which touched the hearts of billions of Chinese as it spread throughout the country. Shi Guangnan also wrote “Premier Zhou, Where Are You?”—a deeply emotional song dedicated to the memory of Zhou Enlai, the first premier of PRC, who was revered by all Chinese people. In July of 1978, Shi Guangnan was reassigned to the Central Philharmonic Society, where he finally got the opportunity to give expression to his inspiration. He wrote one masterpiece after another, producing over 100 pieces, including: “How Beautiful Life Is,” “Bamboo Under the Moon,” and “If Only You Know Me,” all of them endowed with a distinct touch of idealism. The most outstanding among Shi Guangnan’s works during this period was “Grapes Ripping in Turpan,” sung by the mezzo-soprano Guan Mucun, and “On the Field of Hope,” sung by the soprano Peng Liyuan.

The central theme of Shi Guangnan’s works, whether they speak of the colorful lifestyles and romances of modern youths, or of the author’s nostalgia and profound love for his country, is the Chinese people’s fervent hope for a better future. Thus, his works enjoyed a sympathetic response from the masses and became symbols of the spirit of the time which continue to encourage young people to forge ahead in their lives. In 1991, Shi Guangnan wrote the musical *Shang Shi* to commemorate Lu Xun’s 100th birthday. In March 1990, he wrote another musical which he had been working on for nearly two decades—*Qu Yuan*—and had it performed in public. As an industrious musician, Shi Guangnan composed many other works, including *Madame White Snake*, *The Red-Clouded Hillock*, *The Red*

Lantern, To China, Drum of Jebei Ali, Youth, Moonrise on the Sea, Passionate Land, and the anthem of the 11th Asian Games.

Li Guyi is a national first-class actress and a famous Chinese singer. As the first pop singer in China, she witnessed and took part in the creation and development of Chinese pop music. By successfully integrating Chinese traditional folk music with modern Western musical ideas, Li Guyi delivered many successful performances, charming audiences with her confidence and glamor. Her famous songs include “Homesick,” “Unforgettable Night,” and “Thinking of My Brother,” all of which were national hits at the time. However, Li Guyi’s pioneering role in Chinese pop music guaranteed a tough road ahead for her. In 1970, she was accused of spreading revisionist ideas for her part in the musical drama *Mending the Pot*. Her parents’ properties were confiscated and she herself was sent to a remote village of the Yao nationality for “re-education.” In 1980, her song “Country Love” came under attack by many other musicians who delivered harsh criticism against her. After bearing these hard times, Li Guyi finally made her way to the Spring Festival Gala with “Country Love.” From that moment onward, she made up her mind to devote the rest of her time to promoting the development of Chinese light music.

Speaking of Chinese vocal musicians, one can’t help but think of Peng Liyuan and Song Zuying. Peng Liyuan is a famous Chinese soprano, the representative of modern Chinese vocal musicians, the very first Chinese woman to earn a Master’s degree in music, the youngest civilian general of the People’s Liberation Army, and of course an enormously popular singer who began her career in military service. She was even known as the “Peony Fairy” for her demure, generous, and elegant posture on the stage, and because she came from the city of Heze in Shandong Province—the home of peonies. She attended the first Spring Festival Gala of CCTV (China Central Television) in 1982, and won the hearts of Chinese audiences with her songs “On the Field of Hope” and “I Love You, Snow of Saibei.”

In September 1985, following the example of her fellow townsman Shen Congwen, Song Zuying left for Beijing. Driven by her tenacity and resolve, this ordinary woman eventually made herself famous around the world, contributing greatly to the integration of Chinese music with foreign music. As a veteran singer of the CCTV Spring Festival Gala, she took part in the show for twenty-one consecutive years, and performed twenty

classical songs embodying the spirit of the festival, the happiness of the people, and the prosperity of her motherland. She attended spring festival galas held by all the major departments of China each year, and won wide acclaim for her distinct, emotional, and expressive performances. As the leading figure among Chinese folk musicians, Song Zuying, who undoubtedly represents the highest level of national folk music, continues to improve her skills and strives to attain new heights.

A great many talented composers also made their debut in modern times. Ye Xiaogang, first-prize winner of the composing competition held by the Tcherpnin Society, is one of the most famous composers in contemporary China. Born to a well-known musical family, Ye Xiaogang began to learn piano from his father, Ye Chunzhi, when he was only four years old. After graduating from middle school, he was sent to work on a farm, and then spent six years working as a fitter in a factory. In 1978, he was admitted to the Central Conservatory of Music's composing major, where he was taught by Professor Du Mingxin. In 1985, the Chinese Music Association and the Chinese Record Company held a concert for him, in which he made his debut with five of his symphony works, including: "The Story of an Old Man," "Eight Horses," and "Horizon." In 1986, he accepted the Ministry of Culture's invitation to work with Japanese musicians to compose music for the dance drama *Across the Water*, written by Japanese ambassador Nakae Yosuke. The drama proved to be a huge success in both Beijing and Tokyo.

Chen Qigang is a world-famous Chinese composer who has integrated traditional Chinese elements into modern Western styles. As one of the few active Chinese composers on the international scene, Chen Qigang's works are becoming increasingly popular. In 2008, he wrote "You and Me," the anthem of the 2008 Beijing Olympics.

Tan Dun is a famous Chinese-American composer who won the Grammy Award for Best Soundtrack in 1999 for his work in the drama *Marco Polo*, and the Academy Award for Best Original Score in 2001 for the movie *Crouching Tiger, Hidden Dragon*. He also wrote "Embrace the Dream of Love" for the 2008 Beijing Olympics. For more than twenty years, Tan Dun has been a well-respected figure in Chinese musical circles for his work in spreading Chinese musical culture to the rest of the world. He was known as one of the "four great talents" of the Central Conservatory of Music, along with Chen Qigang, while in university, and he composed his first concert work, *Li Sao*, in 1979, when he was only

twenty-two years old. This piece utilizes many techniques that were controversial at the time, including drums and bamboo flutes, which made it a topic of heated discussion. “He is no doubt a genius,” one of Chen’s fellow students, Guo Wenjing, commented. Tan Dun won an international prize for composing the symphony *Feng Ya Song*, and he debuted many of his works, including “Tian Ying (Sky Shadow)” and “Shuang Que (Two Palaces),” at the Special Concert for Tan Dun’s Chinese Instrumental Music, which drew much criticism but was nonetheless a shock to Chinese folk music circles. He was known for using clay and paper as musical instruments, and he even used stone and water to produce notes, resulting in such experimental works as “Clay Music,” “Water Music,” and “Paper Music,” which drew international attention. Apart from these innovative “instruments,” cellos and chime-bells are also important elements in Tan Dun’s music, though the musical pieces he produced with them are far from what traditional cello and chime instrumentalists would come up with—in fact, he once asked Ma Youyou, a cellist, to produce the timbre of *Erhu* with his cello while he was composing for the movie *Crouching Tiger, Hidden Dragon*; and the cello rhythms in his *Symphony 1997—Heaven, Earth and People* can only be described as “astounding.”

The rapid growth of the Chinese economy and the increasing cultural exchange with Western countries have provided an excellent opportunity for the development of Chinese music. As famous Chinese singers such as Fu Haijing, Deng Yun, and Tian Haojiang make their debut on the international scene, foreign symphonies, ballads, and dramas are also coming to China, and countless cultural and arts festivals are being held in major cities throughout China. In addition, the development of modern technology has promoted the expansion of contemporary music, especially digital music.

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CHAPTER 5

Arts and Crafts

Chinese arts and crafts began with stoneware in the Paleolithic Age (around 8000 BC). Since then, the process of social development has been accompanied by brilliant achievements in Chinese bronze ware, pottery and porcelain, silk, embroidery, lacquerware, jade ware, enamelware, gold and silver articles, and sculptured handicrafts. Chinese arts and crafts are time-honored, diversified, and exquisite in craftsmanship. Expressing the Chinese people's wisdom and integrating the national temperament and cultural appreciation peculiar to the Chinese people, Chinese arts and crafts have become known both at home and abroad for their vivid charm. This chapter introduces the categories of Chinese arts and crafts from antiquity to the Qing Dynasty in terms of craftsmanship and artistic appreciation.

5.1 ARTS AND CRAFTS IN THE XIA, SHANG, AND ZHOU DYNASTIES

Chinese arts and crafts date back to prehistoric times. The painted pottery existing from this era not only reflects the ancestors' superior craftsmanship but also displays the unique aesthetic of the Chinese people. In the wake of the gradual transition from a primitive society to a slave society, bronze wares were developed in the Xia, Shang and Zhou dynasties and became world famous, particularly so in the Shang and the Zhou dynasties.

5.1.1 *Prehistoric Arts and Crafts*

The prehistoric era is usually referred to as the Stone Age, as stone implements were used as the primary means of production. Generally speaking, the period when chipped stone implements were used is called the Palaeolithic Age, while that when polished stone implements were used is the Neolithic Age. During the long-term process of developing stone implements, people gradually discovered that symmetric, regular, and smooth implements are more user-friendly, and they became appreciated not only for their utility but also for their beauty. In a sense, stonewares created during this period represent the origins of arts and crafts.

If stone implements in the prehistoric era mainly embodied the universality of early human civilization, potteries and jade objects discovered from the Neolithic Age in China fully display the characteristics of Chinese prehistoric craft production, which include not only the ability to grasp the material property and crafting, but also a unique experience and understanding of the form.

Pottery wares, as the first human creation that changed the nature of raw materials, had a significant impact on human history. Widespread and diversified in China, pottery wares can be divided into unglazed pottery, press marked pottery, painted pottery, and black pottery according to their adornment. The development of press marked pottery, which occurred after that of unglazed pottery, might have had something to do with the discovery of braided fabric's trace left on the pottery body during the firing of unglazed pottery. Cloth design, matting design, and cord design became the earliest decorative patterns of press marked pottery. In the Neolithic Age, painted pottery was the most important artistic form of pottery, taking on patterns in black, red, white, and so on at the orange-red bottom after the firing. With exquisite ceramic texture, color, and luster on the surface and permanent colored paintings, painted pottery wares were usually both practical articles for daily use and exquisite artistic creations.

Early mature painted pottery culture in China can be traced back to the Neolithic Yangshao culture (*c.* 5000–3000 BC) discovered in present-day Shaanxi, Shanxi, and Henan provinces. The painted pottery of the Yangshao culture can be sub-divided into several types according to shape and decoration, of which the most distinguished are the Banpo and Miao-ti-kou types. Representative pottery shapes of the Banpo type

include the flat-bottomed bowl, the straight mouth and oval base vessel, the basin with a rolling rim, and the shallow belly and circle (or small flat) bottom, and the patterns are generally distributed on the rim of the mouth and the upper part of the inner wall or the outer wall. These patterns mostly feature fish designs, realistic fish designs, deer designs, human-face designs, triangle designs, diamond designs, and twist and turn designs, which were developed from fish designs. Fishing nets were also used as painted pottery decoration, sometimes in combination and with shapes of fishing boats. The painted pottery of the Miao-ti-kou type more commonly takes the shape of a bent belly, and the painted depictions are always concentrated on the rim of the mouth and the outer wall of the belly. Plant patterns including pods, petals, and flower buds, and the derived patterns of the round dot, cambered triangle, and swirl, were all popular, and continuous patterns of multiple designs were often created.

The Majiayao culture (*c.* 3300–2050 BC), found in Gansu and Qinghai provinces, appeared in the middle to late Neolithic Age and can be sub-divided into the Shilingxia, Majiayao, Banshan, and Machang types, among which the Majiayao type is representative. The painted pottery wares of the Majiayao type include large-sized urns, jars, and pots. Along with variations in the painted pottery shape, the decorated area was enlarged and correspondingly patterns such as whorled, wave-like, and cambered triangle designs began to appear in complicated compositions, with space reserved for maneuver and change. Spaces and dots were usually left at the center of the dense spiral lines, both to avoid making the design too visually dense and to provide a sense of movement with ease and verve. It is believed by some scholars that such patterns may have derived from the depiction of a then advanced stone implement, the “rope stone,” while other scholars hold that its strong sense of movement is related to the Yellow River, which the people relied on for their survival. In brief, such rhythmic patterns are brimming with the flavor of life.

Following the middle and late periods of the Neolithic Age, some stone-wares began to be transformed into sacrificial vessels. Since jades were more beautiful than stones, jade wares were widely used in ritual sacrifice as the totem sign of primitive tribes, with their mysterious witchcraft color and strong religious meaning. The Liangzhu culture (3300–2200 BC), found in the North Zhejiang, Shanghai and Taihu Lake basin, belongs to

the late period of the Neolithic Age, when the polarization between the rich and the poor can already be seen in tombs, and therefore some experts deem this culture as the transition from primitive society to a class-based society. Jade slices called cong (琮) and common wares found in the large tombs of the Liangzhu culture may be related to a primitive religion and represent a symbol of authority. Such jade slices, or cong, are shaped like columns, with a square exterior and circular interior, and generally decorated with exquisite images, among which the distinctive figure of the divine human with the face of a beast is the most common. Their heights vary, from one section (formed by quadruplet horizontal identical figures) to more than ten sections. Images were usually engraved at the corners rather than on the four outer walls of jade slices, that is, on the arris, with the two sides bordering upon it jointly forming a picture. Therefore, the best angle from which to view an image is facing the corners of the jade slices, so as to create the illusion of the image retreating toward both sides.

5.1.2 *Bronze Craft in the Shang and Zhou Dynasties*

The Xia (2100–1600 BC), Shang (1600–1046 BC), and Zhou (1046–256 BC) dynasties are commonly referred to as the “Three Dynasties” and the “Bronze Age” in China’s cultural history, not only due to the development of remarkable bronze ware manufacturing technologies but also because bronze craft played a significant role in society.

As an alloy of pure copper and tin, bronze has the advantage of having a lower melting point and being harder than pure copper. The earliest known complete bronze ware is *jue* (an ancient wine vessel with three legs and a loop handle), which was found among artifacts of the Erlitou culture in Yanshi city, Henan Province and is known as “Erlitou Jue,” containing 92% copper content and 7% tin content—the typical bronze ware. The ratio between alloy compositions of bronze wares varies by use and type. There are alloying formulas for six bronze wares with different tin contents, that is, “liu qi” (six kinds of tin contents), recorded in “Diverse Crafts” from *The Rite of Zhou*—the world’s earliest written record of bronze wares’ alloying ingredients. From the extant cultural relics, it is evident that bronze wares were in great demand in the Three Dynasties. Among the preserved items, there are as many as 10,000 bronze wares with inscriptions as well as a great number without inscriptions, not to mention the quantity of the worn-out bronze wares and production implements.

Bronze wares in the Shang and Zhou dynasties were mainly cast in pottery molds. The complexity of the casting technology requires large-scale cooperation with an appropriate division of labor. Having developed the method of casting with molds and that of secondary casting as fully as possible at the time, people in the Shang and Zhou dynasties produced a large quantity of bronze wares with Chinese characteristics.

The wide range of bronze wares in the Shang and Zhou dynasties can be categorized as sacrificial vessels, musical instruments, weapons, tools, and traveling devices. Sacrificial vessels were used on ceremonial occasions, such as sacrificial offerings and banquets, both as a means of “communication” between man and the divine and as a symbol of the slaveholder’s power and status. The best examples of bronze ware of this time are almost all sacrificial vessels. As Shang slaveholders increased their sacrificial offerings to ancestors and spirits, the variety and shapes of bronze wares continued to expand.

The enfeoffment systems was instituted in the Western Zhou Dynasty, whereby political power, lands, and slaves were granted to feudal princes and dukes. Bronze wares were used to safeguard and embody this hierarchy, with the stipulation that slaveholders of different levels use the sacrificial vessels befitting their positions, and that the quantity and scale of slaveholders’ bronze wares be proportional to their positions—the so-called “etiquette system implicated in vessels.”

Many examples of the bronze wares produced in the late Shang Dynasty, when the development of ancient Chinese bronze art reached its first apex, have been found in the Yin ruins of Xiaotun, Anyang city in Henan Province. Most of the bronze wares unearthed here have thick walls and are ornamented with flowers throughout the body, known as “three-layered flowers”: flowers added onto flowers and as part of the shading. The style is generally dignified and forceful with rich, flowery, and deep decoration. The Simuwu Rectangle Ding Vessel is an example of bronze ware with mature and stable modeling, a wide and thick mouth rim, square belly and body, thick and strong pillar legs, and ears by which the whole vessel’s dimensions and momentum are strengthened. Its decorative effect is simple but strong: all four sides of the ding belly are clean and plain so as to set off the taotie design, composed of a kuilong (a one-legged creature in fable, a likely branch of the Chinese dragon totem from the Yellow Emperor Tribe) design around it, giving the whole vessel a severe appearance and leaving a mysterious, deterrent, and horrible impression, which symbolizes precisely the Shang slaveholders’ power and influence as well

as their majesty. The ferocious beauty of the bronze wares in the Yin ruins period is directly related to the decorative patterns on the vessel body. The craftsmen made as many variations and combinations of fantastic patterns as possible within the permitted range. Decorative patterns consist primarily of imaginary animals, such as the taotie design, kui design, and phoenix design, and also some realistic animals, such as the bird design, bird head design, cattle design, cattle head design, snake design, cicada design, turtle design, and toad design. In addition, there are other patterns of geometric figures, such as eye and thunder design, swirls, and nail design. Among them, the most prevalent was the taotie design—a mythical creature that combines the tiger, cow, sheep, and other animals in an aesthetic process of synthesis and exaggeration. The Shang people respected deities and ghosts, and their belief in spirits was directly manifested in the decorative patterns represented by the taotie design. The bronze wares in the Shang Dynasty always look a ferocious and deterrent, and such artistic effects mainly result from these decorative patterns.

In the golden age of the slave society, as the Western Zhou Dynasty witnessed the establishment of a succession of “rituals” as social norms, the style of bronze wares was transformed from weird to elegant. In the middle to late Western Zhou Dynasty, the preference was for simple and smooth modeling, harmony between the shape and decorative patterns, and a musical sense of rhythm. Taotie designs were no longer common, having been replaced by ribbon-like figures, designs of kui, phoenix, and birds looking at each other’s heads, patterns of qiequwen, multiple concentric ring designs, and other geometric patterns. As the decorative patterns based on mythical creatures that had prevailed since the Shang Dynasty evolved into new patterns, their mythical meaning gradually waned, for example, the scutes on the dragon design became the multiple concentric rings design. Since these decorative patterns, formed through evolution, had already been changed into abstract geometric figures, bronze wares in the Western Dynasty tended to be harmonious and elegant in decorative style. Furthermore, while relatively few words were inscribed on bronze wares in the Shang Dynasty, this number was later extended to several hundred; for example, 497 words were inscribed on the Maogong Ding Vessel unearthed in Fufeng county of Shaanxi Province.

After King Ping of Zhou’s capital was moved eastward in 770 BC and Zhou royalty lost control of the hereditary fiefs, there came the Spring and Autumn period and the Eastern Zhou Dynasty. For Zhou kings and their

supporters, the Spring and Autumn period was the age when ritual collapsed. The declining Zhou court was unable to monopolize the manufacture of bronze wares, and the feudal states developed their own techniques and regional features. The Lotus and Crane Rectangular Pot, unearthed in Xinzheng city of Henan Province in 1923, is representative of the general style of this period. The entire pot, from the modeling to the decoration, expresses the spiritual joy of life: the entire body is decorated with entangled chi dragon (a hornless dragon) designs, and the ears, feet, and leaf edges all feature vivid supernatural creatures. The hollowed-out lotus petals on the pot-lid open in all directions and a crane stands in the middle of the lid with its head raised and wings spread, ready to fly—almost a copy of a realistic crane, as if a brand-new life was brought out of the strong mysterious atmosphere. Two prostrate beasts at the bottom of the pot appear to be carrying it, making the heavy bronze pot, weighing more than 60 kilograms, seem weightless. In the middle Spring and Autumn period, dewaxing casting—the most important bronze manufacturing technique after casting with molds—was developed. This technique involved first making a wax model, which was impregnated with slurry and then dewaxed into a mud mold by firing, and finally the solution was infused into the mold. Dewaxing casting made possible the manufacture of exquisite bronze wares decorated with multi-layered openwork.

5.2 ARTS AND CRAFTS IN THE HAN AND TANG DYNASTIES

The two Han dynasties (206 BC–AD 220) witnessed a unified and multi-racial feudal nation in China. As the nation became increasingly powerful and prosperous, agriculture, the handicraft industry, science and technology, and culture and art all developed at a rapid pace. Innovations were made in various categories of arts and crafts, such as bronze ware, lacquerware, pottery and porcelain, jade ware, and embroidery. As for the comprehensive development and abundant varieties of arts and crafts, the Han Dynasty can be considered as the first high point in the history of ancient Chinese arts and crafts.

The establishment of the Tang Dynasty in AD 618 opened a glorious chapter in China's history. Thanks to social stability, the recovery and development of agriculture and the handicraft industry, and cultural and technical exchanges between China and foreign countries, the arts and crafts of the

Tang Dynasty made remarkable advances. Arts and crafts in this period were full of variety and included metals, pottery and porcelain, silk weaving, lacquerware, and other crafts.

5.2.1 *Arts and Crafts in the Han Dynasty*

Bronze art from the Three Dynasties (Xia, Shang, and Zhou) was further developed in the Qin and Han dynasties, with the production of fewer sacrificial vessels and more wares for daily use. As the Bronze Age faded away, bronze crafts in the Han Dynasty became lighter, more exquisite, and more usable. A representative example is cast bronze lamps, some of which were gilded throughout the body and molded in the image of an animal or a person. Animal images, rather than imitating natural features or applying vulgar decorations, achieved excellent decorative effect by ingenious and sophisticated conception together with plain and simple techniques. The human-shaped Changxin Palace Lamp, excavated from the Douwan Tomb in the Mancheng County of Hebei Province, is a masterpiece. With a height of 48 centimeters, entirely gilded and inscribed with the words of “Changxin Jia” (literally, belonging to the palace of Changxin), the lamp is in the shape of a palace maid, kneeling and holding a lamp. The lamp chimney can be opened and closed and the lamp panel rotated so as to regulate the light intensity and direction; the lamp smoke is gathered in the inner cavity of the body through the maid’s right arm, to keep the air in the house clean. The image of the palace maid is vividly designed, with natural gestures and an expression suggesting that, as one enslaved, she is depressed and humiliated.

Ancient Chinese lacquerwares were in high demand in the Han Dynasty. The nobility spared no resources in the manufacture of lacquerwares to meet the demands of their luxurious lifestyles. It is evident from the variety of specimens discovered that these were products that were widely used in the Han Dynasty in various aspects of daily life, such as drinking and eating utensils, including *ding*, case, plate, *yu* (a broad-mouthed receptacle for holding liquid), *zhong* (a handleless cup), *fang* (a square-mouthed wine vessel), ear cup, *zhi* (a vessel for holding wine), case for ear cups, spoon, and *bi* (an ancient type of spoon); sanitary utensils including basin, *yi* (a vessel for holding water used to wash hands), and *mupan* (an ancient vessel used for bathing); furniture including screens, tea tables and desks; entertainment appliances including *qin* (a seven-stringed plucked instrument), *se* (a twenty-five-stringed plucked instrument), and a six-throwing-chopstick board

game set. The ear cup, known for its elegant appearance among the Han Dynasty lacquerwares collection, is called yushang, meaning wine cup, which is related to a “floating wine cup along the winding water.” As the ancient custom goes, people believe that they can eliminate misfortunes with water on the third day of the third lunar month. The participants stood by the winding water and threw the wine cups into the upper reaches, allowing them to flow upward. When the cups stopped, people fetched them and drank the water that had collected in them. The ear cup is in the shape of a boat, with ears convenient for fetching and floating, displaying the delicacy in the manufacture of such lacquerwares. Han Dynasty lacquerwares were generally decorated in the style of flowing clouds. The pattern of nephogram design or nebula design is as natural and smooth as the floating clouds and flowing water, sparkling and full of movement and rhythm. Sometimes, hurtling, monstrous beasts were painted in the flying clouds to represent the magical world.

5.2.2 *Arts and Crafts in the Tang Dynasty*

In the Tang Dynasty (AD 618–907), the development of ceramics progressed rapidly and kilns began to emerge in many locations. As regions differed in clay, glaze, fuel, and firing and manufacturing technologies, their products varied in style. It was in the Tang Dynasty that these regional products came to be known by the name of the kiln used to produce them.

Two primary types of porcelain, with celadon and white glazes, were manufactured in this period. Yue kilns, found in Zhejiang Province, which was called Yuezhou (the state of Yue) in the Tang Dynasty, were the most important in the manufacture of celadon wares, which they had specialized in since the Shang and Zhou dynasties. Yue kilns greatly improved their firing techniques in the Tang Dynasty and produced the fine and glossy as well as bright and soft effect by overcoming the disadvantage of uneven glaze liquid. As these high-quality porcelains were intended for tributes and their use by plebeians was not allowed, they were also called “secret color porcelain.” Yue porcelains were also highly praised by Tang poets for their beautiful and elegant appearance as well as their jade-like green and luxuriant glazing color. Ceramic white wares were produced in many places in the Tang Dynasty, and the most famous ones were manufactured in the Ying kiln; however, the site of the Ying kiln has not been located so far.

Apart from celadon wares and ceramic white wares, the tri-colored glazed potteries of the Tang Dynasty (Tang tri-colored for short) were

renowned at home and abroad for their vivid colors. Tang tri-colored is the general term for low-temperature colored glaze wares. The body was made out of white clay and fired to between 1000 and 1100 °C. After cooling, it was coated with various glazes compounded by lead and quartz and then fired to between 800 and 900 °C. The craftsmen took advantage of the lead glaze's strong liquidity to let it flow downward during the firing, so that every piece of artwork would take on the layered colors, increasingly dark from the highest part to the lowest, and all the colors would become integrated, enhanced, and variegated. Wares were categorized as utensils and figure statues, among which the most artistic were the tri-colored figure statue, tri-colored horse, and tri-colored camel.

The Tang Dynasty saw the production of gold and silver masterpieces which, with their lofty style and vivid decorative patterns, attained a level of beauty unmatched by those of later generations. The Tang people not only wore gold and silver wares and ornaments and exchanged them among themselves, they also functioned as valuable tributes paid by local governments to the emperor, who in turn used them for awards and diplomatic affairs. The gilded silver jar decorated with a dancing horse holding a cup of wine in its mouth, unearthed in Hejia village of Xi'an Province, is shaped in the style of leather bag with a horse hammered out on both sides of the belly. With a ribbon tied to its neck, the horse raises its head and tail as if dancing. The decorations are gilded and the structure as well as the decorations are unconventional and manufactured quaintly. According to the literature, Emperor Xuanzong named August 15 of the Chinese lunar calendar the "qianqiu festival" (the predecessor of the Mid-autumn Festival) after his birthday, on which day a grand program of performances would be held in the Xingqing Palace, among them the horse dance. Therefore, this jar is, as it were, a true portrayal of the prevalence of horse dance in the prosperous Tang Dynasty.

The noble class used the silver fragrance ball to give their clothes a pleasant smell. The silver fragrance ball, with an exquisite shape and a peculiar structure, displays superb craftsmanship and gorgeous decoration. Its main part is a small ball composed of upper and lower hemispheres fastened with a small spindle in the joint, along with a snap fastener that fits tightly, making the joint firm and convenient for opening and closing. Two concentric machinery rings and one incense jar are set in the lower hemisphere and linked by the symmetric live axles in the ball wall. When the ball rolls, the incense jar is prevented from overturning by the mechanical balance produced by the concentric machinery rings and live axles.

5.3 ARTS AND CRAFTS IN THE SONG AND YUAN DYNASTIES

The governments of the two Song dynasties (AD 960–1279) concentrated on the promotion of culture and education, and valued literary men and intellectuals equally. Literary men delighted in various craft products, while urban economic prosperity and the surge in urban classes not only promoted the rapid development of handicraft industries but also commercialized arts and crafts products and made them available to commoners. Arts and crafts in the minority regimes of Liao, Western Xia, and Jin, which co-existed with the Song Dynasty, both inherited the essence of the Han Dynasty art and incorporated their own ethnic features.

After unifying northern China at the beginning of the thirteenth century, the Mongol nationality succeeded in establishing a powerful empire across Europe and Asia within decades. The Yuan rulers forced pillaged craftsmen from various places to migrate inland and to work under supervision as hereditary public craftsmen manufacturing craft products for the government.

5.3.1 *Arts and Crafts in the Song Dynasty*

With a production scale, manufacturing technologies, and artistic level that surpassed those of previous dynasties, pottery and porcelain are the most notably exquisite arts and crafts products from the Song Dynasty. The “five famous kilns” renowned at home and abroad—Ding, Ru, Guan, Jun, and Ge—all emerged during the Song Dynasty. The Ding kiln was the best and also the only one among the five famous kilns capable of producing white porcelains after the Xing kiln in the Tang Dynasty. Ding porcelains have a firm and fine base texture, a thin body, and a slightly yellow glaze color similar to ivory, and they feature *mangkou* and tear stains. The encastage mode of upside-down firing was adopted by the Ding kiln to increase the production of porcelains per kiln, but because the mouth rim of the utensil was not glazed due to the upside-down encastage, it was called *mangkou*—芒口, literally “obscure mouth,” a term for the unglazed mouth rim of the utensil. Ding porcelains were rejected for use in the Northern Song Dynasty court because of *mangkou*. Tear stains, usually seen on the exterior of bowls, were formed because of the uneven thickness of glaze that caused part of it to droop, like a trail of tears. Ding porcelain decoration, elegantly styled, was applied by engraving, incising, and impressing patterns with simple and powerful lines.

The Ru kiln was the first famed celadon kiln in ancient northern China. In the late Northern Song Dynasty, Ru porcelains were selected as imperial supplies. The glaze of Ru porcelain is fairly thick, moist, clear, and bright, and the body is sky-blue and thin with tiny trails of support nails left at the bottom. The earlier Ru porcelains are plain, with no decoration, elegant and simple, while the later ones feature impressed and engraved patterns looming under the liquid glaze, giving them a unique charm. The Song people regarded Ru porcelain as best among celadon wares. The Ru kiln was short-lived, lasting approximately from Emperor Zhezong to Emperor Huizong. The expression “(Ru wares are) especially rare recently” was used already in the Southern Song Dynasty. Fewer than 100 Ru porcelains have survived.

Guan kilns refer to those officially established in Pyankung between the Daguan and Zhenghe years of the Song Dynasty. These were also celadon kilns, emerging under the influence of the Ru kiln. Guan porcelains used ferrous china clay and a light greenish-blue glaze color, always decorated with a natural crackle in a crab claw pattern. Since the color of the base was exposed on the rim of the mouth and foot as a result of the relative thinness of the liquid glaze, Guan porcelains are called “purple mouth and iron foot,” displaying the contrast and variation of the color quality in uniformity and elegance.

Jun wares originally belonged to the celadon system characterized with opal glaze and they contained constituents engendered by phosphoric acid bonded with reduced iron. In the Song Dynasty, copper was added to the glaze to obtain aubergine colors such as rose, violet, and begonia red, which were as beautiful as a sunset. This was an innovation in the ceramic craft to overcome the dull, single glaze of celadons. Such variation in the glaze color was called *to fambe*. With the constant increase in the output of Jun wares and the extensive spread of technology from the Song Dynasty to the Jin and Yuan dynasties, the Jun system was formed in Henan, Hebei, and Shanxi provinces.

Ge wares tended to imitate the bronze style in the pre-Qin Dynasty, with glaze crackles in the shape of cracking ice—classified as hundredfold crackle, roe pattern, and ox hair pattern—and in two colors, yellow and black, which were therefore known as “gold wire and iron thread.” The crackles were an intentional consequence of the lack of conformity in the base glazes’ expansion coefficients, producing uniquely styled porcelains with classical elegance.

Apart from the five famous kilns, there were other renowned folk kilns, including Longquan, Yaozhou, Cizhou, Jizhou, and Jingdezhen, distributed across the country that also produced different ceramic varieties with unique features. Among them, the Longquan kiln, in today's Longquan city in Zhejiang Province, was a famous celadon kiln in the south of China, where over 100 kiln sites have been discovered. Its celadon wares were exported in large quantities to many countries in Central Asia, West Asia, Southeast Asia, and Africa.

5.3.2 *Arts and Crafts in the Yuan Dynasty*

In the Yuan Dynasty (AD 1271–1368), the governors set up the Fuliang Porcelain Bureau in Jingdezhen to manage the affairs of porcelain manufacturing, leading to the porcelain manufacturing industry's gradual centralization in Jingdezhen. Jingdezhen made astonishing achievements in porcelain manufacturing craft. In addition to the continuous firing of blue and white porcelains (BWP), egg-white glazed porcelains were manufactured for the first time. The maturity of BWP and the initial success in firing underglaze red porcelains in particular ushered in a new era in porcelain decoration.

