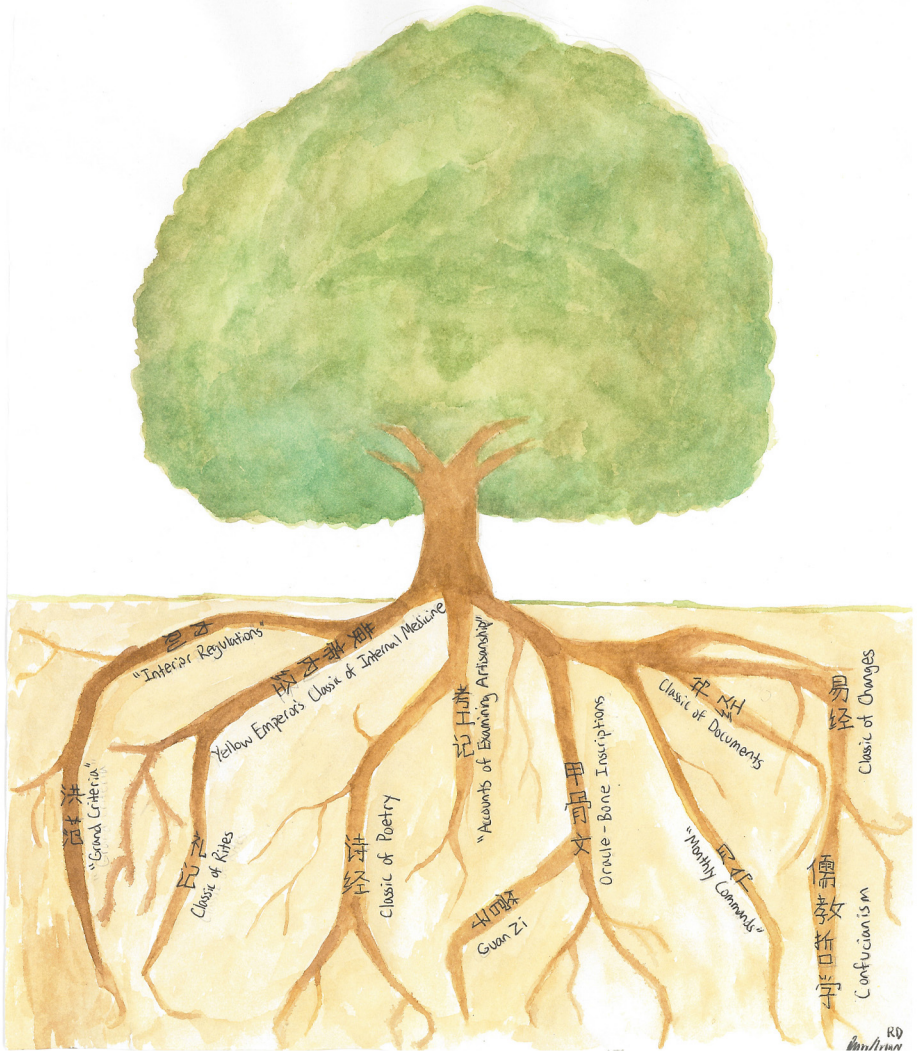


The Historical Roots of Technical Communication in the Chinese Tradition



Daniel Ding

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By

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**Cambridge
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To Karen Lo:
My Lovely Wife and Supporter

“Thy fruit abundant fall!”
—*Classic of Poetry*

TABLE OF CONTENTS

Chapter One.....	1
Technical Writing in Chinese Antiquity: An Introduction	
Chapter Two.....	21
The Oracle-Bone Inscriptions (甲骨文): The Earliest Artifact of Technical Writing in China	
Chapter Three.....	37
<i>Classic of Poetry</i> (诗经): Technical Instructions and Reports	
Chapter Four.....	73
“Grand Criteria” (洪范): A Short Text of Instructions in the <i>Classic of Documents</i> (书经) which Plays an Important Role in the Development of Technical Writing in the Chinese Tradition	
Chapter Five.....	92
“Monthly Commands” (月令): A Chapter in the <i>Classic of Rites</i> (礼记) Instructs Us How to Behave Month by Month	
Chapter Six.....	131
“Interior Regulations” (内则): A Chapter in the <i>Classic of Rites</i> (礼记) Instructs Us How to Prepare Food	
Chapter Seven.....	147
“Accounts of Examining Artisanship” (考工记): The Earliest Management Handbook on Handicraft Workmanship in the Chinese Tradition	
Chapter Eight.....	182
<i>Classic of Changes</i> (易经 <i>Yi Jing</i> or <i>I Ching</i>): An Ancient Book of Technical Instructions	

Chapter Nine.....	226
<i>Yellow Emperor's Classic of Internal Medicine</i> (黄帝内经)— China's First Comprehensive Medical Book	
Chapter Ten.....	267
<i>Guan Zi</i> (管子): The First Comprehensive Book of Social and Agricultural Management in the Chinese Tradition	
Chapter Eleven.....	282
Proper Human Relationships, Self-denial, and Distaste for Gains: How Confucianism Influences Professional Communication in China	
Chapter Twelve.....	302
A Precursor of Modern Chinese Technical Communication Books— China's First Comprehensive Technical Writing Book: <i>On the Works of Nature</i> (天工開物)	
Chapter Thirteen.....	318
Conclusion: How Traditional Chinese Classics Help Us Reveal Patterns of Modern Technical Writing Texts We Might Have Missed	
Bibliography.....	331

CHAPTER ONE

TECHNICAL WRITING IN CHINESE ANTIQUITY: AN INTRODUCTION

The Chinese Conception of Technical Writing

It is no easy task to give an account of the Chinese conception of technical writing (*jishu xiezu* 技术写作) because the Chinese word 技术 (*jishu*) has several denotations, according to the authoritative *Unabridged Dictionary of Sinitic*¹ (*Hanyu Da Cidian* 汉语大辞典). First, it means ‘technology’ (技术) which refers to medical, scientific, industrial, or engineering technology, as used in: “Due to advanced technology (技术), doctors can easily diagnose the causes of headaches.” Second, it means ‘technique’ (技巧) which suggests a particular way of doing something with some special skills, as used in: “The flute player employs several techniques (技巧) in her performance.” Third, it means ‘trick’ (窍门) which implies a good way of doing something, as used in: “The trick (窍门) is to set all the numbers to zero before choosing ‘double space’ from the drop-down menu.” Fourth, it means ‘magic art,’ which refers to the performance of producing illusions to entertain people.

What makes the task even more daunting is that China does not have a national organization of technical writing, such as the Society for Technical Communication in the US. Thus, an official definition of technical writing does not exist in China, whereas in the US, the Society for Technical Communication has clearly defined technical writing. According to the Society, technical writing is a broad field and includes any form of communication that exhibits one or more of the following characteristics:

¹ Zhufeng Luo, ed. *Hanyu Da Cidian* (Shanghai, China: Shangwu Yinshu Guan, 1994).

- Communicating *about technical or specialized topics*, such as computer applications, medical procedures, or environmental regulations.
- Communicating *by using technology*, such as web pages, help files, or social media sites.
- Providing *instructions about how to do something*, regardless of how technical the task is or even if technology is used to create or distribute that communication.²

The above definition of technical writing by the Society of Technical Communication suggests that any type of writing that is done in the workplace might be classified as technical writing, such as a technical report on upgrading the air-conditioning system in the CEO's office, or a memorandum communicated via email by a secretary to the office manager about scheduling the latter's meetings with customers. It could be very technical, like a technical report, or not technical at all, like a memorandum. In the US, the definition given by the Society of Technical Communication is the rubric with which we can easily classify a piece of writing as technical writing, or not.

But in China, such a rubric does not exist. Instead, we can only look for definitions of technical writing in the literature on technical writing. Generally speaking, technical writing in China refers to writings about science and technology by scientists, technicians, or engineers for other professionals.³ A recent survey among practicing technical writers in Chinese corporations and technical researchers in Chinese colleges corroborates the above-mentioned definition of technical writing in China as found in the literature.⁴ The survey indicates that technical writing in China requires specialist knowledge within specific technological fields, such as the machine-building industry, information technology, and medical science.

² STC, "Defining Technical Communication," the Society for Technical Communication, accessed March 21, 2018 at <https://www.stc.org/about-stc/defining-technical-communication/>.

³ Patricia Tegtmeier, Sylvia Thompson, Ron Smith, Deb L. Scroggs, and Sam Dragga. "China is Hungry: Technical Communication in the People's Republic of China," *Technical Communication* 46, no. 1 (1999):40-41; Daniel Ding, "When traditional Chinese Culture Meets a Technical Communication Program in a Chinese University: Report on Teaching Technical Communication in China," *Technical Communication* 58, no. 1 (2011): 38-43.

⁴ Li Shuangyan and Cui Qiliang, "Survey on the Current Status of Technical Writing in China and Its Implications on MTI Education," *Foreign Language Research* 201, no. 2 (2018): 51-52.

Thus the survey suggests that technical writers are professionals who either create or translate documents by using technical vocabulary. It also claims that technical writing in China “is at the nascent stage of its development, and it has not become a profession yet, so its importance has not been generally recognized.”⁵ This definition, as given by the literature on technical writing in China, is also evidenced by the fact that technical writing education in Chinese colleges stresses language proficiency in so-called English for Specific Purposes (ESP) classes, by teaching professional terms and phrases to students who major in science and engineering programs.⁶

On the one hand, it is not easy to give a definitive definition of technical writing in China; on the other hand, technical writing in China is not at its nascent stage of development as the survey claims it is. It should be pointed out that technical writing as a college discipline is at the nascent stage of its development; however, as a genre, technical writing has been practiced in China for at least 2,500 years, as Ding shows in his analysis of the *Classic of Changes (Yi Jing 易经)*.⁷ The *Classic of Changes* is one of the earliest technical writing artifacts in the Chinese tradition. In addition, the Chinese term for ‘technical writing’ 方伎之书 (*fangji zhishu*) appeared for the first time between 104—91 BCE in Sima Qian’s 司马迁 (ca. 145—ca. 86 BCE) *Records of the Historian (史记 Shiji)*.⁸

Records of the Historian

The Chinese term ‘技术写作’ (*jishu xiezu*) is usually used to translate the English term ‘technical writing’. But, as I have discussed in the above

⁵ Li and Cui, “Survey,” 51.

⁶ Huiling Ding, “Technical Communication Instruction in China: Localized Programs and Alternative Models,” *Technical Communication Quarterly* 19, no. 3 (2010): 305.

⁷ Daniel Ding, “The Emergence of Technical Communication in China—Yi Jing (I Ching) the Budding of a Tradition,” *Journal of Business and Technical Communication* 17, no. 3 (2003): 321-322.

⁸ Sima Qian 司马迁, *Records of the Historian*, [in Chinese,] (Shanghai: Hanfenlou Publishing House, 1930), vol. 25, p. 45. Some translate Sima Qian’s book as *Records of the Grand Historian*, *the Grand Scribe’s Records*, or simply *Historical Records*. I prefer Sarah Allen’s translation because it is precise and concise: see Sarah Allen, “Narrative Genres,” in *The Oxford Handbook of Classical Chinese Literature (1000 BCE—900 CE)*, eds. Wiebke Denecke, Wai-ye Li, and Xiaofei Tian (New York: Oxford University Press, 2017), 274.

All the translations in this book are mine unless otherwise indicated.

section, the extensions of the Chinese and the English terms encompass different types of writing. The Chinese term refers to writings about science and technology by scientists, technicians, and engineers, for other scientists, technicians, or engineers. The English term, as the Society for Technical Communication defines, refers to almost any type of writing that is practiced in the workplace.

We should not take the academic construction of the West, like the definition of technical writing by the Society of Technical Communication, and attempt to refer that to the Chinese conception of what we call ‘technical writing.’ More importantly, we should not take the contemporary academic construction of the West and attempt to refer that back to the 500 BCE Chinese conception of what we call ‘technical writing’ when we are attempting to define ‘technical writing’ in Chinese antiquity. This is essentially taking a category of one tradition and looking for it in another. However, the Chinese term for ‘technical writing book’—方伎之书 (*fangji zhi shu*)—did appear in Chinese antiquity. It appeared for the first time in Sima Qian’s 司马迁 (ca. 145—ca. 86 BCE) *Records of the Historian* (史记 *Shiji*), completed between 104—91 BCE. In the “Biographies of Bian Que and Cang Gong” (“扁鹊仓公列传” “*Bian Que Cang Gong Liezhuan*”), Sima Qian recounts stories of two famous physicians in Chinese antiquity, Bian Que 扁鹊 (407—310 BCE), a highly skilled physician during the Warring States Period 战国 (481—221 BCE), and Cang Gong (ca. 210—ca. 140 BCE), a well-known physician during the Western Han period 西汉 (203 BCE—8 CE), also known as Chunyu Yi 淳于意 in the text of the ‘Biographies’. Cang Gong, a petty official in charge of Imperial granaries in the State of Qi (齐国), learned medical skills through reading medical works by Bian Que and other physicians. One day, Cang Gong received an edict from the King of Qi (齐王) which required him to name individuals who possessed ‘technique’ (方伎) so that they could diagnose diseases, and who had the authority to decide on a patient’s survival or death.

方伎所长，及所能治病者？有其书无有？皆安受学？受学几何岁？
尝有所验，何县里人也？何病？医药已，其病之状皆何如？具悉而对。⁹

What specific technical skill do you have? What illnesses can you cure?
Have you read any technical writing books? (方伎所长，及所能治病者？
有其书无有？ *Fangji suochang, jineng zhibingzhe? You qishu wuyou?*)

⁹ Sima Qian *Records of the Historian*, vol. 25 p. 50.

Where did you learn the technique? For how many years? Who have you cured? Where are the patients from? What illnesses did they suffer? What medicinals did you use?¹⁰ What is the patient's condition now? Please answer these questions in detail.

The above account of the inquiries made by the King of Qi epitomizes two crucial points: First, 方伎 (technical skill), at its roots, referred specifically to medical practice. Second, the edict also mentioned 'technical writing books' (方伎之书), meaning writings on medical practice. It is the earliest mention in Chinese literature of the term that is equivalent to what we would use today, when we are discussing similar type of writing. It is obvious that in *Biographies*, Sima Qian, by employing the term 'technical writings on that topic,' refers to medical writings only. Indeed, in the *Biographies*, several medical writing texts are noted: *Pulse Book* (*Mai Shu* 脉书), a text that discussed how to diagnose diseases based on pulse taking; *Upper Channels* (*Shang Jing* 上经), a text that identified and discussed the air channels (thought to exist at that time) in the upper body; *Lower Channels* (*Xia Jing* 下经), a text that was intended as a sequel to *Upper Channels*; *Diagnosis Based on Five Complexions* (*Wuse Zhen* 五色诊), a book that discussed diagnosis of diseases according to five different colors of the skin on a patient's face; *Miracle Ways of Suppressing Coughs* (*Qike Shu* 奇咳术), a book that described various methods to efficaciously diagnose diseases through listening to a patient's voice; *Calculation* (*Kui Duo* 揆度), a book that showed how to estimate seriousness of an illness; *Yin and Yang* (*Yin Yang* 阴阳), a book that introduced *yin* and *yang* elements and their impacts on human health; *External Changes* (*Wai Bian* 外变), a book that discussed effects of changes in nature on the human body; *On Medicinals* (*Yao Lun* 药论), a book that described various herbal, mineral, and other medicinals; *Miracles of Stone Needles* (*Shi Shen* 石神), a text that described uses of stone hammers, stone knives, and stone needles in medical treatment; and lastly, *Secrets of the Bedchamber* (*Jie Yin Yang* 接阴阳), a book that discussed the art of sexual intercourse as a way of absorbing nutrients from male and female bodies.¹¹

These medical texts were rare books (*jin shu* 禁书) that contained 'secret prescriptions' (*jin fang* 禁方) from Chunyu Yi's master—Qing

¹⁰ "Medicinals" refers to Chinese medicines including herbals, minerals, dried insects, and animal bones.

¹¹ Sima Qian, *Records of the Historian*, vol. 25, pp. 50—51.

Yang's (阳庆) private collection.¹² Those books were usually given by master physicians to their disciples or apprentice physicians to study. Unfortunately, they are no longer extant today, but from Sima Qian's narrative in the *Biographies*, we get a glimpse of some of the content of these books. For example, in one of the stories, Sima Qian tells of how Chunyu Yi diagnosed an Imperial official's headache by employing the strategies he had learned from the *Pulse Book*, *Upper Channels*, and *Lower Channels*. Chunyu Yi was called to examine an Imperial official of the State of Qi (齐国), who had complained of a splitting headache. After taking the official's pulse, Chunyu Yi explained to the official's brother that an ulcer was growing between his stomach and intestines. He suggested that it was not curable. The ulcer would grow larger in five days, and in eight days, he would vomit thick blood and die. The official died as Chunyu Yi had predicted. When asked how he could predict the official's death, Chunyu Yi declared that the official's pulse had suggested a liver disease because the pulse was irregular and feeble, indicating a serious inner problem that did not manifest externally. Chunyu Yi then invoked the *Pulse Book*:

脉长而弦，不得代四时者，其病主在於肝。和即经主病也，代则络脉有过。¹³

A long and strong pulse that does not change according to the four seasons indicates liver disease. A long and strong, but regular, pulse indicates a disease arising from the damaged vertical channels of the liver; a long and strong, but irregular, pulse indicates a disease arising from the damaged horizontal channels of the liver.

Chunyu Yi went on to explain that an irregular pulse indicated damaged vertical channels that ran throughout the body. The damaged vertical channels led to death. When the horizontal channels were damaged, an irregular pulse occurred one tenth of an inch above the left median point. At this point, heat was trapped in the body and thick blood could not be channeled away. When the irregular pulse occurred half an inch above the left median point, close to the point of the hand channel, then the patient would vomit thick blood and die. When the irregular pulse occurred one fifth of an inch above the left median point, pus would develop in the ulcer. When the irregular pulse occurred near the point of

¹² Sima Qian, *Records of the Historian*, vol. 25, p. 51.

¹³ *Ibid.*, 51—52.

the hand channel, the ulcer would grow large quickly and then break, leading to death. The trapped heat ruined the stomach and intestine channels, injuring the horizontal channels, leading in turn to swollen and thus rotten vertical channels. Therefore, vertical and horizontal channels blocked each other. But heat had already invaded the official's head, so it was trapped there, causing his splitting headache.¹⁴

Providing Instructions: The Nature of Technical Writing Books

The above account indicates that the medical books contained technical instructions that showed how to take and interpret a pulse. They also guided readers to examine the upper channels and analyze and interpret their symptoms. These technical writing books were not for the general public, because they were rare, and contained 'secret prescriptions' from a private collection. The secret nature of these books suggests that only a very limited number of people had access to them. These people had to be qualified professional physicians.

In the *Biographies* we also find uses of medical instructions, the 'how-to' texts. When he was managing an inn that served the nobility, Bian Que met with a guest by the name of Chang Sangjun 长桑君, whom Bian Que recognized as a man with unusual qualities. Chang Sangjun also recognized Bian Que's talents, so he wanted to make Bian Que his successor, to carry on his medical business. He gave Bian Que a book of medical instructions from his private collection, together with some herbal medicinals. He then urged Bian Que to take the herbals and observe the instructions from the medical book so that he would be able to "understand everything in thirty days" (*sanshi ri dangzhi wu yi* 三十日当知物矣).¹⁵ Indeed, Bian Que, by following the instructions from the book and taking the herbs, acquired the ability to see through a wall. In other words, he could see a patient's internal organs and thus internal diseases.¹⁶ He could work like a modern-day X-ray machine.

We should not dismiss the above narrated story as merely a legend, but instead we should look at it in a way that suggests the significance of medical instructions. Clearly, Chuyu Yi's and Bian Que's stories suggest that people of Sima Qian's period believed in the power of education, especially self-education through following instructions. Both Chuyu Yi and Bian Que became well known physicians through self-education by

¹⁴ Ibid., 53.

¹⁵ Ibid., 43.

¹⁶ Ibid., 43.

reading the medical books given to them by their masters. People of Sima Qian's time knew how to use medical instructions to improve their professional careers as well as their lives. They gave people the power to control their lives. They also defined health problems and standardized treatment methods. Actually, Bian Que acquired much of his medical knowledge from the book given to him by the hotel guest. Bian Que became a famous physician only after reading the book. People in China, men and women, old and young, all know that a Chinese four-character proverb (*chengyu* 成语)—讳疾忌医 (*huiji jiyi* - hide one's sickness for fear of treatment) has its roots in Bian Que's story, as is narrated by Sima Qian in the *Biographies*. When Bian Que was passing the State of Qi, Marquis Huan of Qi (*Qi Huan Hou* 齐桓侯) kept him as a guest. When he went to visit the Earl in his court, Bian Que remarked to him, "A disease is attacking you now, but it is only in the muscle. If you are not treated immediately, it will become worse." "We are not sick," responded the Marquis. Then Bian Que left. The Marquis told his attendants that "physicians seek profits, so they all want to treat healthy people as patients." Five days later, when seeing the Marquis again, Bian Que informed him the disease was attacking his blood. The Marquis replied again with "We are not sick." After Bian Que left, the Marquis showed his annoyance. After another five days, Bian Que saw the Marquis again. "The disease is attacking your intestines. It will become even worse if you refuse treatment." The Marquis did not respond to Bian Que this time, and he was furious. After five more days, Bian Que saw the Marquis again, but left as soon as he saw him. The Marquis sent an attendant to inquire why. Bian Que responded,

“疾之居腠理也，汤熨之所及也；在血脉，针石之所及也；其在肠胃，酒醪之所及也；其在骨髓，虽司命无奈之何。今在骨髓，臣是以无请也。”後五日，桓侯体病，使人召扁鹊，扁鹊已逃去。桓侯遂死。¹⁷

"When the disease attacks the muscle, it can be cured with warm water and moxa treatment (*tang yun* 汤熨); when it is in the blood, it can be treated with acupuncture and stone instrument (*zhen shi* 鍼石); when it attacks the intestines and the stomach, it can still be treated with herbal decoction mixed with alcohol (*jiu lao* 酒醪); however, when the disease attacks the bone marrow, even the Life God (*Si Ming* 司命) feels quite helpless. Today, the disease is attacking the Marquis's bone marrow, so I have no idea what to do." When feeling sick five days later, the Marquis sent for

¹⁷ Ibid., 47-48.

Bian Que, who had already taken off. The Marquis died, as Bian Que had said.

This anecdote spells out the four stages through which Bian Que thought a disease would attack the human body: the muscle, the blood, the internal organs, and the bone marrow. Certainly, it also shows how Bian Que diagnosed the disease in that particular situation—as a four-step process. This four-step process could be a standard treatment method employed by physicians of that period. As we can see, Bian Que possessed the ability to see through the Marquis's body, just like a cat-scan machine or an X-ray machine. Whether the story is true or not is not very important; what is significant, is that it demonstrates what people at that time believed medical instructions could do, and it shows that people knew how to take advantage of medical instructions. In other words, Bian Que could not have diagnosed the Marquis's disease without benefiting from the medical instruction book from Chang Sangjun.

Attached Reports: China's First Attempt to Classify Technical Writings

In 26 BCE, Emperor Cheng of Han 汉成帝 (r. 33 – 7BCE) commissioned a team of experts and scholars led by Liu Xiang 刘向 (79 – 8 BCE) to develop China's first book catalogue which was intended to organize and classify mounds of messy writings and texts, which totaled 13,219 volumes in all. Liu Xiang classified these writings and texts into six large groups: Jing Zhuan 经传 (Confucian scriptures), Zhu Zi 诸子 (masters); Shi Fu 诗赋 (poetry and rhapsodies), Bing Shu 兵书 (military writings), Shu Shu 算术 (divination), and Fang Ji 方伎 (technical writings). A specialist was designated to address his own field of expert knowledge: Liu Xiang himself worked on Confucian scriptures, masters, and poetry and rhapsodies; Commander of Infantry (*bubing xiaowei* 步兵校尉) Ren Hong (任宏) annotated military writings; Grand Historical Officer (*tai shilling* 太史令) Yin Xian (尹咸) edited divination texts; and Imperial Physician (*shi yi* 侍医) Li Zhuguo (李柱国) classified technical writings. After editing and classifying one text, Liu Xiang would submit it to the Emperor for review. He also composed an informative report which recounted the author's life, summarized the content, assessed its scholarly values, and reviewed the process of annotation and collation. He attached the report to the classified text which he submitted to the Emperor. Later, he edited all the reports into a single collection titled *Attached Reports*

(*Bie Luo* 别录). This *Attached Reports* championed the cataloguing principles for later Chinese scholars and experts to follow in classifying writings and texts.¹⁸

What is especially noteworthy is that the catalogue classified technical writings as a single category of its own. In other words, technical writings, appeared in the Chinese history of literature as an independent category of texts and writings for the first time. Certainly, at that time, it was a category of texts and writings, not a field of scholarly research. That is why ‘writings’ is inflected to have the ending ‘s.’ Unfortunately, Liu Xiang’s *Attached Reports* was lost during the Tang dynasty 唐朝 (618—907). Today we can only read a description of how it classified texts and writings as preserved in the *History of the Former Han* (*Han Shu* 汉书) by Ban Gu 班固 (32—92 CE).

Liu Xiang did not finish the huge project of classifying and cataloguing writings and texts, though he had been working on it for twenty years. His son, Liu Xin 刘歆 (50 BCE—23 CE) completed it. Liu Xin simplified his father’s descriptions and accounts in the *Attached Reports* and edited them into a descriptive catalogue titled *Seven Fields* (*Qi Lue* 七略). It carried on the textual tradition of the *Attached Reports* and observed its editing and classifying principles. The catalogue was titled *Seven Fields* because there were seven parts in it—a general introduction, and six parts devoted to the six categories of texts and writings as classified in the *Attached Reports*. The only difference between the *Attached Reports* and the *Seven Fields* is that Liu Xin added a general introduction, in which he reviewed his entire schemes of classification. Unfortunately, like the *Attached Reports*, the *Seven Fields* is long extant. Today we read a description of its classification schemes in Ban Gu’s *History of the Former Han*. It provided the foundation for the bibliographical chapter “Monograph on Arts and Writings” (*Yiwe Zhi* 艺文志) in Ban Gus’s *History*.

¹⁸ Glen Dudbridge, “Libraries, Book Catalogues, Lost Writings,” in *The Oxford Handbook of Classical Chinese Literature (1000 BCE—900 CE)*, eds. Wiebke Denecke, Wai-ye Li, and Xiaofei Tian (New York: Oxford University Press, 2017), 148; “Attached Reports (“*Bie Lu*” 别录,” *Baidu Encyclopedia* (*Baidu Baike* 百度百科), Baidu, accessed August 10, 2018, <https://baike.baidu.com/item/%E4%B8%83%E7%95%A5%E5%88%AB%E5%BD%95/15757489>.

Monograph on Arts and Writings

“Monograph on Arts and Writings” (*Yiwen Zhi* 艺文志) is the bibliographical chapter in Ban Gu’s *History of the Former Han* (*Han Shu* 汉书). Drawing data and strategies for classifying texts and writings from the *Attached Reports* and the *Seven Fields*, this chapter classifies texts and writings found in the Imperial library into six large categories, supported with a bibliography of the texts and writings classified into each category. Basically, it employs the same classification schemes as used in the *Seven Fields* and maintained the same six large categories of texts and writings as classified in the *Seven Fields*.¹⁹ This chapter is the earliest surviving bibliographical and cataloguing work that systematically collates and classifies texts and writings in the Chinese tradition. Of particular significance to our discussion is its cataloguing of technical writing texts and books (*fang ji* 方伎), the sixth largest category of texts and writings which Ban Gu classified in the chapter. Ban Gu further classified technical writing into four sub-categories: medical writing (*yi jing* 医经), pharmacopoeias writing (*jing fang* 经方), art-of-bedchamber writing (*fang zhong* 房中), and immortal writing (*shen xian* 神仙). Ban Gu defined each subcategory and elaborated on the purposes of these four sub-categories of texts and writings.²⁰

Medical writing, according to Ban Gu, is the texts that study physiological features, blood vessels, meridian channels, bone marrow, *yin* and *yang*, external and internal symptoms. The purpose of medical writings is to pinpoint and elaborate on the causes of various diseases. Medical writing helps physicians investigate and improve treatments by using acupuncture, stone needle, herbal decoction, and moxibustion. It also helps physicians concoct medicinals proportionally.

Pharmacopoeias writing helps produce medicinals by spelling out the cold, cool, warm, and hot natures—the four properties (*si xing* 四性)—of various medicinals; by considering how the human body responds to the four seasons; and by figuring out how human organs react to the four properties and various flavors of medicinals.

Art-of-bedchamber writing refers to the texts that are intended to help men and women consummate their love affairs and turn their love into

¹⁹ Ban Gu 班固, *Han Shu* 汉书 [*History of the Former Han*], in *Ershiwu Shi Diyi Juan* 二十五史第一卷 [Twenty-five histories, vol. 1] (Shanghai: Shanghai Guji Chubenshe and Shanghai Shudian, 1988), 527.

²⁰ Ban Gu 班固, *Han Shu* 汉书, 533.

advanced ways of preserving health (*yang sheng* 养生) and supply nourishment in the art of the bedchamber.

Immortal writing teaches humans to preserve primordial or vital energy (*yuan qi* 元气) by employing natural resources to help preserve health.

Ban Gu's Classification of Four Types of Technical Writing

Ban Gu's bibliographical chapter, "Monograph on Arts and Writings" represents the first extant catalogue in the Chinese history of textual culture, which formally gives an ordered structure to the category of technical writings in a catalogue of texts and writings, explicitly in a section devoted to 'technical writings,' and specifically, in his fourfold classification scheme. To be more specific, he classifies technical writings into four types of writings:

医经者，原人血脉经落(络)骨髓阴阳表里，以起百病之本，死生之分，而用度箴石汤火所施，调百药齐和之所宜。至齐之得，犹慈石取铁，以物相使。拙者失理，以愈为剧，以生为死。

经方者，本草石之寒温，量疾病之浅深，假药味之滋，因气感之宜，辩五苦六辛，致水火之齐，以通闭解结，反之于平。及失其宜者，以热益热，以寒增寒，精气内伤，不见于外，是所独失也。故谚曰：“有病不治，常得中医。”

房中者，情性之极，至道之际，是以圣王制外乐以禁内情，而为之节文。传曰：“先王之作乐，所以节百事也。乐而有节，则和平寿考。及迷者弗顾，以生疾而隕性命。

神仙者，所以保性命之真，而游求于其外者也。聊以荡意平心，同死生之域，而无怵惕于胸中。²¹

Medical writings study human blood, meridian channels, bone marrow, *yin* and *yang*, and exteriors and interiors, in order to pinpoint the causes of various diseases, and distinguish between life and death. They also explore and develop ways of using acupuncture, stone needles, herbal decoction, and moxibustion. Finally, they intend to figure out the best ratios of various herbal agents to each other in herbal decoction, so that the agents

²¹ Ban Gu 班固, *Han Shu* 汉书, 533.

react to each other in such a way as to enhance their effects, as a magnet reacts to iron.

Pharmacopeia writings describe various ways to prepare medicinals of cold, cool, warm, and hot properties in order to open clogged meridian channels, to relieve symptoms of stagnation of the circulation of the vital energy, and to restore the bodily balance between *yin* and *yang*. Thus, pharmacopeia writings must help determine the cold, cool, warm, and hot properties of different herbs and minerals; calculate and measure the seriousness of diseases, and consider the human body's response to the four seasons and the weather. They also determine how the five viscera and six bowels (*wuzang liufu* 五脏六腑) react to the properties and flavors (*wei*) of the medicinals.

Writings on the art of the bedchamber help men and women consummate their love affairs by defining the most advanced strategies for preserving vital energy, and supplying nourishment in the art of the bedchamber. In antiquity, wise kings composed music outside the bedchamber to control lust inside it, and refrained from expressing it explicitly. *Zuo Commentary* (*Zuo Zhuan* 左传) states, "The wise king composed music to put everything under control." The art of the bedchamber makes it possible for people to enjoy love affairs, and, if they practice moderation, they will be able to nourish their blood and vital energy, thus leading to longevity.

Writings on immortality teach humans to preserve primordial or vital energy (*yuan qi* 元气) and to employ nature as a source of nourishment for supplying primordial or vital energy. They purify one's soul and calm one's emotions. Writings on immortality treat life and death as two sides of the same coin, so they wipe out the fear of death in one's mind.

Ban Gu's "Monograph on Arts and Writings" is a crucial textual inflection point where technical writings in the Chinese tradition became an independent classification in a Chinese catalogue. These four types of technical writings, as classified by Ban Gu, are perhaps rooted in the need for taxonomy and order, and Ban Gu's classification satisfied that need by answering the questions "how many types," and "where to find them." In this classification, the four types of technical writings share one common major feature. That is to say, they are all concerned with preserving human life. This common feature suggests to us that the nature of technical writings at its nascent stage in Chinese antiquity was to help extend life expectancy.

Ban Gu's Theory of Technical Writing as Revealed in "Monograph on Arts and Writings": Its Beginning

Ban Gu's fourfold classification of technical writing also suggests the readership and purpose of technical writings in Chinese antiquity: to help people preserve health. Actually, towards the end of the bibliographical chapter of "Monograph on Arts and Writings," Ban Gu does clearly describe the readership and the purpose of technical writings. More important, while attempting to describe the readership and the purpose of technical writing, he actually discusses its origin, though perhaps he was not aware of it:

方技者，皆生生之具，王官之一守也。太古有歧伯、俞拊，中世有扁鹊、秦和，盖论病以及国，原诊以知政。汉兴有仓公。今其技术晦昧，故论其书，以序方技为四种。²²

Technical writing (*fangji zhe* 方技者) refers to texts that guide humans to achieve longevity. Achieving longevity is an Imperial court duty, performed by a designated Imperial court official. In antiquity, there were Qi Bo 歧伯 and Yu Fu 俞拊. In the middle ages, there were Bian Que 扁鹊 and Qin He 秦和. By drawing inferences from examining the monarch's illnesses, they were all able to get to know the domestic situations of the kingdom. Based on their analysis of the monarch's symptoms, they were able to know the political affairs of the kingdom. (*Gai, lunbing yi jiguo, yuanzhen yi zhizheng* 盖, 论病以及国, 原诊已知政.) After the Han dynasty was established, there was a famous physician Cang Gong 苍公 (aka Chunyu Yi 醇于意). Because the medical skills of the above mentioned famous physicians are obscure, and little-known now, (*anmei* 晦昧), it is my duty to collate, annotate, and classify technical writings into four categories of medical writings, pharmacopeias writings, writings of the art of the bedchamber, and writings on immortals.

This passage is short, but it is loaded with much information about the origin of technical writings in Chinese antiquity. First, 'technical writing' refers exclusively to texts that helped humans to extend their life expectancy. Second, the job of extending life expectancy was performed by designated physicians who held Imperial court official titles, such as Grand Physician (*tai yi* 太医) and Imperial Physician (*shi yi* 侍医). Because an Imperial physician worked in the Imperial court, and only handled the medical needs of the monarch and other important high-

²² Ibid., 534.

ranking imperial officials, technical writing was usually employed by the Imperial physicians within the Imperial court. Third, only Imperial physicians were qualified to treat the monarch, so the only users of, or readership of, technical writing texts were the Imperial physicians. Fourth, examining a monarch's illnesses and analyzing the symptoms were politically oriented. By checking a monarch's health, an Imperial physician was able to discern the political situation of the Imperial State. In other words, the monarch's health was symptomatic of the situation of the State. Technical writing then, served as a tool with which Imperial physicians might analyze not just the monarch's illnesses, but also, more importantly, the situation of the State, perhaps through divination. Technical writing in Chinese antiquity at the earliest state of its development was a political tool as well as a medical tool. However, the medical skills of the Imperial physicians of the previous generations became obscure by Ban Gu's time, so Ban Gu decided to collate and classify technical writings into four categories, which would clearly guide readers to acquire the skills needed in their own fields of expert knowledge, be they medicine, pharmacopeias, the art of the bedchamber, or immorality. Here, we can see that technical writings arose from the need to train highly skilled Imperial physicians who could examine and analyze not only a monarch's illnesses but also the situation of the Imperial State. Technical writers were the highly skilled physicians appointed by the Imperial court.

A Modification of Ban Gu's Theory of the Beginning of Technical Writing

As I discussed in the above section, Imperial court physicians could employ 'divination' (*shu shu* 数术) while analyzing the monarch's symptoms and advising him what to do. In Ban Gu's biographical chapter, '*shu shu*' is an independent category of writings and texts which consist of writings on astrology (*zhan xing* 占星): writings and texts which, based on the positions of stars, the sun, and the moon, record auspicious and ominous manifestations to help monarchs make political decisions; writings on almanacs or calendars (*li pu* 历谱); writings and texts which determine the four seasons and twenty-four solar terms, such as 'spring equinox' and 'summer solstice,' whereby monarchs could get to know the Mandate of Heaven; writings on the five elements (*wu xing* 五行), which discuss how metal, wood, water, fire, and earth (*jin mu shui huo tu* 金木水火土) manifest the five constants (*wu chang* 五常) of kindness, duty, rituals, wisdom, and credibility (*ren yi li zhi xin* 仁义礼智信), so that if

these five constants are lost, then the five elements will be thrown into chaos; writings on divination by milfoil and turtle plastrons (*shi gui* 蓍龟); writings and texts which guide people to predict auspicious and ominous events and activities; miscellaneous divination (*za zhan*, 杂占); writing and texts which keep track of manifestations of all on the earth to help people examine auspicious and ominous events; and finally, writings on geomancy and physiognomy (*xing fa* 形法), which study features of the land and human facial features, and by extension, the features of all objects and lives, to determine auspiciousness, ominousness, nobleness, and lowliness.

Ban Gu did not group those writings in the same category as technical writing (*fang ji* 方伎), but they are closely related to each other, as some Chinese scholars have pointed out.²³ *Yellow Emperor's Classic of Internal Medicine* (*Huangdi Neijing* 黄帝内经), a technical writing book on medicine, cited by Ban Gu in his catalogue of technical writings, employs a lot of rhetoric of the principles of the five elements, astrology, and divination, which correspond to those described in writings and texts on the five elements, astrology, and divination. The authoritative *Sources of Sinitic Words* (*Ci Yuan* 辞源) suggests that in Chinese antiquity, technical writings referred to writings and texts on both medical writings and astrology and divinatory writings.²⁴ Indeed, *History of the Three Kingdoms* (*San Guo Zhi* 三国志), *New History of the Tang* (*Xin Tang Shu* 新唐书), *History of the Song* (*Song Shi* 宋史), and *History of the Ming* (*Ming Shi* 明史) all present biographies of experts on medicine, astrology, calendar, divination, and physiognomy, under the general category of "Biographies of Technical Experts" (*Fangji Zhuan* 方伎传).²⁵

Thus, I propose that we modify Ban Gu's theory of the beginning of technical writing. Technical writers have their origin in Imperial court physicians, astrologers, and diviners.

²³ Wan Fang and Zhong Sheng, *Reflection on Development of Traditional Chinese Medical Theory and Technology* 中医药理论技术发展的方法学思考 (Beijing: Kexue Press, 2011), 2.

²⁴ He, Wang, and Dong, *Ci Yuan* (Beijing: Shangwu Yinshu Guan, 2015).

²⁵ Pei Songzhi, *San Guo Zhi*, (Shanghai: Shanghai Guji Publishing House, 1988), 97-100; Song Qi, "Biographies of Technical Experts," in *Xin Tang Shu*, ed. Ouyang Xiu (Shanghai: Shanghai Guji Publishing House, 1988), 619-622; Tuotuo and Alutu, *Song Shi* (Shanghai: Shanghai Guji Publishing House, 1988), 1528-1532; Zhang Tingyu, Xu Yuanmeng, and Liu Bao, *Ming Shi* (Shanghai: Shanghai Guji Publishing House, 1988), 832-835.

Technical writings in Chinese antiquity consisted of the following categories of texts and writings: medical writings, pharmacopeias writings, writings on the art of the bedchamber, writings on immortals, astrological writings, writings on almanacs or calendars, divinatory writings, and writings on the five elements.

Spirit of Technical Writing at Its Nascent Stage of Development

Ban Gu describes in “Monograph on Arts and Writing” the context that gave rise to technical writing and explains the reasons why it should exist. That is, there were no skilled physicians, and medical skills were almost lost in oblivion, so medical skills should be rescued from obscurity, and highly skilled physicians should be trained and guided by texts and writings that helped humans achieve longevity. Thus, it was imperative and significant for Ban Gu to clearly define and catalogue technical writing texts and books.

In *Monograph*, Ban Gu stresses that using technical writing books is a duty performed by an Imperial court official. In Chinese Imperial dynastic histories, all Imperial court officials were appointed by emperors, so either Grand Physicians or Imperial Physicians must have been designed by emperors as specialists to practice technical writing, either to practice medical treatments or to compose texts on medical technique. An Imperial court physician did not just handle the medical needs of the emperor and other high-ranking court officials, but he had to perform another, more important, court duty: discussing and managing state affairs in the same way as he discussed the emperor’s symptoms and managed his medical needs. It seems that a court physician also served as a political advisor to the emperor. This suggests the way in which technical writing has to take on a life of its own: to help the monarch run the state, and should not be regarded simply as an extension of other Chinese classics.

How could an Imperial court physician help the emperor run the state? Physicians employed medical skills in conjunction with ‘shu technique’ 数术 (divination) so that he could advise the monarch on what to do by keeping track of the correlations between the monarch’s health, the court activities, and natural phenomena such as the movements of the moon and the stars. As Varsano rightly points out, “the task of [technical writers] was to help the ruler do the right thing at the right time.”²⁶ Divination,

²⁶ Paula Varsano, “Moments,” in *Classical Chinese Literature (1000 BCE—900 CE)*, eds. Wiebke Denecke, Wai-ye Li, and Xiaofei Tian (New York: Oxford University Press, 2017), 406.

particularly its *yin-yang* principle 阴阳学说, at the nascent stage of its development, was closely related to Chinese medicine. The *Classic of Changes (Yi Jing 易经)*, completed between 3500 BCE and 500 BCE, is “a book of oracles and divination.”²⁷ This book of divination most comprehensively expounds the principle of *yin* and *yang*. The *yin-yang* principle, together with the principles of the five elements (*wu xing 五行*) and primordial energy (*qi 气*) constitute the roots of Chinese traditional medicine.²⁸ In other words, when an Imperial court physician treated the monarch, he might also apply divination theory, the principles of *yin* and *yang*, and the five elements, to his diagnosis of the monarch’s symptoms, which helped him predict what would happen and what would not happen to the monarch’s health, the Imperial court, and the State. Based on the prediction, he could inform the monarch what to do and what not to do. So at its nascent stage, technical writing served the Imperial court and helped the monarch run the state.

Ethical Issues in Technical Writing at Its Nascent Stage

Ban Gu, while he defines the four sub-categories of technical writing, also brings up some issues in technical writing practices in Chinese antiquity. He is especially concerned with the sources of unethical practices and their negative effects on human beings. He discusses ethical issues as they exist in the four areas of technical writing practices:

拙者失理，以愈为剧，以生为死。

及失其宜者，以热益热，以寒增寒，精气内伤，不见于外，是所独失也。故谚曰：“有病不治，常得中医。”

及迷者弗顾，以生疾而隕性命。

然而或者专以为务，则诞欺怪迂之文弥以益多，非圣王之所以教也。孔子曰：“索隐行怪，后世有述焉，吾不为之矣。”²⁹

Poorly skilled physicians do not observe medical ethical principles [described in medical writings], misdiagnose patients’ illnesses, treat a

²⁷ Ding, “Yi Jing,” 320.

²⁸ Giovanni Maciocia, *The Foundations of Chinese Medicine E-Book: A Comprehensive Text* (Edinburg: Elsevier Health Sciences, 2015), 2-74.

²⁹ Ban Gu, *Han Shu* 汉书, 169.

patient with a minor illness as one with a serious illness, and treat a curable disease as an incurable one.

A mediocre physician, [because he fails to follow instructions from the pharmacopeias] to restore bodily balance between *yin* and *yang*, prescribes medicinals of cold property for symptoms of cold nature and prescribes medicinals of hot property for symptoms of hot nature, only to cause interior injuries to vital energy, though the injuries do not reveal themselves externally. So a proverb goes, “Better to recover on one’s own than to be treated by a mediocre physician.”

In the art of the bedchamber, if one practices moderation, then he will be able to nourish his blood and vital energy. If, addicted to sex and ignoring the strategies for preserving health, he will become sick or lose his life.

Immoral people make a profit by producing writings that pretend to achieve immortality, so more and more absurd, deceiving, bizarre, and enigmatic writings are generated. That is not what wise kings have taught us to do. Confucius once declared, “History does record people who behave absurdly and who pursue enigmatic matters, but I shun them.”

In the above passage, Ban Gu discusses several ethical issues in technical writing practices in Chinese antiquity: failure to follow ethical principles, not being professionally qualified, pandering to one’s basest emotions, and seeking profits. Ban Gu points out that these are the four reasons why unethical technical writing practices occur. First, poorly skilled physicians misdiagnose illnesses or treat a minor illness as a major one or a curable one as an incurable one, because they do not follow ethical principles as spelled out in medical writings. Ban Gu seems to tell us that all the cases of the medical malpractice he lists in his message are caused by the physician’s failure to observe ethical principles. The reason why they choose not to follow ethical principles appears to be profit seeking. Recall a story Sima Qian narrates in his seminal *Records of the Historian* (*Shiji* 史记) about Bian Que, the famous physician: When Bian Que saw Marquis Huan of Qi (*Qi Huan Hou* 齐桓侯), he told the Marquis that he was sick, but the Marquis told his attendants that they should not believe Bian Que, because as a physician, Bain Que was not credible. Why? The Marquis himself explained that that “physicians seek profits, so they all want to treat healthy people as patients.”³⁰ Probably it was a common problem in Sima Qian’s time that physicians made profits by

³⁰ Sima Qian, *Records of the Historian*, 93.

violating ethical principles. Thus, he warned us about these cases of malpractice.

A physician may also prescribe wrong medicinals if he fails to follow the rules as laid out in pharmacopeia. The result could be that a patient's symptoms become more serious. Such a physician is at best a mediocre physician (*shi qi yizhe* 失其宜者). Clearly, for Ban Gu, such a physician is not professionally qualified to treat a patient. Thus, Ban Gu suggests that a patient should not see a mediocre physician; instead, the patient should recover slowly on his own. Wrong medicinals may cause more serious health problems or even death. In Ban Gu's condemnation of mediocre physicians, an issue is raised: Does it imply that every time a physician prescribes wrong medicinals, unethical medical practice occurs, or he who prescribes wrong medicinals must be professionally unqualified? In cataloguing writings on the art of the bedchamber, Ban Gu seems to condemn individuals who are addicted to sex and who ignore the ways of preserving health as recommended by writings on the art of the bedchamber. Does Ban Gu suggest to us that it is not ethical to indulge in sex without considering one's health? As least, we can claim with certainty that for Ban Gu, it is not wise to do so, because he invokes wise kings in his message who control their lust by employing music. It is not wise because such indulgence could lead to death. Perhaps, Ban Gu is criticizing the writings and texts on the art of the bedchamber that do not warn the readers of the negative or even disastrous consequences of indulging in sex.

Ban Gu is loud and clear when he condemns "absurd, deceiving, bizarre, and enigmatic writings" on immortality. People who composed these writings and texts only intended to confuse the readers, instead of helping them to achieve longevity. They made profits from the confused readers. Again, Ban Gu invokes wise kings who teach people not to make profits by deceiving others. He also invokes the sage—Confucius—who shun[s] (*bu wei* 不为) people who intend to make profits by deceiving others.

CHAPTER TWO

THE ORACLE BONE INSCRIPTIONS (甲骨文): THE EARLIEST ARTIFACT OF TECHNICAL WRITING IN CHINA

As my discussion in Chapter One suggests, Ban Gu (班固) in his “Monograph on Arts and Writings” (*Yiwen Zhi* 艺文志) classifies the category of technical writing into four sub-categories: medical writings, pharmacopeia writings, writings on the art of the bedchamber, and writings on immortality. In Chapter One, I also argued, with some success I hope, that technical writing in Chinese antiquity was closely related to writings on divination (*shu shu* 数术), including divination by milfoil (*shi* 著) called *shi* (筮) and divination with tortoise plastrons (*qigui* 耆龟) called *bu* (卜), writings that helped people predict auspicious or ominous astronomical events and human activities, or writings that recorded divination activities that people performed for such predictions.

Long before Ban Gu composed his “Monograph on Arts and Writings” and Sima Qian (司马迁) composed his *Records of the Historian* (*Shiji* 史记), people in the Shang dynasty (c. 1765—1121 BCE)³¹ had learned to respond to illnesses and astronomical events in oracle activities through communicating with the world of divine spirits, like ancestors and other divine forces, to find out the causes for illnesses, and the astronomical events to determine a course of action for appropriate treatments of the illnesses, and predict the impacts of the illnesses or the astronomical events on their daily life. The activities were then inscribed on the plastrons of tortoises or scapulae of oxen by ‘literate diviner groups’.³² Thus, the very first artifact of technical writing in China was generated—

³¹ James Legge, *The Chinese Classics*, vol. III, pt. 1, 184.

³² Imre Galambos, “The Chinese Writing System,” in *The Oxford Handbook of Classical Chinese Literature (1000 BCE—900 CE)*, eds. Wiebke Denecke, Wai-ye Li, and Xiaofei Tian (New York: Oxford University Press, 2017), 40.

the oracle-bone inscription (*jia gu wen* 甲骨文). The oracle-bone script is the earliest known form of Chinese writing (*hanzi* Sinographs).

The Oracle-bone Inscriptions: Communicating with the World of Spirits

People in North China (*Hua Bei* 华北) learned to use cattle scapulae for divination as early as the Xia dynasty (2204—11765 BCE).³³ At that time, people just heated the shoulder blades until they cracked and then they interpreted the crack lines to find out the answers to their questions about the future. This divination practice reached its height by Shang times.³⁴ In the Shang dynasty, people began to use tortoise plastrons as well as cattle scapulae for divination activities. Why did the Shang people start to use tortoise plastrons for divination practice? Tortoises were considered divine animals in Chinese antiquity.³⁵ So, Cao Cao (曹操), a statesman and a military strategist during the Three Kingdoms period (220-280 CE), described ‘the divine tortoise’ in one of his famous tetra-syllabic (*siyan* 四言) stanzaic poems “Divine Tortoises Enjoy Longevity (*Shengui Suishou* 神龟虽寿).”³⁶ For the Shang people, the tortoises represented the cosmos, “the sky and the earth with four pillars in the northeast, southeast, northwest, and southwest.”³⁷ The divine tortoises were thought to have a special connection to the world of spirits such as gods, ancestors, and other divine forces. When Lady Fu Hao (妇好), a famous consort of King Wuding 武丁 (r. ca. 1200 BCE), the twenty-second king of the Shang dynasty, was sick, for example, a diviner (*buguan* 卜官) working for the King used tortoise plastrons to communicate with spirits in order to find out the causes for Lady Fu Hao’s

³³ Julia Ching, *Mysticism and Kingship in China: The Heart of Chinese Wisdom* (Cambridge: Cambridge University Press, 1997), 6; Xing Lu, *Rhetoric in Ancient China, Fifth to Third Century, BCE: A Comparison with Classical Greek Rhetoric* (Columbia: University of South Carolina Press, 1998), 51.

³⁴ Ching, *Mysticism and Kingship*, 6; also see Lu, *Rhetoric in Ancient China*, 51.

³⁵ Kwang-chih Chang, *The Archaeology of Ancient China* (New Haven: Yale University Press, 1968), 316, 314; *ibid.*, *Shang Civilization* (New Haven: Yale University Press, 1981), 54-55.

³⁶ Cao Cao, “Divine Tortoises Enjoy Longevity,” in *Selected Poems from Every Dynasty, Vol 1*, eds. Ji Zhenhuai, Feng Zhongyan, Chen Yixin, and Ni Qixin (Beijing: Beijing Youth Press, 1980), 152.

³⁷ Sarah Allan, *The Shape of the Turtle: Myth, Art, and Cosmos in Early China*, (Albany: State University of New York Press, 1991), 101.

sickness, and to determine a course of actions for treatment.³⁸ The King himself was also a diviner, the Grand Diviner, perhaps. The general divination procedure is as follows: First, a diviner obtained a tortoise shell; then he would cut, saw, and sand the shell to ensure that its sides were smooth. Then along the vertical axis of the shell on the external side (the smooth side), he would chisel an oval hollow (shallow pot) and drill a circular hollow right beside the oval hollow on either side of the vertical axis, as Fig. 2-1 and Fig. 2-2 illustrate. Usually many of these hollows were prepared in several columns on either side of the vertical axis. The diviner would then apply a burning wood stick to the hollows where the shell had been made thin by chiseling or drilling, so cracks called ‘divination omen’ (*bu zhao* 卜兆) would appear in the shape of ‘卜,’ a sinograph (*hanzi* 汉字) which means ‘divination’ (*bu* 卜). When the diviner was burning the hollows to produce crack lines, he pronounced a statement he had prepared as a test, such as “Lady Fu Hao’s headache is caused by the weather.” After the cracks appeared in the shell, he would interpret the shapes of the crack lines to determine if the statement he had pronounced was true or not. The statement and his interpretations would be inscribed on the tortoise shell, thus called an ‘oracle inscription text’ (*bu ci* 卜辞).

Generally speaking, an oracle inscription text recorded on the bone consisted of four parts:³⁹

1. Preface (*Qianci* 前辞): This part records the date on which the divination statement was pronounced and the name of the diviner who delivered the statement to the world of spirits. For example, “The divination on the day of *jiaxu* 甲戌 was performed by Xun 亘 [about Lay Fu Hao’s illness]”.

³⁸ David Nivison, *The Ways of Confucianism: Investigation in Chinese Philosophy* (Chicago: Open Court, 1996), 20.

³⁹ David N. Keightley, *Sources of Shang History: The Oracle-Bone Inscriptions of Bronze Age China* (Berkeley: University of California Press, 1985), 28—44.

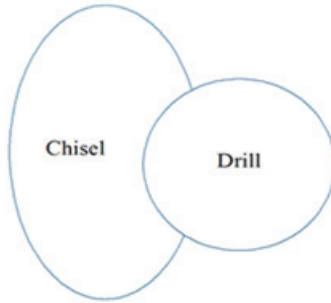


Fig. 2-1 Hollows on Left of Axis

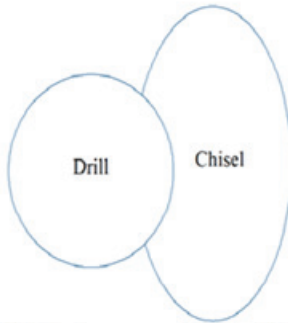


Fig. 2-2 Hollows on Right of Axis

2. Charge (*Mingci* 命辭): This part records the subject of divination queries addressed to the spiritual world. For example, “As for Lady Fu Hao’s illness, shall we make a sacrifice to an ancestral spirit [to cure her illness]?”
3. Prognostication (*Zhanci* 占辭): This part records the answers to the divination queries from the spiritual world as interpreted by the diviner through reading the crack lines in the tortoise shells. For example, “Spirits indicate that Lady Fu Hao will recover from her illness.”

4. Verification (*Yanci* 验辞): This part records whether the divination has any effect. For example, “We made a sacrifice and Lady Fu Hao recovered successfully from her illness.”

In Zhang Bingquan, you will find an ink-rubbing copy of a tortoise shell inscribed with a complete text of divination record.⁴⁰

The following is the complete text in modern Chinese script with English rendition. The numbers refer to the four parts of the text.

1 甲申卜， 殼(*Qiao*) 贞： 2 “妇好娩， 嘉？” 3 王占曰：“其惟丁娩？ 嘉。其惟庚娩？ 引吉。 4 三旬又一日， 甲寅娩， 不嘉， 惟女。”⁴¹

1 On the day of *Jiashen*, Diviner *Qiao* performed divination. 2 He asked the world of spirits, “Lady Fu Hao is giving birth. Will it bring good luck?” 3 After examining the cracks in the shell, the king officiated, “The day of *ding* is an auspicious day to give birth. The day of *geng* is even a more auspicious day to give birth.” 4 But a month later, she gave birth to a baby girl on the day of *jiayin*. Bad luck.

Actually, very few oracle-bone records that have survived from the Shang dynasty are complete with all the four parts.⁴² Most of the extant oracle-bone inscriptions are not complete records, but fragmented, partially recording divination practices, containing only one or two parts of the oracle text. Let’s look at these three examples:⁴³

1 告于祖乙 [We need to] make a ritual announcement [about something] to the spirit of Ancestor *Zuyi*.

⁴⁰ Bingquan Zhang 张秉权, *Xiaotun Dier Ben: Yinxu Wenzi: Bingbian*, vol. 2 小屯第二本: 殷墟文字: 丙编 [Yin remains inscriptions, book 2, Bing section] (Taipei: Central Academy, 1965), *Bing* 274. In Zhang’s book, each oracle bone is given a number which is carved in the bone. The number given to this oracle bone is *Bing* 274. As a tradition, the oracle bones are referred to by their given numbers. Guo Moruo 郭沫若 numbers it 14002 in his book. For more details, see Guo Moruo, *Jiaguwen Heji Diwu Ce* 甲骨文合集第五册 [A collection of oracle-bone inscriptions, vol. 5] (Beijing: Zhonghua Shuju, 1979), 14002.

⁴¹ Zhang, *Xiaotun Dier Ben*, *Bing* 274; Guo, *Jiaguwen Heji*, 14002.

⁴² Zhen-tao Xu, F. R. Stephenson, and Tao-tiao Jiang, “Astronomy on Oracle Bone Inscriptions,” *Quarterly Journal of Royal Astronomical Society* 36 (1995): 398.

⁴³ Ken Takashima, “Oracle Bone of the Late Shang Dynasty,” in *Chinese Medicine and Healing: An Illustrated History*, eds. T. Hinrichs and L. Barnes (Cambridge: The Belknap Press of Harvard University Press, 2013), 8.

2 贞: 小疾,勿告于祖乙 [The diviner] officiated that as for the minor illness, we should not make a ritual announcement to the spirit of Ancestor *Zuyi*.

3 甲戌卜, 亘贞: 御妇好于父乙 On the day of *jiaxu*, Diviner *Xuan* performed divination. He tested, “we will conduct an exorcism ritual over Fu Hao in the presence of the spirit of Father *Yi*.”

Context of Earliest Technical Writing: Divination

Whether an oracle-bone-inscription text contains all the four parts or not, one point is clear: Through communicating with the world of spirits, the diviner attempted to contact others in the spiritual world, like ancestors, gods, and other divine forces, to receive instructions for guiding human actions in an attempt either to solve current problems, like an individual’s illness, or to avoid future harm, like choosing an auspicious day to give birth. In the full text cited above, the spiritual world instructs the diviner (the king) to pick the day of *ding* or *geng*, two auspicious days, for Lady Fu Hao to give birth. The instructions from the spiritual world are communicated to the diviner through the crack lines on the tortoise shell. In the first incomplete oracle-inscription text cited above, the spiritual world instructs the diviner to “make a ritual announcement to the spirit of Ancestor *Zuyi*.” In the second, the diviner is simply communicating the instruction from the spiritual world that they should not make a sacrifice. In the third one, the diviner is actually talking to the spiritual world, pronouncing a statement for the spiritual world to evaluate and then to provide instructions. In short, Shang people, through divination practices, expected to receive instructions from the world of spirits to help them resolve any puzzles they might have encountered in their daily life, or to guide them through decision-making processes before they acted.

The divination practices were devoted to many daily activities or undertakings, such as sacrifices, approval from Divine forces, medical healing; travels; hunting; farming, weddings; warfare; state affairs; natural occurrences like rain, flood, and drought; or astronomical phenomena, like eclipses, and comets.⁴⁴ In short, the divination practices devoted to these activities and undertakings constituted the ways by which Shang people attempted to understand natural and supernatural forces through communicating with the world of gods and other divine forces. They thought these gods and divine forces knew the future and thus would help

⁴⁴ For more details, please refer to David N. Keightley, *Sources of Shang History*, 33—35.

guide them in these daily activities and undertakings to avoid harm. By asking the divine forces for guidance, Shang people learned to follow instructions. The tortoise plastrons provided a medium for Shang people to record and preserve their activities in following instructions in their daily lives. Thus, it seems plausible to conclude that the earliest Chinese technical instructions originated in a religious context of divination.

Earliest Technical Writing: Medical Writings on Oracle Bones

Many of the daily activities and undertakings which pertained to diagnosing the Imperial families' illnesses and appropriate treatments during the Shang court attempted to find the causes of the illnesses and then to decide what do to. Thus many oracle-bone inscriptions are about the body and its many health problems, from bone issues to eye and foot ailments. The 13th volume of Guo Moruo's 郭沫若 *A Collection of Oracle Bone Inscriptions* has a series devoted to the oracle-bone inscriptions that record divination practices pertaining to human health and ailments: genealogy, birthing, reproductivity, headaches, blood problems, chronic illnesses, intestine ailments, toothaches, digestive ailments, bone problems, brain disorders, eye and foot ailments, etc.⁴⁵ Li, in his article, particularly introduces various congenital illnesses and reproductive and birthing ailments, as recorded in the oracle text.⁴⁶ On one oracle bone is recorded the instruction for teaching pregnant women to choose a place to give birth, which reads: "Teach pregnant women to pick a dry mound of stamped earth on which to give birth."⁴⁷ Zhou suggests that the oracle-bone inscriptions also record cerebrovascular disorders.⁴⁸ Lou claims that cases of arthritis are also found in the oracle-bone inscriptions unearthed from

⁴⁵ Guo Moruo, *Jiaguwen Heji Dshisan Ce* 甲骨文合集第十三册 [A collection of Oracle-bone Inscriptions, vol. 13] (Beijing: Zhonghua Shuju, 1982).

⁴⁶ Chonggao Li, "殷契甲骨文中有关生殖生育与先天疾病的文字记载" [Texts about reproductive and congenital diseases as recorded in the Yin Dynasty oracle-bone inscriptions], *China Eugenics and Genetics Journal* 7, no. 7 (January 1999): 6. The Shang dynasty is also called the Yin dynasty, named after the capital city Yin in today's Xiaotun Village, Henan province, where large quantities of the oracle-bones were unearthed. The 19th king of the Shang, Pan Geng, moved the capital to Yin from Bo (in today's Shang Qiu city, Henan province).

⁴⁷ *Ibid.*, 7.

⁴⁸ Liangfu, Zhou, "Past and Present: On Cerebrovascular Medicine in China," *China Journal of Cerebrovascular Disease* 11, no. 1 (November 2004): 481.

the Shang ruins.⁴⁹ Li, in his article, systematically introduces various bone ailments as recorded in the oracle-bone-inscription texts such as classification of bone illnesses, diagnosis, and treatments.⁵⁰ According to Li, the oracle texts describe three causes for bone ailments: rain, trauma, and evil spirits.⁵¹ More importantly, the oracle-bone inscriptions contain a wealth of instructions for treating bone ailments. For example, when Lady Fu Hao suffered from skeletal pain, the diviner (instructed by the spiritual world through the crack lines in the oracle bone) officiated that a sacrifice of 30 young sheep should be offered [to cure the disease].⁵² On the day of *wusheng* (戊申), the diviner (instructed by the world of spirits through the crack lines in the oracle bone) showed that *Que* (雀) had suffered a bone ailment, so a sacrifice had to be made again to Ancestor *Mu Geng* (母庚) whether it would rain or not, in order to exorcise the evil disease. More importantly, the oracle bone inscriptions also discuss medical cases that involve misdiagnosis. For example, on the day of *gengyin* (庚寅), the diviner officiated that, after reinterpreting the instruction from the spiritual world, *Que* did not have any bone ailments; instead, the pain was caused by muscle or tendon injuries. Thus, the world of spirits instructed that no sacrifice needed to be offered to Ancestor *Mu Geng*.⁵³ According to Li, the original diagnosis was that *Que* suffered from bone ailments, so the divination was that a sacrifice should be made to Ancestor *Mu Geng*; but the divination on the day of *gengyin* corrected the original diagnosis.

What is noteworthy is that the oracle-bone inscriptions also record cases of tooth extraction, according to Li and Liu.⁵⁴ Toothaches and cavities were two common dental problems in the Shang period, and Shang people thought the causes of these problems were evil spirits. So sacrifices had to be made to the spirits to appease them, so that they would stop causing further damage to the teeth. For example, one oracle bone text tells us that when Diviner *Zheng* (争) found out on the day of *jizhou* (

⁴⁹ Yuqian, Lou, “An Overview of Development of Traditional Chinese Medical Treatment of Arthritis,” *Zhonghua Yangsheng Baojian* (Journal of Chinese Way of Life Preservation and Health) 3 (June 2012): 25.

⁵⁰ Liangsong, Li, “Exploring Bone Injury Medicine Recorded in the Oracle Bone Inscriptions,” *Orthopedics in Traditional Chinese Medicine* 24, no. 3 (March 2012): 43—45

⁵¹ *Ibid.*, 43.

⁵² *Ibid.*, 44.

⁵³ *Ibid.*, 45.

⁵⁴ Songliang Li and Xuechun Liu, *Culture of the Oracle Bone Inscriptions and Chinese Traditional Medicine* (Beijing: China Zhongyiyao Chubanshe, 2017), 117.

己丑) that a patient had a dental problem, he requested that a sacrifice should be made to Ancestor *Fuyi* (父乙) to request the ancestor to exorcise the evil spirits that caused the dental problem.⁵⁵ When offering sacrifices did not work, the problematic teeth had to be pulled out. In the Shang period, people extracted teeth either with bare hands, when teeth were loose, or by yanking a string tied to the problematic tooth.⁵⁶ For example, the diviner asked the world of spirits on the day of *jiazi* (甲子) if the King's loose tooth should be pulled out, once he found out that the loose tooth also caused pain. Then the diviner inquired whether the process would proceed smoothly if he pulled the tooth out with a string tied to it.⁵⁷ This case of tooth extraction recounted in the oracle-bone inscription text is perhaps the earliest written record of oral surgery in the world.

Astronomy in Oracle-bone Inscriptions

Also rich in records of astronomical phenomena, the oracle-bone inscriptions suggest that Shang people worshipped the celestial bodies, such as the sun, the moon, and the stars. These inscriptions are the earliest written texts that recorded natural occurrences and astronomical phenomena observed by people who were called 'astrologers' at the time. Their observations introduced to us the branch of science which we call 'astronomy' today.⁵⁸ Thus, the oracle-bone inscriptions are the earliest written records of scientific activities of Chinese astronomers. Their observations of the astronomical events were recorded with a wealth of detail and understanding.⁵⁹

Why did Shang people focus much of their interest on astronomical events? There are two major reasons: First, China was an agrarian country at that time, so the Chinese people largely made their living by agriculture. They had to cultivate the land, which was pretty much at the mercy of nature. In other words, they quite often had to deal with the natural world, such as rain, wind, flood, drought, and snow. Nature could grant a blessing of favorable weather to them; it could also strike them with disasters like floods and droughts. Thus, they attempted to predict the weather

⁵⁵ Li and Liu, *Culture*, 118.

⁵⁶ *Ibid.*, 120.

⁵⁷ Li and Liu, *Culture*, 120.

⁵⁸ Frank Ross, Jr., *Oracle Bones, Stars, and Wheelbarrows: Ancient Chinese Science and Technology* (Boston: Houghton Mifflin, 1982), 5–8.

⁵⁹ Rusen, Ma, "Astronomy and Weather in the Oracle-bone Inscriptions from the Shang Ruins," *Shang Dynasty Ruins Journal* 2 (1999): 9.

accurately, hopefully to avoid disasters or to minimize their impacts. Because people during the Shang period thought that some divine forces like heavenly spirits were in charge of the weather, they needed to communicate with these divine forces. This job fell to the Shang astrologers. They thought they could predict the weather by observing the movement of the stars, phases of the moon, appearances of eclipses, and occurrences of comets, and then interpreting these astronomical events as messages from the heavenly spirits. They recorded the messages in the oracle-bone inscriptions and advised the Imperial court on the weather conditions ‘effectively and appropriately’.⁶⁰ Second, when Shang people got sick, they called on the power of divine spirits or cosmology for help. This job fell to a group of experts called shamans (*wu* 巫). Shang shamans were prayers, diviners, astrologers, and medicine men, who engaged in performing invocations, foretelling benefit and harm, observing astronomical events, and healing the sick. In short, they communicated with the heavenly forces, sought benefit, shunned harm, and exorcised ailments through observing and interpreting astronomical phenomena.⁶¹ Several well-known shamans were recorded in the oracle-bone inscriptions: *Xian* 咸, a famous Shang astrologer; *Peng* 彭, the founding father of traditional Chinese medicine; *Fang* 妨 or 方, a Shang medicine man; *Ke* 殼, the founding father of divination medicine; and *Yi* 伊, a prime minister of the Shang dynasty.⁶²

The oracle-bone inscriptions contain references to stars, planets, comets, both lunar and solar eclipses, and other astronomical or natural events. Here are some examples:

- 1 On the day of *bingsheng* 丙申, the diviner inquired: “An offering of wine was made on the day *yizi* 己子. Will it rain tomorrow?” When a sacrifice was offered, rain would stop. When a sacrifice was withheld, it would rain again. An offering was made to the “Bird Star” (鸟星).⁶³

⁶⁰ Paula Varsano, “Moments,” in *The Oxford Handbook of Classical Chinese Literature (1000 BCE—900 CE)*, eds. Wiebke Denecke, Wai-ye Li, and Xiaofei Tian (New York: Oxford University Press, 2017), 406.

⁶¹ Li and Liu, *Culture*, 34.

⁶² *Ibid.*, 35—36.

⁶³ Guo, *A Collection*, vol. 5 (1979), 11497.

- 2 On the day of *gengchen* 庚辰, the diviner inquired: “there has been another *zhi* 𠄎 (black spot) on the sun. Is it a good omen and will it bring disasters?”⁶⁴
- 3 On the day of *renshen* 壬申, the moon was eclipsed at night.⁶⁵
- 4 A sacrifice was made to the spirit of *Bigeng* 妣庚 (the Queen of King *Zuyi* 祖乙). A comet (*hui* 慧) was seen. “By making a sacrifice to Bigeng, will the comet disappear?”⁶⁶
- 5 On the day of *guiwei* 癸未, the divination was performed by *Zheng* 争: Next day, *jiashen* 甲申, changed to a sunny day. That night, the moon was eclipsed. The next day was foggy; it did not rain.

The significance of the records of astronomical events is that these records suggest that the Shang people believed in the power of nature to influence their daily life. For them, there existed a physical link between the world of spirits and the human world. It was the task of the shamans to scan the sky, record their findings, and then inform the Imperial court of their predictions. In these records, we see the crude form of a major philosophical thought in Chinese culture—天人合一 (*tianren heyi* oneness with the natural world or the mutual influence between Heaven and humans). The Shang people believed that any misfortunes that occurred in the human world, like illnesses and natural disasters, were the causes for anger on the part of Heaven, which was expressed through natural calamities. The natural events were then regarded as manifestations for heavenly displeasure with earthly conduct.⁶⁷ This philosophical thought was later elaborated on in other Chinese classics such as the *Classic of Documents* (*Shujing* 书经), *Classic of Rites* (*Liji* 礼记) and *The Annals of Lu Buwei* (*Lvshi Chunqiu* 吕氏春秋), and further developed in *Classic of Changes* (*Yijing* 易经), a major Confucian classic.

As the earliest written records of scientific activities of the ancient Shang people, the oracle-bone inscriptions also provided data for present-day scientific activities. For example, scientists at the Jet Propulsion

⁶⁴ Ibid., *A Collection*, vol. 11 (1982), 33698.

⁶⁵ Ibid., *A Collection*, vol. 5 (1979), 11482.

⁶⁶ Tso-pin Tung, *Yinxu Wenzhi Yibian* 殷墟文字乙编 [The Oracle-bone inscription from Yin remains Vol. 2], (Nanking, 1948), 751.

⁶⁷ Jing, *Mysticism*, 17; also see C. C. Shih, “A Study of Ancestor Worship in Ancient China,” in *The Seed of Wisdom: Essays in Honour of T. F. Meek*, ed. W. S. McCullough (University of Toronto Press, 1964), 186—188.

Laboratory in Pasadena, California, figured out the exact date of a solar eclipse by using the data as recorded in the oracle-bone inscriptions, and eventually, they determined that, compared with a day during the Shang dynasty, “a day is now 0.047 seconds longer.”⁶⁸

The Four-Part Structure of the Oracle-bone Inscription Text

As we have learned from the above discussions, an oracle-bone inscription text consists of four parts: 1. Preface (*Qianci* 前辞); 2. Charge (*Mingci*, 命辞); 3. Prognostication (*Zhanci* 占辞); and 4. Verification (*Yanci* 验辞). This four-part pattern may well be regarded as the earliest textual structural pattern in Chinese textual history.

The first part begins the oracle text, revealing the name of the diviner, the job to be performed, and the date on which it was performed. This part actually introduces the text, telling the readers what the text is about: it is about a specific divination. The second part presents the subject of the divination, often in the form of a question addressed to the world of spirits. This part reveals the details of the divination, informing the world of the spirits of humans’ concerns and their invitation to the spirits to pronounce a judgement on a specific incidence. It continues the point introduced in the first part and further develops it: The divination is about, say, Lady Fu Hao’s giving birth. This further development joins the first part and the third part. The third part is the turning point in the oracle text, because it presents the results of the divination (the pronouncement from the world of spirits) based on the diviner’s reading and interpreting the cracks in the tortoise shell. This part presents what the readers are waiting for: the result of divination communicated from the divine forces. In this part, the focus changes from the diviner in the second part to the divine forces. The fourth part concludes the oracle text by recounting what actually happened following the divination, showing whether the divination had any effect or not. It either confirms the divination result or rejects it. This part actually concludes with a general hint that it is wise to observe the pronouncement from the divine forces. This four-part textual structure reveals a process of reasoning, from specific to general.

This simple and straightforward four-part structure is actually the forerunner of the classical four-part textual structure of Chinese prose: *qi* (起 beginning), *cheng* (承 joining, continuing), *zhuan* (转 turning point),

⁶⁸ I. Peterson, “Oracle Bone Shows a Once-shorter Day,” *Science News* 135, no. 24 (June 1997): 374.

and *he* 合 concluding). Scholars generally acknowledge that the “*qi cheng zhuan he*” structure is a prevalent textual structure of Chinese prose,⁶⁹ though it was first devised and employed as a method by Fan Peng 范梈 (1272—1330 CE) of the Yuan dynasty (1271—1368 CE) to analyze poetry,⁷⁰ and there are now many variations to this structure.⁷¹ Chu, Swaffar, and Charney, suggest that this textual structure facilitates a process of reasoning from specific to general, which dovetails what the four-part pattern of the oracle-bone inscription texts reveals. The second part, Charge, presents justification—Lady Fu Hao is giving birth—before the third part, Prognostication, presents the result and the last part, Verification, presents the conclusion. This ‘justification-result-conclusion’ sequence is actually the inductive reasoning sequence, a sequence which the ‘*qi cheng zhuan he*’ structure also demonstrates.⁷² Here we see a very important rhetorical theme embedded within the earliest extant Chinese written messages, which are not traditionally considered as texts that discuss rhetoric or writing strategies. That is perhaps why the Shang diviners were, in all likelihood, the first ‘trained’ rhetoricians in China.⁷³

The Oral Context of the Oracle-bone Inscriptions

What is noteworthy during the divination practice is the role of orality in seeking answers to the divination queries from the world of divine forces. The divination was primarily performed in oral form, and it was later

⁶⁹ W. Chen, *Xiucixue Fafan* 修辞学发凡 [The study of rhetoric] (Hong Kong: Hong Kong Daguang Press, 1964), 235—236; C. Di, “Pianzhang Xiuci Chutan 篇章修辞初探” [A preliminary discussion of text rhetoric], *Xiucixue Lunji* 2, (1984): 293—295; Y. Wu, *Wenzhang Jiegou Xue* 文章结构学 [Study of prose structure] (Beijing, China: China Renmin University Press, 1989), 280-282; K. Wang, *Baguwen Gaishuo* 八股文概说 [A general survey of the eight-legged essays] (Beijing: China Peace Press, 1991), 9—13; X. Wang, “Writing Concepts in Chinese Writing Instruction,” *Issues in Applied Linguistics* 5, no. 2 (1994): 213—225. 211-229; Xiaoye You, “Conflation of Rhetorical Traditions: The Formation of Modern Chinese Writing Instruction,” *Rhetoric Review* 24, no. 2 (2005): 156-166.

⁷⁰ Chen, *Xiucixue*, 233.

⁷¹ David, Cahill, “The Myth of the ‘Turn’ in Contrastive Rhetoric,” *Written Communication* 20, no. 2 (2003): 175—180; Hsi-Chin Janet Chu, Janet Swaffar, and Davida H. Charney, “Cultural Representations of Rhetorical Conventions: The Effects on Reading Recall,” *Tesol Quarterly* 36, no. 4 (2002): 515.

⁷² Chu, Swaffar, and Charney, “Cultural,” 515.

⁷³ Lu, *Rhetoric*, 51.

inscribed in tortoise shells which were then kept as Imperial archives.⁷⁴ The diviner, before reading and interpreting the crack lines in the tortoise shells, had to communicate with the divine forces by mouth, by the means of 告 (*gao* pronouncing or announcing), the action of addressing the divine forces—上帝 (*shangdi* God on High), 上天 (*shangtian* Heaven), or 祖先 (*zuxian* ancestral spirits)—with divination queries. The divination process as recorded in the oracle-bone inscriptions suggests that such a process relied heavily on the mouth for communicating with the world of spirits. First, the diviner would orally address the divination queries to the spirits. Then he could orally pronounce his evaluation of the crack lines in the shell—judgment from the world of spirits. This oral communication involved a process whereby divine “invocations and incantations . . . are recited with the aim of acquiring certain favor from the spirits.”⁷⁵ What favor did the diviner aim to acquire? Certainly announcements on what would happen to individuals, especially the Imperial family, and the Imperial dynastic state. In other words, the diviner, in the divine process, aimed to seek feedback or approval from the divine forces, especially Heaven, before performing a job. He had to measure and calculate (揣测 *chuaice*) the attitude of Heaven towards his official job. Heaven had to approve human judgment. That is, humans had to obtain Heaven’s approval before performing a task because humans are an integral part of the natural world. Heaven and the human world were interlinked.

The divination practice suggests several significant points about oral communication in the Shang dynasty: First, it played a key role in championing the Chinese thought of oneness of nature and humans (*tianren heyi sixiang* 天人合一思想). The diviner, by employing oral communication, served as the bridge between the divine world and the human world, making the otherwise inaccessible divine world accessible to the human world. Second, in the divination practice, putting the oracle process in writing was not employed as the first step in initiating the process. Rather, writing (inscribing with a sharp instrument in this case) represented the conclusion of oral invocations or incantations. Oral communication, in this case, was as important as, if not more important than, written communication. Third, it contributed much to the textual structure of the oracle-bone inscriptions. The four-part structure is mainly based on the two major purposes of the oral communication in the divination process: to orally address queries to the divine world and to

⁷⁴ Lu, *Rhetoric*, 51; Xu, Stephenson, and Jiang, “Astronomy,” 397; Nivison, *The Ways*, 20.

⁷⁵ Ching, *Mysticism*, 11.

pronounce the judgement from the divine world. Fourth, oral and written communication existed side by side; each performed its own function. Oral communication facilitated completeness of the divination practice while writing (again, inscribing with a sharp instrument) served to preserve and circulate words (inscriptions) beyond the immediate presence of the diviners and others.

No Attention Was Paid to ‘Page Design’

The oracle-bone inscription texts also display another prominent feature: lack of attention to ‘page design’ even though the oracle texts in the later Shang period employed topic boundary strategies, such as long lines between topics of divinations to help readers tell one topic from another, although these were very limited in number.⁷⁶ Without visual cues, readers would find it very hard to navigate the oracle texts, because there were no signals that would show where a divinatory message began and where it ended, how two or more than two messages were related, what points were important, and how many topics were recorded. Symbols were inscribed in the margins of each tortoise shell to indicate the number of the shell, its source, and other information about the shell,⁷⁷ but no textual cues or notations were used which would have guided readers to read the text, as argued by some scholars.⁷⁸

Significance of the Oracle-bone Inscriptions

As the earliest artifact of technical writing in China, the oracle-bone inscriptions signify several important points about technical writing in the Chinese tradition: First, they suggest that technical writing in China began in the context of divination practice whereby people sought guidance from the world of divine forces. This attempt to seek guidance from the divine forces could be the birth of a very important and influential philosophical thought in the Chinese tradition: the theory of mutual influence between humans and nature, which was further developed in other Chinese

⁷⁶ David N. Keightley, "Marks and Labels: Early Writing in Neolithic and Shang China," in *Archaeology of Asia*, ed. Miriam T. Stark (Malden, MA: Blackwell, 2006): 190-194.

⁷⁷ *Ibid.*, *Sources of Shang History: The Oracle-bone Inscriptions of Bronze Age China* (Berkeley: University of California Press, 1985), 53—54.