BWP, also called “white glaze and blue pattern,” was the most outstanding achievement of the porcelain industry in the Yuan Dynasty. The blue against the white background produces a tranquil and tasteful effect, striking one with its fresh and bright sense of beauty. As concerns the origin of BWP, though no final conclusion has yet been reached, it is agreed that the BWP fired in Jingdezhen in the Yuan Dynasty had already approached maturity. Yuan BWPs are generally characterized by their large size, thick bottom, and heavy body, mainly in such forms as a jar, plum vase, Yuhu spring vase, ewer, stem cup, and so on. They feature multi-layered decorations that cover the body from the mouth to the foot with various but clearly layered patterns—complicated yet neat. A variety of decorative patterns appear, including character stories, plum blossoms, orchids, bamboos and chrysanthemums, Chinese dragons, phoenixes and strange beasts, birds, and insects and fishes.

In the production of underglaze red porcelains, designs were first painted on the body with copper oxide as the coloring agent and covered with white glaze. After being fired at a high temperature, the underglaze took on the red color. The manufacturing process for underglaze red

porcelains, though similar to that for blue and white porcelains, was more difficult. Some products fired with the combined methods of BWP and underglaze porcelain are rather gorgeous and graceful.

After the Mongolians settled in central China, gold-weaving techniques were developed. Originally living in the Mobei highland region and influenced by their surroundings, the Yuan people were fond of brightly colored and dazzling gold-weaving fabric. The Yuan people called the gold-weaving brocade *Nashishi*, which might be transliterated from Arabic. Fully patterned and glittering, *Nashishi* was therefore an indispensable ornament for the upper-class rulers both in grand celebration banquets and in daily life.

5.4 ARTS AND CRAFTS IN THE MING AND QING DYNASTIES

The mutual exchange and merging among ethnic groups continued in the Ming (AD 1368–1644) and Qing (AD 1644–1911) dynasties. In the meantime, thanks to the flourishing of foreign trade, foreign manufacturing materials and techniques also began to be introduced into Chinese traditional crafts. Broadly speaking, arts and crafts in the Ming and Qing dynasties were diverse, and porcelain, metal craft, lacquerware, embroidery, furniture, and other crafts of minority peoples all gained great popularity. It is fair to say that traditional arts and crafts reached their maturity in the Ming and Qing dynasties and also began to prepare for their development in modern times.

5.4.1 *Furniture Handicrafts in the Ming and Qing Dynasties*

The most outstanding achievement in furniture handicrafts in the Ming and Qing dynasties was undoubtedly Ming style hardwood furniture, which can be divided into five categories: chairs, stools, console tables, beds, and screens, all of which include a variety of items. Ming style furniture was unpainted, preserving the natural color and texture of rosewood, nanmu, purple pine, and wenge for the sake of a deep and graceful sense of nature.

The Ming furniture craftsmen paid particular attention to people's comfort, and the size of the furniture was fairly scientific even when measured against today's design standards. The sizes of many units were carefully chosen in accordance with the dimensions of the human body, and smooth lines were used for all surface units that were exposed to the body, in order to maximize the user's comfort.

Besides the consideration of fitness and convenience in use, craftsmen always pursued beauty in contrasts: between long and short, bent and straight, loose and dense, and line and surface. Embodying unity among material, form, and utility through excellent design and delicate manufacture, Ming style furniture is not only the climax of furniture crafts in China but also stands out in the world's furniture history.

The popular Ming style furniture continued to be used until Emperor Kangxi's reign in the Qing Dynasty, during which many fine articles of furniture were made. The Qing style furniture that appeared in the reign of Emperor Qianlong was larger in size and more exquisite in workmanship, particular in its use of material and complexity in decoration, than that of the Ming style. Overall, the Ming style furniture was more stylish, while the Qing-style furniture was more decorative.

5.4.2 *Metal Crafts and Lacquerwares in the Ming and Qing Dynasties*

An important development in metal crafts in the Ming Dynasty was cloisonné craftsmanship, or “filigree enamel with copper base.” This craft was introduced from Persia during the Yuan Dynasty into Yunnan Province and called the “Dashi kiln.” Afterwards, craftsmen developed a nationalized variety in the Ming Dynasty by integrating it with the traditional damascene craft.

This craft achieved success during the reign of Emperor Xuande of the Ming Dynasty and became more prosperous and highly mature during the reign of Emperor Jingtai—and thus cloisonné (*jingtai lan* in Chinese) became the local name for “filigree enamel with copper base.” Products included mainly vases, flower receptacles, stoves, plates, stationery, and lamps, mostly with backgrounds of bright blue and sapphire blue glazes plus red, yellow, green, and white glazes in the patterns.

Great progress had also been made in lacquerware craftsmanship, both in the variety of products and in technology, since the Ming and Qing dynasties. In the Ming Yongle period, the lacquerware “Orchard Factory,” set up to provide services for the royal court, specialized in manufacturing various lacquerwares and was especially renowned for carved lacquerware and lacquer-filled lacquerware. Carved lacquerwares by the Orchard Factory in the Yongle and Xuande periods were manufactured with light and fast knife skills and with particular care in polishing, and were decorated with vigorous and mellow patterns based on flowers and animals.

The Jiaqing and Wanli years of the Ming Dynasty saw changes in the style of lacquer wares. Clear ridges of cutting were left unpolished with no effort to hide the cutting edges; decorative patterns became more themed on narratives such as dragon boat races, street vendors, treasure basins, etc. Lacquer wares were first carved and later lacquered with color on the carved patterns; if the patterns were lacquered with powdered gold, the process was specifically termed “qiangjin” (戗金, literally meaning “filling gold”). Apart from the official lacquerware institution, the manufacture of folk lacquerware was encouraged throughout the country, with many famous lacquer artists appearing. Lacquerwares in the Jiaxing period, by artists such as Hong Xiu and Jiang Qianli, were well known for their use of mother-of-pearl, while Yangzhou teemed with lacquerwares inlaid with jewels, and the craftsmanship of the artist Zhou Zhu was called “Made by Zhou.”

Various places continued developing lacquerwares in the Qing Dynasty, before gradually forming their own production centers and local features such as Beijing’s carved lacquerwares, Yangzhou’s lacquerwares with mother-of-pearl, and Fujian’s bodiless lacquerwares. Following the Orchard Factory in the Ming Dynasty, workshops were set up by the court of the Qing Dynasty in Beijing, producing carved lacquerwares that bore visible tool marks and were unpolished and decorated with complicated and slim patterns. In addition to the wooden body base, there were porcelain, purple sand, and metal body bases. Most of them were carved polychrome lacquerwares with double-colored background and diverse colors. The most sophisticated craftsmanship of Yangzhou’s mother-of-pearl lacquerwares involved inlaying the mother-of-pearl, setting slivers of colorful abalone shells into various slim patterns. Fuzhou bodiless lacquer wares were gorgeously lustrous and very light. The production of the bodiless lacquer ware consists of the following steps: First, a mold is made out of clay. Second, the mold is pasted with cloth, ramie or silk. Third, when the cloth or silk hardens and takes shape, the clay is cast away, thus making the lacquer ware “bodiless.” Finally, the ware is polished and lacquered. This production method was invented by Shen Ze’an, an artist of Emperor Qianlong’s reign, and it is still in use today.

5.4.3 *Ceramics in the Ming and Qing Dynasties*

If celadon was the primary ceramic glaze color before the Ming Dynasty, white was the primary porcelain color following the Ming Dynasty. The development of white porcelain led to the evolution of the engraved,

incised, and impressed designs into painted designs, primarily blue and white patterns and polychrome patterns. Various combinations of the underglaze and overglaze colors contributed significantly to the gorgeous and dazzling porcelain decorations in the Ming and Qing dynasties.

The Ming Dynasty witnessed great progress in the underglaze color on BWP. In the Yongle and Xuande periods of the early Ming Dynasty, BWP had solid, fine, and purely white bodies with crystal, thick, and mellow glaze. Cobalt blue pigment used “smalt” imported from Southeast Asia whose color was bright, deep, pure, and graceful. From the Chenghua years to the Zhengde years, BWP used the indigenous “pingdeng blue” and had a thin body base with fine glaze, light and soft colors, and a small and light vessel shape. During the Jiaqing and Wanli periods, BWP began to use purplish Mohammedan blue with piled decorative patterns and simple strokes. From the beginning of the Qing Dynasty until the period of the reign of Emperor Kangxi, BWP switched to using “Zhejiang pigment,” producing tender and beautiful colors with many shades and flowery decorations. Porcelains produced in folk kilns were simple and quiet in color, and free and easy in painting.

BWP with colored decorations reached outstanding levels in the Chenghua period; they can be divided into *doucai* porcelain and color-filled porcelain. In the making of color-filled porcelain, smalt pigment was used to outline the decorative designs on the raw clay, which was then filled with the colored glazes. In the method of *doucai*, smalt pigment was used to paint partial decorative patterns on the raw clay and then on the corresponding places on the glaze, so as to produce the effect of unity in variation between the blue and white outline and the colored paintings. Multiple layers of color on porcelain vessels “contended for beauty,” hence the name *doucai* (“contending colors”).

The Ming Dynasty also witnessed great progress in the manufacture of BWP with polychrome patterns. While in a *doucai* porcelain, the blue pattern occupies the dominant position and colored glazes are used for ornament, so that a complete picture can be formed even without overglaze colors, in a polychrome porcelain, the blue pattern only indicates the blue color in the design and does not itself form a complete picture. Polychrome porcelain reached the height of its popularity in the reign of Wanli, when the polychrome glaze colors on the porcelain were intricately alternated, producing the effect of colorful changes. A good example from this period is the blue and white covered jar with polychrome cloud-and-dragon design. With a round belly and foot, the jar body was decorated with blue

underglaze and polychrome double dragons playing with a fire pearl design, and the lid surface with the cloud-and-dragon design. The dragon's eyes, horns, and body were outlined with blue underglaze, within which the dragon scales were painted green and black and the dragon moustache was painted red. With double dragons contending to chase after the fire pearl with lively expressions, smooth patterns, and bright colors, this jar is characteristic of Jingdezhen polychrome porcelains in the reign of Wanli.

BWP was further perfected during the reign of Kangxi. Those made in folk kilns were decorated with uniquely styled patterns in a pure blue color with bright chromogenic reaction, which, especially with their aesthetic style of purity and unadorned elegance, bore the distinctive and unique appeal of traditional Chinese ink paintings. BWP decorated with bamboo patterns was particularly prevalent in the reign of Qianlong. The bamboo leaves and basal buds in the design were usually hollowed out to form a contrast with the blue underglaze patterns. Since the patterns are pervious to light, and the porcelain feels like jade, the whole artefact appears dainty and exquisite.

Polychrome porcelains in the reign of Kangxi, also called Kangxi Wucai (Kangxi multicolored overglazes), developed significantly, with blue and black overglazes emerging, varying gradations of red and green overglazes, and gold and silver glazes often used to resplendent and magnificent artistic effect. Thanks to the scientific study of colored glazes and more accurate control of air and temperature in the kiln during firing, Kangxi Wucai generated bright, sparkling clean colors, while sagging and disbonding rarely occurred. In terms of content, paintings on official kilns' porcelains were neat and conventional, primarily depicting landscapes, human figures, flowers, birds, insects, and fish, while those on folk kilns' porcelains had a wider variety of subjects, including ancient beauties and characters from stories.

In the last years of Emperor Kangxi's reign, porcelain craftsmen painted enamel pigment imported from the Western world onto the porcelain body, which was also called "enamel painted porcelain" or "porcelain with painted enamel." Porcelain with cloisonné enamel decoration was the overglaze porcelain. Enamels were entirely imported from the Western world until the middle of the reign of Yongzheng, when indigenous enamels were successfully refined. Compared with multi-colored paint, enamel appeared very metallic and was more diversified in colors. Paintings on Kangxi enamel porcelains were mainly based on flowers set off by a colored background, while in the reign of Yongzheng, although landscapes

were still painted, the most delicate paintings were of flowers and birds painted directly onto the white glaze, the delicacy of which was more evident due to the absence of a colored background. In the reign of Qianlong, the production volume of enamel porcelains increased and the porcelain body—thin, solid, and fine—was decorated with complicated designs. The fine, smooth strokes were highly three-dimensional. From the reign of Jiaqing, enamel porcelains, albeit still in production, were produced in small quantities and were gradually replaced by famille-rose porcelains.

Famille-rose porcelain is an overglaze porcelain that also appeared for the first time in the reign of Kangxi. It was created on the basis of the Kangxi polychrome porcelains and under the influence of enamel porcelains. In the reign of Yongzheng, unprecedented achievements had been made in the model, glaze, and technique of colored painting. By using the technique of applying colors to a drawing, famille-rose porcelains were decorated with colored patterns that were highly three-dimensional, pink, and soft, thereby also called “soft porcelain.” Fired at a relatively low temperature and more abundantly colored than polychrome porcelains, famille-rose porcelains were much more delicate and charming and received high acclaim for their quiet elegance and soft beauty.

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Astronomy and the Calendar

China was one of the first societies in the world to study astronomy. The first observations of astronomical phenomena were in the interests of primary production and daily living, and a more detailed and complicated knowledge of astronomy was accumulated over many generations, gradually forming a unique astronomical discipline. Ancient China was a leader in many ways in the study of astronomy, which came to be a major feature of Chinese culture which was eventually integrated into modern astronomy.

6.1 ANCIENT ASTRONOMY AND THE CALENDAR

6.1.1 *An Overview of Ancient Chinese Astronomy and the Calendar*

As highlighted above, ancient Chinese astronomy was closely related to agricultural production, which is greatly affected by weather and the seasons. A good understanding of astronomy and the calendar can ensure that fewer mistakes will be made in farming. It is fair to say astronomy as a system of knowledge arose alongside the development of primitive agriculture. Oracle bone inscriptions from the Shang Dynasty (1600–1046 BC) contain a wealth of astronomical information, which means that in the

Yellow River Basin, astronomy can be traced back to an era before the Shang Dynasty. The calendar belongs to theoretical astronomy, which develops with everyday practice in agricultural production. Based on human practices, the year, month, day, and hour became the basic elements of the calendar. The units of the year, month, and day are based on observation of natural phenomena, and their fixed lengths are a prerequisite for a mature calendar. The unit of the hour, however, is simply the segmentation of a day. The calendar, in short, is the law of how to arrange time according to the units of year, month, day, and hour.

Beginning with the matriarchal society of the early Neolithic period, people were able to use the positions of stars to identify direction and to discern the time and the season—and thus to accumulate astronomical knowledge. In the era of Fuxi, agricultural production became the main source of livelihood, demanding a calendar that accurately reflected natural conditions. Based on previous knowledge of astronomy, the calendar of the era of Fuxi was created.

The establishment of the Chinese calendar started in the Warring States period, during which the earliest version of the written Chinese calendar, the *Quarter Calendar*, was designed. The development of the Chinese calendar can be divided into four periods: The first period, that of the ancient calendar, lasted until 104 BC (the first year of Emperor Wu's reign in the Han Dynasty). The second, the Chinese calendar period, from the Han Dynasty to the beginning of the Qing Dynasty, saw some reforms of the calendar, and some written records of calendars from this time still exist. Although there were several calendar reforms, the principles of forming a calendar remained consistent. For example, the allocation of a leap month is based on the rule that “if there is no Zhongqi [中气, a unit in the calendar, usually one in each month] in a month, then the month is a leap month.” The third period is called the Chinese–Western calendar period, an era in which Western methods and data were used to develop the Chinese calendar. For example, the *Xinfa Calendar* (literally meaning “New Calendar”), designed by Johann Adam Schall von Bell as the basis in the Qing Dynasty, was later changed into the “Examination into Calendar” in the reign of Emperor Kangxi. The fourth and latest period is called the Gregorian calendar period, following the adoption after the Revolution of 1911 of the Gregorian calendar established by Pope Gregory XIII.

6.1.2 *Introduction of Ancient Chinese Astronomy*

6.1.2.1 *Astronomy in the Xia, Shang, and Zhou Dynasties*

Many sun and moon patterns, representing the original ancient astronomical concepts, have been found on painted pottery from ancient China. When China adopted a slave-based social system in the Xia Dynasty, productivity increased and progress was made in the field of astronomy. Though no written records from the Xia Dynasty have been found, some ancient records indicate that astronomical knowledge at the time was significant. A high level of ancient civilization was developed in the Shang and the Zhou dynasties. The large number of oracle bone inscriptions and bronze inscriptions that have been discovered from the Shang Dynasty indicate a relatively accurate understanding of astronomy. Oracle bones, originally used in divination, are engraved with text referred to as divination inscription. Among the tens of thousands of inscriptions unearthed, many are related to astronomy.

The earliest known collection of Chinese poetry, *The Book of Songs* from the Zhou Dynasty, includes poems with references to astronomy, for example, “On October 1st, and there is a solar eclipse,” “when the moon is near Bi star, there will be heavy rain,” and “Meteors in July, September grants more clothing.” Observations and descriptions of the sky in the era of *The Book of Songs* were quite advanced. The Spring and Autumn period was a transitional period from a slave-based society to a feudal society. Ancient Chinese astronomy established its own independent system in this period. Observation and research of the sun, moon, and stars (Venus, Jupiter, Mercury, Mars, Saturn) became more detailed. Twelve *Ci* (a way of dividing a day) and twenty-eight stars and other systems became more advanced. A number of astronomical works were produced during this period: the astronomers Gan De (from the Kingdom of Chu) and Shi Shen (from the Kingdom of Wei) respectively wrote *Astronomical Astrology* and *Astronomy*, the latter of which contains the distance and *Quji* (a unit) degree between twenty-eight stars, and the lunar lodge degree and *Quji* degree of more than 100 other stars. This was referred to as the Shishi star catalog. Many astronomical phenomena were recorded in the Spring and Autumn and Warring States periods, including eclipses of the sun and moon, meteorites, and meteor showers, as well as the earliest Chinese notes on Halley’s Comet.

6.1.2.2 *Astronomy in the Qin and Han Dynasties*

In 221 BC, Qin Shi Huang, the First Emperor of Qin, wiped out the other six states and established the first centralized kingdom in Chinese history. Because the demise of the Qin Dynasty came in the second emperor's ruling, no progress was made regarding the calendar. Based on a comparison of different calendars used in the statelets during the Spring and Autumn and Warring States periods, the Qin Dynasty employed the "Zhuanxu Calendar," which reflected relatively well the astronomical facts, including 365 days for the length of a tropical year and twenty-nine days for the length of a lunar month. Seven leap months were inserted every nineteen years to adjust the solar term. In 206 BC, forces led by Liu Bang took advantage of the peasant uprisings against the Qin Dynasty and established the Han Dynasty. The Zhuanxu Calendar remained in use until Emperor Wu started to reform the calendar. In Emperor Wu's Period, on the basis of the Zhuanxu Calendar, the "Taichu Calendar" was developed by the famous astronomer Luoxia Hong and others. The Taichu Calendar is the first preserved intact calendar in Chinese history. It includes the major elements of calendars of future generations, such as the solar term, *Shuohui* (the first and last day of a month), the leap method, five stars, and eclipse cycles.

Significant progress was made in the invention and use of instruments for astronomical observation in the Han Dynasty. In 161 BC, the vertical meter was invented to measure the length of shadows. During the reign of Emperor Xuan (73–49 BC), Geng Shouchang created a celestial globe—similar to a modern celestial globe—the first of its kind in Chinese history. In 103 AD, Jia Kui and Fu An invented ecliptic brass, the starting point of ecliptic coordinates in China. In 132 AD, Zhang Heng invented an armillary sphere run by leaking water—it was connected to a clepsydra through transmission machinery. It is arguably the precursor to the modern planetarium. He also invented the first seismograph in the world, successfully making a test of the Longxi earthquake.

Impressive astronomical works of this period include "The Book of Heavenly Officials" and *Lingxian*. Written by Sima Qian, "The Book of Heavenly Officials" is part of the *Historical Records* discussing natural phenomena in the sky. There was also a volume on "almanac," the first time the calendar was described in national history. Zhang Heng's *Lingxian* comprehensively expounded on the generation of heaven and earth, the evolution of the universe, earth's structure, the nature and movement of the moon and stars, and many other important issues, making China the world leader in astronomical research.

6.1.2.3 *Astronomy in the Wei, Jin, and Southern and Northern Dynasties*

The social unrest that was rampant in the Eastern Han Dynasty eventually erupted in a large-scale peasant uprising—the Yellow Turbans Uprising—which, although quickly suppressed, created an excuse for warlords to own weapons. At this point, the Han Dynasty existed in name only. After the turmoil, the states of Wei, Shu, and Wu came into being and started to wage battles. Emperor Liu Bei of the state of Shu, which was located in southwest China, deemed himself a descendant of the royal family of the Eastern Han Dynasty and thus continued to use the Quarter Calendar of the Eastern Han Dynasty.

The state of Wu employed Liu Hong's Qianxiang Calendar, whose brilliance lay in its knowledge of the orbit of the moon: the motion of the moon is the fastest at perigee; the moon moves backwards at the joint of the sun's path (ecliptic) and the moon's path; etc. The Qianxiang Calendar was a landmark in Chinese calendars, setting an example for future generations. The state of Wei, located in northern China, inherited the astronomical instruments of the Eastern Han Dynasty and books of previous dynasties, and attracted many talented individuals. In 237 AD, Yang Wei created the "Jingchu Calendar," which outperformed both the Quarter Calendar and the Qianxiang Calendar in the calculation of solar and lunar eclipses. He proposed a method for calculating the magnitude and direction of solar eclipse. The states of Shu and Wu, due to their remoteness and small size, could not compete with Wei, which dominated central China. In 263, Shu was occupied by Wei. Two years later, the emperor of Wei was forced to step down and Sima Yan established the Jin Dynasty (known as the Western Jin Dynasty), which defeated Wu fifteen years later and unified China. However, before long a civil war broke out between the different branches of the Sima clan, which greatly weakened the ruling power. Ethnic groups seized the chance and rebelled. In 317 AD, the Western Jin Dynasty collapsed. Subsequently, starting from the east of the Yangtze River, Emperor Yuan established the Eastern Jin Dynasty, while northern China was still under non-Han rule. In the ensuing 300 years, a number of non-Han regimes were established in the north. After being unified by Northern Wei, they split into the Eastern and Western Wei, and then were replaced by Northern Qi and Northern Zhou respectively, collectively called the "Northern Dynasties"; the Eastern Jin Dynasty was replaced in succession by Song, Qi, Liang, and Chen, known as the

“Southern Dynasties.” In 589, Emperor Yang Jian unified China. The most remarkable achievement of the Southern and Northern dynasties was a series of important discoveries and breakthroughs, including the phenomena of precession and atmospheric extinction, and the instability of apparent motion of celestial bodies.

6.1.2.4 *Astronomy in the Sui and Tang Dynasties*

As a result of national prosperity, progress in education, and cultural exchanges with foreign countries, unprecedented achievements were made in calendar, astronomical instruments, and astronomical works in this era.

In the Sui Dynasty, Liu Dao compiled an excellent calendar, the “Huangji Calendar,” in which he applied the findings of Zhang Zixin of Northern Qi, presented a method of calculating the uneven movement of the sun, and employed *Dingqi* (a way of determining the solar term). Zhang Zixin’s finding of uneven star movement was used in the calendars of the Sui and Tang dynasties. The calculation of synodic periods of the celestial bodies (i.e., Venus, Jupiter, Mercury, Mars, Saturn) was amazingly accurate. The “Dayan Calendar” by Yi Xing, the most impressive calendar of the Tang Dynasty in the Kaiyuan period, had a solid observational foundation and more scientific understanding of the uneven movement of the sun. It used a new numerical method in *Dingqi*, and proposed the method of *Shicha* in solar eclipse calculation. In the field of instruments, Li Chunfeng created an extremely complex armillary sphere that included both an ecliptic ring and a moon path ring; Yi Xing and Liang Lingzan developed a new ecliptic Youyi for measuring stellar positions. They also invented a water-driven celestial globe like the one invented by Zhang Heng. As for the on-the-spot survey, Ying Xing organized a large-scale geodetic field measurement whose result disproved the erroneous saying, “shadow differs an inch every thousand li.”

During this period, important astronomical works included the “Huangji Calendar,” the “Linde Calendar,” the Dayan Calendar,” “Kaiyuan Zhanjing,” and “Butiange,” the last of which, developed by Wang Ximing during the Kaiyuan period, is not only a volume of catchy songs to recognize stars, but also creates a new system for categorizing stars, namely three Yuan and twenty-eight stars. The Tang Dynasty was a highly open, civilized society with frequent contacts with foreign countries, and thus it was in this period that Indian astronomy was spread to China.

6.1.2.5 *Astronomy in the Song Dynasty*

After the fall of the Tang Dynasty, China was mired in chaos for half a century, a period called the “Five Dynasties and Ten Kingdoms.” In 960, Zhao Kuangyin launched the Chenqiao Mutiny, established the Song Dynasty, and made himself the emperor. In 1126, Nǔzhen in northeastern China conquered the capital of the Northern Song Dynasty, Bianjing (now Kaifeng); Emperor Zhao Gou fled to Hangzhou in the south and established the Southern Song Dynasty.

The Song Dynasty witnessed the rapid development of Chinese culture and science. Gunpowder, the compass, and the typography of the “Four Great Inventions” were all invented in this period, and ancient Chinese astronomy reached its peak. Calendars were further improved with more accurate data; new astronomical instruments were invented; the number of large instruments increased; and a wealth of astronomical observations were recorded.

The Song Dynasty surpassed previous eras in the manufacturing of astronomical instruments in terms of both quantity and quality. According to statistics, dozens of Hunyi, which consumed more than 10,000 kilograms of copper each and had a more sophisticated structure and better accuracy than previous instruments, were made. For example, the Xining armillary sphere, designed and manufactured by Shen Kuo, considered instrument installation errors and simplified ring design direction. Folk astronomer Zhang Sixun made a Taiping armillary sphere that had a complex mechanical structure. He used mercury instead of water as the driving force, in order to minimize the difference in running speed in winter and summer. Su Song and Han Gonglian made a water-powered armillary sphere with a height of about 12 meters and a width of around 7 meters, roughly equivalent to a three-story building today. Many domestic and foreign researchers believe this to be the ancestor of the modern time-piece. Su Song also created a sky-simulation instrument in which people could watch the motion of the simulated stars, which is the precursor of the modern planetarium. Thanks to these more precise instruments and the attention attached to observation, a great deal of observational data was accumulated. Wang Anli rewrote the “Lingtai Miyuan”; Ma Duanlin’s *Book of Institutions* contained a star catalog of all the sky; there were the stone-engraved astronomical charts in Suzhou and Su Song’s star map in *Instructions for Water-powered Armillary Sphere*. All these are a very valuable heritage worthy of preservation.

6.1.2.6 *Astronomy in the Liao, Jin, and Yuan Dynasties*

The Liao became stronger at the end of the Five Dynasties era, dominating northern China and competing with the Song Dynasty. In 1125, the Jin, which originated in the northeast, together with the Song, eliminated the Liao, then attacked the Northern Song. In 1127, the Jin occupied the Northern Song capital of Bianjing. After the thirteenth century, the rise of the Mongolians in the north successively destroyed the Jin, Western Xia, and Southern Song, and established the Yuan Dynasty. Kublai Khan, grandson of Genghis Khan, unified China. Astronomical achievements of this period primarily consisted of instrument manufacture and calendar compilation.

The great scientist Guo Shoujing created the *Jianyi*, *Yangyi*, and *Guibiao*, which are helpful in observation. The *Jianyi* has a simple design but is very large, and at that time was very advanced, representing the highest achievement in instrument manufacture—its European counterparts only appeared 300 years later. In addition to the astronomical observatories in some important cities, a total of twenty-seven observatories were located every ten degrees between 25 and 65 degrees north latitude, the northernmost being near the Arctic Circle. Today, Henan Dengfeng Observatory sits on the site of one of those observatories. As for the calendar, by borrowing from the calendars of previous generations and applying the latest achievements in mathematics, Wang Xun and Guo Shoujing compiled the most sophisticated ancient Chinese calendar, the “Shoushi Calendar,” representing the highest achievement in the development of ancient Chinese calendars.

6.1.2.7 *Astronomy in the Ming Dynasty*

In 1368, Zhu Yuanzhang and his army invaded Dadu and established the Ming Dynasty, with its capital in Nanjing. Zhu recruited astronomers from the Yuan Dynasty and established the Department of Celestial Mangers (Sitianjian, later renamed Qintianjian), responsible for national astronomical activities. In 1385, the world’s first fully equipped observatory was established in Nanjing. However, in the 200 years of the Ming Dynasty, the government banned private astronomical activities and prohibited private learning of the calendar. Society at the time was focused on Neo-Confucianism and discussions of argumentation theory, rather than astronomy and complicated mathematics, and little progress was made in astronomy.

In the late Ming Dynasty, coinciding with the arrival of European missionaries in China, Western classical astronomy was introduced to China. At that time, Xu Guangqi and Li Zhizao, representatives of a group of liberal intellectuals, were interested in finding new sources of knowledge and thus welcomed the Western missionaries. The scientific and technological knowledge they brought was also carefully studied. In 1629 (the second year of Chongzhen's reign), Xu Guangqi was called to reform the compilation of the calendar. He suggested reforming the calendar with reference to the Western calendar. He hired Johann Schreck, Johann Adam Schall von Bell, and other missionaries to help him, and in 1634 they compiled the *Chongzhen Almanac*, one of the most important books of the Ming Dynasty in describing European classical astronomy. It fundamentally changed the Chinese astronomical system, shifting it away from the traditional algebraic system toward the classical European geometry system.

6.1.2.8 *Astronomy in the Qing Dynasty*

In 1644 (the seventeenth year of Emperor Chongzhen's reign), Li Zicheng, leader of the peasant uprising, arrived in Beijing but was defeated in Shanhaiguan. In May, the Qing army invaded Beijing. The missionary Johann Adam Schall von Bell revised the Chongzhen Almanac and presented it to the Qing emperor. The Qing government renamed it the "Western New Almanac" and accordingly introduced the "Shixian Calendar," which remained in use until the end of the Qing Dynasty. In November 1645, the Qing government appointed Johann Adam Schall von Bell as head of the Qintianjian; this institution continued to be chaired by Westerners for 200 years thereafter.

In the Qing Dynasty, thanks to the government's attention to and advocacy of astronomy, Western astronomy spread across China at an unprecedented rate. In addition, since the private practice of astronomy was no longer banned, folk astronomy became fashionable, and many talented astronomers emerged. In the Qing Dynasty, there was a saying, "South Wang North Xue." "South Wang" was Wang Xichan. He delved into Chinese and Western calendars and wrote the "Xiao'an New Calendar" in which he proposed new methods to calculate the azimuth between the start of the eclipse and the end of the eclipse, and independently put forth a method to calculate the transit of Venus and that of Mercury. He also presented a detailed calculation of lunar occultation of planets and the beginning and ending time of Lingfan of the five planets. "North Xue"

was Xue Fengzuo. After thirty years of study and research, he wrote *Calendar Study*, a book on European methods of calculating celestial motion. Later, Mei Wending, known as the “first person in Qing astronomy,” delved into the Western calendar and wrote prolific and accessible works that were widely read during the Qing Dynasty.

6.1.3 *Famous Ancient Chinese Calendars*

6.1.3.1 *The Quarter Calendar*

The Chinese calendar was established in the Warring States period, when the Quarter Calendar was in use. The Quarter Calendar is China’s earliest systematic calendar, the foundation for subsequent calendar systems. Since writings about the calendar from the Warring States period have not survived, only six ancient calendars mention some information. The Quarter Calendar specifies the length of the tropical year as 365.25 days and that of the lunar month as 29.499940 days; and in every nineteen years, there are seven leaps. The Quarter Calendar is more accurate and complete than previous calendars. According to historical records, the Quarter Calendar divides a year into twelve months, and there are four seasons rather than the previous system of two seasons, sub-dividing into January, February, and March for spring; April, May, and June for summer; July, August, and September for autumn; and October, November, and December for winter.

6.1.3.2 *The Qianxiang Calendar*

Written by Liu Hong in the Guanghe period (AD 178–183), the Qianxiang Calendar was the first to introduce the concept of the instability of the motion of the moon. Liu believed that the main shortcoming of the Quarter Calendar was that the length of the tropical year and that of the synodic month were too long, so the length of the tropical year was reduced to 365.2462 days and that of the lunar month to 23.53054 days. These two values are more precise than those of previous generations. The main contribution of the Qianxiang Calendar was its use of new calculation methods, revealing that the moon does not move at a fixed speed, and proposed a way of calculating the moon deviation. In addition, the Qianxiang Calendar included the concept of the anomalistic month and its length. The Qianxiang Calendar remained in use for a very long time, between the year 222 and the demise of the Wu.