⁷⁸ *Ibid.*, 52; also see Y. Yan, *Jiagu Xue* 甲骨学 (*The Oracle Bone Studies*, 2 vols.) (Taipei: Yiwen Publishing House, 1978), 961—1080.

classic—*Classic of Documents* (*Shujing* 书经), *Classic of Rites* (*Liji* 礼记), *The Annals of Lu Buwei* (*Lushi Chunqiu* 吕氏春秋), and *Classic of Changes* (*Yijing* 易经). That Shang people consulted natural phenomena when predicting future events suggests that they believed that the human world was connected to the natural world, one way or another. In this respect, Cook argues that Shang people “did not consider individual human lives separately from their families, polities, or natural and supernatural environments,” so any abnormalities in the human world were interpreted by Shang people as “signs and symptoms of breakdown” of human’s relationship to nature.⁷⁹ This philosophical thought has exerted a great influence on Chinese communications, including technical communication. Second, technical writing began in the form of oral communication whereby the communicator—the diviner—served as the bridge between the readers and the divine forces. In other words, the communicator, the diviner in this case, first talked to the divine forces and the audience before writing down (inscribing with a sharp instrument) the content of the talk. Writing actually represented the conclusion of oral communication. Oral communication served to bind the human world with the divine world. Because of this binding, “[t]he link between man and nature was, it seems, perceived as very real, immediate and concrete.”⁸⁰ This oral nature of the oracle-bone inscriptions had far-reaching consequences for communication, including technical writing, in the Chinese tradition; perhaps the prevalent practice of oral contracts in business in modern China is rooted in the oral nature of the Shang oracle texts. Third, the textual structure of the oracle-bone inscriptions established the four-part textual structure that is followed by modern Chinese prose, including technical writings. This textual structure also articulates the inductive reasoning sequence which is found in modern Chinese texts, including technical writings. Fourth, the lack of page design in the oracle-bone inscription texts influenced later technical writing texts before China introduced ‘page design’ philosophy in the 21st century. That is, traditionally, technical writing texts did not give attention to page design.

⁷⁹ Constance A. Cook, “The Pre-Han Period,” in *Chinese Medicine and Healing: An illustrated History*, eds. TJ Hinrichs and Linda L. Barnes (Cambridge, MA: The Belknap Press of Harvard University Press, 2013), 12.

⁸⁰ Martin S. Ekstrom, “One Lucky Bastard: On the Hybrid Origins of Chinese ‘Literature,’” *Bulletin of the Museum of Far Eastern Antiquities* 72 (2002): 70.

CHAPTER THREE

CLASSIC OF POETRY (诗经): TECHNICAL INSTRUCTIONS AND REPORTS

As we have learned from Chapter Two, orality and divination, and sacrificial practices, played key roles in the formation of the Shang oracle-bone inscription texts, the earliest artifacts of technical writing in the Chinese tradition. It so happens that orality and sacrificial practices also played important roles in the origin and development of the first collection of poems and songs in the Chinese tradition—*Classic of Poetry* (*Shi Jing* 诗经), one of the six Confucian classics—305 poems and songs composed between 11th and 7th centuries BCE. These 305 poems are divided into four sections: Airs 风 (Feng), Major Elegantiae 大雅 (Daya), Minor Elegantiae 小雅 (Xiaoya), and Eulogies 颂 (Song).⁸¹ In spite of debates and concerns among both Chinese and Western scholars regarding the provenance, genealogy, authorship, and dating of the poems and songs of the *Classic of Poetry*, scholarship generally suggests that these poems and songs were initially chanted and communicated orally, as hymns or odes at ancestral sacrifices, or songs that celebrated love and marriage and agricultural harvests, and which recount farming activities.⁸² These were then collected into an

⁸¹ There are numerous English renditions of 风, 大雅, 小雅, and 颂, but I prefer David Schaberg's translation in "Classics (Jing 经)" of "雅" as "elegantiae" in *The Oxford Handbook of Classical Chinese Literature (1000 BCE—900 CE)*, ed. Wiebke Denecke, Wai-Yee Li, and Xiaofei Tian (New York: Oxford University Press, 2017), 172—173. My translation is a modified version of Schaberg's translation.

⁸² Gao Heng 高亨, *诗经今注 Shi Jing Jinzhu* (Classic of Poetry annotated today), (Shanghai: Shanghai Guji Press, 1987), 1—2; Joseph Allen, "Postface: A Literary History of the *Shi Jing*," in *The Book of Songs*, trans. Arthur Waley, ed. Joseph R. Allen (New York: Grove Press, 1996), 336-339; Stephen Owen, "Forward," in *The Book of Songs*, xxiii-xxiv; Martin Kern, "Bronze Inscriptions, the *Shijing* and the *Shangshu*: The Evolution of the Ancestral Sacrifice during the Western Zhou," in *Early Religion Part One: Shang through Han (1250 BC-220AD)*, ed. John Lagerway and Marc Kalinowski (Danvers, MA: Brill, 2009), 144-147; Martin

anthology around 600 BCE. Then Confucius edited the anthology so that it became a Confucian classic as we read today.⁸³ Fig. 3-1 illustrates a page from the Kuibi Edition of *Classic of Poetry* published during the reign of Guanxu 光绪年间 (1875—1908).

A Book of Instructions and Reports

The *Classic of Poetry* is certainly a work of literature, a literary collection of poems and songs, but it is also a book of instructions and reports. This book of instructions and reports provides guidance for readers to perform a task, such as making sacrifices to ancestors, recounting past events, such as the history of King Wen's founding the Zhou house, or record. Because the book has always been treated as a literary collection of poems, one might be puzzled by the claim that it is related to technical writing.

All the poems and songs were composed between the 11th century and the 7th century BCE. These poems and songs have always been understood to perform different functions in daily life based on audiences' interpretations.⁸⁴ While the poems and songs were being compiled into a collection, even the sinograph 诗 (poetry) in 诗经 (*Classic of Poetry*) did not completely mean what it means to us today; it meant something like 'odes,' implying both orality and music, if we understand its meaning in its historical context.⁸⁵ Actually, we must also understand the functions of the poems and songs in their historical context, if we are going to find out why the *Classic of Poetry* is a book of instructions and reports. First, we should not take our contemporary understanding of poetry, instructions, or reports, and then try to refer that understanding back to the 600 BCE Chinese conception of what we call poetry, instructions, and reports, today. In other words, it is not valid to use that understanding as a reference point for the Chinese understanding of instructions and report in 600 BCE. Second, to understand the functions of these poems and songs, we need to examine the "Great Preface" (*Shi Daxu* 诗大序).

Kern, "Shi Jing Songs as Performance Texts: A Case Study of 'Chu Ci' (Thorny Caltrop)," *Early China* 25 (2000): 49-52; Wu Shuping 吴树平 and Lai Changyang 赖长扬, eds., *Baihua Sishu Wujing Disan Juan* 白话四书五经第三卷 (Four books and five classics in vernacular, vol. 3) (Beijing: Guji Wenhua Press, 1992), 3—7.

⁸³ Stephen Owen, "Foreword," xxiii-xxiv; Joseph Allen, "Postface," 342-346.

⁸⁴ Stephen Owen, "Foreword," xiv.

⁸⁵ Martin Ekstrom, "One Lucky Bastard," 7—77.

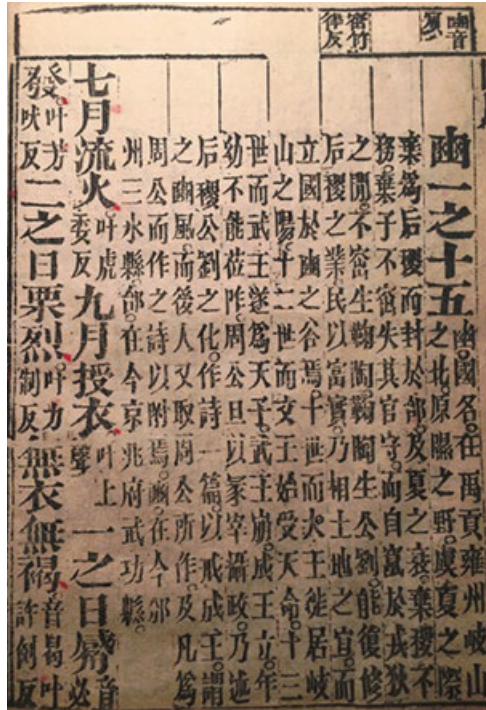


Fig. 3-1 "7th Moon," Kuibi Edition of *Classic of Poetry*

The “Great Preface,” the preface to the *Classic of Poetry* by the Mao-school exegetes, is perhaps the most influential commentary on the *Classic of Poetry*, made by 毛亨 Mao Heng and 毛萇 Mao Chang during the Warring States period 战国时期 (475—221 BCE), close to the compilation date of *Classic of Poetry*.⁸⁶

The “Great Preface” opens by stating that the former kings, through poems and songs, developed instructions for regulating husband-wife relationships, demonstrating filial respect, enhancing human relationships,

⁸⁶ Joseph Allen, “Postface,” 363. For more information on the Mao-family exegetes, see “The Exegetical Tradition” in Allen’s “Postface” and Ekstrom’s “One Lucky Bastards.”

improving teaching, and changing manners and customs.⁸⁷ Poems in the section of Airs 风 (*Feng*) represent ‘lessons of manners’; for example, the “Great Preface” stresses that denoting the influence of instruction . . . and instruction “transforms people.”⁸⁸ The ‘Great Preface’ claims that the very first poem in the *Classic of Poetry*, “Harmonious Double-crested Cormorants” (关雎 *Guan Ju*) teaches the first lesson of manners, whereby the relation between husband and wife is regulated.⁸⁹ In addition, the ‘Great Preface’ declares that the *Classic of Poetry* can be used to regulate relationships among people and states. According to the Mao commentary, the poems, among other things, perform the function of teaching lessons (providing instructions) on various tasks.

Kern has argued along the same line, that many of the poems in the *Classic of Poetry* “provide guidance for an audience . . . that was no longer familiar with the original sacrificial practice.”⁹⁰ Kern has also pointed out that many poems in the *Classic of Poetry*, especially those that recount rituals and ceremonies, intend to present model rituals or ceremonies for others to reproduce,⁹¹ and that many poems in the section of Eulogies are reports of histories of the Shang and Zhou dynasties and the various figures in these dynasties.⁹² Ekstrom goes a step further, and argues by drawing on Shaughnessy’s idea of ‘associative intelligence’ that the *Classic of Poetry* suggests that “the ancient Chinese sought in Nature and natural phenomena—guidance for human action,” because, as Ekstrom claims, “perhaps the intriguing imagery we find in the *Book of Songs*⁹³ is . . . but literal accounts of cosmological correspondence between man and nature actually believed to be ‘out there.’ ”⁹⁴ Looked at in this way, the *Classic of Poetry* might as well be read as a book of instructions and reports. In this respect, these poems in the *Classic of Poetry* are very

⁸⁷ James Legge, *The Chinese Classics: With a Translation, Critical and Exegetical Notes, Prolegomena, and Copious Indexes*, vol. IV, pt. 1 (Hong Kong: Lane, Crawford, & Co., 1871): 36-37.

⁸⁸ *Ibid.*, 36-37.

⁸⁹ *Ibid.*, 36

⁹⁰ Kern, “Bronze Inscriptions,” 173.

⁹¹ Kern, “*Shi Jing* Songs,” 63-65.

⁹² *Ibid.*, 74.

⁹³ This is one version of the various English translations of 诗经 (*Classic of Poetry*).

⁹⁴ Ekstrom, “One Lucky Bastard,” 70-71.

similar to the ancient Greek astrological writings on papyrus, which are a basic form of instruction and of classical poetry alike.⁹⁵

The Problem of Reading the *Classic of Poetry* as a Book of Instructions and Reports

A Western technical communicator, or even a present-day Chinese technical communicator, will find it challenging to justify the nature of the *Classic of Poetry* as a text that provides guidance to help people perform various tasks, or which reports historical events.

When they begin to read the poems in this classic, they will probably develop an impression that these poems are just literary products, no different from other poems which employ rhymes, rhythms, imagery, and meters. If they read the very first one “Harmonious Double-crested Cormorant” (关雎 *Guan Ju*), they will see that the poem consists of five stanzas, and that each stanza consists of four tetrasyllabic lines, which portray pairs of cormorants on the islet in the river, juxtaposed with the comment that gentleman love to woo virtuous and graceful ladies. They can hardly see any connection between the tetrasyllabic lines and instructions or reports. If they read another poem “The Towering South Mountain” (节南山 *Jie Nanshan*) in the section of Minor Elegantiae (小雅 *Xiaoya*), they will see that this poem consists of ten stanzas, with six stanzas of eight tetrasyllabic lines, and four stanzas of four tetrasyllabic lines. The entire poem laments over the wrongdoings of Grand Tutor Yin (尹氏大师 *Yinshi Dashi*)⁹⁶ who was running the office in the capital of 镐 (*Hao*) near today’s 西安 (*Xian*), after King Ping of Zhou 周平王 moved the capital eastwards to Luoyi 洛伊, near today’s Luoyang 洛阳 in 770 BCE. Again, there is hardly any connection between this poem and instructions. A technical communicator, either Western or Chinese, would probably look for instructional steps or sentences that provide guidance, perhaps sentences like “不要录用言行猥琐的亲戚或阿谀奉承的人 (Do not employ mean relatives or sycophants)” instead of two tetrasyllabic lines “琐琐姻亚/则无膺仕”⁹⁷ (*Suosuo Yinya/Zewu Wushi* Trivial in-laws and relatives/No important official positions). The poem “绵” (*Mian*

⁹⁵ G. O. Hutchinson, “Read the Instructions: Didactic Poetry and Didactic Prose,” *The Classic Quarterly* 59, no. 1 (May 2009), 199.

⁹⁶ Grand Tutor was the title of an official who assisted the king in the Western Zhou dynasty.

⁹⁷ Wu and Lai, *Baihua Sishu*, vol. 3, p. 189.

Spreading) in the section of Major Elegantiae (大雅 *Daya*) is a report that recounts how the 古公亶父 (*Gugong Danfu* The deceased Duke of Bin 邠 *Danfu*) led the Zhou people in building their State. But again, present-day technical communicators will hardly see any connection between a report and the tetrasyllabic lines of 其绳则直/缩版以载/作庙翼翼/掾之陧陧/度之薨薨/筑之登登/削屨冯冯⁹⁸ (*Qisheng zezhi/Suoban Yizai/Zuomiao Yiyi/Jiuzhi rengreng/Duozhi honghong/Zhuzhi dengdeng/Xuelou pingping*) (Make the plumb-line dead straight/mount the planks to hold the earth/shovel the earth into the basket with *reng reng*⁹⁹/pour the earth in with *hong hong*/ram and pound it with *deng deng*/Then pare and pat it with *ping ping*). They would probably be puzzled by the successive onomatopoeia reduplicatives. They would not understand what these ancient Chinese ‘technical instructions’ are instructing them to do, or what the ‘ancient reports’ are reporting.

At this point, it is time to point out that this seeming lack of connection between instructions and reports and the *Classic of Poetry* is due to the fact that the *Classic* is not a book of formal technical writings. As I have argued at the beginning of Chapter One, according to the Chinese tradition, there has never existed a consensus of the definition of technical writing. In 700 or 600 BCE China, there was no such a profession called ‘technical writing,’ nor were there any professional texts devoted to technical writing or technical instructions or reports. Any text could serve to provide instructions, or to recount a past event, especially a text that was closely related to daily life. The *Classic of Poetry* is such a text, rooted in songs performed in various contexts in daily life such as festivities, sacrifices, rituals, etc.¹⁰⁰ Zhu Xi 朱熹 (1130-1200 CE), a neo-Confucian exegete, comments on the *Classic of Poetry*, “The so-called Airs in the poems are rooted in songs and ballads of alleys and lanes” (凡诗之所谓国风者多出于里巷歌谣之作). So those poems are charged with the composers’ life experiences, serving as exemplars for others, thus serving as guide for them. But since they are poems, they are not articulate, but only *suggestive* of what actions should be performed.¹⁰¹ Ekstrom, when he is discussing

⁹⁸ Wu and Lai, *Baihua Sishu*, vol. 3, p. 264.

⁹⁹ A reduplicative employed as onomatopoeia conveys the sound of shoveling the earth into the basket. The following *deng deng*, *hong hong*, and *ping ping* are also onomatopoeic reduplicatives used to convey the sounds of throwing, pounding, and patting respectively.

¹⁰⁰ Owen, “Forward,” xiv-xxiii.

¹⁰¹ Fung Yul-an 冯友兰 claims that one major characteristic of Chinese philosophy is that it is not articulate but suggestive, because it uses aphorisms, allegories, and

ambivalence of the poems in the *Classic of Poetry* and examining how one meaning is embedded within another, proposes that we should interpret the meaning of a poem via what he terms the “Confucius’[sic] ‘allegorical imperative.’”¹⁰² That is, these poems always mean something rather than what the words denote. I concur with Ekstrom’s proposal, and I also think what Ekstrom means by ‘allegorical imperative’ corroborates what Fung means by ‘suggestiveness’ when he is discussing Chinese philosophy. That is, these poems always speak about something else (言外之意 *yanwai zhiyi*). This ‘speaking about something else’ is also true when we read these poems as instructions and reports. For example, “关雎” (Harmonious Double-crested Cormorants), through portraying harmonious pairs of cormorants playing on the islets in the river, shows the ideal relationship between husband and wife, therefore providing guidance for people to rectify such relationships. This poem, instead of providing direct instructions, instructs indirectly through illustrations. On how this poem guides husband and wife to correct their relationships, Confucius remarks that the poem shows that they should be “happy but not indulgent, sad but not distressed” (乐而不淫哀而不伤¹⁰³). Legge claims that lessons “have to be drawn from the [poems] by a circuitous process.”¹⁰⁴

Fung Yul-an 冯友兰 has pointed out that “suggestiveness is the ideal” of Chinese culture.¹⁰⁵ This suggestiveness means that *something* is adaptable and usable in various contexts. This means that the instructions and reports, as contained in the *Classic of Poetry*, employ narratives, metaphors, imagery, symbols, aphorisms, and other figurative uses of language, instead of simple, clear, and straight-forward language; thus, the readers’ responses to them are based on their personalized interpretations; thus, these instructions and reports could be used in various situations and contexts. I believe this adaptability is the reason why parts of the poems and songs in the *Classic* were often quoted during the Warring States

imagery instead of stating propositions directly. I think instructions and reports in the *Classic* also work via suggestiveness. For more information on Fung’s discussion, see Fung, *A Short History of Chinese Philosophy*, trans. Derk Bodde (New York: The Free Press, 1966), 11—15.

¹⁰² Ekstrom, “One Lucky Bastard,” 78.

¹⁰³ Confucius, “The Analects 论语” in *Four Books Annotated Together* 四书集注, ed. Zhu Xi 朱熹 (Taipei: Wenhua Tushu Gongsi 文化图书公司, 1984), 61.

¹⁰⁴ Legge, *The Chinese Classics*, vol. IV, pt. 1, p. 184.

¹⁰⁵ Fung, *A Short History*, 12.

period 战国时期 (475—221 BCE) by celebrities in support of the embedding argument or in diplomatic speeches.¹⁰⁶

Zuo Commentary (左传 *Zuo Zhuan*), China's oldest annalistic narrative history (编年体历史), which gives a year-by-year or month-by-month account of the major political, diplomatic, and military affairs in various feudal states between 722 and 468 BCE, is peppered with quotations from the *Classic of Poetry*.¹⁰⁷ For example, in “Duke Xun 12th Year 宣公十二年” (597 BCE), a battle is recounted between the state of Chu (楚国) and the state of Jin (晋). During the battle, Sun Shuao 孙叔敖, the prime minister of Chu, after learning from a Chu soldier that the Jin army was advancing, ordered his troops to march forward. At that point, he quoted two lines from a poem “The Sixth Moon” (六月 *Liu Yue*) which reports a battle under King Xuan of Zhou: “Ten large four-horse-drawn chariots/Opening up a way” (元戎十乘/以先啟行 *Yuanjie shisheng/Yixian qixing*). Sun quoted them to support his decision to march forward so that the Chu army could press ahead of the Jin Army.¹⁰⁸ Sun's message is clear: I simply follow the instruction from the poem. In “Duke of Zhao 4th Year 赵公四年” (538 BCE), Ji Wuzi 季武子 and Shen Feng 申丰 had a conversation about natural events after it rained and hailed hard. During the conversation, they discussed ice: how to transport it, how to store it, when to use it, and how to use it. Shen Feng remarked that the last stanza of “The Seventh Moon”¹⁰⁹ (七月) in part of the *Airs of Bin* (豳风), illustrates the method of storing ice.¹¹⁰ Indeed, the last stanza of the poem instructs us to cut the ice in the 12th moon and to store it in the ice cellar in the first moon (“二之日凿冰冲冲/三之日纳于凌阴”).¹¹¹

So why is “suggestiveness” the ideal of Chinese culture? Fung argues that, “[i]t is the suggestiveness that is attractive.” Fung invokes Zhuangzi 庄子 (ca. 369-286 BCE), the ostensible author of the eponymous work, who discusses language and intent philosophically. Zhuangzi explains that a fish trap is used to trap fish. A fisherman forgets the trap once he gets the fish. A rabbit snare is used to catch rabbits, but a hunter forgets the snare

¹⁰⁶ Kern, “*Shi Jing* Songs,” 72.

¹⁰⁷ For more sophisticated discussions about the uses of the *Classic of Poetry* in *Zuo Commentary*, see Ekstrom, “One Lucky Bastard”; Kern, “*Shi Jing* Songs”; and Allen, “Postface.”

¹⁰⁸ Wu and Lai, *Baihua Sishu*, vol. 4, p. 249.

¹⁰⁹ A moon is a month in the lunar calendar that a traditionally agrarian China used.

¹¹⁰ *Ibid.*, vol. 3, 142.

¹¹¹ Gao, *Shi Jing*, 200.

once he catches the rabbit. Language is used to hold ideas, but a speaker does not think about language once he gets the idea. Therefore, Zhuangzi wonders if he himself could find a person who had stopped thinking about language and talk to this individual.¹¹² In other words, Fung claims, to talk to an individual without employing a single word is to not use words at all.¹¹³ For Zhuangzi, on the other hand, such an individual speaks non-speech (言无言).¹¹⁴

Zhuangzi speaks only non-speech, because “when you speak non-speech, you can talk all your life without having said a single word, or never talk but never fail to say something” (言无言终身言未尝言终身不言未尝不言¹¹⁵), such as when Confucius did not say anything when he met with *Wen Boxue* (温伯雪). His disciple *Zilu* (子路) asked Confucius the reason why he chose not to speak although he had wanted to meet with Wen for a long time. Confucius replied that, “when our eyes met, we knew the existence of the Way without the need to speak (目击而道存矣亦不可以容声矣).”¹¹⁶ Fung stresses that the Way can only be suggested, and that “it is the suggestiveness of language, not its fixed denotations or connotations that reveals the Way.”¹¹⁷

This suggestiveness pervades the *Classic of Poetry*, and the poems and songs in it provide guidance for readers via suggestiveness. For example, “Roll up Your Pants” (褰裳 *Qian Shang*) in the subdivision of Airs of Zheng (郑风 *Zheng Feng*) instructs young men and young girls to look to each other just for love, not for beauty, social rank, money, or noble ancestry. “The River Is Broad” (河广 *He Guang*) in the subdivision of Airs of Wei (卫风 *Wei Feng*) instructs readers to value the bonds between relatives and friends, because even the greatest obstacles or the largest distance will not separate relatives or loved ones. “Thorny Caltrop” (楚茨 *Chu Ci*) in the section of Minor Elegantiae (小雅 *Xiao Ya*) guides readers to perform an ancestral ritual. “Clearing away the Weeds” (载芟 *Zhai Shan*) in the section of Eulogies (颂 *Song*) reports how Zhou people opened up virgin land, planted seeds, and reaped harvests.

¹¹² Fung, *A Short History*, 13. For the complete story of Zhuangzi’s philosophical discussion about language and intent, see Zhang Yuliang 张玉良, ed., 白话庄子 *Baihua Zhuangzi* (Zhuang Zi in the vernacular) (Xian: Sanqin Press, 1992), 371.

¹¹³ *Ibid.*, 13.

¹¹⁴ Zhang, *Baihua*, 374.

¹¹⁵ *Ibid.*, *Baihua*, 374.

¹¹⁶ *Ibid.*, *Baihua*, 270.

¹¹⁷ Fung, *A Short History*, 13.

The poems and songs in the *Classic of Poetry* provide guidance through suggestiveness, and in so doing, they display three major features: their oral nature, employment of common nouns to foreground the significance of reproducibility, and the use of nouns for accurate description.

The Oral Tradition in the *Classic of Poetry*

As I have pointed out, when I am proposing to read the *Classic* as a book of instructions and reports at the beginning of this chapter, the sinograph 诗 (poetry) in 诗经 (*Classic of Poetry*) implies both orality and music.¹¹⁸ They are songs that were ceremonial recitations accompanied by music.¹¹⁹ Many of these were sung by blind musicians on public occasions involving ritual sacrifice, feasting, and farming ceremonies.¹²⁰ Gao argues that all the 305 poems in the *Classic* are songs chanted in court or at various ceremonies.¹²¹ In short, orality played a powerful role in the functions of the *Classic of Poetry*. The oral-formulaic nature of the *Classic of Poetry* is generally acknowledged by scholarship in ancient Chinese culture and literature,¹²² though writing also played an important role in its creation.¹²³

Orality played a key role in the provenance of these poems and songs according to the above-invoked scholarship, but what roles does it play in the texts of these poems and songs? I believe that, as the speaker in the

¹¹⁸ See also Martin Ekstrom, “One Lucky Bastard,” 76—77.

¹¹⁹ Ekstrom, “One Lucky Bastard,” 76.

¹²⁰ Lu, *Rhetoric*, 56.

¹²¹ Gao, *Shi Jing*, 1.

¹²² Ching-hsien Wang, *The Bell and the Drum: Shi Ching as Formulaic Poetry in an Old Tradition* (Berkeley: University of California, 1974), 43—44; Christopher Harbsmeier, *Science and Civilization in China, Vol. 7, Pt. 1: Language and Logic* (Cambridge: Cambridge University Press, 1998), 42—43; David R. Knechtges, “Questions about the Language of *Sheng Min*,” in *Ways and Words: Writing about Reading Texts from Early China*, ed., Pauline Yu, Peter Bol, Stephen Owen, and Willard Peterson (Berkeley: University of California Press, 2000), 15—16; Stephen Owen, “Interpreting *Sheng Min*,” in *Ways and Words*, 25.

¹²³ Edward L. Shaughnessy, “Unearthed Documents and the Question of the Oral versus Written Nature of the *Classic of Poetry*,” *Harvard Journal of Asiatic Studies* 75, no. 2 (December 2015): 373—375; Shaughnessy, “The Origin and Development of Western Sinologists’ Theories of the Oral-Formulaic Nature of the *Classic of Poetry*,” 饶宗颐国学院院刊第三期 *Bulletin of the Jao Tsung-I Academy of Sinology* 3 (May 2016): 146—147.

poems,¹²⁴ it plays three important roles: addressing the mandate of Heaven, urging future generations to follow in their ancestors' steps, and linking the past, present, and future.

First, the speaker addresses the Mandate of Heaven through which a ruler (mainly a king) ruled, because the mandate “justified [the ruler’s] exercise of Imperial authority”¹²⁵ and then it relates the Mandate to “us”—the subjects and future generations. The second poem in the section of Eulogies (颂 *Song*), “Mandate of Heaven” (维天之命 *Weitian Zhiming*), illustrates this point:

维天之命	The mighty Mandate of Heaven
於穆不已	Oh it is endless and perfect
於乎不显	Oh it greatly illustrates
文王之德之	King Wen’s pure virtue and power
假以溢我	Which bless us in abundance
我其收之	May we accept and cherish them
骏惠我文王	Our King Wen’s talented and brilliant
曾孙笃之 ¹²⁶	His descendants unswervingly follow his teachings

This short poem is actually a report that informs the audience of a speech delivered at a ceremony. According to the Mao-school commentary, the poem announces to King Wen that peace has been secured under heaven.¹²⁷ I accept this proposition, but more importantly, I would like to emphasize that in making this pronouncement, the speaker directly addresses the Mandate of Heaven and then narrates how the mandate empowers the king and glorifies him. Furthermore, the speaker points out that, due to the Mandate, the King’s virtue and power bless us. Finally, the oral voice urges his descendants to cherish the King’s blessings and to follow his teachings. Throughout the poem, we sense that the speaker ties the Mandate in with the King, his blessings, and his descendants. It binds all of them in the same context.

Second, the speaker urges the ancestors’ descendants to follow in the ancestral kings’ steps. It glorifies the ancestors’ spirits. “Merit” (烈文 *Liewen*) in the section of Eulogies (颂 *Song*), for example, is such a poem, which was delivered at a ceremony where a Zhou king enfeoffed his lords:

¹²⁴ Here and elsewhere in this chapter, “speaker” means the individual who orally composed the poem, so the “speaker” represents “orality.”

¹²⁵ Fung, *A Short History*, 200.

¹²⁶ Gao, *Shi Jing*, 476—477.

¹²⁷ Legge, *The Chinese Classics*, vol. IV, pt. 1, p. 78.

烈文辟公	Lords of great merit are here to assist me
锡兹祉福	Ancestral kings have bestowed happy blessings on us
惠我无疆	Their favors to us are boundless
子孙保之	So their descendants shall forever keep them
无封靡于尔邦	If you refrain from leading a dissolute life in your states
维王其崇之	Ancestral kings will honor you
念兹戎功	And remember your great accomplishments
继序其皇之	You should carry on and augment your ancestors' glories
无竞维人	You are gracious if you feel at peace with all
四方其训之	All four quarters will imitate you
不显维德	Which will greatly illustrate your virtues
百辟其刑之	All the lords follow your grand example
於乎前王不忘 ¹²⁸	Oh our ancestral kings will live forever in our heart

This short poem actually presents a record of the speech a Zhou king delivered at a ceremony where the Zhou lords were enfeoffed. Though in the above poem, the Zhou king addresses the lords being enfeoffed at the ceremony, the speaker—orality—actually creates a connection between the ancestral kings and the enfeoffed lords. It first claims that the ancestral kings' favor glorifies the lords. Then it exhorts the lords to set a grand example for others to follow. If they do so, the ancestors' virtuous legacy will forever survive. The speaker, throughout the poem, by addressing the ancestors and the lords, claims that the lords will extend the ancestors' glory, continue their legacy, and pass it to future generations. In this poem, the orality serves to bind the ancestors, the current generation, and the future generation.

Third, the speaker links the past to the present and the present to the future. Generally speaking, the speaker, who functions as a chronological connector, performs this function often, by describing a divinatory, sacrificial, or any other ritual practice, or simply a site, such as a town. A large group of poems describe ritual ceremonies, such as “Reputable King Wen” (文王有声 *Wenwang Yousheng*), “Blind Musicians” (有瞽 *Yougu*), “Valorous and Mighty” (执竞 *Zhijing*), “Martial” (武 *Wu*), “We Make Offerings” (我将 *Wojiang*), “A Bumper Year” (丰年 *Fengnian*),

¹²⁸ Gao, *Shi Jing*, 478—479.

“Harmony” (雍 *Yong*), “Seeing the Sovereign” (载见 *Zaijian*), and “Clearing away the Weeds” (载芟 *Zaishan*), just to name a few. “The Blind Musician” reports many details of a sacrifice by a Zhou king to honor his ancestors.

有瞽有瞽	Blind musicians blind musicians
在周之庭	In the court of the Ancestor Temple of Zhou
設業設虞	Have set up music stands, large board, posts
崇牙樹羽	Tooth-edged with pretty plumes
應田縣鼓	Large drums, small drums, and hanging drums
鞀磬祝壎	Wood sounding boxes, wood-toothed scrapers, hand drums, and stone-tablet chimes
既備乃奏	When all is ready, they begin to play them
簫管備舉	They also play the pan-pipes and flutes
喤喤厥聲	Loudly but harmoniously blend their tones
肅雍和鳴	All the instruments sound pleasing to the ears, solemn and in tune
先祖是聽	All the ancestors, please listen
我客戾止	Our guests of honor have arrived
永觀厥成 ¹²⁹	To witness the success of the ceremony

In this poem, the speaker (the orality) describes a grand ceremony by focusing on the blind musicians, the musical instruments, and their tones. The speaker also asserts the presence of the ancestral spirits by drawing their attention to the arrival of the guests of honor. Thus, the speaker has established a connection between the past (as symbolized by the ancestral spirits) and the present (as represented by the guests of honor and the ceremony). By inviting the ancestral spirits to listen to the music, the speaker actually assumes that the ancestral spirits are already present, even before the guests of honor arrive, so when the latter arrive, the speaker invites the spirits to join the guests and listen to the music. When both of them join each other to listen to the blind musicians, the past, as symbolized by the ancestral spirits, and the present, as represented by the guests of honor and the ceremony, are also harmoniously blended together, just like the various musical instruments. In this way, the future is also connected to the past and the present through the guests of honor who are “to witness the success of the ceremony” (永觀厥成). The present

¹²⁹ Gao, *Shi Jing*, 490—492.

ceremony continues what the ancestors have done, and the future will continue what the present ceremony is accomplishing.

In a large number of poems in the sections of *Airs* (风 *Feng*) and *Eulogies* (颂 *Song*), the speaker emphatically articulates this chronological continuity by employing words and phrases like “自昔何为 (It has been like this since times of old)” in 楚茨 (Thorny Caltrop),¹³⁰ “子子子孙/勿替引之” (Sons of sons and grandsons of grandsons/do not fail these sacrifices but continue them) in 楚茨 (Thorny Caltrop),¹³¹ “周虽旧邦/其命维新” (Zhou is an old kingdom, but its charge is new) and “商之孙子/其丽不亿” (Shang’s descendants, hundreds of millions in number, became subjects to Zhou by God’s command) in 文王 (King Wen),¹³² “古之人无斲/誉髦斯士” (Ancient King Wen loved talents unweariedly so that now the talented are recommended for promotion) in 思齐 (Graceful and Dignified),¹³³ “昭兹来许/绳其祖武/千万斯年/受天之祜” (Prosperous Zhou has qualified successors/who for generations have treaded in the steps of their forefathers/gloriously Prince Ying¹³⁴ serves his father and continues to walk in the footsteps of his father/for myriads of years, the king’s posterity will be blessed by Heaven) in 下武 (Great Footsteps),¹³⁵ “匪棘其欲/迺追来孝” (Building the city walls was not intended to gratify his desires but to follow in the steps of the wise ancestors) in 文王有声 (Reputable King Wen),¹³⁶ “诞我祀如何? . . . /后稷肇祀/庶无罪悔/以迄于今” (How are the sacrifices performed? . . . /Hoji¹³⁷ invented the Zhou sacrifices/which never offended Heaven/and Hoji passed them down to the present day) in 生民 (Giving Birth to Zhou People),¹³⁸ “似先公酋矣” ([Enfeoffed lords] succeed your [forefathers’] cause) in 卷阿 (Winding Hills),¹³⁹ “古训是式” ([Zhong Shanfu 仲山甫]¹⁴⁰ observes ancient laws), in 蒸民 (Masses of People),¹⁴¹ “维今之人/不善有旧” (The present king¹⁴²

¹³⁰ Gao, *Shi Jing*, 321.

¹³¹ *Ibid.*, 322.

¹³² *Ibid.*, 369, 370.

¹³³ *Ibid.*, 386.

¹³⁴ King Cheng’s son.

¹³⁵ Gao, *Shi Jing*, 396.

¹³⁶ *Ibid.*, 397.

¹³⁷ Hoji is the ancestor of the Zhou dynasty.

¹³⁸ Gao, *Shi Jing*, 401—402.

¹³⁹ *Ibid.*, 419.

¹⁴⁰ Zhong Shanfu is a lord of King Xuan of Zhou.

¹⁴¹ Gao, *Shi Jing*, 454.

is not as virtuous as the former kings) in 召旻 (The Great Duke of Shao),¹⁴³ “大王¹⁴⁴荒之.../文王康之.../子孙保之” (The ancient duke Danfu turned the barren hills into a fertile land.../King Wen strengthened it.../sons and grandsons will keep it) in 天作 (Heaven-made),¹⁴⁵ “於乎皇王/继序思不忘” (Oh great ancestral kings¹⁴⁶ /I am determined to carry on your legacy) in 闵予小子 (Pity Your Little Son),¹⁴⁷ “匪且有且/匪今斯今/振古如兹” (It is not only here that we have the sacrifice/nor is it only today that we have this abundance/but it has been like this since time immemorial) in 载芟 (Clearing Away the Weeds),¹⁴⁸ “以似以续/续古之人” (We shall succeed/we shall continue the practices of ancient folks) in 良耜 (Fine Shares),¹⁴⁹ “载用有嗣/实维尔公允师” (As the descendants of the ancestral kings/it is your course that we will imitate) in 酌 (Drink),¹⁵⁰ “文王即勤止/我应受之” (King Wen labored diligently but has died/so that I¹⁵¹ shall rightly receive the kingdom) in 赉 (Giving),¹⁵² and “自古在昔/先民有作.../汤孙之将” (From of old before our time/our forefathers¹⁵³ began the practice of the ceremony.../so now the descendants of Cheng Tang are making harvest offerings to them) in 那 (Graceful).¹⁵⁴

In these poems, the speaker speaks of continuing the charge, walking in the footsteps, continuing the practices, observing the laws, carrying on the legacy, and even accepting the entire kingdom of the ancestors (祖先 *zuxian*), former kings (先王 *xianwang*), ancient folks (古人 *guren*), and

¹⁴² The present ruler refers to King You of Zhou 周幽王 who did not care for his kingdom.

¹⁴³ Gao, *Shi Jing*, 472—473. Here the continuity is negatively expressed, thus implying that he should.

¹⁴⁴ It refers to Danfu (古公亶父), the grandfather of King Wen, mentioned in “绵” (Spreading).

¹⁴⁵ Gao, *Shi Jing*, 479.

¹⁴⁶ The ancestral kings are King Wen and King Wu of Zhou 周文王周武王.

¹⁴⁷ Gao, *Shi Jing*, 497. Here, “little son” refers to King Cheng of Zhou 周成王. He called himself the “little son of the ancestral kings of Zhou.”

¹⁴⁸ *Ibid.*, 501.

¹⁴⁹ *Ibid.*, 503

¹⁵⁰ *Ibid.*, 505

¹⁵¹ “I” refers to King Wu of Zhou.

¹⁵² Gao, *Shi Jing*, 507.

¹⁵³ “Our forefathers” refers to people led by Cheng Tang, the founding king of the Shang dynasty.

¹⁵⁴ Gao, *Shi Jing*, 525.

forefathers (先人 *xianren*) by successors, descendants, and the present-day generation. So the present kingdom is a continuation of the old kingdom; the present sacrificial rites are modeled on ancient ones, and the wisdom of the present generation is inherited from the previous one. Thus, the kingdom, the wisdom, the legacy, the sacrificial rites, and laws, are all manifestations of this continuity.¹⁵⁵ The present is inherited from the past while it serves as a model for the future to follow, as indeed ‘sons of sons and grandsons of grandsons’¹⁵⁶ will continue it. Kern discusses this continuity theme in terms of “commemoration of the past as a model for the present and the future” and “memory formula.”¹⁵⁷ What is noteworthy is that in the poem “耘芟” (Clearing Away the Weeds), the speaker stresses the continuity in time by employing three parallel lines:

匪且有且	It is not only here that we have the sacrifice
匪今斯今	Nor is it only today that we have this abundance
振古如兹	But it has been like this since time immemorial

In these three lines, the continuity theme is foregrounded in the parallel structure. It continues from the antiquity to the present, and to the future.

Employing Generic Names without Naming Any Particular Individuals

The *Classic of Poetry* provides guidance by using a large number of common nouns and generic names without specifically identifying those who are named, so that what a poem describes actually is the ‘blueprint and essence’ of the tasks it describes and a generic account of an ideal performance.¹⁵⁸ “楚茨” (Thorny Caltrop), for example, through employing a large number of these nouns and names, describes the process of performing a sacrificial rite to honor the ancestors; how to prepare for the rite, how to take care of the divine visitors, how to receive the blessings from the divine visitors, how to see off the divine visitors, and how to

¹⁵⁵ Kern believes that the sacrificial rite itself is a “manifestation of continuity and repetition” while he is analyzing how the past is used as a guide for the present generation. My discussion draws on Kern’s ideas of this “manifestation and repetition.” For more information, refer to Kern, “Bronze Inscriptions,” 169—173.

¹⁵⁶ Gao, *Shi Jing*, 479.

¹⁵⁷ Kern, “Bronze Inscriptions,” 170—171.

¹⁵⁸ *Ibid.*, 177.

conclude the rite.¹⁵⁹ In other words, the poem is not describing any particular sacrificial rite because it does not identify whether it is Zhang San (张三) or Li Si (李四)¹⁶⁰ who is doing the job; instead, it only identifies the job titles or individuals' roles in the sacrifice, such as “the ritual officials” and “the managing chef.” They could be filled and actualized with concrete individuals.¹⁶¹ All qualified individuals, by following the guidance, may perform the same jobs, and thus reproduce the entire process. In this way, the poem intends to provide a general guidance on all such rites so that by reading it, readers can simply repeat all the steps in the process. Thus, the entire poem is a how-to manual. Sometimes, a poem may use the indefinite pronoun “或” (someone) to refer to an unspecified individual, which works like the common nouns and generic names. For example, “或燔或炙” (Someone stews meat and someone roasts it) in “行苇” (Roadside Reeds).¹⁶² Some poems even use imperative sentences to indicate what specific actions should be performed. For example, “其绳则直/缩版以载” (Make the plumb-line dead straight/mount the planks to hold the earth) in 绵 (Spreading).¹⁶³

Many poems in the *Classic of Poetry* contain a large number of common nouns and generic names, indefinite pronouns, or imperatives that function in a similar way to those I have cited in the above paragraph. For example, the poem “宾之初筵” (When Guests First Take Their Mats¹⁶⁴ at the Banquet) is a report that describes a banquet where guests enjoy wine and an archery competition, get drunk, and become riotous. In the final stanza, the poem provides guidance on supervising alcohol consumption. After stipulating that, “即立之监/或佐之史” (Both a professional supervisor/And an assistant be appointed), the poem suggests, “式勿从谓/无俾大怠/匪言勿言/匪由勿语” (Do not keep urging the

¹⁵⁹ Gao, *Shi Jing*, 321—325.

¹⁶⁰ 张三 李四 are two of the many multiple-use Chinese names that are used when the true name of an individual is unknown or is being intentionally concealed, like their corresponding English names John Doe and Jane Doe.

¹⁶¹ Kern, “*Shi Jing* Songs,” 65. For a more thoughtful discussion of the functions the generic nouns and names play in “Thorny Caltrop,” See Kern, “*Shi Jing* Songs,” 62—66.

¹⁶² Gao, *Shi Jing*, 405.

¹⁶³ *Ibid.*, 377.

¹⁶⁴ In Chinese antiquity, mats made of grass were used as seats, placed right on the floor. My translation here draws on Legge's. See Legge, *The Chinese Classics*, vol. IV, pt. 2, 395.

guests to drink/So as to prevent further abandonment/Do not speak what is not supposed to be spoken/Do not speak what is not reasonable).¹⁶⁵

The seventh stanza in “生民” (Giving Birth to Zhou People) guides readers to perform a sacrifice to their ancestors, as established by Hou Ji (后稷), the ancestor of Zhou: “或舂或揄/或簸或蹂” (Some pound rice while some remove it from the mortar/some winnowed it while some rub it to separate the chaff from the grain).¹⁶⁶ Both “有瞽”(Blind Musicians) and “雍” (Harmony) employ general nouns or generic names to refer to unspecified individuals who set up musical instruments for a ceremony and who conduct the ceremony, respectively: “有瞽有瞽/ 在周之庭” (Blind musicians blind musicians /In the court of the Ancestor Temple of Zhou),¹⁶⁷ “相维辟公” (Assisting the performance are lords and dukes).¹⁶⁸

We see more such common nouns or generic names in “载芟” (Clearing away Weeds) which describes the process of clearing away weeds: “侯主侯伯/侯亚侯旅/侯彊侯以/有嘏其饗/思媚其妇/有依其士” (The landlord and his eldest son/the younger generation/the strong helpers and the hired assistants/Hungry for their field’s meals/with charming women and strong young men).¹⁶⁹

By using these common nouns, generic names, imperatives, or indefinite pronouns, more poems serve to provide guidance. For example, “洞酌” (Jiong Zhuo) (At a Faraway Pool) instructs people to draw water from a far-off wayside pool and to steam rice with it.¹⁷⁰ “民劳” (*Min Lao*) (Exhausted People) guides the rulers how to pacify people and how to treat people with kindness.¹⁷¹ “板” (*Ban Perverse*) teaches people to treat the rulers with respect, but without cringing.¹⁷² “桑柔” (Sang Rou)(The Mulberry’s Tender Leaves) shows readers how to remonstrate or admonish the rulers.¹⁷³ “臣工” (*Chen Gong Servants*) guides the readers to be diligent at work.¹⁷⁴ “丰年” (*Feng Nian A Bumper Year*) suggests that people brew sweet rice wine and offer it to ancestors after a bumper harvest.¹⁷⁵

¹⁶⁵ Gao, *Shi Jing*, 344.

¹⁶⁶ Gao, *Shi Jing*, 401.

¹⁶⁷ *Ibid.*, 490.

¹⁶⁸ *Ibid.*, 492.

¹⁶⁹ *Ibid.*, 501.

¹⁷⁰ *Ibid.*, 417—418.

¹⁷¹ *Ibid.*, 421—424.

¹⁷² *Ibid.*, 424—428.

¹⁷³ *Ibid.*, 438—445.

¹⁷⁴ *Ibid.*, 486—487.

¹⁷⁵ *Ibid.*, 489—90.

Use of Nouns: Naming Events, Objects, and People

The *Classic of Poetry* serves to guide readers to perform various jobs and provide knowledge on many daily tasks. In this respect, Kern claims that the *Classic of Poetry* functions “as an encyclopedic storehouse and knowledge and paradigms,”¹⁷⁶ because it contains the names of so many different things that Confucius thought students of the *Classic of Poetry* could learn from the poems and songs: “the names of birds, beasts, weeds, plants and trees.”¹⁷⁷ Owen believes that the *Classic of Poetry* “played a central role in the great Confucian project of educating the human heart . . . ; if a person heard the song performed, . . . the emotions of the listener would be shaped to decent, balanced, and at the same time, natural responses to the events of life.”¹⁷⁸ For Owen, the *Classic of Poetry* was central to Confucian educational philosophy, because, through naming objects and human activities, it helped individuals respond properly and naturally to events in life. The ‘events’ are agrarian events and activities: seeds, plants, crops, farming tools, the four seasons, human rituals and rites, men and women’s farming activities, animals, etc. One way the *Classic of Poetry* helped individuals respond to these events is to name the constituents of these events and activities to represent the whole and guarantee its completeness.¹⁷⁹

First, this *Classic* mentions at least 130 different weeds, crops, plants, and trees,¹⁸⁰ for example, crops like 黍 or 稷 (*shu* or *ji* broomcorn millet), 麦 (*mai* wheat or barley), 稻 (*dao* rice), 麻 (*ma* hemp), 菽 (*shu* soybean), 芹 (*qin* Chinese celery), 瓠 (*hu* bottle gourd), 瓜 (*gua* melon), 荷 (*he* lotus), 桃 (*tao* peach), 李 (*li* Chinese plum), 梅 (*mei* plum blossom), 枣 (*zao* date), 桑 (*sang* mulberry), 松 (*song* pine), 柏 (*bai* cypress), 杨 (*yang* poplar), 柳 (*liu* willow), 榆 (*yu* elm), 檀 (*tan* sandalwood), and 竹 (*zhu*

¹⁷⁶ Kern, “*Shi Jing* Songs,” 51.

¹⁷⁷ Confucius, “The Analects,” 169—70.

¹⁷⁸ Owen, “Forward,” xiv.

¹⁷⁹ *Ibid.*, “Reproduction in the *Shijing* (Classic of Poetry),” *Harvard Journal of Asiatic Studies* 61, no. 2 (December 2001), 292.

¹⁸⁰ Hsuan Keng, “Economic Plants of Ancient North China as Mentioned in *Shih Ching* (Book of Poetry),” *Economic Botany* 28 (October 1974): 395; Du Shiran 杜石然 et al., *Zhongguo Kexuejishi Shigao* Shangce 中国科学史稿上册 [Draft of the history of Chinese science and technology, vol. 1] (Beijing: Kexue Chubanshe, 1982), 101. Du et al. believe that the *Classic of Poetry* records more than 140 different plants, trees, crops, and weeds, and more than 100 different animals, birds, fish, and insects.

bamboo). Certainly, it also employs many nouns that refer to farming equipment, farming activities, and musical instruments.

This anthology of poems and songs also contains the names of many different diseases and medical terms; thus, Li and Liu think the *Classic of Poetry* is one of the books in Chinese antiquity that exerted great influence on traditional Chinese medicine.¹⁸¹ According to Li and Liu, this classic mentions twenty-one diseases, just like the oracle-bone inscription texts.¹⁸² For example, the poem “小弁” (*Xiao Pan* Little Bird) mentions “headache” in “心之忧矣/疾如疾首” (I am worried/Like I have a headache).¹⁸³ “思齐” (Graceful and Dignified) mentions a fatal epidemic disease in “肆戎疾不殄” (The Pestilence was Checked).¹⁸⁴ “瞻印” (Look up) mentions tuberculosis in “邦靡有定/士民其瘵” (When the state is not in order/Its folk feel like suffering from tuberculosis).¹⁸⁵ In addition, the *Classic* records 290 herbs and animals related to traditional Chinese medicine.¹⁸⁶

So, by identifying these constituents, people would learn the names of the constituents—human actions and recipients of human actions—and could perform prescribed actions on the recipients to help complete agrarian tasks. Actually, in the *Classic of Poetry*, we always find its authors naming farmers, their farming activities, animals, plants, and crops. For example, “载芟” (Clearing Away the Weeds) narrates farmers’ activities of clearing away the grass (*italics added*):

载芟载柞	<i>Mowing weeds and felling oak trees</i>
其耕泽泽	<i>Plows opening up the ground</i>
千耦其耘	<i>A thousand pairs tug at weeds and roots</i>
徂隰徂畛	<i>Along the paddies along the ridges</i>
侯主侯伯	<i>Here the master here the eldest son</i>
侯亚侯旅	<i>the younger generation</i>
侯疆侯以	<i>the strong helpers and the hired assistants</i>
有嘏其馐	<i>Hungry for their field’s meals</i>
思媚其妇	<i>with charming women</i>
有依其士 ¹⁸⁷	<i>and strong young men</i>

¹⁸¹ Li and Liu, *Culture*, 70.

¹⁸² Li and Liu, *Cultures*, 71.

¹⁸³ Gao, *Shi Jing*, 294.

¹⁸⁴ *Ibid.*, 385.

¹⁸⁵ *Ibid.*, *Shi Jing*, 468.

¹⁸⁶ Li and Liu, *Cultures*, 72.

¹⁸⁷ Gao, *Shi Jing*,

The poem “七月” (the Seventh Month) simply repeats all the natural events that will happen in a year such as frost, wind, etc. In these and other poems in the *Classic of Poetry*, the authors simply accumulate the names of events, things, and actions, that are expected to happen in agrarian processes; naming them seems to guarantee the success of the farmers’ work. The significance of accumulating names for agriculture lies in the fact that these names represent its complete cycle. As I take it, for Confucius, using correct names helped human society and nature to repeat themselves harmoniously. Agriculture is cyclic, consisting of a series of events and human activities. Farmers always want an agrarian cycle to proceed as has been predicted, that is, all events and human activities should occur in the expected order to guarantee a bumper harvest. With a bumper harvest, society will remain stable and harmonious. In the poem, farmers speak out their desire, by accumulating names, to complete an agrarian cycle uninterrupted by any unexpected events.

It is precisely this feature of naming things in these poems and songs that appealed to Confucius, who claimed that the poems in the *Classic of Poetry* “stimulate the mind, can train the observation. . . . and can alleviate the vexation of life. And in these [poems] one may become widely acquainted with the names of birds, beasts, plants and trees.”¹⁸⁸ It is perhaps because of this reason that the *Classic of Poetry* was canonized as a Confucian classic.

What follows are two poems; one provides instructions and the other serves as a report.

“Thorny Caltrop (楚茨 *Chu Ci*)” as Instructions

“Thorny Caltrop” is a poem in the section of Minor Elegantiae (小雅 *Xiao Ya*) which describes a sacrificial ceremony. It consists of six stanzas, each of which is made up of 12 tetrayllabic lines. This poem recounts the sacrificial ceremony by paying close attention to details in such a way that we have “the richest account of the Zhou ancestral sacrifice.”¹⁸⁹ Kern has conducted a thorough analysis of this poem from the perspective of anthropology, art history, and linguistics. His analysis allows him to claim that the poem “provid[es] guidance for an audience. . . that was no longer

¹⁸⁸ Confucius, “The Analects,” 169—70.

¹⁸⁹ Kern, “Bronze Inscriptions,” 173. Kern has a thoughtful and provocative analysis of “Thorny Caltrop” in his “Bronze Inscriptions” and “*Shi Jing* Songs.” My discussion in this section builds on his analysis.

familiar with the original sacrificial practice.”¹⁹⁰ Here, by drawing on Kern’s idea, I discuss some of the details that could serve as guidance for the readers to perform a sacrifice.

After the first stanza makes the announcement that the granaries are full of millet, and that it is time to make offerings to the ancestors, the rest of the five stanzas go through the process of performing the sacrifice. What follows are the details from these five stanzas:

或剥或亨	Some flay cows and sheep, others boiling them
或肆或将	Some ladle the meat, others making offerings
祝祭于祔	Ritual officials pray and make sacrifice at the gate
祀事孔明	The sacrificial service is going on as planned
先祖是皇	All the divine ancestors gladly show up
神保是飨	As divine protectors to be feasted
执爨蹠蹠	The managing chefs are cautious and agile
为俎孔硕	The sacrificial vessels are large beyond compare
或燔或炙	Some braise meat, others roasting meat
君妇莫莫	The aristocratic wife has good manners
为豆孔庶	The food on the plates are plentiful
为宾为客	The guests at the tables observe protocol
献酬交错	Who exchange toasts
我孔熯矣	We are very reverential
式礼莫愆	So there are no mishaps
工祝致告	The sacrificial official invokes the divine spirits’ blessings
俎賔孝孙	Which are presented to their descendants
苾芬孝祀	The offerings are delicious and aromatic
神嗜饮食	So that the divine spirits enjoy them
卜尔百福	And assign blessings to you
如几如式	As if to follow etiquette on a regular basis
礼仪既备	All the rites are completed now
钟鼓既戒	The bells and drums are ready for musicians to play
孝孙俎位	The pious descendants return to their seats
工祝致告	An sacrificial official delivers the announcement
神具醉止	All the divine spirits are drunk
皇尸载起	Then the august ancestral spirits stand up
鼓钟送尸	They are all seen off with drums and bells

¹⁹⁰ *Ibid.*, 173.

神保聿归	And divine ancestors also return to heaven
诸宰君妇	All the chefs and the aristocratic wife
废彻不迟	Clear away the dishes without delay
诸父兄弟	The senior and junior generations
备言燕私	Withdraw to the private feast
乐具入奏	Musicians now move into the back-hall to play
以绥后祿	To enjoy the private feast after seeing off the divine spirits
尔肴既将	The food is delicious beyond compare
莫怨具庆	Grateful to the divine spirits, none resents
既醉既饱	And we are all drunk and full
小大稽首 ¹⁹¹	Young and old come to kowtow

The above details from the five stanzas present much information about the sacrificial ceremony, describing preparations for the sacrifice, making offerings, feasting at the ceremony, presenting and reception of the blessings, seeing off the divine spirits, and conclusion of the ceremony. Through the descriptions, we see how the descendants—guests, family members, the ritual officials, musicians, chefs, the aristocratic wife—and the divine spirits each fulfill their own specified roles in the ceremony. However, none is mentioned by his or her name. In other words, these roles could be played by any qualified individuals. Kern has rightly observed that in these descriptions, what counts is the role, not the individual who performs the role, so “we hear of ranks and functions, not of individual names.”¹⁹² This observation is significant because it suggests that the process of the sacrificial ceremony as described in the poem is universally applicable; the process is not idiosyncratic because the validity of the various roles and functions of the individuals within the ceremony are not limited to this single ceremony; instead, they can be duplicated by any family who needs to conduct a sacrifice as described in the poem. In this respect, the poem is not just a description of an ancestral sacrifice but more important, it is prescriptive, prescribing functions to be performed in an ancestral sacrifice.¹⁹³ Though the poem describes an ancient Zhou sacrificial performance, which, as Kern has pointed out, “aims to preserve the authentic expressions of an earlier sacrifice while also providing guidance for an audience, certainly postdating the Western Zhou, that was

¹⁹¹ Gao, *Shi Jing*, 321—322.

¹⁹² Kern, “*Shi Jing* Songs,” 64.

¹⁹³ *Ibid.*, 52.

no longer familiar with the original sacrificial practice,”¹⁹⁴ Kern proposes that the poem “encapsulates not any particular performance but the blueprint and essence of all such performances.”¹⁹⁵

As a blueprint that prescribes a ritual performance, the poem literally presents instructions to guide the readers to perform the task of conducting a sacrificial ritual. Here I would like to reconstruct the prescriptive lines which identify the steps, so that the steps that intend to provide guidance will appear a lot clearer to present-day readers.

- 1 Work according to the ritual protocol.
- 2 Wash and clean lamb and beef.
- 3 Boil them.
- 4 Offer boiled meat to ancestral spirits.
- 5 Pray and made sacrifice at the gate (by ritual officials).
- 6 Invite the divine spirits to feast as divine protectors.
- 7 Braise or roast meat (by the managing chefs).
- 8 Serve food on large plates.
- 9 Observe table manners while eating.
- 10 Invoke the divine spirits’ blessings.
- 11 Present the blessings to posterity.
- 12 See off the divine spirits with drums and bells after the feast.
- 13 Clear away dishes.
- 14 For private feast, move to the back-hall.
- 15 Kowtow to the divine spirits to show gratitude.

The 15-step instructions define the sacrificial process which the poem itself only suggests. Compared with the poem, these 15 steps look like a bare-bone skeleton, without the narratives, metaphors, imagery, symbols, aphorisms, and other figurative uses of language. Thus, between the poetic instructions and these 15 steps, we can no doubt see the differences between instructions used at the time when the *Classic of Poetry* was compiled, and present-day instructions. Multiple-step, bare-bone-skeleton instructions could be teased out of every poem and song. Perhaps these poems and songs indeed served as instructions which Zhou people followed in their daily life, and for them, textually, not much difference exists between poetic instructions and ‘real’ instructions. Another Confucian class provides textual evidence that supports this claim of mine. “Monthly Commands” (*Yue Ling* 月令), a text attributed to Lu Buwei (吕不韦 292—235 BCE) which first appeared in *Mr. Lu’s Spring and Autumn*

¹⁹⁴ Kern, “Bronze Inscriptions,” 173. For more information about the significance of the prescriptive nature of the poem, see Kern, “*Shi Jing* Songs,” 49—54.

¹⁹⁵ *Ibid.*, 177.

Annals (Lushi Chunqiu 吕氏春秋), a work of the late third century BCE by Lu Buwei, is also a chapter in one of the five Confucian classics *Book of Rites (Li Ji 礼记)*. The text “is a small almanac which tells the ruler, and men generally, what they should do, month-by-month, in order to retain harmony with the forces of nature.”¹⁹⁶ Ekstrom thinks that “Monthly Commands” is one of the texts from “no later than the third century BCE” that contain “elaborate schemes dictating how to eat, dress, and act in proper accordance with seasons.”¹⁹⁷ So now let’s look at some of the instructions from this instructional text, and see how they dictate how to perform a job:

是月也，	That moon, ¹⁹⁸
耕者少舍，	Farmers need to take a break,
乃修阖扇。	So that they can repair doors and windows.
寝庙毕备，	They need also repair temples and bedrooms,
毋作大事，	But do not undertake large-scale projects,
以妨农之事。 ¹⁹⁹	Which will interfere with farming.

The above instructional steps from the instructional text of “Monthly Commands” tell farmers what to do when they do not need to work in the field in that month. Textually, they appear to be no more instructional than the poetic lines from “Thorny Caltrop.” But both serve to show people what to do.

“The Seventh Moon (Qi Yue 七月)” as a Report

Many poems in the *Classic of Poetry* are normative accounts of natural phenomena, battles, conquests, celebrations, rituals, rites, and other functions that occurred in Zhou society or prior to Zhou society.²⁰⁰ They actually report what happened in history. Scholars have long recognized the historical values of the *Classic of Poetry*. For example, Li Feng argues that “information on middle-late Western Zhou” is found in the poem in the *Classic*, though the real challenge is “to differentiate the historical

¹⁹⁶ Fung, *A Short History*, 133.

¹⁹⁷ Ekstrom, “One Lucky Bastard,” 70.

¹⁹⁸ It means “that month.” See also Note 109.

¹⁹⁹ Wu and Lai, *Four Book*, vol. 3, 487.

²⁰⁰ Kern, “*Shi Jing* Songs,” 49—54, 66—76; Edward L. Shaughnessy, “From Liturgy to Literature: The Ritual Contexts of the Earliest Poems in the *Book of Poetry*,” 漢學研究 *Hanxue Yanjiu (Sinology)* 13 no. 1 (June 1995): 134—136.

facts they mention from what is probably the poets' art"; thus, interpreting [these poems] in a historical context that is also shared by other types of evidence can potentially reveal their true historical meaning.²⁰¹ Hu Shi 胡适 highly rates the *Classic of Poetry* as a historiographical source.²⁰² He believes that it is the only book from Chinese antiquity that preserves the most reliable ancient Chinese historical materials. He then cites the first three lines from the poem “十月之交” (*Shiyue Zhijiao* In the Tenth Moon) to illustrate his point about using the *Classic of Poetry* as historiographical reports:

十月之交	In the tenth moon
朔日辛卯	On the very first day
日有食之	The sun was eclipsed

According to Hu, the date has been identified by many Chinese scientists with a solar eclipse in the 6th year of the reign of King You of Zhou (周幽王).²⁰³ Gao believes that the exact date on which the solar eclipse occurred should be September 6 776 BCE.²⁰⁴ Some Western sinologists place the date as August 25 775 BCE.²⁰⁵

The accounts, such as the one cited by Hu Shi, so truthfully record what happened in those periods that some scholars such as Kern argue that they create “normative cultural memory.”²⁰⁶ Drawing on Jan Assmann's study, Kern claims that ‘cultural memory’ refers to a social construction that comprises those parts of the past that are fundamentally meaningful to the present society.²⁰⁷ They are meaningful to the present society because they preserve authentic expressions of what happened.

For example, the poem “The Seventh Moon” (七月 *Qi Yue*) in the subsection of *Airs of Bin* (豳风 *Bin Feng*) narrates, moon-by-moon, farmers' work in a year. I will rearrange the lines of the poem so that all the farming jobs performed in a year are grouped together, moon by moon.

²⁰¹ Feng Li, *Landscape and Power in Early China: The Crisis and Fall of the Western Zhou 1045–771 BC* (Cambridge: Cambridge University Press, 2008), 12–13.

²⁰² Hu Shi 胡适, *Zhongguo Zhhexueshi Dagang* 中国哲学史大纲 (A complete outline of the history of Chinese philosophy) (Rpt. Shanghai: Shanghai Guji Chubanshe, [1919] 2000), 17.

²⁰³ Hu, *Zhongguo Zhhexueshi*, 17.

²⁰⁴ Gao, *Shi Jing*, 282.

²⁰⁵ See Legge, , *The Chinese Classics*, vol. IV pt. 2, 41.

²⁰⁶ Kern, “*Shi Jing* Songs,” 67.

²⁰⁷ *Ibid.*, 67.

三之日于耜 三之日纳于凌阴	In the first moon, plows are prepared; Ice is stored in the cellar.
四之日举趾 同我妇子 饁彼南亩 田峻至喜 四之日其蚤 献羔祭韭	In the second moon, peasants till the land, With wives and daughters who Go to the farm land To deliver food to peasants; Earlier in the second moon, Sacrifices are made of leek and lamb.
蚕月条桑 取彼斧斯 以伐远扬 猗彼女桑	In the third moon, the mulberry are gathered; Axes are used To cut down the long twigs So as to gather the tender leaves.
四月秀蓂	In the fourth moon, the milkwort bear seeds.
五月鸣蜩 五月斯螽动股	In the fifth moon, cicadas cry; Locusts also move their legs.
六月莎鸡振羽 六月食郁及薹	In the sixth moon, crickets vibrate their wings; People eat peas and grapes.
七月流火 七月鸣鶉 七月在野 七月烹葵及菽 七月食瓜	In the seventh moon, Scorpio sets down; The shrikes sing; Crickets are out in the field. Farmers cook celeries and beans And eat melons.
八月萑苇	In the eighth moon, farmers weave mats with rushes;
八月载绩 载玄载黄 八月其获 八月在宇 八月剥枣 八月断壶	They also spin hemp thread And dye them yellow and black. Farmers harvest crops. When crickets stay under the eaves, Farmers gather red dates And pick gourds.
九月授衣	In the ninth moon, it is time to give clothes to peasants.
九月在户 九月叔苴	When crickets show up at the door, Farmers gather seedling hemp,

采茶薪樗
食我农夫
九月筑场圃

bitter herbs and firewood,
To feed the peasants.
It is time to prepare the stack-yard.

十月陨箨
十月蟋蟀
入我床下
穹窒熏鼠

In the tenth moon, tree leaves are falling.
Crickets in this moon
hide under the bed;
It is time to block the mouth dens and smoke
mice to death;

塞向墐户

Also it is time to seal the north window and
plaster door cracks.

十月获稻
为此春酒
以介眉寿
十月纳禾稼
黍稷重穋
禾麻菽麦
十月涤场
朋酒斯飧
曰杀羔羊

We gather in rice in the tenth moon;
Fine wine is brewed
For us to drink for longevity.
We store crops:
Millet and hemp
Beans and wheat,
And clean the yard.
Then it is time to enjoy the fine wine
With delicious tender lamb.

一之日霽发
一之日于貉
取彼狐狸
为公子裘

In the eleventh moon, the north wind is biting;
It is time to catch raccoons
Also to catch foxes
So as to make clothes for the young lords.

二之日栗烈
无衣无褐
何以卒岁
二之日其同
载纆武功
言私其豮
献豝于公
二之日凿冰冲冲²⁰⁸

In the twelfth moon, it is very cold
So cold that without clothes
One cannot pass a day.
Hunters gather together
To practice hunting;
They keep small boars to themselves
But offer big ones to their lords.
In this moon it is also time to cut ice to be stored
for later use.

²⁰⁸ As I have indicated, I reconstructed the lines of the poem to show what activities the peasants engage in, month by month. For the original and complete poem, please see Gao, *Shi Jing*, 199—200.

This poem exhibits a number of textual features which allow us to call this poem a report on what peasants do in a year. Perhaps we might as well call it an informative report, though a very primitive one at that. First, it specifies at what time a certain action is performed. The poem does this by juxtaposing natural phenomena with human actions. We could understand the natural phenomena as descriptions of the chronological context in which human actions are performed. So often the poem presents a situation where human actions are performed when a specific natural phenomenon occurs, such as in “七月流火/七月鸣鶉/七月在野/七月亨葵及菽/七月食瓜” (In the seventh moon/Scorpio sets down/The shrikes sing/Crickets are out in the field/Farmers cook celeries and beans/And eat melons). It reports to us that in the seventh moon, when Scorpio sets, when shrikes sing, and when crickets are out in the field, farmers cook celeries and beans and eat melons. Clearly, the poem narrates what happens in the whole year from the first moon to the last one, focusing on farmers' and peasants' activities, such as preparing plows, tilling the farm land, harvesting crops, storing crops, picking berries, weaving, hunting, killing mice, repairing windows and doors, cooking, and drinking wine. In other words, it informs us what these peasants and farmers do month by month. Second, it informs us of some of the natural events that occur in a year. In this way, the poem identifies some unique natural phenomena for a particular moon to help readers distinguish between the moons. Third, it also advises readers what to do in a particular moon. For example, the poem reminds readers that in the tenth moon, it is time to seal the north window against the cold north wind and to plaster the cracks in the door. So the poem reports what the farmers and peasants do, what time they do it, and why they should do it.

In the *Classic of Poetry*, some poems report historical events. For example, a group of poems in the section of Major Elegantiae (大雅) report how the Zhou ancestors established the Zhou dynasty, from the first ancestor 姜嫄 (*Jiang Yuan*) who gave birth to 后稷 (*Hou Ji*) who championed Zhou agricultural civilization,²⁰⁹ to 文王 (King Wen) who conquered the Shang dynasty and founded the Zhou kingdom: “文王” (King Wen), “大明” (Brilliantly Bright), “绵” (Spreading), “皇矣”

²⁰⁹ For a detailed account of the history regarding *Jiang Yuan* and *Hou Ji*, see *Li Yujie* 李玉洁, *Huanghe Liuyude Nonggeng Wenming* 黄河流域的农耕文明 (Agricultural civilization in the Yellow River Valley) (Beijing: Kexue Chubanshe 科学出版社, 2010).

(Mighty Sovereign), “灵台” (Spiritual Tower), “文王有声” (Reputable King Wen), and “生民” (Giving Birth to People).

When they conduct research on historical events, social customs, and cultural, traditional, and agricultural practices of the periods when the poems and songs were composed, quite often, historians and historiographers study the accounts and narratives these poems contain. As Kern has pointed out, much information in the poem on the various aspects of the Zhou society has been “systematized and elaborated upon . . . in the great works of Eastern Zhou narrative historiography, the *Zuo Commentary* (*Zuozhuan* 左传), and the *Documents of the States* (*Guoyu* 国语),”²¹⁰ two important narrative histories that recount histories of Zhou, Spring and Autumn, and Warring States periods. The group of poems I have listed above, for example, are certainly sacrificial hymns that eulogize the ancestors of the Zhou society, such as Hou Ji 后稷, Liu the Duke 公刘, Wang Ji 王季, King Wen 文王, King Wu 武王, and King Kang 康王, and their great achievements. However, they also carry historical values because they “present the origin and early development of Zhou civilization,”²¹¹ and truthfully reflect how the Zhou people performed agricultural tasks, how they conquered the Shang dynasty, and how they built their own society. Let me end this section by invoking Kern, who has presented many insightful thoughts about the historical values of the *Classic of Poetry*, the poems which “provide the master narrative of early Zhou history and culture.”²¹²

More important, this poem, in its juxtaposing of certain natural phenomena that occur in a moon, with human activities in that moon, represents a step further the philosophical thought of “oneness of nature and humans” that the oracle-bone-inscription texts championed. This juxtaposition tells us that people, as described in the poem, understand that their activities are influenced by nature, so they must change as nature changes.

²¹⁰ Kern, “Bronze Inscriptions,” 172.

²¹¹ Kern, “Bronze Inscriptions,” 170.

²¹² *Ibid.*, 165. For more developed views of using the *Classic of Poetry* as sources of Zhou history, see also Kern, “*Shi Jing* Songs”; Wang Guowei 王国维, *Guantang Jilin* 观堂集林 (Taipei: Shijie, 1975); Sun Zuoyun 孙作云, *Shijing Yu Zhou dai Shehui Yanjiu* 诗经与周代社会研究 (Beijing: Zhonghua, 1966), 239—272.

“The Seventh Moon” (*Qi Yue* 七月) as the Earliest Agricultural Calendar

Chinese scholars tend to regard “The Seventh Moon” as the earliest agricultural calendar in China.²¹³ As such, it served as a guiding piece of literature that helped ancient Chinese people arrange their annual farming activities month by month. Thus, it has been interpreted as the earliest piece of literature in the style of “Monthly Commands (*yueling* 月令),”²¹⁴ which is “a small almanac which tells the ruler and men generally what they should do month by month in order to retain harmony with the forces of nature.”²¹⁵ Wen Yiduo 闻一多 calls the poem “a ‘Xia Lesser Calendar’ (*Xiaxiaozheng* 夏小正) or a ‘Monthly Commands’ (*Yueling* 月令) in verse.”²¹⁶ Sun Yi 孙奕 (fl. Ca. 1189) of the Song dynasty (960—1279 CE)

²¹³ Dong Kaichen 董恺忱, “Lun Yueling Tichai de Zhongguo Nongshu” 论月令体裁的中国农书 [On Chinese agricultural literature in the style of monthly commands], *Zhongguo Nongye Daxue Xuebo* 1982 dibajuan, diyiqi 中国农业大学学报 1982 第 8 卷第 1 期 [Journal of Beijing Agricultural University 8, no. 1 (1982)]: 84; Chen Jiujin 陈久金, “Lun ‘Xiaxiaozheng’ Shi Shiyue Taiyangli” 论“夏小正”是十月太阳历 [On “Xia Minor Calendar” as a solar calendar of ten months], *Studies in the Natural History of Sciences* 1, no. 4 (1982): 314—15; Fan Zhimin 樊志民 and Zhu Hongbin 朱宏斌, “Yuelingshu yu Zhongguochuantong Nongye Guanlisixiang zhi Shanbian” 月令书与中国传统农业管理思想之嬗变 [Evolution of literature on monthly commands and Chinese traditional thoughts of agricultural management], *Zhongguo Nongshi* 2002 nian di 21juan di 3 qi 中国农史 2002 年第 21 卷第 3 期 [Journal of Chinese agricultural history 21, no. 3 (2002)]: 97; Wang Lihua 王利华, “‘Yueling’ Zhongde Ziran Jielv yu Shehui Jielv” “月令”中的自然节律与社会节律 [The rhythms of nature and that of society in the “Monthly Commands”], *Zhongguo Shehui Kexue* 2014 nian di 2 qi 中国社会科学 2014 年第二期 [Journal of Chinese social sciences 2 (2014)]: 186—88.

²¹⁴ Wang Lihua 王利华, “‘Yueling,’” 187. Wang’s research builds on the study of another Chinese scholar Chang Yuzhi 常玉芝 whose research focuses on ancient Chinese calendars. For more details, see Chang Yuzhi 常玉芝, *Research on Yin and Shang Calendars* [In Chinese] (Changchun, China: Jilin Wenshi Publisher, 1998), 366—69.

²¹⁵ Fung, *A Short History*, 133.

²¹⁶ Wen Yiduo 闻一多, *Mythologies and Poetry* [In Chinese] (Shanghai: Shiji Publishing Group, 2006), 151. The “Xia Lesser Calendar” is considered the earliest almanac that guided ancient Chinese to perform farming activities, but it was lost, unfortunately. The current version as we read exists as a chapter in *Da Dai’s Classic of Rites* 大戴礼记, and from this chapter, we get to know the text of the

believes that the poem was composed by the Duke of Zhou (fl. 1st century BCE) and his purpose is “to completely recount all the activities in a year (*beichen yisui zhishi* 备陈一岁之事).”²¹⁷

If literature in the style of “Monthly Commands” is a small almanac, then the poem of “The Seventh Moon” should be considered a ‘minuscule’ almanac. Though minuscule in size, this poem has the basic features that an almanac should have: all the months of a year, the seasonal terms, their corresponding farming activities, and various biological phenomena. Because the poem is in the sub-section of Airs of Bin (Bin Feng 豳风), it is generally thought of as an almanac that reflects the local seasonal terms, biological phenomena, and farming activities of the State of Bin during the periods of the Zhou dynasty (1046—256 BCE) and Warring States (481—221 BCE), in what is today’s Guanzhong district 关中地区, Shanxi province 陕西省).²¹⁸

The poem mentions the moon 月份, as many as thirty times, every moon of the year. It also mentions seasons, and various natural and weather phenomena. The first weather phenomena it mentions is, “In the seventh moon, Scorpio sets down” (*Qiyue liuhuo* 七月流火). Other examples include “In the fourth moon, the milkwort bear seeds” (*Siyue xiuyao* 四月秀蓂), “In the fifth moon, cicadas cry” (*Wuyue mingdiao* 五月鸣蜩), and “in the ninth moon, frost hits” (*Jiuyue sushuang* 九月肃霜).²¹⁹ These natural and weather phenomena serve as indices of seasons and moons to guide people’s activities. Thus, more important, as an almanac, it does not just mention the natural phenomena, but it also tells people what to do when these natural phenomena occur. For example, when “crickets show up at the door in the ninth moon,” it is time for farmers “to gather seedling hemp.”²²⁰ “In the tenth moon, when tree leaves are falling, it is

lost “Xia Lesser Calendar.” “The Monthly Commands” 月令 is a chapter in the *Classic of Rites* that instructs the rulers and the subjects what they should or shouldn’t do month by month. The genre of “literature in the style of “monthly commands” 月令书 perhaps derived its name from the title of this chapter.

²¹⁷ Sun Yi 孙奕, *Shierbian* p. 1 示儿编第一部, in *The Complete Library of the Four Treasuries* Zi Category 10 四库全书子部第十, ed. Yong Rong 永瑢 and Ji Yun 纪昀 (Beijing: Imperial Court, 1781), 83-84. Accessed February 20, 2019. <https://ctext.org/library.pl?if=gb&file=5263&page=83&remap=gb>

²¹⁸ Chen Jiujin 陈久金, “Lun ‘Xiaxiaozheng,’” 315; Fan Zhimin 樊志民 and Zhu Hongbin 朱宏斌, “Yuelingshu,” 97.

²¹⁹ Gao, *A Short History*, 199—200.

²²⁰ *Ibid.*, 200.

time for farmers to gather in rice and brew wine.”²²¹ Because farming was central to Chinese social and economic thinking in the dynastic periods, the poem as an almanac certainly focuses on farming activities. Altogether, it mentions as many as twenty farming activities. In addition to farming activities, the poem also recounts other activities, such as when to repair houses, when to prepare for winter, when to go hunting, when to feast, and when to make a sacrifice, and matches them with their corresponding moons or seasons.

In short, with the juxtaposition of the natural/weather phenomena with human activities, the poem plays its almanac role, telling people to prepare farming tools in the first moon, to go to farm land in the second moon, to trim mulberry trees in the third moon, to harvest crops in the fourth moons, or seven through ten, to store crops and to repair houses in the tenth moon, to celebrate harvest also in the tenth moon, to go hunting in the eleventh moon, to cut ice in the twelfth moon, to store ice in the first moon, and to make a sacrifice in the second moon. Clearly, the poem might have been used as a monthly calendar by people in those ancient dynastic periods.

Both the biological phenomena, like cicadas, orioles, raccoons, shrikes, milkwort, and weather phenomena, like Scorpio, frost, cold wind, and sunshine, appear again and again, in later and more advanced literature in the style of “Monthly Commands”; thus, the poem has always been regarded as the very first, budding piece of literature in that style.²²²

Significance of *Classic of Poetry* as a Book of Instructions and Reports

The *Classic of Poetry*, as a book of instructions that served to guide people in performing their daily tasks, and as a book of reports that recount historical events, plays an important role in the history of technical writing in the Chinese tradition.

First, it reinforces the function that orality performed in the nascent stage of Chinese technical writing, a function that was championed by the divinatory activities as recorded in the oracle-bone-inscription texts. In those activities, orality worked as a bridge between divine spirits and human beings, interpreting messages between them. In the *Classic of Poetry*, orality performed a similar function, i.e., working as a bridge between the divine spirits, the Mandate of Heaven, and human beings, the rulers; between the ancestors and the posterities; and between the past, the

²²¹ Ibid., 200.

²²² Wang Lihua 王利华, “‘Yueling,’” 188.

present, and the future. In addition, orality, in these relationships, worked as a binder: it bound the Mandate of Heaven and the rulers; the ancestors and the posterities; the past, the present, and the future. It also bound them to performing their own jobs: the Mandate of Heaven granted authority to the rulers while the rulers ruled according to the Mandate; the ancestors exemplified good behaviors and virtues, while the posterities followed in their steps, the past served to set the traditions for the present while the present and the future just carried on these traditions. In this way, orality worked as a contract in these relationships.

I believe that it is significant to interpret orality as a contract because it helps us understand why traditionally written contracts did not play an important role in Chinese business transactions, thus making them inconsequential in Chinese business writing. Contractual terms were rarely important in Chinese business activities.²²³ Only after China opened its door to the world towards the end of the last century did contracts begin to be gradually employed in business transactions, but to a limited extent. Generally speaking, in Chinese business transactions, establishing a strong personal bond is more important than making profits,²²⁴ so parties involved in a business transaction often conduct business by discussing mutual trust instead of using legal provisions, because transactions based on contractual terms lead to distrust.²²⁵ Clearly, in Chinese business transactions, orality—discussing mutual relationships—plays a more important role than written contractual terms. In other words, it is orality, not written terms, that binds them to conduct business. In this respect, orality as employed in modern Chinese business transactions is rooted in Chinese antiquity—championed by the oral-bone-inscription texts and reinforced and developed by the *Classic of Poetry*.

Second, the *Classic of Poetry* employs a large number of generic names of roles like “musicians” and “chefs,” or indefinite pronouns, when identifying individuals who perform tasks, instead of naming these individuals by their personal names, suggesting that these tasks are amenable to being repeated by anyone who could perform them. In this

²²³ J. Yum, “The Impact of Confucianism on Interpersonal Relationships and Communication Patterns in East Asia,” in *Intercultural Communication*, ed. L. Samovar and R. Porter (Belmont, CA: Wadsworth, 1991), 379—80.