6.1.3.3 *The Daming Calendar*

During the Wei, Jin, and Southern and Northern dynasties, more than twenty calendars were documented, among which the most influential was undoubtedly Zu Chongzi's "Daming Calendar." Zu, an exceptionally talented scientist, made outstanding contributions in mathematics and astronomy. He adopted astronomer Yu Xi's precession phenomenon in creating the Daming Calendar, with a higher degree of accuracy. The Daming Calendar specifies that there are 144 lunar months in 391 years and that the length of a tropical year is 365.2428 days. Zu also invented a method to set the winter solstice time using the sundial, measuring the length of the sun's shadow at noon on several days prior to the winter solstice—a method used for many generations. However, because of resistance among the rulers, the Daming Calendar was not formally enacted when Zu was alive. After his death, his son Zu Geng wrote three letters to the government recommending the use of Daming Calendar, and it was finally adopted by Emperor Liangwu in 510.

6.1.3.4 *The Dayan Calendar*

In the 290 years of the Tang Dynasty, fifteen to sixteen calendars were established, of which the Dayan Calendar created by the famous astronomer Yi Xing was the most prestigious and influential in the history of the Chinese calendar. In 721, after the government had made several inaccurate predictions of solar eclipses using Li Chunfeng's Linde Calendar, Emperor Xuanzong commanded Yi Xing to preside over the revision of the calendar. He began compiling a draft of the Dayan Calendar in 725 but died unexpectedly two years later at the age of 45. The Dayan Calendar was turned into a book through the efforts of Zhang Shuo and Chen Xuanjing. It was put into use in 731, and introduced into Japan in 733, where it was used for nearly 100 years. It contains a number of innovations over previous calendars. New mathematical methods and observational data were used to improve accuracy. Its description of the anniversary of the sun's apparent motion is more accurate than previous calendars. It began to use *Dingqi* to make the sun's motion table. Quadratic interpolation differential of unequal spacing was used in the calculation, which was pioneering in the history of mathematics. The Dayan Calendar uses a relatively reasonable method to calculate *Dingqi*, but it has not changed the twenty-four solar terms into *Dingqi*.

6.1.3.5 *The Twelve Solar Terms Calendar*

Compiled by the famous scientist Shen Kuo of the Song Dynasty in 1086, the Twelve Solar Terms Calendar was recorded in his book *Brush Talks from Dream Brook* (*Mengxi Bitan*). Based on the twenty-four solar terms, it strictly follows solar terms, consistent with the Western Gregorian calendar. Solar terms are used to determine a month, with twelve solar terms for one year. The beginning of spring is regarded as New Year's Day. There are thirty-one days in a solar month and thirty days in a lunar month, with an alternate order. It ignores the moon's synodic lunation, completely removes the method of setting a leap month to coordinate the lunisolar calendar and chooses to implement the solar calendar. It abolishes the tradition of setting twelve or thirteen lunar months for a year, while it employs solar terms. This rule is simple for guiding agricultural activities. The nineteenth-century British Met Office used Bernard Shaw's calendar, which is quite similar to the Twelve Solar Terms Calendar, to serve agricultural production. Although useful for the arrangement of agricultural production activities, it was never implemented due to resistance from traditional forces.

6.1.3.6 *The Shoushi Calendar*

The Shoushi Calendar was created by the well-known scientist Guo Shoujing in the Yuan Dynasty. In 1276, Kublai Khan took over the Southern Song capital of Lin'an. In June of the same year, the Taishi Bureau was established and Wang Xun and Guo Shoujing were asked to make a new calendar. They analyzed more than forty calendars created since the Han Dynasty, absorbed all of their insights, and, after four years of effort, finally made the Shoushi Calendar, named by Kublai in 1280. It was adopted in 1281 and remained in use for 364 years.

The Shoushi Calendar's tropical year of 365.2425 days was more accurate than previous calculations. This value is the same as that of the current Gregorian calendar. The Shoushi Calendar abolished the long-standing Shangyuan Jinian (a way of counting years) and Rifa (a way of dividing one day), adopting the winter solstice of the year 1280 as its starting point and taking 1281 as the "origin," namely the beginning of years. China had used the Shangyuan Jinian and Rifa calculation methods since the Han Dynasty's "Santong Calendar." In the data of the Shoushi Calendar, values smaller than one adopted 100 as a unit, namely the centesimal decimal system. The fractional expression of Rifa was abandoned. All data came from field measurements, breaking from the ancient method of calendar creation. This represented the fourth major calendar reform in the history of China.

6.1.3.7 *The Chongzhen Almanac*

In the late Ming Dynasty, since the Shoushi Calendar was employed for a rather long time, and increasingly erroneous accumulations appeared, royal predictions of eclipses became highly inaccurate. Xu Guangqi's method, which was based on the European calendar, was more accurate in the prediction of eclipses, so he was authorized by Emperor Chongzhen to reform the calendar. Xu advocated reference to the European calendar in calendar reform and hired missionaries to join the board for calendar compiling, which produced the Chongzhen Almanac. Unfortunately, Xu Guangqi died before the calendar reform was completed, and Li Tianjing took over.

The Chongzhen Almanac includes the basic theory of astronomy, astronomical tables, the required mathematical knowledge (mainly plane and spherical trigonometry and geometry), astronomical instruments, traditional methods, and units of measurement in Western calendars. As Xu Guangqi emphasized that calendar calculations should be based on the understanding of astronomical phenomena and principles, the theoretical part of the book accounts for one-third of the length. The Chongzhen Almanac used celestial system and geometry calculations created by Tycho Brahe. Its advantages included the introduction of concepts such as earth, latitude and longitude, spherical astronomy, parallax, atmospheric refraction, and the use of calculation methods. It adopted a number of Western units of measurement: the sky is divided into 360 degrees; the period covering a day and a night is divided into ninety-six quarter hours or twenty-four hours; for units below one degree or hour, every sixty sub-units make one unit. Because of political corruption in the late Ming, the Chongzhen Almanac was not used for compiling calendar after its completion.

6.1.3.8 *The Shixian Calendar*

The Chongzhen Almanac of the late Ming Dynasty was a product of the combination of Chinese and Western calendars. However, this advanced scientific almanac was not formally enacted. In 1644, when the Qing army invaded Beijing, Missionary Johann Adam Schall von Bell took the Chongzhen Almanac as his own contribution amid the chaos, and after deletion and revision, presented it to the Qing Emperor. The Qing government renamed it the Western New Almanac and had it enacted. When Johann Adam Schall von Bell presented the almanac, a civil calendar, the Shixian Calendar, was, in accordance with the principles of the new almanac, also

presented, and was promulgated by the Qing government in 1645. The Shixian Calendar, using Western calculation methods, made two important reforms, namely the aphelion and perihelion, when the earth revolves around the sun, and the way to calculate the calendar month and day—*Dingqi*. The Shixian Calendar was the first to formally adopt *Dingqi*, which can be deemed China's fifth major reform. The old calendar (the Lunar Calendar) used today by some Chinese people is actually the Shixian Calendar, because its division of the length of the year, month, and day is basically in accordance with the Shixian Calendar. After the Revolution of 1911, China nominally adopted the Gregorian calendar, but the Shixian Calendar was still commonly used among the masses. After the founding of the People's Republic of China, the internationally accepted Gregorian calendar was formally adopted.

6.2 FAMOUS ANCIENT ASTRONOMICAL INSTITUTIONS AND FIGURES

With its early development of ancient astronomy, China has excelled in calendar study, observation and timing, astronomical observation, and education and institutions. Many outstanding Chinese astronomers occupy important positions in the international history of astronomy.

6.2.1 *Ancient Astronomical Institutions*

From the earliest ancient Chinese civilization, astronomy was monopolized by the government as a royal prerogative, with astronomical institutions and officials specializing in astronomy. According to "The Book of Heavenly Officials" from the *Historical Records*, there was Zhong Li under the reign of Emperor Ku, Kunwu in the Xia Dynasty, and Wu Gan in the Shang Dynasty. In the Spring and Autumn Period and the Warring States Period, the vassal states had their own astronomical officials, usually clergy, who worked as the dukes' special advisers. In the Eastern Han Dynasty, the highest-ranked astronomical officials, called Taishiling, were in charge of the observatory and the Mingtang. Astronomical institutions of the Yuan Dynasty was called Taishiyuan and included the Projection Bureau, the Test Bureau, and the Bureau of Clepsydra. Institutions of the Ming Dynasty comprised two sub-agencies: Sitianjian and Huihui Sitianjian, which was later renamed Qintianjian. The Qing Dynasty also used the term Qintianjian.

Ancient Chinese astronomical institutions were of a royal nature, since the leaders and members were government officials; because these institutions were government departments, the person in charge was often appointed by the emperor. The agency staff came from three main sources: hereditary astronomical officials, social recruiting, and training staff. Astronomical institutions' main tasks were to record astronomical observations, to revise calendars, and to develop and manage astronomical instruments.

In ancient China, in order to maintain the absolute power of the emperor, astronomical officials were not allowed casual contact with commoners. Meanwhile, ordinary people were prohibited from studying astronomy, which hindered the popularization and improvement of astronomy. However, astronomical research was officially supported with funds, equipment, and good working conditions. Thus, despite the changes in government, the observation and recording of astronomical phenomena continued for 2000 years without interruption.

6.2.2 *Famous Ancient Astronomical Figures*

6.2.2.1 *Gan De*

Gan De of Chu, whose dates of birth and death are unknown, was a famous astronomer of the Warring States period, the maker of the world's oldest star catalog and finder of Europa. Gan De wrote a book based on his long-term observations of astronomical phenomena, which later generations combined with a book by another astronomer, Shi Shen, in the *Gan-Shi Astronomy Book*, the world's oldest well-documented astronomical writing. Unfortunately, this work was lost in the Song Dynasty, and only fragments remain in the "Kaiyuan Zhanjing" of the Tang Dynasty. It recorded the names of 800 stars, including 121 stellar locations, and included the world's first star table—200 years before the Greek astronomer Hipparchus developed his stellar table. The book recorded the motion of five stars and pointed out the law of their appearance and disappearance. Gan De, also a Jupiter expert, discovered the last moon of Jupiter, Europa, with his naked eye—an astounding accomplishment. Europa would not be discovered again for 2000 years, until Galileo spotted it in 1610 while observing Jupiter through a telescope.

6.2.2.2 *Luoxia Hong (140–87 BC)*

Luoxia Hong was an astronomer of the Han Dynasty, known to the world for his outstanding achievements in calendar calculation and astronomy. In the Yuanfeng period (110–104 BC) the government recruited astronomers to reform the calendar. The calendar co-created by Luoxia Hong, Deng Ping, and Tang Du, the Taichu Calendar, was superior to the other seventeen calendars and was adopted by Emperor Wu. The first written calendar in history, it remained in use for 189 years. The beginning of the year and the scientific method of leap intercalation in the Taichu Calendar are used in the Lunar Calendar today. He is one of the founders of the theory of “Huntian.” The equatorial armillary sphere improved by him was used for 2000 years. He also calculated for the first time the solar and lunar eclipses for 135 months, namely, twenty-three times in eleven years, making it possible to predict eclipses.

6.2.2.3 *Zhang Heng (AD 78–139)*

Zhang Heng was a great astronomer, mathematician, geographer, writer, and politician in the Eastern Han Dynasty who holds a prominent position in the history of science and culture. He is a representative of Huntianshuo, pointing out that the moon itself does not provide light, but reflects sunlight. He also explained the causes of lunar eclipses, and recognized the infinity of the universe and the relation between the speed of planetary motion and its distance to the earth. Zhang Heng observed and recorded 2500 stars, created the world’s first leakage armillary sphere that could accurately show astronomical phenomena. He also invented the first instrument to test earthquakes—the Houfeng seismograph, a guide vehicle, and wooden birds that could fly for miles. He also wrote thirty-two books on science, philosophy, and literature, including the astronomical works *Lingxian* and *Lingxian Map*. *Lingxian* made a comprehensive exposition of the generation of heaven and earth, the evolution of the universe, the world’s structure, the nature of the moon and stars and their motion, and many other topics. Because of his outstanding contributions, the United Nations Astronomical Organization named the 1802nd asteroid of the solar system the Zhang Heng Asteroid, and a crater on the moon the Zhang Heng Crater.

6.2.2.4 *Zu Chongzi (429–500)*

Zu Chongzi was a mathematician, astronomer, geographer, and scientist. In the history of mathematics, he calculated the value of pi (π) to the seventh

decimal place, namely between 3.1415926 and 3.1415927. He proposed a rough value of $22/7$ and a more accurate value of $355/113$, which was 1000 years earlier than in Europe; some have argued that it should be called the “Zu Rate,” that is, the ancestor of pi. Zu put his mathematical achievements together into a book called *Zhuishu* (a calculation method in ancient astronomy). His Daming Calendar introduced precession into the calendar for the first time, and adopted a new leap cycle, which was 144 leap months in 391 years. He set the length of a tropical year at 365.24281481 days, and the deviation was only about fifty seconds. He was also an outstanding mechanical expert, having designed and manufactured a water-driven grinder, a copper machine-driven guide vehicle, ocean boats, and timers. To commemorate this great scientist, a crater on the moon was named the Zu Crater and the 1888th asteroid was named the Zu Asteroid.

6.2.2.5 *Yixing* (683–727)

Yixing of the Tang Dynasty was a famous astronomer and Buddhist scholar. His secular name was Zhang Sui. Zhang studied the calendar, as well as yin–yang and the five elements, in childhood. He was famous for being knowledgeable when he was young. He refused to serve Empress Wu Zetian, so he became ordained as a monk, named Yixing. He learned Buddhist scriptures and astronomical mathematics in the Songshan Mountain and the Tiantai Mountain, translated many Buddhist scriptures from India, and later became the leader of a Buddhist faction, the Tantric. In 721, after several eclipse forecasts based on Li Chunfeng’s Linde Calendar turned out to be inaccurate, Emperor Xuanzong ordered him to lead a revision of the calendar. The most important achievement of his life was the preparation of the Dayan Calendar. He also made a significant contribution to the manufacture of astronomical instruments and astronomical observations. Following orders, he launched a large-scale astronomical field measurement. He disproved the erroneous theory that “an inch difference in shadow is a thousand li in actual distance” and provided an accurate length of a degree of arc on the earth meridian.

6.2.2.6 *Shen Kuo* (1031–1095)

A versatile scientist of the Northern Song Dynasty, Shen Kuo was not only proficient in geography, but studied astronomy, mathematics, medicine, agriculture, and other disciplines. When he was over thirty years old, he took part in editing and proofreading books in the Institute for the

Glorification of Literature (Zhaowenguan) and started learning about and researching astronomy. He focused on field observation, and through study and practice, recognized the astronomical phenomenon caused by precession. He explained that the moon's waxing and waning was due to changes in light from the sun; he vividly and scientifically described the process of a meteorite falling in Changzhou, and found that its major component was iron; he also noted that the apparent motion of the planets has reciprocal phenomena.

When in charge of Sitianjian, he was committed to reshaping institutions, emphasized actual observation, and invented new astronomical instruments. In the manufacture of armillary spheres, he improved the traditional armillary sphere by simplifying armillary sphere directions. To determine the distance between Polaris and the north celestial pole, Shen Kuo personally participated in observation. In three consecutive months, he drew more than 200 maps, and concluded that the distance was "more than three degrees."

6.2.2.7 *Guo Shoujing (1231–1316)*

Guo Shoujing was an astronomer, mathematician, and expert on water and instrument manufacturing in the Yuan Dynasty. In order to be able to obtain accurate astronomical data, he spent two years carefully designing and manufacturing thirteen astronomical instruments, among which the most creative were the *Guibiao* and its auxiliary equipment, the *Jianyi*, and the *Yangyi*. Based on his observations, a highly accurate new calendar, nicknamed the Shoushi Calendar, was adopted in March 1280 and remained in use 360 years. It was the world's most advanced calendar at the time. The length of one year was set at 365.2425 days, only a twenty-six-second differential from the actual time it takes for the earth to orbit the sun. The Gregorian calendar also set the length of one year at 365.2425 days, but it was not adopted until 1582, 300 years after Guo Shoujing's Shoushi Calendar. In 1981, to commemorate the 750 anniversary of the birth Guo Shoujing, the International Astronomical Society named a moon crater after him.

6.2.2.8 *Xu Guangqi (1562–1633)*

Xu Guangqi, the famous scientist in the late Ming Dynasty, was the first to introduce advanced European scientific knowledge to China. With authorization from Emperor Chongzhen, he organized a calendar bureau and started compiling a calendar which came out after his death with the name

the *Chongzhen Almanac*. It systematically introduced European astronomy, including European classical astronomical theory, instruments, calculation, and measurement methods, to China, laying the foundation for the shift from Chinese ancient astronomy to modern astronomy.

6.2.2.9 *Li Shanlan (1811–1882)*

Li Shanlan was an astronomer and mathematician in the Qing Dynasty who translated Herschel's *Outlines of Astronomy*, describing Copernican theory, into Chinese and published it with the title *On Heaven* in 1859. Li Shanlan, in the preface, presented his view on the existence of the heliocentric system and the law of ellipse in planetary motion, criticizing earlier attacks on Copernican heliocentrism. He conducted research on the elliptical orbits of celestial bodies and presented his own unique algorithm. Most importantly, he was the first in China to use the concept of the infinite series to solve Kepler's equation. He wrote many books and translations, and compiled his major astronomical and mathematical books into *Zeguxizai Mathematics*.

6.3 ANCIENT ASTRONOMICAL INSTRUMENTS

Ancient astronomical instruments can be divided into astronomical observation instruments and chronometric instruments according to their function.

6.3.1 *Astronomical Observation Instruments*

6.3.1.1 *Armillary Sphere (Hunyi)*

The armillary sphere is an ancient Chinese astronomical instrument. In ancient times, “Hun” had the meaning of the shape of a ball. The ancients believed that the sky was curved, like an eggshell, and that the stars shining in the sky were embedded in the shell. They believed the earth was the egg yolk on which people measured the position of the moon and stars. Initially, the structure of the armillary sphere was very simple, only three rings and a metal shaft. The outermost ring, fixed to due south and north, was called the “meridian ring”; the intermediate ring, fixed parallel to the earth's equatorial plane, was called the “equatorial ring”; and the innermost ring around the metal shaft, which could be rotated, was called the “Chijing ring.” This ring intersected with metal axes at two points,

one point pointing at the north celestial pole, the other pointing toward the south celestial pole. The Chijing ring plane had an observing tube that could rotate around the center of the ring. When directed at a certain star, its position in the sky could be determined by the scale on the two rings. Later, in order to facilitate the observation of the sun, moon, and other planets, the ancients added additional rings within the armillary sphere, that is, rings within a ring, making it a multi-purpose astronomical instrument.

6.3.1.2 *Celestial Sphere*

The celestial sphere, also called the celestial globe, was used for demonstration. It provided a vivid way to understand the mutual position and law of motion of the sun, the moon, and the stars. It can be said that this celestial instrument is the direct ancestor of the modern celestial globe. The celestial sphere in the Beijing Ancient Observatory, weighing 3850 kilograms, was made during the reign of Emperor Kahnxi and is the oldest known astronomical instrument in existence. The main part of it is a hollow copper ball, engraved with a crisscross grid for the specific location of celestial bodies; small dots protruding from the sphere represent the bright stars in heaven, which are in accordance with the position of these bright stars. The entire copper ball can rotate on a metal shaft, with one circle representing a day and night. The spherical surface intersects with the metal shaft at two points, the north and south poles, which are fixed to a large ring in a due north–south direction. The ring is vertically embedded to two notches on a large horizontal circle supported by four columns, topped with carved dragon heads. By using the celestial globe, people could know the star patterns in the sky by both day and night.

6.3.1.3 *Water-Powered Armillary Sphere*

Designed and manufactured by astronomers including Su Song, Han Gonglian, and others in Bianjing, the water-powered armillary sphere is an integrated observation instrument that includes an armillary sphere, a celestial globe, a time clepsydra, and a time-reporting mechanism. It is actually a small observatory. Design work began in 1086 and by 1092 the construction was complete. With a height of about 12 meters and a width of 7 meters, it is a square table-shaped wooden structure whose upper part is smaller than its lower part. The armillary sphere is made of copper, including three layers: the lower compartment includes a timekeeping

device and power supply; the middle compartment is a closed room where the *hunxiang* (a celestial globe to show how celestial bodies move) rests; and the upper compartment is a plank house, with a *hunyi* (浑仪, an armillary sphere to help locate places on the surface of celestial bodies) inside.

6.3.2 *Ancient Timing Instruments*

The Chinese people invented and manufactured a variety of timers in response to the demands of social development and people's living needs, of which the most significant are the *Guibiao*, the *Rigui*, and the *Louke*.

6.3.2.1 *Gnomon Shadow Template (Guibiao)*

The *Guibiao* is the oldest timer, recorded in the "Rites of Zhou." It uses the length of a shadow to determine time. It consists of two parts: one is a benchmark or pillar standing upright, called *Biao*; the other is a scale set in the due north-south direction to show the length of the shadow, called *Gui*.

6.3.2.2 *Sundial (Rigui)*

The *Rigui* also tells time by observing the location of shadows. Archaeological evidence suggests that it was used before the Han Dynasty. Before the mechanical clock was introduced to China, the *Rigui* was used as a timer. It consists of a large pin and an engraved scale. As the sun moves in the sky, the projection of the pin also moves on the scale, thus telling the time.

6.3.2.3 *Leakage Clepsydra (Louke)*

The *Guibiao* and the *Rigui* do not work on rainy days nor at night, since they use shadows to determine time. Thus the *Louke* was invented, with "lou" referring to the timing clepsydra and "ke" the unit used to divide the length of a whole day. This instrument depends on a floating arrow to measure a specific time of day and night.

A clepsydra with tiny holes was manufactured based on the observation that water leaks from the cracks in pottery drop by drop. When put into the clepsydra, water flows out of the holes, and another container is used to collect water. Inside is an arrow pole engraved with a mark, just like the surface of a modern clock. The arrow is floated on the water with the help of a piece of bamboo or a plank. In the center of the container is a small hole, through which the arrow pole passes. The container is called the

“arrow pot.” As the water level gradually increases, the pole slowly floats upwards. The ancients could tell the time by looking at the number on the arrow pole. It was later discovered that the more water there was, the more quickly it flowed, which obviously affected the accuracy of measurement. To rectify the problem, another clepsydra was added to the first, so that as the water flowed out of the bottom one, the top one continuously replaced it, and the flow of water from the first clepsydra into the arrow pot remained constant. This made it possible to measure time more precisely. The *Louke* was the most commonly used timing instrument until the introduction of the mechanical clock.

6.3.3 *Major Contemporary Chinese Observatories*

6.3.3.1 *Purple Mountain Observatory of the Chinese Academy of Sciences*

The Purple Mountain Observatory is located on the third peak of the Purple Mountain on the eastern outskirts of Nanjing. Its predecessor was the National Research Institute of Astronomy, founded in February 1928. Completed in September 1934, it was the first Chinese modern astronomical research institution and is known as the “cradle of modern Chinese astronomy.” The Purple Mountain Observatory has four research departments—for radio astronomy, astrophysics, space astronomy, and celestial mechanics; two laboratories—the millimeter and sub-millimeter astronomical technology laboratory and the space astronomy laboratory; and six observing stations—Qinghai Delingha, Jiangsu Dingtai, Jiangsu Ganyu, Heilongjiang Honghe, Shandong Qingdao, and Yunnan Yao’an. The Purple Mountain Observatory is affiliated with the Chinese Astronomical Society, the Key Laboratory of Radio Astronomy of the Chinese Academy of Sciences, and the Space Object and Debris Observation Center of the Chinese Academy of Sciences.

6.3.3.2 *Shanghai Astronomical Observatory of the Chinese Academy of Sciences*

The Shanghai Astronomical Observatory, founded in 1962, is the successor to the Xujiahui Observatory, established by a French missionary in 1872, and the Sheshan Observatory, established in 1900. The Shanghai Observatory focuses primarily on astrodynamics, the Milky Way, and

galaxy astrophysics. It has very long baseline interferometry (VLBI), satellite laser ranging (SLR), global positioning system (GPS), and many other modern space astronomy technologies, making it one of the seven stations in the world that own all these technologies simultaneously. Major facilities include radio telescopes, optical telescopes, satellite laser range finders, binocular refracting telescopes, hydrogen atomic clocks, and others.

6.3.3.3 Shaanxi Observatory of Chinese Academy of Sciences

The Shaanxi Observatory, founded in 1966 in Lintong county on the eastern outskirts of Xi'an, is one of the subordinate institutions of the Chinese Academy of Sciences, at an altitude of 497. Near its headquarters are an astronomical observatory and a BPL/BPM long-wave and short-wave time signal service. The main instruments at this observatory include cesium clocks, hydrogen maser, photoelectric astrolabe, photoelectric transit instrument, and satellite Doppler velocimetry. It mainly engages in time, frequency, and astrometry measurements, and carries out research on world time, latitude, atomic time, precise time synchronization, astronomical constants, and star catalogs. It continually broadcasts time and frequency signals to the world by BPM and BPL, and also provides time services by satellite, television, radio, and other communication means.

6.3.3.4 Yunnan Observatory of the Chinese Academy of Sciences

During the War of Resistance against Japan, the Institute of Astronomy was moved first to Kunming, then to the eastern suburbs of Kunming, where the Phoenix Mountain Observatory was built at a height of 2014 meters. The observatory was renamed Yunnan Observatory of the Chinese Academy of Sciences in 1972. In 1975, it was expanded into an integrated observatory. The main instruments of this observatory include a 1 meter-diameter reflecting telescope, the sun fine structure telescope, 60 centimeter-diameter reflecting telescope, 50 centimeter-diameter astronomical geodetic Automatic Imager and additional satellite laser range-finder, 10-meter aperture centimeter wave radio telescope, solar spectrograph, chromosphere binoculars, and satellite Doppler velocimetry. It mainly engages in physics of solar active regions, solar radio, satellite movements, stellar physics, time, latitude, and so on. The Yunnan Astronomical Observatory mainly focuses on ground-based observations and astrophysical research, and it is a world leader in the theory of stellar

evolution, active galactic nuclei, and ground precise positioning astronomical research. In the launch and return of the Shenzhou-4, Shenzhou-5, and Shenzhou-6 manned spacecraft, the Yunnan Observatory together with relevant authorities facilitated the real-time monitoring of solar activities.

6.3.3.5 *National Astronomical Observatory of the Chinese Academy of Sciences*

The National Observatory, established in April 2001 integrated four observatories, three stations, and one center. It is composed of a headquarters and four subordinate units, and is in charge of the former Beijing Observatory. The subordinate units are the Yunnan Observatory of the National Astronomical Observatory, the Nanjing Institute of Astronomical Optical Technology, the Urumqi Astronomical Station, and the Changchun Satellite Observatory.

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Chinese Architecture and Gardens

From a global perspective, oriental architecture is one of the world's three major building systems (the other two being the Catholic or European, and Islamic building systems), mainly represented by ancient Chinese architecture and gardens. It has influenced the architecture of Japan and Korea in the east, and many other countries in the South Pacific region, for centuries. Chinese architecture is a unique symbol of Chinese culture.

7.1 ANCIENT CHINESE ARCHITECTURE

Ancient Chinese architecture was mainly centered in the Changjiang River and Yellow River valleys. The architecture of these two areas employed the same building materials, construction methods, space allocation, and artistic expression and are representative of ancient Chinese architecture. This ancient architecture laid a solid foundation for a unique architectural style despite China being a country with vast territory, many different cultures, and varied climates and geological conditions.

7.1.1 *Stages of Development of Ancient Chinese Architecture*

Ancient Chinese architecture, which evolved as China moved from a primitive society, to a slave-based society, and then to a feudal society, consists primarily of historic buildings such as palaces, temples, tombs, gardens,

and residential houses. However, the layout of gardens, for example, was flexible and changeable, to better suit the natural environment.

7.1.1.1 Ancient Chinese Architecture of Primitive Society

From the Paleolithic era, or perhaps even earlier (about 500,000 years ago), to the establishment of the Xia Dynasty, the first dynasty in China, architecture was limited to two basic building models: the “nesting habitat development sequence,” which evolved from a single nest in a tree to a dry earthen house, and the “sequence of cave development,” which evolved from horizontal holes to deep, bag-shaped holes and then to half caves. Primitive as they were, their construction methods and techniques laid a solid foundation for Chinese buildings.

7.1.1.2 Ancient Chinese Architecture of the Slave-Based Society

From the Xia Dynasty to the Warring States Period, the establishment of the slave system made it possible to undertake large-scale projects. In the Shang and Zhou dynasties (1046–256 BC), wooden frames were continuously improved and these gradually formed the main structures of ancient Chinese buildings. The emergence of new technologies and the concentration of manpower enabled the construction of large-scale buildings with relatively high technical content. The Shang Dynasty saw the development of rammed earth palaces and high-terraced buildings, and cities of various sizes, centered around palaces, also began to appear. The development of the slave-based society facilitated the creation of a hierarchical system in construction, which resulted in professions specializing in engineering and gave rise to the official system of building with Chinese characteristics.

7.1.1.3 Ancient Chinese Architecture of the Feudal Society

From the Warring States Period (475–221 BC) until the Opium War in 1840, ancient Chinese architecture underwent significant developments. Feudal society infused all constructions with Confucian and Taoist principles, and new modes of production promoted the development of the building industry. As society and technology advanced, the construction of large-scale projects, including palaces, mausoleums, temples, water conservancy projects, and military defense projects such as the Great Wall, became possible.

The Tang Dynasty (AD 618–907) can be considered the heyday of architectural development in China. Foreign trade and cultural exchanges flourished in this period, contributing to the development of architectural arts in China. Many of the surviving palaces, grottoes, pagodas, and city relics from this period are both artistic and highly technical in both layout and style.

In the two Song Dynasties (AD 960–1279), shops constructed of wood, brick, and stone began to appear along the streets of cities. Furthermore, a standard modular system for materials evolved that normalized standards of both design and construction. In addition, new methods were employed in the layout, with decorations and designs during this period being more beautiful and feminine. Wooden frame construction technology reached its peak during this period and had a great impact on architecture in the late Yuan (AD 1206–1368), Ming (AD 1368–1644), and Qing (AD 1644–1911) dynasties. The Yuan Dynasty (AD 1206–1368) was a transitional period for ancient Chinese architecture, when craftsmen attempted to use new techniques, such as the column-reduced method, in large wooden frames and to simplify construction. However, these efforts were unsuccessful. The traditional Chinese architectural style was blended with the local styles of Islam and Lamaism in the Yuan Dynasty, resulting in a more diverse style.

Compared with the wooden constructions of the Tang and Song dynasties, the overall style of buildings in the Ming and Qing dynasties was more rigid. This was the era when feudal society came to an end, and architecture in these two dynasties can be seen as the final stage of ancient Chinese architecture.

7.1.2 *Features of Ancient Chinese Architecture*

Ancient Chinese architecture can be divided into two types: royal buildings and civil or residential buildings. The first type, royal buildings, enjoyed advantages in terms of physical and human resources and employed a stereotypical architectural pattern. The second type, civil or residential buildings, were ordinary in terms of material technology, but their designs and cultural connotations were flexible and varied, allowing them to be better integrated with the local environment.

7.1.2.1 Layout of Royal Buildings

Influenced by the doctrine of the mean and the hemispherical dome style, traditional Chinese architecture utilized a floor plan with fairly symmetrical graphics centered on the north–south axis. Even when the building could not be balanced due to the terrain or for other reasons, architects still attempted to achieve balance and harmony in geometry and yin–yang (two opposing principles in nature, the former feminine and negative, and the latter masculine and positive), and also complementarity in the five elements.

Ancient Chinese architecture features a perfect unity of function, structure, and aesthetics. These are reflected in the permutation distribution, such as the design of the base and that of the staircase. To display its majesty and power and for the sake of stability, the base of the building tends to be very high. The tread usually consists of steps and ramps: steps for the ministers, and a central ramp for the king. Both sides of the steps have bars, to make the building appear more imposing. There are detailed provisions as to the correct material, position, height, format, width, and the number of steps. In general, only the king's palace could meet such standards.

Ancient Chinese buildings are clustered together in one or many groups. They are not arranged randomly, but in a neat and well-proportioned pattern. The layout is scientific in terms of practicality and aesthetics, and the status of the user is embodied in the construction. The surrounding environment can also be reflected in the design of the buildings.