²²⁴ Q. Huang, R. Andrusis, and T. Chen, *A Guide to Successful Relations with the Chinese: Opening the Great Wall's Gate*, (New York: International Business Press, 1994), 118.

²²⁵ S. Gao and M. Handley-Schachler, “The Influences of Confucianism, Fengshui and Buddhism in Chinese Accounting History,” *Accounting, Business and Financial History* 13 (Spring 2003): 49; Yum, “The Impact of Confucianism,” 380.

sense, performing these tasks, as described in the poems and songs, is not the exclusive privilege of the individuals whose roles are identified in the poems and songs; these tasks are not contingent upon the performers as named; instead, these roles could be “filled and actualized with concrete individuals.”²²⁶ So employment of generic names renders the tasks as described in the poems and songs representative of all such tasks in a more general sense; thus these tasks as described in the poems and songs serve as guidance for others who need to perform such tasks. The employment of generic names in the poems and songs to render the tasks representative of all such tasks is not unlike use of the passive in scientific writing which suggests that an experiment is repeatable by any qualified scientist.²²⁷

The employment of generic names or indefinite pronouns exerted influence on technical writing instructions in later dynastic periods, and its influence also stretched over the dynastic periods to the present. In these technical writing texts, use of generic names, or “you,” is prevalent. For example, instead of implying “you” in “push and hold the red button for two seconds to start the engine” as imperatives in English always do, a Chinese instructional manual may state directly “users or (you) push and hold the red button for two seconds to start the engine.” The significance of using generic names or ‘you’ in the text, is that the readers are honored because they are mentioned in the text, either as ‘users’ or “you.” Meanwhile, these names or indefinite pronouns in the text do not specify a particular user, thus rendering the tasks as described in the text repeatable by anyone.

Third, the traditional practice of using nouns to name the constituents of events championed by the *Classic of Poetry* enables us to perceive a pattern in the visual display of information in modern Chinese technical communication that might escape our attention. For example, the Chinese Ministry of Science and Technology (MOST), on its own website www.most.gov.cn/eng, has issued a call for papers for the 4th International Symposium on Soft Science,²²⁸ but the announcement never specifies the

²²⁶ Kern, “*Shi Jing* Songs,” 65.

²²⁷ Daniel Ding, “The Passive Voice and Social Values in Science,” *Journal of Technical Writing and Communication* 32, no. 2 (2002): 145–46. More discussion of scientific passives and repeatability of an experiment may be found in Ding, “Rationality Reborn: Historical Roots of the Passives Voice in Scientific Discourse,” in *The Essays in the Study of Scientific Discourse: Methods, Practice, and Pedagogy*, ed. John T. Battalio (Stamford, Connecticut: Ablex Publishing Corporation, 1998): 117–35.

²²⁸ MOST, “Call for Papers for the 4th International Symposium on Soft Science,” *Announcement Board*. Accessed January 27, 2019,

procedure to submit a paper or a proposal, though it does announce the deadline. Instead, it lists all the topics and themes the symposium will cover, as well the as names of all the organizers including the chair, deputy-chairs, secretary general, advisors, and others. It even names all the speakers at the previous three symposiums. Perhaps, providing names helps them ensure that they provide only relevant information, information that is useful to all users, regardless of their particular circumstances. Put it differently, they present only what can be expected by all readers in a task. In this way, names encourage the readers to expect what they will encounter in a task, thus helping each individual plan for the future. Besides, this Chinese tradition of naming things may also be responsible for the extra large amount of information Chinese webmasters cram into a single page.²²⁹ So, after examining five Chinese websites each of which contains large amounts of information on a single page, Rogers advises international web designers to “[m]ake as much important information available as possible” when they develop online pages for Chinese users.²³⁰

www.most.gov.cn/en/announcementboard/200606/t20060616.34260.htm. I accessed the website on January 27, 2019, but the call for papers is dated June 16, 2006, which suggests that the ministry intends to use it as a model call, and so, I guess, that is why the call has been on the website since 2006.

²²⁹ K. Rogers, K, “The Culture of China’s Internet,” *Intercom* 55, no. 5 (May 2008): 11.

²³⁰ Rogers, “The Culture,” 13.

CHAPTER FOUR

“GRAND CRITERIA” (洪范): A SHORT TEXT OF INSTRUCTIONS IN THE *CLASSIC OF DOCUMENTS* (书经) WHICH PLAYS AN IMPORTANT ROLE IN THE DEVELOPMENT OF TECHNICAL WRITING IN THE CHINESE TRADITION

“Grand Criteria”: A Classic Text of Instructions

As I have argued at the end of Chapter One, based on Ban Gu's 班固 (32—92 CE) classification of technical writings and other Chinese classics in his “Monograph on Arts and Writings” (*Yiwen Zhi* 艺文志), a bibliographical chapter in *History of the Former Han* (*Han Shu* 汉书), technical writings in Chinese antiquity consisted of seven categories: medical writings (*yishu* 医术), pharmacopeia writings (*zhonyao* 中药), writings on the art of the bedchamber (*fangzhongshu* 房中术), writings on immortals (*changshengshu* 长生术), astrological writings (*zhan xing* 占), calendrical or almanac writings (*li pu* 历谱), writings on the five elements (*wu xing* 五行), and divinatory writings (数术).

As we have learned from Chapter Two, the earliest technical writing artifacts in the Chinese tradition—the oracle-bone inscriptions (*jiaguwen* 甲骨文)—focus on divination practices and astrological activities. So the oracle-bone-inscription texts keep records of these orality-oriented activities. From Chapter Three, we learned that the *Classic of Poetry* (*Shijing* 诗经), particularly its poems in the sections of Elegantiae (雅 *Ya*) and Eulogies (颂 *Song*), focuses on rituals, ceremonies, and almanac instructions.

The “Grand Criteria” (*Hongfan* 洪范)²³¹ is another text of instructions in Chinese antiquity. It consists of a series of instructions that is intended to guide the rulers to run the State based on the idea of the five elements²³² (*wuxing xueshuo* 五行学说). While providing instructions, the “Grand Criteria,” for the first time in Chinese history, articulated around the 3rd century BCE the philosophical thought of “天人合一” (*tianren heyi* oneness of Heaven and humans, unity between nature and humans, or the mutual influence between nature and humans), though it did not use the term “天人合一.” The influence of this philosophical thought stretched well beyond the dynastic periods to modern Chinese society, exerting impact on Chinese communications, including technical communication. Therefore, this chapter examines how the text of “Grand Criteria” provides instructions and how it discusses the philosophical thought of the mutual influence between nature and humans. Fig. 4-1 shows the first page of the “Grand Criteria” from the *Classic of Documents* published in the Edo period (1603—1668) in Japan.

Instructing the Ruler

The “Grand Criteria” is a chapter of the *Classic of Documents* (*Shu Jing* 书经 or *Shang Shu* 尚书), a collection of speeches. The sinograph “尚” simply means ‘antiquity’ while “书” means “writings.” So the title of the *Classic* means that it contains a series of writings since antiquity. The writings refer to transcripts of speeches by kings, emperors, lords, and princes archived in Imperial courts.²³³ This classic cannot be dated exactly, and thus the dating of each of the speeches varies widely in its reliability. However, according to Fung Yul-an 冯友兰, modern scholarship inclines to place [the “Grand Criteria”] within the 4th or 3rd centuries BCE.²³⁴ The

²³¹ The title of this text has been translated into various versions, such as Grand Model, Grand Norm as Fung has, and Grand Plan as Legge has. I translate it as Grand Criteria, because in the text, the author establishes nine criteria for testing the ruler’s policies and performance. See also Fung, *A Short History*, 131; Legge, *Chinese Classics* vol. III, pt. 2, 320.

²³² There are various English renditions of “五行,” such as “five agents,” “five powers,” “five phases,” “five activities,” and “five elements.” I prefer “five elements” because “五行” refers to the five elements that exist in nature: metal, wood, water, fire, and earth.

²³³ Schaberg, “Classics (*Jing* 经),” 175.

²³⁴ Fung, *A Short History*, 131—32. By drawing on Nylan’s study, Nathan Sivin believes the date is “between the early fourth and mid-third centuries BC.” For

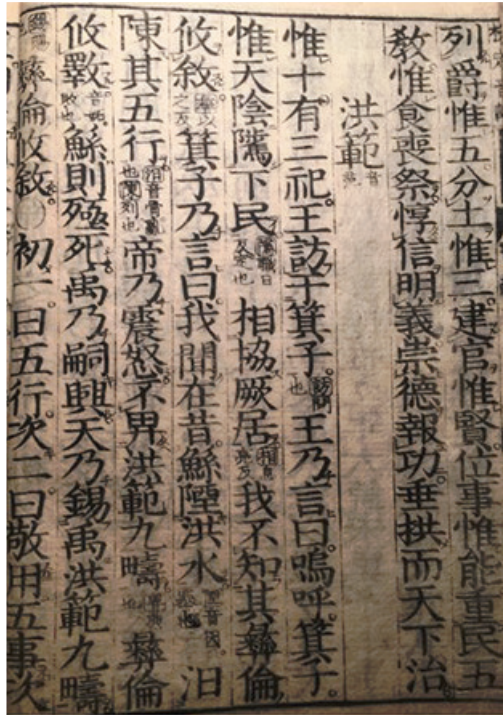


Fig. 4-1 "The Grand Criteria" Published in Japan in the Edo Period (1603-1668)

“Grand Criteria” is a record of a speech which *Jizi* 箕子 (the Viscount of the State of Ji, ca. 1173—1080 BCE) delivered to King Wu of Zhou 周武王. The Viscount was a prince of the Shang dynasty 商朝 (ca. 1765—1046 BCE).²³⁵ He was holding the official title of Grand Tutor (*taishi* 太师) of Shang, when he was imprisoned by 商纣 (*Shang Zhou* Zhou of Shang, r. ca. 1153—1121 BCE), the last King of the Shang dynasty, an infamous despot in Chinese history, because the Viscount attempted to remonstrate

more details, see Nathan Sivin, “State, Cosmos, and Body in the Last Three Centuries BC.” *Harvard Journal of Asiatic Studies* 55, no. 1 (June 1995): 17.

²³⁵ *Jizi* was the brother of King Yi of Shang (帝乙王 r. ca. 1101—1076 BCE) who was the father of *Shang Zhou* (商纣 r. ca. 1075--1046 BCE). *Jizi*’s father was King Wending (文丁 r. c. 1112—1102 BCE) who was the son of King Wuyi (武乙 r. c. 1147—1113 BCE).

with the despot. After he conquered Shang at the end of the 12th century BCE, King Wu of Zhou ordered Duke Zhao 召公 to release *Jizi*. King Wu then consulted him about running the Kingdom of the Zhou dynasty.

The beginning of the text sets the context for *Jizi* to instruct King Wu of Zhou:

In the 13th year of the reign of King Wu of Zhou (ca. 1140 BCE), King Wu consulted *Jizi*. He said, “Oh, *Jizi*, God on High protects and settles common people, creating harmonious relations among them. However, I am ignorant of the rules to run a kingdom.”²³⁶

The above paragraph provides the time when *Jizi* instructed King Wu of Zhou, and the reason why he instructed the King. It serves as the introduction to the entire text, thus the introduction to the instructions. The next paragraph explains where the nine rules to run the kingdom came from. It serves as a connector between the introduction and *Jizi*'s elaboration of the nine criteria.

Jizi answered, “I heard that in antiquity, *Guan* 鯀²³⁷ dammed up a flood, thus throwing the five elements into disorder. God on High was enraged, refusing to give *Guan* the nine criteria to run the State; thus, the state affairs were ruined. Later, *Guan* was exiled, so *Yu* 禹 continued *Guan*'s

²³⁶ “Grand Criteria,” in *Classic of Documents* vol. 2 (1209 CE), 7. This is a very early edition of the book; thus, the publisher is unknown, as is the editor, as is the case with most of the pre-republic editions of books in the Chinese tradition. The only known information about this edition is the year in which it was published: the 2nd year of the Reign of Emperor Jiading 嘉定 (r. 1208—1224 CE) of the Southern Song dynasty 南宋 (1127—1279 CE), which is 1209 CE.

²³⁷ According to Sima Qian 司马迁, the author of the *Records of the Historian*, *Guan* 鯀 was a legendary figure in the Xia dynasty 夏朝 (ca. 2204—1765 BCE). During the reign of the legendary Emperor Yao 尧帝, the flood raged, inundating the empire. Thus Emperor Yao ordered *Guan* to control the flood. He worked for nine years, but did not succeed because he dammed up the flood instead of channeling it away. Emperor Yao's successor, Emperor Shun 舜帝, another legendary emperor of the Xia dynasty, hired the son of *Guan*—*Yu* 禹—and ordered him to control the flood. *Yu* succeeded because he dug canals to divert the flood into the ocean. See Sima Qian, *Records of the Historian*, vol. 1, p. 13; vol. 2, pp. 1-16. Mencius also recounts the legend regarding *Guan*'s and *Yu*'s flood-control work in his *Mencius*; for details refer to Mencius, *Mencius*, trans. D. C. Lau (Harmondsworth: Penguin Books, 1970), 143.

work. God on High gave the Grand Criteria with nine articles 洪范九畴 to Yu 禹; therefore, the methods to rule the state were arranged properly.”²³⁸

Then, *Jizi* enumerates the nine articles in the third part:

Article 1: Know the five elements (*wuxing* 五行).

Article 2: Ensure completion of five tasks (*wushi* 五事).

Article 3: Practice eight administrative affairs (*bazheng* 八政).

Article 4: Coordinate five methods to record time (*wuji* 五纪).

Article 5: Establish Imperial supreme principles (*huangji* 皇极).

Article 6: Cultivate and employ people with three virtues (*sande* 三德).

Article 7: Solve problems and repel doubts through divination (*jiyi* 稽疑).

Article 8: Examine various natural phenomena as prophetic signs (*shuzheng* 庶征).

Article 9: Encourage people with five happinesses (*wufu* 五福) and warn them with six punishments (*liuji* 六极).

The enumeration is the turning point of the entire text, because it is what King Wu of Zhou has asked for—the rules to run the kingdom. What follows is *Jizi*'s elaboration of these nine articles one by one. The elaboration of these nine articles is the concluding part of the text.

Article 5 is the core of all the nine articles, because it instructs King Wu to establish his Imperial Principles. Articles 1 through 4 elaborate the principles on the basis of which King Wu could develop his Imperial Principles. Articles 6 through 9 tell King Wu how to maintain these Imperial Principles.²³⁹ Since Article 5 is pivotal to the Grand Criteria, and also, since it demonstrates technical instructions of the period in the Chinese tradition, I introduce the entire text of Article 5:²⁴⁰

²³⁸ “Grand Criteria,” 7.

²³⁹ For more details, see Legge, “*The Chinese Classics*, vol. III, pt. 2, pp. 320—344.

²⁴⁰ My translation of Article 5 draws on Legge's translation, though he sometimes erroneously translates some words or phrases. Generally speaking, Legge's translation is clear and perspicacious. For his entire translated text of “Grand Criteria,” see Legge, *The Chinese Classics*, vol. III, pt. 2, pp. 320—344. I arranged the Chinese version in a verse style in the left column so that each Chinese sentence will have its corresponding English version in the right column.

Article 5 皇建其有极	The Sovereign must establish the following principles.
敛时五福 用敷锡厥庶民 惟时厥庶民于汝极 锡汝保极	Employ the five happinesses properly and grant them to subjects so that they will show deference to you and follow the Supreme Principles as you do.
凡厥庶民 无有淫朋 人无有比德 惟皇作极	Do not allow the subjects to assemble their own cliques to pursue their private interests so that they will adopt the Supreme Principles as their code of conduct.
凡厥庶民 有猷有为有守 汝则念之	For the subjects who show talent for strategies and worthy deeds, Care about them.
不协于极 不罹于咎 皇则受之	For those who do not come up to the Supreme Principles but who are not involved in any crimes, grant clemency to them.
而康而色 曰予攸好德 汝则锡之福 时人斯其惟皇之极	For those who humbly claim that they love the moral standards you have established, grant blessings to them so that they will follow your moral standards as the supreme standards.
无虐载独而畏高明 人之有能有为 使羞其行 而邦其昌	Do not abuse subjects in dire straits but be alert for celebrities; for the subjects who have talent and ability, allow them to cultivate their conduct so that the kingdom will be prosperous.
凡厥正人 既富方谷 汝弗能使有好于而家 时人斯其辜	For the officials, Make them both rich and noble; if you do not allow the subjects to contribute to the Imperial court, they will proceed to criminal activities.

于其无好德	For those who do not like your Supreme Principles,
汝虽锡之福 其作汝用咎	do not grant any perquisite to them because they will bring disasters to you anyway.
无偏无陂 遵王之义 无有作好 遵王之道 无有作恶 尊王之路 无偏无党 王道荡荡 无党无偏 王道平平	No prejudice and no partiality, the Supreme Principles will be authoritative; no selfish preferences, The kingly way will be followed; no selfish aversions, the kingly way will be pursued. no partiality, and no favoritism, the kingly way is broad; no favoritism and no partiality, the kingly way will be smooth and easy to follow;
无反无侧 王道正直 会其有极	no perversity and no partiality, the kingly way will be straight. The Sovereign must observe the Supreme Principles when leading, while the multitude of subjects must also observe them when obeying the Sovereign.
归其有极	
曰皇极之敷言	The Supreme Principles the Son of Heaven has proclaimed
是彝是训 于帝其训	are the law to be observed; they are the teachings of the Son of Heaven, which conform to the edict of God on High.
凡厥庶民 极之敷言	All the subjects must adopt as their supreme standards the teachings of the Son of Heaven.
是训是行 以近天子之光 曰天子作民父母	To act according to these standards is to obey the Son of Heaven. Thus the Son of Heaven who is the parent of the multitude of subjects
以为天下王 ²⁴¹	is also the Sovereign of all under heaven.

As I have indicated at the beginning of our discussion about the nine articles, the entire text of the “Grand Criteria” contains nine articles. The first four enumerate the principles on the basis of which *Jizi* instructs King

²⁴¹ “Grand Criteria,” *Classic of Documents*, vol. 2, pp. 8—9.

Wu in Article 5 to build the Supreme Principles. These principles, as we can clearly see from the above quote, serve to establish sovereign-subject relations. The final four articles elaborate the strategies to allow King Wu to maintain the proper sovereign-subject relations established in Article 5.

Clearly, in the text, *Jizi* is instructing King Wu what to do, and how to do it: to establish the Supreme Principles, and to achieve this purpose, King Wu should first lay the foundation of the principles as *Jizi* has enumerated in Articles 1 through 4. To maintain the Supreme Principles, King Wu must employ the strategies as *Jizi* enumerates in Articles 6 through 9. At the very end of Article Five, *Jizi* seems to instruct the subjects to act according to the Supreme Principles, though they are not present. Probably he just wants the King to know that both the subjects and the monarch must follow the Supreme Principles.

In this article, *Jizi* is issuing instructions most of the time, though occasionally he spells out the significance of doing what he instructs the King to do, and the meanings of observing the Supreme Principles. Therefore, the text contains many imperative sentences. Seven action verbs²⁴² are used: 斂 (*lian* use, employ, apply properly), 錫 (*ci*, grant, give, award), 念 (*nian*, care, keep in mind), 受 (*shou*, grant clemency), 錫 (*ci*, grant, give, award), 使 (*shi*, allow), and 既富方谷 (*jifufanggu*, make . . . rich and noble). Three negatives are used: 无有 (*wuyou*, do not allow . . . to have), 无虐 (*wunue*, do not abuse, do not neglect), and 虽锡 (*suici*, do not grant, do not give, do not award). Ten emphatic imperatives, as effected via ten “no + a noun” structures, are utilized in the fourteen poetry-like lines to emphasize the point that by avoiding what *Jizi* advises the King to avoid, the King will ensure that his Supreme Principles will be followed.

In addition to issuing instructions, *Jizi* also occasionally explains the purpose of performing a task. For example, “**grant** blessings to them so that they will follow your moral standards as the supreme standards.” Besides, at the very end, *Jizi* defines the Supreme Principles and explains why both the monarch and the subjects must observe them. This part serves as the general note to the entire text of instructions. So Article 5 exhibits many similar features to those we see in modern technical instructions: using action verbs, defining the purpose of an action, and using notes on important issues.

²⁴² I put the action verbs, negative imperatives, and “no” in the instructions in bold so that they stand out and thus are easily identified.

Important Features in the “Grand Criteria”

As instructions, the “Grand Criteria” show several important features which are significant in the development of technical writing in the Chinese tradition. They are either textual features or thematic ones.

First, the text employs ordinal and cardinal numbers to arrange information, thus effectively helping readers to follow the instructions. Using cardinal or ordinal numbers to enumerate information in the “Grand Criteria” represents the first major step forward from the earlier instructions, as we have seen in the oracle-bone-inscription texts, where no numbers were used to help guide readers through the instructions as recorded in the texts. The “Grand Criteria” is the earliest technical writing artifact in the Chinese tradition that enumerates information in the text.

When he introduces the nine articles, *Jizi* uses ordinal numbers: 初一 (first), 次二 (second), 次三 (third), 次四 (fourth), 次五 (fifth), 次六 (sixth), 次七 (seventh), 次八 (eighth), and 次九 (ninth). Using ordinal numbers makes it more effective for *Jizi* to show all the articles on a list, in the same order as they are arranged in the text. Here we see a corollary of using numbers: a list, though it is embedded within the paragraph. Using a list in the text represents another major step forward in the development of technical communication in the Chinese tradition. While elaborating on the nine articles, *Jizi* employs cardinal numbers: 一 (one), 二 (two), 三 (three), 四 (four), 五 (five), 六 (six), 七 (seven), 八 (eight), 九 (nine), and 十 (ten).

Second, while I discussed the spirit of Chinese technical writing at its nascent stage in the first chapter, I propose that one major purpose of ancient Chinese technical writing was for Imperial court officials to help the monarch run the State through astrology or divinatory practices. The “Grand Criteria” reinforces the point I have raised about the spirit of ancient technical writing in the Chinese tradition. *Jizi*, hired by King Wu, instructs the King how to run the State, so *Jizi* advises him to establish the administrative principles, the so-called Supreme Principles. *Jizi* also advises the King to dispel doubt and resolve issues, through divination and through astrology in Article Seven. Besides, *Jizi* suggests in Article Eight that King Wu should consult various natural phenomena for the quality of his performance and his popularity among the subjects, for these natural phenomena are manifestations of the monarch’s performance and the various situations of the State. Abnormal natural phenomena result from the King’s poor performance and improper conduct, while normal natural phenomena are signs of the King’s wise behaviors and prosperity of the State. In short, “[t]he belief was that all heavenly phenomena has earthly

effects, and served as signs of Heaven's pleasure or displeasure regarding the government of men."²⁴³ In this suggestion, for the first time in the history of technical writing in the Chinese tradition, an important philosophical thought is very *clearly* articulated: 天人合一 (*tianren heyi*, oneness of nature and humans). Some earlier classical documents may have implied or represented this philosophical thought, but they never so clearly articulated it.²⁴⁴ This thought has influenced almost all aspects of Chinese society,²⁴⁵ including technical communication.

Third, as I have pointed out in the first chapter, the four-part textual structure of the oracle-bone-inscription texts actually foreshadowed the four-part structure of Chinese essays: *qi* (起 beginning), *cheng* (承 joining, continuing), *zhuan* (转 turning point), and *he* (合 concluding). The "Grand Criteria" demonstrates this four-part structure in the text. The beginning of the text is King Wu's observation that he does not know the rules to run the kingdom. The joining part is *Jizi*'s comment on *Guan*'s 陂 and *Yu*'s 禹 flood-control work. It serves as the bridge between King Wu's desire to seek the rules to run the kingdom, and *Jizi*'s enumeration of the nine articles in the next part. The enumeration is the turning point of the text, because it reveals what the King is seeking. Then, what follows is the concluding of the text, where *Jizi* elaborates on what he has just enumerated. In the "Grand Criteria," this four-part structure of Chinese essays is more fully developed.

Poetic Instructions and Instructional Poems

My analysis of the "Grand Criteria" supports an observation I made in the previous chapter regarding the interpretation and use of poems and songs in the *Classic of Poetry* as instructions. A similarity exists in the syntactic

²⁴³ Julia Jing, *Mysticism and Kingship in China: The Heart of Chinese Wisdom* (Cambridge: Cambridge University Press, 1997), 49.

²⁴⁴ As I have indicated in the previous chapters, earlier technical writing artifacts such as the oracle-bone-inscription texts and some poems in the *Classic of Poetry* may have implied this philosophical thought. For example, the divinatory activities the oracle-bone-inscription texts record suggest that abnormal weather or astrological phenomena are the cause for an illness. Diviners had to obtain Heaven's approval before performing a task because humans are an integral part of the natural world. The poem "Seventh Moon" in the *Classic of Poetry* suggests that human society must change with the seasons, and seasonal changes determine the rhythms of human society.

²⁴⁵ For the general influence of "oneness of nature and humans," see Julia Jing, *Mysticism and Kingship*.

format between the “Grand Criteria” and the *Classic of Poetry*. The only difference lies in the style: sentences in the “Grand Criteria” are arranged in prose, while those in the *Classic of Poetry* are arranged in verse. If I arrange the sentences in the “Grand Criteria” in verse, as I have already done in the above section, then we also have a poem:

无偏无陂	No prejudice and no partiality,
遵王之义	The Supreme Principles will be authoritative;
无有作好	No selfish preferences,
遵王之道	The kingly way will be followed;
无有作恶	No selfish aversions,
尊王之路	The kingly way will be pursued.
无偏无党	No partiality, and no favoritism,
王道荡荡	The kingly way is broad;
无党无偏	No favoritism and no partiality,
王道平平	The kingly way will be easy to follow;
无反无侧	No perversity and no partiality,
王道正直	The kingly way will be straight.

Rearranged in verse, the above lines from *Jizi*'s instructions might well have appeared in the *Classic of Poetry*. As a poem, it has 12 tetrasyllabic lines. There are six couplets, and except for the first, which is not in rhyme, every couplet has its own rhyme: aa, bb, cc, dd, ee. The last two are alliterative, the so-called head rhyme, 偏 (pian) and 平 (ping), 侧 (zhai) and 直 (zhi). Actually, if we take some lines from some poems in the *Classic of Poetry*, we could hardly note any major differences, either textually or stylistically:

式勿从谓	Do not liquor up our guests
无俾大怠	So as to avoid further abandonment;
匪言勿言	Do not speak what is not supposed to speak;
匪由勿语 ²⁴⁶	Do not speak what is not reasonable.
不竞不綵	No competition and no craving,
不刚不柔	No austerity and no capitulation,
布政优优	You will execute the policy generously;
百禄是遄 ²⁴⁷	You will win a hundred blessings.

²⁴⁶ Gao, *Shi Jing*, 344.

²⁴⁷ *Ibid.*, 530.

敷奏其勇	Display your courage to the full;
不震不动	No wavering and no shaking,
不懋不竦	No fearing and no trembling,
百禄是总 ²⁴⁸	You will collect a hundred blessings.

In the above selections from the “Grand Criteria” and from the *Classic of Poetry*, both the speakers address readers by instructing them as to what to do, and explaining why. In the “Grand Criteria,” the writer urges his readers not to have prejudice or partiality so that the Supreme Principles will be observed by the multitude of subjects. In the *Classic of Poetry*, the writer tells the reader not to compete or crave so that he will eventually carry out his policy generously and collect a hundred blessings. Both are instructions and both are poetic. We may comfortably claim that in Chinese antiquity, technical instructions became transformed into poetry, and poetry served the function of instructions. In this context, the distinction between technical instructions and poetry is suspended, because for the practical use of the “Grand Criteria” or the *Classic of Poetry*—to guide people to perform tasks—the distinction is moot.

The “Five Elements” and the Philosophical Thought of “Oneness of Heaven and Humans”

The “Grand Criteria” is the first Chinese classic that spells out the components of the ‘five elements’ (*wuxing xuexue* 五行学说). More important, it articulates, for the first time in Chinese history, the philosophical thought of “天人合一” (*tianren heyi* oneness of Heaven and humans, unity between nature and humans, or the mutual influence between nature and humans), though it does not explicitly use the term “天人合一.”

The “Grand Criteria” is not the first to bring up the idea of the five elements; its first appearance is found in another chapter in the *Classic of Documents*: “Mobilizing Speech at Gan” (Ganshi 甘誓). The speech was delivered at Gan by the founder of the Xia dynasty (ca. 2204—1765 BCE) Qi 启 (r. ca. 2196—2186 BCE), the son of the famous flood-control hero Yu 禹, when he was mobilizing his troops to fight Youhushi 有扈氏. In the speech, Qi declares that Youhushi acts willfully and despises the five

²⁴⁸ Ibid., 530.

elements 威侮五行,²⁴⁹ so he will punish Youhushi according to the Mandate of Heaven.²⁵⁰

Fung believes that [t]he first really authentic account of the idea of the five elements is found in the “Grand Criteria,” though the idea is still very primitive because “the author is thinking in terms of the actual substances . . . instead of abstract forces bearing these names” (of the five elements).²⁵¹ Indeed, *Jizi* defines, in Article 1, the five elements as consisting of water whose taste is salty, fire whose taste is bitter, metal whose taste is spicy, wood whose taste is sour, and soil whose taste is sweet. These five elements are what the masses of folk depend upon on a daily basis for their life, like food and the earth.²⁵² Legge argues in a similar vein, that the five elements as discussed in the “Grand Criteria,” together with grain, constitute the “six magazines, from which people are to be provided with what is necessary for their sustenance and comfort.”²⁵³

However, a question remains: How are these five elements related to the rest of the “Grand Criteria,” since in Article 1, *Jizi* only defines the five elements without telling the King what do with them? The *Classic of Documents Completely Annotated* 书经备旨 seems to point the way to an answer. The editor of this book claims that when the five elements are manifest in the four seasons, they appear as the five methods to record time, as recounted in Article 4 (*wuji* 五纪); when manifest in fortune telling, they appear as divinatory practices via tortoise shells, or milfoil as discussed in Article 7; when manifest in the human body, they appear as five tasks (*wushi* 五事) as related in Article 2; when interfered with by good or evil fortunes, they appear as various natural phenomena as discussed in Article 8; when manifest in organisms, they appear as various properties as discussed in Article 6; when changing organisms, they produce longevity and death, virtues and wickedness, as discussed in

²⁴⁹ Fung Yul-un suspects that the five elements here may not be the same as the five elements discussed in the “Grand Criteria”; at least, it is not really authentic. See Fung, *A History*, 131. Legge thinks the term is ‘obscure and mystical,’ but he also believes that the term may refer to the four seasons. For details, see Legge, *Chinese Classics*, vol. III, pt. 1, 154. If, as Legge believes, the term refers to the four seasons, then the five elements as mentioned in Qi’s speech is very much the same as used in the “Grand Criteria.”

²⁵⁰ “Mobilizing Speech at Gan” 甘誓, *Classic of Documents*, vol. 1, 15.

²⁵¹ Fung, *A Short History*, 132.

²⁵² Zheng Yuankang 郑元康, ed., *Grand Biography of the Classic of Documents* 尚书大传, (Hubei, China: Chongwen Shuju, 1877), 33.

²⁵³ Legge, *Chinese Classics*, vol. II, pt. 2, 325.

Article 9.²⁵⁴ Later Chinese philosophers developed the idea of the five elements by integrating them with *Yin-Yang* theory (阴阳说) when they were developing and expanding the theory of “oneness of nature and humans.”²⁵⁵

The “Grand Criteria” is the first Chinese classic that articulates the philosophical theory of “oneness of nature and humans.” In Article 8, *Jizi* tells King Wu that various natural phenomena portend good and evil. If, as *The Classic of Documents Completely Annotated* 书经备旨 argues, the five elements appear as various natural phenomena when they are interfered with by good and or evil fortunes, so let’s see what natural phenomena there are. *Jizi* lists five of these natural phenomena: rain, sunshine, warm, cold, and wind. When these five phenomena occur according to their own order, then crops and vegetables will be luxuriant and crops will be abundant. If one of them occurs either more frequently or less frequently than the others, then that occurrence is an evil omen.

Jizi goes on to explain to the King the various natural phenomena that portend good: a timely rain means that the King is performing his duties prudently; plenty of sunshine indicates that the King shows considerable talent for running the kingdom; seasonal warm weather suggests that the King is wise; seasonal cold weather tells us that the King has strategies for State affairs; a seasonable wind shows that the King is sensible and generous. Ill omens also exist. Constant rain means that the King’s duty performance is erratic; drought suggests that the King has made a blunder; constant heat means that the King is indolent, over-seeking comfort and ease; constant cold means that the King is hasty; constant wind shows that the King is not wise.

Because the various natural phenomena are closely related to the King’s duty, performance, and State affairs, they greatly affect the Imperial court, the kingdom, and the society. So *Jizi* instructs King Wu constantly on a yearly basis; the court officials should do so on a monthly basis; and the grand tutors should do so on a daily basis. Within a year, if all natural occurrences are seasonable, then crops will grow and will be ripe in time for harvest, and political affairs will be pure and bright (*zhengzhi qingming*

²⁵⁴ Zou Wugang 邹梧岗, ed., *Classic of Documents Completely Annotated* 书经备旨, vol. 4 (Beijing: Juxiutang, 1730), 18; James Legge also invokes this passage from the *Classic of Documents Completely Annotated* when he is annotating the text of the “Grand Criteria” in his seminal book *The Chinese Classic*, Vol II, pt. 2, 325.

²⁵⁵ For more details of this theory, see Fung, *A Short History*, 191—203.

政治清明).²⁵⁶ On the other hand, if there are unseasonable occurrences within a year, then everything will move to its opposite.

In advising the King to examine the natural phenomena, *Jizi* portrays a blueprint of the philosophical thought of “oneness of Heaven and humans, unity between nature and humans, or mutual influence between nature and humans” (*tienren heyi* 天人合一): humans are part of nature, so nature and humans are interrelated. Human behavior may cause abnormal phenomena, and in turn, abnormal nature may, via flood, drought, or other natural calamities, punish humans for their wrongdoings. So nature affects human beings, not only physically, but also politically and socially. Fung explains this theory of ‘oneness of heaven and humans’ with two proposals: teleological and mechanistic. In the former, human wrong behavior causes Heaven on High to be upset, which causes abnormal natural phenomena, which in turn, serves as a warning to human beings. In the latter, chaotic human society results in chaotic nature, because nature and humans are interrelated, so that if one part is out of order, then the other part must also be affected.²⁵⁷ In both of these proposals, nature becomes the measurement of human conduct. It is used to measure, for example, how well the King is performing his duties as the parent of all under heaven. Seasonable occurrences are regarded as manifestations of the approval of Heaven on High of the King’s performance. Unseasonable occurrences are interpreted as manifestations of Heaven’s displeasure with the King’s performance.

In *Jizi*’s blueprint, the context—the natural environment—influences human behavior, and human behavior influences nature. In this respect, Fung argues that humans’ improper behaviors automatically result in a disturbance of nature which produces abnormal natural phenomena.²⁵⁸ Clearly, in this philosophical thought, the context—the large environment—plays a key role in the nature-human relationship. To put it in a nutshell, the role of context is emphasized, while the roles of individuals within the context are not emphasized. So whatever humans do, they must ensure that their behavior does not disturb the context in which they behave. If the context is disturbed, they must repair it, to restore its order by modifying their own behaviors.

²⁵⁶ This is the ideal situation that all imperial monarchs and political leaders in China have been seeking and coveting. It means that the government’s policies are fair and generous, that all political figures have integrity, that no corruption occurs in the government, and that people enjoy a peaceful and prosperous life.

²⁵⁷ Fung, *A Short History*, 132—33.

²⁵⁸ *Ibid.*, 133.

The “oneness of Heaven and humans” theory, as articulated in the “Grand Criteria,” though primitive, lays the foundation for later, more advanced, development of this theory by Dong Zhongshu 董仲舒 (ca. 179—104 BCE),²⁵⁹ which was brought to fruition in Cheng Hao’s 程颢 (1032—1085) definition of humankind and nature, as “forming one body with all things.”²⁶⁰ By articulating this theory, the “Grand Criteria” forecasted a very important factor that would shape Chinese culture into what scholarship calls a highly context-oriented culture that stresses the context in which events occur.²⁶¹ In Chinese culture, when a problem occurs, individuals must seek remedies based on evaluation of the context, and the remedies thus obtained are aimed at improving the context. For example, in the Han dynasty 汉朝 (206 BCE—220 CE), Chinese physicians sought to explain in metaphysical terms the connection between the forces of nature and the ills that mankind experiences.²⁶² Traditional Chinese physicians are not concerned with microorganisms or details of the body’s organs and tissues; rather, they tend to evaluate how functions were related on many levels to the natural and social environment of the patient, always with therapy in mind.²⁶³ Thus, the remedies are aimed at evaluating and improving the physical, natural, spiritual, and social circumstances of the patient.²⁶⁴

This stress on the larger environment, a practice championed by the philosophical thought as articulated in the “Grand Criteria,” is also found in modern Chinese technical writing, particularly manual instructions, which usually advise readers to pay more attention to the context when a task is performed.²⁶⁵

²⁵⁹ Fung, *A Short History*, 191—203.

²⁶⁰ Wei-ming Tu, “The Confucian Tradition in Chinese History,” in *Heritage of China: Contemporary Perspectives on Chinese Civilization*, ed., Paul S. Ropp (Berkeley: University of California Press, 1990), 130. See also Fung, *A Short History*, 281—83.

²⁶¹ Edward T. Hall, *Beyond Culture*, (New York: Anchor/Doubleday, 1976), 79—90.

²⁶² Ross, Jr., *Oracle Bones*, 41.

²⁶³ Nathan Sivin, “Science and Medicine in Chinese History,” in *Heritage of China: Contemporary Perspectives on Chinese Civilization*, ed., Paul S. Ropp (Berkeley: University of California Press, 1990), 186.

²⁶⁴ Sivin, “Science and Medicine,” 183.

²⁶⁵ Ding, “The Emergence of Technical Communication,” 329—43.

Heaven-sent Book of Criteria with Nine Articles: Also Signifying “Oneness of Heaven and Humans”

Clearly, the above discussion shows that the philosophical thought of “oneness of Heaven and humans” is articulated by *Jizi* in his instructions, but *Jizi*’s instructions are also influenced by that philosophical thought; therefore, he advises the King to constantly examine the various natural phenomena to see if he is performing his jobs dutifully as a monarch, and as a parent of all under heaven.

The fact that *Jizi*’s instructions are influenced by the philosophical thought of “oneness of Heaven and humans” can also be illustrated through the history of the book of nine articles *Jizi* is recounting at the beginning of the text. There, *Jizi* informs King Wu that God on High provided the Grand Criteria with nine articles 洪范九畴 to *Yu* 禹. Here, we see a connection between Heaven and humans, because ‘God on High’ represents “Heaven on High.” This connection suggests that people of the period when the “Grand Criteria” was composed believed in the mutual influence between nature and humans. Legend has it that the book of nine articles from Heaven appeared out of the Luo River 洛水 while a tortoise carried a diagram on its back.²⁶⁶ Though it should be taken with a grain of salt, the legend suggests the extent to which the philosophical thought of “oneness of heaven and humans” influenced the “Grand Criteria.” Legge explains that Heaven gave *Yu* 禹 the tortoise which appeared in the waters of the Luo River 洛水 and which carried the numbers 1 through 9 on its back. From these numbers, *Yu* 禹 developed the nine articles.²⁶⁷ Legge, however, attributes the origin of the legend to Confucius. While commenting on the *Classic of Changes* 易经, Confucius claimed that out of the Yellow River 黄河, the diagram of changes appeared, and out of the Luo River 洛水, the book of nine articles appeared, which he adopted.²⁶⁸ Ban Gu 班固, in his *Han Shu* (汉书 *History of Han*), confirms that the entire sixty-five sinographs at the beginning of the text of the “Grand Criteria” are the original text from the book that appeared out of the Luo River 洛水.²⁶⁹

²⁶⁶ Kong Anguo 孔安国 and Kong Yingda 孔颖达, eds., *Wuyingdian Shishanijing Zhushu Di11 Juan* 武英殿十三经经注疏, vol. 11 [*Wuyingdian Edition of 13 Classics Annotated and Re-annotated*, vol. 11] (Beijing: Wuyingdian, 1739), 3.

²⁶⁷ Legge, *The Chinese Classics*, vol. III, pt. 2, 321.

²⁶⁸ *Ibid.*, 321.

²⁶⁹ Ban Gu, *Han Shu*, 131.

This story is purely legendary; however, it demonstrates the important role of the philosophical thought of “oneness of Heaven and humans” in Chinese antiquity. Teachings from Heaven on High were authoritative enough to direct a king’s conduct.

Significance of the “Grand Criteria”

It is now time to summarize the significance of the “Grand Criteria.” It is a short text of technical instructions, but it signifies several important implications for the later development of technical instructions in the Chinese tradition.

First, as a text of technical instructions, it employed ordinal and cardinal numbers to arrange information to create a sequence, to emphasize the important points, and to prioritize information. This is the first time numbers were used in a text in the history of Chinese technical writing, whose purpose it is to guide the reader. Second, it reinforces the 4-part structure of Chinese essays that the oracle-bone-inscription texts created in their records of Shang-dynasty divinatory practices. Third, the textual style of the “Grand Criteria” corroborates the point I made in Chapter Three about reading the poems and songs from the *Classic of Poetry* as technical instructions. As my discussion in this chapter has indicated, the text of the “Grand Criteria” could also be poetic, and few differences exist between poems and songs, and technical instructions, at that time. As Jia argues, many poems in the *Classic of Poetry* simply intend to “state in detail and to display in a straightforward manner” what the authors intend to express²⁷⁰—exactly the same as technical instructions intend to do. Kong Yingda 孔颖达 asserts that when you express your intention with emotional exclamations with rhyme and rhythm, then you compose a poem.²⁷¹ In this respect, the “Grand Criteria” is poetic. This poetic nature is actually another way to demonstrate the “suggestiveness” of technical instructions in the Chinese tradition. Fourth, the “Grand Criteria” is the first Chinese classic that articulates the philosophical thought of “oneness of nature and humans.” This thought has far-reaching implications for communications in the Chinese tradition, including technical communication. Driven by

²⁷⁰ Jinhua Jia 贾晋华, “An Interpretation of the Term *fu* 赋 in Early Chinese Texts: From Poetic Form to Poetic Technique and Literary Genre,” *Chinese Literature: Essays, Articles, Reviews (CLEAR)* 26 (December 2004): 70.

²⁷¹ Mao Heng 毛亨, Zheng Xuan 郑玄, and Kong Yingda 孔颖达, eds., *Maoshi Zhengyi* 毛诗正义 [Meanings of Classic of Poetry as annotated by Mao Heng are rectified, vol. 1] (Beijing: Beijing University Press, 2004), 7a—8a.

this philosophical thought, Chinese technical communication stresses the context in which individuals perform a task.

CHAPTER FIVE

“MONTHLY COMMANDS” (月令): A CHAPTER IN THE *CLASSIC OF RITES* (礼记) INSTRUCTS US HOW TO BEHAVE MONTH BY MONTH

The “Monthly Commands” as the Most Influential Piece of Almanac Literature

In Chapter Three, I have introduced the poem “The Seventh Moon” in the *Classic of Poetry* as a “minuscule almanac”—a piece of literature in the style of “monthly commands”—which instructs people, month by month, what to do in a year. Though the poem is a very primitive almanac, it contains all the elements an almanac is supposed to contain: recounting every month, describing weather and natural phenomena that occur in a month, and correlating the activities of humans with elements of nature. However, it is the “Monthly Commands” (月令), a chapter in the *Classic of Rites*, that realizes the design of a full-fledged almanac. As I have also indicated in Note 216 in Chapter Three, the genre of literature in the style of “monthly commands” (月令书) has probably derived its name from the title of this chapter.

In addition to the “Monthly Commands,” various other works in the style of “monthly commands” also were composed in Chinese antiquity. The “Monthly Commands” in *Master Zou* (邹子月令), the “Monthly Commands” in *Book of Zhou* (周书月令), the “Monthly Commands” in *Bright Hall* (明堂月令), and *Xia Commands* (夏令) were lost in Chinese antiquity.²⁷² The “Almanacs” (十二纪), the first part in *The Spring and*

²⁷² Wang Lihua 王利华, “‘Yueling,’” 191; Fu Daobin 傅道彬, “Yueling Moshi de Shijian Yiyi yu Sixiang Yiyi” “月令”模式的时间意义与思想意义 [Significance of time and thoughts in the literature modeled on the Monthly Commands], *The Northern Forum*, no. 3 (2009): 125.

Autumn Annals of Lu Buwei by Lu Buwei 吕不韦 (d. 235 BCE); the “Instructions for the Seasons” (时训) in *Remainder of Book of Zhou* (逸周书); the “Instructions for the Seasonal Rules” (时则训) in *Master Huainan* (淮南子); the “Four Seasons” (四时), the “Five Elements” (五行), and the “Young Officials” (幼官) in *Master Guan* (管子)—the extant almanacs—all represent literature in the style of “monthly commands.” The “Xia Lesser Calendar” (夏小正), as I have pointed out in Note 216 in Chapter Three, is considered the earliest almanac but it was unfortunately lost. The current version as we read exists as a chapter in *Da Dai’s Classic of Rites* 大戴礼记, and from this chapter, we get a general picture of the original text of the “Xia Lesser Calendar.”

Among these extant almanac works, the most authoritative are the “Almanacs” in Lu’s book, the “Monthly Commands” in the *Classic of Rites*, and the “Instructions for the Seasonal Rules” in *Master Huainan*.²⁷³ Of these three, the “Instructions for the Seasons and Laws” is a condensed version of the “Almanacs.” The “Monthly Commands” and the “Almanacs” are almost the same, except that Lu also added comments to the instructions for every month so that these comments constitute four chapters, which, together with the instructions for the month, total five chapters which make up a book. Each book is devoted to a month, so the entire “Almanacs” has twelve 5-chapter books, and is very bulky. The “Monthly Commands” in the *Classic of Rites*, on the other hand, is a single, very succinct, chapter. It is a piece of literature entirely dedicated to almanac, with no additional comments. Therefore, it is the most influential and most typical piece of literature in the style of “monthly commands.”²⁷⁴

The “Monthly Commands” as a Chapter in the *Classic of Rites*

As I have indicated in the above section, the “Monthly Commands” is a chapter in the *Classic of Rites*, another Confucian classic in the Chinese tradition, a book that describes the code of conduct—the rites (*li* 礼)—

²⁷³ Chen Meidong 陈美东, “Yueling, Yin-Yang Jia yu Tianwen Lifa” 月令, 阴阳家与天文立法 [Monthly commands, members of Yin-Yang school, and astronomical calendar], *Zhongguo Wenhua* di shier Qi 中国文化 第十二期 [Chinese culture no. 12 (1995)]: 185.

²⁷⁴ Dong Kaichen 董恺忱, “Lun Yueling,” 84; Fan Zhimin 樊志民 and Zhu Hongbin 朱宏斌, “Yuelingshu,” 97.

which regulated the conduct of the aristocrats, the nobles, and the lords (*junzi* 君子) in ancient China. To regulate the conduct of the common people (*xiaoren*, 小人), there was the legal system (*xing* 刑).²⁷⁵ Though legend has it that the classic was composed by Confucius's seventy-two disciples, and was edited by Dai Sheng 戴圣, a Confucian scholar of rites active during the Western Han dynasty (206 BCE—8 CE), Chinese dynastic scholars tend to believe that the classic was composed by various Confucian scholars during the late Qin dynasty (221—207 BCE) and early Han dynasty (206 BCE—220 CE).²⁷⁶ However, as a chapter in the classic, its date and recourses have never been determined with reliability; scholars' views and opinions have varied widely in their reliability ever since the chapter was made available in the early Han dynasty (206 BCE – 220 CE).²⁷⁷ On dating the “Monthly Commands,” modern scholars seem to agree with each other that its date is placed in late Qin dynasty or early Han dynasty,²⁷⁸ corroborating the dynastic scholars' view.

²⁷⁵ Ch'u Chai and Winberg Chai, “Introduction,” in *Li Chi: Books of Rites: An Encyclopedia of Ancient Ceremonial Usages, Religious Creeds, and Social Institutions*, vol. 1, tran. James Legge (New York: University Press, 1967), xxxvii; Fung, *A Short History*, 155. The Chinese characters *junzi* 君子 and *xiaoren* 小人, as were used by Confucian philosophers, and, as referenced here by Chai and Chai and Fung, defy translation because they do not have corresponding terms in English. Therefore they have been translated into various terms such as “gentlemen,” “noblemen,” “aristocrats,” “superior men,” or “men of moral integrity” for *junzi* and “common people,” “small persons,” “mean individuals,” or “people of ordinary birth” for *xiaoren*. Roughly, they mean “humans with a superior moral sense” and “humans without a moral sense at all” respectively. I generally agree with Chai and Chia and Fung about their discussions of “*junzi*” and “*xiaoren*.” But I also argue that, to Confucian philosophers, particularly to Confucius, *xiaoren*, “is no longer a matter of blood, but of character,” as Chan has pointed out. Anyone who is willing to be regulated by the code of conduct (the rites) is a *junzi*. For more of Chan's enlightening analysis of *junzi*, see W. Chan, *A Source Book in Chinese Philosophy*, 4th ed. (Princeton, NJ: Princeton University Press, 1998), 15.

²⁷⁶ Wu and Lai, *Baihua Sishu*, vol. 3, 365—69.

²⁷⁷ For illuminating analyses of various scholars' studies of the date and recourses of the “Monthly Commands,” see Yang Kuan 杨宽, “Yueling Kao” 月令考 [Examination of monthly commands], *Qilu Xuebao* 1941 nian dierqi 齐鲁学报 1941 年第二期 [Qilu journal, no. 2 (1942)]: 1—10.

²⁷⁸ Che Xingjian 車行健, “Lun Zheng Xuan Dui ‘Li Ji Yueling’ De Kaobian” 論鄭玄對“禮記月令”的考辯 [On Zheng Xuan's textual research on the “Monthly Commands” in the *Classic of Rites*], *Donghua Renwen Xuebao* diyi qi 東華人文學報 第一期 [Journal of Donoghua Humanities, no. 1 (July 1999)]:194.

As for the sources of information in the “Monthly Commands,” some scholars believe the “Monthly Commands” is based on the “Almanacs” in Lu Buwei’s book as its source,²⁷⁹ because they think that the author(s) of the “Monthly Commands” simply “copied” the first chapters from every book in Lu’s “Almanacs” by invoking Zhengxuan 鄭玄 (127—200) who commented extensively on the “Monthly Commands.”²⁸⁰ Others believe that since it has never, with reliability, been determined in the past two thousand years whether the “Almanacs” predated the “Monthly Commands,” or which one served as the source for the other, current scholars’ conclusions vary greatly.²⁸¹ Still others have denied that the “Monthly Commands” copied the “Almanacs.”²⁸²

So whether the “Monthly Commands” copied the “Almanacs” is not very important to us now; what is important is that it was adopted as a chapter in one of the Confucian classics, and thus elevated to “Confucian classic” status. Its adaptation into a Confucian classic in the Han dynasty suggests that the Imperial court used it as a Confucian document to direct people’s activities, since Confucianism was made the orthodox philosophical basis that guided the political affairs of the Han Imperial court.²⁸³ In the *Classic of Rites*, the “Monthly Commands” is placed right

²⁷⁹ Fan Zhimin 樊志民 and Zhu Hongbin 朱宏斌, “Yuelingshu,” 97.

²⁸⁰ Zheng Xuan 鄭玄 and Kong Yingda 孔颖达 (574—648), eds., *Li Ji Zhenyi* 礼记正义 [Meanings of Classic of Rites rectified], in *Shisanjing Zhushu* 十三经注疏 [Thirteen classics, with commentary and sub-commentary], ed. Ruan Yuan 阮元 (1746—1849) (Hangzhou, China: Zhejiang Guji Chuban She, 1998), 1352. Zheng Xuan 鄭玄 was the first Chinese scholar to point out that the “Monthly Commands” “copied” the “Almanacs” in Lu’s book, claiming that someone who loves epitome produced extracts from it and compiled the “Monthly Commands.” “Copying” (*chao* 抄) as it was used at Zheng Xuan’s time meant something not quite the same as it is used in modern China; it meant active selection and careful consideration of what is significant, and therefore should be copied, and what is trivial, and therefore should be left out. “Copying” (*chao* 抄) as used in modern China simply means “cut and paste.” For a more detailed analysis of copying (*chao* 抄), refer to Xiaofei Tian, “Literary Learning: Encyclopedias and Epitome,” in *The Oxford Handbook of Classical Chinese Literature (1000 BCE—900 CE)*, ed. Wiebke Denecke, Wai-yee Li, and Xiaofei Tian, (New York: Oxford University Press, 2017), 143—44.

²⁸¹ Wang Lihua 王利华, “‘Yueling,’” 191.

²⁸² Xiao Fang 萧放, “‘Yueling’ Jishu yu Wangguan Zhishi” “月令”记述与王官之时 [Accounts of monthly commands and the time of imperial officials], *Journal of Baoji College of Arts and Science* 21, no. 4 (December 2001):49.

²⁸³ Fung, *A Short History*, 191—92.

after the chapter of “Kingly System” (王制), which indicates that after the Imperial system is established, it will be necessary to implement the “monthly commands.” This arrangement of chapters suggests that it is very important, as an integral part of Confucian rites, for both Imperial officials and the multitude of subjects, to observe the seasonal rules (*shilling* 时令) in the Imperial activities.

To understand how the “Monthly Commands” provides instructions, we need to first understand its structure. How is the “Monthly Commands” structured? Fung Yul-un 冯友兰 has pointed out that the “Monthly Commands” creates a structure in terms of Ying-Yang philosophical thought 阴阳学说, a spatio-temporal structure which “relates both to space and time.”²⁸⁴ Fung’s classification of the structure which the “Monthly Commands” creates, in terms of space and time, suggests that the structure of the text can be analyzed spatially and temporally. Many Chinese scholars agree with Fung. For example, some think that the “Monthly Commands” systematically expresses the spatio-temporal perception of ancient Chinese.²⁸⁵ Fung’s classification is significant because it allows us to discuss how the text relates to space as represented by celestial signs, and how it relates to time as represented by changes of months and seasons and how space and time relate to each other. But in this chapter, instead of analyzing the “Monthly Commands” merely in terms of a spatio-temporal structure, I would like to move beyond Fung to analyze the text from three perspectives: formal structure, thematic structure, and textual structure.

The Formal Structure of the “Monthly Commands”

First, formally, the text consists of five parts, with the first, second, fourth, and fifth parts devoted to spring, summer, autumn, and winter respectively; the third part is a very short one, devoted to the middle of a year, a very short intercalary period between summer and autumn. Every part, in turn, consists of three sections, with each assigned to a month of a season. Each section is then divided into three subsections: The first one describes celestial signs and various divine symbols that define the month the subsection focuses on; the second subsection recounts various weather and seasonal phenomena that mark the month and human activities correlated with these phenomena; the third subsection warns against unseasonal human activities. The following illustrates this formal structure:

²⁸⁴ Fung, *A Short History*, 133.

²⁸⁵ Xiao Fang 萧放, “‘Yueling’ Jishu,” 50; Wang Lihua 王利华, “‘Yueling,’” 203.

The entire text consists of five parts:

- 1st part—Spring
- 2nd part—Summer
- 3rd part—A short intercalary period
- 4th part—Autumn
- 5th part—Winter

Each part in turn consists of three sections:

- 1st section—1st month of a season
- 2nd section—2nd month of a season
- 3rd section—3rd month of a season

Each section has three subsections:

- 1st subsection---Defining a month with celestial signs and divine symbols
- 2nd subsection—Recounting weather and natural phenomena and correlating human activities with these phenomena
- 3rd subsection—Warning against unseasonable activities

Now I aim to elaborate the above formal structure with the 2nd section (2nd moon) of the 1st part (spring):

仲春之月，日在奎，昏弧中， 旦建星中。其日甲乙， 其帝大皞，其神句芒。	In the 2 nd moon ²⁸⁶ of spring, the sun is located at the Asterism of Legs (<i>Kui</i> <i>Xingxiu</i> 奎星宿), ²⁸⁷ and at dusk the
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²⁸⁶ Again, as I have explained in Note 109, a “moon” is a month—a synodic month—in the lunar calendar used by a traditionally agrarian China. The first day of the first “moon” in the lunar calendar does not completely overlap January, the first month in the solar calendar. The first day of the first “moon” often falls between January 15 and February 15.

²⁸⁷ In Chinese antiquity, astronomers or astrologers marked the four seasons and the months by using the positions of the stars, relative to the imaginary orbit of the sun as observed from the equator of the earth projected onto the celestial sphere, not unlike the great circle of the ecliptic plane. They chose four constellations close to the projected orbit, which are Azure Dragon (*Qinglong* 青龙) in the east, Black Tortoise (*Xuanwu* 玄武) in the north, White Tiger (*Baihu* 白虎) in the west, and Vermillion Bird (*Zhuque* 朱雀) in the south. Each constellation consists of seven asterisms or mansions (*xingxiu* 星宿). When the sun moves to a certain asterism along its projected orbit, the position of the sun marks a certain month. For example, when the sun moves to the Asterism of Legs (奎星宿) located in the Constellation of Black Tortoise, then “the sun at the Asterism of Legs” marks the second month of spring, as the invoked text of the “Monthly Commands” states. For more details about using the stars to mark the seasons and months in Chinese

其虫鳞。其音角，
律中夹钟。其数八。其味酸，
其臭臙，其祀户，祭先脾。

Asterism of Bow (*Gu Xingxiu* 孤星宿) is located in the middle of the southern Sky and the Asterism of Foundation *Jian Xinxiu* 建星宿) is located in the middle of the southern sky at dawn. The divine symbols of this month are as follows: the day—*jiayi* 甲乙, the reigning god—*Taihao* 太昊, the deity—*Goumang* 句芒, the divine creature—scaly, the musical note—*jue* 角, the scale—the pitch of *jiazhong* 夹钟, the number—eight, the taste—sour, the smell—rank and gamey 臙, the sacrificial object—the Door God 门户神, the offering—spleen.²⁸⁸

始雨水，桃始华，仓庚鸣，
鹰化为鸠。

In this moon, the rains begin, the peach trees blossom, the golden orioles begin to chirp, and the hawk metamorphoses into the turtledove.

天子居青阳大庙，乘鸾路，
驾仓龙载青旗，衣青衣，
服仓玉，食麦与羊，
其器疏以达。

In this moon, the Son of Heaven resides in the Great Temple of *Qinyang* (青阳大庙) located in the eastern hall of the Hall of Light (明堂); residing in a chariot equipped with bells carved with phoenix, pulled by green-dragon horses, and decorated with green streamers; clothed in green and wearing green jade ornaments; consuming wheat and lamb; using porous utensils carved with openwork.

是月也，安萌芽，养幼少，
存诸孤。择元日，命民社。
命有司，省囹圄，去桎梏，
毋肆掠，止狱讼。

In this moon, protect germinating shoots, nurture the young, compensate the widowed and the orphaned, pick the auspicious day, order the subjects to make sacrifices to the God of Earth,

antiquity, please refer to Wang Li 王力, *Gudai Hanyu Disan Ce* 古代汉语第三册 [Classic Chinese, vol. 3], (Beijing: Zhonghua Shuju, 1981), 826—36.

²⁸⁸ All of these divine symbols have the nature of “wood” of the “five elements,” for spring is associated with “wood.”

是月也，玄鸟至。至之日，以大牢祠于高禘。天子亲往，后妃帅九嫔御。乃礼天子所御，带以弓鞬，授以弓矢，于高禘之前。

order the law official to decrease the number of inmates and to remove shackles and manacles, dispense with tortures and prosecution.

In this moon, swallows return. On the day they return, make a sacrifice to the God of Matchmaker with a cow, sheep, and a pig. The Son of Heaven himself must go. The Queen and the chief concubines must lead all the nine Imperial concubines. Perform a ceremony, before the Altar to the God of Matchmaker, to grant bow cases with bows and arrows to the pregnant concubines.

是月也，日夜分。雷乃发声，始电，蛰虫咸动，启户始出。先雷三日，奋木铎以令兆民曰：雷将发声，有不戒其容止者，生子不备，必有凶灾。日夜分，则同度量，钧衡石，角斗甬，正权概。

In this moon, daytime and nighttime are of equal duration. Thunder and lightning begin. All hibernating creatures stir and begin to appear on the ground from hibernation. Three days before the first thunder, warn the multitudes of subjects with a bronze bell of *muduo* with a wooden clapper, “Thunder is about to clap, so whoever does not give attention to their conduct²⁸⁹ when the thunder sounds, will give birth to kids who are congenitally disabled and will suffer from disasters.” When daytime and nighttime are of equal duration, standardize measures, adjust weights, calibrate measures for the peck and bushel, and rectify the yards.

是月也，耕者少舍。乃修阖扇，寝庙毕备。毋作大事，以妨农之事。

In this moon, farmers have some free time, so they repair doors and windows. Bedrooms and temples must be repaired and made ready. Do not undertake large-scale projects lest farming is interfered with.

²⁸⁹ This is an euphemism, meaning sexual relations.

是月也，毋竭川泽，毋漉陂池，毋焚山林。

In this moon, do not drain rivers or lakes, do not fish with a net in pond and do not burn mountain forests.

天子乃鲜羔开冰，先荐寝庙。上丁，命乐正习舞，释菜。天子乃帅三公、九卿、诸侯、大夫亲往视之。仲丁，又命乐正入学习舞。

The Son of Heaven offers baby lambs to the God of Cold, opens the ice cellar, and offers the first piece of ice to the ancestors in the temple. On the day of *ding*²⁹⁰ in the first *xun*,²⁹¹ the Son of Heaven commands the Master Rectifier of Music to teach dancing and perform an offering ceremony with preserved rabbit meat, dates, chestnuts, candles, and other simple objects. The Son of Heaven goes to watch the ceremony with the three dukes, nine ministers, and all princes and lords. On the day of *ding* in the middle *xun*, the Son of Heaven commands the Master Rectifier of Music to teach music in the Imperial College.

是月也，祀不用牺牲，用圭璧，更皮币。

In this moon, do not use animals as sacrifices in making offerings; instead, substitute for them sacrificial jade and animal-skin currency.

仲春行秋令，则其国大水，寒气总至，寇戎来征。行冬令，则阳气不胜，麦乃不熟，民多相掠。行夏令，则国乃大旱，暖气早来，

In this moon, the second moon of spring, if the administered commands for autumn are carried out, then the kingdom will be inundated, cold weather will assail the kingdom, and

²⁹⁰ According to Chinese reckoning, a day is represented with a combination of one of the ten Heavenly Stems 天干 and one of the twelve Earthly Branches 地支 such as the day of *dingchou* 丁丑日. *Ding* 丁 is a Heavenly Stem while *chou* 丑 is an Earthly Branch. Sometimes people in ancient China simply used a Heavenly Branch only, such as “the day of *ding*.”

²⁹¹ One *xun* has ten days, so a moon has three *xun*. In every *xun*, there is a day whose Heavenly Stem is *ding*.

虫螟为害。²⁹²

bandits will attack. If those for winter are carried out in this moon, then the *yang* forces will not be sufficient, the wheat will not ripen, and the subjects will rob each other. If those for summer are carried out in this moon, then the kingdom will suffer from great droughts, hot weather will occur too early, and locusts and other insects will damage crops.

Therefore, every month is recounted in the same way as the above section illustrates. Formally, it consists of eleven paragraphs; the first one is the first subsection, the last one is the third subsection, and the rest are the second subsection. The first subsection defines that month. Accordingly, the second subsection describes various weather and natural phenomena and correlated human activities. The third subsection warns against carrying out commands that are not correlated with the season and describes the consequences.

Clearly, the first subsection marks the month which the entire section covers and thus defines the tone for the entire month. It explains to the reader when the second month of spring comes and accordingly, it shows the various divine symbols that come with the month. So we encounter various correlations which match the month to the celestial phenomena like celestial coordinates of the sun, and to other divine elements such as agents, numbers, colors, tastes, smells, and musical pitches. Everything described in this subsection serves as a governing force of that month. It pretty much determines what we should, and can, do, and what we should not, or cannot do.

In the second subsection, we read various weather and natural phenomena and their corresponding human activities. Weather phenomena include rain, thunder, and lightning; natural phenomena include trees, flowers, birds, and insects. Human activities include those of the Son of Heaven, the Imperial family, the court officials, and the subjects. Among these people, the King—the Son of Heaven—acts according to the season and the month. For example, in the second month of spring, he resides in the Great Temple of *Qinyang* (青阳大庙) located in the east of the Hall of Light (明堂), wears green clothes, and uses porous utensils. He issues commands according to the season and the month. For instance, he orders the Master Rectifier of Music to teach dance. More often he distributes

²⁹² Wu and Lai, *Baihua Sishu*, vol. 3, 487—88.

tasks for the subjects to perform. For example, in the second month of spring, farmers should protect germinating shoots and when they have a little free time in this month they should repair doors and windows. All the Imperial family, court officials, and subjects, perform tasks assigned to them by the King.

In this formal structure, the Son of Heaven actually occupies the central position because he issues orders and assigns tasks; all others must either execute the orders or perform the tasks. In other words, the King makes arrangements for all human activities, with farming as their central task. In other words, all the human tasks revolve around farming. Based on this arrangement, the first task the King assigns the subjects to do, in this particular month, the second month of spring, is to “protect germinating shoots” before they do anything else. Farmers repair their doors and windows only when they have free time, and no large-scale projects should be undertaken in the second month of spring because this hinders farming activities. Along this line of thinking, the King, in the entire year, arranges a series of tasks with agriculture as the center, develops administrative policies on these tasks, and determines principles to execute the policies. All the lords, Imperial court officials, farmers, and other laborers, just perform the tasks assigned to them by the King.

All these human activities, including those of the Son of Heaven, are always regulated by nature as represented by various celestial, weather, and natural, phenomena. People’s activities are coordinated with the seasons and the months to ensure the success of the farming tasks—the central activity of human activities in Chinese antiquity. Thus, the “Monthly Commands” very clearly points out the general principle to follow when planning human activities, “When you initiate a task, do not oppose Heavenly commands, act according to the season, and be judicious when observing the seasons’ ordinances.”²⁹³ In this way, the relationships between humans and between humans and nature are established, thus creating a mechanism to regulate human conduct in an agrarian society.²⁹⁴

It is paramount to follow Heavenly commands and seasons’ ordinances; the third subsection issues warnings to those who disobey their ordinances in this particular month. In other words, if humans do not correlate their activities with those of nature, then unseasonable occurrences and natural calamities will happen, hindering seasonal human activities and damaging crops.

²⁹³ Wu and Lai, *Baihua Sishu*, vol. 3, p. 492.

²⁹⁴ Fan Zhimin 樊志民, *Qin Nongye Lishi Yanjiu* 秦农业历史研究 [A study of agriculture in Qin dynasty], (Xian, China: Sanqin Chubanshe, 1997), 123—28.

The formal structure has three tiers: the celestial signs and various divine symbols occupy the top tier, weather and natural phenomena and correlated human activities occupy the middle tier, and unseasonable human activities occupy the bottom tier. Farming occupies the central position of all human activities.

The Thematic Structure of the “Monthly Commands”

Second, thematically, the text of the “Monthly Commands” provides a spatio-temporal structure of the universe and human society defined cosmologically, based on the celestial coordinates of the sun and the constellations and asterisms, therefore designing and regulating human activities correlated with seasonal commands. This structure consists of space and time. In the “Monthly Commands,” space determines time, thus defining human activities, which must be performed in response to the four seasons. In space, the sun is the driving force, because its positions in the celestial sphere mark the seasons and months. As I have explained in Note 287, in the years when the “Monthly Commands” was being composed and finalized, astrologers or astronomers in Chinese antiquity had already established the celestial coordinates of the sun and various constellations asterisms. They chose twenty-eight asterisms along the imaginary orbit of the sun projected onto the celestial sphere; the coordinates of these asterisms and the sun mark the seasons and months. They grouped these asterisms evenly into four constellations to mark the four directions: Azure Dragon (*Qinglong* 青龙) in the east, Black Tortoise (*Xuanwu* 玄武) in the north, White Tiger (*Baihu* 白虎) in the west, and Vermillion Bird (*Zhuque* 朱雀) in the south. These directions made it possible for the ancient astrologers or astronomers to locate a celestial event that occurred. Here we see a connection between space and time. In addition, when describing changes of seasons and months based on celestial changes, the “Monthly Commands” incorporates the natural (terrestrial) calendar into the astronomical (celestial) calendar. Here we see a connection between the celestial scheme and the terrestrial scheme.

The philosophical thought of “the five elements” 五行 is seamlessly integrated into the spatio-temporal structure in the “Monthly Commands.” The very first paragraph of every part of the “Monthly Commands,” which describes the cosmological coordinates of the sun and the asterisms and various divine signs that mark the seasons and the months, clearly identifies the divine day of the season—a combination of two Heavenly Stems: *jiayi* 甲乙 for spring, *bingding* 丙丁 for summer, *wuji* 戊己 for the

intercalary period, *gengxin* 庚辛 for autumn, and *rengui* 壬癸 for winter. According to Jams Legge, these five pairs also stand for the five elements of wood, fire, earth, metal, and water.²⁹⁵ Thus, we can confidently claim that in the “Monthly Commands,” the five elements which the “Grand Criteria” have elaborated for the first, are integrated into the four seasons.

As the beginning of every part indicates, the Son of Heaven resides in the Compartment of *Qinyang* 青阳 located in the east of the Hall of Light 明堂东侧 in spring; in summer, he resides in the Compartment of *Mingtang* 明堂 located in the south of the Hall of Light 明堂南侧; in autumn, he resides in the Compartment of *Zongzhang* 总章 located in the west of the Hall of Light 明堂西侧; and in winter, he resides in the Compartment of *Xuntang* 玄堂 located in the north of the Hall of Light 明堂北侧. In each month, the Son of Heaven “must station himself in the appropriate compartment of the temple in order to promulgate the ‘commands’ of the month in question,” precisely because “the disposition of the [compartments] corresponds to the general notion of the movement of the seasons as a spatial flow from east to south, to west, to north.”²⁹⁶ That is, spring is connected to east, summer is connected to south, autumn is connected to west, and winter is connected to north.

In addition, we have learned that, from our discussion of the tastes of the five elements in Chapter Four, the taste of water is salty, that of fire is bitter, metal’s taste is spicy, wood’s taste is sour, and soil’s taste is sweet. The text of the “Monthly Commands,” when defining the divine symbols of each season and month, clearly indicates that the taste of spring is sour, summer’s taste is bitter, autumn’s taste is spicy, and winter’s taste is salty. Thus, it is clear that of the five elements, wood presides over spring and east; fire presides over summer and south; metal presides over autumn and west; and water presides over winter and north.

Colors are also connected with the five elements in the “Monthly Commands,” as symbolized by the colors of the streamers and clothes of the Son of Heaven: Spring, represented by wood, is blue; summer, represented by fire, is red; autumn, represented by metal, is white; winter, represented by water, is black; the intercalary season, represented by soil, is yellow. As Fung explains, “the ancient Chinese, being situated in the northern hemisphere, quite naturally regarded the south as the direction of

²⁹⁵ James Legge, trans., *Li Chi: Books of Rites*, vol. 1 (New Hyde Park, NY: University Press, 1967), 247.

²⁹⁶ Poul Anderson, “The Practice of *Bugang*,” *Cahiers d’Extreme-Asie* 5, no. 1 (1989): 23.

heat and the north as that of cold.”²⁹⁷ The significance of integrating the five elements into the seasons and directions is that they are closely interrelated with space and time, therefore more closely related to human activities than they are in the “Grand Criteria.” Table 5-1 reveals the relations between the five elements, the seasons, the directions, colors, and tastes.

Table 5-1 The Five Elements, Seasons, Directions, and Colors

<i>Five Elements</i>	<i>Seasons</i>	<i>Directions</i>	<i>Colors</i>	<i>Tastes</i>
Wood	Spring	East	Blue	Sour
Fire	Summer	South	Red	Bitter
Soil	Intercalary Season	Middle	Yellow	Sweet
Metal	Autumn	West	White	Spicy
Water	Winter	North	Black	Salty

When regulating human activities, the “Monthly Commands” demands that humans should plan their activities in response to the elements of the cosmological scheme (*shun tianshi* 顺天时), thus suggesting “oneness of nature and humans.” Here we see a connection between nature and humans. When applying the celestial and terrestrial calendars to farming activities, the “Monthly Commands” creates the “farming calendar,” which demands that the rulers should plan and distribute farming tasks according to the seasons and months, and that they should not hinder farming activities with political activities. Farmers should also coordinate their activities with seasons and months. Eventually, in this spatio-temporal structure, we see how space bears on time, and eventually on farming activities.

During a year, farming activities occupy the central position of all human activities in ancient China, as I have pointed out in the above text, because China was overwhelmingly an agrarian state then. Thus, the “Monthly Commands” discusses 59 agriculture-related activities, more than any other activities.²⁹⁸ The “Monthly Commands” demands not only that people should plan their farming activities in response to the elements of seasons and months, but also that they should reasonably acquire natural resources in response to the elements of seasons and months. For

²⁹⁷ Fung, *A Short History*, 133.

²⁹⁸ Wang Lihua 王利华, “‘Yueling,’” 193.

example, in the second month of spring, people should not drain rivers or lakes;²⁹⁹ people should not hunt young animals or birds;³⁰⁰ and people should not cut trees when they are still growing.³⁰¹

According to the “Monthly Commands,” all farming activities and events are season-driven, for example, plowing, planting seeds, germinating, rooting, growing, flowering, bearing seeds, harvesting, and storing; thus, people must perform all the farming tasks according to the changes of seasons and months. That is, human rhythms must synchronize with nature’s rhythms. In order to synchronize human activities with nature’s rhythms, the “Monthly Commands” creates a farming calendar. This calendar performs three job duties: First, it unifies the agricultural scheme and the natural scheme so that all the farming activities such as plowing, planting, weeding, harvesting, and storing are correlated with the changes of seasons. Second, it demands that a ruler must assume farming management as an important responsibility and arrange agricultural activities; that the ruler should not undertake any civil-engineering projects, should not raise armies, or should not hinder farming activities during the busy farming seasons; and that the ruler should employ manpower according to seasonal commands and avoid overusing manpower. Third, it stresses that, only when both the rulers and the subjects arrange farming events and engage in farming activities as per the seasons, can they avoid missing farming seasons and avoid hindering farming activities. This coordination between cycles of seasons and human activities can be illustrated with the 2nd section (second month) of the first part (spring) which I invoked above, as Table 5-2 shows.

Therefore, spatially, cosmological coordinates of the sun and the asterisms mark various weather and natural phenomena; temporally, these weather and natural phenomena define seasons and months. As individuals that exist in space and time, humans must correlate their activities with seasonal changes. Actually in this spatio-temporal structure, two large systems exist: nature and human society.³⁰² Clearly, human society must synchronize itself with nature.

²⁹⁹ Wu and Lai, *Baihua Sishu*, vol. 3, 487.

³⁰⁰ *Ibid.*, 487.

³⁰¹ *Ibid.*, 490.

³⁰² Wang Lihua 王利华, “‘Yueling,’” 193.

Table 5-2 Farming Calendar of 2nd Month of Spring

Nature	Farming Activities	Management Policy
Daytime and nighttime are of equal duration; thunder and lightning begin	Stabilize germinating shoots; farmers enjoy some free time	No major projects to avoid hindering farming activities; no draining rivers or lakes; no fishing with nets; no burning forests

The Textual Structure of the “Monthly Commands”

Third, textually, the text of the “Monthly Commands” consists of four parts: *qi* (起 beginning), *cheng* (承 joining), *zhuan* (转 turning point), and *he* (合 concluding), the four-part textual structure which the oracle-bone-inscription texts championed and the “Grand Criteria” employed.³⁰³ As the above discussions have indicated, the text of the “Monthly Commands” is organized according to seasonable associations—four seasons and a short intercalary period between summer and autumn, so the text consists of five parts. The four seasons determine the actions of human beings. So humans must correlate their activities with the seasonal commands: plowing in spring, growing in summer, harvesting in autumn, and storing in winter. Spring is the time of plowing, planting, and germinating. It is the time of birth, the beginning for all. Summer is the time of growing when everything is becoming mature. Autumn is the time of collecting and harvesting when everything is mature. Winter is the time of storing and concealing. The seasonal changes also regulate human society, so in human terms, spring is the time for humans to give birth to life and nurture life, especially young life. This is the season of “beginning.” Summer is the time for humans to help others grow, either physically or mentally. This is the season of “continuing to grow.” Autumn is the time for humans

³⁰³ Fu Daobin 傅道彬, “Yueling Moshi,” 129. My idea regarding the four-part textual structure builds on Fu’s discussion of time as defined in the “Monthly Commands.” Fu believes that the basic temporal units in the “Monthly Commands” are the four seasons (*sishi* 四时) which pretty much determines everything. He also believes that in the “Monthly Commands,” the cosmological and natural turn into cultural time through *qi*, *cheng*, *shuzn*, and *he*.

to restrain their activities. This is the “turning-point” season; people should be prepared for dormancy from activities. Winter is the time of dormancy, so humans should withdraw from all the activities and exercise moderation for the preservation of health. This is the concluding season. This cycle ends, and another cycle is about to begin. In addition, the seasonal changes regulate political life, so, in terms of the Imperial court politics, spring means spreading Imperial benevolence and granting leniency. Summer means cultivating the mind of the populace through music. Autumn means “increasing severity in the application of the law”³⁰⁴ and waging wars to inspire awe. Winter means withdrawal from all social and public activities to focus on internal examination of the Imperial court.

The above brief discussion shows that the four parts of spring, summer, autumn, and winter manifest *qi* (起 beginning), *cheng* (承 joining, continuing), *zhuan* (转 turning point), and *he* (合 concluding). In addition, the “Monthly Commands” spells out specific tasks for humans to perform in order to conform to the four-part structure. Spring, as described in Part 1, is the beginning. It gives birth to everything. So human activities and Imperial policies must also conform to it. On the one hand, “the Son of Heaven himself must carry plows and other farming tools to the field and plow in the Imperial Field by leading the three dukes, nine ministers, and all the lords.”³⁰⁵ In this way, the Son of Heaven, through his demonstration, signifies to the populace the importance of spring plowing in a timely manner. On the other hand, the Son of Heaven must execute policies that are conducive to new life, for example, policies that “do not forbid marriage based on romantic love in the second moon of spring” 仲春二月，奔者不禁³⁰⁶ and that “allow bulls and stallions to roam the pastures among cows and mares” 合累牛腾马，游牝于牧。³⁰⁷ Summer, as discussed in Part Two, is the season of growth; life continues to grow, so the Imperial

³⁰⁴ John Knoblock and Jeffrey Riegel, trans., *The Annals of Lu Buwei: A Complete Translation and Study by John Knoblock and Jeffrey Riegel* (Stanford, California: Stanford University press, 2000), 43—44.

³⁰⁵ Wu and Lai, *Baihua Sishu*, vol. 3, 487.

³⁰⁶ Wang Zhichang 王志长, ed., *Zhouli Zhushu Diqi Ben* 周礼注疏第七本 [Commentary and sub-commentary to Rituals of Zhou bk. 7] (Beijing: Shuye Tang 书业堂, 1792), 28. Traditionally in Chinese culture, all marriages must be arranged by parents. It is considered taboo to choose one’s own lover. But in the second month of spring, “free love” is encouraged as a sign of respecting life in the season of birth and renewal.

³⁰⁷ Wu and Lai, *Baihua Sishu*, vol. 3, 488.

court policy should uphold the principle of granting favors to the populace to develop talent. Thus, “Upon returning, [the Son of Heaven should] distribute rewards. . . . [and] command the prime minister 太尉 to select the talented and recommend the worthy and confer ranks and honors on them.”³⁰⁸ Autumn, as described in Part Four, is the season of maturity; and it constitutes the turning point of a year, when all will become concealed. So it is filled with bleak and severe scenes. Socially, the season suggests increasing severity in the application of laws. Thus, the Son of Heaven must “order the judicial officials to revise the laws, repair prisons, get ready shackles and fetters, forbid villainy, and capture criminals. . . . punish or execute the criminals and sternly decide the penalty.”³⁰⁹ Winter, the theme of Part Five, is the season of dormancy, so life begins to hibernate or death begins to occur. When “water turns into ice and the earth begins to freeze” in the natural world, in human society, people begin to focus on death and the burial ceremony. Thus, the Son of Heaven “upon returning [from the winter altar], rewards the posterity of the deceased and compensates the orphans and widows.”³¹⁰ He orders “the chief instructor to revise the procedures for mourning, prepare burial garments according to ranks, examine the thickness of coffins, and assign different sizes of coffins and graves according to rank and official positions.”³¹¹ Even the survivors’ activities are restricted, as the Son of Heaven “commands the chief eunuch to declare the Imperial palace orders; check the doors and gates; guard chambers and rooms, which should be kept shut; reduce women’s work; and not overwork others. Even relatives and friends should be prevented from overworking.”³¹²

According to Fu’s study, in this four-part structure, the four seasons are politicized.³¹³ I concur, but I would also like to argue that the four seasons are not only politicized, but more importantly, they are personified. Like humans, the four seasons give birth to life, make it grow, mature it, and bury it after it dies. So in this four-part structure, the philosophical thought of “mutual influence between nature and human” is at work: human activities must conform to the changes of the four seasons; otherwise, unseasonal activities will result in unseasonal weather conditions, causing natural disasters.

³⁰⁸ *Ibid.*, 489.

³⁰⁹ *Ibid.*, 491.

³¹⁰ *Ibid.*, 493.

³¹¹ *Ibid.*, 493.

³¹² *Ibid.*, 494.

³¹³ Fu Daobin 傅道彬, “Yueling Moshi,” 129.

The “Monthly Commands” as a Text of Technical Instructions

The general principle that human beings must follow when planning their activities is rhetorically expounded in the text of the “Monthly Commands”: “do not change the Heavenly way; do not break the Earthly order; do not violate the guiding principles of human beings.”³¹⁴ Therefore, the entire text of the “Monthly Commands” instructs humans what happens each month in nature and what they should do accordingly, month by month, to avoid violating the Heavenly way or the Earthly order, thus retaining harmony between the forces of nature and humans.

All the instructions are issued through the voice of an Imperial official (*wang guan* 王官) who is clearly an expert on astrology or astronomy.³¹⁵ This Imperial official either instructs the Son of Heaven what to do, or instructs the subjects what to do. When he instructs the Son of Heaven to perform a task, he usually begins his instructions with “the Son of Heaven,” and the instructions usually take the form of declarative sentences such as “In this month, the Son of Heaven sacrifices to the God on High on the first day of *xin* 辛日, praying for a good harvest.”³¹⁶ It does not take the form of an imperative, because as I take it, the tone of an imperative would be too demanding and harsh for the Son of Heaven. On the other hand, instructions to the subjects take the form of imperatives. For example, “Do not fell trees and do not ruin birds’ nests.”³¹⁷

The most prominent activities covered in the instructions are those that involve making sacrifices to various spirits; they are the primary tasks in the “Monthly Commands.” For example, at the beginning of every season, the Son of Heaven leads the three dukes, the nine ministers, and all the lords and noblemen to the suburb where they perform a sacrificial ceremony to welcome the beginning of the season.³¹⁸ Even before a major task is performed, the Son of Heaven must make a sacrifice. For example, before ice is taken out of the ice cellar, the Son of Heaven sacrifices a young lamb to the divine spirit in charge of cold weather. Then, after ice is

³¹⁴ Wu and Lai, *Baihua Sishu*, vol. 3, 487.

³¹⁵ Xiao Fang 萧放, “‘Yueling’ Jishu,” 48—50.

³¹⁶ Wu and Lai, *Baihua Sishu*, vol. 3, 487.

³¹⁷ Wu and Lai, *Baihua Sishu*, vol. 3, 487.

³¹⁸ To welcome spring, they perform the ceremony at the eastern suburb; to welcome summer, they do it at the southern suburb; to welcome autumn, they do it at the western suburb; to welcome winter, they do it at the northern suburb. In these ceremonies, the directions correspond to the movement of the four seasons as is explained in the above text.

taken out of the cellar, the Son of Heaven offers the first piece to the ancestral spirits.³¹⁹

In addition, the Son of Heaven also performs monthly rituals in accordance with the elements of the month. Every month, the Imperial official (*wang guan* 王官) gives instructions that specific ritual activities should be performed. The first month of spring is the month of rebirth when another cycle of the year begins, which marks the renewal of all life on the earth. In this month, “heaven and earth are in harmonious co-operation. All plants bud and grow.”³²⁰ So rituals are performed, or sacrifices are offered to celebrate new life. The Son of Heaven, for example, on the first day of *xin* makes sacrifices to God on High for bumper crops. Then sacrifices are also made to mountains, forests, rivers, and lakes. In the second month of spring, the main task is to preserve life, so “the Son of Heaven sacrifices to the God of Matchmaker with a cow, sheep, and a pig,”³²¹ praying for many descendants to be born. In the third month of spring, the task is continued to preserve life, so the Son of Heaven sacrifices a sturgeon to the ancestral spirits, praying for the wheat to ripen seasonably.

In summer, life grows larger, taller, and fuller. Rituals are held to celebrate new life. So in the first month of summer, the Son of Heaven sacrifices pigs to ancestral spirits when farms present new wheat. In the second month of summer, the Son of Heaven sacrifices to the God on High for rain, praying for the grain to ripen, “so the officials in charge of agriculture present new millet.”³²² In the third month of summer, the Son of Heaven orders the four chief inspectors to collect resources from all over the kingdom in order to provide food and other items to be used in sacrifices to God on High, the spirits of the famous mountains and rivers and the divine spirits in the four directions, praying for the magic powers of the ancestral temples and the altars of land and grain in the interest of people’s happiness.³²³

Autumn is the season of maturity and harvest, so rituals are performed conducive to collecting and restraining. In the first month of autumn, the Son of Heaven “performs a ceremony to mark the start of autumn” 以立

³¹⁹ Wu and Lai, *Baihua Sishu*, vol., 487—88.

³²⁰ Legge, *Li Chi: Books of Rites*, vol.1, 255. Legge’s translation of the sentences from the section of the first month of spring in the “Monthly Commands” best describes the nature of this month: Heavenly Father and Earthly Mother harmoniously work together to give birth to life.

³²¹ Wu and Lai, *Baihua Sishu*, vol. 3, 487.

³²² *Ibid.*, 489.

³²³ *Ibid.*, 490.

秋.³²⁴ The Son of Heaven offers new grain to the ancestral spirits before tasting it.³²⁵ In the second month of autumn, the Son of Heaven orders his ministers to choose sacrificial victims whose size, weight, costs, and coloration all fit the standards, and offer them to God on High. The Son of Heaven also orders ceremonies to ward off any obstacles, “to ensure the circulation of the autumnal ethers” 以达秋气.³²⁶ In the third month of autumn, the Son of Heaven performs a great ceremony to God on High, sacrificing all the game birds to the divine spirits of the four quarters, and sacrificing dog flesh to the ancestral spirits before tasting the new rice.³²⁷

Winter is the season of storing, dormancy, and concealing, so rituals are performed to celebrate rest and relaxation. In the first month of winter, the Son of Heaven performs the ceremony to sacrifice to the ancestral spirits—the great festival of drinking 大饮蒸, when he prays to celestial spirits, makes great offerings at the public altars, makes sacrifices to the God of the Gate, and offers games to the ancestral spirits and the household gods to comfort the laboring farmers, to give them rest. In the second month of winter, the Son of Heaven orders his officials to sacrifice to the spirits of four seas, the great rivers, lakes, marches, and springs, praying for a peaceful winter.³²⁸ In the third month of winter, “the cycle of the year is almost complete” 岁将更始.³²⁹ So the Son of Heaven sacrifices to God on High, ancestors, and the divine spirits of mountains and rivers with offerings from people of different ranks, from the Grand Historiographer to common subjects.³³⁰

The purpose of performing these seasonal and monthly ceremonies is to establish relationships between Heaven (nature) and humans, between ancestors and their descendants, between the past and the present, relationships that we have seen established by orality in the texts of the oracle-bone inscriptions and the *Classic of Poetry*. In the “Monthly Commands,” it is the Imperial official who issues the instructions that serve as the bridge between Heaven and humans, between ancestors and their descendants, and between the past and the present, because these ceremonies are presided over by the Imperial official, who is usually a

³²⁴ Ibid., 491.

³²⁵ Ibid., 491.

³²⁶ Ibid., 491.

³²⁷ Ibid., 492.

³²⁸ Ibid., 493—94.

³²⁹ Ibid., 494.

³³⁰ Ibid., 494.

historiographer in charge of astrology or astronomy and weather.³³¹ Only the Imperial officials in charge of weather and astrology know how to calculate the cosmological coordinates of the sun and the asterisms, thus knowing when a season and a month begin. Since the Imperial official presides over the sacrificial ceremonies orally,³³² orality also serves as the bridge between those relationships, just as it does in the oracle-bone-inscription texts and the *Classic of Poetry*.

The most prominent activities are seasonal and monthly rituals and ceremonies performed by the Son of Heaven. The next most important activities are those of the Imperial court that involve developing social and administrative policies. All the rituals and ceremonies we have discussed above are performed for the various divine spirits, the other world, but their ultimate purposes serve the current human society, this world, so to speak, to pray for a bumper harvest, for example. When giving instructions to either the Son of Heaven or the common people, the Imperial official pays sufficient attention to political, social, and Imperial administrative activities, so that the Imperial court develops and formulates seasonal principles and strategies for carrying out the Imperial policies in accordance with the seasonal variations in nature and climate.

Spring is the time of birth and beginning, so, in spring, “ethers of life diffuse themselves while the ethers of *yang* 阳气 flourish and flow out.”³³³ To highlight the virtue of nature to give birth to life, the Imperial policies emphasize bestowing favors, generosity, and benevolence to the common people. Rewards and commendations are publicly distributed so that no mishaps occur, “行庆施惠，下及兆民；庆赐遂行，无有不当。”³³⁴ To correlate administrative policies with the virtue of nature in spring to give birth to life, the administrative policies are intended to help nurture sprouts, nourish the young, and compensate the widowed and orphaned. Also in the second month of spring, day and night are of equal duration, so the government calibrates all measuring devices, in accordance with this celestial phenomenon, to manifest the principle of equality. In this season, as the ethers of season are diffusing themselves, the Imperial court also

³³¹ Xiao Fang 萧放, “‘Yueling’ Jishu,” 50.

³³² I believe orality plays a significant role, not only because traditionally sacrificial ceremonies have all been presided over orally where the MS orally announces all the procedures, but more importantly, in the “Monthly Commands,” before a seasonal sacrifice is performed, the Imperial official always tells the Son of Heaven that a certain season begins on a certain date.

³³³ Wu and Lai, *Baihua Sishu*, vol. 3, 488.

³³⁴ *Ibid.*, 486.

“disseminates moral standards and publish the court ordinances” 布德和令。³³⁵

Summer is the season of maturity, so the core task of the Imperial policies in this season focuses on cultivation. Thus, in the first month of summer, the Imperial court “instructs the chief musician to arrange for rehearsals for ritual ceremonies and music performance” 命乐师习和礼乐。³³⁶ Musicians also repair and adjust instruments such as drums, flutes, zithers, panpipes, and organs, to get ready for ritual performances. To ensure that all will grow to their maturity, Imperial orders are issued that no projects should be undertaken that involve breaking the ground, no plants are felled or cut, and no large gatherings are allowed. To avoid disturbing the ethers of summer, subjects are instructed not to cut growing indigo plants, or to burn wood for charcoal, or to dye cloth, or to hang cloth in the sun to dry. Imperial officials are instructed to inspect mountains and forests and to ensure that no trees are cut. In short, in summer, “no great projects are planned, lest the nourishing ethers are disturbed” 毋举大事, 以摇养气。³³⁷

Autumn is the season of collecting and restraining, and severity. Accordingly, the main task of the Imperial court in this season is to establish the awe of the sovereignty. The Imperial official instructs military commanders to get ready for campaigns against the unrighteousness and the oppressive. He instructs the judicial officials to execute the criminals and mete out strict punishments. Since in autumn, the ethers of *yin* 阴气 are flowing out,³³⁸ to accord with this seasonal phenomenon, the Imperial court “provides for the weak and the old, grants them walking canes, and distributes well-done congee to them” 养衰老, 授几杖, 行糜粥饮食。³³⁹ In autumn, day and night are also of equal duration, so again, the Imperial officials calibrate measuring mechanisms. Autumn is the season of collecting, so the imperial policies are to “reduce tax, attract merchants and traders, and encourage people to collect goods, in order to facilitate the common people’s life” 易关市, 来商旅, 纳货

³³⁵ *Ibid.*, 486.

³³⁶ *Ibid.*, 489. Confucianism believes that both rituals and music are educational, so both can be used to cultivate the human mind. More discussions regarding rituals and music as instruments of moral education can be found in Fung, *A Short History*, 148—50 and Ching, *Mysticism*, 72—76.

³³⁷ *Ibid.*, 490.

³³⁸ *Yin*, in Chinese philosophy, represents the invalid, the weak, and the old.

³³⁹ Wu and Lai, *Baihua Sishu*, vol. 3, 491.

贿，以便民事。³⁴⁰ Finally, the Imperial official instructs all the Imperial bureaucrats to fulfil their responsibilities to collect and store goods. They also work together with the common people to complete the task of autumn harvest, “thereby cooperating with the provisioning of Heaven and Earth.”³⁴¹ Towards the end of the season, the Imperial government also instructs people to stop working, return to their houses, and stay there. Meanwhile, it brings together all the displaced people and admits them to townships.

Winter is the season of dormancy and concealment, so the main task of the Imperial court in winter is to defend the cities and towns, stay in them, examine all Imperial officials, and check various products by all the workers. When the communion of Heaven and earth stops, all is shut up on earth because winter begins. So the Imperial court should “forbid any projects that involve breaking ground, nothing that is concealed should be exposed, no houses or apartments should be left open, and no masses should be mobilized for any projects, to ensure that all is properly concealed” 土事毋作，慎毋发盖，毋发室屋，及起大众，以固而闭。³⁴² The court also instructs the Grand Eunuch 奄尹 to reiterate the orders for the court to reduce women’s work, and no extra work is distributed to anyone. Also, the court “lays off officials who have nothing to do and removes objects that have no practical functions” 罢官之无事，去器之无用。³⁴³ All broken gates, doors, and cracked walls should be plastered, and prisons should be fortified, to be in line with the tendency of Heaven and earth to shut up everything. Towards the end of winter, the court also makes sacrifices and performs rituals to escort away the ethers of winter. Finally, winter means the end of a year and another year is about to begin, so the Son of Heaven and his ministers and lords discuss new policies and regulations to be used in the new year.

Although performing rituals and ceremonies and developing Imperial policies are two prominent activities in the “Monthly Commands,” farming activities are the core of all the activities covered in the “Monthly Commands,”³⁴⁴ because all the policies and rituals and ceremonies serve

³⁴⁰ Ibid., 492.

³⁴¹ Knoblock and Riegel, *The Annals*, 207. Here in the text, I am using Knoblock and Riegel’s perspicacious translation, because it fully and accurately expresses what the original text intends: to meet the demands of the season of collecting and storing.

³⁴² Wu and Lai, *Baihua Sishu*, vol. 3, 493.

³⁴³ Ibid., 494.

³⁴⁴ Fan Zhimin 樊志民 and Zhu Hongbin 朱宏斌, “Yuelingshu,” 99.

agricultural affairs in a farming-centered society such as the Qin or Zhou China. Announcing the season for various farming activities and guiding these farming activities are two very important jobs of the Imperial official in the “Monthly Commands.” As I have shown in the above section, the “Monthly Commands” mentions altogether 59 activities related to farming, harvesting, planting, collecting, processing, hunting, husbandry, etc.,³⁴⁵ which is more than any other activities. These 59 activities do not include those explicitly forbidden by the “Monthly Commands.” All these farming activities are in line with the four seasons, reflecting nature’s operations—the rhythm of nature: spring generates all things under Heaven, summer matures them, autumn harvests them, and winter stores them (春生, 夏长, 秋收, 冬藏). In spring, the ethers of Heaven and the ethers of Earth harmoniously cooperate with each other, giving birth to everything, so farming activities are to nurture and protect young life. In summer, ethers of *yang* are in ascendance, everything continues to grow, becoming taller and fuller, so farming activities should assist growth. In autumn, ethers of *yin* are rising; all stop growing because they have matured, so farming activities focus on collecting. In winter, ethers of *yang* and *yin* are separated from each other, cooperation between Heaven and earth stops, and everything is shut up, so farming activities focus on storing, concealing, restraining, and resting.

In spring, the Son of Heaven first prays to God on High for a bumper harvest, on the first day of *xin* 辛日. Then he chooses an auspicious day on which he himself carries plows and other farming tools to the Imperial farm land and leads all his officials to plow in the Imperial field. The Son of Heaven pushes the plow three times, while his three dukes do it five times, and his ministers and lords do it nine times, which, literally, grandly announces the beginning of all farming activities in the year.³⁴⁶ The significance of this event is that the Son of Heaven’s participation in farming announces to the world that it is time to work on the farm land because spring is here. Certainly, it shows that farming is a very important task in Imperial China, so important that even the Son of Heaven himself found it necessary to attend to it. Then, after plowing in the Imperial field, the Son of Heaven distributes farming tasks. To be more specific, he instructs the Imperial officials in charge of agriculture to reside in the eastern suburb, to supervise boundary and border repair, to mark out pathways and ditches, to survey mounds, slopes, plains, and wetland to

³⁴⁵ Wang Lihua 王利华, “‘Yueling,’” 193

³⁴⁶ Wu and Lai, *Baihua Sishu*, vol. 3, 487.

find out which is suitable to plant each of the five grains. When the survey is completed, the officials must determine the standards for planting so that farmers are not confused. In addition, the agriculture officials must provide instructions to farmers on farming methods.³⁴⁷

In summer, field management is the central task of the “Monthly Commands.” So the Imperial officials in charge of agriculture inspect the fields and plains to encourage farmers not to miss the season. Local officials also inspect local townships to exhort farmers to work diligently in the fields instead of resting in the towns. Meanwhile, the Imperial officials instruct the farmers to chase all the wild animals from the fields to prevent them from damaging the growing grains, but it does not mean they should undertake hunting expeditions, which can also ruin the five grains.³⁴⁸ More importantly, the Imperial official instructs farmers to manure the fields with fertilizers made from green grass. The Imperial official provides instruction on how to make green manure from green grass, and stresses the major benefits: to enrich the farm land and to beautify the fields.³⁴⁹

In autumn, the Imperial official instructs the farmers to build new granaries, repair old ones, and dig cellars for storing agricultural produce. He also instructs them to store as much of the harvest as possible, including millet and vegetables. When all the products are stored, the Imperial official registers the total amount of the five grains harvested and stores the grains from the Imperial acres in the divine granary. When frost falls, the Imperial official instructs the farmers to stop working.³⁵⁰

In winter, the main task of the “Monthly Commands” is to make people rest. So the Imperial official issues the order that no masses should be recruited for any projects. Towards the end of the season, the Imperial official instructs the agricultural officials to inform the farmers to select the seeds of the five grains, to put together plowing teams, and to repair farming tools, all of which will be needed in the upcoming new year.³⁵¹

³⁴⁷ *Ibid.*, 487.

³⁴⁸ *Ibid.*, 489.

³⁴⁹ *Ibid.*, 490.

³⁵⁰ *Ibid.*, 492.

³⁵¹ *Ibid.*, 493—94.

Feedback and Potential Problems Employed in the Text of “Monthly Commands” as Part of the Technical Instructions

The Imperial official 王官 who provides instructions to both the Son of Heaven and the subjects in the “Monthly Commands” always employs feedback and potential problems in his strategies to help guide his readers in performing their jobs.

Modern scholars of technical instructions believe that using feedback statements in instructions helps the readers verify if they are on the right track or not, so feedback statements are very important, particularly in instructions regarding interactive systems. For example, when speaking of using feedback statements in technical instructions, Farkas argues that “[t]he most basic role of feedback is to provide verification (make clear that the user did the right thing and the system has responded properly) and to draw the user’s attention to the result of the action. This kind of feedback is only needed. . . for interactive systems.”³⁵² The “Monthly Commands” treats the celestial system as an interactive one, in which humans interact with nature by correlating their activities with cosmic rhythms and the rhythms of nature. In order to properly guide humans to perform seasonal and monthly Imperial administrative and farming activities, the Imperial official-cum-instructor must provide information for his readers to verify whether it is spring or autumn, for example; his readers also need to know whether it is the first month or the second month of the season, so that they can properly act accordingly, just to be in line with the cycles of nature. In addition, the Imperial official-cum-instructor must warn them against violating cosmic or seasonal commands, to discourage them from acting unseasonably. He warns them by employing potential problems that could occur, problems that could bring disasters to them. In short, nature influences human activities, and human activities, in turn, influence nature.

Therefore, at the beginning of every month, the “Monthly Commands” gives a list of natural and weather phenomena of that month to clearly indicate what month it is. Altogether, the “Monthly Commands” records more than eighty natural and weather phenomena.³⁵³ In addition, it stresses that various natural and weather phenomena occur in different months. For example, in the first month of spring, the “Monthly Commands” tells us

³⁵² David K. Farkas, “The Logical and Rhetorical Construction of Procedural Discourse,” *Technical Communication* 46, no. 1 (1999): 49.

³⁵³ Wang Lihua 王利华, “‘Yueling,’” 193.

that “[t]he east wind dispels the cold, dormant creatures begin to stir, fish rise up against ice, otters eat fish, and migrating geese return from the south” 东风解冻，蛰虫始振，鱼上冰，獭祭鱼，鸿雁来。³⁵⁴ In this list, the wind is a weather phenomenon, while the ‘dormant creatures,’ the fish, the otters, and the geese, are natural phenomena. These phenomena might well be considered as “feedback” from nature. Generally, they perform two functions in the “Monthly Commands”: First, they provide verification that human activities have been correlated with the rhythms of nature because no unseasonal phenomena occur. Second, they remind both the Imperial court and the farmers that a certain month has arrived, so they should act accordingly. When the above five cited phenomena occur, it means the first month of spring is here; therefore, the Son of Heaven can distribute farming tasks and the farmers can perform these tasks. Then both the Son of Heaven’s and the farmers’ activities are in line with the rhythms of nature, thus assuring the success of both the Imperial court policies and the harvests. The advantage of listing five weather and natural phenomena is that if you miss one, or one of them does not happen, there are four more. Table 5-3 summarizes all the feedback statements from nature in each of the twelve months.

What if human society acts against the rhythms of nature? The “Monthly Commands” demonstrates negative feedback by listing the problems which will occur as a result of human failure to follow the cycles of nature. When, for example, in the first month of spring, the commands for summer are carried out, then winds will arise and rains will fall unseasonably, plants and trees will wither prematurely, thus striking fear deep into the multitudes of subjects. If the commands for autumn are carried out, a great pestilence will occur among the multitudes of subjects, “boisterous winds” and violent storms will occur frequently without warning,³⁵⁵ and weeds such as brambles and briars will out-flourish crops. If the commands for winter are carried out, floods and heavy rains will inundate the kingdom, frost and snow will ruin the kingdom, and the first batch of planted seeds will not germinate.³⁵⁶ The negative feedback tells members of human society clearly that they have failed to respond properly to the cycles of the seasons. Tables 5-4—5-7 summarize all the problems that occur as a result of violating seasonable commands.

³⁵⁴ Wu and Lai, *Baihua Sishu*, vol. 3, p. 486.

³⁵⁵ Legge, *Li Chi*, 257. Here I use Legge’s translation of “疾风” (fast, high wind) because it is more vivid and evocative than my own translation.

³⁵⁶ Wu and Lai, *Baihua Sishu*, vol. 3, 487.

Table 5-3 Feedback from Nature

Moons	Weather and Natural Phenomena
1 st of Spring	East wind dispelling coldness, dormant creatures beginning to stir, fish pushing up against ice, otters eating fish, migrating geese flying back from the south
2 nd of Spring	Rains beginning to fall, peach trees blooming, golden orioles singing, hawks metamorphosing into turtledoves
3 rd of Spring	Paulownia trees beginning to bloom, moles being transformed into quails, rainbows beginning to appear, duckweed beginning to appear
1 st of Summer	Frogs croaking, earthworms coming out, cucumbers growing, sow-thistle blossoming
2 nd of Summer	Slight heat arrives, mantises appearing, shrikes beginning to cry, Chinese mocking-birds no longer singing
3 rd of Summer	Gentle winds beginning to blow, crickets residing in walls, young hawks learning to fly, decaying grass being transformed into fireflies
1 st of Autumn	Cold winds coming, white dew descending, cicadas of the cold crying, hawks sacrificing birds
2 nd of Autumn	Violent winds coming, seasonable birds arriving, swallows returning south, various birds storing up food for winter
3 rd of Autumn	Wild geese visiting as guests, small birds entering seas and turning into mollusks, chrysanthemums showing yellow flowers, wolfs sacrificing birds and then killing them
1 st of Winter	Ice beginning to form, earth beginning to freeze, pheasants entering seas and becoming serpents, rainbows no longer appearing
2 nd of Winter	Ice becoming harder and thicker, earth beginning to crack, nightingales no longer singing, tigers beginning to pair
3 rd of Winter	Wild geese flying northwards, magpies beginning to build nests, pheasants beginning to sing, hens beginning to hatch

Clearly, as the “Monthly Commands” suggests throughout its text, the most obvious and most comprehensible changes are those that involve the cycles of the four seasons; thus, observing the seasonal changes is the guiding principle followed by the “Monthly Commands” when it provides instructions for the Imperial court to distribute farming tasks and for farmers to perform these tasks. It forms the basis on which the “Monthly Commands” attempts to create a harmonious relationship between natural cycles and the cycles of human society. This is an important reason why,

in ancient China, agricultural astronomy was well developed.³⁵⁷ Behind the natural cycles to be coordinated with human activities lies the traditional Chinese philosophical thinking: both the sovereign and the subjects must “accord with the season” 必须其时.³⁵⁸ The cycles of the four seasons, the “Monthly Commands” seems to claim, perhaps most clearly manifest the “Way of Heaven” which is not to be violated, so the very first part of the “Monthly Commands” reminds us that “the ‘Way of Heaven’ should not be transgressed” 无变天之道.³⁵⁹

Table 5-4 Potential Problems from Violating Seasonal Commands for Spring

Months	Potential Problems
1 st Month of Spring	Carrying out commands for summer: rains will fall unseasonably and trees and plants will wither prematurely, striking fear deep into the multitudes of subjects; carrying out commands for autumn: boisterous winds and violent thunderstorms will occur, a great pestilence will attack people, and weeds like briars and brambles will flourish; carrying out commands for winter: floods will destruct the kingdom, snow and frost will fall, and seeds may be planted.
2 nd Month of Spring	Carrying out commands for summer: the kingdom will experience great droughts, warm weather will come too early, and insects will damage crops; carrying out commands for autumn: great floods will occur, cold weather will come, and bandits will attack; carrying out commands for winter: <i>yang</i> ethers will not be sufficient, wheat will not ripen, and people will steal and rob each other.
3 rd Month of Spring	Carrying out commands for summer: people will suffer frequent diseases, no seasonable rain will come, and mountains and hills yield no harvest; carrying out commands for autumn: cloudy sky will prevail, early excessive rains will bother the kingdom, wars will occur everywhere; carrying out commands for winter: cold airs will prevail, all grasses and trees will wither, and great terrors will strike the kingdom.

³⁵⁷ Guo Wentao 郭文韬, “Yuelign Zhongde Nongxue Sixiang Chutan” “月令” 中的农学思想初探 [Initial exploration of agricultural thought in the “Monthly Commands”] *Gujin Nongye Erlinglingling Nian Diyi Qi* 古今农业 2000 年第一期 [Journal of Agriculture Ancient and Today, no. 1 (2000):] 4.

³⁵⁸ Wu and Lai, *Baihua Sishu*, vol. 3, 492.

³⁵⁹ *Ibid.*, 487.

Table 5-5 Potential Problems from Violating Seasonal Commands for Summer

Months	Potential Problems
1 st Month of Summer	Carrying out commands for spring: locusts will become a disaster, violent thunderstorms will attack, and flowering plants bear no seeds; carrying out commands for autumn: excessive rains will come frequently, five crops will not grow, and people will seek protection in fortified places; carrying out commands for winter: all plants and trees will wither prematurely, great floods will inundate the kingdom and destroy the city walls
2 nd Month of Summer	Carrying out commands for spring: the five grains will ripen late, locusts and other injurious insects will come frequently, the kingdom will suffer from famine; carrying out commands for autumn: trees and plants will drop their leaves, their fruits will ripen prematurely, and people will be afflicted with pestilence; carrying out commands for winter: hail will damage crops, cold will cause frostbite in grains, roads will become impassable, and violent armies will maraud cities and towns.
3 rd Month of Summer	Carrying out commands for spring: grains will fall and be scanty, people will be afflicted with cold and coughs, thus moving elsewhere; carrying out commands for autumn: even highlands will be flooded, crops will not ripen, and women will suffer miscarriages; carrying out commands for winter: cold weather will come unseasonably, hawks and falcons will attack their prey prematurely, people will seek shelter in fortified places

Table 5-6 Potential Problems from Violating Seasonal Commands for Autumn

Months	Potential Problems
1 st Month of Autumn	Carrying out commands for spring: the kingdom will suffer from droughts, ethers of <i>yang</i> will return unseasonably, and five grains will not fruit; carrying out commands for summer: calamities from fire will happen frequently, the cold and the heat will not cease, and people will suffer malaria; carrying out commands for winter: ethers of <i>yin</i> will prevail, shell insects will destroy crops, and aggressive armies will attack.
2 nd Month of Autumn	Carrying out commands for spring: the autumnal rains will not fall, weeds and trees will blossom, and the kingdom will panic; carrying out commands for summer: the kingdom will suffer drought, hibernating animals will not retire to their burrows, and the five grains will grow again; carrying out commands for winter: calamities from winds will occur frequently, thunders will cease prematurely, and grass and trees will wither prematurely.
3 rd Month of Autumn	Carrying out commands for spring: warm wind will come, people will lack in vigor and spirit, and wars will never stop; carrying out commands for summer: great floods will inundate the kingdom, winter stores will be ruined, and people will suffer influenza and stuffy noses; carrying out commands for winter: thieves and robbers will come, the borders will be chaotic, and the territory will be split into smaller parts.

Table 5-7 Potential Problems from Violating Seasonal Commands for Winter

Months	Potential Problems
1 st Month of Winter	Carrying out commands for spring: the cold will not seal all tightly, the ethers of Earth will leak, and people will leave the country; carrying out commands for summer: violent winds will arise, winter itself will not be cold, and hibernating insects will reappear; carrying out commands for autumn: snow and white frost will not follow seasons, small-scope incursion will often occur, and the territory will be invaded.
2 nd Month of Winter	Carrying out commands for spring: locusts will inflict great damage, springs will dry up, and people will suffer from skin diseases; carrying out commands for summer: the kingdom will suffer from droughts, vapors and fogs will fall gloomy, and thunders will roar; carrying out commands for autumn: rain and snow will come alternately, melons and gourds will not ripen, and majors wars will occur in the kingdom.
3 rd Month of Winter	Carrying out commands for spring: pregnant animals will suffer ailments or death, people will suffer hard-to-cure diseases, which are the result of violating seasonal commands; carrying out commands for summer: great floods will inundate the kingdom, seasonable snow will not fall, ice will melt and freeze will thaw; carrying out commands for autumn: white dew will fall prematurely, all shell creatures will be monsters, and people will seek shelters in fortified habitations.

The problems as summarized in Tables 5-4—5-7 result from human activities that transgress the ‘Way of Heaven’. This transgression automatically causes a disturbance of the cycles of the four seasons, thus causing problems, naturally and socially. So it is paramount to observe the “Way of Heaven” strictly. Even executing Imperial ordinances at the wrong time will result in natural calamities such as unseasonable thunderstorms and snow. In other words, the “Monthly Commands” has established a cause-effect relationship not only between human activities and natural disasters but also between politics and abnormal weather and natural phenomena. Put differently, the authors of the “Monthly Commands” believe that the sovereign’s political policies are able to affect weather and natural phenomena. This is a significant observation, because it actually announces that humans are able to influence nature as well as nature is

able to influence human beings, thus championing the philosophical thought of mutual influence between Heaven and humans.

Celestial Space and Terrestrial Time as Reported in the “Monthly Commands”

As a text of technical instructions that observes the “Way of Heaven,” the “Monthly Commands” devotes many paragraphs in each part to the elaboration of celestial and astronomical phenomena. Thus, the “Monthly Commands” contains a body of knowledge of the celestial coordinates of the sun, constellations, and asterisms, and related terms and concepts as defined by the learned professionals of the time—astrologers, diviners, Imperial officials (*wang guan* 王官) who are clearly experts in astrology or astronomy, and other *fangshi* 方士 (technicians, technologists, and physicians, and alchemists). The celestial coordinates of the sun and the asterisms in space define terrestrial time of the four seasons and the twelve months of the year, so the text of the “Monthly Commands” contains a catalogue of constellations and asterisms and a catalogue of the four seasons and twelve months.

Embodying qualitative positioning data,³⁶⁰ the catalogue of constellations and asterisms reports a coordinate system oriented on the imaginary orbit of the sun, as observed from the equator of the earth, projected onto the celestial sphere, not unlike the great circle of the ecliptic plane. It chooses the twelve asterisms or mansions (*xingxiu* 星宿) along the imaginary orbit as the twelve celestial coordinates: Encampment (*Yingshi* 盈室), Legs (*Kui* 奎), Stomach (*Wei* 胃), Net (*Bi* 毕), Well (*Dongjing* 东井), Willow (*Liu* 柳), Wings (*Yi* 翼), Horn (*Jiao* 角), Room (*Fang* 房), Tail (*Wei* 尾), Dipper (*Dou* 斗), and Girl (*Wunu* 婺女). When the sun is in one of the first three asterisms, spring is present; when the sun is in one of the second three asterisms, then it is summer; when the sun is in one of the third three asterisms, it is autumn, and when the sun is in one of the last three asterisms, then we have winter. To tell a month, similarly, we just need to see in which asterism the sun appears. When the sun is in the first asterism, it is the first month of spring; when it is in the second asterism, it is the second month of spring; and when it is in the third asterism, it is third

³⁶⁰ It means the “Monthly Commands” pinpoints the location of the sun by using the coordinates of the sun and one of the asterisms instead of using the coordinates of latitude and longitude.

month of spring, etc. Table 5-8 shows these asterisms and their corresponding seasons and months when the sun appears in them.

In addition, the “Monthly Commands” also performs calendrical calculations based upon two culminating asterisms in the middle of the southern sky, one at dawn and the other at dusk. For example, when Triad (*Shen* 參) appears in the middle of the southern sky at dusk while at dawn Tail (*Wei* 尾) is in the middle of the southern sky, then it is the first month of spring. Table 5-9 summarizes these culminating asterisms and their corresponding months. Modern astrologists’ studies largely confirm these ancient calendrical calculations as recorded in the “Monthly Commands” with only a couple of exceptions.³⁶¹ It is significant to point out these accomplishments, especially if we consider that they are recorded in one of the earliest technical writing artifacts in the Chinese tradition, the “Monthly Commands.” In other words, the “Monthly Commands” not only provides instructions for readers to perform various farming tasks, but it also guides them in observing the celestial phenomena to figure out the four seasons and the twelve months in calendrical calculations. More important, based on ‘pre-telescopic observation,’ these ancient astrological records have proved useful in many ways to modern astronomers.³⁶² According to Sivin, Chinese scientists have extensively studied how these early astronomical records have impacted current issues in science and technology in China.³⁶³

Because the “Monthly Commands” and other texts in the same style guide their readers to observe various celestial phenomena, describing the celestial coordinates of the sun and the asterisms to represent time was common knowledge among ancient Chinese.³⁶⁴ Thus, as the text of the “Monthly Commands” indicates, the Imperial official could confidently inform the Son of Heaven, three days before the coming of a season, that the season would come on a certain day. For example, “three days before

³⁶¹Noda Churyo 能田忠亮, *An Inquiry Concerning the Astronomical Writings Contained in The Li-chi Yueh-ling*, (Kyoto: Toho-Bunka-Gakuin Kyoto Kenkyusho, 1938), 12—36; Pan Nai 潘鼐, *Zhongguo Hengxing Guance Shi* 中国恒星观测史 [Chinese history of star observation], (Shanghai: Xuelin Publishing House, 1989), 13—17; Chen 陈美东, “Yueling,” 186. According to Chen, Pan’s research verifies Noda’s study of the asterisms as they appeared in the middle of the southern sky in BCE China as reported in the “Monthly Commands.” My observations in this paragraph draw on Chen’s study.

³⁶² Sivin, “Science and Medicine,” 174.

³⁶³ *Ibid.*, 177.

³⁶⁴ Chen 陈美东, “Yueling,” 188.

the coming summer, the Historiographer informs the Son of Heaven, ‘On such-and-such a day, begins summer.’”³⁶⁵

Table 5-8 Asterisms and Corresponding Seasons and Months

Months	Seasons	Asterisms the Sun Is in
1 st Month 孟春 (1 st Month of Spring)	Spring 春	Encampment 营室
2 nd Month 仲春 (2 nd Month of Spring)		Legs 奎
3 rd Month 季春 (3 rd Month of Spring)		Stomach 胃
4 th Month 孟夏 (1 st Month of Summer)	Summer 夏	Net 毕
5 th Month 仲夏 (2 nd Month of Summer)		Well 东井
6 th Month 季夏 (3 rd Month of Summer)		Willow 柳
7 th Month 孟秋 (1 st Month of Autumn)	Autumn 秋	Wings 翼
8 th Month 仲秋 (2 nd Month of Autumn)		Horn 角
9 th Month 季秋 (3 rd Month of Autumn)		Room 房
10 th Month 孟冬 (1 st Month of Winter)	Winter 冬	Tail 尾
11 th Month 仲冬 (2 nd Month of Winter)		Dipper 斗
12 th Month 季冬 (3 rd Month of Winter)		Girl 婺女

³⁶⁵ Wu and Lai, *Baihua Sishu*, vol. 3, 489.

Table 5-9 Culminating Asterisms in the Middle of the Southern Sky and Their Corresponding Months

Months	Seasons	At Dusk	At Dawn
1 st Month 孟春	Spring 春	Three Stars 参	Tail 尾
2 nd Month 仲春		Bow 弧	Construction Star 建星
3 rd Month 季春		Seven Stars 七星	Ox 牵牛
4 th Month 孟夏	Summer 夏	Wings 翼	Girl 婺女
5 th Month 仲夏		Neck 亢	Rooftop 危
6 th Month 季夏		Heart 心	Legs 奎
7 th Month 孟秋	Autumn 秋	Construction Star 建星	Net 毕
8 th Month 仲秋		Ox 牵牛	Turtle Neck 觜隼
9 th Month 季秋		Emptiness 虚	Willow 柳
10 th Month 孟冬	Winter 冬	Rooftop 危	Seven Stars 七星
11 th Month 仲冬		Wall 东壁	Chariot 轸
12 th Month 季冬		Bond 娄	Root 氏

In the celestial spatial system and the terrestrial temporal system, as reported in the “Monthly Commands,” space and time are blended seamlessly into a new functioning system, the spatio-temporal system that governs and regulates everything on earth; thus, the system defines all human activities on the earth. The spatio-temporal system as reported in the “Monthly Commands” is the most systematic and the most sophisticated of all similar systems as reported in other texts, because “it

aims at a total cosmological scheme, intertwining the world of men with the course of Heaven and the sequence of the season on Earth.”³⁶⁶

Significance of the “Monthly Commands”

As an almanac, the “Monthly Commands” provides instructions for its readers to formulate administrative policies to serve agriculture, to distribute agricultural tasks, and to perform these tasks. More important, it guides the readers to correlate their activities with the cycles of the seasons so that they “avoid contravening the Way of Heaven and accord the seasonal commands” 毋逆天数，必须其时。³⁶⁷ Thus, it moves beyond all the similar theories as proposed in other texts by clearly suggesting that human activities are, by and large, affected and regulated by the environment in which humans perform these activities. In so doing, it literally expands and further elaborates the theory of “oneness of nature and humans,” a major philosophical thought in the Chinese tradition that was implied in some earlier technical writing artifacts and clearly spelled out in the “Grand Criteria.”³⁶⁸ It explicitly establishes a spatio-temporal structure in which the celestial system defines the temporal system and thus guides human activities. It blends the structure with the theory of the five elements 五行学说 and endows the elements with spatio-temporal significance. It also provides instructions for humans to identify the four seasons and the twelve months so as to coordinate their activities with the seasonal cycles.

It employs the four-part textual structure—*qi* (起 beginning), *cheng* (承 joining, continuing), *zhuan* (转 turning point), and *he* (合 concluding)—as championed by the oracle-bone-inscription texts and adopted in the “Grand Criteria.” This four-part textual structure not only serves the overall composition of the text of the “Monthly Commands,” but more important, it serves the function of helping the readers to transit smoothly the stretch of the four seasons. It clearly announces to the readers the general functions of the seasons, thereby helping them to correlate their activities with the functions of the four seasons.

³⁶⁶ Knoblock and Riegel, “*The Annals*,” 42. Though Knoblock and Riegel are discussing the cosmological scheme as recorded in Lu Buwei’s “Almanacs,” I want to point out that Lu’s “Almanacs” is identical to the “Monthly Commands” so that the cosmological system as reported in Lu’s text appears to be exactly the same as that reported in “Monthly Commands.”

³⁶⁷ Wu and Lai, *Baihua Sishu*, vol. 3, 492

³⁶⁸ For details regarding these earlier technical writing artifacts, see Note 244.

Orality continues to play an important role in guiding the readers to perform various tasks. In so doing, it continues to serve as a bridge between Heaven and humans. Orality continues to function authoritatively in instructing humans to complete various tasks.

Also significant is that the “Monthly Commands” uses different tones while instructing its readers. When it is instructing the Son of Heaven, its tone is accommodating and thus less demanding, but when it is instructing his officials or his subjects, its tone is more demanding and more authoritative.

As a text of technical instructions, the “Monthly Commands” uses feedback statements, for the first time ever, to help readers to check their task performance to ensure that they are performing all as instructed, and to help them to direct more attention to the results of their activities. These feedback statements often appear as descriptions of weather and natural phenomena to help the readers identify the twelve months, or as warnings about abnormal weather and natural phenomena that could bring disasters to humans, or problems that occur as result of humans’ failure to follow seasonal commands.

Finally, in addition to providing technical instructions, the “Monthly Commands” also serves the function of a popular reader that transmits knowledge on astrology, astronomy, star constellations, various weather phenomena, and natural phenomena.

CHAPTER SIX

“INTERIOR REGULATIONS” (内则): A CHAPTER IN THE *CLASSIC OF RITES* (礼记) INSTRUCTS US HOW TO PREPARE FOOD

AS I have pointed out in the previous chapter, the *Classic of Rites*, in which the “Monthly Commands” appears as a chapter, is a book that provides the code of conduct to govern the behaviors of *junzi* 君子. In this respect, the “Monthly Commands” instructs both the Son of Heaven and his subjects to distribute farming tasks, and to engage in these tasks so as to correlate what they do with seasonal commands to maintain a harmonious relationship with nature. The “Interior Regulations” (*neize* 内则) is another chapter in the *Classic of Rites* that intends to regulate the conduct of *junzi*—members of a family or a clan within the family, or the clan circle. Therefore, the “Interior Regulations” pays more attention to the rites and rituals in family life, particularly conjugal relationships, parent-son relationships, and various other relationships within a family or a clan. It describes a series of ethical principles for the family members to follow in daily life, for example, when taking care of parents and husbands. What I am particularly interested in regarding this chapter is that it describes and prescribes, among other things, various ways to prepare food; thus, the very first catalogue of recipes in the Chinese tradition is found in the chapter of “Interior Regulations.”

“Interior Regulations”: A Catalogue of Food

By drawing on Zheng Xuan 郑玄 and Zhu Xi 朱熹, James Legge argues that the chapter title *Neize* 内则 means “the pattern of the family” which approximates to a description of the content of the chapter.³⁶⁹ But when

³⁶⁹ Legge, *Li Chi*, 26—27. James Legge translates the title of the chapter as “The Pattern of the Family.” I prefer “Interior Regulations” because “interior” 内 in Chinese culture refers to “family and home”; thus, “*neiren*” 内人 is used

interpreting Zheng Xuan's 郑玄 comments, Legge translates the title *Neize* 内则 as "the Pattern of Interior." I prefer "Interior Regulations" because the chapter formulates the rules for all the members of a family or a clan to observe while performing various tasks in the family or a clan. Zheng Xuan 郑玄, while commenting on the title, observes that "the chapter is titled 'Neize' 内则 because it defines the ways for men and women to serve their parents, and for women to serve their parents-in-law in the family."³⁷⁰ This chapter is called 'Children's Rule' in Liu Xiang's 刘向 *Attached Reports* (*Bie Luo* 别录).³⁷¹ But here, since the ways to serve parents and parents-in-law in the family can be regulated, this chapter is called "Interior Regulations."³⁷² Zheng Xuan's comments very clearly reveal the central point of the chapter: serving parents and parents-in-law. Among other things, serving parents and parents-in-law includes preparing food for them. So this chapter is often called the first "food canon" in the Chinese tradition.³⁷³

The "Interior Regulations" is not the first text in the Chinese tradition that discusses food or cooking, nor is it the only one of that time. Many other classics also have discussed or enumerated dishes and foodstuffs. The *Analects*, for example, tells us that Confucius did not eat "refined" meals in the periods of purification, and then it provides a list of the food items that Confucius considered proper.³⁷⁴ The *Classic of Poetry* also lists a variety of dishes and foodstuffs prepared for banquets or rituals.³⁷⁵ *Zhouli Zhushu* 周礼注疏 specifies various types of food and drink for the

exclusively for wives, because all wives are supposed to remain inside the house unless otherwise instructed by parents-in-law or husbands to run errands which require them to step out of the house. So the "Interior Regulations" instructs men "not to talk about what belongs to the inside of the house" and women "not to talk about what belongs to the outside of the house" 男不言内，女不言外. Men belong to the outside of the house, while women, to the inside of the house. For details, see Wu and Lai, *Baihua Sishu*, vol. 3, 570.

³⁷⁰ 'Men' and 'women' here refer to sons and daughters, sons and their wives.

³⁷¹ In Chapter I, I introduced Liu Xiang's *Attached Reports*.

³⁷² Zheng Xuan 郑玄, *Liji Zhu* 礼记注 [Liji annotated], quoted in Kong Yingda 孔颖达, *Liji Zhengyi* 礼记正义 [Meanings of Liji rectified] (Prague: E-artnow s. r. o., 2018), 713.

³⁷³ Baidu 百度, "Liji Neize taolun" 礼记内则讨论 ["On Liji Neize], in *Baidu Baike* 百度百科 [*Baidu encyclopedia*], accessed April 2, 2019,

<https://baike.baidu.com/item/礼记·内则/14114466>.

³⁷⁴ Confucius, "The Analects," 113—14.

³⁷⁵ For more details, see Chapter Three of this volume.

Imperial court and enumerates about 2200 Imperial household officials involved in preparing food and drink for the Imperial court.³⁷⁶ Nonetheless, the “Interior Regulations,” the first food canon in Chinese antiquity, is the first text that discusses cooking techniques. More important, it describes cooking techniques and the composition of dishes in simple terms that are made up solely of cooking techniques and ingredients.³⁷⁷ So it contains some of the earliest recipes of Chinese dishes.³⁷⁸

Indeed, at the very beginning of the text, the “Interior Regulations” instructs the daughter-in-law how to take care of her parents-in-law, giving particular attention to their meals and dishes:

<p>问所欲而敬进之，柔色以温之， 饘醢，酒醴，芼羹，菽麦，蕡稻， 黍粱，秬唯所欲，枣，栗， 飴，蜜以甘之，葍，苴，粉， 榆兔槁蕘滫以滑之，脂膏以膏之， 父母舅姑必尝之而后退³⁷⁹</p>	<p>[Sons and their wives] should ask if [parents or parents-in-law] want anything and then bring it reverently. They should take care of [their patents or parents-in-law] with an appearance of pleasure. [Parents or parents-in-law] will choose from thick congee, thin congee, spirits or must, meat and vegetable soup, beans, wheat, sesames, rice, millet, sorghum, and glutinous rice. As [sons and their wives] cook these, they should add dates, chestnuts, malt sugar, and honey to sweeten them; they should soak common violets and white elm leaves, either fresh or dry, in starch to soften and lubricate them; they should dress them with fat or oil to enrich their flavors. They should withdraw only after the parents or parents-in-law taste them.</p>
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³⁷⁶ Wang Zhichang 王志长, ed., *Zhouli Zhushu disan ben* 周礼注疏第三本 [Commentary and sub-commentary to Rituals of Zhou, bk. 3] (Beijing: Shuye Tang 书业堂, 1792), 20—44.

³⁷⁷ Kian Lam Kho, “Dragon on a Platter: The Art of Naming Chinese Dishes,” in *Food & Communication: Proceedings of the Oxford Symposium on Food and Cookery 2015*, ed. Mark McWilliams (London: Prospect Books, 2016), 228.

³⁷⁸ Kwang-chih Chang, “Food and Food Vessels in Ancient China,” *Transactions of the New York Academy of Sciences* 35, no. 6 Series II (1973): 497.

³⁷⁹ Wu and Lai, *Baihua Sishu*, vol. 3, 569.

Clearly, the above catalogue of meals is not intended for professional cooks; instead, it intends to guide sons and their wives to help their parents or parents-in-law to choose their meals and to teach them how to prepare these meals. Thus, the above text describes the composition of the meals the parents or parents-in-law may choose from. In terms of instructional content, the above text presupposes the sons' and their wives' knowledge of these meals, and their ability to perform the operations of preparing them, so the text does not provide more details of carrying out the operations of sweetening, lubricating, or enriching the meals. Just by listing all the ingredients used in the tasks of sweetening, lubricating, and enriching, the instructional content reads like a catalogue of ingredients.

On the other hand, it is not just a catalogue of meals, but more important, it is charged with cultural and social values. If, as Chang argues, food serves as a “media of communication,” as food and drink are often, if not always, used to communicate social and cultural values,³⁸⁰ then the social and cultural values must also be manifest in recipes that instruct people how to prepare the ‘social-and-cultural-value-charged’ food. In the context of family life, this list of meals communicates the sons’ or sons-in-law’s deference to parents or parents-in-law. Here, these meals are crucial in constituting the family relationship because they serve to reinforce bonds of family solidarity.³⁸¹

Then, a longer list of meals and condiments follows, as the “Interior Regulations” discusses meals and foods for the family or clan.

饭: 黍, 稷, 稻, 粱, 白黍,
黄粱, 稭, 稊

Of grain food, there are six types:
broomcorn millet, millet, rice,
sorghum, white millet, yellow millet,
each of which may be harvested when
ripe or green.

膳: 脚, 臠, 臠, 醢; 牛炙,
醢, 牛臠, 醢, 牛脍; 羊炙,
羊臠, 醢, 豕炙。醢, 豕臠,
芥酱, 鱼脍。雉, 兔, 鹑, 鸪

Of proteins, there are ground beef soup,
ground lamp soup, ground pork soup,
and meat jam; roast beef, beef jam,
sliced beef, sliced beef with jam,
minced beef; roast lamb, sliced lamb,
and lamb jam; roast pork, roast pork

³⁸⁰ Chang, “Food and Food Vessels,” in *Ancient China*,” 498.

³⁸¹ R. Kenji Tierney and Emiko Ohnuki-Tierney, “Anthropology of Food,” in *The Oxford Handbook of Food History*, ed. Jeffrey M. Pilcher, (Oxford, Oxford University Press, 2012), 123. My discussion of foods and family relationship draws on Tierney and Ohnuki-Tierney’s discussion of foods and social relationships.

<p>饮: 重醴, 稻醴清糟, 黍醴清糟, 梁醴清糟, 或以醪为醴, 黍醪, 浆, 水, 醴, 滥</p>	<p>jam, and sliced pork with mustard sauce; minced fish, pheasant, rabbit, quail, and partridge.</p>
<p>酒: 清, 白</p>	<p>Of drinks, there is strong flavored vinegar, fermented like sweet wine. It is brewed from rice, millet, or sorghum. There are also thin congee, such as millet congee. There is also rice milk. There is water; there is plum drink, and there is cold congee.</p>
<p>羞: 糗, 饵, 粉, 醢</p>	<p>Of alcoholic drinks, there are filtered wine and fiery water.</p>
<p>食: 蜗醢而菰食, 雉羹; 麦食, 脯羹, 鸡羹; 析稌, 犬羹, 兔羹; 和糝不蓼。濡豚, 包苦实蓼; 濡鸡, 醢酱实蓼; 濡鱼, 卵酱实蓼; 濡鳖, 醢酱实蓼。殿修, 蜆醢, 脯羹, 兔醢, 麋肤, 鱼醢, 鱼脍, 芥酱, 麋腥, 醢, 酱, 桃诸, 梅诸, 卵盐³⁸²</p>	<p>Of additives, there are pan-fried rice noodles, rice cakes, rice noodles, and thick rice congee.</p>
	<p>Of relishes, there are snail sauce, wild rice, minced pheasant-meat soup, steamed wheat, minced pork soup, minced chicken soup, broken glutinous rice, minced dog soup, and minced rabbit soup. Steamed rice, not smart, is added to these soups. When cooking a suckling-pig, place smart-weed in the pig's belly plus licorice root. Stuff a chicken with pork jam and smart-weed when cooking it. Staff a fish with caviar and smart-weed when cooking it. Stuff a soft-shelled turtle with pork jam and smart-weed when cooking it. Preserved meat is served with frog sauce. Minced-meat soup is served with rabbit jam. Sliced venison is served with fish jam. Sliced fish is served with mustard sauce. Raw venison is served with caviar. Preserved peaches and plums are served with large-granule brine.</p>

³⁸² Wu and Lai, *Baihua Sishu*, vol. 3, 571.

This list of meals and foods resembles the previous list, in that both contain a catalogue of meals and foods. However, this list also differs from the previous one because it carries something about the actual preparation of meals, though in very general terms. For example, it tells us that when we cook a suckling pig, we need to stuff its belly with smart-weed and then cook it with licorice root. Instructions are also given to guide the readers to cook chickens, fish, and soft-shelled turtles. No more details are provided than a list of seasonings: smart-weed, licorice, caviar, or pork jam stuffed in their bellies, but it does make suggestions on different ways to serve some of these dishes and meals. For example, “sliced fish” should be served with “mustard sauce.” The names of the meals or dishes seem to be based either on the ways they are cooked, or the ingredients that are used in cooking, just as Kho has rightly pointed out.³⁸³

Then the “Interior Regulations” does not forget to remind its readers of how to serve food generally:

凡食齐视春时，羹齐视夏时，
酱齐视秋时，饮齐视冬时；

Grain food is consumed warm like
spring; soups are served hot like
summer; sauces are consumed cool
like autumn; drinks are served cold
like winter.

凡和，春多酸，夏多苦，
秋多辛，冬多咸，调以滑甘³⁸⁴

To flavor dishes: in spring use more
sour flavor; in summer use more bitter
flavor; in autumn use more spicy
flavor; in winter use more salty flavor,
just to lubricate and enrich the dishes.

The ten short (Chinese) sentences invoked above not only guide us to prepare food in very general terms, but more important, they perhaps most clearly formulate the general principles Chinese culinary arts observe: to follow the yearly cycles of the four seasons 适时令. The “Monthly Commands” has clearly correlated the four seasons with four flavors when it describes the divine symbols for each season: spring with sour, summer with bitter, autumn with spicy, and winter with salty. Meanwhile, it also correlates the “five elements” 五行 with the five flavors of sour, bitter, sweet, spicy, and salty. Thus, the above quoted text from the “Interior Regulations” demonstrates two important points: First, for the first time in Chinese history, the concept of the five elements is employed in cooking

³⁸³ Kho, “Dragon on a Platter” 228.

³⁸⁴ Wu and Lai, *Baihua Sishu*, vol. 3, 561.

as a culinary philosophical thought. Second, just as when performing farming tasks, Chinese people, while cooking, must also observe seasonal commands. Though the “Interior Regulations” does not clearly discuss why cooking must observe the seasonal commands, it is not difficult for us to imagine the reasons, based on our knowledge of correlations between the various tasks and the four seasons as described in the “Monthly Commands”: following the cycles of the four seasons, in cooking, maintains balance and harmony between nature and the human body. It also ensures that dishes and meals are most delicious, but more important, it maintains a healthy diet and is conducive to human health. In the Chinese tradition, even cooking must observe the seasonal commands. Based on the philosophical thought of the five elements, individual foods could be categorized according to their flavors and their temperatures.³⁸⁵ My understanding of this categorization based on the five elements is that it does not only classify foods into various categories, but doing so also makes it much easier for readers to correlate these foods with the yearly cycles of the four seasons. By drawing on the *Yellow Emperor’s Classic of Internal Medicine* 黄帝内经素问, Anderson argues that classifying individual foods according to the five elements “helps people in the respective regions eat foods flavored accordingly.”³⁸⁶

In Chinese antiquity, people believed that the human body with its joints, shoulders, armpits, hollows in the back, blood vessels, teeth, hairs, and bones and sinews, resembled heaven and earth with the stars, mountains, valleys, rivers, grasses, groves and forests, and towns and villages.³⁸⁷ This correspondence between the human body and nature was a well-established type of correlation at that time.³⁸⁸

The human body is a miniature universe, so, by consuming food prepared and cooked in a way that corresponds to the yearly cycles of the

³⁸⁵ Thomas O. Hollmann, *The Land of the Five Flavors: A Cultural History of Chinese Cuisine*, trans. Karen Margolis (New York: Columbia University Press, 2013), 117.

³⁸⁶ E. N. Anderson, *The Food of China* (New Haven: Yale University Press, 1988), 231. As readers may recall, in Chapter 5, I have revealed that the five elements are closely related to directions: wood—east—sour, fire—south—bitter, metal—west—spicy, water—north—salty; earth—center—sweet.

³⁸⁷ Shandong Zhongyi Xueyuan and Hebei Yixueyuan, eds., *Huangdi Neijing Suwen Jiaoshi Xiace* 黄帝内经素问校释下册 [Yellow Emperor’s classic of internal medicine edited and annotated, vol. 2], (Beijing, Renmin Wenxue Chubanshe 1982), 681.

³⁸⁸ Sivin, “State, Cosmos, and Body,” 18.

four seasons, humans maintain balance and harmony, not only within their own body but also with the universe.

To maintain a healthy diet and to correlate preparing dishes with the cycles of the four seasons, the “Interior Regulations” instructs the readers to serve proteins with grains, and to flavor their dishes according to seasonal commands:

牛宜稌，羊宜黍，豕宜稷，
犬宜粱，雁宜麦，鱼宜菰

Beef is served with rice, lamb is served with broomcorn millet, pork is served with millet, dog is served with sorghum, goose is served with wheat, and fish is served with wild rice.

春宜羔豚膳膏芻，
夏宜牾鱸膳膏腍；
秋宜犊麇膳膏腥，
冬宜鲜羽膳膏臄³⁸⁹

In spring, young lamb and suckling-pig are good, with beef paste for its savory taste; in summer, dried pork and dried fish are good, with dog paste for its gamey taste; in autumn, veal and fawn are good, with chicken paste for its fishy taste; in winter, fresh fish and goose are good, with lamb paste for its hircine taste.

These combinations show that it is important to maintain a healthy diet and to correlate foods with the cycles of the four seasons. It seems the “Interior Regulations” requires that different proteins should combine with different grains and that different flavors dominate different seasons. As Hollmann argues rigorously, in Chinese antiquity, “[t]he combination of foods was not arbitrary. According to Confucian logic, it was designed to follow the rhythm of the seasons.”³⁹⁰ Foods must fit the four seasons, not only in the context of sacrificial performance but also in the context of everyday life; thus, the “Interior Regulations” communicates this point through another catalogue of foods:

牛修，鹿脯，田豕脯，麋脯，
麋脯，麋，鹿，田豕，麋，
皆有轩；雉兔皆有芼；爵，
鷄，蜩，范，芝，栲，菱，棋，枣，

There are also preserved beef, preserved venison, preserved wild-boar meat, preserved moose meat, preserved roebuck meat; of these, moose meat,

³⁸⁹ Wu and Lai, *Baihua Sishu*, vol. 3, 571.

³⁹⁰ Hollmann, *Five Flavors*, 111.

栗, 榛, 柿, 瓜, 桃, 李, 梅, 杏,
楂, 梨, 姜, 桂³⁹¹

venison, wild-board meat, and roebuck meat should be cut in large slices. Pheasants and rabbits must be cooked with vegetables. There are also sparrows, finches, cicadas, bees, wood ears, water caltrops, trifoliolate oranges, dates, chestnuts, hazelnuts, persimmon, melons, plums, apricots, hawthorns, pears, ginger, and cinnamon.

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.....

脍: 春用葱, 秋用芥, 豚:
春用韭, 秋用蓼; 脂用葱,
膏用薤, 三牲用藜, 和用酰,
兽用梅。鹑羹、鸡羹、鴛,
酿之蓼。魴鯽烝, 雉烧,
雉, 芎无蓼³⁹²

Minced meat is served with green onions in spring; in autumn it is served with mustard greens. Pork is served with chives in spring; in autumn, it is served with smart-weed. Lard is served with green onions, oil paste is served with chives, and pork and beef and lamb are served with dogberry, dressed with vinegar, and other animal meats are served with plums. Minced-quail soup, minced-chicken soup, and curlew are cooked with smart-weed; steamed bream and tench, roast young chickens and pheasants are served with perilla leaves but not smart-weed.

Again, the above invoked text is nothing more than a dry list of names in the first part, and in the second, it instructs the readers to serve proteins with various vegetables, depending on the seasons, in very general terms. However, as a media of communication, the foods and dishes named in the list communicate to the readers the importance of observing the seasonal cycles when preparing food; the list also suggests that the sons and sons-in-law show deference to their parents and parents-in-law through preparing dishes and meals. There is an astonishing variety of foods and meals for parents or parents-in-law to choose from. Paleographic finds excavated at Mawangdui 马王堆 in China's Changsa city 长沙市 agree

³⁹¹ Wu and Lai, *Baihua Sishu*, vol. 3, 571

³⁹² *Ibid.*, *Baihua Sishu*, vol. 3, 571

almost exactly with the list given in the *Li Chi*.³⁹³ This agreement is significant because it suggests that the description of the family and social rituals, foods and dishes, and other family and social conventions in the *Classic of Rites* is not pure speculation.³⁹⁴

Culinary Instructions in the “Interior Regulations”

Tierney and Ohnuki-Tierney observe that “food and foodways offer uniquely powerful windows to understand individual cultures and societies, especially when they are situated in the context of global and historical flows and connections. There are many ways to study food . . . from recipe books to restaurant reviews, to histories of particular cuisines or food items.”³⁹⁵ Technical writing is interested in understanding them through studying recipes, because recipes are culinary instructions which communicate highly specialized, and thus highly technical, information to guide the readers to prepare and cook meals. To be more specific, technical writing tries to understand what instructions recipes provide to help people complete various tasks in cooking: what ingredients to use, how much to use, how to measure ingredients, what cooking methods to employ, and what utensils to use, just to name a few.

The “Interior Regulations” contains very detailed, step-by-step, culinary instructions for cooking the Eight Treasures 八珍 (*Ba Zhen*), the famous Zhou dynasty delicacies.

淳熬: 煎醢, 加于陆稻上,
沃之以膏曰淳熬

Chunao: Place pan-fried minced meat on steamed rice, and then pour grease over it.

淳毋: 煎醢, 加于黍食上,

Chunwu: Place pan-fried minced meat

³⁹³ Carrington Goodrich, “Chinese Food over the Millennia,” *Journal of the American Oriental Society* 99, no. 1 (January–March 1979), 88. *Li Chi* is the *Book of Rites*, imitating their sounds with sinographs of 礼记 (*Li Ji*), based on Wade-Giles transliteration system.

³⁹⁴ I disagree with some scholars such as E. N. Anderson who argue that the description of rituals is based on “pure speculation.” Actually, the *Classic of Rites* does not describe the rituals; instead, it prescribes, not “what happened,” but “what should happen.” I guess Anderson’s misunderstanding is due to mistranslation or poor translation of the original text of the *Classic of Rites*. For more of Anderson’s arguments, see Anderson, *The Food of China*, 29–43.

³⁹⁵ Tierney and Emiko Ohnuki-Tierney, “Anthropology of Food,” 117.

沃之以膏曰淳毋

炮: 取豚若将, 剖之剖之,
实枣于其腹中, 编萑以苴之,
涂之以谨涂, 炮之, 涂皆干,
擘之, 濯手以摩之, 去其皴,
为稻粉糲溲之以为醢, 以付
豚煎诸膏, 膏必灭之,
巨镬汤以小鼎芎脯于其中,
使其汤毋灭鼎, 三日三夜毋
绝火, 而后调之以醢醢

over broom-corn millet cake and then
pour grease over it.

Pao: Take a suckling pig or a young
lamb, cut it open, clean it out, and stuff
its belly with dates. Wrap it with
plaited reed, seal it with clay, and then
bake it. When the clay is all dry,
break it off. Wash your hands, remove
the thin membrane from the pig or the
lamb, add water to rice flour and mix
them to a smooth gruel, coat the pig or
the lamb with it. Then, in a small
cauldron, fry it in melted fat, which
must cover it completely. Then bring a
large pot of water to a boil, and place
the small cauldron in the pot to boil the
pig or lamb. Make sure the water does
not overflow into the cauldron. Let it
boil for three days and nights in a row,
and then serve it with meat sauce and
vinegar.

捣珍: 取牛羊麋鹿麩之肉
必胠, 每物与牛若一捶,
反侧之, 去其饵, 熟出之,
去其饵, 柔其肉

Daozhen: Obtain one portion of tender
loin of beef, lamb, moose, venison, and
roe buck. Mix them with beef, and
then pound them while turning them
over again and again. Remove tendons
and boil them. When they are done,
remove membranes, and serve them
with vinegar and meat sauce.

渍: 取牛肉必新杀者,
薄切之, 必绝其理;
湛诸美酒, 期朝而食之
以醢若醢醢

Zi: Cut fresh beef into thin slices,
sever all textures, and then soak them
in fine wine. Next morning, serve them
with meat sauce, vinegar, and plum
sauce.

为熬: 捶之, 去其皴,
编萑布牛肉焉,
屑桂与姜以洒诸上而盐之,
干而食之; 施羊亦如之,
施麋, 施鹿, 施麩皆如牛羊;

Ao: Pound beef, remove its mem-
brane, plait a reed stand, and roast the
beef on it. Then sprinkle ground
cinnamon, ginger powder, and salt
over it. Serve it when dried. Roast

欲濡肉则释而煎之以醢，
欲干肉则捶而食之

lamb similarly, as well as moose, venison, and roe buck. If one prefers soft meat, then soak it in water, and then sauté it in meat sauce. If one prefers something dry, just pound it and serve.

糝: 取牛羊豕之肉, 三如一
小切之, 与稻米; 稻米二肉一,
合以为饵煎之

Shen: Take equal quantities of beef, lamb, and pork, cut them into small pieces, add rice flour, with two parts of rice flour and one part of meat, blend them well, and make cakes from the blend. Pan-fry them and then serve.

肝膋: 取狗肝一, 幪之, 以其
膋濡炙之, 举焦, 其膋不蓼;
取稻米, 举糝溲之, 小切狼膋膏,
以与稻米为醢³⁹⁶

Ganliao: Take one dog's liver, wrap it with its intestine fat, lubricate it with water, and roast it. Serve when the fat is scorched. Take rice flour, add water, blend them well, cut into small pieces the fat from a cow's or a lamb's chest cage, blend them with the rice, and boil them to produce a thin congee.

I agree with Legge who argues that these Eight Delicacies are especially prepared for the old in the family or clan.³⁹⁷ As media of communication, these recipes for the Eight Treasures manifest deference to the old and serve to strengthen the bond between the old and the young, as food can be used as the great cement in family relationships. Meanwhile these recipes also carry social values, because food is “a marker of social status.”³⁹⁸ In the Chinese tradition, it is important to observe the ‘unwritten law’ when serving food: divine spirits are served first, then the elderly, and finally the young.³⁹⁹ The best food is offered first to gods and ancestral spirits in ritual ceremonies, then given to the elderly, and finally, to the young. “As a marker of social status, . . . , food became less a source of nutrients than a means of communication.”⁴⁰⁰

³⁹⁶ Wu and Lai, *Baihua Sishu*, vol. 3, 564—65.

³⁹⁷ Legge, *Li Chi*, 470.

³⁹⁸ Anderson, *Food of China*, 246.

³⁹⁹ *Ibid.*, *Food of China*, 246. More discussion of serving food based on family hierarchy may be found in Anderson, *Food of China*, 244—46.

⁴⁰⁰ Anderson, *Food of China*, 246.

As a means of communication, the recipes for the first and the second treasures are relatively simple, while those for the third and the sixth treasures contain much more details. Lexically, the first two recipes are mere lists of ingredients than descriptions of cooking procedures. They read more like descriptions of serving procedures: to serve *Chunao*, place (the already cooked) minced meat on (the already) steamed rice and then pour (already prepared) grease over it. To serve *Chunwu*, place (the already cooked) pan-fried minced meat on a (already cooked) broom-corn millet cake and then pour (the already prepared) grease over it. Syntactically, these two recipes employ imperative sentences and are organized as parallelism in sentences. Both of these two recipes share a very important textual feature: lack of details while more attention is given to the serving procedures.⁴⁰¹

The recipe for the third treasure is much more complicated because it provides more instructions on cooking procedures. Thus, the lemma is high because it contains many cooking steps, one leading to the next.⁴⁰² Lexically, it contains many terms of ingredients, cooking methods, and cooking materials and utensils: pig, lamb, dates, rice flour, water, fat, meat sauce, vinegar, cut, clean, stuff, wrap, seal, bake, break, remove, add, coat, fry, boil, reed, clay, gruel, cauldron, and pot. Syntactically, the recipe employs imperative sentences one after another so that the readers, when following the instructions in this recipe, might develop the impression that they are rushed through the entire cooking procedure in a very short period of time. This feature corroborates what Diemer has revealed about professional instructions: “to convey information in a very compact form,”⁴⁰³ though the feature I bring up here is in an ancient Chinese text, the *Classic of Rites*. It also reveals the syntactical feature that Norrick has identified in technical instructions used in cooking: imperatives with no

⁴⁰¹ My discussion of lexical and syntax features of the Eight Treasures draws on Diemer’s discussion of Anglo-Saxon recipes. More information on Anglo-Saxon recipes and food may be found in Stefan Diemer, “Recipes and Food Discourse in English—a Historical Menu,” in *The Chef’s Special (Culture and Language Use 10.)*, ed. Cornelia Gerhardt, Maximiliane Frobenius, and Susanne Ley, (Amsterdam: John Benjamins Publishing Company, 2013), 165—76.

⁴⁰² “Lemma” is a term used by Diemer in his article. It means one proposition for use in the proof of another one. In a recipe, it means that one cooking step serves as a prerequisite for the next step. If lemma in a recipe is high, it means that there are many steps for a chef to follow.

⁴⁰³ Diemer, “Recipes and Food,” 167. Diemer clearly is referring to the Old English recipe.

grammatical subjects.⁴⁰⁴ Diemer is surprised to see that the feature identified by Norrick in present-day recipes is already evident in the Middle English recipes. I am even more surprised that the feature already appears in the ancient Chinese text composed more than two thousand years ago.

On the other hand, the cooking steps identified in the recipe are not sufficiently specific. For example, in the first series of actions—“Take a suckling pig or a young lamb, cut it open, clean it out, stuff its belly with dates”—we never see any instructions on how to cut, or how to clean, or how to stuff. We do not even know how many dates we should use. In another series of actions—“Wash your hands, remove the thin membrane from the pig or the lamb, add water to rice flour to make a gruel, coat the pig or the lamb with it”—we never read any instructions on how to remove the thin membrane, how much water to add, how much rice flour to use, how to make a gruel, or how to coat. No measurements are precisely given or quantified, except the units of boiling time (‘days’ and ‘nights’): Let it boil for three days and nights in a row, if we could assume that it means exactly 72 hours.

Pragmatically, the cooking sequence is clear, though no numbers are used to refer to the steps in the sequence, because one imperative follows another. The reader just needs to perform the actions as specified in the imperatives, one by one; thus, the recipes are characterized by a high lemma.

The recipes for Treasures Four to Eight are similar, lexically, syntactically, and pragmatically; all contain many terms of cooking methods, ingredients, and cooking materials, and all employ imperative sentences; no measurements are specifically quantified, except perhaps for the recipe for Treasure Seven: one third beef, one third lamb, and one third pork; two parts of rice flour with one part of meat. No specific units are given, but we know we need to prepare equal quantities of beef, lamb, and pork, and that when we are mixing them with rice flour, we need two parts of rice flour and one part of meat. I believe the measuring units are not crucial, because the more food we need, the more quantities of meats and rice flour we take, as long as we observe the ratios as specified in the recipe.

⁴⁰⁴ Neal R. Norrick, “Recipes as Texts: Technical Language in the Kitchen,” in *Sprache, Diskurs und Text, Akten des 17. Linguistischen Kolloquiums, Brüssel, 1982*, ed. Rene Jongen, Sabine De Knop, Peter H. Nelde, and Marie-Paule Quix, (Tubingen: Niemeyer, 1983), 176. Anderson, too, invokes Norrick. Actually I would like to express my appreciation to Diemer for providing another source which I can consult. The sentences in the recipe in Chinese are also imperatives that have no explicit grammatical subjects.

Clearly, the recipes assume that the reader already possesses the ability to perform all the cooking tasks described, such as cutting, mixing, blending, frying, and boiling. It is not necessary to provide details because they are already familiar with these tasks, so once they know they need to cut, then they know how to cut; once they know they need ginger and cinnamon powder, they know how much they should use. These recipes “presuppose not only the user’s knowledge of technical verbs, . . . , but also his ability to carry out the operations [the recipes] described.”⁴⁰⁵ In other words, the reader needs to do more than just what is described in the recipes.

Significance of Culinary Catalogues and Instructions in the “Interior Regulations”

The food catalogues and recipes contained in the “Interior Regulations” are some of the earliest culinary discourse in the Chinese tradition, and the recipes are the earliest culinary instructions. Many present-day scholars and researchers frequently reference the “Interior Regulations” in their studies of Chinese food or Chinese culinary discourse.⁴⁰⁶ As one of the earliest culinary texts in the Chinese tradition, the food catalogue and the recipes as contained in the “Interior Regulations” are significant in the

⁴⁰⁵ Norrick, “Recipes as Texts,” 178. Norrick is discussing modern Western recipes, but Diemer believes that Norrick’s observation is also true for these Middle English recipes. For more details of Diemer’s discussion of Norrick’s argument, see Diemer, “Recipes and Food Discourse,” 167. I suspect his observation is also true with the recipes for the Eight Treasures described in the “Interior Regulations.”

⁴⁰⁶ Anderson, *Food of China*; Hollmann, *Land of Five Flavors*; Chang, “Food and Food Vessels”; David, R. Knechtges, “Food in Early Chinese Literature,” *Journal of the American Oriental Society* 106, no. 1 (January—March 1986); Z. Luo and Wang R., “Persimmon in China: Domestication and Traditional Utilizations of Genetic Resources,” *Advances in Horticultural Science* 22, no. 4 (2008); Kho, “Dragon on a Platter”; Gao Biren 高碧仁, “Bazhen Shuolue” 八珍说略 [A brief introduction to the Eight Treasures of the Zhou dynasty], *Pengtiao Zhishi Yijiujiushi Nian Sanqi* 烹调知识 1994 年 3 期 [Culinary knowledge 3 (1994)]; Yang Zude 杨祖德, Li Xinsheng 李新生, and Zhang Xinke 张鑫科, “Keshiyong de Kunchong” 可食用的昆虫 [The edible insects], *Daziran Yijiubajiu Nian Sanqi* 大自然 1989 年 3 期 [Nature 3, (1989): 41]; Wu Zhicheng 吴志成, “Mayi Shiliao zhi Xintanta” 蚂蚁食疗之新探讨 [New exploration of diet therapy with ant], *Heilongjiang Zhongyiyao Yijiujiuling Nian Yiqi* 黑龙江中医药 1990 年 1 期 [Journal of Chinese traditional medicine in the province of Heilongjiang 1, (1990)]: 9.

history of technical communication in the Chinese tradition. First, it established culinary writing as a new category of technical writing in the Chinese tradition. As we may recall, in Chapter One, I introduced Ban Gu's 班固 (32—92 CE) classification of technical writing into four categories of medical writing (*yi jing* 医经), pharmacopoeias writing (*jing fang* 经方), art-of-bedchamber writing (*fang zhong* 房中), and immortal writing (*shen xian* 神仙).⁴⁰⁷ Also, in that chapter, I have modified Ban Gu's classification and proposed additional categories to be classified under "technical writing," based on the fact these categories of writings are closely related to the four categories proposed by Ban Gu. Yet, none contains culinary writings. However, as an independent category of writing, culinary writing began to take shape in the "Interior Regulations." As we have seen, it provides instructions, often highly specialized, for people to prepare, process, and cook food. Second, as instructions, the recipes employ imperatives and parallel sentence structures without using adverbs or adverbial phrases, therefore allowing the recipes to communicate information in very concise and compact forms. Third, it has introduced the 'five elements' philosophical thought into cooking, and thus it established the philosophical principle that Chinese culinary activities must observe: following the yearly cycles of the four seasons, in order to maintain harmony with nature and within the human body. Fourth, it presupposes that its readership already possesses a working knowledge of cooking and the ability to prepare, process, and cook food. This last point is particularly significant, because, as I will show in a later chapter of this book, presupposing the readers' prerequisite knowledge is a major feature of technical writing in the Chinese tradition. And we see that feature first manifest in the recipes contained in the "Interior Regulations."

⁴⁰⁷ Ban Gu, *Han Shu*, 169.

CHAPTER SEVEN

“ACCOUNTS OF EXAMINING ARTISANSHIP” (考工记): THE EARLIEST MANAGEMENT HANDBOOK ON HANDICRAFT WORKMANSHIP IN THE CHINESE TRADITION

“Accounts of Examining Artisanry”⁴⁰⁸ (*Kao Gong Ji* 考工记) is the last chapter of the *Rituals of Zhou* (*Zhou Li* 周礼). Scholars have pointed out that the “Accounts of Examining Artisanry” was inserted into the “*Rituals of Zhou*” by Liu De 刘德, King Xian of Hejian 河间献王 (r. 155—129 BCE), consanguineous brother of Liu Che 刘彻, Emperor Wu of Han 汉武帝 (r. 141—187 BCE), as a replacement for its purportedly lost sixth chapter of “Winter Offices, 冬官”.⁴⁰⁹ Its authors are unknown,

⁴⁰⁸ The Chinese title of the text has been translated variously as “Ancient Chinese Encyclopedia of Technology” by Wenren Jun, as “Artificer’s Record” by Joseph Needham, as “Notes for Examining the Artisans” by Falkenhausen, and, simply by imitating their sounds with the sinographs, as “Kaogong Ji,” by most other scholars. Of these various renderings, I prefer Falkenhausen’s, so my translation of the Chinese title draws on his translation.

⁴⁰⁹ Benjamin A. Elman, “The Story of a Chapter: Changing Views of the Artificer’s Record” (“Kaogong Ji, 考工记”) and the *Zhouli*,” in *Statecraft of and Classical Learning*, ed. Benjamin Elman and Martin Kern (Leiden: Brill 2010), 330—33; Michael Nylan, “The Many Dukes of Zhou in Early Sources,” in *Statecraft of and Classical Learning*, ed. Benjamin Elman and Martin Kern (Leiden: Brill 2010), 94; Lothar von Falkenhausen, “Wenren Jun, *Ancient Chinese Encyclopedia*,” Review of *Ancient Chinese Encyclopedia of Technology: Translation and Annotation of Kaogong ji*, *EASTM* 40 (2014): 101; Wenren Jun 闻人军, *Kaogong Ji Yizhu* 考工记译注 [Vernacular translation and annotation of accounts of examining artisanry] (Shanghai: Shanghai Guji Chubanshe, 2018), 2; Wang Xieshan 王燮山, “*Kaogong ji* Qizongde Lixue Zhishi” 考工记及其中的力学知识 [Accounts of Examining Artisanry and knowledge of mechanics in it], *Wuli Tongbao* 1959 Nian Di 5 Qi 物理通报 1959 年第 5 期 [Bulletin of Physics,

and scholars and researchers have dated the text variously to the late Spring and Autumn period (770—481 BCE), the early Warring States period (481—221 BCE), the mid Warring States period, the late Warring States period, the Qin period (221—207 BCE), and the Western Han period (206 BCE—8 CE).⁴¹⁰ Of those scholars, Guo Moruo 郭沫若 is most influential,⁴¹¹ who believes that the text was composed by people of the State of Qi (齐国) in the late Spring and Autumn period.⁴¹² Guo claims that his conclusion is based on the facts that the text mentions the

no.5 (1959): 197; Shi Nianhai 史念海, “Zhouli, Kaogong Ji, Jiangren Yingguo de Zhuanzhu Yuanyuan” 周礼-考工记-匠人营国的撰著渊源 [Provenance of builders building the capital in “Kaogong Ji” of *Rituals of Zhou*], *Chuantong Wenhua yu Xiandai Hua* 1998 Nian 3 Qi 传统文化与现代化 1998 年 3 期 [Traditional culture and modernization, 3 (1998)]: 46. Scholars claim that Liu De 刘德 discovered a work entitled *Offices of Zhou* 周官 in his Imperial court, but it lacked the final chapter of “Winter Offices.” So he took the “Accounts of Examining Artisanishp,” transmitted separately at that time, and inserted it into the *Offices of Zhou* as a replacement for the lost final chapter. Later, the Western Han 西汉 (203 BCE—8 CE) bibliophile Liu Xin 刘歆 (50 BCE—23 CE) changed the title of the work from *Offices of Zhou* 周官 to *Rituals of Zhou* 周礼, just to avoid confusion with the chapter of “Offices of Zhou” in the *Classic of Documents* 书经. The “Accounts of Examining Artisanishp” was elevated to the status of classic because it was incorporated into the *Rituals of Zhou*, a canonized Confucian classic. But its status was not finally secured until Zheng Xun 郑玄 (127—200) commented on it, which is a milestone in the scholarship the “Accounts of Examining Artisanishp.”