7.1.2.2 Main Features of Ancient Chinese Architecture

Wooden Frame as the Main Support

One of the most important features of ancient Chinese architecture is the use of the wooden frame as the main support. Wooden beam systems were full developed and had been widely adopted by the Spring and the Autumn period, and they grew more sophisticated in the Han Dynasty. The wooden frame construction method can be divided into post and lintel construction, log cabin construction, and column and tie construction.

Unique Design of the Single Building

The single building of ancient Chinese architecture can be roughly divided into the foundation, the body, and the roof. All important buildings were

set on a pedestal base. The general pedestal base has one layer, but grand halls, such as the Hall of Supreme Harmony (太和殿) of the Forbidden City, are set on a triple base. The floor plan of a monomer building is usually rectangular, square, hexagonal, octagonal, and round. The floor plan plays an important role in structuring the facade of the building. The wooden frame construction enables the processing of the house to be much more flexible. Doors, windows, and column walls are decorated according to the materials and positions, which greatly enriches the image of the house. The roof in ancient Chinese architecture was rich and colorful.

Axial Symmetry and Rigorous Layout

Ancient Chinese building clusters tend to have layouts dominated by one main longitudinal axis. The main buildings are on the main axis and the minor ones are on both sides, forming a square or rectangular courtyard. This courtyard layout not only ensures security, lighting, and insulation, but also conforms to the patriarchal clan structure and moral codes. When a group of courtyards could no longer meet the residents' needs, more courtyards would be built in front of or behind the main buildings or on both sides of the axis.

Diverse Techniques of Interior and Exterior Decoration

Ancient Chinese architecture features particularity in decoration. All parts of a building, including the base, steps, doors, windows, and ceilings, are embellished.

The foundation and staircase of a building convey a more solemn and majestic sense when curved and decorated with rails, and the building can be made to look more imposing with roof decoration. Doors, windows, and partition boards are all exterior decorations used to separate the indoor and outdoor space. Doors and windows, with varied images, arabesques, and colors, enhance the artistic facade of the building. Ceilings are often layered and richly decorated as well, commonly in the shape of a square, octagon, hexagon, or circle.

The application of colored paintings to buildings is an important feature of ancient Chinese architecture. These colored paintings, which may be either geometric designs or pictures of dragons, scenery, people, plants and animals, were originally applied to beams, columns, doors, and so on to guard against corrosion and moths. However, the residential houses of the multitude were not allowed to be painted. Even buildings for different purposes in the Forbidden City had strict distinctions in painting.

7.1.3 *Artistic Features of Ancient Chinese Architecture*

7.1.3.1 *The Decorated Roof*

The roof is an important element in Chinese ancient architecture. Ancient Chinese craftsmen were aware of the artistic effect of the roof and its role in conveying the social status of the owner. Full use was made of wooden construction to create the folding roof, warped roof, bird-wing eaves, and the gracefully curving roof. The end of the ridge was embellished with images such as birds and beasts, similar to the gingerbread style. The tiles of the eaves were also decorated. After the Song Dynasty, glazed tiles and a variety of complex designs with artistic effects (hip roof, pavilion roof, hard top and hanging peak, etc.) were widely used.

7.1.3.2 *Artistic Foils on Buildings*

The artistic foils that were applied to ancient palaces and temples helped to set off the main buildings. The *Que*, a free-standing ceremonial gate tower, served as a foil in the earliest Chinese architecture. First developed in the Zhou Dynasty, *Que* towers served as ceremonial gateways to tombs, palaces, and temples from pre-modern China to the Qing Dynasty. *Que* towers enjoyed their heyday during the Han Dynasty and could often be seen as part of the architectural ensembles at the gravesites of high officials in the Han Dynasty. Richly decorated, they are also found in front of temples.

7.1.3.3 *Application of Color*

From the Spring and Autumn period, craftsmen started to utilize color in the decoration of buildings. Lacquer and tung oil were often applied to the wooden structure to prevent it from decomposing. Later, pillars and beams were decorated with *Danhong* (red) or painted colored drawings on *Dougong* and square columns. With the accumulation of experience in the use of color, craftsmen became good at using color contrast and color harmony. The main part of the house was painted in warm colors, especially scarlet, while the shaded area under the eaves was painted in cool colors, such as blue and green. The scarlet door and blue-green eaves were dotted with golden lines and dots, and red dots were inserted between blue and green, making the colorful painting more lively and artistic. The colors of some monumental buildings, such as those of the Forbidden City and the Temple of Heaven, glitter against the azure sky of the North China Plain, while their white marble bases, either single or multi-layered, and the surrounding railings make the buildings appear more majestic.

7.2 CHINESE RESIDENTIAL ARCHITECTURE

If the majestic official buildings in ancient China were the product of superb technology and craftsmanship, then the local-style residential buildings were the crystallization of Chinese people's wisdom and painstaking efforts. Residential buildings are by no means inferior to official buildings in the history of architecture. When civilians build houses, they take the geographical location and the environment into consideration and adhere to the principles of building in accordance with local conditions and utilizing local resources.

7.2.1 *Features and Forms of Chinese Residential Buildings*

The layout of Chinese residential buildings is mainly determined by social and natural factors. Social factors include the power of social production, social awareness, ethnic diversity, religious beliefs, customs, habits, and so on. Natural factors mainly refer to geography, topography, climate, and natural resources.

The construction of wooden frame residences is divided into post and lintel construction, log cabin construction, and column and tie construction. Post and lintel construction is widely used in the north, while log cabin construction and hybrid construction are widely used in the south.

7.2.2 *Typical Local or National Residential Buildings in China*

7.2.2.1 *Traditional Courtyard-Style Residential Buildings*

Courtyard-style residential buildings were designed in accordance with the feudal economy. Typical courtyard-style residential buildings in north China are *Siheyuan* (quadrangle dwellings) in Beijing and Pingyao dwellings in Shanxi (where the north-south axis is longer than the west-east axis). The southern courtyard-style residential buildings are represented by Xi Jia Manor in Jiang'an county, Sichuan Province (where the west-east axis is longer than the north-south axis), residential buildings of the Bai nationality, and the Red House in Quanzhou (a typical coastal courtyard in the south).

7.2.2.2 *Jiangnan Residential Buildings*

Jiangnan residential buildings mainly refer to buildings located to the south of the Yangtze River. People tend to build houses near the river or the street. Residents also attach great importance to using waterproof materials and to exquisite interior decoration. They are represented by Zhouzhuang and Nanxun Ancient Town.

7.2.2.3 *Cave Dwellings in the Central Region of the Yellow River Basin*

Cave dwellings are built in accordance with the characteristics of the Loess Plateau. There are three types of cave dwellings: cliff style, detached style, and sunken style. The cave house is warm in winter and cool in summer. Moreover, with thick walls and good sound insulation, the cave house is sturdy and resistant to earthquakes. Such cave houses are represented by cliff style buildings in Shaanxi and detached style buildings in Shanxi.

7.2.2.4 *Residential Buildings of Log Cabin Construction*

Log cabin construction involves stacking timber layer by layer. Such houses are extremely sturdy and their construction is simple. Since the materials are extremely easy to obtain, the cost is very low. Restricted by the length of the wood, every bay of the house is very small. Meanwhile, because the main material is wood which is easy to catch fire, the exterior wall is always smeared with clay both to prevent wind and to serve as a fire retardant. Residential buildings with log cabin construction are scattered across northeast China and in the forests of Yunnan. Typical examples are mainly found in Heihe, in northeastern Heilongjiang Province.

7.2.2.5 *Ganlan Residential Buildings*

The *ganlan* (干栏) residential building is composed of two stories with, the base (which is normally used to store firewood or to pen livestock) propped up by wood or bamboo while the living area is restricted to the upper part of the house. This kind of construction is widely used in humid mountain areas and in locations next to water. The houses are always built on a number of stakes, and the house is completely made of wood, with even the roof covered in bark. This style is represented by houses of the Dong, Dai, Miao, and some other ethnic groups.

7.2.2.6 *Hakka Earth Building and Round-Dragon House*

Hakka earth buildings and round-dragon houses are defensive houses in the shape of a circle, square, half-moon, and so on. Some are even surrounded by watchtowers. Most of them are large one-story or multi-story

buildings. The whole family lives together and has its own wells and temple and a relatively enclosed courtyard. Typical residences of this type are the earth buildings in Yongding, Fujian Province, soil castles in central Fujian, and round-dragon houses in the Xingmei area of Guangdong Province.

7.2.2.7 Blockhouses of the Zang and Qiang Ethnic Groups

The blockhouse is a unique Tibetan dwelling which is well adjusted to the plateau climate of Tibet. These houses, which resemble fortifications, are three or four stories tall, made of stone or earth, and feature flat-topped roofs. In general, nobles and monks have very large houses, while civilians' houses are only one or two stories tall. This style is represented by the blockhouses of the Qiang ethnic group in Mao county, Sichuan Province.

7.2.2.8 The Mongolian Yurt

The Mongolian yurt is suited to the nomadic life of the Mongolians. It is made primarily of felt and wood. The outline of it is round, with holes at the top for ventilation and light. It generally covers 12 to 16 square meters. The assembly of the Mongolian yurt is very flexible, so that in winter, two or more layers of blankets can be added to the exterior, while in summer, the blankets can be removed for ventilation and cooling.

7.3 CHINESE LANDSCAPE ARCHITECTURE

Chinese landscape architecture has a long and rich history, having developed a range of styles and techniques over time. Chinese landscape architects focus on pursuing harmony with nature, a reflection more generally of Chinese culture and ideology.

7.3.1 Stages of Development of Chinese Landscape Architecture

Chinese landscape architecture is not only an embodiment of architectural art, but also includes other categories of art such as literature, painting, philosophy, and sculpture. It is fair to say that Chinese landscape architecture is a reflection of Chinese culture and of social thought in different dynasties and phases. The development of Chinese landscape architecture can be divided into several stages.

7.3.1.1 *From the Shang Dynasty to the Southern and Northern Dynasties*

The history of ancient Chinese landscape architecture can be traced back to the Shang and the Southern and Northern dynasties. During this period, people began to consciously carry out landscaping, which was still rough in both style and construction. Meanwhile, gardens were multi-functional, as they could be used for hunting and agricultural production, for example. All kinds of gardens began to take shape during this period. Private gardens (belonging to manor houses) first flourished during the Northern Wei Period.

Landscape architecture was dominated by the imperial palace garden, which inherited the features of gardens in the Qin and Han dynasties. Natural color and Chinese techniques of freehand brushwork were also utilized, making the style of gardens more elegant. Moreover, commercial streets also became a feature of imperial palace gardens at the time.

Landscape design in this period maintained the old traditions, but the garden became less a site for hunting and more one for social activities. As the activity of viewing became more prominent, the nature of the site was essentially transformed from the animal farm to the garden. Therefore, the period of the Wei, the Jin, and the Southern and Northern dynasties was a turning point in the development of Chinese gardens.

7.3.1.2 *The Sui and Tang Dynasties*

Ancient landscape architecture matured in the Sui and Tang dynasties, when the techniques and art of construction reached unprecedented heights. Due to the intervention of scholars, constructions were no longer restricted to simply imitating nature. Architects began to borrow from the space-composition art of calligraphy and painting and apply it to the collocation of scenes.

Imperial gardens in the Sui and Tang dynasties were mainly centered in Chang'an and Luoyang. The number and size of gardens far exceeded those in the Wei, the Jin, and the Southern and Northern dynasties. Xing Qing Palace, Hua Qing Palace, the Imperial Park, and Xiyuan were all masterpieces of garden architecture in the Sui and Tang dynasties. The Forbidden Garden in the royal garden of the Tang Dynasty shows the exclusiveness of royal gardens, which were classified according to their nature and geographic location during this period. On the one hand, the governor of the Tang Dynasty strengthened the exclusiveness of the garden. On the other hand, the free and open cultural policy of the Tang Dynasty accelerated the construction of many public entertainment gardens.

7.3.1.3 *The Song, Liao, and Jin Dynasties*

The gardens of the Southern and Northern Dynasties were most developed during the period of the Song, the Liao and the Jin dynasties. The shift of the economic and cultural center in the Northern Song Dynasty sped up the construction of gardens. During this period, the style of the southern and northern gardens took shape, which represented a big leap in the construction of landscaped gardens. The most notable achievement in terms of gardens in the Song Dynasty was the development of the private garden. Guided by the theory of painting, the construction of private gardens also combines the arts of landscape painting and scenic poetry to create picturesque views. The participation of many literati in the construction of gardens added a scholarly temperament to the garden.

7.3.1.4 *From the Yuan to the Qing dynasties*

After experiencing a dismal period in the Yuan Dynasty, the Ming and Qing Dynasties saw dynamic development in gardening. Based on techniques developed earlier, the gardens of the Ming Dynasty progressed by leaps and bounds. During this time, the number of gardens was not large, but all of them embodied an elegant style. Located in the imperial city, royal gardens of that time provided a sense of security, which had much to do with the invasion of the Mongols. In addition, the grandness of gardens, the rigorous layout, and the splendid construction all highlighted the royal style. In the late Ming Dynasty, capitalism began to develop in the region south of the Yangtze River, where industry and commerce prospered. Most businessmen were attached to their beautiful homeland, and it became fashionable to build gardens at home. More than 200 of these private gardens were built in the Ming Dynasty, including the Humble Administrator's Garden, the Forests Garden, and the Garden of Cultivation.

The Qing Dynasty was the golden age of gardening. Since the emperor often visited the south, the style of gardens in the north was influenced by the private gardens in the south. Thus, inside the spacious royal gardens in the north there emerged exquisite gardens in the style of the "garden within garden," which previously had been constructed only in the region south of the Yangtze River. As Buddhism gained more popularity among the Qing rulers, different styles of Buddhist architecture also began to appear in imperial gardens.

7.3.2 *Royal Gardens*

Classical Chinese gardens can be divided into different types based on historical era, ownership, and location. According to the owner's social status, gardens can be divided into royal gardens, private gardens, and folk landscape gardens (folk landscape gardens can be further divided into temple gardens and natural landscape gardens). This section deals with royal gardens in China,

Royal gardens are the first type of landscape architecture in the history of China. These gardens, designed to demonstrate the superior power and status of the emperor, best represent the artistic achievement of gardens.

7.3.2.1 *Distribution of Royal Gardens*

Royal gardens played a dominant role in the history of Chinese gardens, but most have not survived due to age, war damage, and other factors. The existing royal gardens were mostly built in the Ming and Qing dynasties and are distributed among the suburbs of Beijing, such as the Summer Palace and Beihai Park. The largest garden not attached to a palace (the Mountain Resort in Chengde) remains well-preserved today. Moreover, some of the architecture in the royal gardens has been destroyed, leaving only debris as historical evidence. With the help of science and technology, many historical gardens have been verified and restored to their original appearance. For example, the Huaqing Hot Spring, located at the foot of Lishan in Lintong County, Shaanxi, and originally the exclusive domain of Emperor Xuanzong and his concubines, has been converted into a historical and cultural garden. Generally, royal gardens are concentrated in just several cities and share the same features and style, while private gardens, though apparently different from one another in geographical features and national customs, are seen everywhere over the country.

7.3.2.2 *Features of Royal Gardens*

The special status and power of the owner meant that the royal garden contained distinct features. First, the owner of the royal garden was the supreme ruler of the feudal society. It was believed that he was ordained by heaven to rule the country, and thus he enjoyed absolute power and wealth. The layout of royal buildings and gardens communicated the owner's authority and presented an imposing image. Second, royal gardens were funded by the state. For this reason, the gardens of ordinary

officials and wealthy businessmen could never match them in terms of architectural form, materials, and size. Finally, royal gardens enjoy a long history.

7.3.2.3 Artistic Achievements of Royal Gardens

The royal garden represents the highest achievement of Chinese gardens.

Gigantic Scale

The scale of the garden was determined by the economic strength of its owner. In the case of the emperor, he had the entirety of the nation's wealth, as well as its material and human resources, at his disposal. As far as the size of the garden, the area of a royal garden could be equivalent to that of dozens of medium-sized private gardens. For example, the Summer Palace, the last royal garden to have been built and of a relatively small size among royal gardens, is seventy times as large as the Humble Administrator's Garden.

Ingenious Garden Architecture

The style of royal architecture was characterized by tall buildings and gilded color. The assortment of colors could change the sense of spatial scale and spatial structure. Bright colors, such as yellow, blue, red, and green, were applied to the timber structure. With the colored glazing and metal parts interplaying, the building radiated an air of nobility and majesty. Royal gardens were dominated by bright warm colors, blended with cool colors such as blue, gray, and black and white. The assortment of colors ensured that the gaudy and showy ones were not too dull or tacky. In most cases, metal was also used to tone down the bright colors.

Rich Symbolic Meaning of Royal Gardens

Symbolic representations of the interaction of heaven and man, of the supreme imperial power, and of the three cardinal guides and the five constant virtues, were all expressed in landscaping. The method of symbolic landscaping was developed during the Emperors Kangxi and Qianlong period.

Many scenes and small gardens were associated with the local legends, religions, and allusions, such as Penglai Mishima, Joan Tower, and brahma paradise. In addition, numerous constructions in gardens were named to celebrate the virtues and achievements of the emperor or in praise of the new millennium.

Method of the “Garden within Garden”

The “garden within garden” method involves arranging scenic spots in different regions based on the topography of the garden so as to form a multi-layered and gorgeous picture. The small garden within the big garden can be either an enclosed courtyard or an exquisite space. As a whole, this style of garden has a relatively complete but independent space; examples can be found among imperial, private, and natural landscape gardens, but most frequently in imperial gardens.

There are several types of gardens in the style of “garden within garden.” The first type is a direct copy of the famous Jiangnan gardens, such as the Garden of Harmonious Interests in the Summer Palace, the Mountain Resort, and Yanyu Lou. The second type is based on the theme of the famous garden, such as Beihai and Pujian. The third approach is to obtain materials from local sources, such as Ji Qing Xuan in the Summer Place and Chun Hao Xuan in the Mountain Resort.

7.3.2.4 *Typical Royal Gardens*

The Summer Palace, located in Beijing, is one of the earliest royal gardens and one of the “Three Hills and Five Gardens” (Qing Yi Garden, Summer Palace, Spring Garden, Jingming Garden, and Jingyi Garden, Longevity Hill, Beijing Yuquan Mountain).

Yuanming Yuan (also called the Old Summer Palace), with more than 150 scenic spots, covers an area of about 3467 hectares (more than 5200 acres). Yuanming Yuan can be broadly divided into the palace area, northern Kyushu area, Fuhai scenic spots, and the northwestern and northern scenic areas. During the invasion of the Anglo-French Allied Forces in 1860, Yuanming Yuan was burned down.

Other examples of royal gardens include the Changchun Garden and the Mountain Resort.

7.3.3 *Private Gardens*

The owners of most of the private gardens were aristocrats, bureaucrats, and merchants. Recluse culture was a major theme of private gardens in the Wei, the Jin, and the Southern and Northern dynasties. There was little respect for the armed forces, while literature was highly valued, and the art of gardening was closely intertwined with literature, poetry, painting, and calligraphy. In the Ming and Qing dynasties, the participation of the literati in the construction of gardens greatly increased the artistic value of the garden.

The scholarly approach played a decisive role in landscaping, which highlighted the expression of spirit rather than an imposing image. The scene and its layout are exquisite and elegant, worthy of careful deliberation and appreciation.

These private gardens were usually small. Even the largest among them, the Humble Administrator's Garden, covers an area of only 40,000 square meters, while the Mountain Villa covers an area of only 2000 square meters. However, all kinds of landscape elements, such as caves, brooks, hills, valleys, and lakes can be found in them.

7.3.4 *Temple Gardens*

Ancient Buddhist temples and Taoist temples were mostly built in desolate places with beautiful scenery, rendering them landscape gardens. The interflow of metaphysics and Buddhism during the Wei, the Jin and the Southern and Northern Dynasties encouraged scholars to associate themselves with famous monks. *Shi Shuo Xin Yu*, a book on the anecdotes of the celebrities at the time, records that the temple garden of Kang Sengyuan is not only a temple for the study of Buddhist scriptures but also a place for renowned scholars to make friends, to discuss metaphysics and Buddhism, and to appreciate the scenic beauty.

Moreover, soon after its introduction to China, Buddhism began to be localized in order to relate to people's lives. The images of Bodhisattva are always those of beautiful women in the mural of Yungang Grottoes cut in the Northern Wei Dynasty (AD 368–534). Some of the doctrines began to be concretized and put into visual form. Architectural forms such as the Free Life Pond and the Lotus Pond were created in monasteries. Temple gardens were formed during this period. In the Sui and Tang dynasties, Buddhist and Taoist temples were widespread, from the wilderness to Chang'an city. Buddhist pilgrims went to and fro constantly to worship the divinity. Later they built subsidiary gardens where the pilgrims could have a rest in the backyard or on the side of the Buddhist temple.

To be more exact, temple gardens are not gardens but temples. However, the scenery bears the quality of a garden. Therefore, many temples built in scenic places are defined as temple gardens. Since gardens in temples are affiliated to the temple, they also convey a sense of solemnity, which is also characteristic of a temple garden.

7.3.5 *Regional Characteristics of Chinese Gardens*

Ancient Chinese gardens are not evenly distributed, appearing in greater numbers in the south than in the north. Meanwhile, gardens in the north are comparatively larger in scale. These northern gardens are all decorated exquisitely and luxuriously, representing the highest artistic achievements of classical Chinese gardens. Gardens with local characteristics can be found all over the country.

7.3.5.1 *Gardens in the North*

Since the Liao Dynasty (AD 907–1125), northern areas have been the center of Chinese politics. As economic and cultural development progressed, new cultural elements were added to the original landscape system. The distribution of gardens in the north is mainly centered in Beijing and covers Hebei, Shandong, Shanxi, and other provinces. The highest achievements of gardens in Beijing are the royal gardens, which were owned by the emperor. The gardens of feudal nobles and senior officials, who were also rulers of the feudal society, also reflect the social hierarchy in which imperial power was supreme.

As a special category of private garden in Beijing, a palace garden includes an auxiliary garden and a backyard garden. Its size is larger than a general park. Even though a palace garden belongs to a private garden, its layout, decoration, and landscaping all express an aristocratic temperament, making it different in style from private gardens in regions south of the Yangtze River.

7.3.5.2 *Lingnan Gardens*

Broadly speaking, Lingnan refers to the area to the south of the Five Ridges. It covers the area of Guangdong Province, the southern part of Fujian Province, and the eastern and the southern parts of Guangxi Zhuang Minority Autonomous Region. Located in the low latitudes, Lingnan lies south of the Tropic of Cancer and enjoys ample hours of sunlight. Moreover, due to its position on the verge of the South China Sea, it is greatly affected by the warm air from the ocean, making the weather warm and rainy. These factors had a significant impact on the layout of Lingnan gardens, which are relatively small. In order to maximize the view, architects employed contrast and space permeability to obtain a laminated and roundabout effect.

The climate in the Lingnan area is hot and humid, which is suitable for the growth of subtropical and tropical plants. Therefore, gardens of Lingnan are normally rich in tall and luxuriant plants. Fruit trees are a prominent characteristic of gardens in the Lingnan area. These are grown not only for their appearance, but also for shade and to provide fruit. A variety of fruit trees have appeared in these gardens, including longan, litchi, loquat, mango, carambola, banana, orange, citrus, guava, and plum.

7.3.5.3 *Jiangnan Gardens*

Jiangnan refers to the area south of the Yangtze River, or specifically the Taihu Lake Basin. It includes the southern area of Jiangsu Province, the northern area of Zhejiang Province, and Huizhou in the south of Anhui Province. This area is endowed with a unique natural environment and solid economic strength, and Jiangnan gardens have great advantages in landscaping. Most of them are water gardens in which the waterscape and rock scenery account for a large portion. Suzhou Garden is a typical water garden.

Jiangnan gardens are rather small, which has some impact on their construction, requiring that architects take advantage of the natural conditions to create a garden with artistic value. Gardens in different locations in Jiangnan are built in different styles, but on the whole they reflect the natural beauty and mild climate of Jiangnan. The picturesque scenery, the ingenious landscaping, and the rich variety of landscape architecture are the essence of classical Chinese gardens. Gardens in other places are more or less influenced by those in Jiangnan. It is fair to say that private gardens in the south took the lead in the development of gardens in China.

7.3.6 *Landscape Gardening Art*

7.3.6.1 *Spiritual Expression*

Classical Chinese gardens tend to be quite poetic, as their architects aimed to convey an artistic aura by imitating the natural world. Thus, classical Chinese gardens are referred to as impressionistic gardens. From the perspective of landscape art, architects shape the typical image in the garden and then express their emotions in the scene. In classical Chinese gardens, the artistic conceptions of the garden are broadly divided into several types: peaceful state, deity state, and natural state.

Confucianism emphasizes reality, social reparability, ethical values, and the political significance of governing a country, which is called the peaceful state. The thought of Lao Zi and Zhuang Zi emphasizes inner peace and romantic aesthetics. Buddhism and Taoism believe in Nirvana and immortality, which is called the deity state. The peaceful state can be seen in royal gardens such as Yuanming Yuan. All the elements of Confucianism, such as philosophy, politics, economy, and morality, are reflected in the landscape of the garden. The natural state is embodied in literati gardens, such as the Pavilion of Surging Waves and the Dule Garden. The deity state is best expressed in royal gardens and temple gardens such as Yaotai in Penglai Island and Wonderland in Fanghu.

7.3.6.2 Landscape Design

The pursuit of harmony with nature began in the Spring and Autumn Period and the Warring States Period. In landscape construction, architects use a variety of means to achieve perfect artistic effect in different types of landscape design.

View-Blocking

The best sight is always hidden, which is called “rise after restraint,” or “sudden glimpse of hope in the dark mist of bewilderment.” The method of view-blocking makes the garden more attractive. If a rockery is set at the entrance of the garden, it is referred to as a mountain screen.

Added Scenery

When a scenic spot such as a mountain or a tower lies in the distance, it will appear unnatural or monotonous without other scenery between it and the viewer. If trees and flowers are present in the space between, the view will have a more stratified beauty. These trees and flowers are referred to as added scenery.

Dipped Scenery

When a scenic spot such as a mountain or a building lies in the distance, it may have great aesthetic value, but it will look rather boring in the absence of obstacles. When both sides are enclosed by buildings and trees, the scenic spot will become more poetic, which is referred to as the method of dipped scenery. For example, when you are boating on the Suzhou River at the Back Mountain of the Summer Palace, you will feel you are in the middle of a picture. The lake is surrounded by mountains and trees which constitute beautiful scenery.

Mutual Scenery

In the garden, when you overlook the bridges or trees in the distance from pavilions or towers, you get a pleasing view; the other way round, if you overlook the pavilions or towers from bridges, you still get a wonderful sight. In this way, you are appreciating the mutual scenery.

Framed Scenery

When you look through the doors, windows, and arcs, borders are added to the distant mountains and buildings. Such a bordered sight is called framed scenery.

Leaking Through Scenery

Ornamental perforated windows are embedded on the boundary wall or the wall of the gallery, featuring geometric ethnic patterns, fruits, and animals. A panoramic view of the garden is accessible through these gaps in the windows.

Borrowing Scenery

Borrowing scenery plays an important role in the construction of gardens. It is also a unique way of gardening. Through view borrowing, external factors can be added to the main part of the scenery, which will enrich the scenery and make it more special. There are several types of view borrowing: far borrowing, neighboring borrowing, upward borrowing, downward borrowing, and time-restricted borrowing. For example, borrowing a distant mountain is called far borrowing; borrowing neighboring trees is called neighboring borrowing; borrowing birds in the sky is called upward borrowing; borrowing fish in a pond is called downward borrowing; and borrowing flowers blooming in different seasons is called time-restricted borrowing. View borrowing plays a great role in expanding the space, enriching the scenery, and improving the quality of the garden.

7.3.6.3 Waterscape and Rockery Scenery in the Garden

Parks and gardens in ancient times were enclosed by real mountains and water. After the Wei, the Jin, and the Southern and Northern dynasties, gardens began to imitate the mountains and water in the natural world. In the Song Dynasty, the royal garden—Gen Yue (艮岳)—was built in Bianliang (now Kaifeng in Henan Province). Emperor Huizong (r. 1101–1125) required that gardens reproduce the majesty of the Five Mountains and the ancient Sichuan Road, which pushed the technique to new heights. The design of waterscapes and rockery scapes grew much more mature in the Ming and the Qing dynasties.

A natural mountain always has a main peak and secondary peaks and is covered by lush vegetation. When a mountain is crated in a garden, it is preferable not to have two peaks standing side by side. Mountains are built with earth, stones, or a combination of the two. The mountain made of lake rock is witty and lively, while the mountain made of yellow stone is mighty and magnificent. An earthen mountain should be decorated with trees and flowers in order to appear vigorous and verdant. Several stones should be scattered about, as if they have grown out of the ground, and flowers and trees should be planted between the stones.

Garden ponds are usually dug to incorporate natural rivers, lakes, and reservoirs that wind and zigzag. Small bridges are set above the water to increase the layers of the waterscape.

7.3.7 *Architectural Elements in the Garden*

The architectural elements in the garden include the pavilion, the gallery, the *xie* (榭), among others.

A pavilion is a building, usually in a garden, with a roof but without walls that serves primarily as a place to rest or for sightseeing. A *xie* is a pavilion-like building constructed next to a body of water. One part of the platform stands on the bank, and the other part is in the water. All sides of the *xie* are open. With no set form, it often integrates elements of the gallery and the platform. A gallery is a passage under eaves or inside a room, or a separate passage with a roof. It includes the cloister and the verandah. A gallery can also be a part of a building which embellishes the building directly as an important way to divide the space. The gallery in ancient Chinese architecture is equipped with bars, benches, and paintings.

7.4 CLASSIC BOOKS AND FAMOUS CRAFTSMEN IN ARCHITECTURE

7.4.1 *Classic Books on Ancient Chinese Architecture*

Yingzaofashi (*Building Methods*) was compiled in the Song Dynasty. It is the earliest and most complete book on the techniques of architecture, including design and the calculation of the quantity of materials needed. It provides valuable data for the study of ancient Chinese architecture. Compiled in the Xining years (AD 1068–1077), completed

in 1100 and published in 1103, *Yingzaofashi* was compiled by Li Jie on the basis of *Mujing* (Classics of Wood) written by Yu Hao.

The Treatise of Lu Ban, compiled by Wu Rong in the Ming Dynasty, is a handbook on folk architecture, especially in southern China. It introduces disciplines, systems and rituals of the trade of carpenters and masons, summarizes the working procedures of building houses, and shows methods of determining auspicious days. It illustrates the Luban scale and records the basic scales of furniture and tools. The most outstanding contribution of the book is to clearly define the specifications of the components such as doors and windows, which to an extent standardizes the size of such components.

The Unity of Nature and Man, written by Ji Cheng in the Ming Dynasty, systematically expounds on the ideas and specific techniques of literati gardens. One of the earliest works on landscaping, it was published in 1631. The main content comprises “On Chinese Garden” and “On the Construction.” “On Chinese Garden” consists of ten chapters on topics including isolated footing, fold and pack, and pavage. This book presents a summary of both the practice and the original insights and incisive exposition on the art of the garden landscaping.

Engineering Practices, enacted by the Qing government, provides a detailed project management system and method for the calculation of materials and labor compensation. This book aimed to standardize the management of construction activities in order to control project budgets.

7.4.2 *Famous Craftsmen of Ancient Garden Architecture*

Lu Ban (507–440 BC) was a Chinese carpenter, notable for his achievements after becoming a subject of the State of Chu. He is responsible for several inventions, including the cloud ladder, the grappling hook, and the ram and wooden bird.

Yuwen Kai (AD 555–612) was an expert in city planning and construction. He was knowledgeable about laws and institutions and had a wealth of experience. In 582, Emperor Wendi of the Sui Dynasty sent out an imperial decree to build a new capital, Da Xing City and appointed Yuwen Kai as assistant supervisor. Thus, the scale of the city was planned by him. Yuwen Kai also wrote several books, including *Theory of Hall Construction* and *The Layout Planning of Luoyang City*.

Li Jie (AD 1035–1110), an important writer of *Yingzaofashi* with extensive experience in project construction and management, worked as an architectural supervisor for dozens of years. He presided over the construction of many palaces, temples, and gardens. It is said that he also compiled many works on architecture, most of which have not survived. He was skilled in construction and had a great passion for books, paintings, and so on, which laid a solid foundation for the compilation of *Yingzaofashi*. However, the first edition of the book did not cover issues about the system of managing building materials, so malpractices occurred in the course of the construction. Later the emperor ordered Li Jie to revise the book. He finally compiled a masterpiece in the Chinese architectural history after studying the existing literature, the laws and institutions.