⁴¹⁰ Shi Xiaolei 史晓雷, “Kaogong Ji Zhong Chezhi Wenti de Liangdian Shangque” “考工记” 中车制问题的两点商榷 [Discussing two points about specifications of chariots in “Kaogong Ji”], *Shanxi Daxue* 2008 Nian Quanguo Boshisheng Xueshu Luntan (Kexue Jishu Zhexue) 山西大学 2008 年全国博士生学术论坛 (科学技术哲学) [Paper presented at the scholarship forum for all-China doctoral students (philosophy of science and technology) at Shanxi University, China, 2008]; Falkenhausen, “Wenre Jun,” 101; Li Qiufang 李秋芳, “Ershi Shiji “Kaogong Ji” Yanjiu Zongshu” 20 世纪“考工记” 研究综述 [A synthesis of 20th century studies of “kaogong ji”], *Zhongguoshi Yanjiu Dongtai* 2004 Nian Di 5 Qi 中国史研究动态 2004 年第 5 期 [New trends in research in Chinese history, no. 5 (2004)]: 11-12.

⁴¹¹ Li Qiufang 李秋芳, “Ershi Shiji,” 12; Wenren Jun 闻人军, *Kaogong Ji*, 20.

⁴¹² Guo Moruo 郭沫若, “Kaogong Ji de Niandai yu Guobie” 考工记的年代与国别 [Date and provenance of kaogong ji], in *Moruo Wenji* 16 Juan 沫若文集 16 卷 [Collected works of Moruo, vol. 16] (Beijing: Renmin Wenxue Chubanshe, 1962), 385.

handicraft products of all the major states of the period except the State of Qi, the text also employs all the six major dialects of the State of Qi, and the text uses the units of the State of Qi when it discusses weights and measures. Certainly, many scholars disagree.⁴¹³

However, scholars largely agree on its historical, technical, cultural, and philosophical qualities. Historically, for example, Falkenhausen points out that politicians “have repeatedly used it over the course of Chinese history as a blueprint for a perfect government” because the text “purported to list the stuff of the Zhou dynasty’s Ministry of Works.”⁴¹⁴ Du et al. think that the text reflects the advanced development of handicraft technology in the Zhou dynasty.⁴¹⁵ Technically, Elman shows that literati in China’s Song (960—1279) and Qing (1644—1911) dynasties were increasingly interested in the “Accounts of Examining Artisanship” as a technical writing text which allowed them to produce imitations, fakes, and forgeries of ancient bronzes, jades, and ceramics, in a general interest after the late Ming dynasty in “recovering antiquity” (復古).⁴¹⁶ Xiao Dewu 肖德武 even thinks that the text gave rise to China’s handicraft industry, both state and private.⁴¹⁷ To help people better understand the text in the trend to recover antiquity, many Song and Qing

⁴¹³ More discussions of the date and provenance of the text may be found in Li Qiufang 李秋芳, “Ershi Shiji”; Wenren Jun 闻人军, *Kaogong Ji*; and Shi Xiaolei 史晓雷, “Kaogong Ji.”

⁴¹⁴ Falkenhausen, “Wenren Jun,” 100—02.

⁴¹⁵ Du Shiran 杜石然 et al., *Zhongguo Kexuejishu Shigao*, 108.

⁴¹⁶ Elman, “The Story,” 339—40. Also see Ye Chunfang 叶纯芳, “*Gujin Tushu Jicheng Jingji Dian Zhouli Bu de Wenxian Jiazhi*” 古今图书集成-经籍典-周礼部的文献价值 [Philological values of the rituals of Zhou categorized as classics in collection of books ancient and modern], *Zhongguo Wenzhe Yanjiusuo Tongxun* 中国文哲研究所通讯 [Bulletin of Chinese literature and philosophy research institute 16, no. 4 (2006)]: 107. Elman’s point regarding the general interest in the late Ming in “recovering antiquity” draws on Ye’s study; meanwhile, Elman’s article points me to Ye’s study of the *Rituals of Zhou*.

⁴¹⁷ Xiao Dewu 肖德武, “Qi Keji Wenhua de Yiyi jiqi Kexue Yiyun—Cong *Kaogong Ji*, *Guanzi*, he *Qimin Yaoshu* Sanbu Mingzhu Tanqi 齐科技文化的意义及其科学意蕴—从“考工记”, “管子”, 和“齐民要术”三部名著谈起 [Significance of science and culture in the state of Qi and its implications for science—a discussion based on three classics of “Accounts of Examining Artisanship,” *Master Guanzi*, and *Popular Agricultural Technology for the Common People*], *Qilu Shifan Xueyuan Xuebao* 2011 Nian 4 Yue Di 26 Juan Di 2 Qi 齐鲁师范学院学报 2011 年 4 月第 26 卷第 2 期 [Journal of qilu normal college 26, no. 2 (April 2011)]: 19.

literati prepared explanatory works on the “Accounts of Examining Artisanshp”—Lin Zhaoke 林兆珂 (f. 1589) composed *Kaogong Ji Shuzhu* 考工记述注 [Explanations of and commentaries on the “Accounts of Examining Artisanshp”]; Lin Xiyi 林希逸, a 1235 palace graduate of Southern Song (1127—1279), cranked out *Kaogong Ji Tujie* 考工记图解 [*Illustrations of the “Accounts of Examining Artisanshp”*]; Xue Guangqi 徐光启 (1562—1633) annotated the “Accounts of Examining Artisanshp” and produced *Kaogong Ji Jie* 考工记解 [Annotations of the “Accounts of Examining Artisanshp”].⁴¹⁸ Needham thinks that “it is a most important document for the study of ancient Chinese technology.”⁴¹⁹ Dai Wusan 戴吾三 and Gao Xuan 高宣, on the other hand, bring out the cultural and philosophical values of the text, arguing, obviously by building on Guo Moruo’s 郭沫若 study, that the text is immersed in the local culture of the state of Qi and that it is clearly an official account of official artisanship; not a technical production manual, but a document that formulates standardization of artisanship.⁴²⁰ Their conclusion that the text is an official formulaic document which specifies standardization of procedures of artisanship is very significant because it actually addresses Falkenhausen’s point that the text is not a technical manual; instead, it was apparently written for use by administrative supervisor of court artisans, deliberately reducing technical information to simple formulae for their benefit.⁴²¹ With Dai and Gao’s study, it is clear why the text was for use by administrative supervisors: the administrative supervisors use the text to guide the court artisans, showing them the standard specifications to be used in production. Dai and Gao also propose that the text manifests the philosophical notion of the five elements 五行学说 and that it stresses the number six, which, according to Dai and Gao, suggests “standard, harmony, and luck.”⁴²² Chen Liping 陈丽萍 and Huang Bozhang 黄伯璋 argue that the text embodies the philosophical thought of the “unity

⁴¹⁸ On more explanatory works on the “Accounts of Examining Artisanshp,” see Elman, “The Story,” 339—55.

⁴¹⁹ Joseph Needham, *Science and Civilisation in China*, vol. 4, part II, (Cambridge: Cambridge University Press 1965), 11.

⁴²⁰ Dai Wusan 戴吾三 and Gao Xuan 高宣, “Kaogong Ji de Wenhua Neihan” “考工记”的文化内涵 [Cultural connotation of the “Accounts of Examining Artisanshp”], *Qinhua Daxue Xuebao* 1997 Nian Di 12 Juan Di 2 Qi 清华大学学报 1997 年第 12 卷第二期 [Journal of Qinghua University 12, no. 2 (1997): 6—7.

⁴²¹ Falkenhausen, “Wenren Jun,” 103.

⁴²² Dai and Gao, “Kaogong Ji,” 9.

between Heaven and humans.”⁴²³ More important, they point out that the text is the cornerstone of China’s ancient scientific and technological system.⁴²⁴

Martin Kern reads the entire *Rituals of Zhou* as a work of formulaic technical writing,⁴²⁵ because it “embodied the very nature and pervasive function of bureaucratic writing that it consistently asserted for its universe of governmental offices.”⁴²⁶ Chinese scholarship on the “Accounts of Examining Artisanshp” generally regards the text as a separately transmitted document and accords the text high historical and technological values, claiming that it is the first general collection of standards of handicraft technology, or the first scientific and technological document in the Chinese tradition.⁴²⁷ Fig. 7-1 illustrates the first page of “Accounts of Examining Artisanshp” in the Shuyetang Edition of *Rituals*

⁴²³ Chen Liping 陈丽萍 and Huang Bozhang 黄伯璋, “Kaogong Ji Sheji Linian Zhongde Tianren Sixiang” “考工记”设计理念中的天人思想 [The thought of unity between Heaven and humans shown in design theory in the “Accounts of Examining Artisanshp”], *Wenyi Zhengming* 2010 Nian 6 Qi 文艺争鸣 2010 年 6 期 [Debates in literature and arts 6 (2010)]: 66—67.

⁴²⁴ *Ibid.*, 66.

⁴²⁵ Martin Kern, “Offices of Writing and Reading in the *Rituals of Zhou*,” in *Statecraft of and Classical Learning*, ed. Benjamin Elman and Martin Kern (Leiden: Brill, 2010), 64—93.

⁴²⁶ *Ibid.*, 66.

⁴²⁷ Du Shiran 杜石然 et al., *Zhongguo Kexuejishi Shigao*, 108; Wenren Jun 闻人军, *Kaogong Ji*, 1—2; Wang Xingguang 王星光 and Fu Kui 符奎, “Xue Guangqi *Kaogong Ji Jie Tanxi*” 徐光启“考工记解”探析 [Analyzing Xu Gongqi’s *Explaining Kaogong Ji*], *Fudan Xuebao* 2011 Nian Di 4 Qi 复旦学报 2011 年第 4 期 [Journal of Fudan University, no. 4 (2011)]: 34; Xiao Dewu 肖德武, “Qi Keji Wenhua.” 17; Zhou Shucan 周书灿, “*Kaogong Ji de Keji Shiliao Jiazhi Xintan*” “考工记”的科技史料价值新探 [New exploration of the values of “Kaogong Ji” as a historical source of science and technology], *Yindu Xuekan* 殷都学刊 2005 Nian Di 2 Qi [Journal of Yin capital, no. 2 (2005)]: 102; Dai Wusan 戴吾三, “Lun *Kaogong Ji de Shengchan Jishu Guanli* 论考工记的生产技术管理 [On production and technology management in “Kaogong Ji”], *Da Ziran Tansuo* 1996 Nian Di 15 Juan Di 1 Qi 大自然探索 1996 年第 15 卷第 1 期 [Journal of nature exploration 15, no. 1 (1996)]: 119; Wang Xieshan 王燮山, “Lixue Zhishi,” 197; Li Min 李民 and Wang Xingguang 王星光, “Luelun *Kaogong Ji Che de Zhizao Gongyi*” 略论考工记车的制造工艺 [A brief discussion about production and workmanship of chariots in *Kaogong Ji*], *Henan Shifan Daxue Xuebao* 1985 Nian Di 2 Qi 河南师范大学学报 1985 年第 2 期 [Journal of Henan Normal University, no. 2 (1985)]: 66.

of Zhou with Commentary and Subcommentary 书业堂周礼注疏 published in 1792.

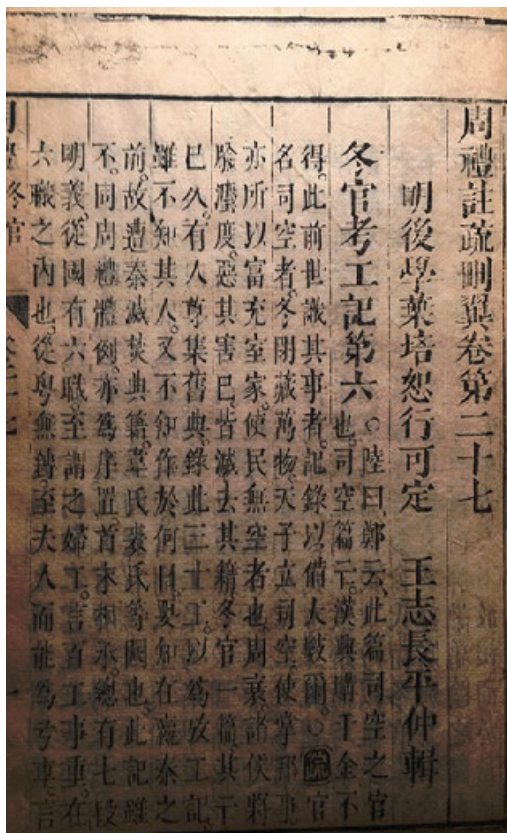


Fig. 7-1 "Accounts of Examining Artisansip" Published in 1792

I am interested in the text because it is the first technical writing text in the Chinese tradition that institutionalizes technical standards of production and workmanship of various handicrafts. As such, it was used as an official handbook or manual by the administrative supervisors of court artisans.⁴²⁸ Thus, we might as well call it the first official management handbook in the Chinese tradition. Perhaps the various specifications and

⁴²⁸ Falkenhausen, "Wenren Jun," 103.

standards as described in the handbook had never been used in artisanship practices, because, as Falkenhausen argues, the technical information as contained in the handbook does not match the data one can extract from the material record of ancient China as revealed through recent archeological discoveries,⁴²⁹ a point corroborated by a Taiwanese scholar Liu Guangding 刘广定, who argues that the text does not have any practical values because most of the technical information as described in the text does not match the data obtained from ancient objects unearthed in China.⁴³⁰ However, Liu accords high values to the text, historically and technologically, claiming that through the “Accounts of Examining Artisanship,” we sharpen our understanding of the ancient Chinese perception of science and technology.⁴³¹ I concur with Liu, and I also believe that the text of the “Accounts of Examining Artisanship” also offers us a window through which we can have a glimpse of how the ancient Chinese organized and structured a technical handbook. In addition, we can also examine the philosophy of this technical handbook and the roles it played in ancient China, for, as Elman shows in his chapter, this technical manual did influence later Chinese imperial dynasties.⁴³²

The Structure of the “Accounts of Examining Artisanship”

A handbook, or a management handbook, must clearly indicate what specific tasks or job duties it helps. It usually does so by using textual labels such as chapter titles or section headings. But the text of the “Accounts of Examining Artisanship” is not arranged in paragraphs or sections with titles or headings to signal the subject of a paragraph or a section. Traditionally and conventionally, the text is divided into 31 sections: the first section is traditionally designated as the general introduction, and then each of the other 30 sections is devoted to one job duty of artisans. The text introduces 30 job titles of artisanship grouped under six different operations, but six of these job titles are missing, so the text describes only 24 of them. Here is how the introduction groups the 30

⁴²⁹ Ibid., 103.

⁴³⁰ Liu Guangding 刘广定, “Zaiyan *Kaogong Ji*” 再研 “考工记” [Research on “Kaogong Ji” again], *Guangxi Minzu Xueyuan Xuebao* 2005 Nian Di 11 Juan Di 3 Qi 广西民族学院学报 2005 年第 11 卷第 3 期 [Journal of Guangxi Minority Nationality Institute 11, no. 3 (August 2005)]: 8—11.

⁴³¹ Liu, “Zaiyan,” 11.

⁴³² Elman, “The Story,” 339—55.

job titles: wheelwrights (*lunren* 轮人),⁴³³ chariot body builders (*yuren* 輿人),⁴³⁴ bow producers (*gongren* 弓人), hilt makers (*luren* 庐人), house builders (*jiangren* 匠人), plow handle and cart makers (*cheren* 车人), musical instrument stand, utensil, and archery target makers (*ziren* 梓人) grouped together under the operation of “woodworking” (*gongmu zhihong* 攻木之工); dagger makers (*zhushi* 筑氏), arrowhead, spear, and halberd makers (*yeshi* 冶氏), bell makers (*fushi* 鳧氏), measure makers (*lishi* 栗氏), farming tool producers (*duanshi* 鍛氏), sword makers (*taoshi* 桃氏) grouped together under the operation of metalworking (*gongjin zhihong* 攻金之工); armor makers (*hanren* 函人), skimmers (*baoren* 鮑人), drum makers (*yunren* 鞞人), tanners (*weishi* 韦氏), and furriers (*qiushi* 裘氏) grouped together under the operation of animal skin processing (*gongpi zhihong* 攻皮之工); drawers (*huaren* 画人), painters (*huiren* 纘人),⁴³⁵ feather dyers (*zhongshi* 钟氏),⁴³⁶ fabric printing and dyeing artisans

⁴³³ While introducing these thirty job duties of artisans, the text uses either “ren” 人 (a person, a human being) or “shi” 氏 (a surname). Zheng Xun 郑玄 (127—200) comments that when stating “something *ren*” like “*lunren*” 轮人, the text names the job title with a particular skill of artisans (*yi qishi mingguan ye* 以其事名官也), but when stating “something *shi*” like “*duanshi*” 鍛氏 (literally meaning Mr. Duan), the text names the job title with a surname (*yi shi mingguan zhweye* 以氏名官者也) of the artisan who possesses the skill. For more details of Zheng Xuan’s comments, see Zheng Xuan 郑玄 and Jia Gongyan 贾公彦 (fl. 650), eds., *Zhouli Zhushu* 周礼注疏 [Rituals of Zhou with commentary and sub-commentary], in *Shisanjing Zhushu* 十三经注疏 [Thirteen classics, with commentary and sub-commentary], ed. Ruan Yuan 阮元 (1746—1849) (Hangzhou, China: Zhejiang Guji Chubanshe, 1998), 906.

⁴³⁴ In the 3rd section of the text, right after the 2nd section on chariot builders (*yuren* 輿人), a new job title of artisans, which is not introduced as one of the thirty job titles of artisans, is described in detail as “makers of curved carriage shafts” (*zhouren* 辀人). Wenren claims that this new section could have split off from the 2nd section of chariot body builders (*yuren* 輿人). He believes that people of the state of Chu 楚国, while emending this text, might have added more information to this section of “makers of curved carriage shafts.” For more information, refer to Wenren Jun 闻人军, *Kaogong Ji*, 32.

⁴³⁵ Drawers (*huaren* 画) and painters (*huiren* 纘人) are introduced as two separate job titles of artisans in the text’s general introduction, but they are described as one title of “drawing and painting” (*huahui* 画纘) in the 15th section of the text.

⁴³⁶ Falkebnhausen argues that the sections on “bell makers” (*fushi* 鳧氏) and on feather dyers (*zhongshi* 钟氏) are transposed, in that each section describes the job title of the other. In other words, “bell makers” should be *zhongshi* 钟氏 (Mr. Bell)

(*kuangren* 筐人), and silk processing artisans (*huangshi* 隳氏) grouped together under the operation of coloring (*shese zhigong* 设色之工); jade producers (*yueren* 玉人), comb makers (*jiren* 柳人), carvers (*diaoren* 雕人), arrow makers (*shiren* 矢人), and stone-chime makers (*qingshi* 磬氏) grouped under the operation of sanding and polishing (*guamo zhigong* 刮摩之工); pottery makers (*taoren* 陶人) and porcelain producers (*fangren* 旉) grouped under the operation of clay modelling (*bozhi zhigong* 搏埴之工).

The specific job duties performed by artisans with above thirty job titles are described in thirty sections, but sections 9 on farming tool producers (*duanshi* 锻氏), 13 on tanners (*weishi* 韦氏), 14 on furriers (*qiushi* 裘氏), 17 on fabrics printing and dyeing artisans (*kuangren* 筐人), 20 on comb makers (*jiren* 柳人), and 21 on carvers (*diaoren* 雕人) are missing, leaving only 24 job duties described in the text.

The first five paragraphs serve as the general introduction. In this general introduction, the text comes to the point at the very beginning, by defining the nature of the profession of artisans:

国有六职，百工与居一焉；⁴³⁷

The state has six professions of work,
among which is the profession of
artisanship.

while “feather dyers” should be *fushi* 凫氏 (Mr. Duck). For more details, see Falkenhausen, “Wenren Jun,” 101. When I am introducing the 30 titles of artisanship in this chapter, I follow the thematic arrangement of the original text.

⁴³⁷ Zheng Xuan glossed *baigong* 百工 as the civilian official (*sikong* 司空) in charge of various handicrafts and supervising all the artisans: “Baigong 百工 is an civilian official. . . in charge of building city walls, establishing cities and towns, constructing communities and ancestral temples, building court rooms and chariots, producing garments and mechanical instruments, and supervising all the artisans. Before the periods of Yao 尧 and Shun (c. 2300—2200 BCE), it was called *gonggong* 共工。” (百工: 司空事管之属. . . 司空, 掌营城郭, 建都邑立社稷宗庙, 造宫室车服器械, 监百工者。唐虞以上曰共工。) For more details of Zheng Xun’s comments, refer to Zheng Xuan 郑玄 and Jia Gongyan 贾公彦 (fl. 650), eds., *Zhouli Zhushu*, 904. Wenren Jun explains that *baigong* 百工 refers to both the officials supervising court artisans and artisans themselves: Wenren Jun 闻人军, *Kaogong Ji*, 1. I agree with Wenren because in the general introduction, the term refers to the supervising officials, while in the 30 sections of detailed descriptions of the artisanship, it refers to the various artisans or handicrafts they engage in. Xiao Nan’s 萧楠 study indicates that the Sinographs *baigong* 百工 already appeared in some oracle-bone-inscription texts from the Shang dynasty (c.

或坐而论道, 或作而行之,
 或审曲面执, 以飭五材,⁴³⁸
 以辨民器, 或通四方之珍
 异以资之, 或飭力以长地财;
 或治丝麻以成之; 坐而论道,
 谓之王公; 作而行之, 谓之士
 大夫; 审曲面执, 以飭五材,
 以辨民器, 谓之百工. . . .⁴³⁹

Of these professions, some sit and elaborate on laws to run the state; some take actions to execute them; some examine the physical features and the natural properties of the five materials in order to prepare the materials for making handicraft products for people; others transport rare objects from the four directions to market for trade; others farm industriously to increase farming crops; still others work with silk and hemp to produce fabrics. Those who sit and elaborate on the laws to run the state are princes and dukes; those who act and execute the laws are ministers and lords; those who examine the five materials to prepare them for making handicraft products are artisans. . . .

Next, the text elaborates on the royal nature of the profession of artisans, claiming that they are responsible for maintaining and carrying on the fine traditions of the sage:

知者创物, 巧者述之守之, 世
 谓之工; 百工之事, 皆圣
 人之作也; 烁金以为刃, 凝
 土以为器, 作车以行陆, 作
 舟以行水, 此皆圣人之所作也⁴⁴⁰

The wise (*zhizhe* 知者) invent objects; the highly skilled (*qiaozhe* 巧者) maintain their traditions and the principles of production and continue them generation after generation; they are called artisans. All the products of artisanship are the work by the sage: melting metals to make cutting edges, molding clay to make utensils, making

1765—1121 BCE). More information may be found in Xiao Nan 萧楠, “Shilun Buci Zhongde Gong yu Baigong 试论卜辞中的艺“工”与“百工” [On “gong” and “baigong” in oracle-bone inscriptions], *Kaogu* 1981 Nian Di 3 Qi 考古 1981 年第 3 期 [Archeology, 3 (1981)]: 266.

⁴³⁸ Wenren, drawing on Zheng Xuan, thinks the five materials (*wucai* 五材) are metal, wood, animal skin, jade, and clay, which the five operations of artisanship deal with in the text. For details, see Wenren Jun 闻人军, *Kaogong Ji*, 2.

⁴³⁹ Wenren, *Kaogong Ji*, 1.

⁴⁴⁰ *Ibid.*, 1.

chariots for travel by land, and making boats for crossing water.

Then, the text sets forth the four necessary conditions of fine artisanship:

天有时，地有气，材有美，
工有巧，合此四者，然后可
以为良；材美工巧，然而不
良，则不时，不得地气也⁴⁴²

The heavens have their seasons, the earth has its power,⁴⁴¹ materials have their fine properties, and artisans have their skills. Combining these four delivers good products. So, though materials are fine and artisans are skillful, the product is not necessarily good if they do not observe the cycles of the seasons and fail to succumb to the power of the earth.

In the above paragraphs which function as the general introduction to the entire manual, the text first defines 百工 (*baiguan* artisans), which clearly forms one of the six royal court professions; thus, artisanship is not privately practiced. The text also introduces the job duties of the artisans. Unlike princes, dukes, ministers, and lords, who work with royal court laws and policies; artisans work with materials to make handicraft products for people.

What follows is the 30 sections which identify the 30 job titles of the court artisans, which define their job duties and spell out various techniques of production, and which describe, in technical terms, various parts of a product of artisanship.

As I have briefly introduced in the above paragraphs, the profession of artisanship consists of six operations; each operation in turn consists of a set of job titles for a set of job duties performed by specific artisans with their own areas of expertise. There are seven job titles for woodwork artisans, six for metalwork artisans, five for skin-work artisans, five for dyeing artisans, five for polishing artisans, and finally, only two for clay-modelling artisans. An artisan with a specific job title may perform more than one job duty. For example, a wheelwright makes chariot wheels, but

⁴⁴¹ Here I translate *qi* 气 as “power,” because the text is discussing local influences exerted by the materials, i.e., local (geographical and geological) factors. Artisans must consider these local factors when choosing materials for making artisanship products.

⁴⁴² Wenren, *Kaogong Ji*, 4.

he also makes the chariot umbrella. In other words, one artisan with a specific job title may have expertise in several areas.

One problem with the structure of the text is that information in the 30 sections is not organized in the same order as indicated in the classification of the operations in the general introduction. In other words, in the general introduction, the job titles of the artisans are organized by the operations they specialize in, so that there are six operations. In the descriptive sections this order is not completely honored. For example, the operation of woodworking is separated into two groups: the first three job titles appear at the beginning of the descriptive sections while the final five appear at the end of the descriptive sections.⁴⁴³ Arrangement of job titles within one operation as indicated in the general introduction is not always honored, either. For example, “sword makers” appears as the final job title in the operation of “metalworking” in the general introduction, but it appears as the third job title described in the descriptive sections. Failure to follow the order as predicted in the general introduction frustrates readers’ expectations. And it is not clear why information in the thirty sections is arranged the way it is. Table 7-1 shows the discrepancy, which is immediately observable if we compare the two different ways of arranging information.

Nevertheless, the “Accounts of Examining Artisanry,” by arranging artisans’ job titles and job duties into six large groups, actually classifies information in a way that helps readers locate information more easily. In the late Spring and Autumn period (770—481 BCE) when the text was being composed, the authority of the Zhou Royal Court over the various feudal states was greatly challenged by the major dukes, who, by annexing smaller states, established many de-facto semi-autonomous states. These semi-autonomous states waged wars with each other for more power and more land, defying the Zhou King’s authority. This period was marked with frequent wars of conquest and annexation; thus the demand was high for more chariots and carts that could be used in wars of conquest and annexation. So the operation of chariot making was flourishing, and with it, various other operations served to meet the central or peripheral needs of chariot making, such as wheel making, cart making, cart umbrella making,

⁴⁴³ As I have already pointed out at the beginning of this section, “makers of curved carriage shafts” (*zhouren* 辀人) could have split off from chariot body builders (*yuren* 舆人). So instead of only seven job titles as the general introduction shows, the descriptive sections describe eight job titles in the group of woodworking.

Table 7-1 Job Titles of Artisans as Arranged in the General Introduction and in the Descriptive Paragraphs

In the General Introduction		In the Descriptive Sections	
Wood-working	Wheelwrights	1 st Three Woodworking Job Titles	Wheelwrights
	Chariot Body Makers		Chariot Body Makers
	Bow Producers		Carriage Shaft Makers
	Hilt Makers	Metalworking	Dagger Makers
	House Builders		Arrowhead, Spear, and Halberd Makers
	Plow Handle and Cart Makers		Sword Makers
Stand, Utensil, and Archery Target Makers	Bell Makers		
Metal-working	Dagger Makers	Working with Animal Skin	Measure Makers
	Arrowhead, Spear, and Halberd Makers		Farming Tool Producers
	Bell Makers		Armor Makers
	Measure Makers		Skinners
	Farming Tool Producers		Drum Makers
Working with Animal Skin	Sword Makers	Coloring	Tanners
	Armor Makers		Furriers
	Skinners		Drawers and Painters
	Drum Makers		Feather Dyers
	Tanners		Fabrics Printing and Dyeing Artisans
Coloring	Furriers	Sanding and Polishing	Silk Processing Artisans
	Drawers		Jade Workers
	Painters		Comb Makers
	Feather Dyers		Carvers
	Fabrics Printing and Dyeing Artisans		Stone-chime Makers
Sanding and Polishing	Silk Processing Artisans	Clay Modelling	Arrow Makers
	Jade Workers		Pottery Makers
	Comb Makers		Porcelain Producers
	Carvers		Stand, Utensil, and Archery Target Makers
Clay Modelling	Arrow Makers	Last Five Woodworking Job Titles	Hilt Makers
	Stone-chime Makers		House Builders
	Pottery Makers		Plow Handle and Cart Makers
	Porcelain Producers		Bow Makers

painting, polishing, and animal skin processing, to name just a few.⁴⁴⁴ The demand for more chariots led to the development of new areas of expertise, a situation, which, in turn, demanded coordination and cooperation among various workers with these areas of expertise. In response to this situation and creation of news of expertise, the text of “Accounts of Examining Artisanry” organizes the profession of artisanry into six groups of operations, and further classifies these six groups into discrete areas of specialization. The general introduction clearly states that the chariot is “the product that requires cooperation among the most number of artisans with different areas of expertise” (*gu yiqi er gongjuyanzhe, che wei duo 故一器而工聚焉者，车为多。*)⁴⁴⁵

This classification of artisans’ areas of expertise into increasingly discrete entities represented the first such rhetorical strategy of the arrangement of information in the history of Chinese technical writing; the “Accounts of Examining Artisanry” was thus the first technical writing text in the Chinese tradition that employed this rhetorical strategy in its arrangement of information. Arrangement of information in such a way strengthens organization and renders information more accessible and memorable, especially in technical writing texts.

The “Accounts of Examining Artisanry” as a Handbook

As we may have learned from the previous section, the “Accounts of Examining Artisanry,” as a management handbook, first defines the vision of the management, the guiding principle, and the scope of the project to be managed. The vision suggests that the management handbook is composed because it is necessary to manage the work of artisans, one of the six state professions. The guiding principle is that the work of artisans must follow the rhythms of the four seasons. The scope clearly shows that

⁴⁴⁴ Dai Wusan 戴吾三 and Deng Mingli 邓明立, “*Kaogong Ji de Jishu Sixiang*” “考工记”的技术思想 [Technological thought in “*Kaogong Ji*”], *Ziran Bianzhengfa Tongxun* Di 18 Juan 1996 Nian Di 1 Qi 自然辩证法通讯第十八卷 1996 年第 1 期 [*Journal of Dialectics of Nature* 18, no. 1 (1996)]: 39. Dai and Deng also claim that production of chariots represented the high-end craftsmanship of mechanic manufacturing of a state at that time, so cooperation and division of labor, as a guiding technological principle, was reflected in the production of chariots. But because as some scholars have pointed out, the text has no practical values and that the manual was never used in reality to guide readers to build chariots, this technological thought of cooperation and division of labor existed in theory only.

⁴⁴⁵ Wenren, *Kaogong Ji*, 11.

the court officials manage 30 job duties grouped in six operations. Then based on these 30 job duties, the handbook focuses on different aspects of the work of artisanry.

Providing Specifications and Instructions and Describing Various Techniques

As a handbook, the “Accounts of Examining Artisanry” attempts to focus on providing instructions for the readers to follow when they are performing a task. The text seems to follow a road map. First, once the artisans’ areas of specialization are classified into discrete entities, the descriptive sections, though an aggregate of many paragraphs, describe each of their areas of expertise section by section, which always begins with a sentence that identifies the job title of artisans followed by the job duty performed by the artisans with the job title. Then the section provides the specifications of various parts of the product of artisanry and some techniques of producing the product.

For example, the first section defines the job title of “wheelwrights” and their job duty as “making cart wheels.” Then it describes the parts of a cart wheel such as *gu* (毂 hub), *fu* (辐 spoke), and *ya* (牙 fellyes) and various techniques of production such as “dividing the diameter of the wheel by six and then one sixth will be the circumference of the *ya*” (是故六分其轮崇，以其一为之牙围).

The wheelwrights have another job duty to perform: making chariot umbrellas (*gai* 盖).

轮人为盖，达常围三寸，程围倍之，六寸。信其程围以为部广，部广六寸。部长二尺，程长倍之，四尺者二。十分寸之一，谓之枚，部尊一枚，弓凿广四枚，凿上二枚，凿下四枚，凿深二寸有半，下直二枚，凿端一枚。弓长六尺谓之庇积，五尺谓之庇轮，四尺谓之庇軫，参分弓长而揉其一，参分其股围，去一以为蚤围。参分弓长，以其一为之尊，上欲尊而宇欲卑，上尊而宇卑，则吐水，疾而雷远。盖已崇，则难为门也，盖也卑，是蔽目也。是故盖崇十尺，良盖弗冒弗纒，殷亩而驰，不队，谓之国工。⁴⁴⁶

Wheelwrights produce chariot umbrellas. The upper part of the umbrella pole (*dachang* 达常) is three *cun* 寸 in circumference.⁴⁴⁷ The lower part of the pole (*ting* 程) is six *cun* in circumference. The circumference of the

⁴⁴⁶ Wenren, *Kaogong Ji*, 26.

⁴⁴⁷ *Cun* 寸 is a Chinese measuring unit of length, about 2.3 centimeters.

ting is the diameter of the pole hub (*buguang* 部广),⁴⁴⁸ which is six *cun*. The pole hub and the upper part of the umbrella pole combined are two *chi* 尺 in length,⁴⁴⁹ while the lower part of the umbrella pole consists of two sections, with each section being four *chi* in length. One tenth of a *cun* is one *mei* 枚; the top of the pole hub rises one *mei* above the umbrella; the mortise that receives an umbrella rib is four *mei* in width; the space above the mortises on the pole hub is two *mei* wide while that below is four *mei* wide; each mortise is two *cun* and a half deep; it narrows gradually so that its end inside the pole hub is two *mei* wide and one *mei* high. The umbrella whose ribs are six *chi* in length is large enough to cover the wheel hubs; that with five-*chi* ribs is large enough to cover the two wheels; that with four-*chi* ribs is large enough to cover the chariot body. A rib should curve slightly downward at one third of its length near the pole hub; two thirds of the perimeter of the end of a rib that fits into a mortise is the perimeter of the other end of the rib. The difference between the height of the top of the pole hub and that of the outer ends of the ribs is one third of the length of a rib.⁴⁵⁰ The ends of the ribs close to the pole hub are higher than the outstretched ends so that rain water is channeled away faster and thus lands further away. If the pole is too high, then it cannot pass the city gate; if it is too low, it will block the eyes of the passengers; thus, it is ten *chi* from the ground. A well-made chariot umbrella, without the pole hub cover or strings to tie the outer stretch of the umbrella to the outer ends of the ribs, will not fall apart when the chariot goes on bumpy roads in farmland. Then, the workers who made such an umbrella are truly the master artisans.

Several points about the above paragraph on “wheelwrights” are worth noting here. First, the paragraph defines the job duty of a wheelwright: making chariot umbrellas. In this way, readers of the handbook know that this paragraph discusses another job duty performed by wheelwrights. Then, the paragraph provides specifications of each major part of an umbrella. In this way, the handbook actually establishes technical standard in regard to artisanship of making chariot umbrellas. As Falkenhausen has pointed out, while discussing the values of this classic, the *Rituals of Zhou* has been used as a blueprint for a perfect government.⁴⁵¹ In a similar vein, we might argue that the handbook is making a blueprint for a perfect chariot umbrella by spelling out the specifications. These specifications establish uniform technical criteria and thus standard for wheelwrights to

⁴⁴⁸ The pole hub sits on top of the upper part of the umbrella pole, into which are inserted the ribs of the umbrella.

⁴⁴⁹ *Chi* 尺 is another measuring unit of length in the Chinese tradition, ten *cun*.

⁴⁵⁰ This description actually points out the perpendicular distance between the top of the pole hub and the out-stretched ends of the ribs.

⁴⁵¹ Falkenhausen, “Wenren Jun,” 100.

observe, in contrast to *de facto* standard, something that is based on convention. Looked at in this way, the “Accounts of Examining Artisanship” is perhaps the first technical writing document that establishes informal technical criteria for its readership.

Second, the text also seeks to provide instructions to help readers perform a task through describing some techniques for making a chariot umbrella. For example, “a rib should curve slightly downward at one third of its length near the pole hub.” This sentence tells the reader that an artisan, when making a rib, should bend it slightly down at one third of its length near the pole hub so that rain water is channeled away faster and farther.⁴⁵² This technique takes advantage of an inclined plane, on which rain water moves down faster, and thus it is thrown farther away by the inclined plane.⁴⁵³

Then the paragraph alerts readers to the potential problems artisans might encounter when making chariot umbrellas: the pole is either too high to too low. If either occurs, the umbrella is not usable.

Finally, the last sentence of the above paragraph might suggest that master wheelwrights do not use either fasteners or glue to join different parts of an umbrella, because even with jolting when the chariot goes on a bumpy road, the umbrella which is well made, without using strings or the hub cover, will not fall apart.

Selecting Materials for Making Products

Throughout the text, the “Accounts of Examining Artisanship” also advises readers how to choose and treat materials so that they can be properly used in production. For example, the section on “bow makers” guides readers to choose and treat materials for making bows:

引人为弓，取六材必以其时，六材既聚，巧者和之。干也者，以为远也；角也者，以为疾也；筋也者，以为深也；胶也者，以为和也；丝也者，以为固也；漆也者，以为受霜露也。凡取干之道七：柘为上，楸次之，檠桑次之，橘次之，木瓜次之，荆次之，竹为下。凡相干，

⁴⁵² This technique creates a sloped surface of the umbrella. Rain water slides on this surface faster, and after it leaves this surface, it travels on a trajectory and thus lands farther away from the chariot.

⁴⁵³ Du Zhengguo 杜正国, “*Kaogongji Zhongde Lixue yu Shengxue Zhishi* 考工记中的力学与声学知识” [Knowledge of mechanics and acoustics in “*Kaogongji*”], *Wuli Tongbao* 1965 Nian Di 6 Qi 物理通报 1965 年第 5 期 [Bulletin of Physics, no.6 (1959)]: 257.

欲赤黑而阳声，赤黑则乡心，阳声则远根；凡析干，射远者用执，射深者用直。居干之道，蓄栗不弛，则弓不发。⁴⁵⁴

Bow makers make bows. Collection of the six types of materials must observe the seasonal cycles. After obtaining all the materials, artisans with fine skills assemble them to make bows. Wood ensures long-range shooting; horn accelerates arrow flight; sinew enhances arrow penetration; glue joins all the parts of a bow; silk-biding makes the bow sturdy; lacquer protects the bow from frost and dew. Wood has seven grades: mulberry (*cudrania tricuspidata*) is the primary choice; Chinese catalpa (*catalpa ovata*) is the second choice; white mulberry (*morus alba*) is the third choice; orange (*citrus sinensis*) is the fourth choice; Chinese quince (*chaenomeles sinensis*) is the fifth choice; Chinese chaste tree (*Vitex negundo*) is the sixth choice; bamboo (*bambusa vulgaris*) is the seventh choice. When selecting wood, select dark red, which sounds crisp and clear when knocked on. Red-dark wood is close to the center of the rings; crisp-and-clear sounding wood is away from the roots. When cutting wood for making the bow, choose the curved for fast arrow flight while choosing the straight for arrow penetration. When sawing wood, avoid damaging wood grain so that the arrow won't go astray from its trajectory.

This passage first stresses the important point that artisans must observe the natural cycles of the four seasons when collecting materials for making the bow. Then it describes the functions of the six types of materials. The text also classifies wood into seven grades, and clearly, mulberry is the best and bamboo is the last choice. Finally, the text advises readers as to “how to” select wood: “whatever grade of the wood, choose the one that looks ‘dark red’ and which ‘sounds crisp and clear’.” Where could artisans find such wood? Dark red wood is near the center of tree rings while crisp-and-clear sounding wood is always away from the roots. How should they treat wood? They should not damage wood grain when cutting it; otherwise, the arrow will deviate from its trajectory.

I use quotation marks for “how to” because the text does not advise readers how to perform a job in the same sense as we understand it today. For example, the text does not spell out the steps artisans can take to select dark red wood, not does it specify the actions artisans may take to avoid damaging wood grain. In other words, the text is more descriptive than instructive when advising its readers to perform a task. This rhetorical strategy is similar to the one employed in the passage on building the chariot umbrella I have quoted above. There, the text intends to instruct readers to perform the job of building a chariot umbrella by describing the

⁴⁵⁴ Wenren, *Kaogong Ji*, 134.

techniques for performing the job instead of specifying the actions they can take to perform the job. I call this rhetorical strategy “suggestiveness” of the “Accounts of Examining Artisanry.” That is, the text does not directly instruct artisans what to do; instead, it suggests what artisans should do by describing the materials they use, or the major parts of the product they make.

Checking Finished Products

Quality control is another noteworthy component of the “Accounts of Examining Artisanry.” It is important to finish making an artisanry product according to the specifications, and it is equally important to check the finished product to ensure that it indeed meets the standard. For example, the text shows us how to check wheels:

望而眡其轮，欲其幪尔而下迤也。⁴⁵⁵ 进而眡之，欲其微至也。无所取之，取诸圜也。望其辐，欲其掣尔而纤也。进而眡之，欲其肉称也。无所取之，取诸易直也。望其毂，欲其眼也，进而眡之，欲其峙之廉也。⁴⁵⁶

At a distance, one sees that the wheel rotates perfectly and does not wobble so that its rim touches the ground smoothly without causing any vibrations; a closer look should reveal that when the rim touches the ground, the contact area is very small. This check is to make sure that the wheel is perfectly circular in shape. At a distance, one sees that the spokes taper towards the rim of the wheel, like a human arm tapering down; a closer look reveals that the spokes are smooth and are equally thick. This check is to make sure that the spokes are straight. At a distance, one sees that the hub of the wheel looks like a bulging eye, uniformly smooth. A closer look reveals the edges and corners covered with leather. This check ensures that leather covers the hub securely and tightly.

All the checks and examinations described in the above passage are performed with the naked eye without assistance of any instruments. Three parts are checked, each through two methods: look at it at a distance and

⁴⁵⁵ Wenren Jun 闻人军 claims this sentence is one of the points in the text that is hard to understand, thus defying interpretation. More discussions about this difficult point can be found in Wenren Jun 闻人军, *Kaogong Ji*, 18—19. To support his claim, Wenren invokes Sleeswyk, who explains that the text here refers to a Moire Pattern. He also quotes Needham who thinks that the wheel resembles a hanging curtain, “curving downwards with a beautiful smoothness.”

⁴⁵⁶ Wenren, *Kaogong Ji*, 17.

examine it at close range. These two methods focus on different aspects of the same part—looking at a part at a distance produces the general impression of the part, while looking at it at close range reveals details of the part. Most of the examinations and checks which the text describes are performed with the naked eye. This is understandable, because at the time not many instruments were available for artisans to use.

However, the text does mention several instruments that artisans can utilize when examining and checking their products. They could also utilize naturally available means to check products. For example, artisans could use several instruments and naturally available means to check a completed chariot wheel:

是故规之以眡其圜也，萬之以眡其匡也。县之以眡其幅之直也，水之以眡其平沈之均也，量其藪以黍，以眡其同也，权之以眡其轻重之侔也。⁴⁵⁷

Thus, use a pair of compasses to measure the wheel to see if it is out of round; use a truing modulator (萬 *Ju*, a.k.a. 正轮器 meaning wheel trueness correcting instrument) to check the wheel to see if it spins straight and round; use a rope to check to see if two spokes coming from the opposite sides of the hub line up; place the wheel in water to see if its weight is evenly distributed; ⁴⁵⁸ fill with broomcorn millet seed the holes receiving the spokes in the hub to find out if the holes are of the same volume; ⁴⁵⁹ use a weighing scale to weigh the wheels to see if they are of the same weight.

The above passage clearly indicates that at least as early as the late Spring and Autumn period (770—481 BCE) when the text was being composed, compasses, truing modulators, and weighing scales were already available for the artisans to use in production. Meanwhile, the artisans could also take advantage of water and millet seed to help themselves to check the weight and volume of their products. Obviously, the text gives sufficient attention to selecting materials for the products so that quality materials are used; it also stresses the steps of examining the products so that the products meet the standards set by the sage, because “All the products of artisanship are the work by the sage.” These steps of selecting materials and checking products represent the earliest quality control activities by

⁴⁵⁷ Wenren, *Kaogong Ji*, 23.

⁴⁵⁸ If not, then the upper plane of the wheel that is afloat in the water will not be parallel to the water’s surface.

⁴⁵⁹ Fill up a hole with a certain number of broomcorn millet grains, and then, if they fill up another hole, then these two holes are of the same volume.

the Chinese artisans. It seems that their quality control intends, among other things, to show their deference to the sage.

Observing the Zhou Rituals

As a chapter inserted into the *Rituals of Zhou* as a replacement for the lost final chapter, and as a handbook for use by the Royal Court officials in charge of court artisans, the “Accounts of Examining Artisanship” certainly also gives enough attention to the social ranks of the end users of the products. Throughout the text, the handbook clearly indicates that officials at different levels are entitled to products that are appropriate to their ranks. For example, the section on making bows clearly pronounces that bows have three grades:

为天子之弓，合九而成规；
为诸侯之弓，合七而成规；
大夫之弓，合五而成规
士之弓，合三而成规⁴⁶⁰

Nine of the bows for the King form a complete circle; seven of the bows for the lords form a complete circle; five of the bows for the ministers form a complete circle; three of the bows for warriors form a complete circle.⁴⁶¹

In the above passage, numbers represent users’ social ranks; therefore the bows as specified by the numbers represent not only the artisanship that went into their making but also the power and the authority of the users of the bows. In Chinese culture, the number nine seems to be related to the sacral character of kingship. Jing discusses symbols and functions of the Nine Cauldrons 九鼎 in the pre-Qin dynasties, claiming these cauldrons “legitimize political succession.”⁴⁶²

The section on building cities and city walls prescribes the size of the walls and gate tower for the official at different levels:

门阿之制，以为都城之制；
宫隅之制，以为诸侯之城制；
环涂以为诸侯经涂，野涂以

The height of the Imperial city gate tower should be the height of the city walls of the cities of the ministers;

⁴⁶⁰ Wenren, *Kaogong Ji*, 144.

⁴⁶¹ In other words, the length of the King’s bow is 1/9 of the circle’s circumference. That of the lords’ is 1/7; that of the ministers’ is 1/5; that of the warriors’ is 1/3. Wenren Jun believes that the finer the material is, the smaller the degree measure of the bow is. See Wenren Jun 闻人军, *Kaogong Ji*, 147.

⁴⁶² Jing, *Mysticism*, 46.

为都经涂⁴⁶³

the height of the watchtowers of the Imperial city should be the height of the walls of the cities of the enfeoffed lords. The streets in the cities of the enfeoffed lords are seven lanes wide, the same as the ring road in the capital city, while the streets in the cities of the ministers are five lanes wide, the same as the country road outside the capital city.

Again, in the above invoked passage, the numbers represent the social ranks of the owners of the cities. These numbers that symbolize the social status actually create a hierarchy—an institutional and social hierarchy—in the design and production processes: the more, the better; the higher, the better. The *Classic of Rituals* 礼记 unmistakably announces that, “In rituals, the quantity serves as the mark of distinction: The Son of Heaven is entitled to seven ancestral temples; the enfeoffed lords, five; ministers, three; petty officials, one.”⁴⁶⁴ Elsewhere, the *Classic of Rituals* tells that sometimes, “the size serves as the mark of distinction in rituals. . . . and sometimes, the height serves as the mark of distinction: the Son of Heaven’s hall is ascended by nine *chi* 尺;⁴⁶⁵ the halls of enfeoffed lords, by seven; of ministers, by five; of petty officials, by three.” As rituals of the Zhou dynasty, they must be observed. The “Accounts of Examining Artisanship” is applying these rituals to production, for the artisans to observe.

Giving Attention to Human Factors

Ergonomics, though perhaps very primitive ergonomics, is also noteworthy in the text. In quite a few sections, the text gives attention to human physical characteristics and applies them to the design of products of artisanship. In the general introduction, the text alerts the readers to the issue of fit between users and products:

⁴⁶³ Wenren, *Kaogong Ji*, 118.

⁴⁶⁴ Wu and Lai, *Baihua Sishu*, vol. 3, 541.

⁴⁶⁵ *Chi* is a Zhou dynasty unit of length, equal to about 20 centimeters, but here it refers to “one step.” In other words, a nine-step stairway leads up to the hall of the Son of Heaven; a seven-step stairway, the hall of an enfeoffed lord; a five-step stairway, the hall of a minister; a three-step stairway, the hall of a petty official.

轮已崇，则人不能登也，轮已庳，则於马终古登阨也。故兵车之轮六尺有六寸，田车之轮六尺有三寸，乘车之轮六尺有六寸；六尺有六寸之轮，轂崇三尺有三寸也，加轮与轡焉，四尺也。人长八尺，登下以为节。⁴⁶⁶

If the wheels are too large, then passengers will find it hard to step into the chariot body; if it is too small, then horses must work hard, as if they were ascending a slope. So the wheel of a warfare chariot is ideally six *chi* and six *cun* in diameter;⁴⁶⁷ that of a hunting chariot, six *chi* and three *cun*; that of a passenger chariot, six *chi* and six *cun* as well. If the wheel is six *chi* and six *cun* in diameter, then from the center of the hub to the ground it is three *chi* and three *cun*; then, plus the thickness of the bottom of the chariot body and the width suspension (*bu* 轡),⁴⁶⁸ it is exactly four *chi* from the ground to the bottom of the chariot body, which will make it very easy for an eight-*chi*-tall passenger to step in.⁴⁶⁹

We cannot be sure whether during the Spring and Autumn period (770—481 BCE), Chinese product designers already knew the various disciplines such as psychology, sociology, engineering, kinesiology, and visual rhetoric that go into the field of ergonomics, but at least we are sure that the text here deals with the ‘fit’ between users and the chariot wheel in the design process. We can also claim with some confidence that the design as described in the text is based on users’ experiences and physical characteristics.

The section on “hilt makers” warns the reader that weapons should not be made too long:

凡兵无过三其身，过三其身，弗能用也，而无已，又以害人⁴⁷⁰

The length of a weapon should not exceed the holder’s height three times; if it does, then it is useless. In addition, it will injure the holder.

⁴⁶⁶ Wenren, *Kaogong Ji*, 14.

⁴⁶⁷ *Cun*, a Zhou dynasty unit of length, is one tenth of a *chi*.

⁴⁶⁸ This *bu* is a piece that looks like a crouching rabbit, so it is also called “*futu*” 伏兔 (crouching rabbit), with a flat top and a concave bottom which fits the curve of the axle. It is inserted between the axle and the chariot body to secure the body and protect the bottom of the body from being worn by the axle. Meanwhile, it also absorbs some shock, thus working like a suspension. For more discussion regarding the use of *bu*, refer to Wenren Jun 闻人军, *Kaogong Ji*, 15.

⁴⁶⁹ In ancient China, an 8-*chi*-tall person was about 1.6 meters tall.

⁴⁷⁰ Wenren, *Kaogong Ji*, 106.

This is an interesting exposition because most of us tend to think that the longer a weapon is, the better, especially a spear or a halberd. However, the text clearly tells us that a weapon should not be too long. It does not function if it is more than three times longer than the holder's height, probably because the holder won't be able to hold the weapon steadily and thus won't be able to attack enemies. So the design of a weapon as the text describes not only gives attention to ergonomics, but it also takes into account military tactics.

On designing bows, the “Accounts of Examining Artisanry” reminds its readers that a bow should also fit its user's height:

弓长六尺有六寸，谓之上制，
上士服之；弓长六尺有三寸，
谓之中制，中士服之；弓长六尺
谓之下制，下士服之⁴⁷¹

A bow of six *chi* and six *cun* in length is called a long-form bow, used by a soldier of tall stature; a bow of six *chi* and three *cun* in length is called a medium-form bow, used by a soldier of medium stature; a bow of six *chi* in length is called a short-form bow, used by a soldier of low stature.

The same philosophy is at work here: the ‘fit’ between a product and its users. Ergonomics, as we have seen in the above passages, is still at its primitive stage, because it takes into account human physical features and user experience only; nevertheless, its message is loud and clear: design should optimize the overall function of the products and their users' performance and well-being.

Oneness of Nature and Humans: The Handbook's Guiding Principle

In the general introduction to the “Accounts of Examining Artisanry,” as I have discussed at the beginning of this chapter, the text introduces the four necessary conditions of good artisanry: right seasons, local influences, fine materials, and skillful artisans. Here lies the ancient Chinese product design philosophy—oneness of nature and humans 天人合一。As we have seen in the previous chapters, this philosophical thought has repeatedly appeared in the works and texts from various periods in Chinese antiquity. It is most clearly elaborated in the “Monthly Commands,” which tells us that humans must correlate their activities with

⁴⁷¹ Wenren, *Kaogong Ji*, 144.

the cycles of the seasons, or disasters will occur. The “Accounts of Examining Artisanship” corroborates this ancient Chinese philosophy by spelling it out in the general introduction. This philosophical thought is then manifest in the various techniques for the artisans the text describes.

Often, the handbook emphasizes the importance of the four necessary conditions of fine artisanship which the general introduction has set forth. For example, at the end of the descriptions of the job duties of the wheelwrights, chariot body makers, makers of curved carriage shafts (*zhouren* 辘人), and the specifications of various parts of a chariot, the handbook summarizes the implications of the specifications for making a chariot, not necessarily mechanically or technically, but philosophically and cosmologically:

轸之方也, 以象地也;
盖之圆也, 以象天也;
轮辐三十, 以象日月也;
盖弓二十有八, 以象星也;
龙旂九旒, 以象大火也;
鸟旂七旒, 以象鹑火也;
熊旗六旒, 以象伐也;
龟蛇四旒, 以象营室也;
弧旌枉矢, 以象弧也⁴⁷²

The chariot body is square so that it resembles the earth; the chariot umbrella is circular so that it represents the sky; the wheel spokes number thirty in all, which correspond to the number of days in a moon; the ribs of the umbrella number twenty-eight, representing the twenty-eight asterisms or mansions (*xingxiu* 星宿);⁴⁷³ the dragon banner has nine pendant streamers to represent the Tail Mansion (*weixiu* 尾宿);⁴⁷⁴ the falcon banner has seven pendant streamers to symbolize the Willow Mansion (*liuxiu* 柳宿);⁴⁷⁵ the bear banner has six pendant streamers to resemble the Mansion of Three Stars (*sanxiu* 参宿);⁴⁷⁶ the snake-and-tortoise banner has four pendant streamers to symbolize the Encampment Mansion (*shixiu* 室宿);

⁴⁷² Wenren, *Kaogong Ji*, 37-38.

⁴⁷³ For more information on star mansions (*xingxiu* 星宿), refer to Chapter 5.

⁴⁷⁴ The Tail Mansion consists of nine stars.

⁴⁷⁵ The Willow Mansion has seven stars in it.

⁴⁷⁶ The Mansion of Three Stars has six stars in it.

⁴⁷⁷ the bow banner with a shot arrow
represents the Well Mansion. ⁴⁷⁸

The theory that “the sky was round and the earth was flat underneath it” (*Gaitian Shuo* 盖天说, meaning that the theory of the sky as a cover) can be traced back to the beginning of the Zhou dynasty (1026—256 BCE) and further developed with the appearance of a text on cosmology and mathematics *Zhoubi Suanjing* 周髀算经, which corrected the original theory by claiming that the sky was actually a dome, a hollowed upper half of a sphere, which covered the earth, which was a square, underneath it, sloping towards the four sides and four corners. ⁴⁷⁹ *Zhoubi Suanjing* further elaborated on this theory by asserting that “the heavens are round in shape like an open umbrella, while the earth is square like a chess board.”⁴⁸⁰

In perfect accordance with the arrangements of the stars and planets of the cosmos, the chariot resembles a miniature universe. It is not very important to determine if this cosmological idea guides the building of the chariot, or this idea is generated from the specifications of the chariot. Either way, the fact that this idea is clearly spelled out in this handbook suggests that the handbook manifests this ancient philosophical thought. What is more significant is that the chariot corresponds to the cosmos in its design, and that this cosmological idea is shown in the artisanship of the chariot. Some researchers argue that this cosmological idea as reflected in the design of a chariot has no practical values in terms of design and production,⁴⁸¹ but I would like to move beyond this argument to propose that the idea represents the philosophical thought of “oneness of nature and humans” so that the chariot, a man-made handicraft, in its design and

⁴⁷⁷ The Encampment Mansion has four stars in it. The number shows the social rank of the passenger. The larger the number is, the higher the social rank of the passenger.

⁴⁷⁸ The Well Mansion has nine stars in it. Eight of the stars form the shape of a drawn bow while the other star represents the shot arrow.

⁴⁷⁹ More discussion regarding the shape of the cosmos can be found in Du Shiran 杜石然 et al., *Zhongguo Kexuejishi Shigao*, 178—79. There is a vast amount of scholarship on this early theory of cosmology in the Chinese tradition. A fascinating and perspicacious study of the shape of the cosmos may be found in Joseph Needham, *Science and Civilisation in China*, vol. 3 (Cambridge: Cambridge University Press, 1965), 210—24.

⁴⁸⁰ Joseph Needham, *Science and Civilisation in China*, vol. 3, (Cambridge: Cambridge University Press 1965), 213.

⁴⁸¹ Chen, Liping 陈丽萍 and Huang Bozhang 黄伯璋. “Kaogong Ji Sheji,” 67.

production, corresponds to nature by employing natural geometrical shapes and the number of cosmological bodies. It suggests that the artisans and their supervisors are influenced by the philosophical thought of “oneness of nature and humans.” In addition, it also has practical values in design and production; the chariot would not function well if it employed a round body and a square umbrella. The number of pendant streamers would not show the social status of the passenger clearly if it were something else.

This philosophical thought is made manifest elsewhere in the text. In the section where the job duty of house builders (*jiangren* 匠人) is defined and where the capital city layout is described, this philosophical thought is also at work:

匠人营国; 方九里, 旁三门;
国中九经九纬, 经涂九轨,
左祖右社, 面朝后市,
市朝一夫⁴⁸³

Builders plan the construction of the capital city. The capital city forms a square, with each side being nine *li*,⁴⁸² and having three gates in it. In the city, nine streets run in an east-west direction while nine run in a north-south direction. Each street is wide enough to allow nine chariots to go side by side. On the left of the royal court is the ancestral temple, while on the right is the altar of the land. The court is located in the front of the imperial city and in the rear are the market places. The court and each market place are 10000 square steps.

One issue facing the rulers of ancient China was to maintain social order. Ancient Chinese people advocated social harmony and shunned social chaos which was caused by disruptions to unity of nature and human society.⁴⁸⁴ So ancient Chinese philosophers “pursued cosmological harmony through thoughtful architecture and land use.”⁴⁸⁵ Driven by this thought, the Imperial court was always thought to be the center of the universe, surrounded by various subservient social classes in circles radiating from the center, with the barbarians living in the outmost circle.

⁴⁸² *Li* 里 is a Chinese unit of distance, equal to half a kilometers in present day.

⁴⁸³ Wenren, *Kaogong Ji*, 112.

⁴⁸⁴ Fung, *A Short History*, 132—35.

⁴⁸⁵ D. Williams, “The Barbed Walls of China: A Contemporary Grassland Drama,” *The Journal of Asian Studies* 55, no. 3 (1996): 669.

The Imperial court and various social classes were demarcated by massive walls and indicated by buildings and other structures within the walls.

The earliest description of the location of the capital city is perhaps found in “Yu Gong” 禹贡, Tribute to Yu, a chapter in the *Classics of Documents* 书经.⁴⁸⁶ There, Yu the Great 大禹, the great flood-control hero and the father of Qi 启 (r. ca. 2196—2186 BCE), the founder of the Xia dynasty (ca. 2204—1765 BCE), disposed the lands in order, and then at the end of this chapter, Yu Gong describes the map of the world, portraying the ideal location of the capital city, which is situated right at the center of six concentric squares.⁴⁸⁷ The capital city at the center represents civilization while the outmost square represents cultureless savagery. This division of the land is oriented according to the four cardinal directions of the cosmos.⁴⁸⁸

The above quoted passage from the “Accounts of Examining Artisanry” portrays the map of the capital city as the center of the land, where the royal court is situated in the center of the city, surrounded by altars, temples, and market places. Occupying the central position suggests that the royal court is the center of the universe, which helps maintain cosmological harmony, thus social order. Its city layout corresponds “to the cardinal orientations of the cosmos.”⁴⁸⁹

“Oneness of nature and humans” is also reflected in the section on “painters and embroiderers.” The very first few sentences of the section on “painters and embroiderers” clearly describes their duty:

画绩之事, 杂五色; 东方谓之青,	The job of painters and embroiderers
南方谓之赤, 西方谓之白,	is to mix and synthesize the five colors.
北方谓之黑, 天谓之玄, 地谓之黄	East is blue; south is red; west is white;
.....	north is black. The sky is black-blue,
	The earth is brown.

杂四时五色之位以章之, 谓之巧⁴⁹⁰ A skilled artisan mixes and combines the five colors for the four seasons.⁴⁹¹

⁴⁸⁶ Chapter Four of this book discusses a chapter from this classic. For more information on this classic, refer to Chapter Four.

⁴⁸⁷ Wu and Lai, *Baihua Sishu*, vol. 2, p. 191.

⁴⁸⁸ Jerry Brotton, *A History of the World in 12 Maps*, (New York, Penguin Books, 2014), 127.

⁴⁸⁹ Hui Zou, “The Memory of Landscape in Beijing,” *Montreal Architectural Review* 1, (2014): 7.

⁴⁹⁰ Wenren, *Kaogong Ji*, 68.

The theme of this short passage obviously is both orientation and the four seasons. As we have learned from Chapter Five which discusses “The Monthly Commands,” the four seasons, the four cardinal directions, the five elements, and the five colors, are all connected to each other. In this passage on the job duty of the painters and embroiderers of Zhou royal court, they are correlated to artisan’s job performance. That is to say, their products must manifest the cardinal directions of the cosmos as well as the four seasons. They must also represent the geological division of the land into five parts.

This cosmological orientation is also found elsewhere in the text of the “Accounts of Examining Artisans.” When guiding builders to build the capital city, the text tells them how to determine the east-west orientation:

匠人建国, 水地以县, 置槷以县, 眡以景, 为规, 识日出之景与日入之景, 昼参诸日中之景, 夜考之极星, 以正朝夕⁴⁹²

Builders establish the capital city. To level the ground, use a hanging cord and water. To determine the east-west orientation, first erect a pole, then use a cord to ensure it is plumb, and then observe the shadows of the sun. Next, draw a circle with the pole as the center. Mark the shadows of sun at the point of sunrise and sunset. During the day, look at the shadow of the sun at noon; at night, look at the position of the pole star.

As Dai Wusan 戴吾三 and Gao Xuan 高宣 argue, cosmos orientation was not even considered in building houses and cities in ancient China because it was not essential to human survival.⁴⁹³ The *Classic of Rituals* 礼记 claims that “In the time of our ancestral kings, there were no palaces or houses, so in winter, people lived in caves cut into the side of a hill or mountain, and in summer they lived in nests framed with tree branches and twigs.”⁴⁹⁴ Mozi 墨子 has noted that the guiding principle for building

⁴⁹¹ Spring is blue; summer is red; autumn is white; winter is black; the intercalary season 季夏 between summer and autumn is brown.

⁴⁹² Wenren, *Kaogong Ji*, 110.

⁴⁹³ Dai Wusan 戴吾三 and Gao Xuan 高宣, “Kaogong Ji,” 10.

⁴⁹⁴ Wu and Lai, *Baihua Sishu*, vol. 3, pp. 541. Zheng Xuan 郑玄, in his commentary on the *Classic of Rituals*, believes that “the time of our ancestral kings” refers to “the time of the highest antiquity 上古.” Kong Yingda 孔颖达, in his subcommentary, explains that it was before the reign of Sui Renshi 燧人氏, i.e.,

a house is to avoid disasters: “The base should be high enough to avoid moisture; the four walls should be sturdy enough to repel the cold and wind; the top should be strong enough to defend against snow, frost, rain, and dew.”⁴⁹⁵ Therefore, cosmological orientation was not even a consideration when people were building a house in ancient China, but why does the text of the “Accounts of Examining Artisanry” advise artisans to determine the cosmological orientation before building houses in the capital city? Dai and Gao think that the orientation has more to do with the evolution of the *yin-yang* theory 阴阳学说 and ancient religious ceremonies.⁴⁹⁶ I would like to move beyond this claim to argue that determining the east-west orientation means that the houses built correspond to the cardinal orientations of the cosmos, and therefore, symbolize “oneness of nature and humans.” This is probably what Keightley means, in his discussion of the cosmological orientation of the late Shang dynasty burials, when he proposes that “[the orientation] appears to have derived from some larger, more abstract plan that early cosmologists discerned on earth and in the heavens.”⁴⁹⁷ This “larger, more abstract” plan is the cosmological orientations.

Sometimes, the philosophical thought of “unity of nature and humans” is made manifest in artisans’ specific job performance, particularly when the text describes the natural conditions for artisans to satisfy in order to successfully complete their tasks. The general introduction particularly stresses the important point about satisfying these conditions by providing a couple of examples. For example, the text warns us, “sweet oranges called *ju* grow and mature on the south bank of the Huai River, yet when the orange trees are transplanted to the north of the Huai River, they will bear bitter oranges called *zhi*” (橘逾淮而北为枳.)⁴⁹⁸ Nature conditions everything, including artisans’ work. Thus, when artisans are performing a specific job duty, they must give sufficient attention to the natural conditions. For builders who engage in hydraulic work, knowing where water exists is important. “Geologically speaking, a river must exist in the

before 4464 BCE. For details of Zheng’s and Kong’s commentary and subcommentary on the *Classic of Rituals*, see Zheng Xuan 鄭玄 and Kong Yingda 孔颖达, eds. *Li Ji Zhenyi* 礼记正义, 1416.

⁴⁹⁵ Mozi 墨子, *Mo Zi*, accessed June 28, 2019, <https://ctext.org/mozi/indulgence-in-excess/zh>.

⁴⁹⁶ Dai Wusan 戴吾三 and Gao Xuan 高宣, “Kaogong Ji,” 10.

⁴⁹⁷ David N. Keightley, *The Ancestral Landscape: Time, Space, and Community in Late Shang China* (Berkeley: University of Berkeley Institute of East Asian Studies, 2002), 84.

⁴⁹⁸ Wenren, *Kaogong Ji*, 4.

valley between two mountains; along a large river must run a highway” (凡天下之地埶，两山之间，必有川焉，大川之上。) ⁴⁹⁹ To make quality bows, artisans must know the right seasons to deal with various materials: “cutting and trimming wood for the body of the bow in winter; curing horn in spring; preparing sinews in summer; binding these three materials with silk, glue, and lacquer in autumn; in the bleak midwinter, setting the shape of the bow in a bow frame; in the extremely cold winter, checking to see if lacquer falls off by drawing back the bowstring repeatedly” (冬析干而春液角，夏治筋，秋合三材，寒奠体，冰析灑。) ⁵⁰⁰ Satisfying these natural conditions is not only demanded by their job duties, but more importantly, in doing so, the artisans correlate their work with the rhythms of nature.

Emphasizing the Role of Artisans

The general introduction also gives sufficient attention to the role of artisans, so it pronounces that “all the products of artisanship are the work by the sage,” but it is the “highly skilled [artisans who] maintain their traditions and the principles of production and continue them generation after generation.” The text here actually emphasizes the role of artisans in producing handicraft products: they simply communicate the sage’s design and invention to the general public by turning the invention into a product.

In this respect, the artisans seem to function as a bridge between the sage and the general public. The sage’s abstract ideas about a product are communicated to the general public in a crystalized format—a concrete product. As long as artisans follow the principles of production—principles developed by the sage—they can always make the products of artisanship as invented by the sage. We might as well look at the ‘sage’ as the court supervisors of court artisans, who developed the blueprint for a product of artisanship, and then the artisans, by using the blueprint, make the product based on the principles and specification as spelled out in the blueprint.

Plato (427—347 BCE), when discussing theory of art in his work *The Republic*, explains to his interlocutor the relationship between the Ultimate Form and its corresponding class of particular objects, by using as

⁴⁹⁹ Ibid., 120.

⁵⁰⁰ Ibid., 139.

examples a particular bed and tables made by a carpenter.⁵⁰¹ Then he asks his interlocutor a question:

“And what about the carpenter? Did you agree that what he produces is not the essential Form of Bed, the ultimate reality, but a particular bed?”

“I did.”⁵⁰²

Plato then tells his interlocutor that only God can create the essential Form of Bed. By “the essential Form of Bed,” Plato is referring to the one Ultimate Bed invented by God, and by imitating this Ultimate Bed, the carpenter produces particular beds in various forms. That is, though there are millions of sorts of beds, we know they are all beds because they are all imitations of the one Ultimate Bed. Certainly, Plato’s point is that all artists, like the carpenter, imitate the ultimate reality and thus fail to tell the truth, so they should be banned from his republic.

However, my point is that both Plato and the “Accounts of Examining Artisanry” employ the concept of an inventor and executors of the invention. It seems that in Plato, God plays the role of the inventor who develops the blueprint for an object, and craftsmen like the carpenter produce the object in various forms by imitating the design on the blueprint. In the course of imitation, however, the craftsmen do not always imitate the design with great precision; therefore, the beds the carpenter produces appear in various forms.

In contrast, in the “Accounts of Examining Artisanry,” the artisans must follow with great precision the principles of production as laid out in the blueprint by the sage. Here lies the guiding principle of artisanry the court artisans must follow in production: precisely follow the principles spelled out by the sage. This is actually the principle the text lays out in the first management handbook in the Chinese tradition for all the handbook users to observe when they are using it.

Significance of the “Accounts of Examining Artisanry”

The “Accounts of Examining Artisanry” is the first management handbook in the Chinese tradition for use by the Zhou court officials in charge of state artisans. As such, it continued the tradition of the “unity of nature and humans 天人合一” that the earlier technical writing texts had started, and

⁵⁰¹ Plato, *The Republic*, trans. H. D. P. Lee (Baltimore: Penguin Books, 1964), 371–72.

⁵⁰² *Ibid.*, *The Republic*, 372.

championed several textual or rhetorical strategies in a management handbook. From the point of view of technical handbook writing, much could be said about this text, but the following features seem paramount.

First, according to the theory of the “unity of nature and humans,” humans are part of nature, so they must correlate their activities with the natural rhythms, the cycles of the four seasons. Artisans, too, must correlate their manufacturing activities with nature. If they do not, though they possess fine skills and have fine materials, they will not be able to produce fine handicrafts, just as the text warns us, “Though materials are fine and artisans are skillful, the product is not necessarily good if they do not observe the cycles of the seasons and fail to succumb to the power of the earth” (材美工巧, 然而不良, 则不时, 不得地气也.)⁵⁰³ This principle is at work in all stages of their operations: from selecting materials, to design, and production. In this way, the text establishes the large environment of production, focusing on ways for the artisans to take to correspond to nature, describing materials to be used, providing specifications of various parts, and reviewing techniques for production. The text does not specify any actions for the artisans to perform in order to complete a task. Here I would like to point out that the text stresses the importance of the large environment in which the artisans perform their jobs, just as it gives attention to the larger environment of nature. Artisans are highly skilled workers, and they already possess the necessary knowledge and skills of production. Thus, there is no need for the handbook to repeat what they already know. That is, given the large environment and the materials, they know how to work, and how to complete the task. The impact of this rhetorical strategy of emphasizing the large environment stretched well beyond early Chinese dynastic periods, going on to influence technical writing in present-day China.

Second, closely related to the first point I have just discussed in the above paragraph and also to a point—suggestiveness—which I pointed out in Chapter Two, is the rhetorical strategy that the text of “Accounts of Examining Artisanship” employs when providing instructions to its readers: It instructs indirectly through descriptions: specifying the natural conditions, describing materials, narrating techniques, and providing specifications. We may interpret this rhetorical strategy from two perspectives. First, by describing the natural conditions, materials, techniques, and specifications, the text sets up or helps the reader set up the necessary large context to work in. For the text of the “Accounts of Examining Artisanship,” the large environment is more important than the

⁵⁰³ Wenren, *Kaogong Ji*, 4.

specific actions the artisans may perform to complete a task. According to the philosophical thought of the “oneness of nature and humans,” humans are just a component of their natural environment and their activities are conditioned by the environment. So humans, in order to perform a task well, must ensure that this large environment is conducive to their work. Once the large environment is established, artisans, with their own skills and their own areas of expertise, and with the right materials and tools, know what to do and can complete any tasks in their own areas of expertise. Thus, there is no need for the text to specify detailed actions to guide the readers/artisans to perform tasks in their own areas of expertise. In this respect, Falkenhausen is correct in saying that the text “deliberately reduc[es] technical information to simple formulae.”⁵⁰⁴ What Falkenhausen does not realize, is that the text does not have to provide detailed technical information. Second, the text provides instructions indirectly through suggestiveness, i.e., indirectly by focusing on creating or helping readers to set up the large environment conducive to their work. In Chapter Two, I have pointed out that the poems in the *Classic of Poetry*, not a book of formal technical writings, provide instructions and report historical events indirectly through illustrations and descriptions. Similarly, the “Accounts of Examining Artisanry,” a text of more formal technical writings than the *Classic of Poetry*, provides instructions indirectly through illustrations and descriptions. We will find this “suggestiveness” in present-day technical writings in China.

Third, the text classifies technical information into various groups. Classifying information in the text was necessitated by the breakdown of labor into its components, and their distribution among different groups of artisans with their areas of expertise, to increase productive efficiency. But textually, this strategy makes the information on artisanry more accessible. The text first divides the profession of artisans into six (6) operations, which it further partitions into thirty (30) very specific job duties. In this way, the text “divid[es] concepts into increasingly discrete entities,” to borrow Tebeaux’s words,⁵⁰⁵ thus helping readers (probably the court official supervising the artisans) to track artisans’ jobs from the very general division of labor force in artisanry to the very specific and discrete classification of their job duties. Though the text of “Accounts of

⁵⁰⁴ Falkenhausen, “Wenren Jun,” 103.

⁵⁰⁵ Elizabeth Tebeaux, *The Emergence of a Tradition: Technical Writing in the English Renaissance, 1475–1640* (Amityville, New York: Baywood Publishing Company, Inc.), 53.

Examining Artisanship” does not employ any brackets to visually display classification of information as Ramus did in the Renaissance England,⁵⁰⁶ it does help organize information regarding the state artisans’ job duties and their areas of expertise, which makes it much easier for the court supervisors to manage the artisans’ work. This classification method was later adopted in other Chinese technical writings, such as *the Essential Arts for the People’s Welfare* 齐民要术, a 6th-century book on agriculture and *On the Works of Nature* 天工开物, a 17th-century manual on various subjects.

Fourth, the text of “Accounts of Examining Artisanship” shows deference to the superiors, just to be politically correct. As a management handbook for use by court supervisors, the text of the “Accounts of Examining Artisanship” must observe the rules and rituals as defined by the Zhou court. As my above discussion has shown, this observation of Zhou rituals is manifest in many jobs performed by the artisans. By following the Zhou rituals, the text actually creates a consumer hierarchy of the end users, from the King on the very top to the common individuals at the very bottom. The impact of showing deference (in technical writing) to the superiors and to the royal rituals even influences technical writing in China today.

Fifth, the text brings up the issue of the ‘fit’ between products and users—human factors, aka., ergonomics, in the design of products. As I have pointed out, ‘ergonomics’ as it is discussed in the text appears to be very primitive, but it does draw our attention to the ‘fit’ issue. This is particularly significant if we consider that the concept of ergonomics has a relatively short history, a little more than 300 years.⁵⁰⁷

Sixth, the text stresses the role of artisans as the bridge between the sage and the end users. In this respect, they serve the function of turning the sage’s design into a product for use by end users. Their role is very similar to that of technical communicators, who work like a bridge between technical information and information regarding other specialized topics and their readership.

⁵⁰⁶ Ibid., 52—56.

⁵⁰⁷ Rochelle D. Gainer, “History of Ergonomics and Occupational Therapy,” *Work* 31, no. 1 (2008): 6.

CHAPTER EIGHT

CLASSIC OF CHANGES
(易经 *YI JING* OR *I CHING*):
AN ANCIENT BOOK OF TECHNICAL
INSTRUCTIONS ⁵⁰⁸

Though the *Classic of Changes* ranks fifth among the six Confucian classics in terms of its place in the sequence, in terms of its influence, it ranks first. It is more influential in Chinese culture than any of the other five classics.⁵⁰⁹ Wu Shuping 吴树平 and Lai Changyang 赖长扬 believe that it is “the classic of the classics, the source of the Supreme Dao.”⁵¹⁰ The Editing Group of *Classic of Changes in Vernacular (Baihua Yi Jing 白话易经)* also believe that it is the “most ancient classic” in the Chinese tradition.⁵¹¹ Shaughnessy, a western scholar of *Classic of Changes*, claims that, in China, it “has traditionally been regarded as the most profound

⁵⁰⁸ Some translators use *Yi Jing*, but others prefer *I Ching*. The difference between *Yi Jing* and *I Ching* is that the former is spelled according to a system of spelling and pronunciation which, invented by the Chinese in the late 1950s, and began to be used internationally in the late 1970s to spell Chinese names; it is known by its Chinese name *Pinyin* 拼音. The latter is spelled in accordance with the traditional transliteration system, Wade-Giles. In this chapter, and elsewhere in this book, I translate the title as *Classic of Changes*.

⁵⁰⁹ The six Confucian classics are *Classic of Poetry* (诗), *Classic of Documents* (书), *Classic of Rites* (礼), *Classic of Music* (乐), *Classic of Changes* (易), and *Annals of Spring and Autumn* (春秋). The *Classic of Music* was destroyed in the infamous “burning of books” by the First Emperor of the Qin dynasty in 212 and 213 BCE. It was thus lost.

⁵¹⁰ Wu and Lai, *Baihua Sishu*, vol. 2, 1.

⁵¹¹ Editing Group, *Baihua Yi Jing 白话易经 [Classic of Changes in vernacular]* (Beijing: China Folk Art Press 1989), 1.

expression of human wisdom.”⁵¹² In the West, scholars have also treated the text as a ‘timeless’ book of oracular and (in its later layers) philosophical wisdom.⁵¹³ Paul Carus asserts that the *Classic of Changes* “is one of the most ancient, most curious, the most mysterious documents in the world.”⁵¹⁴ Wilhelm, the German scholar whose translation of this classic is considered to be the best European-language translation of *Zhou yi*,⁵¹⁵ holds this classic in high esteem, saying that it is “unquestionably one of the most important books in the world’s literature.”⁵¹⁶ Carl G. Yung lauds this classic in the forward to Baynes’s English rendition of Wilhelm’s German translation, claiming that this classic “has seemed to me of uncommon significance” and therefore he considers it a “monument of Chinese thought.”⁵¹⁷ James Legge compares this classic to the old monuments of Hebrew, Sanskrit, Greek, or Latin literature.⁵¹⁸ Joseph Needham claims that the *Classic of Changes* has “no close counterpart in the texts of any other civilization.”⁵¹⁹ Richard Smith 司马富 argues that “a wide variety of modern-minded individuals in Europe and the Americas have looked to *Yijing* for intellectual, spiritual, or creative sustenance.”⁵²⁰

It is such an influential book of philosophy that, in the course of more than two thousand years since its completion, “thousands of commentaries [have been] written on the *Changes*, each reflecting a distinctive technical,

⁵¹² Edward L. Shaughnessy, *Unearthing the Changes: Recently Discovered Manuscripts of the Yi Jing (I Ching) and Related Texts* (New York: Columbia University Press 2014), xiii.

⁵¹³ Joseph A. Adler, “Minford, John, trans., *I Ching (Yijing): The Book of Changes*,” *Dao* 14 (2015): 147.

⁵¹⁴ Paul Carus, *Chinese Occultism* (Chicago, Open Court 1907), 26.

⁵¹⁵ John Makeham, “The History of the Development of *Zhou Yi* “周易” Studies in the West—An Overview,” *中国研究集刊* [Anthology of China studies] 3 (June 1986): 170.

⁵¹⁶ Richard Wilhelm, “Introduction,” in *The I Ching or Book of Changes*, 3rd ed., ed. Richard Wilhelm and trans. Cary F. Baynes (Princeton, NJ: Princeton University Press, 1984), xlvii.

⁵¹⁷ C. G. Jung, “Forward,” in *The I Ching or Book of Changes*, 3rd ed., ed. Richard Wilhelm and trans. Cary F. Baynes (Princeton, NJ: Princeton University Press 1984), xxii.

⁵¹⁸ James Legge, trans., *The I Ching*, 2nd ed. (New York: Dover Publications, Inc. 1963), 3.

⁵¹⁹ Needham, *Science and Civilisation in China*, vol. 2, 304.