Ji Cheng (AD 1582–?) was from Wujiang county, Jiangsu Province, in the Ming Dynasty. He was skilled not only in building poetic gardens but also in writing poetry and painting. He was in charge of building three famous gardens—East Timor Garden in Changzhou, and Jia Garden and Ying Garden in Yangzhou. *The Unity of Nature and Man* is his masterpiece.

The Lei's (family) in the Qing Dynasty was in Jiangchang County (now Yongxiu County) by origin. Their ancestors took up architecture in the early Ming Dynasty. Lei Fada (1619–?) came to Beijing with his cousin to be enlisted in the building group. They settled down at Haidian in Beijing with their family members and participated in building the royal garden. The major royal buildings such as the Forbidden City, the Temple of Heaven, and the Summer Palace in the Qing Dynasty were all built under the supervision of the Lei family.

7.4.3 *Modern and Contemporary Chinese Gardens*

7.4.3.1 *Sun Yat-sen Mausoleum in Nanjing*

The Sun Yat-sen Mausoleum in Nanjing, designed by the famous architect Lü Yanzhi (1894–1929), was completed in 1931. Lü Yanzhi died in the pride of his life when the main project was finished. The Sun Yat-sen Mausoleum covers an area of more than 80,000 square meters. The main buildings include the memorial arch, tomb passage, and mausoleum doors. A series of memorial buildings encircle the Sun Yat-sen Mausoleum, including the scripture tower, the Guanghua pavilion, and the bandstand.

From above, the Sun Yat-sen Mausoleum resembles a horizontal “Liberty Bell”: the bronze statue of Sun Yat-sen is the steepletop of the bell; a half-moon-shaped square forms the arc top of the bell; and the dome of the mausoleum crypt is the pendulum. The combination of shape and color, the use of materials, and the detailed processing applied in the building group are all in perfect harmony, which makes them more solemn and imposing. The Sun Yat-sen Mausoleum in Nanjing is recognized as the best mausoleum in modern architecture.

7.4.3.2 Sun Yat-sen Memorial Hall in Guangzhou

The Sun Yat-sen Memorial Hall is an octagonal building boasting an area of 3700 square meters and a height of 49 meters, also designed by Lü Yanzhi. Started in January 1929 and completed in November 1931, the Sun Yat-sen Memorial Hall is a masterpiece of modern architecture. The Hall is situated on the site of the President Office where he was appointed Interim President in 1921. It contains a two-story circular hall with more than 4700 seats. The design marked a new trend of combining Western and Eastern styles, in this case the structure of traditional Chinese palace-style architecture with the reinforced concrete construction of the West. No columns are used in the space, with a height of 47 meters and a span of 71 meters. Eight giant columns hidden in the wall support a large steel truss with a span of 30 meters in four directions.

7.4.3.3 The Great Hall of the People

Located to the west of Tiananmen Square and to the south of West Chang'an Avenue, the Great Hall of the People is the meeting place for the National People's Congress of the People's Republic of China, the office of the National People's Congress and National People's Congress Standing Committee, and an important place where the party's political activities and mass meetings are held. Facing west and situated in the west, the Great Hall of the People is larger than the Forbidden City, covering an area of 150,000 square meters, with a north-south length of 336 meters, a width of 206 meters, and a height of 465 meters. The Great Hall of the People resembles a mountain, with low flanks and a high center, and is decorated with light yellow granite, green glazed tiles, and a 5-meter-high granite pedestal. Facing Tiananmen Square, the door at the main entrance to the Great Hall of the People is inlaid with the national emblem. In the front of the hall stand twelve light gray marble door pillars, 2 meters in diameter and 25 meters in height.

7.4.3.4 *Nanjing Yangtze River Bridge*

Located between Pukou and Xiaguan in Nanjing, the Nanjing Yangtze River Bridge is a double-decked road and rail truss bridge. Its upper deck, with a span of 15 meters and a total length of 4589 meters, is part of China National Highway 104. The lower deck is a 6772-meter-long double-track railway. The bridge consists of a right bridge and an approach span with a maximum extension of 160 meters and a length of 1576 meters.

The Nanjing Yangtze River Bridge has been listed as one of Nanjing's forty Jinling scenes. Its bridgehead was one of the logos of Nanjing city from the 1960s to the 1980s and it is a popular tourist attraction today.

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Clothing, Food, Housing and Transportation

Clothing, food, housing, and transportation concern the basic necessities of daily life. Changes in these factors may produce cultural changes. This chapter introduces the characteristics of these four necessities of ancient Chinese people.

8.1 ANCIENT CHINESE COSTUME

The clothing of different dynasties in ancient China bore different characteristics. Though they varied in materials, pattern, and style, there was one common feature: people from different social strata wore different clothes. While royal families wore unique costumes, common people were dressed in many different ways.

8.1.1 *Origination of Costumes*

In the cave of Beijing Man at Zhoukoudian, Beijing, fine bone needles have been discovered dating back 100,000 years, which shows that there was needlework at that time. In addition, a large number of ornaments have been unearthed there, including headdresses, neck ornaments, and wrist ornaments. These are made of either natural stones, shells, or bones

of fish. People wore them not just for decoration, but also to commemorate their success in fishing and hunting. Before textile technology was developed, animal fur was the main material for clothes and animal ligaments were used for sewing. It can be assumed that, originally ancient ape men used leaves and fur to cover their bodies and to protect themselves from cold. Later, during the clan commune period (from ten to a hundred thousand years ago), people began to sew using bone needles. This was the earliest type of clothing.

8.1.2 *Costumes in the Xia, Shang and Zhou Dynasties*

As human society entered the era of civilization, clothes became varied in style. By the Xia Dynasty, costumes themselves could indicate the distinction between superiority and inferiority.

The Shang Dynasty witnessed the production of silk of a high technological standard and the development of sophisticated looms and weaving craftsmanship. Archaeological discovery of a large amount of silk fabric from the Shang Dynasty shows that materials for clothes-making were greatly varied at the time. In the Shang Dynasty, with the further development of the handicraft and textile industry, costumes become more diverse and exquisite. The Chinese character for “clothes” appears on oracle bone inscriptions, indicating that “clothes” was already a relatively clear concept at the time. People in the Shang Dynasty braided their hair into tresses and wore hats, scarves, coats, and skirts with a belt around the waist. A dark-colored coat was a symbol of heaven, while a yellow skirt symbolized the land. This was the earliest Chinese clothing style.

Dyeing and weaving industries emerged in the Western Zhou Dynasty (c. eleventh century–771 BC). From the Western Zhou Dynasty to the Warring States period, the production of silk flourished and a diverse range of silk products began to appear, including tough silk, damask, and brocade. The emergence of brocade in particular was a milestone in the history of silk, as it attained cultural connotations. In the Zhou Dynasty, a hierarchal system gradually took shape after the establishment of the enfeoffment system. Clothing etiquette was also finalized and improved during this period.

8.1.3 *Costumes from the Qin Dynasty to the Southern and Northern Dynasties*

After the First Emperor of Qin unified China, the first centralized feudal dynasty was set up. Even though the Qin Dynasty only existed for a short period of fifteen years, it is an important dynasty in Chinese history. A series of systems were set up, including that of clothing, which greatly impacted later generations. During this period, those holding higher positions wore green robes, while common people wore white robes. Officials wore hats and loose robes with knives hanging at their waists, scepters in their hands, and white pens plugged at the backs of the ears. Thus, robes with large sleeves and laces became popular among men, while the common people braided their hair into tresses or wore skullcaps, scarves, or long robes with collar and narrow sleeves.

In the Han Dynasty, the national power was strong and the economy much more developed. People's needs for dressing were more diverse than ever before, so costumes became increasingly fancy.

Men tended to wear scarves or crowns in the Han Dynasty. A scarf was a cloth wrapped around the head, which symbolized the adulthood of a male. *Ze* is a kind of scarf with a hatband to keep the head warm in cold weather, while the crown was a symbol of superior status. Men with a certain social status in the Han Dynasty could wear crowns when they reached the age of twenty, while men without high social status could only wrap the head with cloth.

In the Wei, the Jin, and the Southern and Northern dynasties, the thought of Zhuang Zi, Buddhism, and metaphysics gained great popularity among the literati-official class. It was very common to take an elixir for immortality at that time. Taking these pills, however, caused the person to feel hot, so tight clothes were not suitable for them. Moreover, most people also pursued the sage-like state, and thus loose clothes, including blouses with big sleeves, became popular at all levels, from the king to the common people.

As a result of long-term war, people in the north and the south were forced to leave their homes, which ended in several nationalities living together. They communicated with and learned from each other, which on the one hand facilitated the development of production technology, and on the other hand served to blend their cultures and customs, including their costumes.

8.1.4 *Splendid Costumes in the Sui, the Tang, and Five Dynasties*

The politics, economy, and culture of the feudal society reached their highest level of development in the Sui and Tang dynasties. The technology of silk manufacturing and dyeing was further improved, and the implementation of the opening up policy and the Silk Road brought together Western and Eastern cultures, leading to more diversified costumes in the Tang Dynasty.

Many of the costume traditions of the Tang Dynasty were inherited from the Sui Dynasty. The emperors wore yellow robes and shirts at that time, a tradition that lasted until the Qing Dynasty. Emperor Gaozu took the ochre yellow robe as his informal dress; therefore, robes of such color were prohibited among the subjects. Throughout the feudal times, the color, as well as the material of one's dress depended on their official rank. In the Tang Dynasty, it was ruled that officials of the upper three levels wore purple robes; officials above the fifth level wore red robes; officials of the sixth and seventh level wore green robes; and officials of the eighth and ninth levels wore cyan robes.

The formal dress of the noblewoman was mainly characterized by loose sleeves and low collars. She might also wear a slip skirt, Half-Sleeves or Brocade Scarf. Dresses of the minority ethnic groups were also very popular at that time. *Ru* in the Tang Dynasty was a kind of tight jacket or cotton-padded clothing, of which the collar and sleeves were embroidered with golden lines and sometimes decorated with silk damask. All these decorations made the dress more colorful and beautiful. Dresses in the Tang Dynasty were mainly high-waisted, pleated skirts with floor-length hemlines.

8.1.5 *Costumes in the Song Dynasty*

After the Song Dynasty was established, the economy and culture enjoyed steady development, especially the urban commercial economy. Neo-Confucian thought determined the code of conduct for scholars, which had a great impact on people's lives. Clothing in this era was not showy at all, but simple and elegant.

Most of the costumes in the Song Dynasty followed the style of the Tang Dynasty but at the same time had their own characteristics. In the Song Dynasty, official uniforms were usually garments with big sleeves and rectangular crowns, in colors that indicated the status of the official. Fashionable formal dress for the noblewoman was a shirt with large sleeves.

In their everyday life, women often wore a long dress called *Bei zi*, characterized by a straight collar, a slit cut at two axillaries and a front opening with a length overtaking the knees. From the queen to the common people, all women wore this popular style of dress.

Song brocade appeared during the reign of Emperor Gaozong in the Southern Song Dynasty. Legend has it that after Emperor Gaozong escaped from the north to Lin'an, a large amount of equipment and many decorative items were lost. Thus, the mass production of Song brocade was developed in Suzhou to provide decorative silk.

8.1.6 *The Unique Costume of the Yuan Dynasty*

The Yuan Dynasty had no complete crown and suit system. After the Mongolians reigned over the Central Plains, they maintained their costumes and habits. At the same time, however, they were also influenced by the Han nationality, which made their dress more magnificent.

The costume in the Yuan Dynasty was mainly a long gown. The everyday clothes of officials and the gentry consisted of long gowns with narrow sleeves. Moreover, at formal banquets of the Yuan Dynasty, the emperor and officials wore costumes of the same color, which was called the *Zhisun* costume. According to literature, the wide variety of items in the *Zhisun* costume of the emperor in the Yuan Dynasty included eleven winter costumes and fifteen summer costumes.

Mongolian women also wore long gowns, while Chinese Han women wore slip skirts. The Mongolian costume also had a great impact on the Han people. Braided hair and *Kunfa* were very popular among men in the Yuan Dynasty. *Kunfa* refers to the hairstyle with two lines of hair on the head, the hair on the back of the head completely shaved off, and the braided hair left on the two sides of the head.

8.1.7 *The Complex and Diverse Clothing Systems in the Ming Dynasty*

After Emperor Zhu Yuanzhang ascended the throne in 1368, he formulated a new costume system based on the costume of the Zhou, Han, Tang, and Song dynasties so as to restore the etiquette of the Han Dynasty. The long gown was the main clothing item at that time, while officials often wore *Bufu*, matched with a black gauze cap and a shirt with a round collar. *Bufu* refers to the official costume with square

embroidery patterns on the front. The pattern on the costume of civil officials was birds, while the pattern for military officers consisted of beasts. Different colors and patterns were used to indicate the different ranks of the officials.

Casual dress for men in the Ming Dynasty was generally a knee-length gown with buttons on the right and large sleeves. The fabric used for casual clothes for the noblemen was mainly silk with patterns. Some were also made of tapestry satin. Most patterns on the gowns had auspicious meanings; for example the pattern with the character *shou* in the center surrounded by clouds and bats means “five blessings and longevity.”

8.1.8 *Elegant and Luxuriant Costumes in the Qing Dynasty*

The Qing Dynasty was established by the Manchus, whose lifestyle was largely nomadic. Thus, the costume at that time was very tight and plain, suitable for riding, unlike the costume of the Han nationality.

Clothing for the emperor in the Qing Dynasty included several types: court dress, informal dress, and *Jifu* (court robes emblazoned with eight roundels enclosing golden dragons in flight among colored clouds). The basic form of the dragon robe was simple, long enough to reach the ankles, with long sleeves and a circular opening for the neck. A large front panel on the wearer's left side was wrapped and fastened at the right side. The queen's clothing style was similar to that of Manchu women, with border lace decorating the round collar, sleeves, and edges. But the patterns on the clothes were different. One piece of the queen's dress had the pattern called “Phoenixes Passing Through the Peonies.” Eight phoenixes were embroidered on the bright blue satin, among which several peonies were interspersed. The peonies appeared noble and elegant and the use of color was ingenious, which also resembled traditional landscape painting. In contrast, the color of the phoenix was very strong. Thus, the contrast of red and green was very sharp, which was typical of the national style and characteristics of the times.

Hats of the officials in the Qing Dynasty were topped with decorative beads made of jewelry such as ruby, coral, sapphire, etc. to signify officials' ranks. In addition, peacock feathers were also attached to the back of the hats. There were single-eyed (“eye” referring to the round spot on the feather), double-eyed, and triple-eyed feathers, with more eyes indicating a higher rank. Only noblemen and those who had accomplished “immortal” feats were entitled to wear feathers.

The traditional male costume in the Qing Dynasty was a narrow-cuffed short jacket (*Ma Gua*) over a long gown with a belt at the waist. *Ma Gua* was an outdoor jacket to keep warm. It was designed to have short, baggy sleeves and end above the waist to enhance the mobility of horseback riding. Women also wore *Ma Gua*, either *Wan Xiu* (where the sleeve is longer than the arm) or *Shu Xiu* (where the sleeve is shorter than the arm). Women's *Ma Gua* bears many similarities to that of men, but the former is decorated with beautiful silk ribbon laces.

Before adulthood Manchu women wore a single pigtail at the back of the head, with a red cord tied at the end. The hair in front was cut into a bang, and often a bead made of gold or silver or jewelry was fastened to the tip of the pigtail, to swing in the wind. Married Manchu women arranged their hair into a bun, with a silver *Bianfang* (an ornamental stick) thrust in it, called *Gaoliangtou* (sorghum-shaped hairstyle).

The shawl was a kind of ornament which a woman wore over her shoulders, often to wedding ceremonies. In the late Qing Dynasty, women from the south of the Yangtze River area often wore a low-lying bun and a shawl over their shoulders to prevent the grease of the hair from staining their clothes. The designs of the shawls at that time were ingenious, some lotus-shaped made of ribbon-cutting, some tassels shaped made of knotted threads, others woven with pearls.

8.2 FOOD CULTURE IN ANCIENT CHINA

There are eight famous Chinese cuisines, each of which includes hundreds of dishes. Moreover, there are numerous special snacks which enjoy a long history. It is fair to say food culture in ancient China reflected the traits of the dynasties.

8.2.1 *The Origin of Food Culture*

As the Chinese saying goes, "food is the paramount necessity of people." Located in a temperate zone with a large population, China is a country that experiences frequent natural disasters. People have often struggled on the verge of starvation.

The early settlers originally lived by eating raw meat and drinking blood. During this period, our ancestors often suffered from starvation and were dressed in rags. The food was raw at that time, which was bad for their health. Later they learned to use fire and began to eat cooked food. It is recorded in “Li Yun” from *The Book of Rites* that before the invention of fire, people ate raw birds and animals. After fire was invented, they used it to cook and roast their food as well as to make wine.

8.2.2 *Classification of Food in Ancient Times*

Ancient Chinese society evolved from fishing and hunting to the agricultural society. In fishing and hunting times, people lived by collecting fruits and hunting. After the emergence of agriculture, food sources became more reliable. Yet people in different dynasties attached importance to different food.

8.2.2.1 *Shu in the Shang Dynasty*

In the Shang Dynasty, millet was the primary crop, which could be illustrated by the frequent occurrence of “Shu” in oracle bone inscriptions. The ruling class in the Shang Dynasty was keen on drinking. The wine at the time was made of millet, which also highlighted the importance of millet in the Shang Dynasty.

8.2.2.2 *Ji in the Zhou Dynasty*

In the Zhou Dynasty, *Ji* (稷, also a kind of millet) became the most important crop. For one thing, the millet was the god of grains, and it was so worshiped by ancient people that it was also used to symbolize the country, hence there was the term “sheji” (社稷), meaning country. For another, in the Zhou Dynasty, the agriculture officials were called Hou Ji, and since Qi the forefather of the Zhou nationality once took the position of Hou Ji, they started to call their ancestor Hou Ji. Finally, Ji was always used in the sacrifice ceremony and taken as the staple food at that time.

The diet of the people in Zhou Dynasty was not much different from that today. A variety of crops were regarded as staple food, while vegetables and meat were considered as subsidiary food. The main types of crops at that time were grain, millet, rice, beans and wheat. Meat included the meat of wild and domesticated animals and poultry, such as bears, foxes, pigs, cows and ducks. Fruits, one of the staple foods, had been used as food in the Zhou Dynasty.

8.2.2.3 *The Five Cereals*

The earliest record of “five cereals” was found in the *Analects*. The emergence of the term “five cereals” shows that people had clear concept of classification of food. The term generally refers to five crops: rice, *shu*, *ji*, bean, and wheat.

8.2.2.4 *Rice*

“*Gu*” (谷, grain or rice) originally collectively referred to grain crops, but in the Spring and Autumn period, “*gu*” was used as a proper noun to replace “*he*” (禾) with “*su*” (粟), originally the collective name of the grain, referring to its kernel. Grain or rice had become a dominant crop at that time.

8.2.2.5 *Staple Food and Subsidiary Food*

Staple food refers to food crops, and it mainly refers to millet, rice, bean, wheat, sesame, *Zizania latifolia* and so on. In the north, millet was their staple food. But due to the low productivity, poor people could not afford it.

Subsidiary food included vegetables, fruit, meat and spices. People in the pre-Qin period had already known how to plant vegetables and fruits instead of just collecting fruits. Gardening had also come into being at that time.

8.2.3 *Eating Utensils and Methods of Food-Making*

According to the findings of archaeology and ethnology, the methods our forefathers used to process food include baking, boiling and steaming, etc.

Baking is the oldest way of food processing. In the era when there was no kettle or stove, food was directly baked on fire. In the Neolithic sites, ceramic grill grate with grate dentate were created to bake meat. The earliest oven was found in the Lajia site in Qinghai Province. It was made of slate and supported by a thin slate. Thus, they could make fire under it and put food on the upper slate, which shows that they already had a true oven at that time.

Compared with baking, boiling is a more advanced method of food preparation, especially for the cooking of grain. Before the invention of pottery, people began to develop new cooking methods, for example putting rice into bamboo and adding water. This was similar to boiling the rice and inspired the creation of proper vessels for cooking food. After the invention of pottery, in the Neolithic Age, boiling became a standard method. In the prehistoric era, people used ceramic pots and pottery tripods to cook food. Vessels with three feet were very popular at that time. The most common one was the tripod, an ancient cooking vessel with two

loop handles and three or four legs. This style was very popular in the Neolithic Age and was mostly used in the middle and lower reaches of the Yangtze River region. An oven was discovered in the ruins of the Hemudu culture, indicating that people began to use pottery ovens to cook in the Yangshao and Longshan cultures.

In the Western Zhou Dynasty, techniques for cooking had reached a high level. There was the distinction of *Kuai pin*, *Zhi pin*, and *La pin*, which were fried, baked, or smoked. Records in “Tian Guan” from *The Rites of Zhou* show that a wide variety of utensils were used in the Western Zhou Dynasty. Their classification was clear, including cooking utensils, wine coolers and containers, and so on. Different devices had different uses. Some devices were multi-functional, such as the plate, jar, and urn.

From the Spring and Autumn period to the Qin and the Han dynasties, most modern cooking methods were fully developed. *The Book of Shuo Wen* discusses several cooking methods, including *ren* (well cooked) and reheating. Sacrifices in ancient times consisted of boiled meat, classified according to how long it was boiled. *Xing* refers to raw meat; *Lan* refers to rare meat; *Mi* refers to overcooked meat; and *Ren* refers to well-cooked meat. All four types could be used for sacrifices.

The method of frying started in the Southern and Northern dynasties. Several hundred years later, in the Song Dynasty, many fried dishes had been developed, such as fried clams, fried kidneys, fried eel, and so on. The categories of frying became increasingly complicated, such as stir-fry, slip to fry, and soft fry. Other methods, such as baking, stewing, and braising, were all developed on the basis of frying.

8.2.4 *Changes of Diet Systems in Ancient Times*

As society became civilized, the purpose of dining was no longer limited to allaying hunger. After the emergence of private property, having a good dinner provided both gustatory and spiritual pleasure. For both the aristocracy and civilians, dining together was a good way to strengthen relationships. In the hierarchical society, the content of the diet of the aristocracy differed greatly from that of civilians. In the Xia, the Shang, and the Zhou dynasties, only nobles had the privilege to eat meat and vegetables, as well as high-quality rice and millet. The common people could only eat such food in good harvest years. They mainly appeased their hunger with edible wild herbs.

Strict table manners were observed when people had dinner together in ancient times. Especially at banquets, the seating order reflected the clear pecking order in the feudal society. When people ate, they would sit on the ground and each ate their own portion. Because the ancient people respected senior people and wise men, the senior person, wise man, or respectable person tended to be given the seat of honor. The shape of the ancient seat was generally rectangular, with the south–north side longer than the east–west side. Therefore, the seat of honor was certainly the seat facing east, followed by the seat facing south and north. The humblest seat faced west.

There were many rules for eating in ancient times, for instance “eating in silence” (meaning it is better not to talk while eating so as not to affect digestion). The *Analects* of Confucius Hsiang-tang states that whispering and loud talking are not allowed; if the dinner table is not set straight, you are not allowed to take a seat. The etiquette recorded in the *Analects* was strictly observed by scholars at that time. The eating etiquette followed by gentlemen set a good example for the whole community and exerted a strong influence on the ancient Chinese culture.

In the pre-Qin period, people had two meals a day. Breakfast was from 10:00 to 11:00 a.m. and was called *Yong*, while supper was from 3:00 to 5:00 p.m. and was called *Sun* or *Fu*. During the Warring States period, it was advocated that wise men (from the ruling or upper class) and common people should do farm work and have dinner together. But actually dinner for the ruler and that for the common people were totally different. People from the ruling and upper class always had three or four meals a day, while the common people generally had two meals a day. Sometimes they would have an extra meal in the morning, which was called “cold food.”

Tables and chairs did not exist prior to the Han Dynasty. People sat on the ground and had dinner in front of the mat. Most food containers had legs, some of them quite long. Tripods were reserved for nobles, whose status was indicated by the number they owned: the emperor owned nine tripods, dukes owned seven, senior officials owned five, and lower officials owned three, while on the tables of common people were a wine cup and a dish of beans.

In the Southern and Northern dynasties, chairs and tables became very popular. In the Tang Dynasty, fine wine and food were placed on the high and big table to be shared by many people. After the Song Dynasty, the

tradition of sitting together to have dinner became accepted. From the Song Dynasty to the Qing Dynasty, the dinner table was generally round. Having dinner together became more and more popular.

8.3 DWELLINGS OF ANCIENT CHINESE

The architecture of ancient China had a long history and involved splendid achievements. Therefore, people's dwellings are colorful and extensive. From the pavilions and terraces to magnificent mansions and palaces, from the Suzhou Garden to the Forbidden City, all of these buildings reflect the essence of the living culture of ancient China. This section illustrates the living culture of ancient China through the origin of buildings, characteristics of architecture in ancient cities, the living habits of ancient people, and interior decorations.

8.3.1 *The Origin of Architecture*

The birth and development of architecture is also the history of human productivity. At the initial stage of the primitive society, human productivity was quite limited and people took shelter in caves.

Caves that were inhabited by humans during the Stone Age have been discovered in many places, including Beijing, Liaoning, Guizhou, Guangdong, Hubei, Jiangxi, and Jiangsu. According to *The Book of Changes*, primitive people used to live in wild places or seek shelter in caves, which is a vivid description of their living state.

8.3.2 *Cities and Urban Architecture in Ancient China*

Villages and cities gradually came into being as construction techniques were mastered by ancient people. During the time before the Spring and Autumn period, cities arose around the royal palaces from which the nobles ruled. Cities were also symbols of the most advanced living culture. People at that time had mastered the skills required to construct magnificent palaces and temples.

Some construction relics of the early Shang Dynasty have been found in the Erlitou site of Yanshi county, Henan Province. Through restoration, the yard of No.1 Palace discovered on the site takes shape. The yard is in the shape of a rectangle with one corner unfilled. With a length of 108 meters and a width of 100 meters, it was made with rammed earth,

standing about 0.4 to 0.8 meters above the ground, which shows that rammed earth was already widely used in the construction works at the time. At the center of the yard, to the north side, stands a rectangular stylobate with a length of 30.4 meters and a width of 11.4 meters. Holes have been found around the stylobate, and the holes are supposed to hold eaves columns. Thus the site can be restored to a great hall. According to *Book of Diverse Crafts* and *Han Feizi*, the Shang Dynasty's palaces featured thatched roofs and clay stairs; and since no tiles have been unearthed on the site, it can thus be concluded that the palace might have been thatched.

After the enfeoffment system was implemented, the system of construction improved in the Western Zhou Dynasty. According to *Rites of Zhou*, a city should be in the shape of a square nine *li* (4.5 km) long and nine *li* (4.5 km) wide with three gates on each side. There should be nine south-north streets and nine east-west streets. The ancestors' temple stood on the left side, while the altar of land grain was on the right side. The city should be built facing toward the royal court, with its back toward the market. Thus, the size and layout of the capital can be determined. *Zuo Zhuan* stated that it did not benefit a country or a capital if the city was too large. Unlike the cities of the Warring States period and beyond, cities before the middle term of the Spring and Autumn period were usually quite small and sparsely populated. At that time, handicraft industry and commercial activities were designated to serve the royal family, leaving no room for further development.

The most representative building site of the Western Zhou Dynasty is from the early period, the historic site in today's Fengchu Village, Qishan county, Shaanxi Province. The site features a quadrangular courtyard composed of two yards, with a screen wall, a gate, an antehall, and a chamber built in sequence along the axis. A corridor was built to connect the antehall and the chamber. Wing rooms were built around the gate to encircle the whole yard to create an enclosed region. Under the base of the site were the drain pipes and the sub-drainage for rainwater. Tiles were first used on the roof in the Western Zhou Dynasty, which stands as a remarkable achievement in architecture. The site was known as the first and most exquisite quadrangle of China. The main body of the site was supported by rammed earth with a purlin frame as the main beam frame.

During the Spring and Autumn period, a great number of cities and palaces were built in different states. As a kind of terraced building, palaces were built with the stair-shaped rammed earth platform as the center, on which basis wooden houses were built sequentially. The Niucun ancient

village of the Jincheng site was possibly the Xintian site of the capital of the state of Jin. Around each side of the city there was a rammed earth platform as wide as 52 meters. It can be counted as a huge terrace. The bronze ware unearthed in the Yongcheng site was used for interior decoration, which shows the elegance of the building at that time.

During the Warring States period, cities became larger and city life became increasingly prosperous. The historical records show that 70,000 households, about 300,000 people, lived in the capital of Qi at this time. During the Warring States period, the capital city was usually divided into two parts. The larger part, also called *guo*, was planned as a residential area together with markets. The smaller part was planned as palaces lined with a great number of terraces. Around the city were built rammed earth walls. In some cities, central streets that connected the whole city into a transportation network were also built.

During the Qin and Han dynasties, building techniques matured. With the unification of the country, the Qin rebuilt the palaces of six countries on the basis of their original styles, including Xianyang city in the north and the Chao Palace and Xin Palace in the south. The size and stature of the E'pang Palace and Lishan Mausoleum were unmatched by the buildings of the Warring States period. A great number of eaves tiles, tiling, stone carvings, and bronze ware were discovered at the site of the Qin Palace in Xianyang.

The Eastern Han Dynasty made Luoyang its capital and built two palaces—the South Palace and the North Palace. The murals and portrait stones of that time provide a vivid view of the architectural development. These pictures describe yards, houses, halls, warehouses, doors, windows, tiles, etc., revealing the general situation of buildings of the Han Dynasty. From those cultural relics, it can be inferred that terraced buildings, where beams are placed over columns or walls, were common in Sichuan and the north, while in south China, columns and crossbeams are joined with brackets in a special structure called “Dougong”. At that time, the three fundamental structural forms came into being, i.e. the lifting beam frame, the *chuan-dou* type (where the weight of the roof is directly over the columns through the purlin without using the beams), and the *jing-gan* type (where logs are placed one above another till the roof). During the period from the middle and late Western Han to the Eastern Han dynasties, masonry arch structure was further improved and used in the building of mausoleums and drainage systems.

From the period of the Three Kingdoms to the Southern and Northern Dynasties, because of the continuous wars and upheavals, the rulers had

little interest in, or the financial resources for, building cities and capitals. Buildings of the Three Kingdoms followed the style of those in the Eastern Han Dynasty. The most remarkable achievement in architecture of that period was the Ye City of Wei, rebuilt in 204. The whole city covered an area of 65 square kilometers, in the shape of a rectangle. An east–west avenue divided the whole city into two parts. The northern part, except the northeast corner where the aristocrats dwelled, was filled with palaces and hunting grounds. The main building was built on the south–north axis of the city. Government buildings and the residential area were built in the southern part. This can be counted as the first capital city with clear divisions and an axis in China’s history.

During the period of the Sui to the Song dynasties there came a peak in architecture. In 582 the capital, Da Xing, was built, covering an area of 84 square kilometers, which was the largest city in the world. Within the city there were 108 lanes and two markets. Palaces were located in the northern part, while the southern part was the imperial city, where government buildings were located. The city was built on the basis of the construction experience of Ye City and Luoyang. It took about one year to finish the construction work.

8.3.3 *Living Habits and Interior Design in Ancient China*

From the records of some ancient books, we can catch a glimpse of the living habits of the ancient people. In the book of *Zuo Zhuan*, there was a passage describing the assassination of Emperor Liao by Prince Guang. In the month of April, Guang arranged for warriors to hide in his basement to ambush King Liao, who was invited to dinner. Upon his arrival, Liao arranged for his guards to sit along the two sides of the street. The gates, the stairs, the inner door—all were besieged by Liao’s warriors, with swords in hand. Those who were entering to present the food were ordered to disrobe and change into another set of clothes. The warriors standing by kept their swords in hand and took the dishes to people who were waiting to present them. *The Book of Gongyang Commentary* recorded the incident of the assassination of Zhao Dun. It was stated that when the assassin went to kill Zhao Dun, he first came to the gate only to find no guards there; then he came to the room where he also found no guards; then he came to the hall. Finally, through a crack in the door, he found Zhao Dun eating his meal. From the records of the above-mentioned two books, it is easy to see where the warriors were stationed in ancient times.

Until the time of the Southern and Northern Dynasties, there were no desks, chairs, or stools. People sat on mats on the ground. They also slept on mats. Those who were prestigious would place another small mat on the first mat.

There was also a bed in the room of ancient people. The bed was set for people to sit on. According to *The Historical Records*, when Li Sheng came to visit Liu Bang, Liu was sitting on the bed and asked two girl maids to wash his feet before meeting Li.

When ancient people sat on the ground, their knees were on the ground, the instep faced upward, and the rump was propped up by the heel. Today in Korea and Japan, people still sit this way. If the rump is lifted up and the upper body is straight, it is called *ji*. When people made that gesture, it meant that they were leaving. Sometimes it meant respect to others. In *The Book of Historical Records*, there is a part describing the scene when Fan Kuai met Xiang Yu. In great surprise, Xiang Yu held up his sword and was ready to rise in self-defense.

It was impolite in the eyes of ancient people to sit with legs straight out and the upper body vertical to the legs, in the shape of a dustpan. Thus, this sitting posture was also called *ji bo*. This is not respectful in the presence of others. According to *The Historical Records*, when Zhao Wang and Zhang'ao personally presented a dish to Liu Bang, Liu Bang just sat there with legs straightened. That posture was disrespectful to the visitor.

Sitting on a mat also involved some etiquette. Each side of the mat should be put in parallel with the four sides of the room. According to the *Analects* of Confucius, it was forbidden to sit on a mat which was improperly placed.

8.4 TRANSPORTATION IN ANCIENT TIMES

China is a country with a vast territory as well as convenient land and water transportation systems. For thousands of years, our ancestors lived and worked on this magic land with well-developed transportation. The following section briefly introduces changes in transportation in ancient times.

8.4.1 *Transportation in the Prehistoric Age*

During the Yao and Shun period (two legendary rulers, about 4000 years ago), great progress was made in transportation. Primitive society already had roads for wagons and ox carts.

8.4.2 *Transportation in the Xia, Shang, and Zhou Dynasties*

8.4.2.1 *Transportation in the Xia Dynasty*

China was the first country to use vehicles. It is said that the people made carriages in the period of the Yellow Emperor about 4600 years ago. About 4000 years ago, the tribe of Yue was known for its vehicles.

The plank boat came into being no later than the Xia Dynasty. From the smelting workshop, drilling tools, and copper casting unearthed at the site of Erlitou, we can see that productivity in the Xia Dynasty had made great progress. Moreover, instruments of production, such as the gauge and yardstick, all made it possible to build wooden boats.

According to *Discussion on the Tribute of Yu*, King Yu of the Xia Dynasty made his journey by carriage on the land, by boat on the river, and by sled in muddy places. He covered most areas of the Yangtze River and Yellow River basins.

8.4.2.2 *Transportation of the Shang Dynasty*

In the Shang Dynasty 3000 years ago, productivity was further improved. Substantial progress had been made in transportation, and transportation was very important to the ruling class. According to inscriptions (on bones and tortoise shells from the Shang Dynasty, and on ancient bronze objects) and unearthed objects, there were various means of transportation in the Shang Dynasty, such as boat, carriage, and horse.

After the vehicle came into being, it was necessary to build up roads so as to speed up delivery and increase the load capacity. Records in ancient books show that certain businessmen were responsible for the maintenance of roads. The ancestors of the Tang in the Shang Dynasty had already ridden cows and horses and conducted long-distance business, which entered a new phase when transportation was powered by animals.

In the Shang Dynasty, people began to make plank boats by using metal tools for large-scale commercial activities. Wooden boats were already in use.

8.4.2.3 *Transportation of the Zhou Dynasty*

After Ji destroyed Shang, he kept the capital Haojing (Xi'an of today) and built a new capital, Luoyi (meaning "City of Luo," i.e. today's Luoyang) so as to control the new territory and wipe out the remnants of the Shang Dynasty. In order to highlight the role of politics, economy, and culture,

a wide and smooth thoroughfare was built between the two capitals, which was called Zhou Dao (meaning Avenue of the Zhou). Roads centered at Luoyi and radiating in the four directions were also built. Zhou Dao was the lifeline of the palace as well as the central axis of national traffic. Later during the Spring and Autumn Period and the Warring States Period, many roads were built for chariots. The land transportation network in the Central Plains was quite sophisticated, with post houses set up along the routes.

In addition to Zhou Dao, there were also land transportation routes on either side of it, coupled with the development of water transportation—the basin of the Yellow River and the Huaihe River were effectively connected.

Waterway transportation took advantage of natural rivers and canals. In the Zhou Dynasty (eleventh century–256 BC), there were large-scale inland navigation vessels sailing along the Yellow River, the Yangtze River, and the Pearl River. When people began to sail along natural rivers, they also dug canals so as to connect them with the rivers and expand the scope of shipping. In the Spring and Autumn Period, the states of Chen, Cai, and Chu were the first to dig canals. Famous canals include the Xuhe, the Han Canal, and the Honggou.

In the Zhou Dynasty, people connected two hulls together, called *fang*, which increased the width of a boat and improved its stability and loading capacity. In addition to *fang* composed of two hulls, there were also boats composed of more hulls. Such boats were the private boats for the ruling class in ancient times. The boats available to different people were strictly regulated in the Zhou Dynasty: the emperor took *zao zhou* (*zhou* literally means “boat”); the duke took *wei zhou*; a high-ranking official took *fang zhou*; a general official took *te*, and the commons could only took *fa*. *Zao zhou* was composed of several hulls; *wei zhou*, four hulls; *fang zhou*, two hulls; and *te zhou*, one hull; *fa* refers to a wooden or bamboo raft.

In the Spring and Autumn Period and the Warring States Period, there were boat-building plants in the south, in Chuan Gong. The vassal states were always contacted by boat. Warships were also built at that time. The warship evolved from the civilian boat and was equipped to defend against enemy attack. The requirements regarding the structure and performance of the warship were stricter than for the civilian boat. The warship represented the highest shipbuilding capacity and highest technical standards

and also reflected the economic force and technology of that time. The renowned warships in the state of Wu included *Lou chuan*, *San yi*, and *Tu mao*. The naval warships were of three types: big wings, middle wings, and small wings, among which the warship with big wings could accommodate ninety soldiers.

In the Zhou Dynasty, girder bridges and floating bridges were built. In 1066 BC, Ji, known as King Wu in history, mobilized 300 chariots, 3000 warriors, and 45,000 fighters with armor to launch a war. At the same time, he also called on his client states to participate in the war. According to *The Historical Records*, as many as 800 chiefs and local leaders came. When they marched to Mu Ye (Qi county in Henan Province), they already had 400 chariots.

There were many major projects in this period, such as Bao Xie plank road. When King Hui of Qin was in power, in order to break the barrier of the Qinling Mountains and open the way to Sichuan, he ordered the building of Bao Xie plank road, which started from the oblique Water Valley in the northern foot of Qinling and extended to Pao Water Valley in the south of Qinling Mountains county. Holes were drilled in the cliff and a wooden framework was put up and paved with planks. Besides Bao Xie plank road, other plank roads, such as the Jin Nü and Zi Wu, were also built in the late several hundred years. These were formidable projects: primitive methods were used to break the rock, drill holes (30 centimeters wide and 50 centimeters deep) on the upper, middle, and lower rows, and insert stakes. A canopy was set on the stakes in the upper row, a wooden road was built on the middle row, and supporting stakes were set on the lower row. Thus, the plank road looked like a spectacular attic when viewed from afar. Today, there are many plank road relics in Taibai County in Shanxi Province.

8.4.3 *Transportation from the Qin to the Tang Dynasties*

The road network started in the Qin Dynasty. After Qin Shi Huang (First Emperor of Qin) unified the six nations, he organized the building of a network of roads and standardized the wheel track.

When Qin Shi Huang sent troops to conquer the other six states, he began to order people to demolish the high walls and transportation barriers. After he unified China, he standardized the axle lengths of wagons, which meant that the main parts of vehicles all had a unified standard and

were easily changed. Such a measure was highly advanced at that time; it benefited long-distance shipping and brought huge economic value and social benefits.

According to the requirements of “standardizing the axle lengths of wagons,” Qin Shi Huang ordered people to overhaul the national traffic lines and consumed huge resources to build royal roads. Radiating in four directions and centered in Xianyang, this huge project linked several major cities and counties. The royal roads in the Qin Dynasty followed a unified standard: the width of the road was about 70 meters, and the subgrade was higher than the ground on both sides so as to facilitate water drainage and keep the area from ponding. Every 10 meters (three *zhang*) along the road, a pine was planted; the central part with the width of ten meters was exclusive to the emperor with pavement on both sides; every ten *Li* (5 km), a pavilion was built where an official was appointed to be in charge of public security and the delivery of mail. According to ancient records, in 212–210 BC, Qin Shi Huang ordered the building of a *Zhidao* (straight road) which stretched for 1400 kilometers and appointed Meng Tian and Fu Su to lead an army of 200,000 to build the road. This road passed through several provinces (fourteen counties) and ended at Jiuyuan county (now the city of Baotou in Inner Mongolia Autonomous Region). It is amazing that it only took two and a half years to complete such a huge project. The width of the Straight Road was approximately 60 meters. Ten to twelve trucks can drive abreast on the road. The widest part could be used as the landing runway for a modern medium-sized plane. Branch roads were dotted along the way. Two to four trucks could drive side by side on every branch.

In the Qin and Han dynasties, the shipbuilding industry reached its first peak. During the war to unify the southern area, Qin Shi Huang organized a fleet that was able to transport for the army 500,000 *Dan* (a unit of dry measure for grain = 100 *sheng*) of grain. On the basis of existing canals, such as the Xuhe and the Han Canal, people in the Qin Dynasty also dug the Ling Canal. According to ancient records, Qin Shi Huang once led the fleet to attack the state of Chu. After he unified China, he traveled far and wide by water.

Based on the road network in the Qin Dynasty, the road network in the Han Dynasty was extended. Water transportation saw great progress in the Qin and Han dynasties. The Lingqu Canal in the Qin Dynasty connected the Yangtze River system and the Pearl River system, while the sea

lanes were opened in the Han Dynasty, which linked the two empires—the Han Empire in the east and the Roman Empire in the west.

The shipbuilding industry saw another heyday in the Tang and Song dynasties, when the shipbuilding industry entered a mature period. In the Qin and Han dynasties the technology was further developed and perfected. For example, new ways to improve the efficiency of the rudder, scull, sail, and so on were developed. Moreover, many new technologies were also invented. Although the Sui Dynasty only existed for a short period, it witnessed great prosperity in the shipbuilding industry. People even built out-sized dragon boats at that time. Emperor Yang of Sui toured along the Grand Canal in a dragon boat with a height of 45 *Zhang* and a length of 20 *Zhang*, standing in a lofty and majestic manner. It had four stories, with a main hall, cellar, and east–west ruling houses on the upper floor and 120 rooms on the second and third floors. All of these boats boasted carved beams and painted rafters—a richly ornamented building. The first floor was the living space. The empress rode in a dragon boat called *Xiang Chi*, which was smaller than the boat of the emperor. The dragon boat was constructed with iron nails instead of wooden or bamboo nails, and thus was more robust and secure. These advanced construction methods had been widely adopted in the Sui Dynasty. Therefore, in the Tang and Song dynasties, the shipbuilding industry reached its highest level.

In the Tang Dynasty, maritime trade was gradually developed and the sea routes were opened up, which strengthened the exchanges between the East and West. In the Tang Dynasty, as an important hub for domestic and international traffic, Chang'an developed into one of the largest cities in the world. Guesthouses could be seen everywhere along the waterways and land routes, all of which centered on the capital Chang'an. The land transport network extended from the capital in all directions, and traffic exchanges were very frequent at home and abroad. Moreover, the major cities, such as Luoyang, Yangzhou, Guangzhou, and Quanzhou, all became central traffic hubs of China.

8.4.4 *Transportation from the Song to the Qing Dynasties*

In the Song and Yuan dynasties, transportation entered its peak period of ancient times. The compass was used in navigation, which greatly improved the seamanship of that period. The sailing ship as an important medium of communication sailed from Guangzhou, Quanzhou through South East

Asia, the Indian Ocean, until the Persian Gulf. The coastal shipping industry in the Yuan Dynasty was most developed. People in the Yuan Dynasty continued to excavate canals in order to facilitate year-round shipping and the transport of grain to the capital (in feudal times). As much as 3.6 million *dan* of food was transported by sea for many years. The Yuan Dynasty was known for its vast territory and wide distribution of post roads. Many post houses were built along the waterways and coasts that comprised the huge transportation network.

The scale of the shipbuilding industry reached its peak in the Ming Dynasty. An important event in this period was the voyages of Zheng He. Between 1405 and 1433, Zheng He sailed to the Western Ocean seven times. Ancient records and new archaeological discoveries suggest that the Ming Dynasty had the most advanced shipbuilding technology and a most complete supporting industry.

The Qing Dynasty was the last feudal dynasty in China. Its territory set the basic territory of China. Although no qualitative breakthroughs were made in this period as far as the vehicle, transport infrastructure, and transport power are concerned, the national road layout was made more reasonable and effective than ever. Post roads were classified into three grades in this period. The first grade was called the Guanma Highway, which started from Beijing and radiated out to provincial capitals. The second grade was the highways that connected provincial capitals with other big cities. The last grade referred to the small roads that started from highways or big cities, and led to the towns surrounding those big cities.

Roads in ancient China were either sand or dirt. There was no railway until the late nineteenth century. In 1876, the British Empire built the first railway in China, from Wusong to Shanghai, without authorization from the Qing government. Built in 1881, the railway from Tangshan to Xugezhuang was the first railway funded by the Chinese government and still exists today. The first modern road was built from Longzhou County to Nakan Town in Guangxi by Su Yuanchun in 1908 when he stationed in the border of southern Guangxi. Unfortunately the road was not completed then. In 1913, a road around 50 kilometers long was built, extending from Changsha to Xiangtan in Hunan. With the emergence of modern vehicles and the opening up of railways and highways, the post road traffic system, having accomplished its mission, gradually broke down and was abandoned.

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Customs and Etiquette

The Chinese people put special emphasis on etiquette, for which reason China has often been known as “a state of etiquette.” The adjective “courteous” is used to praise a person with good manners. The Chinese etiquette system was formed gradually over time. Chinese traditional etiquette culture is more or less ingrained in the Chinese people and it shapes their behavior and outlook on life.

9.1 AN OVERVIEW OF CHINESE CUSTOMS AND ETIQUETTE

Traditional Chinese customs and etiquette referred to the codes and formality observed by people in their daily life. Originating in the masses, they were the result of the interaction between the state and the commoners. The main characteristics of folk customs were that they were traditional, collectively held, and local. Folk customs were of great value and significance to individuals, nations, and states. The study of the features and functions of traditional etiquette enables a better understanding of the customs.

9.1.1 *Li, Liyi, and Etiquette*

Li (礼) is related to the norms governing the conduct of those in higher and lower social positions, to proper ways of governing a state, and to the proper relationship between rulers and ministers, fathers and sons, elder brothers and younger brothers, husbands and wives, and mothers and daughters-in-law. “*Li* refers to those meaning-invested roles, relationships, and institutions which facilitate communication, and which fosters a sense of community. The compass is broad: all formal conduct, from table manners to patterns of greeting and leave-taking, to graduations, weddings, funerals, from gestures of deference to ancestral sacrifices—all of these, and more, are *li*. They are a social grammar that provides each member with a defined place and status within the family, community, and polity. *Li* constitutes the life forms transmitted from generation to generation as repositories of meaning, enabling the youth to appropriate persisting values and to take them appropriate to their own situations.” “As a code of behavior of the Chinese gentleman, *li* was elaborate and punctilious, yet allowed for some improvisation within the framework of traditional standards, conceived on occasion as variable and as growing toward greater perfection in time.”

Liyi (礼仪) is a synthesis of *li* and *yi*, both of which refer to the respect shown to others. While *li* focused on individual behavior, *Yi* puts greater emphasis on collective activities and refers to ceremonies in most cases. Ceremonies can be roughly classified into two categories: social institutions at the state level, and etiquette observed by the common people.

Etiquette refers to the code or protocol that people follow in their daily life. It originally stemmed from the masses. The fact that humans are social animals designates that the relationship between one person and another must be properly handled in order to build a well-organized social order, which inevitably prompts the formation of fixed customs and manners. Later, a part of it is standardized and institutionalized by the state, which is called social institutions.

9.1.2 *Characteristics of Etiquette*

Based on an understanding of the emergence, development, evolution, construction, function, and nature of folk etiquette, its main characteristics can be summarized as normalization, localization, and collectivity. A better understanding of these characteristics is of great significance to the study of folk etiquette.

Tradition refers to various cultural styles that persist for a long time and are passed down from generation to generation. These include belief, mode of production, material and non-material ways of life, and so on. The traditional characteristics of folk etiquette are preserved and passed down in written and verbal, official and unofficial, and formal and non-formal forms. On the one hand, they are passed down through classic works, represented by the Three Rites (*Rites of Zhou*, or *Zhou Li* 周礼, *Etiquettes and Ceremonies*, or *Yi Li* 仪礼; and *The Book of Rites*, or *Li Ji* 礼记). On the other hand, folk etiquette is inherited and accepted through hearing, seeing, observing, and imitating. It then becomes the carrier of culture and is passed down from generation to generation. The traditional and feudal characteristics of folk etiquette have changed over time to reflect modern features as well, making it both stable and variable.

The collectivity of etiquette shows that it is the crystallization of collective wisdom and also the result of the participation, emigration, and inheritance of the masses. Although Chinese folk etiquette is the crystallization of collective wisdom, it cannot be divorced from a certain cultural environment. Different geographical conditions may cause differences in folk etiquette, which is referred to as harmony in diversity. The formation of a certain etiquette is related to natural resources, productivity development, and social practices.

9.1.3 Role of Folk Etiquette

Folk etiquette can govern the social relationships between people, create a good social mentality and image, guide people's behavior, support the stability of the country, and promote social and cultural identity and development. Its manifestations range from national laws and systems to polite manners and rites. It also has deeper connotations, such as morality, temperament, culture, and civilization.

9.2 ETIQUETTE IN DAILY LIFE

An individual's life can be divided into many stages. At each stage, people are bound to adopt the values and codes of conduct that are commensurate with their status and position in order to identify themselves with the corresponding responsibilities, rights, and duties. There are five major stages: infancy, childhood, youth, adulthood and agedness, and everyone undergoes the sufferings from birth, agedness, sickness and death. The

process involves changes not only in the age and physiology of the person, but also in their role, status, and position. Such changes, which usually take place at critical junctures in people's lives, are completed through some specific ceremonies. These ceremonies thus are called life etiquettes. Life etiquettes are special as they only happen once for every person and can never be repeated. In this sense, life etiquettes are crucial for every person, every family, and even every clan.

According to chronological order, traditional life etiquettes can be roughly divided into four stages: birth ceremony, puberty rite, wedding, and funeral. Apart from these four rites, there are also enlightenment rite, birthday rite, and longevity celebration in between.

9.2.1 *Birth Ceremony*

The birth ceremony is the first ceremony of life, after which the newborn baby is regarded as a social individual. The birth ceremony lasts a long time and includes the praying for bearing children ceremony, pregnancy etiquette, and celebration etiquette.

As the old Chinese saying goes, "there are three forms of unfilial conduct, among which the worst is to have no descendants." There were "seven abandonments" in ancient society, one of which was to repudiate one's wife if she was infertile. That is why women attach great importance to the ceremony of praying for children. The ceremony of praying for children can be roughly divided into three categories: praying to divinities, symbolically sending children by others, and praying for children by witchcraft. Praying to divinities to get pregnant is one of the most popular ways. The divinities in charge of fertility include Children-Sending Guanyin, Bi Xiayuanjun, and the golden flower lady. After praying, there are also etiquettes such as "bolt Doll" and "steal mud Doll." If your wishes come true, you have to redeem a vow to the divinity. Sending children by others is a symbolic etiquette. A relative or special person sends some symbolic food to you, such as taro, eggs, or pumpkins. Some are mascots with the meaning of having many sons and grandsons, such as paintings, paper cutting, and clay. Praying for children by witchcraft is to worship something symbolizing genitals, such as calabash, pomegranate, melon, or fish, and imitate intercourse.

Pregnancy etiquette is also called *Yonxi* (being pregnant, regarded as a good thing to the family) and *Haikou* (morning sickness of the pregnant woman). Pregnancy is a significant event for a family, who carefully attend to the pregnant woman. Even in a family where the relationship between

the mother-in-law and daughter-in-law is strained, during this period they will shelve their problems and live in peace. The mother-in-law will do her best to take care of her pregnant daughter-in-law. For example, they will reduce the amount of domestic work the pregnant woman must do and prepare more nourishment for her. Different places have different taboos surrounding pregnancy, on the basis that a pregnant woman is regarded as an unclean person and so cannot attend some activities, such as witchcraft or sacrifice. In some places, for the purpose of protection of the fetus, pregnant women are prohibited from eating some kinds of meat. It is believed that it is better for the pregnant woman not to see an ugly person or a rare animal, such as a snake, so that she will not be frightened. Yan Zhitui said in *The Instructions of Yanshi Family* on Godson, “methods of antenatal training instructed by kings: the woman pregnant for three months are not allowed to look sideways and listen to gossips. They should be treated with courtesy.” This means that the pregnant woman should follow certain etiquettes so as to have a positive influence on the baby. Before the baby is born, in some places people use various methods to expedite delivery.

The pregnant woman’s parents will often send gifts to expedite childbirth, such as clothes for the baby, and nutritious food for the woman after childbirth. In some places, they even send *lusheng*, whose homophone is “to expedite delivery” (*cui sheng*), or send chopsticks, whose homophone is “speedy delivery” (*kuai sheng*).

On the day the child is born, the good news must be reported to the relatives. It is said that if a baby boy is born, the family will hang a wooden bow to the left of the door; if a baby girl is born, they will hang a handkerchief to the right of the door, from which we can see that the etiquette of announcing good news has existed since the pre-Qin times. When the son-in-law sends good news to the father-in-law he will bring gifts, which vary from place to place. Some bring a rooster, indicating they have had a boy, or a hen, indicating a girl. Others send cooked eggs which have been dyed red. These are called “red eggs” or “happy eggs” (*Xidan*, meaning blessed eggs). The red eggs should also be sent to one’s relatives and friends when announcing the good news.

On the third day after the birth, some celebrations are held, including taking a shower or having a banquet, referred to as “three days” (*sanzhao*) or “happy three” (*xisan*). There are also some requirements: the washbasin should be made of bronze; the old woman who bathes the baby should be a blessed person; moxa leaf or the root of some trees should be infused in the bath water; and during the bath, words of

blessing or ballads should be murmured to bless the baby to grow up well and become a useful person.

For one month after giving birth, the new mother must neither do anything nor go out. This is called “lying-in.” During this period, the baby cannot be taken outdoors. After a month, when the mother regains her vigor and the baby has adapted to its new environment, the family will invite many relatives to celebrate. This day is called “A Full Month” or “One Month Old.”

Major activities at this ceremony include shaving the baby’s head and taking him or her out for the first time. The baby’s fetal hair is usually not shaved entirely, leaving a lock at the top of the head or at the back of the head. The hair that is shaved is usually kept. In some places, the baby’s hair can only be shaved by his or her uncle. On this day, the baby should be taken outdoors, which symbolizes that the baby has left the embrace of its mother and is starting its life in this world.

After the one-month celebration, there is also a 100-day celebration, called “hundred days old,” bearing the meaning of completeness and indicating health and longevity. On this day, the host entertains his relatives and friends, and the guests send gifts in return, such as a “hundred families clothes” and a “hundred-year-old lock.” In the private sector, there is also the custom of “eating in a hundred families (*chi bai jia fan* 吃百家饭 A relative, usually the father or mother, of the baby went to beg for food from door to door, and cooked the food to feed the baby. It was believed that the custom could make the baby grow healthy and strong.)” and wearing the hundred-year-old lock. The children are also supposed to wear a so-called “hundred families clothes,” which is made of colorful cloth strips, to avoid bad fortune. The hundred-year-old lock is printed with auspicious words, such as “bless you” and “longevity.” It is said that the hundred-year-old lock is used to secure children’s souls lest they be taken away by demons when the children are frightened.

Apart from hosting a banquet to entertain guests, the most important ceremony at the first birthday of the child is to “draw lots.” After the baby is dressed, it will be set down amidst a variety of items, such as stationery, toys, pastry, and a scale. The item he or she chooses can predict the personality, interests, and future of the baby. If he or she chooses ink, it shows that the child will love reading; an abacus indicates talent in running a business. Of course, such a ceremony is only a form of augury and not particularly reliable. But it shows the high expectations that parents have of their children.

9.2.2 *Enlightenment Rite*

Between the birth ceremony and the puberty rite, there are transitional rites, such as the enlightenment rite, held on a child's first day of school. First, the children worship their ancestors and kowtow to their parents, vowing to study hard in school. Then, led to the private school hall by the elder, they bow down to Confucius and their teacher. On every festival day, the parents will send gifts to the teacher to show their respect. In modern society, the private school hall has been displaced by the modern school, and the etiquette of kowtowing has also disappeared. Nevertheless, in some places parents still attach great importance to their children's first day of school. They prepare new clothes, school bags, and stationery for the children and take them to school in person. Schools also pay special attention to new students and hold the entrance ceremony for children.

9.2.3 *Puberty Rite*

The puberty rite is also called the *Chengding* rite or *Rushe* rite. When a man is able to enter society, the puberty rite will be held. It announces the end of his childhood and the start of his adult life. In the pecking order of the traditional society, age is an important criterion in one's social status and also an important criterion for holding a puberty rite. The completion of the rite indicates the maturity of the person. Sexual education being the main content, the puberty rite is divided into men's puberty rite and women's purity rite.

There are a variety of tests in the puberty rite, for example, young people are taken to a new environment to experience tough conditions. Their behavior is strictly restrained, including eating, sleeping, and laughing, and they should suffer physical pain, such as circumcision and tattooing. The young people who pass the test can become new members of the society. They can change their hairstyle and tattoo and have a new name. All of these show the change of identity of the young person.

The puberty rite has different forms in different regions, such as the "changing skirts rite in Yi nationality" and "embroidered face ceremony in Li nationality," while the Han nationality has the "capping ceremony" and "hairpinning ceremony." The capping ceremony is mainly for the adult young man, whereby he changes his hairstyle and clothing three times and adopts a surname so as to obtain the three qualifications, including being an adult, serving in the army, and participating in sacrifice.

9.2.4 *Wedding Ceremony*

Marriage enables people to multiply and provides the possibility for the human race to endure. It is a big event in one's life, and hence is called "matrimonial affair." As early as the Han Dynasty, the rite of marriage was divided into six stages, including *Na Cai* (proposing marriage), *Wen Ming* (birthday matching), *Na Ji* (presenting betrothal presents), *Na Zheng* (reporting the good news), *Qing Qi* (selecting the date), and *Qin Ying* (back to the wedding ceremony). Though the six rituals were reformed by later generations, the basic pattern of weddings was set.

When a man takes a fancy to a woman (or more commonly, the man's family becomes interested in the woman's family), his parents will send a matchmaker to make a proposal, which is called *Na Cai*. *Na Cai* here means selection and involves a self-deprecating statement on the woman's side to the effect that we are afraid the woman is not good enough for your son; nevertheless, she can be one of your selections. *The Book of Rites* on the faint ritual records that if a man (his family) wants to seek a marriage alliance with a woman (her family), he will send a matchmaker to tell her. After receiving permission from the woman, he will send her a wild goose. Because the wild goose is a migratory bird, it comes in spring and leaves in winter, which means that a man should get married when he is old enough, and so should a woman. If the woman says yes to the proposal, she will accept the gifts. The variety of gifts became richer in later generations, and most of them have symbolic meaning.

Wen Ming is the so-called "horoscope." A man sends a matchmaker to the woman's home to ask her name, birthday, and birthplace, and even the status of her ancestors. The woman writes all of this on a card (also called *Gengtie Nvgu*) and gives it to the matchmaker. If the eight characters (in four pairs, including the year, month, day, and hour of a person's birth, each pair consisting of one Heavenly Stem and one Earthly Branch, formerly used in fortune-telling) of the man and woman match, they can get engaged. If their eight characters run counter to each other, it is impossible for them to get married. Of course, they must clarify whether they share a blood lineage, because the ancient people are strict on this point. There is also a saying that people with the same last name should not get married.

Na Ji refers to the period when the man reports the good omen of the divination to the woman and presents betrothal gifts to her, such as jewelry, variegated silk, ritual candles, pigs, and sheep. After the engagement,

both the man and the woman are restrained by ethics and cannot cancel the engagement casually. The husband's side prepares for him to marry the bride, and the bride's side gets ready to send her. The date of the marriage is not fixed and is often postponed for several years. When everything is prepared, the period of *Na Zheng* begins.

Na Zheng refers to the period when the man sends betrothal presents to the woman's side, indicating that they will soon get married. According to "*Hunyi* (昏义, ceremonies concerning marriage)" from *The Book of Rites*, a woman can be married to a man when she has accepted betrothal presents sent by the man. Betrothal presents usually include tea, which is often called *Cha Li*. In most cases, the man's side will list all of the presents. The amount and the name of items often have the auspicious meanings: odd numbers are taboo; all the presents are packed in chests or boxes; presents are carried by special persons who beat drums and clang gongs. The woman's side will give presents in return. Some send back small parts of the presents, while some return all the presents to the man.

Qing Qi means selecting the date of the wedding. After the woman's side accepts the betrothal presents, the man's side selects an auspicious day for the wedding. They also report the date to the woman to ask her permission. The wild goose is still selected as a gift. The month of the marriage is decided by the man, while the day of the marriage is decided by the woman in order to avoid setting it on an inconvenient day for her. People now still attach great importance to the date of a wedding. They always discuss it over and over before it is finalized.

Qin Ying refers to the period when the bridegroom goes to the bride's home to escort her to the wedding ceremony. Today, we call it *Ying Qin*. The rite of *Qin Ying* is taken as the core of the wedding, because the former five rites are only handled by parents and matchmakers, while the parties who are to get married know nothing about them. The bridegroom and bride are both present at the rite of *Qin Ying* and the relatives also get together to congratulate the new couple.

9.2.5 *Birthday Rite and Longevity Rite*

Many rites take place once in one's life, for example the birth rite and the puberty rite. However, birthdays can be celebrated many times in one's life. Before the Han Dynasty, only the one-year birthday was celebrated. In the Wei, the Jin, and the Southern and Northern dynasties, every birthday

was celebrated as long as both parents were still alive. Later, birthdays were celebrated every year and were often mixed with the longevity rite.

People of different ages attach different importance to the birthday rite. Generally speaking, older people's birthdays are most grand. From the perspective of time, birthdays can be divided into small birthdays (once a year) and big birthdays (once every ten years), which is also called *San Sheng* or *Man Xun*. The small birthday, celebrated once a year, is very simple. Many people will choose to eat eggs and have noodles at home.

Confucius said, "At fifteen I set my heart upon learning. At thirty, I planted my feet firm upon the ground. At forty, I no longer suffered from perplexities. At fifty, I knew what the biddings of heaven were. At sixty, I heard them with docile ears. At seventy, I could follow the dictation of my own heart; for what I desired no longer overstepped the boundaries of right." Thus, later generations place great importance on big birthdays and focus on phases of their lives. The birthday after the age of sixty is called a longevity rite. The younger generation will celebrate the birthday of the elder. The longevity rite has a whole set of rituals: the longevity hall is set up in the home; the young generation will send a longevity couplet (*Shou lian*, a couplet written to congratulate an elder on their birthday), which reads "may your fortune be as boundless as the East Sea and may you live a long and happy life"; the longevity hall is decorated with candles, lanterns, and streamers; and peaches and cakes are also provided. The senior being congratulated (*Shou Xing*: an elderly person whose birthday is being celebrated) sits in the center of the hall and accepts the congratulations and bows from the younger generations. Then all the guests are treated to good wine and dainty dishes. Naturally, the "long-lived" noodles are a must on the dining table.

9.2.6 Funeral Rites

Generally speaking, the funeral is highlighted because it is closely linked with filial piety. The living hold a grand funeral for the deceased not only for the sake of face but also to mourn the dead. According to the order of time, the rite of the funeral can be divided into three phases: funeral vigil, burial, and sacrifice.