⁵²⁰ Richard J. Smith, “Why the *Yijing* 易经 (Classic of Changes) Matters in an Age of Globalization,” in *Why Traditional Chinese Philosophy Still Matters: The Relevance of Ancient Wisdom for the Global Age*, ed. Ming Dong Gu (New York: Routledge 2018), 199.

philological, religious, philosophical, literary, social or political point of view.”⁵²¹ This classic “has inspired countless derivative books of various kinds, and is presently used for insights and guidance by millions of people worldwide.”⁵²² Researchers and practitioners have put this classic to good use in various ways, in addition to its widely recognized divinatory and oracular function. For example, as is well known already to scholarship, Shao Yong 邵雍 (1011—1077) couches his cosmological theory (*yuzhou fasheng lun* 宇宙发生论) in the *Classic of Changes*, arguing that his reinterpretation and rearrangement of the hexagrams not only explains how the universe was born but also shows how everything in it evolves.⁵²³ G. W. Leibniz (1646—1716), after studying the 64 hexagrams as arranged by Shao Yong, realized that Shao Yong’s way of rearranging the 64 hexagrams is remarkably similar to his own binary system or diadic arithmetic.⁵²⁴ Fast forward to the modern era, and many scholars such as Ma, Smith, Gao, and Shen, apply this classic to studies of Jungian analytical psychology, after they ascertain connections between this classic and Western psychology, as prompted by Jung’s meeting with Wilhelm in 1929.⁵²⁵ Some researchers, Qu and Garvey, Lu, and Lu and

⁵²¹ Richard J. Smith, “The Changes as a Mirror of the Mind: The Evolution of the Zhouyi (周易) in China and Beyond,” paper presented at the *Fourth International Conference of Analytical Psychology and Chinese Culture, Fudan University, Shanghai, PRC April 10—12, 2009*.

https://biroco.com/yijing/D_The_Changes_as_a_Mirror_of_the_Mind.pdf.

⁵²² Smith, “Why the *Yijing* Matters,” 193.

⁵²³ Fung, *A Short History*, 272—78.

⁵²⁴ Makeham, “The History,” 159—61; Lu Yi-chun 盧怡君, “Chuangshi Zhidao—*Yijing* Suoyin Sixiang yu Laibunici de Pubian Wenzi Yanjiu” 創世之道—“易經”索引思想與萊布尼茨的普遍文字研究 [Ontological perspective—*Yijing* figurism and Leibniz’s research on universal characters], *Tsing Hua Xuebao* 清化學報 [Tsing Hua journal of Chinese studies] 47, no. 3 (September 2017): 523—29.

⁵²⁵ S. Y. Ma, “The *I Ching* and the Psyche-body Connection,” *Journal of Analytical Psychology* 50 (2005): 237; Richard J. Smith, “Meditation, Divination and Dream Interpretation: Chan/Zen Buddhism, the *I Ching* (*Book of Changes*), and Other Chinese Devices for Jungian Self-Realization,” paper presented at the *Third International Conference of Analytical Psychology and Chinese Culture, Guangzhou, September 22—24, 2006*.

<https://pdfs.semanticscholar.org/7745/1b4c7f786956bf7dc8d73f995ac5c1e925ad.pdf?ga=2.264832143.1425610735.1567382422-1842048824.1567382422>;

Gao Lan 高嵐 and Shen Heyong 申荷永, “Rongge Xinlixue yu Zhongguo Wenhua” 荣格心理学与中国文化 [Jungian psychology and Chinese culture], *Xinli Xuebao* 心理学报 [Journal of psychology] 30, no. 2 (1998): 219-223; Wang

Busemeyer, for example, explore the influence of this classic of traditional Chinese medicine and apply the philosophical thoughts of this classic to methods of diagnosis and treatments.⁵²⁶ Researchers in the field of business like Pei and Lin, analyze the dynamic model of marketing competition from the perspective of the trigrams, as illustrated in the *Classic of Changes*.⁵²⁷ Some researchers like Lin Xinwei 林新為 study this classic as a guiding force that drives environmental protection, after discovering environmental ethics hidden in the judgement texts (the texts for the hexagrams, 卦辞).⁵²⁸

In this chapter, I discuss this classic as a book of technical writing, not only because it is a manual of divination which is already well known in the world, but more important, it is a handbook that has been guiding its users to perform various tasks over two thousand years.⁵²⁹ Fig. 8-1 illustrates a page from an 1841 edition of the *Classic of Changes* published in Japan. The page features “Hexagram 48: Using a Well.”

Jianxin 汪新建 and Yu Rongling 俞容龄, “Rongge yu *Yi Jing*: Goutong Dongxifang Wenhua de Xinli Changshi” 荣格与《易经》: 沟通东西方文化的心理学尝试 [Jung and *Yi Jing*: Psychology to bridge Eastern and Western cultures], *Nanjing Shida Xuebao (Shihui Kexue Ban)* 南京师大学报 (社会科学版) [Journal of Nanjing Normal University (Social science edition), no. 1 (January 2006)]: 107-110.

⁵²⁶ Lifang Qu and Mary Garvey, “Chinese Medicine and the *Yi Jing*’s Epistemic Methodology,” *Australian Journal of Acupuncture and Chinese Medicine* 3, no. 1 (2008): 17—23; Lu D. P., “Influence of *I-ching* (*Yijing*, or *The Book Of Changes*) on Chinese Medicine, Philosophy and Science,” *Acupuncture and Electrotherapeutics Research* 38, no. 1-2 (2013): 77—133; Lu Meijuan and Jerome R. Busemeyer. “Do Traditional Chinese Theories of *Yi Jing* (‘Yin-Yang’ and Chinese Medicine Go Beyond Western Concepts of Mind and Matter,” *Mind and Matter* 12, no. 1 (2014): 37—59.

⁵²⁷ Wen Pei and Kueihu Lin, “A Study of Competitive Dynamic *Yi Jing* Decision Model of Taiwan Beer Industry,” [in Chinese,] *Modern Management*, no. 2 (2012): 93—100.

⁵²⁸ Lin Xinwei 林新為, *An Inquiry into the Impetus of the Ecological Conscience in the Thought of I-Ching* [in Chinese] (Masters thesis, National Central University, Taiwan 2010), 36—78.

⁵²⁹ Daniel Ding, “The Emergence of Technical Communication in China—*Yi Jing* (I Ching) the Budding of a Tradition,” *Journal of Business and Technical Communication* 17, no. 3 (2003): 320.

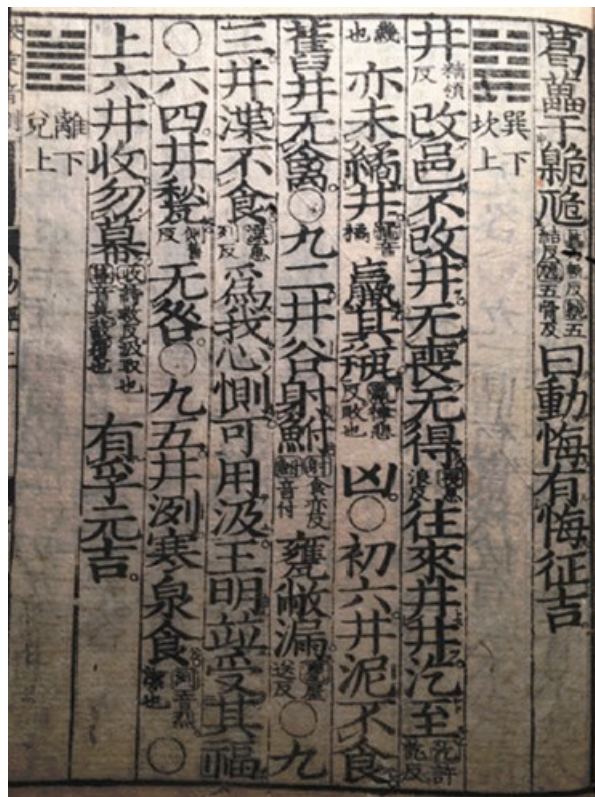


Fig. 8-1 A Page from the 1841 Edition of the *Classic of Changes* Published by Runkui Bookstore Sonjintan 浪萃書鋪鬆敬堂 in Japan

Structure of the *Classic of Changes*

The *Classic of Changes*, one of the six classics of China, has been revered by Chinese sages in various dynasties since it was completed, around 500 BC. It consists of 64 six-line symbols called hexagrams or oracles 卦 and commentaries on them. Considered the premier Chinese cultural classic, the *Classic of Changes* has four tiers: the hexagram images 卦象 with their names, introductions (oracle texts on the entire 64 hexagrams, aka. judgement texts) 卦辭 or 彖辭, statements corresponding to each of the six lines in the hexagrams 爻辭, and explanatory notes 十翼, translated as ‘ten

wings’ in various English renditions of this classic.⁵³⁰ The hexagram images with their names, the judgement texts, and the line statements are called “classic” 经, while the explanatory notes are called ‘commentaries, 传’.

The “classic” part of the *Classic of Changes* consists of 64 six-line symbols known as hexagram images 卦象 with their names, their judgement texts, and their line statements. Each hexagram with its name, its judgement text, and its line statements serves as a section in the classic part of the book. In other words, each hexagram 卦 is a section, so there are 64 sections in the classic part of this book. The first 30 hexagrams are called “upper classic, 上经” while the other 34 hexagrams are called “lower classic, 下经.”

Each hexagram is composed of two of the eight three-line symbols known as trigrams, each of which consists of three stacked horizontal lines called 爻 (yao), each of which is either a continuous (solid) line “—” called *yang yao* 阳爻, or a broken (open with a gap in the middle) line “- -” called *yin yao* 阴爻. There are altogether eight trigrams as shown below with their trigram names:



The hexagram lines are traditionally counted from the bottom up, so the lowest line is considered line one, while the top line is line six. Hexagrams are formed by combining the original eight trigrams in different combinations. The first two hexagrams, called Heaven Hexagram (*Qiangua* 乾卦) and Earth Hexagram (*Kungua* 坤卦) respectively. The Heaven Hexagram consists of two Heaven Trigrams while the Earth

⁵³⁰ The Sinic “翼” means “assist and help,” so in the text of the classic, it means “helping to elaborate on the meanings of the 64 hexagrams.”

Hexagram consists of two Earth Trigrams. These two constitute the ‘gateway’ to the other sixty-two hexagrams;⁵³¹ the other sixty-two hexagrams are just permutations of these [first] two paradigmatic symbols.⁵³²

Then, each of the 64 hexagrams is explained by a short text called the judgement text 卦辞 or 彖辞. Each line of a hexagram is explained by a short statement, called 爻辞.

As indicated above, the commentaries part of the *Classic of Changes*—the Ten Wings 十翼—is made up of the following “wings”: the “Commentary on the Judgement Texts” (*Tuanzhuàn* 彖传), which has two parts—the upper part (1st wing) and lower part (2nd wing); the “Big Image Commentary” (*Daxiangzhuàn* 大象传, 3rd wing), which comments on the images of the two trigrams of a hexagram, and the “Small Image Commentary” (*Xiaoxiangzhuàn* 小象传, 4th wing), which comments on the image of each line of a hexagram; the two parts of the “Great Commentary” (*Dazhuàn* 大传) also called “Commentary on the Appended Statements” (*Xicizhuàn* 系辞传, 5th and 6th wings), which comment on the entire classic part of the *Classic of Changes*; the “Eulogizing Commentary” (*Wenyanzhuàn* 文言传, 7th wing), which addresses in great detail, and in complimentary terms, the first two hexagrams, *Qiangua* and *Kungua*; the “Explanation Commentary” (*Shuoguzhuàn* 说卦传, 8th wing), which comments succinctly on the eight trigrams and their significations; the “Sequence Commentary” (*Xuguzhuàn* 序卦传, 9th wing), which justifies the received order of the sixty-four hexagrams in this classic; and the “Commentary on Irregular Order” (*Zaguzhuàn* 杂卦传, 10th wing), which expresses laconically the meanings of contrasting pairs of hexagrams, arranged differently from those in the received order.

The “Great Commentary,” the “Eulogizing Commentary,” the “Explanation Commentary,” the “Sequence Commentary,” and the “Commentary on Irregular Order” are all attached to the classic part as appendices. On the other hand, The “Commentary on the Judgement Texts,” the “Big Image Commentary,” and the “Small Image Commentary” are embedded within the classic part of the *Classic of Changes*.

⁵³¹ Zhong Zurong 钟祖荣, “‘Yijing’ Qiangua de Guocheng Sixiang yu Jiaoshi Fazhanjieduan Lilun” 易经乾卦的过程思想与教师发展阶段理论 [The changes of the *Qian* Hexagram in *Yijing* and developmental stages of teacher], *Journal of Beijing Institute of Education* 25, no. 3 (June 2011): 1.

⁵³² Richard J. Smith, “Fathoming the *Changes*: The Evolution of Technical Terms and Interpretive Strategies in *Yijing* Exegesis,” *Journal of Chinese Philosophy* 40, no. S1 (December 2013): 146.

Authorship of the *Classic of Changes*

Who created these hexagrams and composed these texts and commentaries? Sima Qian 司马迁 (ca. 145—ca. 86 BCE), in his *Records of the Historian* (史记 *Shiji*), holds that King Wen of Zhou 周文王 (1152—1056 BCE) transformed the eight hexagrams into 64 hexagrams while he was in prison at Youli 羑里.⁵³³ This is the earliest account of the text's history and, according to Wu and Lai, it exerted influence on various other accounts of the text's history for almost two thousand years.⁵³⁴ Ban Gu 班固 (32—92 CE) comments on the significance of the *Classic of Changes* in “Monograph on Arts and Literature (*Yiwen Zhi* 艺文志), the bibliographical chapter in the *History of the Former Han* (*Han Shu* 汉书):

易道深, 人更三圣, 世历三古⁵³⁵ The *Changes* is a profound text,
composed by three sages in three
antiquities.⁵³⁶

What Ban Gu tells us here, is that the *Classic of Changes* underwent many changes from the “eight trigrams” to the “Ten Wings,” created, composed, edited, and redacted by many sages. Invoking the three sages in Ban Gu's Monograph definitely lends authority and credibility to the *Changes*. “In traditional scholarship,” Dou argues, Ban Gu's view “was broadly accepted.”⁵³⁷

The “*Zhouyi Zhengyi Xu*” 周易正义序 (Preface to *Corrected Meanings of the Changes of Zhou*) introduces four major assumptions regarding the genesis of the 64 hexagrams: Wang Bi 王弼 (226—249) believed that the 64 hexagrams were created by Fu Xi 伏羲, a legendary emperor in high antiquity; Zheng Xun 郑玄 (127—200) claimed they were created by Shen Nong 神农, another legendary emperor in high antiquity; Sun Sheng 孙盛 believed they were created by Xia Yu 夏禹, the founding

⁵³³ Sima Qian 司马迁, *Records of the Historian*, vol. 2, 92.

⁵³⁴ Wu and Lai, *Baihua Sishu*, vol. 2, 3.

⁵³⁵ Ban Gu 班固, *Han Shu* 汉书 [*History of the Former Han*], 527

⁵³⁶ The three sages are the legendary Emperor Fu Xi 伏羲 (fl. Mesolithic period), King Wen of Zhou 周文王 (1152—1056 BCE), and Confucius 孔子 (551—479 BCE). The three antiquities are higher, middle, and lower antiquities, the three historical periods of the three sages respectively.

⁵³⁷ Keyang Dou, “Paradigm Lost in the Interpretation of *The Book of Changes*,” *Canadian Review of Comparative Literature* 41, no. 3 (September 2014): 262.

father of the Xia dynasty (ca. 2204—1765 BCE); and Sima Qian 司马迁 (ca. 145—ca. 86 BCE), as indicated above, thought that they were created by King Wen of Zhou 周文王 (1152—1056 BCE).⁵³⁸ Then in the 1920s and 1930s, more and more Chinese scholars began to question the traditional accounts of this classic of divination.

In short, the traditional accounts of the history of the *Changes* hold that Fu Xi, the legendary emperor of ancient tribes in central China in 3500 BCE, began the book by creating the 64 hexagrams. Around 1150 BCE, King Wen added oracle texts to the 64 hexagrams, and King Wu, the son of King Wen and the founder of the Zhou dynasty, added texts to each of the six lines of the 64 hexagrams. Later, Confucius (551-479 BCE) extensively commented on, and explained, the 64 hexagrams and the texts added by both King Wen and King Wu.

But some Song-dynasty 宋朝 (960—1279 CE) scholars have already begun to question the tradition that the *Classic of Changes* was the product of the sages as described above.⁵³⁹ Ouyang Xiu 欧阳修 (1007—1072 CE) is invoked by Dou as one of the Song-dynasty scholars who vigorously challenged the traditional accounts of this classic's history.⁵⁴⁰ In the early 20th century, Chinese scholars such as Gu Jiegang 顾颉刚 (1893-1980), Qian Xuantong 钱玄同 (1897-1939), and Li Jingchi 李镜, (1902-1975) subverted the traditional accounts of the history of the *Changes*, arguing that it was created by just three or four individuals.⁵⁴¹ Guo Moruo 郭沫若 (1892-1978), a modern Chinese poet-scholar, argues that “the *Classic of Changes* was not written by one single author, nor was it accomplished within one particular period of time.”⁵⁴² Chu Wan-Li 屈万里 (1907—

⁵³⁸ Kong Yingda 孔颖达, Wang Bi 王弼, and Han Kangbo 韩康伯, eds., *Zhouyi Zhengyi* 周易正义 [Corrected Meanings of the Changes of Zhou], in *Shisanjing Zhushu* 十三经注疏 [Thirteen classics, with commentary and sub-commentary], ed. Ruan Yuan 阮元 (Hangzhou, China: Zhejiang Guji Chubanshe, 1998), 8.

⁵³⁹ Kidder Smith, JR., et al., *Sung Dynasty Uses of the I Ching* (Princeton: Princeton University Press, 1994), 11; John Minford, trans. and ed., *The Essential Translation of the Ancient Chinese Oracle and Book of Wisdom: I Ching* (New York: Penguin Books, 2015), xvi.

⁵⁴⁰ Dou, “Paradigm Lost,” 262—63; Wu and Lai, *Baihua Sishu*, vol. 4.

⁵⁴¹ Wu and Lai, *Baihua Sishu*, vol. 2, p. 3; Dou, “Paradigm Lost,” 261; Yang Qingzhong, *The History of Yixue in the 20th Century* [In Chinese] (Beijing: Renmin Publishing House 2000), 113.

⁵⁴² Guo Moruo, *Guo Meoruo Quanji Lishi Pian Diyi Juan* 郭沫若全集历史篇第一卷 [Complete works of Guo Moruo, on history, vol. 1] (Beijing: Renmin Publishing House 1982), 35.

1979) also questioned the traditional ascription of the authorship of the “Ten Wings” to Confucius.⁵⁴³

Even Western Sinologists question the received traditional accounts of the history of the *Changes*. James Legge, for example, when speaking of the “Ten Wings” towards the end of the 19th century, argued that Confucius could not be their author.⁵⁴⁴ He was the first Western scholar to repudiate the traditional ascription of the authorship of the “Ten Wings” to Confucius. Certainly, other Western scholars also question the traditional ascription of the authorship of the “Ten Wings” to Confucius.⁵⁴⁵

In short, the traditional accounts of the history of the *Changes* are no longer taken seriously in scholarship of the *Changes*. However, as Wu and Lai have pointed out, as they draw on modern scholarship in the *Changes*, though the specific years and authors as given in the traditional accounts are not totally credible, they do suggest a fact: Chinese people in antiquity performed divination by using hexagrams and hexagram texts; thus these hexagrams and their texts were created before the Western Zhou dynasty 西周 (ca. 1046—771 BCE) or even before the Shang dynasty 商朝 (ca. 1765—1046 BCE).⁵⁴⁶ Wu and Lai also claim that though King Wen of Zhou 周文王 could not have composed the hexagram texts or the texts on the lines of the hexagrams all by himself, as Sima Qian 司马迁 (ca. 145—ca. 86 BCE) recorded in his *Records of the Historian* (史记 *Shiji*), they must have been edited and arranged in the received sequence by King Wen of Zhou or other individuals who were contemporaries of King Wen.⁵⁴⁷

Confucius certainly had a hand in some of the commentaries, though he could not have single-handedly composed the “Ten Wings.” Sima Qian 司马迁 tells us that Confucius in his old age loved to study the *Classic of Changes* so much so that “the leather thongs binding the bamboo strips snapped three times” (*duyi weibian sanjue* 读易苇编三绝).⁵⁴⁸ Confucius

⁵⁴³ Huang Peirong 黄沛荣, *Mr. Chu Wan-Li's Unique Accomplishment in Yixue Scholarship: Final Report on the Results of Special Research Topics Assisted by the Ministry of Science and Technology* [In Chinese] (Taiwan: Chinese Culture University 2015), 10—11

⁵⁴⁴ Legge, trans. and ed., *The I Ching*, 30.

⁵⁴⁵ Smith, “The Changes as a Mirror”; Minford, *The Essential Translation*, xvi; Geoffrey Redmond and Tze-ki Hon, *Teaching the I Ching (Book of Changes)* (Oxford: Oxford University Press, 2014), 4.

⁵⁴⁶ Wu and Lai, *Baihua Sishu*, vol. 2, 4.

⁵⁴⁷ *Ibid.*, 4.

⁵⁴⁸ Sima Qian 司马迁, *Records of the Historian*, vol. 17, 49.

certainly loved the *Changes*. According to Hu Shi 胡适, Confucius, after reading the *Changes*, wrote commentaries on the hexagram images, the line images, and the judgement texts, and then later, other people added more materials of their own to these commentaries so that the received commentaries of the *Changes* as we read them today actually contain passages by both Confucius and other people.⁵⁴⁹

In conclusion, the *Classic of Changes* was not composed by a single author; it became a book of oracles and divination over an extended period of at least 30 centuries, from Fu Xi's time to Confucius's time.

The Roots of *Classic of Changes*: The Earliest Technical Writing Artifacts in the Chinese Tradition— Oracle-bone Inscriptions

As indicated in Chapter 1 of this book, Ban Gu 班固 (32—92 CE), in his “Monograph on Arts and Writings,” classified “technical writing” into four sub-categories: medical writing (*yi jing* 医经), pharmacopoeias writing (*jing fang* 经方), art-of-bedchamber writing (*fang zhong* 房中), immortal writing (*shen xian* 神仙).⁵⁵⁰ Also, as indicated in Chapter 1, I modified Ban Gu's classification of technical writing to include other categories of writings and texts closely related to the four sub-categories of technical writing which Ban Gu has classified: one of these sub-categories is ‘divinatory writings’.

The *Classic of Changes* has been revered by Chinese sages in various dynasties and has become well known to the world as a book of oracles and divination. And as a book of oracles and divination, this classic has its roots in ancient performance of oracular and divinatory activities.⁵⁵¹ Richard Smith claims that, in ancient China this classic was regarded ‘merely’ as a useful handbook of Divination, as Minford stresses in his own discussion of the origin of this classic.⁵⁵² For Chinese scholars, this book was regarded in ancient China as a source of philosophical

⁵⁴⁹ Hu Shi 胡适, *Zhexueshi Dagang*, 54—55.

⁵⁵⁰ Ban Gu 班固, *Han Shu* 汉书, 533.

⁵⁵¹ Editing Group, *Baihua*, 2; Wu and Lai, *Baihua Sishu*, 5; Shaughnessy, *Unearthing the Changes*, xiii; Minford, *Essential Translation*, ix.

⁵⁵² Richard J. Smith, *Fathoming the Cosmos and Ordering the World: The Yijing (I Ching, or Classic of Changes) and Its Evolution in China* (Charlottesville: University Press of Virginia, 2008), 31; Minford, *Essential Translation*, xiii;

inspiration, as well as a handbook of divination.⁵⁵³ Scholarship in *Yixue* 易学 (study of the *Changes*) has attempted to establish a connection between the ancient oracular activities as performed in the Shang dynasty (ca. 1765—1046 BCE) and the *Classic of Changes*. Fung Yu-lan 冯友兰 (1895—1990), for example, in his *A Short History of Chinese Philosophy*, has hazarded a guess as to the process where the *Changes* evolved from the Shang dynasty oracle-bone divination practices: First, the cracks formed on tortoise shells and shoulder blades as the method of divination (*bu* 卜) in the Shang dynasty “might assume an indefinite number of varying configurations,” thus making interpretations difficult and uncontrollable. Second, to address this problem, a new divination method was adopted in the Zhou dynasty, a method (*shi* 筮) in which a fixed number of stalks of milfoil were cast and counted. These stalks, when manipulated, would yield various combinations of odd and even numbers. Since these numbers were limited, the diviner might interpret them according to fixed formula. Third, the odd and even numbers were graphically illustrated as solid and broken lines of the trigrams and hexagrams, and the commentaries on the hexagrams corresponded to the prognostications by the Shang-era diviners. Thus the diviner could produce these lines by shuffling and then casting the milfoil stalks and then could interpret them by referring to the commentaries on these lines contained in a divination manual. Such, declares Fung, “was the probable origin of the *Book of Changes*.”⁵⁵⁴

Smith et al. suspect that the *Classic of Changes* “may well have grown out of [the] practices [of counting the numbers of milfoil stalks].”⁵⁵⁵ Needham also traces the roots of hexagrams to the practice of casting and counting stalks of milfoil.⁵⁵⁶ Minford, on the other hand, speculates about several possible processes where the current *Classic of Changes* evolved from ancient divination practices and artifacts, including the Shang-era oracle-bone inscriptions; he thus claims that “if the Oracle Bone Inscriptions (and the later Inscriptions on Bronze Ritual Vessels) are the Chinese language in the making, the *Changes of Zhou* is one of the earliest attempts to put that language to a coherent purpose.”⁵⁵⁷

⁵⁵³ Editing Group, *Baihua*, 3—4; Wu and Lai, *Baihua* Sishu, 5—7.

⁵⁵⁴ Fung, *A Short History*, 139—40.

⁵⁵⁵ Smith, JR., et al., *Sung Dynasty Uses*, 10

⁵⁵⁶ Needham, *Science and Civilisation in China*, vol. 2, 347.

⁵⁵⁷ Minford, *The Essential Translation*, xi, x—xii. The *Changes of Zhou* 周易 is today's *Classic of Changes* 易经, according to the Editing Group of *Baihua Yi Jing* 白话易经 [*Classic of Changes* in vernacular], though the *Changes of Zhou* was

In his *A History of Chinese Philosophy*, Fung Yul-an employs a more affirmative tone when he discusses the origin of *the Classic of Changes* than he does in his *A Short History of Chinese Philosophy*:

The *I Ching*'s trigrams and hexagrams were originally made as graphical substitutes for the cracks in the tortoise shells, while the commentaries on the hexagrams and the lines of each hexagram correspond to the prognostications by the Shang-era diviners when examining the cracks in the shells.

For hexagrams of the *I Ching*, made up of broken and unbroken lines in such a way that they resembled the cracks appearing in the tortoise shells, were at the same time limited in number to sixty-four combinations, with the result that their prognostications were likewise limited. Thus when divination was made with the milfoil stalks, the diviner could always obtain a standard prognostication by referring to the hexagram or line in the hexagram corresponding to the prognostication, and then apply its meaning to the situation at hand. This was certainly a far easier method than that of the tortoise-shell divination, in which any combination of new cracks might appear.⁵⁵⁸

This is perhaps the most detailed discussion of the origin of the *Classic of Changes* that I have ever come across. According to Fung, the appearance of the *Classic of Changes* was a natural result of the evolution of divination from the Shang-era oracle-bone divination (*bu* 卜) to Zhou-era milfoil-stalk divination (*shi* 筮) and finally to book divination. The

one of the three books of similar nature in the early days. These three books are *Linked Mountains* (*Lianshan* 连山), *Coming to Be Stored* (*Guizang* 归藏), and *Changes of Zhou* (*Zhouyi* 周易). The first two were lost already. For details, see *Baihua Yi Jing*, 2. *Zhouli Zhushu* 周礼注疏 has the earliest mention of these three divination books: "The Grand Diviner is in charge of the methods as expounded in the three changes; the first is called *Lianshan*, the second *Guizang*, and the third *Zhouyi*. In all three, the classic trigrams are eight and the derivative hexagrams total sixty-four." *Zhouli Zhushu* associates *Lianshan* with the Xia dynasty, *Guizang* with the Shang dynasty, and *Zhouyi* with the Zhou dynasty. For more discussion of these three divination books, see Zheng and Jia, *Zhouli Zhushu* 周礼注疏, 802—03. Wu and Lai use *周易* (*Changes of Zhou*) and *易经* (*Classic of Changes*) interchangeably in their book. Fung Yu-lan, on the other hand, declares that the alternative name of *周易* (*Changes of Zhou*) is *易经* (*Classic of Changes*). See Fung Yu-lan 冯友兰, *Zhongguo Zhexue Shi Shangji* 中国哲学史上集 [A history of Chinese philosophy, vol. 1] (Chongqing, China: The Commercial Press 1944), 458.⁵⁵⁸ Fung, *Zhongguo Zhexue*, 457—58.

divination method was becoming easier and easier as it moved from tortoise-shell divination to milfoil-stalk divination, and eventually to divination by the book.

Though divination materials may have changed from the Shang dynasty to the Zhou dynasty, one thing did not change: The diviner had to serve as the bridge between the customers and divination. The only difference is that the earlier oracle-bone divination addressed divine spirits or the dead while the *Classic of Changes* “almost entirely concerns the living.”⁵⁵⁹ Because the oracle-bone divination only judged an event either auspicious or ominous, people could only passively wait for its outcome, succumbing to fate. However, the *Classic of Changes* not only predicts the outcome of an event as either auspicious or inauspicious, it also instructs people how to deal with an ominous event. Thus, it is a book of instructions that guide people to perform various tasks to avoid threatening situations and to create favorable situations. In other words, it is a book of technical instructions.

Nature of the *Classic of Changes* as a Book of Technical Instructions for Daily Tasks

The *Classic of Changes*, as a technical communication text, provides instructions concerning various topics such as agriculture, animal husbandry, fishery, marriage and funeral services, sacrificial rites, lawsuits, military expedition, and ethics. The Editing Group of the *Changes* exclaims that this classic guides people to regulate their conducts and instruct people to deal with the unknown future wisely.⁵⁶⁰ Smith believes that this classic “represent[s] “all of the fundamental situations one might encounter at any given moment in one’s life,” and therefore, through using this classic properly, one might define strategies for approaching problems arising in these situations.⁵⁶¹

As early as the Zhou dynasty (1046—256 BCE), this classic was already used as a manual of instructions, which “was consulted for advice on pressing matters of state, and sometimes on lesser issues.”⁵⁶²

Actually, when devising the eight trigrams, the purported first author of this classic—Fu Xi 伏羲 (fl. Mesolithic period), the legendary emperor of high antiquity—did not mean to use them as divination symbols, but

⁵⁵⁹ Redmond and Hon, *Teaching the I Ching*, 12.

⁵⁶⁰ Editing Group, *Baihua*, 1—3.

⁵⁶¹ Smith, “Why the *Yijing* Matters,” 185.

⁵⁶² Minford, *Essential Translation*, xii.

instead, he meant to use them to teach his people how to perform various tasks:

古者包牺氏之王天下也，仰则观象于天，俯则观法于地，观鸟兽之文与地之宜，近取诸身，远取诸物，于是始作八卦，以通神明之德，以类万物之情。⁵⁶³

In high antiquity when ruling the world, Bao Xi looked up to examine the forms of the sky and looked down to survey the patterns of the earth. He contemplated the physical appearances of birds and beasts and suitability of the soil for grass and wood.⁵⁶⁴ Nearby, he drew inspiration from his own experiences; far afield, he considered various objects he had observed. On all this he devised the eight trigrams to show the power of the Spirit Light and to classify the myriads of objects according to their nature.⁵⁶⁵

This is a paragraph from the second part of the “Commentary on the Appended Statements” (*Xicizhuan Xia* 系辞传下) that discusses the origins of the hexagrams. The author of this commentary certainly believes that Fu Xi invented the hexagrams not just for the purpose of divination; more importantly, he invented them “to classify the myriads of things according to their nature” and to “represent the patterns of the world.”⁵⁶⁶ Why did Fu Xi want to classify objects and represent their patterns? Fu Xi needed to teach his people to perform various tasks; therefore, he had to use some signs to represent these tasks. For example, if, as Li points out, Fu Xi taught his subjects to catch fish and animals with nets,⁵⁶⁷ then he must have used something to represent “catching fish and animals with nets.” Indeed, the author of the “Commentary on the Appended Statements” (*Xicizhuan* 系辞传) tells us that Fu Xi taught his people to perform this task:

⁵⁶³ Editing Group, *Baihua*, 379.

⁵⁶⁴ Bao Xi 包牺 is another name of Fu Xi. Fu Xi assumed many different names, including Fu Xi and Bao Xi. According to Li, Fu Xi literally means “Conqueror of Animals” because Fu Xi “taught his subjects how to catch animals and fish with nets,” while Bao Xi means “Butcher of Animals” because “he also taught the people how to rear domestic animals for food.” For details, see Li Ung Bing, *Outlines of Chinese History* (Taipei: Ch’eng-Wen Publishing Company 1967), 2.

⁵⁶⁵ My translation of this paragraph draws on Legge’s translation.

⁵⁶⁶ Kidder Smith, “The Difficult of the Yijing,” *Chinese Literature: Essays, Articles, Reviews (CLEAR)* 15 (December 1993): 5.

⁵⁶⁷ Li, *Outlines*, 2.

作结绳而为网罟，以佃以渔，盖取诸离。⁵⁶⁸

Make nets by knitting strings for both hunting and fishing, the idea of which is represented by the Fire 离 Hexagram.

In addition, the subjects of high antiquity learned to perform various other tasks, all of which are represented by the hexagrams:⁵⁶⁹

斩木为耜，揉木为耒，... 盖取诸益。

Cut wood to make shares, and bend wood to make the plough handles. . . . The idea is represented by the Yi 益 Hexagram.

日中为市，致天下之民，聚天下之货，交易而退，各得其所，盖取诸噬嗑。

Hold markets at midday to attract all under the sky and to assemble all their goods in one place. They exchanged their goods and went back home, having obtained what they each wanted. This idea is represented by the Shi He 噬嗑 Hexagram.

剡木为舟，剡木为楫，舟楫之利，以济不通，致远以利天下，盖取诸涣。

Hollow out trees to make canoes and cut wood to make oars. . . . This idea is represented by the Huan 涣 Hexagram.

服牛乘马，引重致远，以利天下，盖取诸随。

Harness oxen to draw heavy loads and ride horses for distant journeys, thus benefiting all under the sky. This idea is represented by the Sui 随 Hexagram.

重门击柝，以待暴客，盖取诸豫。

Build multiple gates and patrol the streets at night by striking the watchman's clapper to defend against marauding bandits. This idea is represented by the Yu 豫 Hexagram.

⁵⁶⁸ Editing Group, *Baihua*, 379.

⁵⁶⁹ *Ibid.*, *Baihua*, 379—83. All the quoted sentences in the following text of the chapter are from 379—82.

断木为杵，掘地为臼。... 盖取诸小过。

Cut wood to make pestles and dig in the ground to make mortars. . . . This idea is represented by the Guo 过 Hexagram.

弦木为弧，剡木为矢，... 盖取诸睽。

Bend wood by means of string to make a bow and sharpen wood to make arrows, . . . the idea is represented by the Kui 睽 Hexagram.

Each of the above seven tasks is represented by a hexagram. The text of the “Commentary on the Appended Statements” (*Xicizhuan* 系辞传) seems to argue that the hexagrams gave birth to these tasks, but I believe these hexagrams were used originally to represent these tasks, just as the Editing Group of the *Baihua Yi Jing* points out, the argument offered by the “Commentary on the Appended Statements” regarding the relationship between the tasks and the hexagrams “is rather strained.”⁵⁷⁰ The Editing Group believes that using these hexagrams to represent various tasks indicates that Chinese people in antiquity were already able to express abstract ideas by using signs.⁵⁷¹

Kidder Smith argues that these hexagrams “constitute a self-contained sign-system, albeit a very simple one, with their own form of writing,” though these signs “have no independent phonetic value at all.”⁵⁷² Smith then claims that they “offer more potent means for expressing otherwise

⁵⁷⁰ Ibid., *Baihua*, 379. Hu Shi 胡适 thinks that the ancient sage, after he observed the patterns and images in nature, expressed these patterns and images with various trigrams, each of which represents a natural element. Then in subsequent ages, other sages represent ideas with hexagrams; and then these hexagrams in turn inspired them to “suddenly think of” a certain object, say, a canoe; thus these sages taught their subjects to make canoes. But Hu acknowledges the limitations of his own theory, saying that his theory on the origins of the objects “are not all necessarily true,” but that he just wants to show that the origins of human civilizations are based on “imitating natural patterns,” which then gave birth to “abstract ideas.” I basically agree with almost everything Hu has said about the relationships between the hexagrams and the various concrete objects and abstract ideas, except that I do not believe these hexagrams inspired the sages to ‘suddenly think of’ devising objects. To find more of Hu’s discussion of the relationships between ideas and hexagrams, see Hu, *Zhexueshi Dagang*, 62—74.

⁵⁷¹ Ibid., *Baihua*, 379.

⁵⁷² Smith, “Difficulty,” 7.

hidden meaning through their super-linguistic clarity.”⁵⁷³ Just as the “Commentary on the Appended Statements” (*Xicizhuan* 系辞传) explains, the sage “devised eight trigrams to express intended meanings and established 64 hexagrams to fully express actuality in the universe.”⁵⁷⁴

Looked at in this way, these trigrams and hexagrams might be considered very early pictographs in the Chinese tradition. As the Editing Group asserts, the eight trigrams as devised by Fu Xi were primitive Chinese characters.⁵⁷⁵

In high antiquity, Fu Xi might have used these primitive characters to help his subjects perform specific tasks and solve specific problems that they encountered daily. For example, when his tribes did not know how to store grains, he taught them using these primitive characters. When his tribes did not know how to rear domestic animals for food, he provided instructions to guide them.⁵⁷⁶ He also provided instructions to help his subjects wage wars against their enemies. In subsequent ages, other sages created the 64 hexagrams based on the eight trigrams, and each hexagram represents a task to be performed. Thus, the 64 hexagrams composed by the sages are actually the ancient texts of technical instructions in the Chinese tradition. In composing them, the sages employed the primitive characters. These early texts became more popular after the line statements were added to explain each line of the hexagram. These short texts gradually came to be viewed as a book of oracles and divination, probably because Confucians added their comments, and particularly because the texts provided instructions not only to help individuals complete specific tasks but also to help them evaluate the situations in which the tasks were to be performed and thus predict future problems or changes.⁵⁷⁷

Providing Instructions to Help Readers Deal with Various Tasks in Daily Life

Because the *Classic of Changes* has been used as a book of oracles and divination for at least the past 3,000 years, its instructional nature has been obscured. In particular, the fact that it provides instructions for a variety of ways to perform daily jobs is marginalized. But it can still be identified as a book of technical instructions, even by today’s American definition of

⁵⁷³ Ibid., “Difficulty,” 7.

⁵⁷⁴ Editing Group, *Baihua*, 374.

⁵⁷⁵ Ibid., *Baihua*, 1.

⁵⁷⁶ Li, *Outlines*, 2.

⁵⁷⁷ Editing Group, *Baihua*, 3.

the term. Current researchers identify technical instructions as texts that help individuals complete various tasks. The STC, for example, defines technical instructions as texts “*about how to do something*, regardless of how technical the task is, or even if technology is used only to create or distribute that communication example.”⁵⁷⁸ Tebeaux and Dragga define technical instructions as a text that provide[s] specific detailed steps to help readers complete a task.⁵⁷⁹ Fu Xi’s original pictographic texts were intended to help individuals in his tribes to complete various specific tasks although they might not contain what Tebeaux and Dragga mean by “specific and detailed steps.” What information technical instructions contain differs from one culture to another. As Philip Kolin has argued, in technical communication, “the conventions of writing— even the type of information you offer—can, and do, change from one culture to another.”⁵⁸⁰ In other words, information in technical instructions is culturally specific and culturally conditioned. In Chinese culture then, the *Classic of Changes*, precisely because of the information it contains, has helped Chinese users to perform various specific tasks such as rearing domestic animals and waging wars against enemies.

Guo Moruo’s 郭沫若 study of the *Changes* reveals a twofold mystery of this classic: The first is the mystery of genitalia; the second is the mystery of mathematical numbers.⁵⁸¹ Thus, in his study, Guo sets out to demystify this classic by showing that most of the four hundred and fifty sentences in the classic part of the *Changes* give an account of the society and life in the era of the *Classic of Changes*.⁵⁸² In the *Changes*, Guo classifies this account of society and life into three large categories: basics of life, social structure, and spiritual life. He then further classifies each of

⁵⁷⁸ STC, “Defining Technical Communication.”

⁵⁷⁹ Elizabeth Tebeaux and Sam Dragga, *The Essentials of Technical Communication*, 4th ed. (New York: Oxford University Press 2018), 254.

⁵⁸⁰ Philip C. Kolin, *Successful Writing at Work*, 6th ed. (Boston: Houghton Mifflin Company, 2001), 173.

⁵⁸¹ Guo Moruo, *Zhongguo Guodai Shehui Yanjiu* 中国古代社会研究 [A study of Chinese ancient society] (Beijing: The Commercial Press, 2017), 30–31. In this book, Guo argues that the solid line which represents “yang” symbolizes male genitals while the broken line which stands for “yin” symbolizes female genitals. Guo also explains that the mystery of numbers lies in the fact that the number “3”—the number of lines of the trigram—was the most frequently used and most mysterious number in ancient China, and that there are eight possible ways to combine these three lines, which coincides with the numbers generated by the *Luo River Writing* 洛书 and the *Yellow River Chart* 河图.

⁵⁸² *Ibid.*, 35.

these three categories into many subcategories. Under “basics of life” there are “fishing and hunting,” “draft animals,” “itinerant businessmen (transportation),” “farming,” and “handicraft (products).” Under “social structure” there are “family relations,” “political organizations,” “administrative affairs,” and “social classes.” Under “spiritual life” there are “religions,” “art,” and “thoughts.”⁵⁸³

The *Classic of Changes* is a book of divination, and as such, it is a book of technical writing in its own right, because such a book guides people to predict outcomes of tasks to be performed or outcomes of future events. Meanwhile, it is also a non-divinatory book of technical instructions that guides people to perform various tasks in daily life instead of guiding people to predict the outcomes of future events by occult or supernatural means. That is probably why this classic contains so much information that relates to the society and daily life of the era of the *Changes*. Because it is based on the symbols of male and female genitalia—*yin* as represented by a broken line and *yang* as represented by a solid line, the basic philosophy of the *Changes* is the contradiction between *yin* and *yang*. Guo, who has found many such contradictions in the *Changes*, argues that such contradiction exists everywhere in people’s daily life; “auspicious vs. inauspicious, prosperity vs. adversity, large vs. small, far vs. near, inner vs. outer, exit vs. enter, advance vs. retreat, go vs come, upper vs. lower, gain vs. loss, survival vs. death, joy vs. sorrow, and increase vs. decrease.”⁵⁸⁴ In guiding people to perform daily tasks, this book of technical instructions will necessarily deal with these contradictions. People’s daily life is dynamic, and these contradictions are always changing, because “the entire universe is always moving and changing, thus the name of this classic—*Changes* (*yi* 易)—“*yi* simply means changes.”⁵⁸⁵ Sometimes people’s daily life, or the contradictions in their life, might effect a change for the better, but sometimes brings about a change for the worse. All these changes can be expressed by ‘words’ 辞 so that people have rules to observe when they act, allowing them to know joy and sorrow, misfortune and happiness, prosperity and adversity, etc. so that they won’t act inappropriately.⁵⁸⁶

Then, what function does the account of the daily life and the society play in this classic of divination then? In Guo’s words, this account is used to “decorate the divinatory part of the book.”⁵⁸⁷ In other words, with this

⁵⁸³ Ibid., 35—66.

⁵⁸⁴ Ibid., 65.

⁵⁸⁵ Ibid., 65.

⁵⁸⁶ Hu, *Zhexueshi Dagang*, 73.

⁵⁸⁷ Guo, *Zhongguo Gudai*, 63.

account of life and society in the era of the *Changes*, the divination could be adapted more easily to people's daily life. But as Guo has shown, "by stripping away all the mysterious clothes that people had attached to the *Changes*, we can show how a primitive human being is dancing naked."⁵⁸⁸ Guo is attempting to argue that no matter how mysterious and divine the *Changes* is, once we remove its divinatory part, what we see is nothing but a description of people's daily life as it was in the era of the *Changes*.

Now, let's see how people in the era of the *Changes* used this classic as a book of technical instructions in their daily life. *Zuo Commentary* (左传 *Zuo Zhuan*), China's oldest annalistic narrative history (编年体历史) which explicates the brief text of the *Annals of Spring and Autumn* 春秋, provides about two dozen examples of how the *Changes* was used during the Spring and Autumn period 春秋 (770—481 BCE).⁵⁸⁹ For example, in the spring of the 12th year of the Duke of Xuan 宣公十二年 (597 BCE), the armies of the State of Jin 晋国 were to rescue the State of Zheng 郑国 besieged by the State of Chu 楚国, but when the Jin forces arrived at the Yellow River, one of the commanders hesitated because he thought that the State of Chu "manifests kindness, carries out justice, . . . and observes so admirably the rules of propriety."⁵⁹⁰ However, his assistant, Xian Hu 先穀, an impetuous and insubordinate officer, did not listen to the commander, and led his troops across the river to attack the Chu forces. In response to Xian Hu's unwise decision, another Jin officer Xun Shou 荀首 commented:

此师殆哉。周易有之，师. . . 曰：‘师出以律，否臧凶。’执事顺成为臧，逆为否，. . . 有帅而不从，临孰甚焉！此之谓矣。果遇，必败，彘子尸之。虽免而归，必有**大咎**。⁵⁹¹

This army is doomed. The *Changes* has a hexagram about it. According to the Shi Hexagram, "Operate the army under strict principles; otherwise, whether victorious or defeated, the army is in great peril." Either orders are carried out successfully or not . . . if you do not listen to your commander,

⁵⁸⁸ *Ibid.*, 35.

⁵⁸⁹ The grand historians 太史官 of the State of Lu 鲁国 recorded in a book the important events that occurred in the first part of the Eastern Zhou dynasty 东周 (770—256 BCE) and arranged these events according to the four seasons of the year; thus this book is titled *Annals of Spring and Autumn*, and the historical period recorded by this book is thus called Spring and Autumn period.

⁵⁹⁰ Wu and Lai, *Baihua Sishu*, vol. 4, 253.

⁵⁹¹ *Ibid.*, 253.

what greater evil could there be? It is the case of Xian Hu exactly. If he meets the enemy, he will be defeated. He is to blame. He might escape being killed in combat, but great evil is awaiting him after he returns home.

This paragraph from the *Zuo Commentary* explains why Xian Hu, the Jin army officer, will meet with great evil regardless of the outcome of the combat. Xun Shou explained that Xian Hu failed to follow the instructions as given in the Shi Hexagram: Lead the army with discipline; otherwise, whether victories or defeated, the army is in great peril.” Xian Hu did not listen to his commander and crossed the river to fight the enemy without authorization. In other words, he did not lead his army with discipline; thus, great evil is awaiting him after he returns home. Eventually, Xian Hu was executed by the imperial court of the State of Jin.

In the summer of the ninth year of the Duke of Xiang 襄公九年 (564 BCE), the grand historian told Mu Jiang 穆姜, the widowed grandmother of the Duke of Xiang, to move out of the Easter Palace as soon she moved in. The historian tells her that the Sui Hexagram 随卦 advises her to move out. It is auspicious. However, Mu Jiang refuses to follow the guidance. She explains to the historian that she does not possess the four virtues the hexagram lists:

亡。是于《周易》曰：‘随，元亨利贞，无咎。’元，体之长也；亨，嘉之会也；利，义之和也；贞，事之干也。体仁足以长人，嘉德足以合礼，利物足以和义，贞固足以干事，然，故不可诬也，是以虽《随》无咎。今我妇人而与于乱。固在下位而有不仁，不可谓元。不靖国家，不可谓亨。作而害身，不可谓利。弃位而姤，不可谓贞。有四德者，《随》而无咎。我皆无之，岂《随》也哉？我则取恶，能无咎乎？必死于此，弗得出矣。⁵⁹²

No, I do not have to. The *Changes* remarks, “Move out and there will be originality, great progress, great profits, and strength. In short, no evil.” “Originality” means the highest part of the body. “Great progress” means harmonious meeting of hosts and guests; “great profits” means the general name of morality; “strength” means core of all. If you show kindness, then you can lead others; a harmonious meeting conforms to the code of conduct; bringing profits to all can embody morality; being strong is meritorious. So I cannot cheat people. Though the Sui Hexagram advises that moving out is no mistake, as a woman, I participated in the political upheaval. I am socially inferior and have no integrity, so I do not possess “originality.” Participating in the political upheaval causes the kingdom to be chaotic, so I do not contribute to “progress.” In also does harm to

⁵⁹² Ibid., 364

myself in bringing chaos to the kingdom, so I do not contribute to “profits.” Finally, I give up my widow status to dress elegantly, so I do not have “strength.” If a person possesses all the four virtues as listed in the Sui Hexagram, then following the advice to move out will be of no evil. But I do not possess any, so how can I follow the guidance of the Sui Hexagram. I myself choose evil, how can be of no evil? I will die in here, so I won’t move out.

Sui 隨 means “following and going out.” This hexagram clearly tells people that moving out will bring the four virtues, so it is advisable to move out. Mu Jiang has reinterpreted the four virtues as listed in the Sui Hexagram. It is auspicious to move out because moving out will bring the four virtues. But because Mu Jiang is fully aware of her own (not so ethical) behaviors she has demonstrated before, so she purposely reinterpreted all the four virtues in order to stay in the Eastern Palace. Indeed, she eventually died in the Eastern Palace. Here is a case in which an individual purposely refuses to act by following the instructions given by the hexagram because she knows that due to her own behaviors, moving out will not bring anything auspicious.

In the spring of the 25th year of the Duke of Xiang 襄公二十五年 (548 BCE), Cui Shu 崔杼, a grand official 大夫 of the State of Qi 齐国 wanted to marry Tang Jiang 棠姜, the widow of the Duke of Tang 棠公. However, both Cui Shu and Tang Jiang are closely-related members of the same family clan, so the marriage would be incestuous, thus a taboo. Thus, Cui Shu consulted the Kun Hexagram 困卦 in the *Changes*, in an attempt to sanctify the marriage. Some said the marriage was auspicious, but Chen Wenzhi 陈文子, another grand official of the State of Qi, thought otherwise. He particularly pointed out what the Kun Hexagram communicates:

不可娶也，且其繇曰，困于石，据于蒺藜，入于其宫，不见其妻，凶，困于石，往不济也，据于蒺藜，可恃伤也，入于其宫，不见其妻，凶，无所归也。⁵⁹³

It is inauspicious to marry her. The statement on the third line of the Hexagram clearly states, “If you barricade yourself with huge rocks and then escape with the help of caltrops, you will safely return to your house but you won’t see your wife. None of these is auspicious.” If you strand yourself with huge rocks, it means you won’t succeed in your endeavor. If you escape the difficult situation with the help of caltrops, it means you

⁵⁹³ Ibid., 440.

will get hurt. If you enter your house but do not see your wife, it means that you do not have a home. None is a good sign.

Chen Wenzhi unmistakably points out the situation Cui Shu is in: he will straiten himself with the marriage just as an individual barricades himself with huge rocks. If he insists on marrying Tang Jiang, then Cui Shu will be homeless. The Hexagram Cui Shu has consulted is called Kun 困, which means “difficulties, constriction, dilemmas.” If one has encountered such a situation, then one may consult this hexagram for guidance. As Chen Wenzhi explains to Cui Shu, the marriage is like huge rocks; he may escape constriction, but he will get hurt, and eventually his life will end in tragedy, if he refuses to follow the guidance from the Kun Hexagram. Both he and his wife died tragically.

The above three cases demonstrate different ways ancient Chinese people of the era of the *Changes* used this classic to deal with issues in their daily life.

Strategies for Providing Instructions Employed in the *Classic of Changes*

In discussing the strategies which the *Classic of Changes* employs for providing instructions, I first examine how the instructions are structured, and then what information is included. While discussing the structure, I focus only on the titles, the hexagrams, the introductions, and the six lines of text (the line statement of each line of the hexagram) because only these pieces constitute technical instructions. Thus, my discussion does not include the Confucian Ten Wings.

This classic contains 64 hexagrams, as I have indicated above; each hexagram is one oracle, so there are 64 oracles. These oracles directly address ways of performing specific tasks in a broad range of fields. Each oracle addresses one task, so the *Classic* covers 64 different tasks, such as how to be a monarch, be a subject, operate an army, store grains, and use a well. Figure 8-2 illustrates one of those oracles, “Hexagram 7: Operating an Army.” It consists of the title, the image of the hexagram, the introduction (oracle text), and the six lines of text that correspond with the six lines of the hexagram.

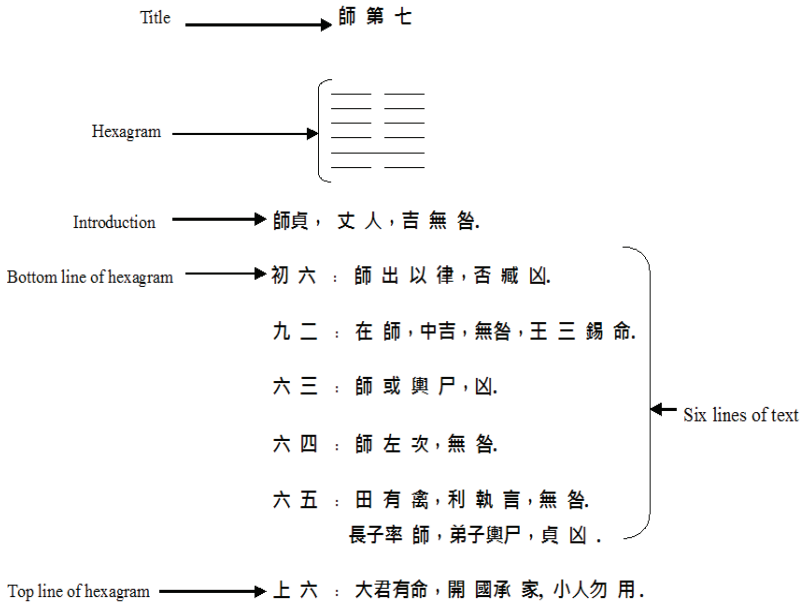


Figure 8.2. Structure of Hexagram 7 of the *Classic of Changes*

师卦 第七

师贞，丈人，吉无咎。

初六：师出以律，否臧凶。

九二：在师中，吉无咎，王三锡命。

六三：师或舆尸，凶。

六四：师左次，无咎。

六五：田有禽，利执言，无咎。长子帅师，弟子舆尸，贞凶。

上六：大君有命，开国承家，小人勿用。⁵⁹⁴

Hexagram 7: Operating an Army

⁵⁹⁴ Sato Kazusai 佐藤一斋, ed., *校订音训易经* [Edited and phonetically annotated *Yi Jing*] (Japan: 浪萃書鋪鬆敬堂 [Runkui Shupu Sonjintan], 1841), 5—6.

The rules are that the war be for a righteous end and that it be conducted under wise commanders. If it be so, there will be good fortune and no error.

- [Bottom line of the hexagram, divided:] Operate the army under strict principles; otherwise, whether victorious or defeated, the army is in great peril.
- [Second line of the hexagram, undivided:] Be a strong leader and operate the army with the doctrine of the mean. If it be so, there will be no error and the King will honor the leader many times.
- [Third line of the hexagram, divided:] Operate the army inefficiently and the army will return defeated. There will be evil.
- [Fourth line of the hexagram, divided:] Deploy the army left of a height. If so, there will be no error.
- [Fifth line of the hexagram, divided:] Hunt game birds that are damaging crops.⁵⁹⁵ If so, the army can speak from a sense of justice and there will be no error. Share the command with mean persons and ill fortune will befall, however righteous the end is.
- [Top line of the hexagram, divided:] The King appoints officials according to their contributions. Appoint those who have rendered outstanding services to be officials and senior officials. But never use mean persons.

⁵⁹⁵ “Hunt game birds that are damaging crops” suggests that the army should wage only a defensive war to put down rebellion and lawlessness

As Hexagram 7 shows, each hexagram is a set of instructions, and from it, we learn how the *Classic of Changes* structures its instructions, as Figure 8.2 illustrates. First, each set of instructions has a title, which indicates the subject of the oracle or the task to be performed, e.g., operating an army. Second, it has a visual illustration—a hexagram—which consists of six lines, divided (representing *yin*) or undivided (representing *yang*). This hexagram helps readers, especially professionals such as diviners, visually evaluate a situation in which a task is to be performed, to operate an army, in this case. Third, it contains a short introduction (the judgement text, aka, the oracle text), which explains the general significance of the entire set of instructions. And finally, it contains six lines of text to explain the significance of each of the six lines of a hexagram. I propose that these six lines are six individual steps to guide readers to perform a task. They begin with the bottom line of the hexagram. Thus, line 2, for example, corresponds with the second line from the bottom of the hexagram; in this case it explains that an army should be operated with the doctrine of the mean.

However, the *Classic of Changes* is not guidance-oriented; unlike instructional manuals developed in the West, it does not deploy an accumulation of detailed actions. In other words, it does not provide specific details that tell readers what actions to perform to complete a task. For example, if readers want to learn how to operate an army and consult the *Classic of Changes*, they should not expect to get accurate and specific instructions for doing so. It does not tell them how to develop military strategies nor how to apply these strategies in a war. Instead, they would learn general information about the right purpose of a war and the right commanders of an army, such as that a war must have a righteous end, enforcing strict principles is important, and the doctrine of the mean (i.e., avoidance of extremes, neither overshooting the mark nor falling short) is essential to a successful military expedition. All this information has more to do with the situation in which a war is to be waged than with the actions readers should take to develop and apply military strategies in the war; it helps individuals evaluate the situation in which the actions would be performed. Thus, before waging a war, individuals who question whether they (or others) should command the army or even launch the war may find the perspective from Hexagram 7 helpful in making a decision.

In this respect, Martin Palmer has made some incisive and perspicuous comments on how the *Classic of Changes* guides readers to perform tasks in daily life:

If you turn to the *I Ching* expecting it to tell you what to do, whether to go on with the relationship or to take the new job, you will rarely receive a

straight answer. Instead, you will be offered a view of the issues at stake, which will leave you still with the decision to make, but you will now have a clearer—or radically altered—perspective from which to make that decision. This is the power of *I Ching*. It does not so much answer your questions as push you along. In the end, just like King Wu, you have to decide what to do. . . . In other words, you should develop a dialogue with the *I Ching*, not look to it to command you or control you.⁵⁹⁶

Palmer's comments succinctly and effectively summarizes the strategy employed by the *Changes* for providing instructions—instead of spelling out specific actions for readers to take in order to complete a task, the *Changes* offers various perspectives from which to examine the issues related to the task to be performed; as a result, readers, after examining these perspectives, must decide whether to perform the task or not. In other words, these perspectives will help readers make the decision.

Let us examine another oracle—Hexagram 48: Using a Well. This time, I just present the introductory text and the 6 steps.

井卦第四十八

改邑不改井，无丧无得。往来井井。汔至亦未繙井，羸其瓶，凶。

初六：井泥不食，旧井无禽。

九二：井谷射鲋，瓮敝漏。

九三：井渫不食，为我心恻。可用汲，王明，并受其福。

六四：井甃，无咎。

九五：井冽寒泉，食。

上六：井收勿幕，有孚元吉。⁵⁹⁷

Hexagram 48: Using a Well

⁵⁹⁶ Martin Palmer, "Introduction," in *I Ching: The Shamanic Oracle of Change*, trans. Martin Palmer, Jay Ramsay, and Zhao Xiaomin (San Francisco: Thorsons, 1995), 39—40.

⁵⁹⁷ Sato, 34—35.

The site of a village changes, but its well does not. The water in the well never decreases and never increases. The villagers who draw water from it enjoy the benefit. But if a villager damages a bucket before the bucket is out of the well, then there will be evil.

Bottom line of the hexagram, divided:	If the well is muddy, do not use it. Nothing can be drawn from it.
Second line of the hexagram, undivided:	Do not use the well if water seeps into the well through cracks in the wall of the well, just as water leaks out of a jug.
Third line of the hexagram line, divided:	Feel sorry if the well is not used when it has been cleared out, because the water may be drawn and used.
Fourth line of the hexagram, undivided:	Line the well with bricks and there will be no error.
Fifth line of the hexagram, undivided:	Draw and use the water when it is cold and clear.
Top line of the hexagram, divided:	Do not cover the well since it supplies water to all villagers. If so, there will be sincerity and good fortune.

Like “Hexagram 7: Operating an Army,” “Hexagram 48: Using a Well” does not specify the required actions to perform a task. So readers do not receive a specific answer if they want to learn how to draw water from a village well. Instead, it offers many different views of the issues at stake. Thus, it does not so much teach one to use a well as it helps one make a decision about whether the well can be used or not. That is, it helps individuals analyze the context in which the well could be used. For instance, when one sees a well lined with bricks, it means that it is a good well and that it can be used. Here the oracle does not provide guidance-oriented instructions for lining a well with bricks. Similarly, the oracle

does not provide readers with specific instructions for repairing cracks in the wall of a well; it just advises one against drawing water from it.

It should be pointed out that readers seldom try to interpret the oracles by themselves; instead, they usually ask professionals such as diviners to do it for them. So the *Changes* employs many visual illustrations, the images of the 64 hexagrams. These visuals are simple, consisting entirely of straight lines, either divided or undivided. These illustrations seem almost primitive, but they carry very important oracle information for the professionals, who, based on the information, analyze their customers' situations and advise them to perform a task, or against performing it. In other words, the visuals help the professionals analyze various situations. So these visual illustrations seem irrelevant to non-professionals because they are too technical; it requires professional knowledge to interpret them. To a non-professional, the visual illustrations could be meaningless.

Unity Between Contexts and Individual Objects: The Philosophy of the *Classic of Changes*

According to scholars and researchers, the *Classic of Changes* emphasizes the philosophy of “unity between nature and humans,” that is, “nature-human thought,” which constitutes the foundation of Chinese culture, and this philosophical theory is the source of all Chinese cultural classics.⁵⁹⁸ In this unity, it appears that this classic stresses the role of ‘nature,’ as represented by Heaven and Earth (*Qian Kun* 乾坤). First, the entire *Classic of Changes* is based on the laws of Heaven and Earth.⁵⁹⁹ What are these laws? First, Heaven commands while Earth succumbs. Second, everything in nature is the result of the interplay of Yin (the nature of Earth) and Yang (the nature of Heaven).⁶⁰⁰ Third, if humans follow the rules of Heaven and Earth, they will make no mistake.⁶⁰¹ Fourth, the same law governs the changes of Heaven, the changes of Earth, and the changes of humans; thus, the law of nature and the law of humans are considered

⁵⁹⁸ Ediing Group, *Baihua*, 1, 379, 427—28; Wu Liqun 吴立群, “Cong *Yi Jing* de ‘Yi’ Kan ‘Tianren Heyi’ de Hexie Guan 从易经的“易”看“天人合一”的和谐观” [Harmonious view of unity between heaven and humans examined from the perspective of *Yi Jing*’s yi], *Chuansha Xuekan* Liushiba Ce Er Hao 船山學刊 68 册第 2 号 [Chuanshan journal 68, no. 2 (2008):] 138.

⁵⁹⁹ *Ibid.*, 357.

⁶⁰⁰ *Ibid.*, 359.

⁶⁰¹ *Ibid.*, 358; Richard Smith, *The I Ching: A Biography* (Princeton: Princeton University Press, 2012), 3.

one.⁶⁰² Therefore, Kidder Smith argues that the entire text of the *Changes* is based on the human-nature relationship, which he calls “the perennial triad of heaven, earth, and the human.”⁶⁰³ Richard Smith points out that “the mind of Heaven and the mind of Man are considered one (天人合一).”⁶⁰⁴

To put it differently, this philosophical theory advocates unity between a context (e.g., nature) and the individual events or objects (e.g., humans) that exist in that context. It sees as a unit the context and individual objects that otherwise seem separated and unrelated. In addition, this theory tells us that, because the context and individual objects are unified, the key to understanding the individual objects is understanding the context in which the objects exist—described in Chinese culture as the concept of emphasizing the situation as a whole, while de-emphasizing individuals.⁶⁰⁵

To illustrate how this philosophy works, let me discuss briefly another book of technical communication: the *Yellow Emperor’s Classic of Internal Medicine* (黄帝内经) published in the Han dynasty (206 BCE—220 CE), an anthology of papers on traditional Chinese medicine that help readers diagnose and treat common medical problems. Greatly influenced by the philosophy of the *Changes*, this medical anthology treats patients as individuals (individual objects and events) existing in nature (context). More important, it treats these patients as an integrated part of nature; therefore, the book is less concerned with microorganisms and details of the body’s organs and tissues than with the natural and social environments of the patients. For example, according to the book, a disturbing situation may damage a patient’s liver. So, to cure the liver problem, a patient has to first analyze the situation in which he or she exists, fully understand it, and then rectify it. In other words, the *Yellow Emperor’s Classic of Internal Medicine* focuses more on the context than on individual objects that exist within the context to help diagnose and treat common medical problems.

Such is the philosophy of the *Classic of Changes*—to focus on the context (situation) in which a task is to be performed. As my analysis of the two hexagrams has shown, the *Changes* indeed focuses on the context in which individual events occur, instead of the individual events themselves. This focus helps readers address potential contextual problems that they may encounter while performing a task in the context. For

⁶⁰² Ibid., 402, 428.

⁶⁰³ Smith, “Difficuly,” 6.

⁶⁰⁴ Smith, “Why the Yijing Matters,” 198.

⁶⁰⁵ Huang, Andrulis, and Chen, *A Guide*, 64—70.

example, readers considering waging a war should address questions such as these: What if the end of the war is to expand the existing territory rather than to put down lawlessness? Could we still win the war? What if a mean person is commanding the army? Or readers considering drawing water from a well should address questions such as: What if I see water creeping into the well from the cracks in the wall of the well? Can I still use the water? If the well is not lined with bricks, is it a good well? Before performing tasks, readers must think about these and other problems discussed in the oracles, and find answers to them. In Palmer's words, they "should develop a dialogue with the *I Ching*, not look to it to command you or control you."⁶⁰⁶ That is, they should examine the situation at stake based on the advice from the *Changes* and then decide whether to perform the task or not. Otherwise, if the situation is problematic, they will make errors when performing a task.

Thus the *Classic of Changes* offers different perspectives on various problems at stake. Every day, we deal with many aspects of life. For example, we go to work, raise our families, make friends, travel, and shop. In performing such tasks, we encounter many problems, and the *Changes* helps us solve them by offering us various perspectives so that we may examine these problems from different angles. Ultimately, however, we must determine our own approaches to the problems. By focusing on context, and addressing various contextual problems, this classic establishes relationships between contexts and individual events, and between the individual events themselves. In understanding these relationships, we can better understand the entire situation and better control the changes in the situation. So instructions in the *Classic of Changes* are context-oriented, not individual-task-oriented.

Having said that, the *Changes's* context-oriented remedies are expected to help readers to evaluate and improve a natural context (e.g., a well not lined with bricks) or a social context (e.g., the erroneous end of a war).

More important, they are aimed at creating a web of relations between context and individual events, and between individual events themselves, so that readers know that the events exist in relation to each other and to the context. For example, if an army suffers a defeat, the defeat may be related to a non-righteous end, which indicates a problem at the macro level (the general purpose of the entire oracle), or it may be related to the fact that the army is not operated under strict principles, which suggests a problem at the micro level (a step in the oracle). The defeat may be related

⁶⁰⁶ Palmer, "Introduction," 40.

to the fact that the war is not waged to stop a rebellion or lawlessness (a social context), or it may be related to the fact that the army is deployed in a wrong location (a natural context). This *Classic* is not handicapped by its lack of detailed instructions to guide individuals to perform individual tasks. It is a sophisticated analysis of how individual events are related to the context on more than one level, from each individual step of an oracle to the entire oracle as a whole, from a natural context to a social context. Here lies the strength of the *Classic of Changes* as a book of technical instructions.

Issues One Might Encounter When Using the *Changes* as a Book of Technical Instructions

As a book of technical instructions, the *Classic of Changes* advises its readers what to do or what not to do, mostly ruling on the advisability of various actions with words such as “Auspicious” (ji 吉), “Good fortune” (zhen 贞), “Evil” (xiong 凶), “No error” (wujiu 无咎), “No regret” (wuhui 无悔), etc.⁶⁰⁷ Often than not, these judgments are based on the situations described in the hexagram. For example, in Hexagram One: Heaven (*Qian Gua* 乾卦), the extra line statement announces, “See a multitude of dragons without a leading one, and that is auspicious” (*jian qunlong wushou, ji 见*

⁶⁰⁷ My discussion of the difficulty of interpreting the advisability on some actions draws inspiration from Kidder Smith’s discussion of the difficulty of interpreting the advice—the advisability of certain actions—and the evidence on which it is based. He claims that the difficulty is due to the Chinese language, its “syntax”; a lack of textual connection between the advice and the grounds it is based on. I agree with Smith that it is not easy to interpret the advice provided by the *Changes*; however, I do not agree with him that it is due to the Chinese language. Rather, the difficulty lies in the fact that interpreting the advice requires much knowledge of Chinese culture on the part of the interpreter. Smith’s conclusion is due to the fact that the examples of the English versions of the *Changes* he invokes in his discussion are miserable translations of the original Chinese text. For example, “有孚失是” means “sincerity” 真诚 but not “integrity” 正直 or “honesty” 诚实. “孚” (*fu*) means “sincerity” and “是” means “integrity and honesty.” These words are from the top-line statement in Hexagram 64. The line statement reads “If you drink according to your own drinking capacity, there will be no mistake. But if you drink to the extent that you even wet your head, then you lose integrity though you are still confident that you can drink.” In Smith’s study, the English translation of “有孚失是” is “there will be a capture while drinking wine and he will lose the spoon.” Smith is using Richard Alan Kunst’s translation. For more of Smith’s discussion, see Smith, “Difficulty,” 2–4.

群龙无首, 吉);⁶⁰⁸ in Hexagram 17: Following (*Sui Gua* 随卦), the first line statement pronounces, “Follow the right course unswervingly if your official position is changing, and there will be good fortune. You will be successful when you interact with others away from home” (*guan youyu zhenji chumenjiao yougong* 官有渝, 贞吉; 出门交有功);⁶⁰⁹ in Hexagram 31: Coupling (*Xian Gua* 咸卦), the second line statement reads, “Touch her calf, and there will be evil. However, if she remains passive, then auspicious” (咸其腓, 凶, 居吉).⁶¹⁰ In all the three hexagrams cited here, the judgments are based on the situations described, but it is not easy to establish a direct connection between them. What is the connection between “auspicious” and “seeing a group of dragons without a leader”? On what basis does the *Changes* claim “good fortune” simply because you follow the right course when your official position is changing? What is the connection between “evil” and “touching her calf” and between “auspicious” and “remaining passive”?

Here lies the first difficulty of interpreting the hexagram instructions. Even a native Chinese reader might find it hard to understand the connections.

I suggest that traditional Chinese culture should guide our investigations here. The *Changes* emphasizes some major philosophical thoughts in the Chinese tradition: unity between nature and humans, *yin-yang* principle, and correlative thinking, among others. In other words, these philosophical thoughts are embedded within the 64 hexagrams; therefore, if we interpret them based on these principles, then we will see the connections between the rules and the situations described. For example, the word for nature in ancient China was *Dao* 道,⁶¹¹ which means “the way,” “the path,” or “the road.” Of course, it is nature’s way, nature’s path, nature’s road. Humans must follow this path if they want to correlate their actions with nature, thus acting in harmony with nature. A major principle of the *Dao* is succinctly summarized by Lao Zi or Lao Tzu 老子 (cir. 571—471 BCE) in his *Classic of the Way and Power* (*Dao De Jing* or *Tao Te Ching* 道德经): Reversal is the principle of the *Dao* (反者, 道之动也).⁶¹² This means

⁶⁰⁸ Editing Group, *Baihua*, 27. Only Hexagram One and Hexagram Two each have an extra-line statement called *yong jiu* 用九 and *yong liu* 用六 respectively.

⁶⁰⁹ *Ibid.*, 121.

⁶¹⁰ *Ibid.*, 191.

⁶¹¹ Smith, *Biography*, 3.

⁶¹² Lao Tzu, *Tao Te Ching*, trans. D. C. Lau (Middlesex, England: Penguin Books, 1963), 101. Lau translates the Chinese text as “Turning back is how the way moves.”

when the development of anything brings it to one extreme, then a reversal to the other extreme takes place. Prosperity, at its highest point, will bring disaster; disaster, at its highest, will engender prosperity. It is one of the major principles of Laozi's philosophy as well as a major thesis of the *Classic of Changes* as advanced by the Confucian "Ten Wings."⁶¹³ Indeed, in the second part of the "Commentary on the Appended Statements" (*Xicizhuan Xia* 系辞传下), we read "When the cold goes, the warmth comes; when the warmth comes, the cold goes" (*hanwang ze shulai, shuwang ze hanlai* 寒往则暑来, 暑往则寒来).⁶¹⁴ In "Hexagram 55: Grandeur" (*Feng Gua* 丰卦), the Dao principle of "reversal" is most clearly manifest: "When the sun reaches its meridian, it declines; when the moon becomes full, it wanes" (*rizhong ze ze, yueman ze shi* 日中则昃, 月盈则食).⁶¹⁵ Thus, this principle gave birth to another major philosophical principle of the golden mean: avoid the two extremes of being full or empty. In addition, "never too much" is the maximum of this philosophical principle, as "having not enough" is much better than "having too much" because "having too much" will lead to the opposite of what one desires.⁶¹⁶

Now let's examine the three examples cited above. First, why is it considered auspicious when you see a group of dragons without a leading one? A group of dragons—robust, valiant, virile, and brave—do not show their superiority or compete for leadership by attempting to excel each other. Instead, they follow the Dao by avoiding having too much. They just act their own natural way—being valiant and brave but not attempting to excel each other. This is actually the way for humans to deal with their own affairs in society: do not compete with each other in order to stand out from the rest; just act your own natural way. Then you will live harmoniously with others, thus auspiciously. So the extra line statement in Hexagram One actually instructs readers to act in their own natural way, and if so, it will be auspicious.

What about the first line statement in Hexagram 17 which tells us to "follow the right course unswervingly if your official position is changing, and there will be good fortune"? Why does it also tell us that "You will be successful when you interact with others away from home"? Recall that Hexagram 17 is called Following (*Sui Gua* 随卦), which guides those who are following others, or whom others are following in their careers. This

⁶¹³ Fung, *A Short History*, 19.

⁶¹⁴ Editing Group, *Baihua*, 385.

⁶¹⁵ Editing Group, 306.

⁶¹⁶ Fung, *A Short History*, 20.

first line statement warns that in doing so, you may find out that your official court position may change, for better or for worse, but do not get excited if you win or upset if you lose; do not show off if you win, or fight if you lose; instead, you should always pursue the right course with steadfastness. If so, there will be good fortune. Why so? You will make new friends when you are away from home. In other words, if you follow the right course, you will find more companions who will follow you or whom you will follow. The “right course” referred to in the line statement is the Dao. Avoid “having too much”—do not get excited, show off, be upset, or fight for it.

Hexagram 31 even contains seemingly contradictory pieces of advice in the second line statement: “evil” and “auspicious.” How do we interpret this contradiction then? The corresponding line in the hexagram is a broken line, indicating a *yin* line 阴爻, which symbolizes earth, moon, female, night, water, passivity, etc. Generally, *yin* succumbs and follows. But when the calf in the *yin* position is touched, it tingles, and when it tingles, it tends to act in response. The action then will be reckless. This is evil because as the *yin* line position, the *yin* element should not act voluntarily. However, if it remains passive until the *yang* element approaches, even when it is tingling, then it is auspicious. The thesis of this line statement is that as the female *yin*, you should not act actively though your sense is tingling; instead, you should remain passive, pliant and yielding, according to the Dao. Then it is “auspicious.”

The second difficulty, closely related with the first difficulty, is the ambiguity of the *Changes*, especially the ambiguity involved in interpreting the line statements and the advisability of actions. Often, if one attempts to obtain a single meaning out of a line statement, one may be disappointed, because multiple interpretations of a line statement is always possible. For example, the extra-line statement in Hexagram One reads “If you see a multitude of dragons without a leading one, it is auspicious” (*jian qunlong wushou, ji* 见群龙无首, 吉). How would you interpret the very concrete situation described here? You may just take the sentence at the face value: a group of dragons without a leader, but why is it auspicious? You may explain that dragons are potent and powerful, but are rarely seen, so if you see one or even a group, whether with or without a leading one, it is always auspicious, as a Chinese proverb goes, “You have seen a genuine dragon and the son of Heaven” (*jian zhenlong tianzi*, 见真龙天子), an auspicious event. And indeed, it is something you experience only once in a lifetime, and it portends good fortune. Or you may read it figuratively—as consisting of images that, when properly understood, reveal a significance greater than the literal meaning of their

words.⁶¹⁷ If you read it figuratively, then you might interpret a group of dragons as a group of men, or a group of people. Actually, “群龙无首” as it appears in the *Changes*, is the root of a four-character proverb (*cheng yu* 成语), and it is often used to describe a huge crowd without a leader.⁶¹⁸ Or you may even claim that a group of dragons without a leader indicates “a democratic relationship between the leader and the members of group.”⁶¹⁹

The line statement cited immediately above suffices to suggest that multiple interpretations of a line statement are possible. These statements almost always require readers to actively transform them into usable instructions, because there is no one-to-one correspondence between a line statement and the instruction it contains. The users of the *Changes* must obtain instructions from the situations or events described based on their experiences with the events or situations described. In other words, a line statement may “provoke potentially productive associations with one’s own experiences and outlook” every time one is using it.⁶²⁰ Here it seems that the *Changes* provides instructions indirectly—by encouraging its users to think indirectly through association with one’s own experiences and outlook. The second part of the “Commentary on the Appended Statements” (*Xicizhuan Xia* 系辞传下) appears to give a footnote to this ‘indirect’ style of the *Changes*:

其称名也小，其取类也大。其旨远，其辞文，其言曲而中，其事肆而隐。因贰以济民行，以明失得之报。⁶²¹

The names of the hexagrams and diagrams appear insignificant, but the classes of things embedded within them are significant. Besides, their scope reaches far, and their words are elegant. Their language is indirect, but to the point; events and matters are obviously set forth in it, but they carry hidden principles. Their object is to help people perform various

⁶¹⁷ Smith, “Revolution,” 4. Smith is discussing a major parallel between the *Classic of Poetry* and the *Classic of Changes*, both of which can be read figuratively.

⁶¹⁸ Wang Jianyin 王剑引, *Zhongguo Chengyu Da Cidian* 中国成语大辞典 [A dictionary of Chinese proverbs] (Shanghai: Shanghai Dictionary Publisher, 1985), 1007. “成语” literally means “set phrase,” to which you cannot add a character or delete one from. It usually consists of four characters just like 群龙无首, but some have more than four characters. The meaning of a set phrase depends on the story behind it. Because the entire story behind a “set phrase” is condensed into the phrase, one may find it hard to understand it without knowing the story behind it.

⁶¹⁹ Minford, *Essential Translation*, 24.

⁶²⁰ Smith, “Why the Yijing Matters,” 198.

⁶²¹ Editing Group, *Baihua*, 391.

tasks when in doubt, and to help them understand the gains and losses in their task performance.

All the situations and events are clearly described in the *Changes*, but what instructions they carry or entail can only be obtained with one's experiences indirectly through interpreting the situations and events. As the first part of the Commentary on the Appended Statements" (*Xicizhuan Shang* 系辞传上) points out, "whether the various approaches to the different situations and the various perspectives as offered by the *Changes* can be understood and utilized to the full depends on how humans use them" (*shen er mingzhi, cunhu qiren* 神而明之, 存乎其人).⁶²² How to use them then? The *Changes* seems to have asked an important question. I think humans must couch the uses in their experiences of traditional Chinese culture.

Of course, these experiences must be related to the situations or events described. In other words, the *Changes* seems to provide instructions indirectly through describing events or situations. This indirectness is almost like the "suggestiveness" I have brought up in Chapter Three on the *Classic of Poetry* 诗经. It is certainly similar to the "indirectness" I have discussed in Chapter Seven on "Accounts of Examining Artisanry" (考工记).

I think the "indirectness" is necessarily essential to a book like the *Changes*. If there were a one-to-one correspondence between a situation described and the instruction, then the *Changes* "would be nothing more than a code, and interpretation merely the indexing of that code to situations in the world."⁶²³ If it were just a code, then it would not be able to help its users deal with every situation in the world when in doubt.

In both cases of the two difficulties, one needs to associate one's interpretation of a situation or an event, as described in the *Changes*, with one's experiences. More important, these experiences must be couched in traditional Chinese culture.

Significance of the *Classic of Changes* as a Book of Technical Instructions

As a book of technical instructions, the *Classic of Changes* has several implications for later technical writing texts in the Chinese tradition.

⁶²² Ibid., 376.

⁶²³ Kidder Smith, "Zhouyi Interpretation from Accounts in the Zuo-zhuan," *Harvard Journal of Asiatic Studies* 49, no. 2 (December 1989): 452.