9.2.6.1 Funeral Vigil

Funeral vigil refers to a series of activities that last until the deceased is buried. "*Wang Zhi* (Institutions Concerning Kings)" from *The Book of*

Rites states, “the coffin of the deceased king is carried to the cemetery seven days later and buried seven months later; the coffin of the deceased dukes is carried to the cemetery five days later and buried five months later; the coffins of the senior official, knight and common people are carried to the cemetery three days later and buried three months later.” The higher the position of the deceased, the longer the funeral vigil. The in-between ritual is also more complicated. Even for common people, it will also take three days before the cemetery and three months to be buried. *Kaiyuan Li* (Ceremonies of the Kaiyuan Period. “Kaiyuan” is the reign title of Emperor Xuanzong of the Tang Dynasty, lasting from AD 713–741) in the Tang Dynasty records sixty-six funeral rites. “Funerals” in the book *Epistolary Style* compiled by Sima Guang from the Song Dynasty, records more than twenty-five funeral rites. In ancient times, it was hard for the poor to afford funerals, which were time-consuming and costly. A folktale goes that a filial man sells himself to bury his father. Specific funeral rites vary by age, ethnicity, and geography. For the Han nationality, for example, funeral rites include the beginning of death, sending out the obituary, mourning, encoffining, and laying the coffin in a memorial hall.

Close to the end of death, the dead should be moved from the death bed to the center of the house, which is called “pass away peacefully.” When the life of a person is coming to an end, newly picked cotton fiber should be put beside the nose. Because the newly picked cotton fiber is very light, it can be used to judge whether the person is alive or not. When the person has died, the family should call back the spirit of the dead. A wizard stands on the top of the roof facing north, holding the coat of the dead person, calls “come back” three times, and later puts the coat back on the deceased. The hope is that the spirit of the dead can be returned to the body in this way. The deceased is also bathed, the hair is combed, and items such as rice, jade ware, jewelry, and coins are placed in the mouth, while ever-burning lamps are placed beside the head. Though the deceased has passed away, the relatives are reluctant to treat him or her as a dead person. Every time they have dinner, they will bring the dinner to the right-hand side of the deceased to show that they still care for him or her.

Sending out the obituary is called *Baosang* (announcing a death); the descendants of the dead, in special mourning apparel, report the bad news and the date of the funeral to relatives. The person in mourning apparel is not allowed to walk into others’ homes. Mourning is also called *Diao xiao* or *Diao sang*, which means that the relatives go to mourn the dead and express sympathy for the bereaved. Mourners should send gifts, including

paper money, elegiac couplets, and large elegiac scrolls. The son and other relatives should reciprocate this courtesy. During the period of mourning, eating meat and washing one's face are prohibited, while crying is necessary. The mourning apparel to be worn is determined by how close one was to the deceased.

Encoffining can be divided into *Da lian* and *Xiao lian*. *Xiao lian* refers to the most important rituals, on the second day after one dies. The main content is to dress the dead. The sets of clothes depend on the status of the dead. *Da lian* is a ceremony to put the body of the dead into the coffin, which is also called *Ru guan* or *Luo guan* (*guan* means coffin). Different regions have different customs for laying the coffin, laying the body, and covering the lid.

Bin is the ritual after *Da lian*. Before the coffin is buried, it is often kept at home for several months. The coffin of a duke is kept at the ancestral temple. The place where the coffin is kept is called *Bin yi guan* (funeral parlor). In this period, the family will send a diviner to select the graveyard and date of funeral. In addition, when the coffin is kept at home, a candle is kept burning and relatives visit. The family also invites monks and Taoist priests to chant Buddhist scripture, with the aim of holding a solemn and decent funeral.

9.2.6.2 *Funeral Rite*

Funeral refers to different methods of burial and the rites of the burial. China is a country with multiple nationalities, among whom the forms of burial vary, including cremation, inhumation, "water burial" and "sky burial," celestial burial, cliff-burying, and cave burial. There are also compound types, such as putting cremation before inhumation or inhumation before cremation. Some have been eliminated, such as inhumation, while some are still practiced, such as cremation. Cremation is encouraged nowadays, although most often the cinerary casket is still buried in the ground, showing the traditional concept of "Burial brings peace to the deceased."

The quality of the material of the coffin should be checked. The rite of the burial is the last procedure, and different kinds of burial involve different rites.

Early in the morning, people cry out loud three times to tell the deceased the funeral procession is about to start. The coffin is first moved to the ancestor temple, to bid farewell to the ancestors. At dawn the next day, five tripods are set beside the door of the ancestor temple, and the sacrifice is offered in the east of the catafalque. The guests enter the temple

to mourn the deceased, after which the coffin is moved out of the temple. The host announces the list of funeral objects and then the relatives escort the catafalque to the tomb. The close relatives are in the front, followed by the distant relatives; among the close or distant relatives, the females go after the males. A portrait of the deceased is set in front of the coffin, and sometimes they are escorted by deacons, drummers, and monks who chant Buddhist scripture all the way. The mourner has to lead the funeral procession, a rite which is called *Fa Yin* or *Zhi Yin* in Chinese. The so-called *Yin* refers to the cord bound on the hearse. It is also a routine that should be followed by family members to show their memories of the deceased. Even today, the Chinese word *Wan*, which means “mourning,” still can be seen on the wreath. Therefore, the couplet, known as *Lian* in the Chinese character, which is used to express mourning for the deceased, is called *Wan Lian*, the cloth and silk are called *Wan Zhang*, and the song is called *Wan Ge*.

After arriving at the graveyard, people would make sacrifice to the God of Earth before laying down the coffin. A kind of herb is placed at the bottom to protect against moisture. After laying down the coffin, family members snatch up a handful of sand and spread it on the coffin, which is called *Tian Tu*. When all of the above-mentioned things have been finished, people begin to fill in the tomb. Pine and cypress are planted on the tomb mound to exorcise the evil spirit and serve as a mark. When everything is finished, people return to the ancestor temple to have a big cry, which is called *Fan Ku*. Overwhelmed by the feeling that the deceased is gone for good and will never come back again, people cry to their hearts' content. Between midday on the day of the funeral and two days later, the rite of *Yu Ji* is held. *Yu Ji* means “to settle down” (guiding the spirit to settle down in the temple). People hold that although the flesh has been integrated with the earth, the spirit is still wandering. Therefore, it is necessary to hold a rite to guide the spirit to settle down. At the end, family members express their gratitude to all the guests for their presence and attendance.

9.2.6.3 *Sacrificial Rites*

Sacrificial rites refer to the rites after the funeral. For the sake of filial piety, one needs to care for the soul of the deceased forever to gain the blessing of the dead rather than their curse. This consists of the mourning rite of the relatives and filial son, and the sacrificial rite after the funeral and ancestor-worshipping celebration in daily life.

Mourning rites often last for three years and involve many norms, such as diet and behavior. Strictly speaking, when observing mourning for his parents, the son should live in a cottage (a shed leaning against a wall). In his daily life, he should only have porridge rather than meat, and keep silent rather than be happy. Haircuts, changes of clothes, and union of concubinage are all prohibited. If the person does not behave decently, he will be condemned by the public and regarded as a beast acting against human nature. Moreover, he will be punished according to the law of the time. Because the rite is overly elaborate, few people can observe it completely. Confucianism takes the view that three years is a long period, so whether a person can abide by the rules from the beginning to the end can test his qualities, such as benevolence and will power.

Sacrificial rites are held after the burial, including offering, crying, *Xiao Xiang*, and *Da Xiang*. *Xiao Xiang* is the feast one year after one's death, while *Da Xiang* is the feast two years after one's death. *Zang* is a rite one month after *Da Xiang* and the last sacrificial rite for three years. In later generations, the content of the rite gradually changed, as did its name. In the private sector, under the influence of Buddhism, there is a custom of *Zuo Qi*. The memorial tablet is set in the mourning hall and dinner is offered to worship the dead. Every seven days, a grand ceremony is held and monks are invited to recite or chant scriptures so that the spirit of the dead can go to heaven. The rites are held seven times, among which the "first seven," the "fifth seven," and the "seventh seven" are called *Da Qi*. In the "fifth seven," it is said that the spirit of the dead visits the relatives for the last time. On the "seventh seven," that is to say, forty-nine days later, the dead will stop visiting. After the grand sacrificial rites, the filial son will take off the mourning apparel, burn the filial shoes, and move out of the mourning hall. Later there are still some sacrificial rites which are generally included in the worship rite of ancestors.

9.3 FAMILY RITUALS

Family is the starting point of one's life and a basic unit of society. The proverb goes that a harmonious family can lead to success in everything, which shows that the Chinese people attach great importance to the relations of the family.

Since the Han Dynasty, some families have paid much attention to the education of their children and grandchildren and have formulated family doctrines. According to Confucianism, "when the person is adorned with virtue, then the family will be regulated; when the family is regu-

lated, the nation will be governed well; when nations are governed well, the whole heaven will be tranquil and happy,” which means that the good relationship of the family ensures the stability of the country. According to the relationship in the family, family rituals can be divided into rituals between father and son, wife and husband, brother and sister, and people and their best friends.

9.3.1 *The Rite Between Father and Son*

In general, the relationship between the two generations is called the rite between father and son. Sons and daughters should treat parents with filial piety, while the parents should be kind and strict with them. Filial piety is highlighted in the two relationships. At the same time, the rites between father and son can be extended to the relationship between grandparent and grandson, mother-in-law and daughter-in-law, nephew and uncle.

Filial piety means that the children should repay the love and care of the parents after growing up, and respect and support their parents, which is a traditional virtue in China. Confucius said in *Xue Er of The Confucian Analects*, “while a man’s father is alive, you can only see his intentions; it is when his father dies that you discover whether or not he is capable of carrying them out. Three years later, if the manner of the son is not changed at all, he can be called a filial son.”

As for filial piety, some requirements of the children are as follows: in words and deeds, children should follow the advice of their parents; on marriage, free love is not allowed—they get married under their parents’ orders and with matchmakers’ help, which is called “arranged marriage.” In daily life, children should get up early to pay their respects to the parents in the morning and make the bed for the parents at night. When the parents get sick, children should take care of them, send doctors, and taste herbs for them.

The requirements of parents are to be loving, strict, and instructional. It is human nature to love one’s children. As Mencius said, “Treat as their age requires your own old, and treat the old of others in the same way.” Being strict and educating their children means children should be brought up properly and be well behaved.

9.3.2 *The Rite Between Husband and Wife*

Marital relations enable the husband and wife to form a family. *The Ancient Book of Rites* states that “marriage is the basis of rite,” which shows that

marriage is actually the rite between husband and wife. The rite between father and son also originates from the rite between husband and wife, thus the rite between husband and wife is predominant among the traditional rites. The rite where a woman and a man get married is called the wedding ceremony. The code of conduct for married couples to follow is called the rite between husband and wife. According to “the Three Cardinal Guides” (ruler guides subject, father guides son, and husband guides wife) and “Five Constant Virtues” (benevolence, righteousness, propriety, knowledge, and sincerity)—the principle of feudal moral conduct—the husband is exalted and the wife is humble; the family is led by the husband and the wife is subject to her husband. There are also the three obediences (in ancient China a woman was required to obey her father before marriage, her husband during married life, and her sons in widowhood) and the four virtues (fidelity, physical charm, propriety in speech, and efficiency in needle work) indicating wifely submission and virtue.

Even though there are reasonable parts in the rites between couples, the unreasonable part still predominates. The code of conduct is much stricter for the female than for the male. The old custom of the rite of the couples has survived until modern times. With the development of society and the women’s liberation movement, the status of women is increasingly improved.

9.3.3 *The Rite Between Brothers and Sisters*

According to *Analects*, “All within the four seas will be his brothers,” which means all should live peacefully like brothers and sisters. Brotherhood includes full siblings and half siblings. The relationship between them varies in different cases. Due to the polygamy of ancient China, the relationship between brothers is more complicated. Thus, the traditional rites must have some specific requirements.

Traditional rites have some requirements for the sibling: “the elder sibling should be kind, and the younger one should be respectful.” In the Western Zhou Dynasty, there were differences between *Da Zong* (the legal wife’s elder child; born of man’s legal wife) and *Xiao Zong* (a child born of a concubine), which emphasized the concept of “respect for seniority” and “intimacy is different.” The proverb goes that “the elder brother is no

less than your father,” “the wife of an elder brother used to be respected like the mother,” and “the love between brothers is deep.”

There are also some rituals when brothers break up the family and live apart. In the past, the family planning policy was not implemented. The traditional idea that more children bring more happiness still prevailed but dividing the family when they were grown was a big problem and often involved serious disputes. The oral folk literature, such as “Split between two brothers,” is passed down from generation to generation. Generally speaking, the father will take charge when the brothers divide the family. If the father is not alive, the senior in the family or the mother’s brother takes the responsibility.

9.3.4 *The Rite for the Young Woman*

This refers to the etiquette requirements for women in the family. Song Ruozhi said in the preface of *The Woman’s Analects*, “the etiquette for the lady to obey is passed down from generation to generation, and those women who follow the code are called virtuous women. Their good reputation lasts forever in history.” The general principle for the woman and man is “males and females should be treated differently,” or “It is improper for men and women to touch each other’s hand when objects are passing.” There are some provisions for women in the family: in daily life, even brothers and sisters cannot sit together to have dinner after they are seven years old; the girl will be at home and will be taught by a specially assigned person; the lady has her own boudoir in the inner chamber which she cannot leave at random, nor can and men enter. Talking to others gently, walking slowly, and smiling without showing teeth all make a noble lady. The tradition of foot-binding which originated in the Five Dynasties period was introduced to the private sector. At that time, a woman’s foot was called a three-inch “golden lotus”; women’s feet were bound in the feudal age to show the delicate beauty of the woman. This tradition was kept until the Revolution of 1911, when it was finally abolished. As for moral character, the pattern in the traditional society was “Men do farm work and women engage in spinning and weaving” and “men should do the outside work, while women do inside chores.”

9.4 SOCIAL ETIQUETTE

Everyone is a social person. Besides their families, people also interact with their relatives and other groups. Thus, people have attached great importance to interpersonal relationships since ancient times, including with relatives, neighbors, and colleagues, and between teachers and students.

9.4.1 *Manner Etiquette*

Manner etiquette means the language and body postures when people communicate with each other.

9.4.1.1 *Appellation*

When we make contact with people, the first question is how to address each other. Addressing someone respectfully can produce a good first impression, which provides a possibility to communicate further. In traditional China there were more than 10,000 terms of appellation, including first name, last name, alternative names, and so on, which formed a unique cultural system. The address forms can be approximately divided into two parts: kinship terms and social terms. Different situations also demanded different titles, which is called textual terms.

Kinship terms are relative to the family, including biological kin group and in-laws as well as nominal kinship. Social terms are used among friends and others. Different social divisions of labor lead to different forms of address, such as between students and teachers, friends, neighbors, and guests. Moreover, there are also imitated kinship terms. For example, when you meet an old person, you will call them grandma or grandpa; when you meet a man, you will call him elder brother or little brother. Even though you do not have a blood relationship, addressing can bring you closer. Textual terms, including honorific title, modest title, and nickname, vary according to context.

9.4.1.2 *Greeting Etiquette*

Greeting etiquette is showing one's respect and welcome when meeting someone. In traditional society, greeting etiquette emphasizes social stratum. The lower class should first salute the upper class. In ancient China, ladies always take etiquette of *Su Bai* (肃拜), a solemn greeting wishing good fortune at the same time. Standing to salute is divided into *Gong shou* (cupping one hand in the other before one's chest), *Zuo yi* (make a

bow with hands folded in front) and *Da gong* (bows). A person with good manners must be elegant and well dressed, which shows his or her self-cultivation and respect for others.

9.4.1.3 Visit and Social Activity

Confucius said, “Is it not a joy to have friends come from afar?” There is a lot of etiquette on how to visit and how to accept guests in traditional society. Generally speaking, according to the order of time, the visit and social activity can be divided into exchanges in daily life, exchanges in festivals, and condolences. According to the procedure, these can be divided into making an appointment, opening the door, taking a seat, talking, bidding farewell, and returning the visit.

As for scholar-officials, they should send a visiting card made from bamboo in advance when visiting each other. For this reason, *Bai Fang* is also called *Bai Ye* nowadays. The appointment should also be made before the visit, and punctuality is a must. Especially on the first occasion that they meet, the scholar-official should present gifts to the host, which is called “the respectable person may not accept the offer of visiting if sincerity is absent.”

The host will allow the guest to enter first. For the distinguished guest, the host will welcome him sideways or even walk backwards before the guest to usher him in. Before taking their seats, the host should wipe the dust off the guest’s seat and then respectfully ask the guest to be seated. The seats may also indicate different social statuses, and the guest should be modest to let the host take a seat firstly. Generally speaking, the senior should take their seat first. If they are of the same age, they can sit down roughly at the same time. An appropriate distance should be kept between them, neither too far nor too close, approximately the length of a cane. When they are sitting opposite each other at the table, they should be aware of their posture. When the host serves tea to the guest to express his respect and welcome, the guest should stand up and say thank you.

The conversation generally starts with topics such as life, work, and health, then cuts to the chase. The two principles they should stick to are: (1) Certain topics are improper to be talked about privately. *The Book of Rites* states, “business is not proper to be talked about privately.” (2) The topic should be put forward by the host. During the conversation, they should look at each other attentively. The guest should pay attention to time, especially when he visits the elderly or people who are very busy. If the conversation lasts for a long time, the host should decide whether the

guests should be invited to have dinner, depending on the intimacy between them and the nature of the visit. Taking potluck shows intimacy, while arranging a banquet appears grander.

When they say goodbye, the host should urge the guest to stay and the guest politely decline. According to the identity of the guest, the host sees the guest off, either standing within the door or outside the door. As the old saying goes, it is hard to depart. Paying a return visit is also welcome.

9.4.1.4 *Catering and Gift Presenting*

Catering and gift presenting are important ways to associate with others. When we get together to have dinner, it is not having dinner that matters but associating with others. The original meaning of *Kui Zeng* is to give food to others, and later refers to “presenting gifts.” The custom of presenting gifts enjoys great popularity all over the world, especially in China, because gifts represent the materialized emotions shown directly to people. When the host prepares the banquet, the first step is to invite the guests. As the saying goes, “three days before the banquet, the guests should be invited; two days before, the guests should be called; a day before, the guests should be reminded.” The earlier you send out your invitation, the more sincerity you show. When one attends a banquet, he should bring gifts and turn up neither too early nor too late. Banquet seating is an important part of etiquette, mainly to distinguish between the higher and lower rankings. Generally speaking, the seat facing south is called the seat of honor or top seat (the top of the table, where the most distinguished people sit). Some of the top seats face east or directly face the door. If there are two top seats, the right one is more honorable than the left. The senior should be seated at the top seat and the other people arranged according to their status, while the host is seated at the base seat. Before taking a seat, the guest should politely decline repeatedly; otherwise he or she will be criticized for rudeness. The person at the top seat should make the cupped-hand salute before sitting down to express thanks for the honor the other guests give him. During a banquet, the host proposes a toast to the guests, called *Xian*, and the guests return the toast, called *Cu*; the host also urges the guests to drink at the banquet, called *Chou*. Thus, the etiquette of drinking is called *Chou Cu Zhi Li*. Letting the guests drink without joining in is considered impolite. In order to liven up the atmosphere, there is also singing, dancing, or wager games. *The Book of Rites* includes details of the code of conduct: do not keep drinking

without stopping; do not pick your teeth in public; do not make rude noises. Some are very trivial, but others have their own rationality.

In the traditional society, the exchange of gifts can be divided into three types: the holiday gift, to strengthen the relationship; the ceremony gift, to express a certain feeling; and the social gift, to strengthen the relationship between people. There are many kinds of gifts, including money (cash), paintings, jewelry, and so on. Observe the following do's and don'ts:

1. Follow the principle of "Courtesy calls for reciprocity."
2. Make it fit for the custom and take the actual demand of the recipient and the reason for presenting into consideration.
3. As the saying goes, "A small gift can convey great affection." It is the minds that count rather than money. Several don'ts: "Good things should be in pairs." Wedding gifts should be in pairs and wrapped in red paper. However, funeral gifts should be single and not wrapped in red paper. Some gifts that are homophonic to bad things are taboo, such as a bell (*zhong*, 钟, sounds the same as 终 meaning death) and pears (梨 *li* homophonic to 离, meaning "to separate").

9.4.1.5 *Respect Elders and Teachers*

Respecting elders and teachers is a traditional virtue of the Chinese people. The tradition of respecting elders has close links with filial piety. "Treat as their age requires your own old, and treat the old of others in the same way" can illustrate this point. The tradition of respecting teachers shows that people value education and instructors. This is the reason for the saying "He who teaches me for one day is my father for life." The Chinese have always attached great importance to respect for the elderly. Confucians even use it as a means of governing and achieving a unitary world of total consummation. Mencius takes respecting the elder as an important way to conquer the world.

In traditional society, the concept of teacher was much broader than it is today. Any person who imparted knowledge to you could be called teacher. Furthermore, military counselors to the king and people from all walks of life who taught skills to others could also be called teacher. Confucius has always been regarded as the representative of the teacher, so he is highly and widely worshiped. Likewise, people from all walks of life also idolize the "Grandfather of the trade", normally a historic celebrity who is regarded to have made epoch-making contributions to the industry.

9.4.2 Letter Etiquette

Writing a letter is a way to convey a certain emotion or information when people are separated by space or time. Though we are far apart, we feel as if we talk to each other face to face when we read the letter. In modern times, letters have gradually given way to mobile phones and the internet. But it is worth mentioning that the letter still enjoys great popularity in Hong Kong, Macau, Taiwan, and Chinese cultural circles. In letter etiquette, we should pay attention to the language, form of address, blessing, polite expressions, and so on.

The language in the traditional letter tends to be more delicate, concise, and rich. A writer with high language proficiency will not use pronouns such as you, me, and he. When mentioning another person, “your honor,” “sir,” and “man,” are used. When mentioning oneself, “your humble servant,” “your younger brother,” and “your pupil,” are used. When mentioning a third party, “your Excellency” is used.

An appellation is used at the beginning of the letter, followed by respectful words such as *Tai fu*, *Da jian*, and *Xun jian*, which is called addressing. Addressing has a corresponding relationship with titles, for example titles for parents, such as *Qi Xia*, *Ci Jian*, and *Zun Qian*, and titles for a person of the same age, such as *Ge Xia*, *Tai Jian*, and *Da Jian*.

Before getting to the body of the letter, the writer should briefly express how he or she misses the receiver, which is called the “missing-you” part of the letter. In the “missing-you” part, the writer can express emotion from the perspective of the change of season. Taking advantage of a scene to express one’s emotion makes the emotion more delicate and mild.

It is improper to only sign one’s name at the end of the letter; blessings are also necessary. Due to differences in gender, profession, and position in the family hierarchy, there are some distinctions in the blessing. It must be noted that the writer must be aware of his or her identity when expressing blessings, otherwise he or she may make a fool of oneself. Only the elders, such as parents and teachers, can directly sign their names. Generally, the writer’s identity should be shown before signing as “your son”, “your daughter” or “your student”.

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Traditional Festivals

With its long history, vast territory, and dozens of nationalities, China boasts a variety of traditional festivals rich in cultural connotations serving the purposes of production, commemoration, fete, celebration, sociality, and recreation. These festivals have been established and accepted through common social practice throughout history, and are closely related to the astronomical almanac, folk beliefs, and cultural psychology of ancient China. They are special markers of daily life which came into being over the course of history. They evolved from spontaneous and arbitrary activities to self-conscious and customized ones and have long been practiced by the common people in relatively stable forms.

Most of the traditional Chinese festivals originated in the Pre-Qin periods and were customized in the Han Dynasty under the reign of Emperors Wen, Jing, and Wu, when the united and centralized regime promoted economic prosperity. In 104 BC (under the reign of Emperor Wu), the traditional Chinese lunar calendar was adopted by the whole country and the twenty-four solar terms were introduced. Since then, many traditional festivals based on the lunar calendar have been established, including the Spring Festival, the Lantern Festival, the Qingming (Clear and Bright) Festival, the Dragon Boat Festival, the Magpie Festival, the Mid-Autumn Festival, and the Double Ninth Festival.

This chapter begins with a discussion of the characteristics of traditional Chinese festivals. It is argued that traditional Chinese festivals are agriculture-oriented and secular rather than religious, making them very different from Western festivals.

Next, the four major festivals—the Spring Festival, the Clear and Bright Festival, the Dragon Boat Festival, and the Mid-Autumn Festival—are introduced, followed by a description of three minor festivals—the Lantern Festival, the Magpie Festival, and the Double Ninth Festival.

Finally, some influential festivals observed by China's ethnic groups are briefly introduced.

10.1 CHARACTERISTICS OF TRADITIONAL CHINESE FESTIVALS

Traditional festivals, which serve as an illustration of the vitality of traditional culture and an important carrier of national culture, bear collective national emotions and cultural memory, and result from the accumulation of spiritual and material cultures in past generations. The traditional festival culture is therefore one of the richest expressions of the national culture, concerning nearly all aspects of social life. Various elements of the national culture, including patterns of thought and behavior, are embodied in these festivals.

Traditional Chinese festival culture includes not only material elements such as food, clothes, housing, and transportation, but also elements of social structure and institution. In addition, it contains elements of national history, beliefs and religions, customs and rituals, social entertainments, ethics and morality, and aesthetic psychology, and therefore it can reveal the in-depth contents and essence of the national culture.

Compared with Western festivals, traditional Chinese festivals, especially those of the Han nationality, are by and large agriculture-oriented and secular.

10.1.1 *Focus on Agriculture*

Traditional Western festivals, which focus on religion, highlight the relationship between man and God, whereas traditional Chinese festivals put more emphasis on the heavens and reflect an agricultural relationship between man and the heavens.

Most traditional Western festivals have a religious origin. In terms of etymology, the English word “festival” comes from the Latin *festival*, in which *fes* or *fesse* originates from *fascia*, meaning “center,” and *val* from *calis*, meaning “day” or “date,” and thus festival means “a day of central significance” or “a holy day.” Another word synonymous with “festival” is “holiday,” in which holi- means holy, and therefore “holiday” means “holy day.” For example, Christmas, the biggest festival in Christian countries, is a festival to celebrate the birthday of Jesus Christ. Easter is a festival in memory of the resurrection of Jesus. Festival activities in the West are closely related to religious faiths, and most Western festivals involve certain religious rituals.

On the other hand, traditional Chinese festivals, especially those of the Han nationality, are not religion- but agriculture-oriented. The origins and evolution of traditional Chinese festivals are related to agricultural production in ancient times. Not only are the festival customs rich in obvious agricultural characteristics, but the festivals themselves are indicative of the life patterns of the agricultural society.

Traditional Chinese festivals fall in certain seasons of the year. Ancient Chinese people observed and classified climatic changes in nature and put the climate characteristics for each season in a certain order. Such observations and classifications of climate and nature were conducted for the purpose of farming because they are useful for guiding agricultural activities. Thus, the ancient Chinese calendar is also known as the “Agricultural Calendar.” In this calendar, a year is divided into twelve months, twenty-four solar terms, seventy-two pentads, and 365 days. The twenty-four solar terms refer to certain climatic changes in nature that are significant for farming. Among these solar terms, several appeared quite early since they signify the most obvious climatic changes in nature: four “beginnings” (beginning of spring, beginning of summer, beginning of autumn, and beginning of winter), two “equinoxes” (spring equinox and autumn equinox), and two “solstices” (summer solstice and winter solstice). For traditional seasonal festivals, celebration activities were intimately related to these solar terms. For instance, the Summer Solstice Festival and the Winter Solstice Festival were the most important seasonal holidays in ancient times. It is recorded in *Rites of Zhou* that people sang and danced on the summer solstice and the winter solstice to offer sacrifices to heaven, earth, mountains, and rivers, and such ceremonies were conducted to enable people to guard against evils and disasters. These seasonal festivals became formal national holidays in the Han Dynasty, when the Emperor

led the whole country in conducting sacrificial rites. Such rites continued to be conducted through the late Qing Dynasty. Other solar terms appeared gradually based on the needs of agricultural activities and changes in nature, and later seasonal festivals such as the Dragon Boat Festival (Double Fifth Festival), the Magpie Festival (Double Seventh Festival), the Mid-Autumn Festival (the fifteenth of the eighth lunar month), and the Double Ninth Festival came into being. These were apparently seasonal, although they are not solar terms.

Traditional Chinese festivals were developed according to the farming cycle—sowing in spring, weeding in summer, harvesting in autumn, and storing in winter. The Spring Festival, the Clear and Bright Festival, the Dragon Boat Festival, and the Mid-Autumn Festival were typical festivals for winter, spring, summer, and autumn respectively. The most important festival of the year, the Spring Festival, is set at the end of one year and the beginning of the next in the Xia Calendar. It symbolizes cycles, germination, and the fresh appearance of nature. Therefore, nearly all cultural forms of the Spring Festival reflect an agricultural origin. People consume foods made of agricultural products, enjoy the relaxed, leisurely winter time, and make sacrifices to pray for favorable weather and a good harvest in the coming year. Traditional Chinese festivals are closely related to the twenty-four solar terms, and the Clear and Bright Festival falls on the same day of the solar term with the same name. The magnificence of traditional festivals and customs is based on seasonal changes and the farming cycle.

10.1.2 *Secularity*

Although there are several traditional Chinese festivals during which people offer sacrifices to gods and spirits, they are mostly secular in nature compared with Western festivals. In ancient China, there were no religions that resorted to the ultimate solicitude; there were only folk faiths at the low level by which people worshiped certain ghosts and gods. Even prostitutes, beggars, and bandits had their own idols. These idols were worshiped because they could be made use of and could protect their believers. Such a cultural connotation is best manifested in the traditional festivals that are meant for offering sacrifices.

For example, the Kitchen God Festival, also known as the “Minor Year” (in contrast, New Year’s Eve is also called the “Major Year”), which falls on the twenty-third day of the twelfth month of the lunar year, is widely observed by the Han nationality. Sacrifices were first made to ancestors

who invented the kitchen, but later they were offered to the kitchen god, who, according to folk faith, is a subordinate of the Jade Emperor, the Supreme Deity of Taoism. The kitchen god, also known as the Protector of the Household, is said to be responsible for the good fortune of the family and for observing whether family members are behaving in a kind or evil manner, and reporting on their behavior to the Jade Emperor. According to Ge Hong, a Taoist scholar of the Jin Dynasty, anyone who has been accused by the kitchen god of committing a major sin will see his or her life cut short by 300 days, while one who has committed a minor offense will see his or her life cut short by 100 days. Therefore, during the Kitchen God Festival, rich sacrifices are prepared for the god. Sweetened *ciba*, cakes made of glutinous rice, were made so that he would speak only “sweet” words in heaven, and paper made to resemble money was burned as an offering (or bribe) to the god so that he would not say anything evil about the family while he was in heaven. In Taiwan, folklore also had it that the kitchen god was a lecher. Thus, on the Kitchen God Festival, women used to take a bath beside the kitchen to give the god a “sexual bribe” so that he would say something good for the family after his sexual desire had been satisfied. Such a practice is not focused on self-discipline, self-purification, or self-perfection; instead, it attempts to bribe the god with food, money, and sex so that he will hide the truth or even tell lies for them. This can be regarded as severe blasphemy by those who believe in Western religions. However, as a commonly accepted practice in Chinese folklore, no one in the Chinese culture doubts its justice. Such festival customs reflect a certain aspect of the Chinese national psychology: the Chinese people worship gods and spirits on special days largely for secular benefits. They hope that the god can “grant them whatever is requested,” they “will never go to the temple for no reason,” and they may “embrace Buddha’s feet in their hour of need.” In this way they are different from those pious religious people who regard their god as the impartial judge, the end-result of their soul, and the ultimate concern.

Another important element of traditional fete festivals is the offering of sacrifices to ancestors. Such fete ceremonies are based on the secular patriarchal clan, encouraging people to think carefully about their forefathers’ achievements. In Chinese culture, one’s ancestors are as important as deities. They both supervise the common world in heaven and determine the fortune and misfortune of everyone who is alive. Therefore, offering sacrifices to ancestors during festivals may bring security and prosperity. Such

fete ceremonies do not oblige people to have virtual spiritual interaction with their ancestors; instead, they exist for certain secular purposes.

Finally, the worldliness of Chinese festivals is also reflected in the fact that these festivals lay great emphasis on communication among relatives and family members. The reunion dinner on the eve of the Spring Festival, the dumplings of the Lantern Festival, the moon cake of the Mid-Autumn Festival, and the custom of ascending heights on the Double Ninth Festival, all embody the strong desire of Chinese people who are away from their homeland to return to their home towns. These festivals reflect the strong attachment of the Chinese people to their patriarchal clan and their consciousness of social community.

10.2 FOUR MAJOR FESTIVALS

The four major traditional Chinese festivals are the Spring Festival, the Clear and Bright (Qingming) Festival, the Dragon Boat (Duanwu) Festival, and the Mid-Autumn Festival. In recent years, China has been carrying out its Intangible Cultural Heritage Protection Project, and these four major festivals have been declared national holidays. It can be said that they are the most important traditional festivals in the history of China.