Emphasizing Context

First and foremost, it advocates the “unity between nature and humans”; it thus advances a very important guiding principle observed by later Chinese technical instructions and manuals: unity between a context and individual events in the context. In this unity, it emphasizes the context as a whole, instead of the individuals within the context, because individuals exist only in relation to other individuals in that context, and more important, in relation to the context. These relations are part of the context as a whole. In other words, the context is essential to the existence of the individuals. As the *Changes* claims, “nature (Heaven and Earth) gave birth to a myriad of objects, which in turn gave birth to men and women” (*you tiandi, ranhou you wanwu; you wanwu, ranhou you nannv* 有天地，然后有万物，有万物，然后有男女), and everything else in human society.⁶²⁴ Humans, and all in human society, exist only in relation to the context (nature) in which they exist. “If there were no interplay between heaven and Earth, nothing (including humans) would not exist” (*tiandi bujiao, er wanwu buxing* 天地不交，而万物不兴).⁶²⁵ To stress the importance of the context, and thus harmony between the context and humans existing in it, the *Changes* offers various ways to help humans examine the ordinances of nature and all the problems and issues in it. These ordinances and problems and issues are called ‘changes’ (*yi* 易).⁶²⁶ *Yi* 易 also suggests ‘easiness’.⁶²⁷ So we may say that the book is about changes (or problems) in the world and advises its readers on how to cope with these changes. Because these changes can be predicted and therefore controlled, the *Changes* provides ‘easy’ approaches to controlling these changes.

The *Changes* tells us how its own text represents all the changing phenomena of nature:

是故，夫象，圣人以见天下之赜，而拟诸其形容，象其物宜，是故谓之象。圣人以见天下之动，而观其会通，以行其典礼，系辞焉，以断其吉凶，是故谓之爻。极天下之赜者，存乎卦；鼓天下之动者，存乎辞；化而裁之，存乎变；推而行之，存乎通。⁶²⁸

⁶²⁴ Editing Group, *Baihua*, 416.

⁶²⁵ *Ibid.*, 301.

⁶²⁶ *Ibid.*, 3—4.

⁶²⁷ *Ibid.*, 4.

⁶²⁸ *Ibid.*, 376,

Thus, speaking of the images, the sage saw all the changes (of the complex phenomena and issues) in nature, considered their forms, and represented them by means of imitating their forms in images. The sage observed all the activities under the sky, noticed their common features and deduced their ordinances in a line of the image, and explained them in words to rule on the advisability of various actions. All the complex phenomena under the sky are embedded within the hexagrams; driving all activities under the sky to be dynamic is what the line statements do; transforming the activities so that they function to the greatest extent is what the changes do; carrying them out is to adapt them for specific events.

It is clear from this passage that the *Changes* contains the general features of all the changes under the sky. To take advantage of these changes and let them do their jobs, users of the book must adapt them to fit their own situations by analyzing the situations as described in the *Changes* and the situations they are actually in. This is perhaps what Palmer means when he explains that the *Changes* does not spell out specific actions for you to perform in order to complete a task but instead offers “a view of the issues at stake” so that “you will have a clearer—or radically altered—perspective from which to make [a] decision.”⁶²⁹ In Smith’s words, the *Changes* allows its users to “understand all phenomena, including the forces of nature, the interaction of things, and the circumstances of change.”⁶³⁰ In a nutshell, it helps its users evaluate the circumstances of all the events they are facing.

So the *Changes* guides its readers to deal with the problems in their lives by helping them to examine various perspectives on the problems and define easy strategies for approaching these problems. In other words, it helps its readers deal with the large context; it does not focus on specific actions readers must take to perform various jobs. So the *Changes*, as a book of technical instructions, is context-oriented, not particularly job-performance-oriented.

Though the *Classic of Changes* does not provide guidance-oriented instructions for task performance, it does examine various perspectives on problems, helping readers see clearly the effects of various changes in a situation in which a task is to be performed. These perspectives are actually contextual information, which is provided for readers to use in examining a situation in order to decide whether to perform a task. In other words, this emphasis on context is the major feature of the *Changes*; it is the pivot around which this classic revolves. With this feature, the

⁶²⁹ Palmer, “Introduction,” 39.

⁶³⁰ Smith, *Biography*, 64

Changes has established a tradition that Chinese instructional manuals are still observing today.

From Specific to General

As a book of divination, the *Changes* helps its users predict future events: whether the events will be ominous or whether they should perform a future task. Should we, for example, dig a well in the village? Is that auspicious? Now the question is this: on what basis does it predict future events? It does so by linking various specific natural phenomena to good luck, ill luck, misfortune, and happiness in human society—creating a link between nature (Dao) and human affairs 天道与人事. The authors of the *Changes* described nature as they understood it, and projected their own emotions and feelings onto nature to personify it. In turn, this personified nature conditions humans' interpretation of their own life in society. In this way, nature governs human affairs, while humans correlate their own affairs with nature. Smith brought up a similar point when he discussed the main function of the *Changes* in dynastic China, “The central preoccupation of the Yijing throughout the Imperial era (from the Han to the Qing) was how to understand the patterns and processes of nature, and how to act in harmony with them.”⁶³¹ Nature conditions human affairs. This is the principle of the *Changes* that governs how it predicts future events.

Such a principle also governs the textual structure of the *Changes*, argue some Chinese researchers.⁶³² As I pointed out at the beginning of this chapter, the classic part of the *Changes* consists of the “upper classic, 上经” and the “lower classic 下经.” The “upper classic” explains the Dao, while the “lower classic” discusses human affairs” (*shangjing ming tiandao*, *xiajing ming renshi* 上经明天道，下经明人事。⁶³³) The “upper classic” begins with the Qian 乾 and Kun 坤 Hexagrams, which are the

⁶³¹ Ibid., 3.

⁶³² He Qiuying 何秋瑛 and Han Yunbo 韩云波, “Yijing Xushi Yaosu yu Xushi Yiyi Lunxi” 易经叙事要素与叙事意义论析 [Analyzing narrative features and their significance in the *Classic of Changes*], *Xinan Minzu Daxue Xuebao* 2006/6 Zong Di 178 Qi 西南民族大学学报 2006/6 总第 178 期 [Journal of Southwest Minzu University 178 (June 2006):] 120.

⁶³³ Kong Yingda 孔颖达, Wang Bi 王弼, and Han Kangbo 韩康伯, eds., *Zhouyi Zhengyi* 周易正义 [Corrected Meanings of the Changes of Zhou], in *Shisanjing Zhushu* 十三经注疏 [Thirteen classics, with commentary and sub-commentary], ed. Ruan Yuan 阮元 (Hangzhou, China: Zhejiang Guji Chubanshe, 1998), 46.

roots of *yin* and *yang* and of all under the sky, so all the changes in nature begin here. The “lower classic” begins with Xian 咸 and Heng 恒 Hexagrams, which are the origin of male and female and the way of husband and wife, so all humans affairs begin here. This arrangement of the text illustrates the governing principle in the *Changes*: To understand human affairs, humans must be guided by all the different ways specific events occur in nature; specific natural events condition humans’ interpretation of their own life.

The 64 hexagrams are arranged in such a way that they move from nature to humans—from specific events in the large, governing context of nature to the more general conclusions about human affairs, in short, from specific to general. This order is also at work in the text of an individual hexagram. In each hexagram, the text first describes a specific situation, and then, based on the situation, draws the conclusion. Let’s look at the following three examples:

有孚比之，无咎；有孚盈缶，终来有他，吉。⁶³⁴

Be sincere to form a common community, and there will be no misfortune; if sincerity is as full as an earthenware cup is full of wine, all will approach you to seek your assistance, and it will bring added good luck.

羝羊触藩，不能退，不能遂，无攸利，坚则吉。⁶³⁵

A ram butting against a fence gets its horns entangled, unable to retreat or to advance, and there is no advantage in any respect. Good luck will arrive only after hard times.

旅焚其次，丧其童仆，贞厉。⁶³⁶

On your trip, your hotel catches fire while you have lost your young servants; no matter how firm you are, you will be in danger.

The above three examples clearly illustrate the textual structure of the *Changes*: from specific evidence to general conclusions, which suggests that the *Changes* employs inductive reasoning. As I have already pointed out in Chapter Two, the oracle-bone Inscriptions (甲骨文), China’s earliest artifact of technical writing, championed the inductive reasoning sequence in its four-part textual structure. The *Changes* seems to reinforce

⁶³⁴ Editing Group, *Baihua*, 77.

⁶³⁵ *Ibid.*, 206.

⁶³⁶ *Ibid.*, 313.

that reasoning sequence in its own text. Again, as I stressed in Chapter Two, this reasoning sequence is still largely employed in Chinese writing, including technical writing.

Using Visuals

As a book of technical instructions, the *Changes* employs visuals to help its users evaluate a specific event and thus decide to perform a task or not. These visuals are the 64 hexagram images, and clearly these are used as visual aids. The first part of the “Commentary on the Appended Statements” (*Xicizhuan Shang* 系辞传上) explains that these visuals help communicate the sages’ ideas:

子曰：“书不尽言，言不尽意。然则圣人之意，其不可见乎？”子曰：“圣人立象以尽意，设卦以尽情伪，系辞焉以尽其言。”⁶³⁷

Confucius remarked, “Written language is not adequate to convey a speaker’s words; speech is not adequate to communicate his ideas. Is it not possible then to discover the sages’ ideas?” Confucius remarked, “The sages created images of the trigrams and hexagrams to fully express their ideas, devised the 64 hexagrams to represent all the changes in nature, and gave full expression to their words in each line statement.”

Since neither language nor speech is adequate to completely express sages’ ideas, images are employed to complement words. Of course, to interpret these images, professionals had to be employed, like diviners or court scribes. These professional serve as the bridge between the users of the book and technical information.

A couple of noteworthy features should be discussed here: First, information from each visual is thoroughly discussed in the text, a very important principle that governs even modern uses of tables and figures in technical communication.⁶³⁸ Each line of a hexagram is explained and commented on in its corresponding line statement and image commentary. Second, these images are not numbered, so the authors of this book never explicitly refer to the images by using their numbers. However, there is no misunderstanding, because the hexagram image appears at the very beginning of the text of a hexagram, and each line statement and its commentary follow the number of the line. In other words, the connection

⁶³⁷ Ibid., 374.

⁶³⁸ George J. Searles, *Workplace Communications: The Basics*, 8th ed. (Hoboken, NJ: Pearson, 2020), 44.

between an image and its corresponding text is established by proximity of the image and the text to each other on the page. This way of establishing a connection between a visual aid and the text in Chinese technical communication is also found in later dynastic artifacts of technical writing, like *On the Works of Nature (Tian Gong Kai Wu 天工开物)*, completed in 1628, as well as in modern artifacts of technical writing in China.

CHAPTER NINE

YELLOW EMPEROR'S CLASSIC *OF INTERNAL MEDICINE* (黄帝内经) — CHINA'S FIRST COMPREHENSIVE MEDICAL BOOK

In Chapter One, I pointed out that Ban Gu 班固 (32—92 CE), in his “Monograph on Arts and Writings” (*Yiwen Zhi* 艺文志), a bibliographical chapter in his *History of the Former Han* (*Han Shu* 汉书), classified technical writing texts into four large categories: medical writing (*yi jing* 医经); pharmacopoeias writing (*jing fang* 经方); art-of-bedchamber writing (*fang zhong* 房中); and immortal writing (*shen xian* 神仙).⁶³⁹ To support his own classification, Ban Gu cited many texts and books under each of the four categories, and among the texts and books he cited to support the category of medical writing, we can find the title *Yellow Emperor's Classic of Internal Medicine* 黄帝内经. In other words, this work had already become a classic by the time Ban Gu was composing his *History of the Former Han* (*Han Shu* 汉书).

Actually, the *Yellow Emperor's Classic* has been a classic of medicine ever since it was composed. Scholars consistently compliment it, claiming that it was the first and the oldest medical work in the Chinese tradition and laid the foundations for the theoretical system of Chinese traditional medicine, and that it is still guiding the present-day Chinese traditional medical theories and practices.⁶⁴⁰ However, it is not easy to determine

⁶³⁹ Ban Gu 班固, *Han Shu* 汉书, 533.

⁶⁴⁰ Zhang Canshen 张灿珪, Xu Guqian 徐国仟, and Zong Quanhe 宗全和, eds., *Huangdi Neijing Suwen Jiaoyi* 黄帝内经素问校译 [Annotation and vernacular translation of *Huangdi Neijing Suwen*] (Beijing: Renmin Weisheng Chubanshe, 1982), 1; Ching Lan, Steven L. Wolf, and William W. N. Tsang, “Tai Chi Exercise in Medicine and Health Promotion,” *Evidence-Based Complementary and Alternative Medicine* 2013 (2013): 2; Alma Barbaso-Schwartz, “Traditional Chinese Medicine: Ancient Holistic Healing,” *Home Health Care Management & Practice* 16, no. 6

with any degree of certainty the author(s) or the actual date of composition of this classic, as it is not a work completed at a definite date by one definite author; instead, it is a work by multiple authors over an extended period of time.⁶⁴¹

Scholars generally agree that the book, whose raw materials were probably handed down by oral tradition from high antiquity, was completed before the Western Han dynasty (206 BCE – 25 CE), most probably in the Warring States period (475-221 BCE).⁶⁴² After being augmented, revised, annotated, and edited, by various scholars and compilers, the book was finally published in 762 CE in a version in twenty-four fascicles, as we read them today. Most notable among the compilers of the book was Wang Bing 王冰 (710–805 CE) of the Tang dynasty (618-907 CE), who commented on most of the text and elucidated its meaning. But the book did not come to us in its present-day form yet; it was checked, emended, and annotated again between 1068 and 1078 CE

(2004): 494; Geoffrey C. Goats, “Massage—the Scientific Basis of an Ancient Art: Part 1. The Techniques,” *British Journal of Sports Medicine* 28, no. 3 (1994): 149; Kan-Wen Ma, “Acupuncture: Its Place in the History of Chinese Medicine,” *Acupuncture in Medicine* 18, no. 2 (December 2000): 89; Jingfeng Cai, “A Historical Overview of Traditional Chinese Medicine and Ancient Chinese Medical Ethics,” *Ethik in der Medizin*, 10, no. 1 (September 1998): S84; Athar Yawar, “Spirituality in Medicine: What Is to Be Done?” *Journal of the Royal Society of Medicine* 94 (October 2001): 531; Du Shiran 杜石然 et al., *Zhongguo Kexuejishu Shigao*, 139–43; Ilza Veith, *The Yellow's Emperor's Classic of Internal Medicine: Translated with an Introductory Study*, new ed. (Berkeley: University of California Press, 1984), ix, 9; Needham, *Science and Civilisation in China*, vol. 2, 1956, 265.

⁶⁴¹ Frank, *Oracle Bones*, 40–41; Vivienne Lo, “The Han Period,” in *Chinese Medicine and Healing: An Illustrated History*, ed. T. J. Hinrichs and Linda L. Barnes (Cambridge, Massachusetts: The Belknap Press of Harvard University Press, 2013), 35; Du Shiran 杜石然 et al., *Zhongguo Kexuejishu Shigao*, 139–41; Zhang Canshen 张灿坤, Xu Guqian 徐国仟, and Zong Quanhe 宗全和, eds., *Huangdi Neijing*, 1–7; Nathan Sivin, “Science and Medicine in Imperial China—The State of the Field,” *The Journal of Asian Studies* 47, no. 1 (February 1988): 68; Veith, *The Yellow's Emperor's Classic*, 6–7.

⁶⁴² Zhang Canshen 张灿坤, Xu Guqian 徐国仟, and Zong Quanhe 宗全和, eds., *Huangdi Neijing*, 1–7; Veith, *The Yellow's Emperor's Classic*, 7; Frank, *Oracle Bones*, 40; Sivin, “Science and Medicine,” 68; Du Shiran 杜石然 et al., *Zhongguo Kexuejishu Shigao*, 139.

by Lin Yi 林亿 and Gao Baoheng 高保衡 of the Northern Song dynasty (960—1127 CE).⁶⁴³

Though the title of the book makes a reference to the Yellow Emperor, thus making a connection between the authorship and his name, and though the dialogue takes place between him and his minister, the book was not written by him. The Yellow Emperor is a legendary figure who is said to have ruled China for 100 years around 2700 BCE. He is claimed as the founder of Chinese civilization and the first far-sighted ruler of the empire.⁶⁴⁴ Hence, he is attributed the authorship most probably because his name renders the book authoritative; as Zhang explains, his presence in this text “as a human being. . . is not only associated with the revelation of secret words, but also attests to [its] practicability in order to increase [its] authority and creditability. The text’s need for a simultaneously divine and human Yellow Emperor is noticeable.”⁶⁴⁵

As I have shown in Chapter One, Sima Qian 司马迁 (ca. 145—ca. 86 BCE), in the “Biographies of Bian Que and Cang Gong” (扁鹊仓公列传 *Bian Que Cang Gong Liezhuan*), a chapter in his famous *Records of the Historian* (史记 *Shiji*), recounts stories of two famous physicians in Chinese antiquity, Bian Que 扁鹊 (407—310 BCE), a highly skilled physician during the Warring States Period 战国 (481—221 BCE), and Cang Gong 仓公 (ca. 210—ca. 140 BCE), also known as Chunyu Yi 淳于意 in the text of the “Biographies,” a well-known physician during the Western Han period 西汉 (203 BCE—8 CE). In his narrative of these two Chinese physicians, Sima Qian enumerates many Chinese medical texts used or recommended by these two physicians: *Pulse Book* (*Mai Shu* 脉), a text that discussed how to diagnose diseases based on pulse taking; *Upper Channels* (*Shang Jing* 上经), a text that identifies and discusses the air channels (thought to exist at that time) in the upper body; *Lower Channels* (*Xia Jing* 下经), a text that was intended as a sequel to *Upper Channels*; *Diagnosis Based on Five Complexions* (*Wuse Zhen* 五色诊), a book that discussed diagnosis of diseases according to five different colors of the skin on a patient’s face; *Calculation* (*Kui Duo* 揆度), a book that

⁶⁴³ Zhang Canshen 张灿坤, Xu Guqian 徐国仟, and Zong Quanhe 宗全和, eds., *Huangdi Neijing*, 7—10; Veith, *The Yellow’s Emperor’s Classic*, 8—9; Frank, *Oracle Bones*, 41.

⁶⁴⁴ Sima Qian, *Records of the Historian*, vol. 25, 155—62.

⁶⁴⁵ Hanmo Zhang, *Authorship and Text-making in Early China*, vol. 2 (Berlin: Walter de Gruyter GmbH & Co KG, 2018), 52.
<https://www.jstor.org/stable/j.ctvbkk21j.6>

showed how to estimate the seriousness of an illness, just to name a few.⁶⁴⁶ *The Yellow Emperor's Classic* mentions these titles very often in the conversations between the Yellow Emperor and his minister who are discussing medical issues.⁶⁴⁷ Actually the text is peppered with the titles of these medical books so much so that we develop an impression that the author(s) of the classic felt compelled to refer to these titles repeatedly. The main reason why *The Yellow Emperor's Classic* refers to these titles again and again is that, as I take it, this *Classic* draws inspiration from these earlier medical texts. The second reason is to increase its own authority and credibility as a handbook that intends to guide medical theories and practices. Since these medical texts enabled Cang Gong (仓) to become a master physician whom even the King of Qi (齐王) trusted,⁶⁴⁸ these books must have been medically credible and trustworthy.

In this chapter, I introduce *The Yellow Emperor's Classic of Internal Medicine* as the first comprehensive medical handbook in the Chinese tradition. As Zhang Canshen 张灿珪, Xu Guqian 徐国仟, and Zong Quanhe 宗全和 have pointed out, as a medical handbook, *The Yellow Emperor's Classic of Internal Medicine* has been guiding medical practices and theories in China, either private physicians or state medical enterprises, for thousands of years ever since it appeared.⁶⁴⁹ Du Shiran 杜石然 et al. believe that, probably due to the influence of *The Yellow Emperor's Classic of Internal Medicine*, Chinese traditional medicine became one of the well developed branches of science in ancient China.⁶⁵⁰

Formal Structure of *The Yellow Emperor's Classic of Internal Medicine*

The Yellow Emperor's Classic of Internal Medicine consists of two parts: “*Su Wen*” (素问 Questions on the Human Body) and “*Lingshu Jing*” (灵枢经 (Classic of Miraculous Pivotal Channels)).⁶⁵¹ “*Su Wen*” actually

⁶⁴⁶ Sima Qian, *Records of the Historian*, vol. 25, 50—51.

⁶⁴⁷ Zhang Canshen 张灿珪, Xu Guqian 徐国仟, and Zong Quanhe 宗全和, eds., *Huangdi Neijing*, 191, 194, 266, 445, 574, 877, 1267.

⁶⁴⁸ Sima Qian, *Records of the Historian*, vol. 25, pp. 50—51.

⁶⁴⁹ *Ibid.*, *Huangdi Neijing*, 1—3.

⁶⁵⁰ Du Shiran 杜石然 et al., *Zhongguo Kexuejishu Shigao*, 142.

⁶⁵¹ As is always true with translating titles of Chinese books or articles, a variety of English versions exist. Translating the *Yellow Emperor's Classic* is no exception. Some translate “*Su Wen*” as “Plain Questions”; others translate it as

means “questions (by the Yellow Emperor) on the nature of the human body.” It discusses the theoretical foundations of Chinese traditional medicine, diseases, diagnostic methods, and various treatments. “*Lingshu Jing*” discusses acupuncture points and ducts in the body. The entire *Classic* is structured as a dialogue between the Yellow Emperor and his minister Qi Bo 岐伯, in which the emperor poses questions and the minister answers them. Traditionally, though “*Su Wen*” and “*Lingshu Jing*” combined are called *The Yellow Emperor’s Classic of Internal Medicine*, this *Classic* is often referred to as *The Yellow Emperor’s Su Wen on Internal Medicine* (黄帝内经素问 *Huangdi Neijing Suwen*) or “*Suwen*” for short.⁶⁵²

The Yellow Emperor’s Classic has twenty-four fascicles (卷 *juan*), which are further divided into 81 chapters. None of these fascicles has a title. We need to note that this medical classic is not organized around topics in the way a modern medical book is. Instead, various topics are discussed throughout the book, so one topic may be discussed in the first seven chapters, later picked up in the middle five chapters, and eventually elaborated on again in the final ten chapters. For example, the “Yin Yang” topic, introduced and discussed in the first and second fascicles, is integrated in and stressed throughout all the other fascicles. But we can still organize the twenty-four fascicles into several thematic units based on what topic is stressed:

- 1-2: Interaction Between Yin and Yang
- 3: Manifestations of Five Viscera (heart, lungs, liver, spleen, and kidneys)
- 4: Methods of Treatment
- 5-6: Diagnosis
- 7: Pathogenesis
- 8: Acupuncture Channels and Pathogenesis
- 9-13: Diseases

“Simple Questions.” I believe both think that because the sinograph “su” 素 means “simple” or “plain,” and “wen” 问 means “questions,” they translate it as “Plain or Simple Questions.” But I believe that “su” means “the nature,” particularly the nature regarding the human body after it attains its present physical form, as Zhang, Xu, and Zong explain in their *Huangdi Neijing*. For more details, See Zhang Canshen 张灿坤, Xu Guqian 徐国仟, and Zong Quanhe 宗全和, eds., *Huangdi Neijing*, 7–8. Thus, I translate “Su Wen” as “Questions on the Human Body.”

⁶⁵² Zhang Canshen 张灿坤, Xu Guqian 徐国仟, and Zong Quanhe 宗全和, eds., *Huangdi Neijing*, 1.

- 14-18: Acupuncture Channels and Points of the Body
- 19-22: Vital Energy
- 22-24: Pathogenesis, Treatments, and Ethics.

These ten topics, on further analysis, can be summarized in four major themes: organs, diagnosis, diseases, and treatments.

The Organs

The Yellow Emperor's Classic tells us that the human body has eleven organs: five viscera (五脏 *wuzang*) and six bowels (六腑 *liufu*). The five viscera are the heart, the spleen, the lungs, the liver, and the kidneys. The six bowels include the gall bladder, the stomach, the large intestines, the small intestines, the bladder, and the trio visceral cavities (三焦 *sanjiao*). Fig. 9-1 and Fig 9-2 illustrate these viscera and the trio viscera cavities respectively.

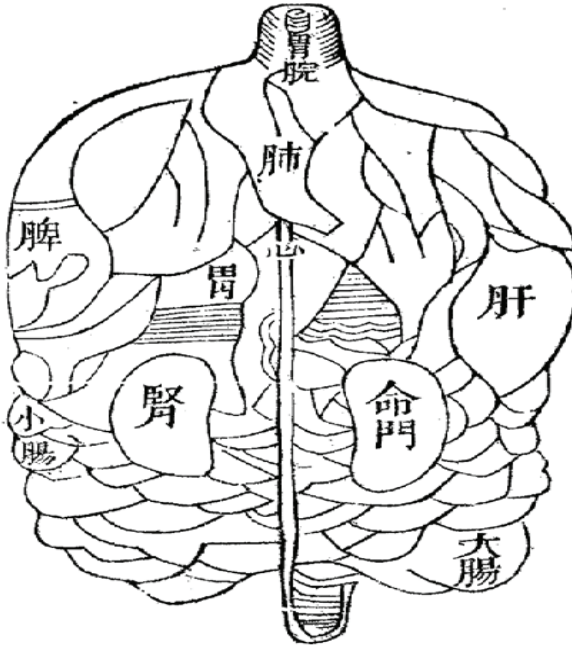


Fig. 9-1 Five Viscera—On Top: Mouth to Stomach; Below It: Lungs; Below Lungs: Heart; On Right: Liver; On Left: Spleen; Lower Right: Large Intestines; Lower Left: Small Intestines; Kidney-shaped Organ on Left: Kidney; Between Heart and Kidney: Stomach; Kidney-shaped Organ on Right: Vital Organ Source: An 1875 Nanyatang 南雅堂 Edition of the *Simple Notes on Truncated Lingshu Suwen* 灵枢素问节要浅注 Edited by Chen Nianzu 陈念祖



Fig. 9-2 Trio Viscera cavities—Characters on both sides from top to bottom: "Upper Cavity," "Middle Cavity," "Lower Cavity"

Source: An 1875 Nanyatang 南雅堂 Edition of the *Simple Notes on Truncated Lingshu Suwen* 灵枢素问节要浅注 Edited by Chen Nianzu 陈念祖

Though these two illustrations were added to the *Classic* by the Qing dynasty (1644—1911 CE) physician and scholar Chen Nianzu 陈念祖 (1753—1823 CE), they accurately show the locations of the organs in the body as imagined by people at that time. In traditional Chinese medicine, the physical body is always understood on the basis of *Yin-Yang* and *Five-Elements* philosophical concepts.⁶⁵³ In addition, traditional Chinese

⁶⁵³ Lo, "The Han Period," 36—39; Sivin, "State, Cosmos, and Body," 18—20; Veith, *The Yellow Emperor's Classic*, 1—76; Cai, "A Historical Overview," 584—86; Barbaso-Schwartz, "Thaditional Chinese Medicine," 494—95; Thomas S. N.

medicine is more concerned with interactions between the organs and nature than the details of these organs.⁶⁵⁴ The nature-oriented medical concepts in traditional Chinese medicine have their roots in *The Yellow Emperor's Classic of Internal Medicine*. In the very first chapter, the connection between nature and the human body is emphasized.

余闻上古有真一人者，提挈天地，把握一陰一陽一，呼吸一精一氣，獨立守神，肌肉若一，故能壽蔽天地，無有終時，此其道生。中古之時，有至人者，淳德全道，和于一陰一陽一，調于四時，去世離俗，積一精一全神，游行天地之間，視听八達之外，此蓋益其壽命而強者也，亦歸于真一人。其次有聖人者，處天地之和，從八風之理，適嗜欲于世俗之間，無恚嗔之心，行不欲離于世，被服章，舉不欲觀于俗，外不勞形于事，內無思想之患，以恬愉為務，以自得為功，形體不敝，精神不散，亦可以百數。其次有賢人者，法則天地，象似日月，辨列星辰，逆從一陰一陽一，分別四時，將從上古合同于道，亦可使益壽而有極時。⁶⁵⁵

I have heard that in higher antiquity there was a Spiritual Man (真人 *zhenren*), who mastered the laws of nature and commanded the principles of Yin and Yang, breathed essence of nature, rose above mundane affairs, maintained coordination between muscles and bones, so he achieved longevity. That his life is as long as nature is the result of his following the way of nature to nourish his life. Then in middle antiquity, there lived a Sagacious Man (至人 *zhiren*), who adhered to the way of nature, correlated his life with the changes of Yin and Yang, and followed the cycles of the four seasons. He abandoned social life and dived into nature and preserved his energy. He roamed between heaven and earth and focused his attention beyond the eight limits.⁶⁵⁶ By all these means, he extended his life span and invigorated himself. At last, he attained the position of the Spiritual man. Also there was a man called the Sage (聖人 *shengren*), who achieved

Chen and Peter S. Y. Chen, "The Liver in Traditional Chinese Medicine," *Journal of Gastroenterology and Hepatology* 13 (1993): 437—38; Chiu-Wa Lam and G. B. Berrios, "Psychological Concepts and Psychiatric Symptomatology in Some Ancient Chinese Medical Texts," *History of Psychiatry* iii (1992): 117—19; James Curran, "Medical Classic: The Yellow Emperor's Classic of Medicine," *BMJ* 336 (April 2008): 777.

⁶⁵⁴ Veith, *The Yellow's Emperor's Classic*, 1—76; Sivin, "Science and Medicine in Chinese History," 185—86.

⁶⁵⁵ Zhang Canshen 张灿坤, Xu Guqian 徐国仟, and Zong Quanhe 宗全和, eds., *Huangdi Neijing*, 12—13.

⁶⁵⁶ "Eight limits" refers to directions: east, south, west, north, southeast, southwest, northwest, and northeast.

harmony with heaven and earth and observed the laws of the eight winds.⁶⁵⁷ He correlated his desires with mundane affairs and had no hatred or rancor. His behaviors never depart from the code of conduct of society; he wore simple clothes; and he never showed off himself in mundane affairs. He never over-exerted himself physically or mentally, He regarded happiness, peace, and contentment as his highest achievement. So physically, he was never taxed; spiritually, he was never exhausted. Thus he reached the age of more than one hundred years. Finally, there existed a Virtual Man (贤人 *xianren*), who observed the laws of nature, followed the cycles of the sun and the moon and arrangement of the stars so as to correlate his life with the wax and wane of Yin and Yang and the changes of the four seasons. He followed the Spiritual Man in higher antiquity in an attempt to conform to the way of nourishing life. Such a man could also add years to his age, but he would expire eventually.

To achieve longevity, one must completely identify with nature and forget about mundane affairs. If achieving unity with nature is not possible, then at least one should observe the way of nature and correlate one's life with the cycles of the four seasons and the changes of *Yin* and *Yang*. Then one can still increase life span. The key is stay as close as possible to nature. Unity with nature is the foundation of life. To be more specific, the Yellow Emperor states:

春三月，此谓发陈。万物以荣，夜卧早起，广步于庭，被发缓形，以使志生，生而勿杀，予而勿夺，赏而勿罚，此春气之应，养生之道也；逆之则伤肝，夏为寒变，奉长者少。⁶⁵⁸

The three months of spring are the season of renewal and rebirth. All are flourishing. Humans must fall asleep as soon as the night falls; they should get up early, walk leisurely in the yard, with their hair loose and shirt unbuttoned. Preserve life but do not kill; give freely but do not take away; reward but do not punish. All this is in accordance with the seasonal commands of spring, thus constituting the way of preserving life. Humans who disobey the seasonal commands of spring will be punished with an injury of the liver. The energy for the upcoming summer will not be sufficient, so illnesses of cold nature will attack the body.

In spring, humans must preserve energy for their physical body in summer. To do it, they must nourish the liver. To nourish the liver, they

⁶⁵⁷ "Eight winds" refers to winds coming from eight directions: east, south, west, north, southeast, southwest, northwest, and northeast.

⁶⁵⁸ Zhang Canshen 张灿坤, Xu Guqian 徐国仟, and Zong Quanhe 宗全和, eds., *Huangdi Neijing*, 15—16.

must obey the seasonal commands of spring. Otherwise, the liver will be injured. So in this passage, the Yellow Emperor unmistakably tells us that a very close connection exists between the liver and spring. To prevent liver diseases, one must follow the seasonal commands of spring. What about summer? The Yellow Emperor continues:

夏三月，此谓蕃秀。天地气交，万物华实，夜卧早起，无厌于日，使志勿怒，使华英成秀，使气得泄，若所爱在外，此夏气之应，养长之道也；逆之则伤心，秋为痃疟，奉收者少，冬至重病。⁶⁵⁹

The three months of summer are the period of luxurious growth. Celestial ethers descend while terrestrial ethers ascend, which unite in harmony. All are bearing fruits. Humans must get up early after a night of sleep, refrain from growing weary of long summer days and from getting angry, allow their spiritual essence to communicate with the essence of summer ethers, slow such essence to flow freely in the body, and love the natural world. All this is in harmony with the seasonal commands of summer, the way of nourishing life. If humans violate the seasonal commands of summer, then they will be punished with an injury of the heart. Then energy will be not sufficient for the upcoming fall, which will bring malaria for humans, and in the upcoming winter, grave diseases will break out.

Just as in spring when humans must observe the seasonal commands of spring to avoid injuring the liver, in summer they must follow the way of summer to prevent any heart diseases. So in the above passage, the heart is closely related to summer.

In a similar vein, *The Yellow Emperor's Classic* also establishes a connection between autumn and the lungs, and between winter and the kidneys. Then, the Yellow Emperor summarizes succinctly the damages to the organs if seasonal commands are violated:

逆春气则少阳不生，肝气内变。逆夏气则太阳不长，心气内洞。逆秋气则太阴不收，肺气焦满。逆冬气则少阴不藏，肾气独沉。⁶⁶⁰

If humans violate the commands of spring, then the Lesser Yang is not generated, causing Vital Air to become stagnant in the liver, thus injuring the liver.⁶⁶¹

⁶⁵⁹ Zhang Canshen 张灿坤, Xu Guqian 徐国仟, and Zong Quanhe 宗全和, eds., *Huangdi Neijing*, 17.

⁶⁶⁰ Zhang Canshen 张灿坤, Xu Guqian 徐国仟, and Zong Quanhe 宗全和, eds., *Huangdi Neijing*, 24.

As if the above explanation does not suffice to establish the connection between the organs and nature, *The Yellow Emperor's Classic of Internal Medicine* goes a step further by adding more natural elements:

八风发邪，以为经风，触五脏，邪气发病。东风生于春，病在肝，俞在颈项；南风生于夏，病在心，俞在胸胁；西风生于秋，病在肺，俞在肩背；北风生于冬，病在肾，俞在腰股；中央为土，病在脾，俞在脊。

The eight winds in nature are the evil energy that causes diseases, affects the veins and channels, and damages the five viscera. The east wind arises in spring, which causes liver problems; the liver energy goes to the neck; the south wind arises in summer, which causes heart problems; the heart energy flows to the chest and ribs; the west wind arises in autumn, which causes sickness in the lungs; the energy of the lungs travels to the shoulders and the back; the north wind arises in winter, which causes sickness in the kidneys; the energy of the kidneys flows in the loins and thighs; the center is earth,⁶⁶² which causes spleen problems; the spleen energy goes to the spine.

It is clear that the five organs are directly connected with the five directions and the winds as well as the seasons; thus the evil energy from these directions and winds directly affects the five organs. In addition, it also affects other parts of the body: the neck, the chest and ribs, the shoulders and the back, the loins and the thighs, and the spine. These parts are connected with the five organs because the energy generated by these organs flows to these parts. Thus, when the organ that generates the energy is injured by an evil wind, then when the energy generated by the injured organ travels to its corresponding part of the body, the part is also attacked by the evil wind, though indirectly. By now, *The Yellow Emperor's Classic* has established connections between nature and the human body and the vital organs.

The *Classic of Changes*, as I have shown in Chapter Eight, while advancing the theory of cosmogony, claims that continuous interaction between Yin and Yang gave birth to the universe. This Yin-Yang cosmological theory was later connected with the concept of the Five Elements through the change of the five seasons (spring, summer,

⁶⁶¹ “Vital Air” refers to the essential energy that flows throughout the body, carrying with it life and vitality that vitalize the body.

⁶⁶² The center is also related to the Intercalary Season between summer and autumn. For more details, see Chapter Five: The “Monthly Commands.” In *The Yellow Emperor's Classic of Internal Medicine*, the intercalary season is called the Long Summer 长夏.

intercalary season or long summer, fall, and winter), as I have explained in Chapter Five of this book. Yin corresponds to winter and spring, which in turn represent water and wood of the five elements; Yang corresponds to summer and fall, which in turn are related to fire and metal respectively; the brief interim between Yin and Yang stands for the season of long summer which is related to soil of the five elements. *The Yellow Emperor's Classic*, which carries on this cosmological theory throughout its chapters, describes the functions of the organs in cosmological terms, such as Yin and Yang, Five Elements, and the five seasons.

The changes of Yin and Yang occur as the Five Elements and are made manifest in the human body:

在天为风，在地为木，在体为筋，在脏为肝。．．．其在天为热，在地为火，在体为脉，在脏为心。．．．其在天为湿，在地为土，在体为肉，在脏为脾。．．．其在天为燥，在地为金，在体为皮毛，在脏为肺。．．．其在天为寒，在地为水，在体为骨，在脏为肾。⁶⁶³

The changes of *yin* and *yang* appear as wind in heaven, wood on earth, the sinews in the body, and the liver in the organs. . . . The changes of *yin* and *yang* manifest themselves as heat in heaven, fire on earth, the vessels in the body, and the heart in the organs. . . . The changes of *yin* and *yang* create moisture in heaven, soil on earth, the muscles in the body, and the spleen in the organs. . . . *yin* and *yang* reveal themselves as dryness in heaven, metal on earth, the skin and hair in the body, and the lungs in the organs. . . . the powers of *yin* and *yang* create cold in heaven, water on earth, the bones in the body, and the kidneys in the organs.

In the above passage, the Five Elements are directly connected with the organs the human body. Each of the five viscera has the property of one the five elements.

According to the *Classic of Changes*, *yang* is active and outside while *yin* is passive and inside; *yang* rules, gives, and eliminates while Yin obeys, receives, and stores.⁶⁶⁴ *The Yellow Emperor's Classic* carries over this cosmic relationship between *yin* and *yang* in its discussions of the physical structure of the body. According to this *Classic*, the upper part of the body is *yin* while the lower part is *yang*; the five viscera, which are

⁶⁶³ Zhang Canshen 张灿坤, Xu Guqian 徐国仟, and Zong Quanhe 宗全和, eds., *Huangdi Neijing*, 73—78.

⁶⁶⁴ *Yi Jing* Editing Group, 白话易经编译组 ed., *Baihua Yijing Quanyi Ben* 白话易经全译本 [*Classic of Changes* in the vernacular] (Beijing: China Folklore Literature, 1989), 427—431.

credited with the jobs of receiving and storing, are *yin* in nature, while the six bowels and the trio visceral cavities, which are credited with jobs of giving and eliminating, are *yang* in nature. The major reason to identify the organs as *yin* and *yang* is that we can accurately analyze whether diseases are located in the *yin* organs or in the *yang* organs, in relation to the five seasons, thus providing basis for treatments. For instance, spring and winter diseases occur in the *yin* regions of the body because spring and winter are the two *yin* seasons; summer and fall diseases occur in the *yang* regions of the body because summer and fall are the two *yang* seasons. Thus, the human body, a product of heaven and earth, according to the *Classic of Changes*, also contains *yin* and *yang*, and the ways in which the *yin* and *yang* organs function and interact to each other “correspond to the ways Yin and Yang of Heaven function and interact to each other.”⁶⁶⁵

Diagnosis

The major diagnostic method to determine diseases that *The Yellow Emperor's Classic of Internal Medicine* introduces is the examination of the pulse. Physicians who wish to know the illness of the body are instructed to examine a variety of pulse beats and then use them as the fundamentals for diagnosis. The theoretical foundation of the pulse examination is the interaction of Yin and Yang and the sequence of the five seasons.

The disease always influences the strength, pace, or duration of each of the four types of pulse beats—light 浮, deep 沉, slow 迟, and fast 数—at three different pulse sections on each wrist, i.e., lower, middle, and upper. So physicians must know the relationship between the different pulse beats at different sections and the pathological changes in the organs which embody Yin and Yang and the changes of the five seasons.

Chapter Seventeen, the first chapter that deals with the pulse examination, advises physicians when to take the pulse:

诊法常以平旦，阴气未动，阳气未散，饮食未进，络脉调匀，气血未乱，故乃可诊有过之脉。⁶⁶⁶

⁶⁶⁵ Zhang Canshen 张灿坤, Xu Guqian 徐国仟, and Zong Quanhe 宗全和, eds., *Huangdi Neijing*, 55.

⁶⁶⁶ Zhang Canshen 张灿坤, Xu Guqian 徐国仟, and Zong Quanhe 宗全和, eds., *Huangdi Neijing*, 213.

Normally, take pulse in the morning when Yin has not begun to stir, and when Yang has not started to diffuse, when the patient has not had breakfast, when the energy of the vessels is not yet abundant, when the energy of the meridians is stable, and when the blood and energy have not been disturbed.

Then this chapter describes the connection between the organs and the three pulse sections, and the relationship between various symptoms and the four pulse beats. For example, a *Yin* organ is connected with the lower section on the left wrist; a *Yang* organ is related to the middle section on the right wrist. A quick pulse indicates infection while a light pulse means heart disease. So, by examining the four pulse beats at the different pulse sections on each wrist, physicians are able to pinpoint the nature and the location of the disease.

The change of five seasons also influence the pulse beats. *The Yellow Emperor's Classic* declares that whether the pulse beats vigorously, softly, slowly, quickly, evenly, harshly, or lightly, depends on the interrelations of Yin and Yang in the five seasons.

以春应中规，夏应中矩，秋应中衡，冬应中权。⁶⁶⁷

Thus, in spring, the pulse is smooth; in summer, it is strong; in fall, it is light; and in winter, it is deep.

The pulse changes according to the changes of the seasons consistently all the year round. When it fails to respond to the changes of the seasons, physicians know that disease has stricken the body.

The Yellow Emperor's Classic also introduces other diagnostic methods, including interrogation, observation, and listening. This classic suggests that physicians, while examining a patient, not only feel the pulse but also ask the patient questions, observe the patient's appearance, and listen to the patient's tone.

Diseases

Diseases or illnesses, in *The Yellow Emperor's Classic*, are not assigned any specific terms such as influenza and pneumonia; rather, they are designated by terms like heat 热, cold 寒, full or solid 实, superficial or hollow 虚, evil or noxious 邪, injury 伤, pain 痛, numbness 痹, e.g.,

⁶⁶⁷ Ibid., 224.

“injury of the lungs” or “too much heat.” One notable feature is that all the diseases are nature-related.

“Heat” means overexposure of the body to heat so that heat accumulates in the body; “cold” means overexposure to cold air so that too many cold elements accumulate in the body; “solid” means stasis of vital energy in the body; “hollow” means a lack of vital energy. All of these are called “evils” which will lead to injuries, pains, or numbness. They are caused by individuals’ failure to observe the laws of nature. Chapter Two of *The Yellow Emperor’s Classic* discusses those causes:

春三月，此谓发陈。... 逆之则伤肝，夏为寒变，奉长者少。... 夏三月，此谓蕃秀。... 逆之则伤心，秋为痾疟，奉收者少，冬至重病。... 秋三月，此谓容平。... 逆之则伤肺，冬为飧泄，奉藏者少。... 冬三月，此为闭藏。... 逆之则伤肾，春为痿厥，奉生者少。

668

Spring revitalizes all things in nature. . . . Those who disobey the natural commands of spring will suffer liver injuries, which will lead to cold diseases in summer. Summer is a period of luxurious growth. . . . People who violate the natural cycles of summer will be inflicted with heart injuries, leading to more serious diseases in fall and winter. . . . Autumn is the period of peace and tranquility. . . . Violating the natural laws of fall will cause injuries to the lungs, leading to indigestion in winter. . . . Winter is the period of concealment and closing. . . . People who fail to observe the ordinances of winter will be punished with kidney diseases, causing ‘hollow’ disorders such as weakness, muscle shrinkage, and chill in spring.

Thus, to prevent injuries and ailments, humans must, of necessity, follow the ordinances of nature. *The Yellow Emperor’s Classic* also describes in detail the causes for various diseases and their symptoms. For example, in Chapter Thirty-One, we read a discussion of “cold” and “heat” diseases. There, the Yellow Emperor asks Qibo a question about the “injuries of the cold or cold-induced infectious diseases 伤寒.” To be more specific, what causes the diseases and what symptoms are developed? Qibo explains the causes and the symptoms:

. . . 人之伤于寒也，则为病热，热虽甚不死，其两感于寒而病者，必不免于死。 . . . 伤寒一日，巨阳受之，故头项痛，腰脊强。二日阳明受之，. . . 故身热目痛而鼻干，不得卧也。三日少阳受之，. . .

⁶⁶⁸ Zhang Canshen 张灿坤, Xu Guqian 徐国仟, and Zong Quanhe 宗全和, eds., *Huangdi Neijing*, 15—20.

故胸胁痛而耳聋。 . . . 三阴三阳， 五脏六腑皆受病， 荣卫不行， 五脏不通， 则死矣。⁶⁶⁹

When a human is attacked by the cold, then a fever (a disease with heat) will develop.⁶⁷⁰ Though the fever is great, death will not occur. However, if the human's Yang and Yin are both deficient, then death will, of necessity, occur. . . . On the first day when cold elements attack the body, the greater Yang channel bears the weight, so the head and the neck are in pain; the waist and the back become rigid.⁶⁷¹ On the second day, the Yang Brightness sustains the attack, . . . so the body is overheated (feverish), the eyes ache, the nose is dry, and the patient cannot rest. On the third day, the Lesser Yang channel is attacked, so the ribs and the chest are in pain and the ears turn deaf. . . . If all the three Yin and Yang modalities and the five viscera and the six bowel are all attacked, then the Yang is deficient and the vital energy is stagnant in the five viscera.⁶⁷² Death will occur.

The causes for various diseases as discussed in *The Yellow Emperor's Classic* are all attributed to nature—the climatic factors—rather than person-to person transmission, even if the disease is of an infectious nature. This attribution of the causes for diseases to nature in turn foregrounds the connection between nature and the human body.

Treatments

Diseases strike because 'evils' (noxious environmental influences) attack the human body when humans violate the natural laws, or even when abnormal weather conditions are present. In short, nature is infringed upon, or balance between Yin and Yang is lost. Therefore, to cure a disease, physicians need to guide the patient back to the normal course of nature, to bring the patient in line with the natural laws, or to restore the balance between Yin and Yang.

⁶⁶⁹ Zhang Canshen 张灿坤, Xu Guqian 徐国仟, and Zong Quanhe 宗全和, eds., *Huangdi Neijing*, 405—06.

⁶⁷⁰ The theory is that when the noxious cold attacks the body, the guard—the Yang element—in the body will begin to combat the noxious cold, thus creating heat.

⁶⁷¹ The Greater Yang Channel starts at the head and goes down the neck and the back; thus, those parts of the body will suffer from the cold attack on the first day.

⁶⁷² The three Yin and Yang modalities are Greater Yin (太阴 *taiyin*), Lesser Yin (少阴 *shaoyin*, Connecting Yin (厥阴 *jueyin*), Greater Yang (太阳 *taiyang*), Lesser Yang (少阳 *shaoyang*), and Yang Brightness (阳明 *yangming*). They govern the system of channels 经络 in the human body.

Chapter Two of *The Yellow Emperor's Classic* advises readers to follow the way of nature, the *Dao* 道—because it is the foundation of everything in nature. It believes that those who obey Tao remain free from dangerous diseases, obedience to Tao means good health, and anything harmonious with nature is obedience to Tao; hence the sages treat diseases by preventing them through maintaining harmony with nature.⁶⁷³ Food and acupuncture are the two main methods of treatment that this *Classic* discusses.

Dietetics

To cure diseases, physicians can prescribe nature's products to help restore the normal course of Tao. When a disease attacks the human body, a certain natural order has been violated, causing disharmony between Yin and Yang in the human body. To restore that order, nature's own products—grains, vegetables, fruits, plants, or animals—can be used to restore the harmony between Yin and Yang. *The Yellow Emperor's Classic* classifies these natural products into five categories based on flavors, thence five flavors 五味: pungent 辛, sour 酸, sweet 甜, bitter 苦, and salty 咸, which serve the main functions of dispelling 祛, astringing 敛, calming 平, strengthening 补, and softening 润 respectively.⁶⁷⁴ Chapter Twenty-Two tells us that each disease reacts to a flavor. In particular, it stresses the diseases of the five viscera:

肝苦急，急食甘以缓之。... 心苦缓，急食酸以收之。... 脾苦湿，急食苦以燥之。... 肺苦气上逆，急食苦以泄之。... 肾苦燥，急食辛以润之，开腠理，致津液通气也。⁶⁷⁵

Injuries of the liver are caused by anger and grief, so sweet flavor can calm the liver. . . . Injuries of the heart are caused by heat, and heat dissipates the heart energy, so sour flavor can astringe it. . . . Injuries of the spleen are caused by too much moisture, so bitter food has a drying effect. . . . Injuries of the lungs are caused by obstruction of air flow in the lungs, so

⁶⁷³ Zhang Canshen 张灿坤, Xu Guqian 徐国仟, and Zong Quanhe 宗全和, eds., *Huangdi Neijing*, 25—27.

⁶⁷⁴ Joerg Kastner has a brilliant discussion of the functions of the five flavors in traditional Chinese medicine. For more details, refer to Joerg Kastner, *Chinese Nutrition Therapy: Dietetics in Traditional Chinese Medicine* (New York: Thieme, 2009), 25—28.

⁶⁷⁵ Zhang Canshen 张灿坤, Xu Guqian 徐国仟, and Zong Quanhe 宗全和, eds., *Huangdi Neijing*, 312—13.

bitter food can disperse the lung obstruction and restore the flow. . . .
 Injuries of the kidneys are caused by dryness, so eating pungent food can dispel dryness by opening the pores and bringing about a free circulation of the saliva and other body fluids.

Each of the five viscera corresponds to a flavor through concordances with the five elements of metal, wood, water, fire, and earth. As I have shown in the section of *The Organs*, the Five Elements are related to the five viscera. Now the five flavors are also related to the five viscera through the Five Elements. So food that has the flavors related to an organ might be used to treat the diseases that attack that particular organ. For example, the liver is related to wood and sweet flavor is also related to wood, so sweet food can restore an injured liver. These five flavors are also used to treat diseases in all parts of the body. As Chapter Three triumphantly declares,

是故谨和五味，骨正筋柔，气血以流，腠理以密，如是则骨气以精。
 谨道如法，长有天命。⁶⁷⁶

If we are mindful of what flavors we consume, our bones will remain straight; our muscles will remain young; and our blood and breath will circulate freely, thus generating vitalizing energy. So we should give more attention to these methods of nourishing our life so that we may live to a ripe age.

Acupuncture

The healing value of acupuncture as is evidenced in *The Yellow Emperor's Classic* is necessarily based on the traditional assumption that proper interaction between *Yin* and *Yang* in the universe maintains the proper functions of the body. As Chapter Two of this *Classic* stresses, “Interaction of *Yin* and *Yang* through the four seasons is the root of life, growth, and reproduction, . . . so observing the waxing and waning of the *Yin* and *Yang* means life” (故阴阳四时者，万物之终始也；生死之本也；. . .从阴阳则生).⁶⁷⁷

The forces of *Yin* and *Yang* wax and wane and balance each other in the universe, so the four seasons follow one another, and day and nature alternate. However, when these two forces do not exist in harmony but fight and defeat each other in conflict, either *Yin* is dominant or *Yang* is

⁶⁷⁶ Ibid., 47.

⁶⁷⁷ Ibid., 25-27.

dominant. Then, natural disasters will strike. Similarly, within the body, when these two forces balance each other, they are evenly distributed throughout the twelve channels which carry the vital forces, thus leading to longevity. Dominance of either of these two forces means some of the twelve channels are blocked, therefore trapping either *Yin* or *Yang*, which causes certain parts of the body to have insufficient amount of *Yin* or *Yang*. Then diseases attack the body.

Of the significance of the balance between *Yin* and *Yang*, Chapter Three speaks, after discussing the benefits *Yin* and *Yang* bring to the body:

阴者，藏精而起亟也，阳者，卫外而为固也。阴不胜其阳，则脉流薄疾，并乃狂。阳不胜其阴，则五脏气争，九窍不通。是以圣人陈阴阳。
678

Yin stores up essence of life and assists *Yang*; *Yang* serves to defend the body from external attacks. If *Yin* is deficient, the flow in the twelve channels will be overly rapid, causing *Yang* to become excessive and reckless. If *Yang* is deficient, the connection between the internal organs will be disrupted, and the circulation of air within the nine orifices will cease. For this reason, the sages always maintain a proper balance between *Yin* and *Yang* in the body.

When a channel is blocked, causing *Yin* and *Yang* to be stagnant, inserting a needle at a particular channel point will open up the blocked channel, thus restoring its function of carrying *Yin* and *Yang* to various parts of the body. *The Yellow Emperor's Classic* gives detailed instructions to help readers locate a particular point. For example, in Chapter Twenty-Four, readers learn to find points on the back that help treat lung disorders:

欲知背俞，先度其两乳间，中折之，更以他草度去半已，即以两隅相拄也，乃举以度其背，令其一隅居上，齐脊大柱，两隅在下，当其下隅者，肺之俞也。⁶⁷⁹

We must first measure the distance between the two breasts with a straw, and then cut it in half. Take another straw of equal length and also cut it in half. Then make a triangle by using three of the halved straws. Next, place the triangle on the back, with one angle pointing upward and placed right on the top spinal ridge. The spots where the other two angles are placed are the points of the lungs.

⁶⁷⁸ Ibid., 42.

⁶⁷⁹ Ibid., 341.

Throughout the chapters on acupuncture, *The Yellow Emperor's Classic* elaborates on the time when, and conditions in which, acupuncture should be practiced.

Oneness with Nature: Context-oriented Theoretical Foundation of *The Yellow Emperor's Classic of Internal Medicine*

The Yellow Emperor's Classic of Internal Medicine considers humans as an integral part of nature; it identifies the body with the universe. Therefore, to be healthy, humans must observe the seasons' commands and be in harmony with nature. Any violation of these commands on the part of humans, or any changes brought about by nature, like abnormal weather conditions or natural calamities, will affect human beings, inflicting diseases upon the body. The *Yellow Emperor's Classic*, in treating humans as an integral part of nature, develops the philosophical thought of unity of context and individuals existing within that context—a philosophical thought championed by earlier Chinese classics and elaborated by the *Classic of Changes*, and it does so in three separate, but interrelated, aspects: *Dao*, *Yin* and *Yang*, and the Five Elements.

Dao

Dao 道, or the Way, according to Daoism, means the Way of Nature, “the naturalness or spontaneity, [which] is opposite to artificiality and arbitrariness.”⁶⁸⁰ *The Yellow Emperor's Classic* defines *Dao* in this way:

夫五运阴阳者，天地之道也，万物之纲纪，变化之父母，生杀之本始，神明之府也，可不通乎。⁶⁸¹

The Five Elements and *Yin* and *Yang* are the Way of Nature, which is the guiding rope of the net of life, constitutes the foundation of evolutions of all, and thus the basis of life and death, manifests the unlimited changes in the universe. So, as humans, we should understand all these principles.

Humans, to seek happiness, to preserve life, or to avoid harms and injuries, must achieve ‘naturalness,’ that is, to follow the Way of Nature with no

⁶⁸⁰ Fung, *A Short History*, 100.

⁶⁸¹ Zhang Canshen 张灿坤, Xu Guqian 徐国仟, and Zong Quanhe 宗全和, eds., *Huangdi Neijing*, 841.

arbitrary efforts.⁶⁸² As Veith forcefully argues, “[M]an in his utter dependence upon the universe could not do better than follow a way which was conceived after that of nature. The only manner in which man could attain the right Way, the Tao, was by emulating the course of the universe. . . .”⁶⁸³

Following the Way of Nature finds its expression in *The Yellow Emperor's Classic* where references are made to cases in which humans depend upon their own behaviors toward *Dao* for maintaining their health and longevity. For example, at the beginning of the first fascicle, we read a section which urges readers to follow *Dao*:

上古之人，其知道者，法于阴阳，和于术数，食饮有节，起居有常，不妄作劳，故能形与神俱，而尽终其天年，度百岁乃去。⁶⁸⁴

In ancient times, people who practiced *Dao* followed the way of nature and understood the importance of nourishing life. They formulated good habits to promote energy flow to live in harmony with the universe, they did not over-stress themselves physically, and they maintained harmony between their bodies and souls. Thus, it is not surprising that they lived over one hundred years, the naturally allotted span of life.

Therefore, following *Dao* is a prerequisite for health and longevity. It helps to regulate, boost, and harmonize the vital forces in the body. Humans should, according to *Dao*, act according to the rhythms of the four seasons, go to bed when the sun sets and get up when it rises, abstain from strenuous physical work and excessive emotional indulgence. If humans disobey *Dao*, refusing to act according to the principles of nature, punishments will be meted out to them. Therefore, in Chapter Two, *The Yellow Emperor's Classic* warns us that people who disobey the natural orders of spring suffer liver injuries; people who violate the cycles of summer are punished with heart diseases; those who resist the natural principles of fall inflict lung injuries on themselves; and those who refuse to obey the ordinances of winter suffer kidney injuries.⁶⁸⁵

⁶⁸² Fung, *A Short History*, 100—01.

⁶⁸³ Veith, *The Yellow's Emperor's Classic*, 11. Veith uses “Tao” instead of “Dao,” because Veith’s translation of Chinese terms is based on Wade-Giles romanization system for Mandarin Chinese.

⁶⁸⁴ Zhang Canshen 张灿珪, Xu Guqian 徐国仟, and Zong Quanhe 宗全和, eds., *Huangdi Neijing*, 1—2.

⁶⁸⁵ *Ibid.*, 15—20.

Dao represents nature and the universe in *The Yellow Emperor's Classic*. Humans, who live in nature and the universe, must obey *Dao* if they want to stay healthy and promote longevity.

Yin and Yang

The *Yin-Yang* theory came to be connected primarily with *The Classic of Changes*.⁶⁸⁶ *Yin* and *Yang*, as elaborated in *The Classic of Changes*, created the universe after bringing order out of the primeval chaos. They influence the world and cause all the changes and happenings in the world through their ever changing interactions; thus everything in the world is conditioned by them. Human beings are also conditioned by them because they “are constantly immersed in them, as fish are constantly immersed in water.”⁶⁸⁷ Clearly in Chinese culture, *Yin* and *Yang* are regarded as the context in which humans exist.

In *The Yellow Emperor's Classic*, we find, throughout the chapters, references to the concept of *Yin* and *Yang*. The human body, for example, is divided into three parts: the top, the middle, and the bottom, each of which is composed of some *Yin* elements and some *Yang* elements. Chapter Twenty elaborates on the relationship between *Yin* and *Yang* and the various parts of the body. For example, the exterior (skin) is *Yang* while the interior (bones, blood vessels, etc.) is *Yin*; the liver, the heart, the spleen, the lungs, and the kidneys are related to *Yin*, while the gall bladder, the small intestines, the stomach, and the bladder are connected with *Yang*. Conditioned by harmonious interactions of *Yin* and *Yang*, the human body maintains a perfect balance between the *Yin* elements and the *Yang* elements, thus ensuring health. However, if *Yin* and *Yang* fail to interact harmoniously, the body will reflect the disharmony, causing either the *Yin* elements or the *Yang* elements to be predominant within the body, which means that diseases will strike.

So in curing diseases, physicians actually bring the predominant *Yin* or *Yang* either back to its normal condition, therefore restoring balance between the *Yin* elements and the *Yang* elements in the human body. Treatment of a disease depends on the location of the disease, i.e., whether it is located in the *Yin* area of the body or the *Yang* area. Through examining the pulse, for instance, a physician is able to locate a disease and pinpoint the nature of the disease. Then the physician may prescribe

⁶⁸⁶ Fung, *A Short History*, 138—42.

⁶⁸⁷ *Ibid.*, 193. Fung is interpreting Dong Zhongshu's 董仲舒 (179—104 BCE) ideas about the universe.

medicine, either herbs or dietetics, to restore *Yin-Yang* balance within the human body. These herbs or dietetic medicines cure the disease by offsetting the influence in the body exerted by the disharmonious *Yin-Yang* relation that controls the universe. For example, unseasonable cold weather in summer means that *Yin* is predominant over *Yang*, and this *Yin-Yang* disharmony will cause the human body to have stronger *Yin* elements, resulting in diseases like colds or lung injuries. A physician might prescribe some *yang*-enhancing medicine, like spicy food, to help the body neutralize the influence exerted by the unseasonable cold weather, thereby restoring *Yin-Yang* balance within the body.

Clearly, the *Yin-Yang* theory in *The Yellow Emperor's Classic* treats nature as the primeval controlling force that conditions humans who exist in nature. To stay healthy, humans must maintain balance between *Yin* and *Yang*.

The Five Elements

The philosophical thought of the five elements 五行学说, as I have shown in the previous chapters of this book, was first spelt out in the "Grand Criteria" 洪范 and later elaborated on in the "Monthly Commands" 月令. As I explained in Chapter Four, "five elements" (五行 *wuxing*) literally means, in Chinese, "the Five Activities or Five Agents."

The five elements are generated through the interactions of *Yin* and *Yang*.⁶⁸⁸ They represent the five agents of wood, fire, soil, metal, and water, and these five agents in turn, stand for the five seasons in traditional Chinese culture: spring, summer, long summer (the intercalary season), fall, and winter. They also correspond to the five directions respectively: east, south, center, west, and north. The essence of the theory of the five elements is that these five agents conquer each other: wood conquers soil, soil conquers water, water conquers fire, fire conquers metal, and metal conquers wood. Accordingly, therefore, the season or the direction corresponding to the conquering element conquers the season or the direction corresponding to the conquered element. For example, fire conquers metal, so south or summer which corresponds to fire conquers fall or west which corresponds to metal.

The human body, as an integral part of nature which is created by *Yin* and *Yang*, naturally "contains ... the five elements."⁶⁸⁹ Chapters Four and Five of *The Yellow Emperor's Classic* establish concordances between the

⁶⁸⁸ Fung, *A Short History*, 194.

⁶⁸⁹ Veith, *The Yellow's Emperor's Classic*, 19.

five elements (thus the corresponding seasons and directions) and the human body. For example, references are made to various direct relationships between the major organs and the five elements: Wood—liver—spring, fire—heart—summer, soil—spleen—long summer, metal—lungs—fall, and water—kidney—winter. Table 9-1 illustrates more organs:

Table 9-1 Concordances Between Five Elements and the Body

Wood	Fire	Soil	Metal	Water
Liver	Heart	Spleen	Lungs	Kidneys
Eyes	Ears	Mouth	Nose	Abdomen Cavity
Tendons	Hair	Muscles	Skin	Bones

and their corresponding agents as established in Chapters Four and Five.

Chapter Four specifically points out that, because the five elements and their corresponding seasons conquer one another, if a season rules in another season which it conquers, then the organs corresponding to the ruled season will sustain injuries. For example, if spring rules in long summer, which means that spring flourishes at the time when long summer should be present, then long summer-related organs such as the spleen will be damaged. Based on this theory, *The Yellow Emperor's Classic* later in the text advises physicians to treat patients according to the five elements to which the illness corresponds. For example, in Chapter Sixteen, the *Classic* stresses the importance of inserting acupuncture needles into the points of the body that correspond to the correct season. In spring, physicians should insert the needles into the points corresponding to spring. If they insert the needles into the points corresponding to other seasons, they will aggravate an illness.⁶⁹⁰ In Chapter Twenty-Two, the *Classic* particularly points out that physicians should “plan medical treatments based on the laws of the five elements and the four seasons.”⁶⁹¹ To be more specific, the *Classic* tells us that a disease that is related to a specific season should be treated in that season. The kidneys correspond to winter, so if a patient has kidney disease, then it is best to treat the patient in winter.

⁶⁹⁰ Zhang Canshen 张灿坤, Xu Guqian 徐国仟, and Zong Quanhe 宗全和, eds., *Huangdi Neijing*, 204—06.

⁶⁹¹ *Ibid.*, 311—12.

The five-element theory as employed in *The Yellow Emperor's Classic* tells us that the natural environment, such as the physical atmosphere and the four seasons, exerts a strong influence on humans, the individuals who exist in that environment.

***The Yellow Emperor's Classic of Internal Medicine* as a Book of Technical Writing**

As a book of technical writing, *The Yellow Emperor's Classic of Internal Medicine* is the earliest comprehensive treatise on health and disease in the Chinese tradition.⁶⁹² This book has always been influential as a reference for the very few qualified practitioners of traditional Chinese medicine, but since most of the patients, in the course of history had no access to the few fully qualified physicians, as Sivin has pointed out, these patients depended on a great variety of less educated healers, ranging from herbalists to priests.⁶⁹³ This book might also have been useful to, and accessed by, the “less educated” healer. It contains much medical information which has practical values. In addition, this classic of medicine develops theories that support and guide traditional Chinese medicine on the basis of three philosophical principals: *Dao*, *Yin* and *Yang*, and the Five Elements. Whether it guides medical practices or develops theories, the *Classic* demonstrates four distinct features: indirectness, emphasis on context, physicians’ ethics, and orality in the text.

Indirectness

In either guiding medical practices or developing theories, the *Classic* does not provide direct instructions or argue a case explicitly. Rather, these instructions or theories are embedded within the dialogue between the attributed author of this classic—the Yellow Emperor—and his minister, Qi Bo. Sometimes, even when texts in the *Classic* are instructional in nature, the instructions are not issued as direct commands to readers for them to execute; instead, they appear in the text as part of the dialogues, often as answers to the Yellow Emperor’s inquiries. Therefore, these instructions appear more descriptive or narrative than

⁶⁹² Zhang Canshen 张灿坤, Xu Guqian 徐国仟, and Zong Quanhe 宗全和, eds., *Huangdi Neijing*, 1; Ching Lan, Steven L. Wolf, and Willaim W. N. Tsang, “Tai Chi Exercise,” 2; Alma Barbaso-Schwartz, “Thaditional Chinese Medicine,” 494.

⁶⁹³ Sivin, “Science and Medicine,” 182.

instructional. Take, for instance, Chapter Fourteen, where the Yellow Emperor and Qi Bo discuss how to make medicinal soups and wine:

黄帝问曰：为五谷汤液及
醪醴奈何？

The Yellow Emperor asks: “How do
we prepare medicinal soup and
sweet wine from five grains?”⁶⁹⁴

To the Yellow Emperor’s question, Qi Bo provides a detailed explanation, which is clearly instructional in nature:

岐伯对曰：必以稻米，炊之稻薪，稻米者完，稻薪者坚。

帝曰：何以然？岐伯曰：此得天地之和，高下之宜，故能至完：伐取得时，故能至坚也。⁶⁹⁵

Qi Bo replies: *We have to use rice as the ingredient for medicinal soup and sweet wine; we have to use stalks of rice as firewood.*⁶⁹⁶ Rice, when absorbing the essence of ethers of heaven and earth, becomes the perfect ingredient; stalks of rice, when absorbing the essence of ethers of heaven and earth, become strong.

Why so? asks the Yellow Emperor. Qi Bo replies: Rice benefits from the harmony between heaven and earth, grows in the perfect land, and thus is the perfect ingredient. When rice is harvested in the perfect season—autumn, its stalks are strong.

But if we pick out the first two sentences (必以稻米，炊之稻薪) from Qi Bo’s reply, and translate them into English, then they would appear as explicit instructions: Use rice as the ingredient and cook it with stalks of rice. But rendering them as direct instructions would be out of context, where the Yellow Emperor and Qi Bo are engaged in a conversation about traditional Chinese medicine. The Yellow Emperor makes inquiries while Qi Bo answers. In other words, Qi Bo is explaining and describing, rather than instructing. The text is instructive but not instructional. Qi Bo’s purpose is conveying knowledge and information, but not instructing the Yellow Emperor.

In Chapter Twenty-Five, the Yellow Emperor tells his minister, Qi Bo, that it causes him to feel great sadness to see his subjects suffering terrible

⁶⁹⁴ Five grains are wheat, broomcorn millet, millet, rice, and beans.

⁶⁹⁵ Zhang Canshen 张灿坤, Xu Guqian 徐国仟, and Zong Quanhe 宗全和, eds., *Huangdi Neijing*, 182—83.

⁶⁹⁶ I italicize both the Chinese and its corresponding English rendition because they are intended as instructions.

pains and irritations from injuries and diseases, but his subjects think that he does not care for their suffering, so that they think he is a despot (残贼 *canzei*). That was a very serious accusation in Chinese antiquity. It means the ruler ruled through terror and that he did nothing for the welfare and benefit of his subjects. Then, his subjects “have the moral right of revolution” and “even killing the ruler is no longer a crime of regicide.”⁶⁹⁷ Clearly, the Yellow Emperor did not want to be a despot. In that situation, it is understandable that he could be desperate for help. In the text, therefore, he asks Qi Bo what he should do to alleviate his subjects' suffering. Qi Bo provides the following instructions:

夫人生于地，悬命于天；天地合气，命之曰人。人能应四时者，天地为之父母；知万物者，谓之天子。天有阴阳，人有十二节。天有寒暑，人有虚实。能经天地阴阳之化者，不失四时。知十二节之理者，圣智不能欺也，能存八动之变，五胜更立，能达虚实之数者独出独入，吐吟至微，秋毫在目。⁶⁹⁸

Humans are born on earth but their life depends upon heaven, so the cosmic ethers of heaven and earth unite to bestow life-giving essence upon humans. Heaven and earth are the parents of those who conform to the cycles (waning and waxing of *Yin* and *Yang*) of the four seasons. Those who know the birthing, growing, harvesting, and storing of all things under heaven are the sons of heaven. Nature has *Yin* and *Yang* for the cycles of twelve months while humans have twelve sections in the hands and feet for the twelve channels; nature has cold and heat as result of waning and waxing of *Yin* and *Yang*, while humans experience deficiency and sufficiency as a result of waning and waxing of *Yin* and *Yang* in the body. Those who, in nourishing their health, can follow the way of nature and observe the changes of *Yin* and *Yang*, are able to correlate their life with the cycles of the four seasons, are knowledgeable about the workings of the twelve channels, and are more talented; thus, they won't be confused by any diseases. Those who understand the changes of the eight winds, understand how the five elements produce and conquer each other and how diseases wane and wax, and thus have their own interpretations and act decisively. These people can then hear the faintest sound and see the infinitesimal.

Is Qi Bo instructing the Yellow Emperor what to do to ease his subjects' suffering so that he won't be labeled a despot by his subjects? To

⁶⁹⁷ Fung, *A Short History*, 74.

⁶⁹⁸ Zhang Canshen 张灿坤, Xu Guqian 徐国仟, and Zong Quanhe 宗全和, eds., *Huangdi Neijing*, 348.

modern readers, even modern Chinese readers, many of the ideas in the paragraph are not even relevant to instructions. Rather, Qi Bi is simply recounting some facts to the emperor.⁶⁹⁹ The entire paragraph is narrative rather than instructional, so that hardly anything in it appears to be instructions telling the Yellow Emperor what to do to ease his subjects' suffering. Qi Bo is just telling the Yellow Emperor that nature and humans are one, and a unified entity, thus the oneness of nature and humans. In other words, Qi Bo, by recounting these facts, is telling the Yellow Emperor that he should let it be known to his subjects that correlating their life with the cycles of the four seasons and waning and waxing of *Yin* and *Yang* is the only way to prevent diseases and alleviate their suffering.

In a similar vein, when developing theories, the text of this classic is descriptive, narrative, or instructive, rather than argumentative or persuasive. For example, in Chapter Twenty, the Yellow Emperor shows great interest in learning the theories of the nine types of needles for acupuncture (九针 *jiuzhen*), so he asks Qi Bo to put the theories in a nutshell. Qi Bo responds by saying that the emperor has asked "a very subtle and ingenious question, the answer to which demands absolute truth through deciphering the numerical code of nature" (妙乎哉问也,此天地之至数 *miaohu wenzaiye, ci tiandizhi zhishu*⁷⁰⁰). Upon hearing that, the Yellow Emperor tells Qi Bo that he would like to learn how the absolute truth of nature applies to the body and why it determines life and death. Then Qi Bo begins to theorize:

岐伯曰：天地之至数始于一，终于九焉。一者天，二者地，三者人，因而三之，三三者九，以应九野。故人有三部，部有三候，以决死生以处百病，以调虚实，而除邪疾。有下部、有中部、有上部，部各有三候。三候者，有天、有地、有人也。必指而导之，乃以为真。上部天，两额之动脉；上部地，两颊之动脉；上部人，耳前之动脉。中部天，手太阴也；中部地，手阳明也；中部人，手少阴也。下部天，足厥阴也；下部地，足少阴也；下部人，足太阴也。故下部之天以候肝，地以候肾，人以候脾胃之气；中部之天以候肺，地以候胸中之气，人以候心；上部之天以候头角之气，地以候口齿之气，人以候耳目之气。

⁶⁹⁹ They were facts to people in ancient China, and certainly the Yellow Emperor and Qi Bo.

⁷⁰⁰ Zhang Canshen 张灿坤, Xu Guqian 徐国仟, and Zong Quanhe 宗全和, eds., *Huangdi Neijing*, 286.

三部者，各有天，各有地，各有人。三而成天，三而成地，三而成人。三而三之，合则为九，九分为九野，九野为九脏。故神脏五，形脏四，合为九脏。⁷⁰¹

Qi Bo says; “The cosmic numbers begin with one and end with nine. One, an odd number, represents *Yang*, corresponding to heaven; two, an even number, represents *Yin*, corresponding to earth; humans exist between heaven and earth, so the number three corresponds to humans. Heaven, earth, and humans unite to be three, and three times three is nine, corresponding to the nine regions.⁷⁰² Thus, the human body consists of three parts, each of which consist of three areas. Examining the pulses located in these areas can decide on life and death, and adjust deficiency and sufficiency of *Yin* and *Yang*, thus curing diseases. There, the upper, middle, and lower parts, each consist of three areas, called heaven, earth, and human. In each of these areas, one must check very carefully to feel the true pulses: the pulses of the upper heaven area are located close to the arteries at the temples; the pulses of the upper earth area are located in the cheeks; the pulses of the upper human area are located right in front of the ears. The pulses of the middle heaven area are located at the Greater Yin in the hands; the pulses of the middle earth area are located at the Yang brightness in the hands; the pulses of the middle human are located at the Lesser Yin in the hands. The pulses of the lower heaven area are located at the Connecting Yin in the feet; the pulses of the lower earth area are located at the Lesser Yin in the feet; the pulses of the lower human area are located at the Greater Yin in the feet. So the pulses at the lower heaven area attend to the liver; those at the lower earth area attend to the kidneys; those at the lower human area attend to the spleen and the stomach. The pulses at the middle heaven area attend to the lungs; those at the middle earth area attend to the chest; those at the middle human area attend to the heart. The pulses at the upper heaven area attend to the head; those at the upper earth area attend to the mouth; those at the upper human area attend to ears and the eyes.

So the three parts each have heaven, earth, and human areas, so there are three heaven areas, three earth areas, and three human areas. Altogether, there are nine areas, corresponding to the nine regions, which in turn correspond to the nine organs in the human body.⁷⁰³

⁷⁰¹ Ibid., 287—88.

⁷⁰² In ancient China, there were nine regions: Jizhou 冀州, Yanzhou 兖州, Qingzhou 青州, Xuzhou 徐州, Yangzhou 扬州, Jingzhou 荆州, Yuzhou 豫州, and Yongzhou 雍州.

⁷⁰³ The nine organs are the five viscera plus the stomach, the large intestine, the small intestine, and the bladder.

Let me summarize Qi Bo's theory that the numerical code of nature determines life and death: Humans exist in nature and are part of nature, so nature is manifest in the human body; each one of the three parts of the body consists of three areas whose elements correspond to heaven and earth, and the pulses located in these areas attend to the various organs in the body. Thus, in total, there are nine areas in the human body that attend to the nine organs, so the cosmic numbers one through nine are manifest in the human body and they determine life and death.

To our modern readers, this theory may sound a little odd or even ridiculous, but it is based on what people in ancient China at that time regarded as truth. So, again, the text is just recounting facts and in this way, it develops the theory that nature's numerical code decides on human life and death. The text is basically narrative and descriptive, not argumentative or persuasive.

Emphasis on Context

The Yellow Emperor's Classic treats the human body as an integral part of nature, so in discussing treatments for diseases, it emphasizes the importance of environments, both natural and man-made, where the human body exists: the context takes priority over the individuals in the context.

My discussion in the previous sections of this chapter suggests that *The Yellow Emperor's Classic* clearly establishes various concordances between nature and the human body, through using the theoretical frameworks of *Dao*, *Yin* and *Yang*, and the five elements in treating the human body. *The Classic*, for the first time in Chinese history, explicitly and unequivocally expounded the theory of unity between nature and humans, by using specific examples to illustrate how nature affects the human body and how the body reacts to nature. In this way, the *Classic* elaborates on, and develops, the theory of unity between context and individual events, as championed by the *Classic of Changes*, through expanding that theory to treat human lives as individual events in the natural context.

In addition to using examples to illustrate how nature affects the human body, the *Classic* also treats the human body as part of nature so that the human body manifests all that nature does. In other words, in the text of *The Yellow Emperor's Classic*, the human body is identical to nature. The examples to illustrate this point are scattered throughout this classic. Take, for instance, Chapter Three, which elaborates the foundation of life:

夫自古通天者，生之本，本于阴阳。天地之间，六合之内，其气九州、九窍、五脏十二节，皆通乎天气。⁷⁰⁴

From high antiquity, the foundation of life has been the union of nature and humans. This foundation lies in *Yin* and *Yang*. Between heaven and earth, within the six points,⁷⁰⁵ all enjoy union with nature, from large entities such as the nine regions in the land, to small organs such as the nine orifices, the five viscera, and the twelve joints.⁷⁰⁶

Humans are nature once through union with nature. Existing in nature, humans are granted the gift of life by nature, and thus, are conditioned by it. Not only do humans closely identify with nature, but human societies are also part of nature, as evidenced by the statement about the nine regions. It appears that everything about humans is part of nature, and therefore conditioned by nature. Just the “Monthly Commands” encourage people to correlate their activities with those of nature so as to guarantee an orderly society and a happy life, *The Yellow Emperor's Classic* urges people to succumb to nature in order to prevent noxious influences from attacking the body. Thus, this *Classic* stresses the following point:

苍天之气，清静则志意治，顺之则阳气固，虽有贼邪，弗能害也，此因时之序。故圣人传精神，服天气而通神明。失之则内闭九窍，外壅肌肉，卫气解散，此谓自伤，气之削也。⁷⁰⁷

If celestial ethers are pure and clean, then humans will be in good health accordingly. If humans act according to the changes of weather, then their Yang ethers will be stable, so that noxious elements cannot cause injury to them. The sage concentrated on maintaining harmony with nature so as to be in direct communion with it. If humans fail to correlate their activities with those of nature, then within the body, the nine orifices will be closed; without, the muscles will stop growing, and the guarding ethers will disperse. All this is caused by humans' failure to act according to the cycles of nature; thus these injuries are self-inflicted, and the Yang ethers will be weakened substantially.

⁷⁰⁴ Zhang Canshen 张灿坤, Xu Guqian 徐国仟, and Zong Quanhe 宗全和, eds., *Huangdi Neijing*, 28—29.

⁷⁰⁵ The “six points” are east, west, south, north, the Zenith, and the Nadir.

⁷⁰⁶ These joints include the two wrists, two elbows, two shoulders, two hips, two knees, and two ankles.

⁷⁰⁷ Zhang Canshen 张灿坤, Xu Guqian 徐国仟, and Zong Quanhe 宗全和, eds., *Huangdi Neijing*, 30.

Injuries are not caused by infectious diseases but by humans' failure to follow the ordinances of nature. Clearly, to prevent injuries or cure illness, humans need to act according to the ordinances of nature. Because the human body is integral part of nature, when nature loses its *Yin-Yang* balance, as indicated by, for example, unseasonably warm weather and thunderstorm in winter, this imbalance in nature will affect the human body, causing *Yin-Yang* imbalance within the body, thus disharmonizing the body's vitalities. At this point, physicians must know what ethers are excessive and insufficient. If the *Yin* ethers are excessive, then physicians should decrease amount of the *Yin* ethers; if the *Yang* ethers are excessive, then they need to decrease the *Yang* ethers.

The Yellow Emperor's Classic provides advice on a variety of methods of treatment: from acting in accordance with the rhythms of the four seasons, abstaining from strenuous physical activities, and excessive emotional indulgence to medicinal techniques. But it stresses two methods to bring back *Yin-Yang* balance: acupuncture and food. When this *Classic* provides instructions for applying acupuncture, it does not spell out the techniques of using it; rather, it focuses on the proper times and conditions when it should be applied. In short, the *Classic* stresses the importance of establishing the correct context in which to apply the needles. Using food for the cure of diseases is also based on the rhythms of nature: the theory of the five elements. As Chapter Twenty-Two claims, "diseases of the four seasons and the five viscera each react differently to each of the five flavors to which the four seasons and the five viscera correspond" (四时五脏, 病随五味所宜也).⁷⁰⁸ All these methods of treatment intend to rectify the problem within the human body of imbalance between *Yin* and *Yang* caused by abnormal weather conditions. In short, nature conditions human life and thus determines life and death. Let me end this part of the discussion by summarizing the gist of Chapter Twelve of *The Yellow Emperor's Classic*: the various cures for diseases must be developed in accordance with various geographical and physical conditions in which patients live.