10.2.1 *Spring Festival*

The Spring Festival is the grandest, warmest, and most important traditional festival and is unique to the Chinese people. The custom of celebrating the Spring Festival has been observed since the Western Han Dynasty.

The Spring Festival normally refers to New Year's Eve and the first day of the first lunar month. However, the festival season lasts from the eighth day of the twelfth lunar month (called the Laba Day) until the fifteenth day of the first lunar month (the Lantern Festival), with New Year's Eve and the lunar New Year as the climax of the celebration. The folk custom of the Spring Festival was ratified by the State Council as the state's First Batch of Intangible Cultural Heritages on May 20, 2006.

The Spring Festival is popularly known as "passing the year" (*Guonian*). It seems that the customs of *guonian* originate from the heaven-worshipping activity of praying for a bumper harvest for the coming year by the ancestors of the Chinese people.

During the traditional holidays of the Spring Festival, various celebration activities are carried out by the Han people and by most minorities. These activities focus on offering sacrifices to gods, Buddha, and ancestors, doing general sweeping and cleaning of the house, welcoming and meeting the new year and good fortune, and praying for a good harvest in the new year. Some of the folk customs that are still observed in China are briefly discussed below.

Dusting the house

As the Chinese saying goes, “On the twenty-fourth of the twelfth lunar month, one should dust the house.” Since “dust” in Chinese is homophonous with “old” (both characters are pronounced *chen* in Chinese pinyin), dusting the house during this time symbolizes “getting rid of the old and arranging for the new” in order to get rid of all bad luck.

Putting up spring couplets and the character fu (meaning good fortune)

The spring couplet is a literary form unique to the Chinese language. It comprises two parallel lines of exactly the same number of Chinese characters, with the matching words in each line in the same part of speech. It normally uses concise and exquisite words to express good wishes.

Besides couplets, people also put up a character *fu* of different sizes on the door, on the walls, or in other locations in the house as a wish for a bright future. Sometimes the character is placed upside down, literally meaning *fudao* in Chinese, which is homophonous with “fortune comes.”

Setting off fireworks

Legend says that the monster Nian is afraid of the noise of fireworks, and so the ancestors of the Chinese people drove off the monster with fireworks. Later, setting off fireworks was gradually endowed with new connotations of doing away with misfortune and poverty, and having a colorful and prosperous life in the coming year.

“Guarding the year”

On New Year’s Eve, people may stay up all night to see out the old year and welcome in the new year, which is called *shousui*, literally “guarding the year.” At this time people send each other gifts (known as *kuisui*), they invite each other for drinks and foods (known as *biesui*), they send everyone, old and young, good wishes (known as *fensui*), and they stay up all night to wait for daybreak (known as *shousui*). All family members get together, have a sumptuous family reunion dinner, light candles or oil lamps, sit around the stove chatting, and wait for the coming of the new year. This custom signifies driving off all evil and welcoming an auspicious new year.

Making New Year cakes

Nearly all families make New Year cakes using glutinous rice flour. These cakes are called *niangao*, homophonous with “the year is higher.” They are square-shaped, in yellow or white, symbolizing gold and silver respectively and embodying wealth in the coming year.

Making jiaozi (dumplings)

Eating *jiaozi* is a custom observed by people in the north for the Spring Festival. During the time for family reunions, people traveling or residing in other places try their best to come back home no matter how far away they are, and the whole family gathers together to have *jiaozi* around the table. In Chinese, *jiaozi* symbolizes getting together or a family reunion, and since *jiaozi* is shaped like the silver ingot used as money in feudal China, having *jiaozi* during the Spring Festival also symbolizes letting riches and treasures come into the house.

“Worshipping the year” (bainian)

“Worshipping the year” refers to wishing a Happy New Year to family members, relatives, and friends. When youngsters wish good health, safety, and longevity to an elder, that person will present them with a red packet containing money. This is called “lucky money.” It is believed that the young can live happily and smoothly in the coming year if they have received such lucky money on New Year’s Day.

10.2.2 The Clear and Bright Festival or the Qingming Festival

The Clear and Bright Festival falls on Qingming, the fifth day of the twenty-four solar terms (around April 5). At this time of year, the scenery becomes bright, and everything in nature appears clear. The temperature rises, and there is an increase in rainfall, which provides good conditions for cultivating crops. Thus, Qingming is a solar term closely related to farming.

However, the Qingming Festival is not exactly the same as the solar term with the same name. As a solar term, it reflects the changes in nature and symbolizes changes in the season. As a festival, it also signifies certain customs and cultural meanings.

The Qingming Festival is said to originate from the ceremony of offering sacrifices to dead kings, princes, generals, and ministers at their tombs. Later the ceremony was imitated and carried out by the common people, and gradually it grew into a fixed custom of the Chinese nation. Nowadays the Qingming Festival is not only a day for people to hold memorial cer-

emonies for their ancestors, but it is also a bond to link people of the same clan and a ritual in spring to go out hiking and to get close to nature.

The customs of the Qingming Festival are rich and colorful. The major customs and activities for the Qingming Festival include eating cold food, sweeping the grave, wearing willow twigs, going hiking, and flying kites.

10.2.2.1 Eating Cold Food

This custom is said to have something to do with Jie Zitui, a virtuous official of Kingdom Jin during the Spring and Autumn period (770–476 BC). According to tradition, Chong'er, prince of Jin, was once in exile to flee from a national calamity. When he was nearly starved to death, Jie Zitui, one of his followers, cut a piece of meat from his leg, roasted it, and sent it to Chong'er. Later Chong'er was able to come back to Jin and claim the throne as Jin Wengong (Duke Wen of Jin). He granted titles and territory to all the subjects that followed him while he was in exile, but unfortunately he forgot Jie Zitui out of negligence. Jie Zitui hid in Mount Mian (now in the southeast of Jiexiu county, Shanxi Province) with his mother. Later Duke Wen was reminded of Jie and sent for him. Jie refused to come out of the mountain and would not receive Duke Wen's reward. In order to drive Jie out of the mountain, Duke Wen had no choice but to set fire to Mount Mian from three sides. The fire lasted for three whole days and the mountain was turned into scorched earth, but Jie did not come out. Only after the fire was extinguished did people find Jie's body hugging a willow tree with his mother on his back. Duke Wen was regretful, and he ordered that, in order to commemorate Jie Zitui, people should not use fire and thus could only eat cold food on the day when Jie was burned. Hence there is the Cold Food Festival, which happens to be one day before the Qingming Festival, and the two festivals are always celebrated together.

10.2.2.2 Sweeping the Grave

Sweeping the grave during Qingming is a way of expressing respect to the ancestors. Although the custom was first observed in the Pre-Qin periods, it was not carried out during the Qingming Festival until after the Qin Dynasty.

During the Qingming Festival, people arrive at the tomb, offer sacrifices, burn paper money, stand on their knees to express respect to the dead, and add some earth to the tomb. For the Chinese, sweeping the grave is a way to pay respect to their ancestors, and it also embodies the

concept of filial piety in Confucianism. According to Confucianism, one should show filial piety to one's parents when they are still alive; and when they have passed away, one must offer sacrifices to them regularly so that their spirits can enjoy the offerings.

There are various ways of paying respect to the dead on Qingming. Besides going to the grave, one can also "burn packages," which refers to the packages sent to the dead in the netherworld from this world by their relatives.

10.2.2.3 Going Hiking in the Suburbs

The Qingming Festival comes in spring, when temperatures are rising and flowers are blooming. Therefore, it is a good time for outings and for having fun.

The custom of "walking on the green grass" or going hiking during the Qingming Festival dates back to the habit of going on a spring outing in ancient times.

10.2.2.4 Wearing and Transplanting Willow Twigs

It is said that on the second Cold Food Festival after Jie Zitui's death, Duke Wen went to offer sacrifices to Jie together with his subjects. He found that the willow tree which Jie Zitui had held in his arms when he died had come back to life and was prosperous. He picked a twig from the tree, wove the twig into a circle, and wore the twig on his head. Others followed suit, and the custom began to spread.

There is another saying about why people wear willow twigs during the Qingming Festival. The Chinese people regard Qingming as the day when all ghosts may come out to do evil things and wearing willow twigs or placing willow twigs around one's house can guard against ghosts. According to Buddhism, the willow is the ghost-terrifying tree, with the power to drive away evil. Guanyin (i.e., Avalokitesvara, the Buddhist Goddess of Mercy) dips her willow twigs into water and scatters the water droplets to save people from disasters and misfortunes. It is therefore held that "if a willow twig is put onto the door, no ghost will come into the house."

Another custom related to willow trees during the Qingming Festival is transplanting willow cuttings. This is done in memory of Shennong, a legendary king in ancient times who is said to have invented and taught people the technique of growing crops.

10.2.3 *The Dragon Boat Festival or the Duanwu Festival*

The Dragon Boat Festival falls on the fifth day of the fifth lunar month. It has over twenty different names, including the Duanwu Festival, the Double Fifth Festival, the Summer Festival, the May Day Festival, and the Zongzi Festival.

10.2.3.1 *Origin*

The three versions of the origin story for this festival are the Qu Yuan version, the Dragon Festival version, and the evil day version.

The Qu Yuan version

The Qu Yuan version is the most well-known today. It is said that Qu Yuan, the patriotic statesman and poet of the Kingdom of Chu in the Warring States period, committed suicide by jumping into the Miluo River on the fifth day of the fifth lunar month. The local people were afraid that big fish might devour Qu Yuan's corpse, so they fed them *zongzi*, hoping that they would not cause damage to Qu Yuan's body when they were full. Legend also says that when the news came that Qu Yuan had drowned himself in Miluo River, people hurriedly paddled boats to save him. This is how the custom of eating *zongzi* and paddling dragon boats came into being.

The Dragon Festival version

The fifth day of the fifth lunar month was thought to be the date when the tribes worshipping the dragon in ancient Wu and Yue (nowadays Jiangsu and Zhejiang provinces) offered sacrifices to their totems. They threw *zongzi* into the river to be eaten by dragons, and they held boat races using dragon boats. These activities were regarded as rituals of dragon worship.

The unlucky day version

During the Pre-Qin period, it was commonly believed that the fifth day of the fifth lunar month was an evil and unlucky day. Therefore, people placed calamus and wormwood around their houses to guard against ghosts, fumigated herbs to prevent diseases, and drank realgar wine to ward off poisonous creatures.

10.2.3.2 *Customs*

Major customs and habits of the Duanwu Festival include eating *zongzi*, dragon-boat racing, taking a bath in hot water with herbs, putting up bundles of calamus and wormwood, drinking medicinal liquor, making herbal tea, wearing jewels, and gathering herbal medications.

Eating zongzi

Zongzi is pyramid-shaped and is made of glutinous rice wrapped in bamboo or reed leaves. It is said that after Qu Yuan drowned himself in the river, people missed him very much and threw *zongzi* into the river as a sacrifice to him. Another saying goes that people threw *zongzi* into the river to feed the dragon so that it would not damage Qu Yuan's body.

Dragon-boat racing

According to literature, dragon-boat racing is a collective paddling race commemorating Qu Yuan. As a traditional aquatic activity, it has been popular among the Chinese people for two thousand years, and it is mostly held during the Dragon Boat Festival. Dragon boats differ from one another in size, ranging normally from 20 meters to 30 meters long. Each boat holds about thirty sailors. All the racing boats start at the same time from the start line, and those who cover the designated length of waterway the fastest win the game.

Taking a bath in hot water with herbs

The herbs used in the bath were initially fragrant plants of the composite family. Later fragrant calamus and wormwood were also simmered in the water. This custom still survives in some places, and it is said that such a bath helps cure skin diseases and can ward off evil.

Hanging bundles of calamus and wormwood

On the Duanwu Festival, bundles of calamus and wormwood are hung on the door. Calamus leaves are swordlike, and they are called by necromancers "water swords" that can destroy all evils. Wormwood is a kind of herbal medicine symbolizing the invitation of all good fortune and hanging wormwood on the door helps keep the family healthy.

Drinking medicinal liquor

The custom of drinking medicinal liquor, including realgar wine, is widespread. In order to prevent epidemic diseases and ward off poisonous creatures and worms, people spray wine and water in the garden.

Gathering herbs

This is one of the oldest customs for the Duanwu Festival. It is said that medicinal herbs gathered on this day are capable of getting rid of poisonous gases. Since the leaves and stems of herbs are at their best around this time of year and thus have the greatest medicinal effect, gathering medicinal herbs at this time has gradually become a custom.

10.2.4 *The Mid-Autumn Festival*

The Mid-Autumn Festival falls on the fifteenth day of the eighth lunar month. Autumn in China lasts roughly from the seventh lunar month to the ninth lunar month with the eighth month in the middle. Furthermore, the fifteenth day is also in the middle of the eighth month. Consequently, this day is called the Mid-Autumn.

The Mid-Autumn Festival is second only to the Spring Festival. The moon on this night is especially bright and clear since the autumn sky is high and the air is brisk. The full moon is linked to the reunion of family members, and thus the day is also called the Moon Festival or the Reunion Festival.

As for the origin of the Mid-Autumn Festival, there are roughly three versions. One says that the festival originates from the worship of the moon in ancient times; another says that it originates from the custom of looking for one's spouse by singing and dancing under the moon; still another says that it results from the custom of offering sacrifices to the god of earth in response to the god's blessings after the year's harvest.

There are many beautiful stories about the Mid-Autumn, among which the most well known is Goddess Chang'e's flight to the moon. It is said that Hou Yi, the great archer who shot down nine suns out of ten in the sky, married Chang'e. He received from Lady Queen Mother a packet of elixir which could make people immortal and enable people to fly up to heaven. Chang'e swallowed all the elixir and immediately flew to the Palace of the Moon and became a fairy. When the common people found out that Chang'e had become a fairy and had gone to the moon, they set tables under the moon, offered sacrifices to her, and prayed for her blessings.

With its vast territory, China boasts various customs in different places, and there are a variety of customs for the Mid-Autumn Festival, many of which are rich in regional characteristics. Prevalent customs for this day include admiring and worshipping the moon and eating moon cakes.

Admiring and worshipping the moon

The custom of appreciating the moon has a long history, and there is an account of "worshipping the moon on the autumn night" in *The Book of Rites*. Appreciation of the moon is a cheerful aesthetic entertainment, especially for those in literary circles. Numerous poets, such as Bai Juyi, Liu Yuxi, and Su Shi, wrote masterpieces on the full moon of Mid-Autumn.

The moon was regarded as a god in ancient China. It was stipulated in the Qin Dynasty that sacrifices should be offered to eight gods each year, and the god of the moon, called the Moon Master, was one of them.

There is also a legend about the origin of the custom of worshipping the moon. It is said that there was an ugly woman called Wuyan in the Kingdom of Qi. She worshiped the moon when she was very young. Though she was elected to the royal palace due to her extraordinary virtues, she did not have the chance to sleep with the king. On the evening of one Mid-Autumn she worshiped the moon again and met with the king, who considered her extremely beautiful in the moonlight and decided to raise her to the status of empress. That is how the custom of worshipping the moon got started.

Eating moon cakes

Another important custom for this festival is eating moon cakes. The moon cake was first used as a sacrifice to the god of the moon in ancient times, but it gradually developed into a required gift on the festival day to signify family reunion. Thus, people customarily eat moon cakes to symbolize “reunion.” A folk rhyme also reflects this custom of eating moon cakes:

The mid-autumn night moon is full and bright;
And the moon cakes are fragrant and sweet tonight.

There are two main versions of the origin of eating moon cakes. According to one version, the custom originated in the Tang Dynasty when the army ate cakes to celebrate victories. Under the reign of Tang Gaozu (Li Yuan), Senior General Li Jing went on a punitive expedition to attack the Turks. His army gained victory by secretly passing information via the moon cakes, and they returned triumphantly on the fifteenth day of the eighth lunar month. Since then eating moon cakes has become a custom every year.

According to another legend, the custom of eating moon cakes originated at the end of the Yuan Dynasty, when the common people could not endure the authorities' cruel treatment and uprisings broke out here and there. At the time, Zhu Yuanzhang, who later established the Ming Dynasty, was trying to unite all the rebellious forces. He was unable to send information about the military rebellion because the government was very strict in checking such information. He asked his subjects to put into moon cakes a note stating “Uprising on Mid-Autumn night.” The moon

cakes were sent to different rebellious armies, and on the Mid-Autumn night all the rebellious forces responded to the uprising. Soon the uprisings against the Yuan Dynasty were successful. Zhu Yuanzhang was delighted and ordered that moon cakes be awarded to all of his subjects. Later the custom of eating moon cakes on the Mid-Autumn night spread among the people.

Nowadays, there are varieties of moon cakes with different tastes in different places. The most well-known moon cakes are those of the Beijing style, Tianjin style, Jiangsu style, Guangdong style, and Chaozhou (*chiu chow*) style.

10.3 OTHER FESTIVALS

In addition to the four major festivals, there are some other important traditional festivals worth mentioning here: the Lantern Festival, the Magpie Festival, and the Double Ninth Festival.

10.3.1 *The Lantern Festival or the Yuanxiao Festival*

The Lantern Festival falls on the fifteenth day of the first lunar month, when the moon is full for the first time in the year. It is also called the Upper Yuan Festival, the Yuanxiao Festival, and the Yuanze Festival. In Chinese, both *xiao* and *ye* mean “evening,” and *yuan* means “the beginning,” so *yuanxiao* or *yuanze* means “the first night” (of the year when the moon is full).

This festival is said to have different origins.

The Taoist origin

According to the Five Bushels of Rice League, an important school of Taoism established in the Late Han Dynasty, the fifteenth day of the first lunar month is the birthday of the Heaven God, who is responsible for good fortune. Therefore, the day is celebrated as a time when the Heaven God blesses the people and is called the Upper Yuan Festival.

The Buddhist origin

The fifteenth day of the first lunar month is said to be a good time to worship Buddha's relics, and Emperor Ming of the Eastern Han Dynasty ordered that on this night “lanterns be lit so as to consecrate Buddha.”

The Lantern Festival is high-spirited, with many activities including hanging out lanterns, guessing lantern riddles, having dragon-lantern dances, eating dumplings, having land boat dances, and walking on stilts.

Decorating buildings with lanterns

The custom of decorating buildings with flowery lanterns boasts a long history. It may have originated from Buddhism, because the dharma assembly for lighting lamps, a ceremony to worship Buddha with lighting lamps, falls on this day. The custom is also said to be relevant to the worship of fire.

Since the very start of the custom, hanging and appreciating lanterns has been a grand occasion. An important reason for the popularity of the custom of hanging lanterns is that it is encouraged by the government. It is regarded as a symbol of the people living and working in peace and contentment.

Guessing lantern riddles

Riddles in the form of poems are written on the lanterns and readers are invited to guess the answers. Sometimes they are very difficult to guess, and they add much fun and gaiety to the day.

Having dragon-lantern dances

This custom may have originated from ancient customs of dragon worship. The Chinese regard the dragon as a symbol of good fortune, as it is believed to be able to command wind and rain and ward off calamities and diseases. Since China has been an agricultural country since ancient times, good weather is very important for the people's life and work. Therefore, in order to receive blessings from the dragon, people established the custom of dragon dancing on certain occasions, including the Lantern Festival.

Having lion dances

As king of all animals, the lion was regarded as a symbol of valor and strength by ancient Chinese people. It was thought of as having the ability to ward off evil and protect people's security. Gradually, this helped form the custom of dragon dancing on the Lantern Festival for people to pray for a propitious and untroubled life.

The custom enjoys a history of over 1000 years up to now and there are mainly two performing styles, the northern style and the southern style. The northern style is characterized by martial performances, while the performance of the southern style is chiefly "civil" instead of exhibiting Kong Fu.

Eating dumplings

Dumplings, which have many different names in Chinese, are normally made of sugar, roses, sesame, sweetened bean paste, chestnut, nuts, dates, and glutinous rice flour. They can be boiled, steamed, or fried and they symbolize perfection and reunion.

10.3.2 *The Double Seventh Festival or the Magpie Festival*

The Double Seventh Festival falls on the seventh day of the seventh lunar month. The festival is chiefly observed by maidens, who pray to the fairies in heaven for intelligence and dexterity so they will be skillful in their needlework and have a happy married life in future. This day is also called the Qi Qiao (begging for dexterity or cleverness) Festival, the Maiden Festival, or the Girls' Festival.

The festival is also known as the Magpie Festival or the Chinese Valentine. It is related to a fascinating love story between Herd-boy and Weaving-girl.

Once upon a time there was a hard-working and honest young man named Herd-boy. His parents died when he was young and he lived with his elder brother, but his elder brother and sister-in-law abused him. His best friend was an aged buffalo that he had raised. One day the buffalo told him a secret. So, Herd-boy went to hide in the bushes beside a lake in the forest on a certain day. After a while seven fairies came down from heaven to bathe in the lake. They disrobed and played in the lake. Herd-boy followed the old buffalo's instructions and took a pink dress from the stack of dresses and hid himself in the wood. When evening came, the fairies went ashore to find their dresses, but the youngest fairy, Weaving-girl, was not able to find hers, for it had been taken away by Herd-boy. It being too late, the six elder sisters went up to heaven for fear of being punished by their parents—the Jade Emperor of Heaven and Lady Queen Mother—leaving Weaving-girl behind. Then Herd-boy came out from behind the bushes, returned the pink dress to Weaving-girl, and asked for her hand. Weaving-girl accepted his proposal, and they lived happily and peacefully together. Later, when the buffalo was very old and dying, he told Herd-boy to keep his hide after his death for emergencies, and the couple followed his advice.

The Jade Emperor and Lady Queen Mother eventually found out that their youngest daughter had married Herd-boy and were so furious that they sent heavenly gods down to earth to take Weaving-girl back to heaven. One day when Herd-boy was not at home, the heavenly gods seized the chance and caught Weaving-girl. When Herd-boy returned home he could not find Weaving-girl anywhere. He put on the hide of the old buffalo, and he was able to fly! When Herd-boy was about to catch up with Weaving-girl, Lady Queen Mother took out her hair clasp and waved it toward the Heavenly River. The peaceful river suddenly turned furious and there were mountainous waves in it, blocking Herd-boy. Herd-boy

and Weaving-girl could only look at each other in tears and could not be together. After a long period of time, the Jade Emperor and Lady Queen Mother were moved a bit by the true love between the couple and permitted them to meet once a year, on the seventh day of the seventh lunar month. Legend says that on this day, all magpies on earth will fly to heaven to build a bridge over the Heavenly River so that Herd-boy and Weaving-girl can meet there.

The love story between Emperor Xuanzong of the Tang Dynasty and Lady Yang happened to be related to the Magpie Festival, too. Therefore, ever since the Tang Dynasty, this has been a day for people to express their love for each other.

Chief customs of the Magpie Festival include divining dexterity or clumsiness in needlework in the future, needlework contest, worshipping the Kui, eating clever candies, and so forth.

Divining cleverness

Girls will divine on this night whether they will be dexterous or clumsy at needlework in the future. There are different divining methods such as those using the spider or the needle.

Needlework contest

On the night of the seventh day of the seventh month, girls have a contest of threading needles under the moon. The more one threads needles and the more quickly she does it, the more dexterous (or the cleverer) she is.

Worshipping the Kui

It is said that the seventh day of the seventh lunar month is Kui's birthday. Kui, the first star at the tip of the bowl of the Big Dipper, is said to be responsible for scholastic achievements, so students in pursuit of scholastic honors and official rank in ancient times were supposed to pray to Kui on this evening for good luck in exams.

Eating clever candies

Typical seasonal foods on the Magpie Festival include "clever candies," which are made of wheat flour, lard, sugar, and honey and can take various shapes.

10.3.3 *The Double Ninth Festival*

The ninth day of the ninth lunar month is the traditional Double Ninth Festival, also known as the Double Yang Festival, because the number nine is regarded as yang (as opposed to yin) by the Chinese. It is also known as the Elderly People's Festival.

The Double Ninth Festival has been observed for a long time. It may have originated from ceremonies to celebrate the harvest in ancient times, and it may be related to a wish for longevity. Some also think it originates from the custom of worshiping fire.

The customs of the Double Ninth Festival include ascending heights, appreciating chrysanthemums, wearing cornel twigs, eating cakes specially made for the season, and drinking chrysanthemum liquors.

Ascending heights

The Double Ninth Festival is also known as the Height Ascending Festival because one of the most essential activities of this festival is to ascend hills or high towers. In this golden autumn season, the air is high and clear, and ascending heights to enjoy distant views makes one healthy both mentally and physically. The festival comes in autumn, and after the festival, leaves start to fall from trees and the grass turns yellow. Therefore, “to go on an outing” or “to ascend heights” on the festival is called “to bid farewell to the green grass.”

Appreciating chrysanthemums

Since it is the season when chrysanthemums bloom, the Double Ninth Festival is also called the Chrysanthemum Festival. With various types of famous and precious chrysanthemums in full bloom, appreciating them has become an important part of the festival.

Chrysanthemums do not succumb to frosts and are thus a symbol of noble and unsullied personality in the Chinese culture. They are loved by men of letters, which can be seen in stories about scholars of all dynasties and in their poetry and paintings.

Wearing cornel twigs

Cornel is an evergreen tree whose fruit can be used as medication. It is believed to have a hot, fragrant flavor and a warm property and is believed to be a remedy for cold and poisons. It is therefore nicknamed “Bixie Weng” (one who wards off evils), and wearing cornel is thought of as having the function of warding off evils and disasters. Furthermore, cornel can also drive off insects and is often used to prevent clothes from becoming mildewed after the raining season just prior to the Double Ninth Festival.

Cornel can be worn around the arm, put into a sachet and carried, or worn over the head. It is mostly worn by children and women. Besides wearing cornel, there is also the custom of wearing a chrysanthemum flower on the head in some places.

Eating double-ninth cakes

Eating double-ninth cakes is a distinctive custom for the Double Ninth Festival, especially in northern China. Double-ninth cakes are also called flower cakes, chrysanthemum cakes, or colorful cakes, and there are no fixed procedures for making them. The Chinese word for cakes is *gao*, which is homophonous with the character meaning “high” or “promotion.” Therefore, eating cakes signifies promotion and good luck. It is said that at dawn of the double ninth day, if the parent places a cake over the forehead of the child while saying prayers, the child will have good luck in whatever he or she does.

Exquisite double-ninth cakes may have as many as nine layers in the shape of a pagoda with two sheep over the top, signifying “double yang” (in Chinese, “sheep” sounds the same as yang). Double-ninth cakes take various forms, and all the spongy cakes eaten at this time are called double-ninth cakes.

10.4 FESTIVALS OF CHINA’S MINORITIES

China is a big family comprising fifty-six nationalities, and the minorities have as many as 1200 colorful festivals in all. Many of the festivals (such as the Spring Festival) are shared among various nationalities, but there are also festivals unique to certain nationalities.

Typical distinctive festivals include the Nadam Fair of the Mongols, the Water-Sprinkling Festival of the Dais, the Torch Festival of the Yis, the Knife-Ladder Climbing Festival of the Lisus, the Third Month Street Festival of the Bais, the Zalet of the Hanis, the Munao Zongge Festival of the Jingpos, the Songfest of the Zhuangs, the New Year of the Qiangs, and the Flower Mountain Festival of the Miaos. Generally speaking, the festivals of China’s minorities are not only large-scale events, but they also serve recreational, social, and religious purposes.

10.4.1 *Massive Participation*

Generally speaking, the festivals of the Hans are held in comparatively small units. They are observed within the family in cities, and sometimes are celebrated at the village level or the town level at most. However, the festivals of the minorities are commonly celebrated on a larger scale, being observed collectively by the county, by several counties, or even by the prefecture. Thus, there are normally many participants in the festival. For

example, the Songfests of the Zhuangs are held two or three times a year, with up to ten thousand participants on each occasion; even the small Songfests attract over a thousand people. The Third Month Street Festival held in Dali by the Bais attracts 300,000 to 400,000 people each year, and the number reaches one million in several years. These people come not only from the counties of Dali Bai Autonomous Prefecture, but also from neighboring regions and even other provinces. The Nadam Fair of the Mongols is normally held by the commune, the banner (county), or the league (prefecture), and the Mongol herdsmen may travel day and night to participate in the fair, with their yurts and cooks accompanying them, from hundreds of kilometers away.

10.4.2 *Recreational Activities in the Festivals*

The festivals of the minorities are a stage on which they display their folk culture and arts, featuring artistic performances and sports that reflect their history and national characteristics. For instance, on the first day of the Knife-Ladder Climbing Festival of the Lisus, several men first perform the “Fire Dancing” ceremony, in which they jump barefoot on chunks of burning wood, leaping and skipping, and doing stunts. On the second day, they fasten thirty-six sharpened machetes, with the sharp edge facing upward, onto two vertical wooden rods with vines, thus forming a knife-ladder. Performers climb to the top of the ladder with bare hands and feet over the sharpened edges, and when they reach the top, they perform a variety of difficult feats for the audience.

The Nadam Fair of the Mongols features the traditional men’s “triathlon” races—wrestling, horse racing, and archery. *Nadam* is a transliteration from Mongolian meaning “recreation and game.” It is held to express happiness about the harvest.

On the New Year of the Qiangs, people dance to their hearts’ content. The hosts and the guests also sing antiphonal wine songs. The singing is customarily accompanied by dances, the most popular form being the “Guozhuang dance.” Male and female dancers change places in the dance, and there is a carnival atmosphere to the gathering.

The largest traditional festival for the Jingpos is the Munao Zongge Festival. In the language of the Jingpo nationality, *munao* means gala, and *zongge* refers to all the branches of the Jingpo nationality. Therefore, “Munao Zongge” means a carnival for all the Jingpos. On the morning of the festival, women line up in a row, dressed in their holiday best, and walk

into the square with gift baskets on their heads. There they exchange gifts that symbolize friendship, propose toasts with rice wine to each other, and start to dance. They can dance for two whole nights when they are in the mood. The carnival (*munao*) is led by two elderly people who enjoy high prestige and command universal respect. They wear beautiful hats decorated with peacock feathers and hold glittering machetes in their hands.

10.4.3 *Social Purposes*

Most of the traditional festivals of the minorities in southern China also serve a social purpose, providing a chance for young men and women to get to know each other and fall in love. In social festivals such as the Songfest of the Zhuangs, the Flower Mountain Festival of the Miaos, the Firework Festival of the Dongs, the Zalet of the Hanis, the Torch Festival of the Yis, the Water-Sprinkling Festival of the Dais, and the Munao Zongge Festival of the Jingpos, young people participate in many activities, such as singing antiphonal folk songs, chatting, dancing, and playing games, in which they can get to know each other, and they are free to choose their spouses on these occasions.

The songs sung in the Songfest of the Zhuangs mainly focus on young people's pursuit of love. They are categorized into greeting songs, invitation songs, question and answer songs, new songs, love songs, pledge songs, and farewell songs. However, not only young people but also the elderly and the very young can go to the Songfest. The elderly and children go there chiefly to enjoy and assess the songs sung and to offer advice to the young people.

The Water-Sprinkling Festival of the Dais is also a magnificent event where unmarried young people can find love. During the festival, unmarried men and women play a game called "throwing the flower bag." A flower bag is meticulously designed and made by the maid as a token of love. On the day of throwing bags, girls and boys stand in rows, about thirty to forty steps apart, and throw flower bags to each other. If the boy fails to catch the bag thrown by the girl, he will put a flower prepared beforehand into the coiled hair of the girl. If the girl fails to catch the bag thrown by the boy, she will stick a flower into the boy's pocket on his chest.

10.4.4 *Religious Purposes*

Many of China's minorities maintain their religious faiths, and their traditional festivals are thus colored with features of religious rituals. Such festivals mainly eulogize whomever they worship and celebrate important events such as a person's birth, death, and enlightenment.

The religions worshiped by China's minorities chiefly include Tibetan Buddhism (mainly in the Qinghai-Tibet Plateau), Islam (mainly in the northwestern area), and Theravada Buddhism (mainly on the border of Yunnan Province).

Religious festivals are held primarily in religious places such as temples, and various rituals are performed under the direction of priests. For instance, the Butter Lamp Festival falls on the fifteenth day of the first month in the Tibetan calendar. It is held to celebrate Shakyamuni's victory over other religious groups in debate. On this day, people gather at Barkhor Street around Jokhang Temple of Lhasa city, worshiping Buddha and turning the prayer wheel in the daytime. At night, flower stands are put up all over the street with statues made of colorful butter placed on the stands, and butter lamps are lit to pray for blessings. On Eid al-Fitr (Festival of Fast Breaking), Muslims gather at mosques, performing Salat al-'Idayn and bowing in salute in the direction of the Kaaba in Mecca. After the ceremony, they are led by the Akhoond to pay a visit to the tombs of their ancestors.

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