Physicians' Ethics

In Chapter One of this book, I have shown that, Ban Gu 班固 (32—92 CE), while defining the four sub-categories of technical writing, draws our attention to some ethical issues in technical writing practices in Chinese antiquity. He is especially concerned with the sources of unethical

⁷⁰⁸ *Ibid.*, 326.

practices and their negative effects on human beings. He discusses ethical issues as they exist in the four areas of technical writing practices.⁷⁰⁹ Similarly, *The Yellow Emperor's Classic* also discusses ethical issues that physicians face in their medical practices.

First, the text of this *Classic* seems to tell us that medicine is the divine and noble enterprise of the sage. In Chapter Seven of this book, I pointed out that the “Accounts of Examining Artisanship” claims that artisanship is the sage’s enterprise, while the artisans simply communicate the sage’s design and invention to the general public, by turning the invention into a product. In a similar vein, the text of *The Yellow Emperor's Classic* stresses that medicine is the invention of the sage in high antiquity, so the text encourages physicians to emulate the sage in medical practices, as evidenced by invoking the sage’s daily life, particularly the sage’s medical practices, throughout the text, as the exemplary behavior for physicians. Chapter One unmistakably announces that “the sage from high antiquity teaches us common people. . . .” (夫上古圣人之教下也).⁷¹⁰ Then Chapter Seventy-Seven pronounces that the sage’s medical practice is exemplary, and thus should be learned by millions of people:

圣人之术，为万民式，论裁志意，必有法则，循经守数，按循医事，为万民副。⁷¹¹

The sage’s medical practice that is learned by millions of people is exemplary. It developed its own rules for measuring and calculating people’s physical and mental conditions; it followed medical principles and regulations in medical practices, and it helps millions of people.

The appearance of the Yellow Emperor himself in the text as an interlocutor suggests that medicine is the divine and noble enterprise, and “his divine powers are directly relevant to the contents of the texts attributed to his name” because “only one who has divine connections can write a text elucidating principal numbers, patterns, and issues of divinity and immortality.”⁷¹² Because medicine is a such a noble profession, physicians must have noble moral character. What is this noble moral character? Chapter One, by way of describing the sage’s lifestyle, spells out this moral character physicians must possess:

⁷⁰⁹ Ban Gu, *Han Shu*, 169.

⁷¹⁰ Zhang Canshen 张灿坤, Xu Guqian 徐国仟, and Zong Quanhe 宗全和, eds., *Huangdi Neijing*, 5.

⁷¹¹ *Ibid.*, 1250.

⁷¹² Zhang, *Authorship*, 52.

是以嗜欲不能劳其目，淫邪不能惑其心，愚智贤不肖，不惧于物，故合于道。⁷¹³

No desires can befog your attention; no immoral or wicked matters can mislead you; no profits can disturb you, knowledgeable or ignorant, so much that you become anxious. Then you are in harmony with the *Dao*.

In short, in the text of *The Yellow Emperor's Classic*, medicine belongs to a divine and noble tradition championed by the sage in high antiquity. It asserts the primacy of the physician doing the job, insisting it is *more* important than the medical knowledge the physician possesses, or the acupuncture needles the physician uses, or medicine the physician prescribes, though the latter three *are* important. Physicians with morally noble character must shun desires, distain the immoral and the wicked, and remain unaffected by profit. In this brief message on physicians' moral character, we find a comparable statement by the Roman teacher of Greek rhetoric, Quintilian (ca. 35—96 CE), who insists that, “no man, unless he be good, can ever be an orator.”⁷¹⁴ Just as Quintilian demands that an orator have good character, *The Yellow Emperor's Classic* demands that a physician have noble moral character.

In addition to being in harmony with the *Dao*, a physician must also possess other virtues to have a morally noble character. The text of this classic identifies these virtues when discussing the sage's medical practices. Because medicine is a divine and noble enterprise championed by the sage, there are “five faults and four virtues” in medical practices: “Thus there exist five faults and four virtues” (*gu shiyou wegou side* 故事有五过四德).⁷¹⁵ The Yellow Emperor goes on to elaborate on these faults and virtues:

良工所失，不知病情，此亦治之一过也。... 愚医治之，不知补泻，不知病情，精华日脱，邪气乃并，此治之二过也。... 善为脉者，必以比类、奇恒，从容知之，为工而不知道，此诊之不足贵，此治之三过也。... 医不能严，不能动神，外为柔弱，乱至失常，病不能移，则医事不行，此治之四过也。... 粗工治之，亟刺阴阳，身体解散，

⁷¹³ Zhang Canshen 张灿坤, Xu Guqian 徐国仟, and Zong Quanhe 宗全和, eds., *Huangdi Neijing*, 5.

⁷¹⁴ Quintilian, “From *Institutes of Oratory*,” in *The Rhetorical Tradition: Readings from Classical Times to the Present*, ed. Patricia Bizzell and Bruce Herzberg (Boston: Bedford Books, 1990), 347.

⁷¹⁵ Zhang Canshen 张灿坤, Xu Guqian 徐国仟, and Zong Quanhe 宗全和, eds., *Huangdi Neijing*, 1250.

四支转筋，死日有期，医不能明，不问所发，惟言死日，亦为粗心，此治之五过也。⁷¹⁶

In diagnosing diseases, if a physician, even a physician with superb technique, fails to understand the patient's physical and mental states and does not know the causes for sickness, then it is the first fault. . . . In treating diseases, a physician with awkward skills does not apply nourishing or purging methods of treatment properly, or does not know the patient's condition, so that the essence escapes the body and the noxious accumulates in the body, it is the second fault. . . . In analyzing diseases, a physician good at taking the pulse must compare/contrast the general with the specific, draw an analogy between cases, and analyze them confidently, so the physician arrives at a conclusion. If a physician does not know how to make the comparison or contrast, then the physician is good for nothing. This is the third fault. . . . In counselling a mentally depressed patient, if a physician fails to guide the patient in a positive way to shake up the patient mentally, but instead only humors the patient, aggravating the problem, then the problem will get out of control and the physician will have no chance in finding a cure for the problem. This is the fourth fault. . . . In medical practice, a careless physician does not inquire into the causes for the diseases so that the physician randomly inserts acupuncture needles into the various acupuncture points along the channels of *Yin* and *Yang*, only to cause the vital energy to be more deficient, thus crippling the body and straining the four limbs. Then the patient is doomed and the physician still does not know what is happening but only pronounces that the patient is in critical condition. This is the fifth fault of carelessness.

All the faults are related to the incompetent physician's lack of medical skills. In other words, to be a morally noble physician, the physician must be knowledgeable. All physicians of morally noble character must avoid any of these faults. Then there are the four virtues, which all physicians of morally noble character must strive to possess. What are these virtues? The text of *The Yellow Emperor's Classic* lists several sets without specifically claiming which set defines the four virtues. Three scholars from dynastic China gave three interpretations.⁷¹⁷ Here is one set this

⁷¹⁶ Ibid., 1251—56.

⁷¹⁷ Ibid., 1261. These three scholars are Wang Bing 王冰 (710—805 CE) of the Tang dynasty (618-907 CE), a major editor of this classic; Wu Kun 吴昆 (1552--?) of the Ming dynasty (1368—1644 CE); and Zhang Jiebin 张介宾 (1563—1640 CE) of the Ming dynasty (1368—1644 CE). For these three interpretations, refer to Zhang Canshen 张灿珪, Xu Guqian 徐国仟, and Zong Quanhe 宗全和, eds., *Huangdi Neijing*, 1261. I prefer Zhang Jiebin's interpretation because it entails a physician's knowledge of cosmic principles, medical skills, and human nature.

Classic facilitates in Chapter Seven, which, Zhang Jiebin 张介宾 believes, defines the four virtues:

圣人之治病也，必知天地阴阳，四时经纪；五脏六腑，雌雄表里，刺灸砭石，毒药所主；从容人事，以明经道，贵贱贫富，各异品理，问年少长勇怯之理；审于分部，知病本始，八正九候，诊必副矣。⁷¹⁸

First, the sage, in his medical practice, knew the waning and waxing of the cosmic *Yin* and *Yang* and the cycles of the four seasons; **second**, the sage also knew the connections among the five viscera and the six bowels, and the features of the exterior and interior of the *Yin* and *Yang* vessels so that he could confidently choose from acupuncture needles, stone needles, and medicinals as methods of treatment, as the situation called for; **third**, the sage gained a deep insight into human nature so that by employing this insight in medical practices, he distinguished between the noble and the lowly, between the rich and the poor, and understood these patients' unique physical conditions and the causes of diseases, always inquired about the patient's age and temperament; **fourth**, the sage always began by examining a patient's infected part of the body to pinpoint the causes and development of the sickness, and then analyzed them based on his knowledge of the eight winds and the three parts and nine regions of the human body, so his medical skills were complete.

I added the italicized and bolded ordinal numbers to clearly show the four virtues as indicated by Zhang Jiebin 张介宾. As we have learned from this passage, these four virtues correspond to the physician's knowledge of cosmology, the organs, human nature, and diagnosis. Unlike the five faults, which are all related to the physician's knowledge of medicine, these four virtues emphasize the guiding principles of medicine. Even the second and the fourth virtues, which have more to do with the physician's medical knowledge, stress the importance of the physician's knowledge of *Yin* and *Yang* and the eight winds.

The text of this *Classic*, in elaborating on these four virtues, clearly tells its readers that no one will be accomplished in medicine without developing any of these four virtues. The third virtue immediately reminds us of Quintilian's emphasis on the necessity of an individual's gaining "a deep insight into the impulses of human nature" before becoming a good orator:

I pass on to my second proposition, that no man will ever be thoroughly accomplished in eloquence, who has not gained a deep insight into the

⁷¹⁸ *Ibid.*, 1258.

impulses of human nature, and formed his moral character on the precepts of others and on his own reflection.⁷¹⁹

Quintilian presents his strong argument here for the necessity of the orator's being a good person; like an accomplished orator, the physician in the text of *The Yellow Emperor's Classic* must also gain a deep insight into human nature in order to develop morally noble character.

Oral Nature of the Text

The Yellow Emperor's Classic differs from other Chinese classics in that it employs dialogue form throughout its text, where the interlocutors are the Yellow Emperor and his ministers Qi Bo and Lei Gong. This form of discourse suggests that spoken words were considered to be preferable to written words, at least in the eyes of the authors of this *Classic*. Thus, using the question-and-answer form in medical practices and philosophy has several implications:

First, by employing a dialogue form, the text of *The Yellow Emperor's Classic* seems to invite its readers to participate in the conversations between the Yellow Emperor and his ministers. It suggests the desire of the purported authors of the *Classic* to involve their readers in the medical practices that the interlocutors are discussing. Like Platonic dialogues, the dialogue form in the *Classic* is very dramatic, like staged interactions between the interlocutors themselves and between the interlocutors and the readers. By engaging the readers in the dialogue, the authors of this book wish to invite them to receive medical information directly from the original source, without the help of a third party, just as the Yellow Emperor's interlocutors do. The original source is of course the Yellow Emperor.

Second, in this dialogue form, the Yellow Emperor, by acting as a major interlocutor, reveals divine and secret information on medicine, especially information about the sage from high antiquity and his medical practices. The power of oral speech in this context of the dialogue form is revealed in the role of the Yellow Emperor. As a matter of fact, it is not unreasonable to claim that the divine and secret information about the sage's medical practices could only be preserved in the oral tradition. The text of this classic, by depicting the Yellow Emperor as both a divine and a human interlocutor in the dialogue, effectively lends credibility and authority to the *Classic*. The Yellow Emperor's ministers, on the other

⁷¹⁹ Quintilian, "From *Institutes of Oratory*," 353.

hand, through acting as the Emperor's interlocutors in the dialogue, actually relay the divine and secret knowledge of medicine to humans, thus serving as the bridge between the divine world and the human world, a function performed by the oral voices in the oracle-bone inscription texts, the *Classic of Poetry*, and the "Grand Criteria."

Third, by employing the dialogue form, the *Classic* believes that the most profound and systematic principles of medicine are not found in written text but in conversations. Here, orality initiated the communication process, developed it, and brought it to fruition; written communication just served to conclude it by keeping a record of the conversations. In this context, the text of the *Classic* seems to indicate the philosophical theories of the *Dao*, *Yin* and *Yang*, and the five elements that underpin traditional Chinese medicine, are best developed in oral communication.

Fourth, by employing the dialogue form and by engaging the readers in the dialogue, the authors of this *Classic* believe that medical philosophy and medical knowledge in the rich medical practices are better learned through oral communication than through systematic written instructions. In other words, instructions are more effectively provided in orality.

Fifth, the text of *The Yellow Emperor's Classic*, through using the dialogue form, does not provide instructions directly; instead, it stimulates the readers to think for themselves about the ideas the interlocutors express in the dialogue. The dialogue does not offer fully fledged step-by-step instructions to guide readers to diagnose or treat patients; rather, it just establishes the context in which they take the thoughts and ideas further by practising them. They learn through practising medical skills in the context.

Significance of *The Yellow Emperor's Classic of Internal Medicine* as a Book of Technical Writing

The Yellow Emperor's Classic of Internal Medicine is the first book of technical writing in the Chinese tradition that is devoted to a single area of expertise—medicine. As such, it provides guidance solely on medical practices. In doing so, it develops new, or elaborates on earlier, philosophical theories. As a book of technical writing, it has several implications.

The most significant implication of this *Classic* is perhaps its stress on unity between context and individuals and its application of this unity in medical practices. Because individuals are part of the large context, the *Classic*, in advancing medical theories and in providing instructions on medical practices, emphasizes the context in which individuals or

individual events exist. Thus, it gives more attention to creating a harmonious environment where *Yin* and *Yang* are balanced; it also suggests methods of treatment that aim at repairing an imbalanced environment to restore the balance.

The ancient Chinese theory of unity between context and individual events continues to exert its influence on Chinese culture today, and certainly on technical communication in China. Since context is the conditioning force, technical communicators often try to create an ideal environment (context) when communicating to their readers. For example, a business letter writer may begin the letter by developing harmonious personal relationships with his readers before discussing pertinent points, just to create a friendly atmosphere. A manual writer may focus on the physical environment (context) in which a task is to be performed. In short, in this approach, which stresses the context, we see the influence of the theory of unity between context and individual events, as advanced by *Yi Jing* and expanded on by *The Yellow Emperor's Classic*.

Another significant point about this *Classic* which I want to draw readers' attention to, is the strategy of indirectness it employs in providing instructions on medical practices. We have seen similar strategies in some other technical writing artifacts I have discussed in this book, such as the *Classic of Poetry* and the "Accounts of Examining Artisanshp." In the *Classic of Poetry*, this indirectness appears as 'suggestiveness': instructing and reporting through employing poetic language and imagery. In the "Accounts of Examining Artisanshp," this indirectness is made manifest in its employment of descriptions and narrations as a way of providing instructions. In *The Yellow Emperor's Classic of Internal Medicine*, this indirectness is its way of providing instructions on medical practices through depicting conversations on elaborating the direct relationships between nature and the humans; between *Dao*, *Yin* and *Yang*, and the five elements and the human body, and between a harmonious environment and diseases. In this sense, the indirectness performs a function similar to that in the "Accounts of Examining Artisanshp," stressing the importance of the context. Here, we can easily sense how this indirectness is related to the first significant implication I have discussed above. In today's technical communication artifacts in China, especially manuals, we also find this indirectness at work, instructing through establishing the context where a task is to be performed, and through descriptions and narrations.

What is also noteworthy about this *Classic* is that practitioners' ethics are explicitly emphasized in the text. This *Classic* demands that those who practice traditional Chinese medicine be good individuals before becoming good medical workers. The repercussions of this requirement, reinforced

by other cultural traditions such as Confucianism, are still keenly felt in today's technical communication in China. In technical communication practices, communicators always want to show their integrity to their partners to win their trust.

Finally, this *Classic* continues to demonstrate how important orality is in technical communication in the Chinese tradition. At times, orality is more important and more functional than writing, particularly when the communicator is serving as the bridge between the divine world and human society to pass the divine and secret knowledge of medicine to humans. Another implication of orality in this classic is that readers are invited to participate in the conversations, and thus they learn more from oral communication than from writing. Orality is such an important feature of technical communication that often it replaces its counterpart—written documents even in today's communication practices in China.

CHAPTER TEN

GUAN ZI (管子): THE FIRST COMPREHENSIVE BOOK OF SOCIAL AND AGRICULTURAL MANAGEMENT IN THE CHINESE TRADITION

A Book of a Large Collection of Essays from Various Sources on Management

The *Guan Zi* or the *Book of Master Guan* 管子, traditionally attributed to the eponymous author Guan Zi or Guan Zhong 管仲 (cir 723—645 BCE), was actually compiled around 26 BCE by Liu Xiang 刘向 (79 – 8 BCE), father of Liu Xin 刘歆 (50 BCE—23 CE) who completed the *Seven Fields* (*Qi Lue* 七略), which provided the foundation for the reputed bibliographical chapter “Monograph on Arts and Writings” (*Yiwe Zhi* 艺文志) in the *History of the Former Han* (*Han Shu* 汉书) by Ban Gu 班固 (32—92 CE).⁷²⁰ The book is a large collection of essays which were composed by scholars of the Jixia Academy (*Jixia Xuegong* 稷下学宫) in Linzi 临淄, the capital of the state of Qi 齐国 (1044—221 BCE).

The authorship of the book was attributed to Guanzi, most probably because he was a statesman and the prime minister of Qi under Duke Huan of Qi 齐桓公 (?—643 BCE), responsible for the rise of Qi as a political, military, and economic power in the Spring and Autumn period 春秋 (770—481 BCE). Thus, Zhan Huajun 战化军 claims that the Guanzi School of Thought took shape in the Jixia Academy and *Guanzi* is a collection of essays by scholars from this school that elaborated on Guanzi’s teachings from various philosophical perspectives and discussed his strategies for running the state’s political, military, and economic

⁷²⁰ “Zi” 子 in “*Guan Zi*” means “master,” thus the “*Book of Master Guan*.” More information about Liu Xiang and Liu Xin can be found in Chapter 1 of this book.

affairs after his death, which has rendered *Guanzi* an encyclopedic book.⁷²¹ Rickette believes that a proto-*Guanzi* took shape in 250 BCE which consisted of essays by men associated with the Jixia Academy. When Guanzi was the prime minister of the State of Qi, “the Jixia Academy attracted scholars representing various schools of thought from all over China” and “the proto-*Guanzi* that formed the core of the present collection was already very diverse in content.”⁷²² Indeed, the book, diversified in content, contains 76 essays covering a wide variety of subjects, ranging from detailed economic discussions to overviews of agriculture and local soil topography. These essays represent all the major Chinese philosophical thoughts: Daoist School 道, Legalist School 法, Confucian School 儒, School of Names 名, School of Military Strategists 兵, School Agrarians 农, Yin Yang School 阴阳, and School of Priorities 轻重. Yet the guiding philosophy of the book is Haung-Lao Daoist Thought,⁷²³ and the book integrates Daoism and Legalism in such a way that it lays the philosophical foundation for Legalism while carrying out legalist thought in society.

The book contains 76 essays or chapters 篇, divided into eight sections 部: “Canonical Statements” (*Jiyan* 经言), “Outer Statements” (*Waiyan* 外言), “Inner Statements” (*Neiyan* 内言), “Short Teachings” (*Duanyu* 短语), “Minor Statements” (*Quyán* 区言), “Syncretic Essays” (*Zapian* 杂篇), “Explanations of Guanzi” (*Guanzi Jie* 管子解), and “Light and Weight” (*Qingzhong* 轻重). Originally, the book contained 86 chapters, but it lost ten; thus, the received version of the book contains 76 chapters in the eight sections. With Huang-Lao Daoist School as its guiding philosophy, the book defines strategies for running the state, managing court politics, agriculture, the handicraft industry, and trade. Its focus is agriculture, teaching its users how to make the state strong politically, economically, and militarily, through developing agriculture.

⁷²¹ Zhan Huajun 战化军, “*Zhouyi Xici yu Guanzi*” 周易系辞与管子 [Commentary on the Appended Statements of *Zhouyi* and *Guanzi*], *Guanzi Xuekan* 1996 Nian Di 4 Qi 管子学刊 1996 年第 4 期 [Journal of *Guanzi* 4 (1996)]: 7.

⁷²² W. Allyn Rickette, “*Guanzi* (Kuan Tzu): The Book of Master Guan,” in *Encyclopedia of Chinese Philosophy*, ed., Antonio S. Cua (New York: Routledge, 2003), 277.

⁷²³ Huang is Huang Di 黄帝, and Lao is Lao Zi 老子.

Agriculture: The Foundation of All

Traditionally, China has been an agrarian country, because China is a continental country, so that Chinese people have to make their living by agriculture. In an agrarian country, land is the primary basis of wealth, so throughout Chinese history, social and economical thinking and policy have centered around the utilization of land. Farming in such an economy is important, not only in peacetime but also in wartime. During the Spring and Autumn periods (春秋 (770—481 BCE) and the Warring States period 战国 (481—221 BCE), China was divided into many feudal states (feudal kingdoms), and every state devoted its attention to what was then called “the arts of agriculture and war” (*nongzhan zhi shu* 农战之术). The state of Qi was one such a kingdom, and through *Guazi*, we get an glimpse of how it devoted its greater attention to agriculture.

The chapter of “State Grain Reserve” (*Guoxu* 国蓄) tells us that “The five grains are the force that controls the destiny of people” (*Wugushimi, minzhi simingye* 五谷食米，民之司命也) and “they are the master of all under the sky” (*Fan wuguzhe, wanwu zhizhuye* 凡五谷者，万物之主也).⁷²⁴ The chapter of “Running the State” (*Zhiguo* 治国) also emphasizes the role of grain. It first asks a rhetorical question, “Why were the previous seventy-nine monarchs, despite their differering laws and orders, all able to achieve the unification under the sky?” (昔者，七十九代之君，法制不一，号令不同，然俱王天下者，何也？⁷²⁵). It provides a straight answer, “The reason must be that their countries were rich and grain was plentiful. The source of richness is agriculture, so all the previous monarchs emphasized agriculture” (必国富而粟多也。夫富国多粟生于农，故先王贵之⁷²⁶). Then it declares that,

民事农则田垦，田垦则粟多，粟多则国富。国富者兵强，兵强者战胜，战胜者地广。是以先王知众民、强兵、广地、富国之必生于粟也。... 先王者善为民除害兴利，故天下之民归之。所谓兴利者，利

⁷²⁴ Liu Xiang, *Guan Zi* 管子 (New York: Metro, 2014), 224, 225.

⁷²⁵ *Ibid.*, 156. People in ancient China considered their land the whole world, so “under the sky” for them, is their land. Fung Yu-lan has some perspicacious discussion of “land” and “under the sky” for the ancient Chinese. For details, see Fung, *A Short History*, 16—17.

⁷²⁶ Liu, *Guanzi*, 156.

农事也；所谓除害者，禁害农事也。农事胜则入粟多，入粟多则国富。
727

When people engage in farming, land will be cultivated; when land is cultivated, grain output will increase; when grain output increases, the country will be rich; when the country is rich, its military power will be strong; when its military power is strong, it will win the war; when it wins the war, it will win more land. Thus, all the previous kings understood that great output of grain is the source of a large population, a strong military, a vast land, and a rich country. . . . All the previous kings promoted the beneficial and removed the harmful, so people were willing to follow them. What is called the beneficial benefits farming; what is called the harmful harms farming. If farming develops, then grain output will increase; when grain output increases, the country will be rich.

Guanzi repeatedly emphasizes the importance of developing farming and increasing grain output. Particularly, *Guanzi* makes farming with increased grain production the necessary condition for a rich country and a strong military. This is a very remarkable argument because a strong military was crucial to a country's survival in an era of division when numerous feudal states were constantly engaged in warfare, fighting for hegemony and expansion of territory. As the chapter of "Cultivation of Power" (*Quanxiu* 权修) points out, farming is the foundation of all:

地之守在城，城之守在兵，兵之守在人，人之守在粟。⁷²⁸

The security of a country lies with its city walls; the security of city walls lies with the army; the security of the army lies with the people; the security of the people lies with grains.

Though *Guanzi* prioritizes farming, it does not neglect other branches of agriculture. In addition to producing five grains, attention must also be given to forestry, animal husbandry, trade, handicraft industry, and other subsidiary business. The chapter of "Seven Norms" (*Qifa* 七法) claims,

为兵之数：存乎聚财，而财无敌；存乎论工，而工无敌。⁷²⁹

⁷²⁷ Ibid., 156.

⁷²⁸ Ibid., 9.

⁷²⁹ Ibid., 22.

The art of war is first, to accumulate wealth because wealth is the king; and second, to demand fastidious workmanship of weapons because fastidious workmanship is the king.

The chapter of “Shepherding the People” (*Mumin* 牧民) encourages people to “grow mulberry trees and hemp and rear the six animals so that people will be rich” (养桑麻、育六畜，则民富⁷³⁰). The chapter of “Establishing the Political Power” (*Lizheng* 立政) elaborates on the significance of developing forestry and animal husbandry:

山泽救于火，草木植成，国之富也；沟渎遂于隘，鄣水安其藏，国之富也；桑麻植于野，五谷宜其地，国之富也；六畜育于家，瓜瓠萃菜百果各具，国之富也。⁷³¹

If forest fire can be prevented, then trees will grow vigorously with luxuriant foliage and grass will be lush, and then the country will be wealthy. Keep the canals and rivers clear from obstruction and keep water within its banks and embankment, and the country will be wealthy. Grow mulberry trees and hemp in the field and plant the five grains according to the local conditions, and the country will be rich. If farmers rear the six animals at home and grow vegetables and fruits, then the country will be rich.

In this passage, *Guanzi* brings up several important points, which will help make the country rich: conserving natural resources in mountains and woodlands, developing forestry, growing crops according to local conditions, building water conservancy projects to irrigate farmland, developing home gardens to cultivate fruits and vegetables, and developing animal husbandry. All this is essential to making a country rich and powerful. In short, agriculture is the foundation of a powerful country; a slight negligence will cause disasters, as the chapter of “*Kuiduo*” (揆度) explains, “If one farmer does not farm, then people may suffer from hunger; if one woman does not weave, then people may suffer from cold weather” (一农不耕，民有为之饥者；一女不织，民有为之寒者⁷³²).

⁷³⁰ Ibid., 4. Allyn Rickett thinks this chapter illustrates the practical approach of the realist wing of Confucianism. I agree, because the sovereign of a state must first feed people before using them. For more of Rickett’s discussion, see Allyn Rickett, *Guanzi: Political, Economic, and Philosophical Essays from Early China* (Boston: Cheng & Tsui Company, 2001), 51—52.

⁷³¹ Liu, *Guanzi*, 12.

⁷³² Ibid., 246—47.

An Important Step Towards Efficient Management: Classifying Objects

Agriculture is essential to building a powerful state; land is essential to agriculture. Farmers cultivate farmland and grow crops on it. Thus, to develop agriculture, we must first manage land efficiently. To manage land, we must know and understand it; to know and understand it, we must classify soil into different categories. This type of classification helps make the rhetoric of presentation more evident and helps “make the truth of any concept accessible and memorable.”⁷³³ It thus makes it easier for people to get to know and understand lands, because “it divid[es]. . . concepts into increasingly discrete entities.”⁷³⁴ So classifying land is the first step towards land management.

The chapter “Classification of Soil” (*Diyuan* 地员) has some penetrating analyses of the relationship between soil and vegetation, very clearly specifying what soil fits what vegetation. This chapter classifies the soil of the Nine Regions of China into five large groups: fine soil (悉徒-细土), dark-red soil (赤埤), sandy soil (黄唐), brown fine clay (赤植), and black humid soil (黑植).⁷³⁵

Then this chapter further divides these five large groups into 18 categories: chestnut soil (栗土), rich soil (沃土), black soil (位土), hidden soil (隐土), soft soil (壤土), hollow soil (浮土), tight soil (悉土), hard-to-break soil (埤土), hard soil (塏土), brittle soil (剽土), sandy soil (沙土), porous soil (壩土), manure-like soil (犹土), strong soil (壮土), loose soil (殖土), firm soil (覈土), solid soil (皃土), and salty soil (桀土). Every category consists of five different types of soil: red (*chi* 赤), grey (*qing* 青), white (*bai* 白), black (*hei* 黑), and yellow (*huang* 黄). Altogether, a total of 90 different categories of soil have been classified.⁷³⁶

Then this chapter specifies two crops suitable for each category, so there are a total of 36 crops. These 18 categories 类 again fall into three grades 等 and seven classes 级. *Guanzi* also reveals that fertility of a lower class of soil is about one tenth of that of an upper class. We can see that the classification is very detailed, and is getting more and more discrete, so that we do not just have “soil: but various soils.”⁷³⁷

⁷³³ Tebeaux, *Emergence*, 55.

⁷³⁴ *Ibid.*, 53.

⁷³⁵ Liu, *Guanzi*, 183. In ancient China, there were nine administrative regions.

⁷³⁶ *Ibid.*, 183—85.

⁷³⁷ *Ibid.*, 185—86.

Another Important Step Towards Efficient Management: Providing Instructions to Create a Healthy Environment

To manage land, the court must learn land management, so it is important to provide instructions. *Guanzi* provides instructions from time to time to help the Duke of Huan of Qi 齐桓公 (?—643 BCE) to enhance his management skills. The chapter “Surveying Land” (度地) is representative of chapters that provide instructions. It provides instructions for building dams, for reinforcing dams, and for assembling management and construction teams. The only one-person audience is the sovereign Duke of Huan of Qi, the monarch of the state of Qi (1044—221 BCE); the instructor is none other than Guan Zi or Guan Zhong 管仲 (cir 723—645 BCE) himself.

First, to answer the Duke’s question on how to build a dam, Guan Zi instructs him in this way:

春三月，天地乾燥，水糾列之時也。山川涸落，天氣下，地氣上，萬物交通。故事已，新事未起，草木莢生可食。．．．利以作土功之事，土乃益剛。令甲士作堤大水之旁，大其下，小其上，隨水而行。地有不生草者，必為之囊。大者為之堤，小者為之防，夾水四道，禾稼不傷。歲埤增之，樹以荊棘，以固其地，雜之以柏楊，以備決水。．．．當夏三月，天地氣壯，大暑至，。．。不利作土功之事。當秋三月，．．．不利作土功之事。當冬三月，天地閉藏，暑雨止，大寒起，萬物實熟。．．．不利作土工之事。⁷³⁸

In the three months of spring, it is dry so that water is rare and river flows are small. At this time, mountains and rivers are dry, and heavenly vapors are down while earthly vapors are up, and all begin to stir. Old farming activities are already completed while new ones have not begun yet; young buds of grass are edible. . . . It is time to undertake water projects because the earth embankment will become increasingly solid. It is time to order soldiers to build embankments along the rivers. The base of the embankments must be wide while the top must be narrow; they must be parallel to the rivers.

Dig “pockets” in the barren ground close to the embankment to store water.

Build an embankment around big pockets.

Reinforce the raised structures around small pockets so that they won’t harm crops.

Repair the embankment and the raised structure every year.

Plant thistles and thorns to reinforce the embankment.

⁷³⁸ *Ibid.*, 180—81.

Plant cypress and poplar among the thistles and thorns, just in case flood waters burst the embankment.

In the three months of summer, nature is changing dramatically; major heat is here. . . . It is not a good time for dam projects. In the three months of autumn, . . . it is not a good time for dam projects. In the three months of winter when both the sky and the earth are closed, summer rain has stopped, and major cold is here, and all have been harvested, . . . it is not a good time for dam projects.

In the above passage, Guan Zhong provides instructions for building water projects: river embankments and pockets for storing water. In addition, Guan Zhong also instructs the Duke how to reinforce these water projects. Though Guan Zhong has proposed many useful ideas to help the Duke, overall, the instructions focus on the larger context in which the water projects occur. For example, Guan Zhong first specifies the right time for building water projects; then, he directs his attention to the big picture of well-built embankments, like planting brambles and trees on the embankment. Through his instructions, Guan Zhong never specifies a single action for his readers to perform in order to complete the task. For example, how to dig water pockets is not specified; how to plant trees or brambles is not specified; how to build embankment is not specified, either. In other words, Guan Zhong does not spell out any specific actions for his audience to perform, but only focuses on maintaining a healthy environment in which well maintained rivers and water pockets exist.

In addition to building and reinforcing an embankment, Guan Zhong also instructs the Duke on how to repair it:

常令水官之吏，冬时行堤防，可治者章而上之都。都以春少事作之。已作之后，常案行。堤有毁作，大雨，各葆其所，可治者趣治，以徒隶给。大雨，堤防可衣者衣之。冲水，可据者据之。终岁以毋败为固。 . . . 独水蒙壤，自塞而行者，江河之谓也。岁高其堤，所以不没也。春冬取土于中，秋夏取土于外，浊水入之不能为败。⁷³⁹

Order water officials to inspect the embankment in winter. Ask them to report any problems to water administrators, who usually repair embankments in spring when not too many official affairs are going on. But after the embankment is built, inspect it frequently. If it is destroyed in storms, ask people to safeguard it section by section. If it needs repairing, then repair it. Slaves can serve to do the task. In storms, cover the embankment that needs covering. When water bursts in, then dam in the water by organized manpower. Year in, year out, the embankment is well

⁷³⁹ Ibid., 181.

maintained without any damages. . . . Muddy water in the rivers often carries sand and mud, which will block the rivers. Each year, the embankment must be raised with more earth to prevent overflowing. In spring and winter, get earth from within the river; in summer, obtain earth from outside the river. In this way, when muddy water arrives, it won't cause any damage.

In the above passage, Guan Zhong instructs the Duke on how to repair the embankment, but throughout, we do not find any specific actions being spelled out by Guan Zhong. What we read is a description of when we should do certain jobs. Just as we have seen in his instructions for building and reinforcing embankments, here Guan Zhong gives his heed to the big picture of well repaired embankments.

Finally, Guan Zhong instructs the Duke on how to assemble, organize, and manage a project team:

请为置水官，令习水者为吏：大夫、大夫佐各一人，率部校长、官佐各财足。乃取水左右各一人，使为都匠水工。令之行水道、城郭、堤川、沟池、官府、寺舍及州中，当缮治者，给卒财足。令曰：常以秋岁末之时，阅其民，案家人比地，定什伍口数，别男女大小。 . . . 阅具备水之器，以冬无事之时。笼、缶、板、筑，各什六，土车什一，雨葦什二。⁷⁴⁰

Appoint water officials and assign the management task to those who know water management. Appoint one administrator and one assistant administrator, who will lead magistrates, their officials, and various slaves. Choose two employees working as officials of water to be foremen of a water project. Dispatch them to inspect waterways, city walls, banks and embankment, rivers and streams, government buildings. If anything needs repairing, send off soldiers and slaves to repair it. Then proclaim an order: In late autumn, take a census of the civilian population, household registration records, and land. Based on the census of civilian population, assemble units of project teams, with each unit consisting of five people. Calculate the total number of men, women, and children. . . . Prepare tools to be used in water inspection. Do the preparatory work in winter when there is no farm work. Prepare six earth baskets, six spades, six pairs of pressing boards, and six rammers for each unit; prepare one earth wagon for each unit; prepare two rain-proof wagons for each unit.

Again, in this passage, Guan Zhong is focusing on the overall task of assembling a water project team, making sure that team is well formed. He

⁷⁴⁰ Ibid., 179—80.

does not give attention to details like how to choose two employees from among the water official's employees, how to census the civilian population, or how to prepare tools to be used in water projects. Guan Zhong's intention is to create an environment conducive to the work of the water project team.

Unity Between Nature and Humans

The philosophical thought of “unity between nature and humans” has appeared numerous times in the previous chapters of this book, such as Chapters Eight *Classic of Changes* and Nine *Yellow Emperor's Classic*. It mainly means that humans are part of nature so that they must correlate their activities with the cycles of the four seasons. *Guanzi* is no exception. In other words, for *Guanzi*, managing state affairs, managing land and farm work, building projects, and protecting natural resources should all follow the cycles of the four seasons.

The opening paragraph of the chapter on “Conditions and Circumstances” (*Xingshi* 形势) points out, “Heaven never changes its way, Earth never shifts its law, and the four seasons never change their cycles. It has been like that since antiquity” (天不变其常，地不易其则，春夏秋冬夏不更其节，古今一也⁷⁴¹). Then, *Guanzi* draws our attention to the driving force of nature:

春夏秋冬，阴阳之推移也；时之短长，阴阳之利用也；日夜之易，阴阳之化也。⁷⁴²

The four seasons are driven by *Yin* and *Yang*; farming cycles are utilized by *Yin* and *Yang*; day and night are shifted by *Yin* and *Yang*.

Nature, in other words, follows its own law: all must follow the way of *Yin* and *Yang*. *Guanzi* thus considers it the foundation of managing a country and developing agriculture to understand the rhythms of the four seasons and the seasonal cycles:

不知四时，乃失国之基⁷⁴³

If the seasons are not understood, then the foundation of a country collapses.

⁷⁴¹ Ibid., 5.

⁷⁴² Ibid., 16.

⁷⁴³ Ibid., 142.

不务天时，则财不生；
不务地利，则仓廩不盈⁷⁴⁴

If you do not know the seasons, wealth won't be produced; if you do not know the favorable land, granaries will not be full.

For *Guanzi*, the ultimate purpose of knowing and following the cycles of the four seasons is to create a natural and social environment in which all will live in harmony:

天为粤苑，草木养长，五谷蕃实秀大，六畜牺牲具，民足财，国富，上下亲，诸侯和。⁷⁴⁵

Heaven is like a large garden, where grass and trees grow luxuriantly and the five grains will yield abundantly, the six animals all exist, people are rich, the state is wealthy, and harmony exists between the sovereignty and the subjects and between lords.

This is *Guanzi*'s version of Utopia, and it is based on the philosophical thought of following the four seasons:

人与天调，然后天地之美生⁷⁴⁶ Human affairs must be correlated with natural cycles and then beautiful things will be produced.

To correlate human affairs with natural cycles means following the natural law. *Guanzi* thinks that human society will be chaotic without following the cycles of the seasons:

令有时。无时则必视，顺天之所以来，五漫漫，六悻悻。⁷⁴⁷

To issue edicts must follow the cycles of the four seasons. Otherwise, people will negatively wait for the seasons to arrive and the society will be thrown into chaos.

This is actually Guan Zhong's advice to the court that political affairs must also be correlated with the cycles of the four seasons. Running a state and managing political affairs must observe the natural law.

⁷⁴⁴ Ibid., 3.

⁷⁴⁵ Ibid., 146.

⁷⁴⁶ Ibid., 145.

⁷⁴⁷ Ibid., 142.

Each season has its own features, and based on these different features of the four seasons, *Quan Zhong* has proposed the political affairs of four seasons:

春者，阳气始上，故万物生。夏者，阳气毕上，故万物长。秋者，阴气始下，故万物收。冬者，阴气毕下，故万物藏。⁷⁴⁸

In spring, the *Yang* vapor is rising, so all are born. In summer, the *Yang* vapor has risen, so all are growing. In autumn, the *Yin* vapor is falling, so all are harvested. In winter the *Yin* vapor has fallen, so all are stored.

Based on these features, Guan Zhong advises the Duke to perform different jobs corresponding to the four seasons:

春，治堤防，耕芸树艺，正津梁，修沟渎，瓮屋行水。
...

夏，求有德赐布施于民者而赏之；令禁置设禽兽，毋杀飞鸟。
...

秋，慎旅农，趣聚收；补缺塞圻；修墙垣，周门闾。
...

冬，论孤独，恤长老；善顺阴，修神祀，赋爵禄，授各位；效肢计，毋发山川之藏。⁷⁴⁹

In spring, build and repair water projects, plant and trim trees, repair bridges, open up canals, and repair roofs with bricks so as to channel away rain water.
...

In summer, visit those who have done favors to civilians and reward them. Issue orders to prohibit hunting with nests and refrain from killing flying birds.
...

In autumn, arrange accommodations for itinerant farmers and urge them to harvest crops; patch the cracks in the walls of the granaries, and repair household walls and doors to make sure they are airtight.
...

⁷⁴⁸ Ibid., 190.

⁷⁴⁹ Ibid., 142—43.

In winter, assess the needs of the widows and orphans, and provide for the old; learn to be comfortable with the *Yin* and repair altars to spirits; grant official titles and give them official positions; examine bookkeepers' reconciliation sheets, and do not open up natural resources.

Guan Zhong's political affairs of four seasons beautifully combine state affairs with the cycles of the four seasons, whereby running a state goes side by side with preserving natural resources. Thus, Heaven, Earth, and humans all have their roles to play in agriculture.

顺天之时，约地之宜，忠人之和。故风雨时，五穀实，草木美多，六畜蕃息，国富兵彊。⁷⁵⁰

Follow the cycles of the four seasons, know the favors of land, and harmonize human relations. Thus wind and rain will be favorable, the five grains will be plentiful, grass and tree will be lush, the six animals will be strong, and the state will be rich.

The cycles of the Heaven, favors of Earth, and harmonious society are all united here, thus the unity between nature and humans. Such is the foundation of a well developed agriculture and therefore a powerful state. *Guanzi* has well realized that in agriculture, heaven, earth and humans constitute one entity in which humans must correlate their activities with the rhythms of nature. Guan Zhong's political affairs of the four seasons is his advice to people that humans must observe the natural law and refrain from violating the natural rhythms.

Significance of *Guanzi* as a Book of Management

As a book of management, *Guanzi* stresses the importance of following the cycles of the four seasons in running a country and managing agriculture. This stress is revealed not only in Guan Zhong's elaboration of the correspondence between nature and humans, but also in his instructions to the Duke. Throughout, Guan Zhong intends to focus on establishing a favorable context for humans to work in.

Thus, Guan Zhong gives more attention to the context in which a task is to be completed instead of the specific task itself. That is to say, no actions are spelled out for the readers to perform, so as to complete the task. For example, in the chapter on "Surveying Land" (度地), Guan Zhong instructs the Duke to build moats to defend the state:

⁷⁵⁰ Ibid., 173.

郭外为之土阨，地高则沟之，下则堤之，命之曰金城。⁷⁵¹

Build a moat outside the outer walls of a city. Dig the moat in high land; build the embankment on low land. Then the city is impenetrable.

We do not read any specific actions we could perform in order to dig a moat or to build an embankment. Instead, the instructions read more like a description of a strong city. Indeed, Guan Zhong's attention is on creating a favorable context in which soldiers and civilians could fight the enemies: a fortified city.

This stress on the context has repeatedly occurred in many of the Chinese classics we have discussed in this book. And as I have pointed out in an earlier chapter, the influence of the stress on the context has stretched over the dynastic periods to modern China. In other words, in Chinese communication, context is more important than individuals within the context.

Another important feature of *Guanzi* is its classification of objects, especially different types of soil and crops suitable for certain types of soil. *Guanzi* is not the first text in the Chinese tradition that classifies objects. However, it is the first one that classifies objects into increasingly discrete entities so that we do not just have "sandy soil" but "sandy firm soil" and "sandy soft soil." Each of these is further divided into three grades and seven classes. Therefore, we read a large vocabulary, mostly nouns, of different types of soil and grains in *Guanzi*.

This traditional practice of using nouns to name the constituents of events is championed by the *Classic of Poetry*, as I pointed out in Chapter 3 of this book. Using a large vocabulary of nouns enables us to perceive a pattern in the visual display of information in modern Chinese technical communication which might have escaped our attention. It ensures that technical communicators provide only relevant information, information that is useful to all users, regardless of their particular circumstances. They present only what can be expected by all readers in a task. In this way, these names encourage readers to expect what they will encounter in a task, thus helping each individual reader plan for the future.

Finally, most of the chapters in *Guanzi* employ the format of dialogue between the Duke and Guan Zhong. That is, the Duke asks a question, and then Guan Zhong provides instructions. Thus, orality plays a significant role in this written text. Orality binds Heaven, Earth, and humans in the unity between nature and humans. So it is a contract between nature and humans: as long as humans follow the cycles of the four seasons, nature

⁷⁵¹ Ibid., 178.

will be favorable. As I pointed out in Chapter 3, it is significant to interpret orality as a contract because it helps us understand why traditionally written contracts do not play an important role in Chinese business transactions, and are thus inconsequential in Chinese business writing. Oral contracts are more conducive to building harmonious human relations.

CHAPTER ELEVEN

PROPER HUMAN RELATIONSHIPS, SELF-DENIAL, AND DISTASTE FOR GAINS: HOW CONFUCIANISM INFLUENCES PROFESSIONAL COMMUNICATION IN CHINA

Let me begin this chapter with a real story.

In 1896, Li Hongzhang 李鸿章 (1823—1901), who was a well-known comprador (a Chinese Imperial official employed by a foreign business in China to act as a business agent) and the minister of the Northern Defensive Forces 北洋水师 of the Qing dynasty 清朝 (1636—1912), visited the United States as the Imperial Envoy of Emperor Guang Xu 光绪皇帝 (1871—1908). One day, he hosted a banquet to entertain the local government officials. Before the banquet started, Mr. Li, as the host, stood up and greeted his guests by humbling himself and debasing the food he had ordered for his guests:

Your humble servant (referring to himself) is greatly honored by your presence at this banquet. As a small token of my appreciation, this restaurant has prepared some poor-quality food, not delicious or sumptuous courses. So please bear with the poor-quality food and poor service you are about to get. . . .

The next day, the local newspaper carried the full text of Mr. Li's speech. But when the boss of the restaurant read the speech, he was greatly upset because he felt that Mr. Li had ruined the reputation of his restaurant. He immediately made a public statement, demanding that Mr. Li give specific examples of "poor-quality food and service" and "no delicious or sumptuous courses." Otherwise, the boss insisted, Mr. Li should compensate him for the ruined reputation. Of course, Mr. Li,

caught unawares, was greatly shocked. Finally, he apologized profusely to the restaurant and resolved the conflict.⁷⁵²

Here we see a conflict between the East and the West, which resulted from communication barriers between the two cultures. Mr. Li addressed his guests according to his relationship to them. He employed a traditional approach to communication in China: establishing a harmonious relationship between himself and his guests through self-denial: humbling himself and debasing the food he ordered. However, Mr. Li did not know that his approach would not work quite as effectively in Western culture. The restaurant owner, on the other hand, did not understand Mr. Li's self-denial approach. As a result, a misunderstanding arose.

Confucianism is at work in Mr. Li's speech.

Confucianism, the single most influential philosophical thought in China, has never said anything about professional and technical writing in the Chinese tradition. However, it shapes communications in China, including technical and professional communication. Professional communicators, dictated by Confucian philosophy, stress proper human relationships, humble themselves, and disdain profits and gains. I will begin with a discussion of the two major philosophical principles of Confucianism, *Li* 礼 (rites) and *Re* 仁 (benevolence). Then I will explore how professional communication in China embodies these principles, using three professional letters and one catalogue introduction to illustrate my discussion. Finally, I will discuss the indirect approach to professional communication as used in China.

***Li* and *Ren* of Confucianism**

Confucianism is the single most enduring philosophical system influencing Chinese society for twenty-five hundred years. Confucianism concerns itself with politics, ethics, philosophy, education, law, etc.⁷⁵³ It was the school of philosophy founded by Confucius 孔子 (551—479 BCE). Though many philosophers like Mencius 孟子 (372—289 BCE), Xun Zi 荀子 (cir. 316—237 BCE), Dong Zhongshu 董仲舒 (179—104 BCE), and Zhu Xi 朱熹 (1130—1200 CE), have championed and

⁷⁵² Chen Peizhang 陈佩璋, “Nongqiaochengzhuo de Li Hongzhang” 弄巧成拙的李鸿章 [Li Hongzhang who outsmarts himself], *Overseas Chinese Daily* 侨报 January 20, 2000.

⁷⁵³ He Zhaowu et al., *Zhongguo Sixiang Shi* 中国思想史 [A history of Chinese thoughts] (Beijing: Chinese Youth Press, 1982), 21—37.

developed this philosophical system, the basic system has never changed. That is, the ethical aspect has remained consistent and is the core of Confucian philosophy. This ethical aspect is directly related to social interactions. Basically, it consists of five principles: *Ren* 仁, *Yi* 义, *Li* 礼, *Zhi* 智, and *Xin* 信. Of these five, I will focus on two for our purposes: *Ren* and *Li*. These two principles have everything to do with communications in Chinese culture, and they govern all human behaviors, regulating five fundamental human relationships: monarch and subject, father and son, husband and wife, elder brother and younger brother, and friend and friend.⁷⁵⁴ Confucianism considers ethical human relationships as the basis of a harmonious society.

***Li* (Rites)**

Like all terms in Confucianism, *Li* defies translation, but generally it is a set of established rituals and rules that govern all human behaviors. If one insists on knowing a corresponding English term, it is perhaps “Rites.” It is the outward form of *Ren*. That is to say, if an individual is to follow the Rites, he must be *Ren* (benevolent). According to Huang, Andrulis, and Chen, *Ren* has its roots in the regulations that people had to follow when attending important ceremonies in ancient China.⁷⁵⁵ Confucius developed these regulations into a set of rituals and rules that governed human behaviors, and individuals had to keep themselves within the bounds of these rules.⁷⁵⁶ For Confucius, these rules were essential to an effective government and an ordered society. In order to run a government well and to establish order, Confucius required all individuals to behave themselves by following the Rites: “The ruler should have a ruler’s manner; the subject, a subject’s behavior; the father, a father’s air; the son, a son’s conduct. . . .” Or, Confucius warned us, “we will suffer from famine even if there is plenty of food.”⁷⁵⁷ From the Confucian perspective, if every individual follows *Li*, then a great order will be established across the country.⁷⁵⁸ Thus, *Li* seems to be Confucius’ supreme political thought.⁷⁵⁹

⁷⁵⁴ Zhu Xi 朱熹, ed., *Sishu Jizhu* 四书集注 [Four books annotated together] (Taipei, Taiwan: Culture and Book Press, 1995), 31.

⁷⁵⁵ Huang, Andrulis, and Chen, *A Guide to Successful Relations*, 26.

⁷⁵⁶ Zhu Xi 朱熹, ed., *Lun Yu* 论语 [*The Analects*] (Beijing: Zhonghua Book Press, 1991), 26.

⁷⁵⁷ *Ibid.*, 130.

⁷⁵⁸ Huang, Andrulis, and Chen, *A Guide to Successful Relations*, 55.

Certainly, it was conceived by Confucius “as the rule of the universe and the fundamental regulatory etiquette of human behavior.”⁷⁶⁰

Confucius had great respect for *Li* to such an extent that he thought without it, the common people would not know what they should do in society.⁷⁶¹ Therefore, he argued that people should be kept “in line with the Rites so that they will know themselves.”⁷⁶² To keep the Rites flourishing, Confucius encouraged people not to look at, listen to, talk about, or engage in anything unless it is in accordance with the Rites.⁷⁶³ In short, *Li* is intended to ensure order in society; it is the paramount principle of Confucianism. When *Li* is not observed, society will be thrown into chaos because administrative affairs will lose their principles.⁷⁶⁴

***Ren* (Benevolence)**

Ren is the content of *Li*. If individuals are *Ren* (benevolent), then they have observed *Li*. Like *Li*, *Ren* defies translation, but it means approximately one of the following: benevolence, kindness, love, or goodness. Mencius, who transmitted and developed the teachings of Confucius, and who was second only to Confucius himself in creating the historical importance of Confucianism, claimed that “a person who is not *Ren* fails to observe *Li*.”⁷⁶⁵ The Chinese character for *Ren* is 仁. This character consists of two parts: 人 meaning ‘people’ and 二 meaning ‘two’. So *Ren* is about two people; it is about the moral relationship between two people. In fact, *Ren* embodies all the moral qualities of individuals. As Lau has pointed out, “benevolence is the most important moral quality a man can possess.”⁷⁶⁶ Basically, *Ren* requires that individuals should be benevolent; they should love each other. As Mencius has told us, “*Ren* means showing love to each other.”⁷⁶⁷

⁷⁵⁹ Ibid., 26; Fan Wenlan 范文澜, *Zhongguo Tongshi Diyi Ce* 中国通史第一册 [Comprehensive history of China, vol. 1] (Beijing: Renmin Press, 1978), 163.

⁷⁶⁰ Yum, “The Impact of Confucianism,” 378.

⁷⁶¹ Zhu Xi 朱熹, *Lun Yu*, 135.

⁷⁶² Ibid., 55.

⁷⁶³ Ibid., 126.

⁷⁶⁴ Zhu Xi 朱熹, *Sishu*, 135.

⁷⁶⁵ Zhu Xi 朱熹, ed., *Mengzi* 孟子 [Mencius] (Beijing: Zhonghua Book Press, 1991), 236.

⁷⁶⁶ D. C. Lau, ed., *The Analects*, trans. D. C. Lau (Middlesex, England: Penguin Books, 1987), 14.

⁷⁶⁷ Zhu Xi, *Mengzi*, 308.

However, this “love” is not “love for all.” Instead, it is based on the hierarchy of relationships: ruler and subject, father and son, husband and wife, elder and younger, and friend and friend. That is, love that an individual offers to another must be appropriate to his or her relationship to that person. For example, love that a person shows for his father (*Xiao* 孝, meaning “filial piety”) is different from love that the person shows for his elder brother (*Ti* 悌, meaning “respect”). Similarly, love that a father shows for his son (*Ci* 慈, meaning “kindliness”) is different from love that his son shows for him (*Xiao*). So human relationships determine what kind of love individuals should offer to each other. Judging from the love that one offers to another person, we are able to tell what relationship exists between the two. It should be clear by now that *Ren* is not simply about love, it is about love that distinguishes human relationships.

Therefore, for Confucius, who showed great respect for proper human relationships, *Ren* is the foundation of *Li*. If *Ren* is not pursued, then *Li* will disappear. He once reminded us, “What can a man do with *Li* if he is not *Ren* [benevolent]?”⁷⁶⁸ So Confucius also had great respect for *Ren*. In his *Analects*, Confucius talks a lot about *Ren*. Consider, for example, the following passage:

Of neighborhoods, benevolence is the most beautiful. If the man who has the choice does not choose benevolence, then he is not a wise man. One who is not benevolent cannot remain long in straitened circumstances, nor can he remain long in easy circumstances. The benevolent man feels home in benevolence; the wise man benefits from benevolence. If a man is devoted to benevolence, he will be free from evil. If the gentleman forsakes benevolence, how can he make a name for himself?⁷⁶⁹

From a Confucian perspective, a man of moral integrity is a benevolent man, and a benevolent man is a gentleman; thus, “man of moral integrity,” “benevolent man,” and “gentleman” can be used interchangeably.⁷⁷⁰ But what is a man of moral integrity? For Confucius, a man of moral integrity is a man who observes *Ren*. He is a man who observes the proper human relationships. For example, a son obeys his father, so he does whatever his father tells him to do; for Confucius then, the son is filial to his father. So he is a man of moral integrity, hence a benevolent man and a gentleman. As long as the son obeys his father, he is a benevolent man and a gentleman. For example, one day, the son catches a man bullying his

⁷⁶⁸ Zhu Xi, *Lun Yu*, 60.

⁷⁶⁹ *Ibid.*, 68.

⁷⁷⁰ Lau, *The Analects*, 14—15.

father, so to be filial to his father, the son kills the man. Is the son still a man of moral integrity in this case? Yes, he is because he kills the man to be filial to his father. However, he is not if he kills the man only to rob him.

Ren is about moral relationships among people, but morality does not have universal or absolute standards. Confucius's *Ren* has its own content: for a son to obey his father is a moral virtue, and so is for a wife to be submissive to her husband. In essence, then, *Ren* consists of several principles that Confucian philosophy considers to be moral virtues: among other things, proper human relationships, modesty, and distaste for profits.

Proper Human Relationships

As previously noted, Confucius identified five dual-relationships: monarch and subject, father and son, husband and wife, elder and younger, and friend and friend.⁷⁷¹ Dong Zhongshu, a major Confucian philosopher, elaborated on Confucius' moral philosophy of the five dual-relationships by proposing a "three-guide principle": monarch guides subject, father guides son, and husband guides wife.⁷⁷² In a way that seems patriarchal to today's readers, the "three-guide principle" was developed to help establish proper human relationships.

From Confucius's perspective, to establish proper human relationships, individuals must first have correct names. By names, Confucianism means firstly, terms indicating relationships among family members, such as father and son; and secondly, terms denoting social positions such as monarch and subject. For Confucianism, these names, embody 'ethical relationships,' like loyalty and respect, kindness and filial piety, truthfulness and trustworthiness, brotherly love, and consideration.⁷⁷³ For Confucius, names are not just labels for individuals, but they also help establish social harmony and political order.⁷⁷⁴ Looked at in this way, human relationships affect social harmony and the political stability of society.

⁷⁷¹ Zhu Xi 朱熹, *Sishu*, 31.

⁷⁷² He et al., *Zhongguo*, 162—63; Huang, Andrusis, and Chen, *A Guide*, 73-74

⁷⁷³ Chung-ying Cheng, *New Dimensions of Confucian and Neo-Confucian Philosophy* (Albany: State University of New York Press., 1991), 222.

⁷⁷⁴ *Ibid.*, 221.

Modesty

Modesty is another moral principle that individuals should uphold. Modesty means that individuals humble themselves in social interaction by, for example, calling themselves “younger brothers” of their friends, or by describing themselves as “stupid.” It also means that individuals refuse to acknowledge others’ complimentary remarks about them. For example, if a person says, “You write very good poems,” the proper response is “No. I write very poor poems.”

Chinese culture de-emphasizes the self because it thinks that individuals do not exist unless they are situated in social relations. That is, an individual exists only through his or her relationship with others; an individual exists only in a collective. So in Chinese culture, collectiveness is emphasized while individuals are de-emphasized.⁷⁷⁵

Distaste for Profits

Closely related to proper human relationships and modesty is distaste for profits. For Confucian philosophy, emphasizing proper human relationships and collectiveness leads to de-emphasizing the self, which, in turn, leads to a strong distaste for profits, especially personal profits and profits based on contractual terms.

Confucius despised profits and gains. When speaking of *Ren*, Confucius pointed out that “mediocre men cherish profits.”⁷⁷⁶ He then warned us that if an individual “is guided by profit in one’s actions, the individual will incur much ill will.”⁷⁷⁷ Confucius despised profits and gains because he believed they ruin proper human relationships and names, thus leading to social turmoil and disorder. Many sages in China also deliberately underestimated wealth and praised morality, because if people attached too great a weight to money, it would sabotage the social order.⁷⁷⁸ So gentlemen want righteousness but not personal gains; mediocre men want personal gains but not righteousness. In Confucius’s words, “A gentleman knows morality while a mediocre man knows profit.”⁷⁷⁹

Profits and gains not only refer to material gains, but they also refer to fame and complimentary remarks. So an individual, faced with fame or complimentary remarks, should refuse to acknowledge them.

⁷⁷⁵ Huang, Andrulis, and Chen, *A Guide*, 70—72.

⁷⁷⁶ Zhu Xi, *Lun Yu*, 70.

⁷⁷⁷ *Ibid.*, 70.

⁷⁷⁸ Huang, Andrulis, and Chen, *A Guide*, 32.

⁷⁷⁹ Zhu Xi, *Lun Yu*, 71.

Manifestation of Confucianism in Professional Communication

Influenced by Confucianism, Chinese culture has developed a unique moral standard which stresses proper human relations, praises self-denial, and looks down upon gains and profits. Thus, in social interactions and communications, individuals of moral integrity always establish or reinforce proper human relationships, seek modest images, and avoid gaining profits. Dictated by Confucianism, communicators always try to develop these moral virtues in communication.

For some breadth of representation, I will analyze three letters and one catalogue introduction written in three different historical periods for different purposes. All the examples are influential in written communication in China. The first and third letters are exemplary texts taken from a textbook and a reader respectively; the second letter was written by Hu Shih 胡适, the first person in China who called for use of the vernacular in written communication. The catalogue introduction is taken from *China Instruments*, the official instrumentation catalogue created in 2001 by the State Bureau of Instrumentation Industry of China. Given their influence, these three letters and the catalogue introduction represent professional communication in four different periods.

First Letter

The first letter was written by Yang Yun (杨恽) to Sun Huizong (孙会宗), Yang's friend and then governor of the Prefecture of Anding in Northwest China, around 53 BCE. It is perhaps one of the earliest pieces of professional communication in China.

Mr. Yang had been the chief of the Imperial Garrison of Emperor Xundi 汉宣帝 of the Han dynasty (206 BCE—220 CE). However, his frankness offended many Imperial officials until finally, the Emperor discharged him from his post and banished him from the Imperial court. So he returned to his hometown and started a real estate business. Later, he wrote a letter to inform his friend, Mr. Sun, of his business. Mr. Sun wrote back immediately to advise him to stay at home and to feel anxious, as a discharged official was supposed to do, instead of developing a real estate business. Mr. Sun stressed that such a business did not fit him because his "frankness and arrogance" would offend many people. In reply, Mr. Yang wrote this letter to argue for his efforts to develop real estate.

The letter does not focus on a particular business transaction; however, the writer discusses some business issues in the letter, arguing why he is

developing real estate. It is written in the Old Chinese, and it is an exemplary piece of ancient Chinese prose, especially in epistolary style.⁷⁸⁰ Since the full text of the letter easily takes up ten pages, I present only the beginning and the ending. As a matter of fact, we do not need to read the entire letter, because it is the beginning and the ending of a letter that usually manifest the Confucian philosophy of *Li* and *Ren*.

Yun prostrates himself before *Zuxia* and worships *Zuxia*.

Yun is useless and immoral. Having accomplished nothing, Yun became a stopgap employee in the Imperial court, thanks to his father's influence. Because Yun reported Huo's conspiracy to rebel against the Imperial court to the Emperor, Yun was granted the title of Marquis. But Yun did not have that title very long, because a misfortune [referring to his banishment] soon befell. *Zuxia* feels sorry for Yun's stupidity and has written to teach him what he should know about being an Imperial official. *Zuxia* is very generous. But Yun's humble opinion is that *Zuxia* is drifting with the tide now, instead of offering genuine help. His humble opinions are against *Zuxia's* letter, but remaining silent is against the teachings of Confucianism. So Yun takes the liberty of expressing his humble opinions for you gentlemen to examine.

...

At Anding prefecture, the Kunyi people are traditionally barbarous, greedy, and mean, so they are hard to govern. Today, the world is watching *Zuxia's* aspiration to run Anding prefecture as its governor. Living in the zenith of the prospering Han dynasty, *Zuxia* is encouraged to govern the prefecture. With all due respect, Yun writes specifically to inform *Zuxia* of his humble opinions for *Zuxia* to examine.⁷⁸¹ (Wang 3: 917-18)

As I noted above, Confucianism has identified five dual-relationships; one of them is the friend-friend relationship. Yang Yun is Sun Huizong's friend. According to Confucian philosophy, friends should be faithful to each other.⁷⁸² If they are faithful to each other, then they are *Ren* (benevolent); hence their behavior is conforming to *Li*, and they are individuals of moral integrity. In this letter, Yang Yun, the writer, shows that he is faithful to the friend relationship between himself and Sun Huizong, the reader. Yang begins the letter by saying that he "prostrates himself" before his friend to worship him. Here, Yang is not just employing a form of address, but more important, he is showing great

⁷⁸⁰ Wang, Li 王力. *Gudai*, vol. 3, 916—20.

⁷⁸¹ *Ibid.*, 917—18.

⁷⁸² Zhu, *Sishu*, 31.

respect for his friend. Thus, Yang hopes to maintain the already established friendly relationship between them.

What we do not read here is the body of the letter, in which Yang rebuts Sun's suggestion and argues why he is developing real estate. Though Yang uses some very harsh language in his rebuttal, he wants to maintain and even to reinforce their relationship, so at the end of the letter, Yang commends Sun on his service as a governor of a prefecture where residents are traditionally hard to govern. In addition, Yang stresses in the last sentence of the letter that he informs his friend of his opinions "with all due respect." By using this strategy, Yang suggests that even though he is arguing, he respects his friend. In other words, even if Yang refuses to take Sun's advice, he still remains faithful to their relationship.

Closely related to the strategy of maintaining the proper interpersonal relationship in the letter, is Yang's attempt to create a modest image of himself. This strategy, through denying and belittling the self, not only implies that the writer is a gentleman, but it also helps to reinforce the relationship between the writer and the reader. First, the writer uses the third person, i.e., his own given name, to refer to himself. In Chinese culture, if a speaker or a writer uses his or her given name (instead of 'I') to refer to himself or herself, the speaker or the writer humbles himself or herself. Second, the writer uses *Zuxia* to refer to the reader. *Zuxia* is a very polite form of "you," meaning something like "respectable you." The writer, through using these two forms of address, suggests that he is an individual with credibility and moral integrity. Individuals of moral integrity always humble themselves; speaking highly of themselves creates doubts about their personal integrity.⁷⁸³ Here, the writer is trying to reinforce his relationship with his friend by creating a modest and moral image of himself.

In addition, Yang the writer debases himself by saying that he is "useless and immoral." He supports his claim with details: he "accomplished nothing" and he became an Imperial official due to "his father's influence." This strategy of self-debasing further suggests that the writer does not want to brag about himself; he does not want to be self-important. Refusing to be self-important conforms to Confucian ethics. Through debasing himself, the writer presents himself as an inferior to his friend, so his 'humble opinions' may seem superfluous. Actually, the writer emphasizes at the end that he presents his opinions for Sun to examine.

⁷⁸³ Hunag, Andrulis, and Chen, *A Guide*, 174

Second Letter

The second letter was written by Hu Shih in 1937 in the vernacular, or Modern Chinese. At the beginning of the 20th century, Hu was the first person to call for the replacement of Old Chinese by the vernacular as the vehicle of written communication. After being promoted vociferously by Hu, the vernacular has already replaced Old Chinese as the vehicle of written communication.⁷⁸⁴ In the letter, Hu discusses with his friend how they can pool money to support their careers. Meanwhile, Hu commends his friend's determination to continue his business despite the Japanese invasion. Since this letter is also very long, I again present only the beginning and the ending.

Master Yi Sheng:

Younger Brother always thinks of you after we last communicated a long time ago. After parting from Jiang Menglin, Zhou Binglin, and other gentlemen the night before, Younger Brother is now making a trip westward and should arrive at Hankou tomorrow.

...

Younger Brother has asked Elder Brother Xing Ye, the chief of Xing Ye Bank, to find a position for Elder Brother. Younger Brother can help other elder brothers the same way.

Everything is fine here. Younger Brother got up early this morning to draft this letter in a hurry to greet Elder Brother and inform Elder Brother of Younger Brother's whereabouts. But there is still a lot Younger Brother wants to say. Younger Brother bows down to ask Elder Brother to examine this letter.

Younger Brother ⁷⁸⁵

In this letter, Hu also employs the two strategies that Yang Yun used: maintaining a harmonious relationship with the reader and humbling himself. First, Hu addresses his friend as "Master Yi Sheng" though Hu and Yi Sheng are just friends. So by addressing the reader of the letter as a

⁷⁸⁴ Tang Teh-kang 唐德刚, "On Trying, Changing, Ossifying, and Revitalizing New Poetry in Literary Transformation after the May 4th Movement in 1909" [in Chinese,] *Biographical Literature* 74, no. 4 (April 1999): 25.

⁷⁸⁵ Zheng Kesheng, "University of Beijing During the July 7th Incident" [in Chinese,] *Biographical Literature* 74, no. 6 (June 1999): 113.

‘master,’ Hu has raised the receiver’s status in their relationship. That is, Hu treats the reader as his senior and himself as the reader’s junior. Hu thus hopes to reinforce the friendly relationship between himself and Yi Sheng through treating Yi Sheng as his senior and not as his equal.

Indeed, in the letter Hu addresses the reader as his “elder brother”. In Chinese culture, only very intimate friends address each other as brothers. If one friend calls another ‘Elder Brother,’ the former shows great respect for the latter. Furthermore, older people are always held in high respect and seniors are always respected by juniors. So a person is considered very polite and very friendly if he treats his peer as an older person.

Hu further reinforces the friendly relationship through expressing his desire to see his friend at both the beginning and the end of the letter: He misses his friend. At the beginning, Hu says that he “always thinks of” his friend. At the end, he emphasizes that he writes the letter to greet his “Elder Brother” when actually the letter does more than just greeting. By so doing, Hu wants to show that he misses his friend very much. Finally, Hu tells his friend that there is still a lot he wants to say, thus further suggesting that Hu misses his friend. This strategy, the strategy of expressing his personal feelings to his friend, helps Hu strengthen the friendly relationship between them.

In addition, Hu humbles himself. In the letter, he addresses himself as his friend’s younger brother every time he refers to himself. At the very end, Hu ‘bows down’ to ask his friend to ‘examine’ his letter, thus further humbling himself. In Chinese culture, friends do not bow down to each other; only juniors bow down to seniors. This act of self-humbling not only suggests that Hu debases himself, but it also implies that Hu is willing to admit that he might have said something inappropriate in the letter. So he asks his friend to examine it. Willing to admit one’s weaknesses is a virtue in Chinese culture because it conforms to the moral principle of modesty.⁷⁸⁶ This explains why in the prefaces to many books published in China, Chinese authors invariably say something like this:

“We (I) must have made quite a few errors in this book due to our (my) limited knowledge on the subject, so if readers see any, please pardon us (me) and point them out for us (me).”

Chances are that even these authors themselves are not sure they have made any mistakes in the book. Instead, they just make the statement to create a modest image of themselves. In this respect, Hu certainly successfully creates a humble image of himself in the letter. Through creating this humble image, he shows that he is a gentleman and a man of

⁷⁸⁶ Huang, Andrulis, and Chen, *A Guide*, 173-76.

moral integrity, so he is a friend that can be trusted. More important, he reinforces his harmonious relationship with his friend through humbling himself.

Third Letter

The third letter was written in 1987 by a product manager of a concrete manufacturer to a client. In the letter, the manager advises the client to use a domestic product instead of one that is imported. The letter is written in modern Chinese; it is an exemplary letter taken from *A Comprehensive Reader of Social Interaction*.

Dear Mr. Sima:

It has been a long time since we talked last, so I thirst to see you again. I know your distinguished company's high reputation, which is well-known far and near. Yours is the leading company in the construction industry, and it is increasingly prospering. How my humble company envies yours!

We no longer supply the imported concrete that you have ordered, but we are very grateful for your order. To meet the needs of the market, we have developed and produced "Jianguo" concrete, which is comparable to, and even better than, the imported product. In addition, the price is right, and several construction companies have used this product.

I have long been admiring your distinguished company for its patriotic enthusiasm in promoting domestic products. I am sure my humble company will have your support. Now I am sending you some samples, and I beg you to inform me of your valued opinion. I will be very grateful. I am looking forward to your reply!

I avail myself of this opportunity to wish you the best in business!⁷⁸⁷

In this letter, the writer also stresses his personal relationship with the reader of the letter, his client. First, he tries to establish a friendly relationship with the client at the beginning of the letter by saying that he is anxious to see him, thus suggesting that he misses him. In addition, he makes complimentary remarks about his client's company while making modest remarks about his own company. He calls his client's company a "distinguished company," but he describes his own as "humble." As I noted above, modesty is a virtue in social interaction in Chinese culture. A

⁷⁸⁷ Feng Zuoming, ed., *A Comprehensive Reader of Social Interaction*, vol. 3, [in Chinese] (Taipei, Taiwan: Cultural Books, 1988), 2-3.

modest person is a person of moral integrity, but more important, a person with credibility.⁷⁸⁸ In China, individuals' credibility depends on how they talk about themselves. The higher they speak of themselves, the less credible they are; on the other hand, if they remain modest and do not speak too much about themselves, they are credible.⁷⁸⁹ A proverb that remains popular in China illustrates the importance of being modest:

“Modesty helps one make progress while conceit makes one lag behind.” So the writer builds a harmonious relationship with his client by establishing his credibility, which is based on the modest image he has established by humbling himself and his company.

What is more significant for the writer is that the harmonious relationship is conducive to his business transaction. Often, business can be conducted more smoothly if it is based on harmonious relations between both parties, rather than on a contractual basis.⁷⁹⁰ If both parties are intimate friends with credibility, why should they sign a contract? Signing a contract suggests that the two parties do not trust each other, thereby implying that neither is credible.

The writer also suggests to his client his distaste for calculated profits and gains. As discussed above, Confucianism's strong distaste for profits and gains has influenced people's behavior in China for more than two thousand years. An individual of moral integrity always looks down upon profits and gains. Similarly, in business, people avoid stressing their desire for profits and gains, especially those achieved on a calculated basis. The writer shows his distaste for profits by employing two strategies: *logos* and *ethos*.

First, the writer uses *logos* to show to his client that he is not seeking pure profits and gains. For example, in the third paragraph, the writer does not ask his client to *buy* his product; instead, he asks that his company “will have your support.” Since he is referring to financial support, it is the right thing for the writer to request. And it is also a right thing for the client to give; it is ethical to support friends. In addition, the writer suggests that he is interested in supporting his client's patriotism instead of seeking pure financial profits. The writer's company supplies domestic products, and using them is a patriotic act. Here, through *logos*, the writer ties ‘financial support’ in with his client's patriotism. By so doing, the writer de-emphasizes his desire for calculated profits while stressing his support for his client's patriotic act.

⁷⁸⁸ Huang, Andrulis, and Chen, *A Guide*, 175

⁷⁸⁹ *Ibid.*, 167—68, 175.

⁷⁹⁰ *Ibid.*, 183.

More importantly, the writer mixes the personal relationship with the public (business) relationship. That is, the writer shows his distaste for profits through employing his ethos. As noted above, the writer forms a harmonious personal relationship with his client at the very beginning of the letter. And he does this by establishing his credibility as a modest individual. Then, the writer integrates this personal relationship into the business transaction. Because of the personal relationship involved, the business transaction is not, in Yum's words, "carried out on a calculated and contractual basis."⁷⁹¹ Thus, for the writer and his client, business is conducted on a more personal level. Doing business on a more personal level has at least two advantages for the writer. First, it suggests to his client that the writer is not just conducting a concrete business, but he is also building and maintaining a proper interpersonal relationship. Second, a harmonious personal relationship is conducive to a successful business,⁷⁹² because if both parties trust each other, then they should not have too much trouble making a deal.

Since this letter focuses on a business transaction, the writer mixes the personal relationship with business relationship, in addition to the other strategies that the previous two authors used.

Catalogue Introduction

The introduction is taken from the official instrumentation catalogue created by the State Bureau of Instrumentation Industry of China, China's central administrative agency of the instrumentation industry. The catalogue is developed for both instrument manufacturers and instrument buyers in China, and it is also developed for international instrument businesses. As such, it introduces all Chinese instrument manufacturers, and covers all types of instruments produced in China, such as automatic instruments, electrical measuring instruments, optical instruments, pneumatic instruments, photographic and duplicating machines, and laboratory equipment. Since the catalogue was published in the summer of 2001, the introduction should serve as an exemplary text for China's instrumentation industry. Again, I present only two of its nine paragraphs—the beginning and the ending paragraphs—because it seems that these two paragraphs manifest Confucian philosophy most clearly.

It is after the founding of the People's Republic that the instrumentation industry of China started to develop rapidly. During the past 50 years or so,

⁷⁹¹ Yum, "The Impact of Confucianism," 380.

⁷⁹² *Ibid.*, 380; Huang, Andrulis, and Chen, *A Guide*, 183.

especially since our country opened its door to the outside world 20 years ago, with the joint efforts of all the manufacturers of our country, our instrumentation industry has expanded its scope from making simple watt-hour meters and laboratory instruments to producing complete sets of automatic instruments and high-precision instruments. The Bureau congratulates all the instrumentation enterprises and institutions on having achieved such great successes in China's instrumentation industry.

...
 We are facing some special challenges now: our country will soon join the WTO, we will expand our industry into international market, and more foreign companies will invest in China. The Bureau is encouraging the entire industry to make greater contributions to the instrumentation industry of our motherland by producing more sophisticated instruments and by introducing more advanced technology from abroad. The Bureau is also urging the industry to strengthen its cooperation with foreign enterprises. The Bureau welcomes our friends from foreign companies to invest in China. Finally, we'd like to express our sincere appreciation to those who offer comments for us to improve this catalogue.⁷⁹³

The catalogue introduction represents a different type of communication from the three letters because, first, it introduces an industrial catalogue; and second, as such, it is written for both Chinese and international customers. Probably, the writer of this introduction understands that the strategy of using Confucian philosophy in a text does not quite work for readers from Western cultures, so the introduction does not employ Confucian philosophy as explicitly as the three letters do. For example, we do not see any indication in the first paragraph that the Bureau humbles itself. Nonetheless, we can still trace the influence of Confucianism.

First, as the authors of the three letters do, the Bureau tries to establish a harmonious relationship with readers, not by using degrading terms but by not claiming itself as the agency that sits on top of the Chinese instrumentation industry. In Chinese culture, one golden rule is that people should be reluctant to express themselves too obviously.⁷⁹⁴ So one strategy for a person to show sincerity to his or her friend is to simply remain silent about her or his own social position if it is above his or her friend's. Here, through this strategy, the Bureau is not treating the readers as its inferiors but as equals, thus establishing a harmonious relationship between itself and the readers. In addition, the Bureau stresses the role that the manufacturers (readers) play in developing China's instrumentation

⁷⁹³ State Bureau, *Catalogue of Instruments* (Beijing: Machinery Industry Press, 2001), 1-2.

⁷⁹⁴ Huang, Andrulis, and Chen, *A Guide*, 168—70.

industry (“with the joint efforts of all the manufacturers”) to reinforce this harmonious relationship. Second, the Bureau draws a connection between business profits and patriotism to de-emphasize profits and gains. The very first sentence claims that the rapid development of China’s instrumentation industry depends upon the People’s Republic, and probably more on China’s open-door policy. This connection implies that if a customer buys products from this catalogue, the customer supports not just manufacturers, but also the People’s Republic. If a manufacturer gains profits from selling products through using the catalogue, then the manufacturer becomes testimony to the importance of the open-door policy, thus again supporting the People’s Republic. What starts off as a business transaction ends as patriotism. Third, the ending paragraph ties in business transactions with patriotism again. The Bureau suggests that all the manufacturers produce “more sophisticated instruments” and introduce “more advanced technology from abroad,” not to make business profits or gains, but to “make greater contributions to . . . our motherland.” It seems that the Bureau constantly reminds the readers of the importance of patriotism in the instrumentation industry of China. The Bureau thus creates such an image of itself as well as all the manufacturers: de-emphasizing business profits and gains. Finally, the Bureau creates a modest image of itself, not by belittling itself, but by asking for comments on the catalogue. This suggests that the Bureau is not bragging about itself; instead, it is aware that errors exist in the catalogue. In this way, the Bureau will be more credible in the eyes of Chinese readers, while in the eyes of international readers, the Bureau is not insulting itself (as it would if it used degrading terms). In other words, this strategy works for both Chinese and international readership.

Indirect Approach to Communication: Towards Modern Technical Communication in China

The previous discussion of the three letters and one catalogue introduction suggests that professional communication in China emphasizes the importance of proper human relationships in written communication practice. This emphasis is usually manifested at the beginning and the ending of a piece of written communication. Writers usually refrain from discussing pertinent business issues until they build a harmonious relationship, or reinforce the already established relationships, with readers. Often, they wrap up a piece of written communication with some leave-taking rituals, such as debasing themselves further, and praising their readers. Also, as my discussion suggests, writers mix personal relationships with business relationships; a business letter may read like a

letter that discusses personal relationships. In short, writers usually take a circuitous route to the pertinent business issues instead of coming straight to the point. Thus, professional communication in China is considered by many as ‘indirect communication’.

This indirect approach is fostered by a tradition of twenty-five hundred years—the tradition of Confucianism. Dictated by the philosophical principles of Confucianism, especially *Li* and *Ren*, individuals in China pay great respect to proper interpersonal relationships in social interaction; besides, they always remain humble and avoid discussing calculated profits or gains. In short, they strive to be individuals of moral integrity and individuals with credibility. Generally speaking, maintaining proper interpersonal relationships with others, creating a modest image, and shunning profits help an individual succeed in his or her career and social interaction.

Therefore, professional communicators often employ this particular mode of communication to help accomplish their tasks in business activities. Generally speaking, the indirect mode of communication is a rhetorical strategy for business people to accommodate two pragmatic acts: creating a strong bond between individuals at a more personal level and building a harmonious social structure at a more societal level.

In Chinese culture, a harmonious interpersonal relationship is more important than a business activity itself.⁷⁹⁵ Engaging in a business activity, such as discussing business issues or conducting a business transaction, for the sake of business only is not widely accepted because such an activity aims at gaining profits; thus, it is “cold and harmful to the feelings between the groups.”⁷⁹⁶ What is widely accepted are business activities which help establish a strong interpersonal bond between individuals. Neither a business transaction nor a negotiation is “the final stage of association for business”; instead, it is “a relay station” where individuals establish and reinforce personal relationships.⁷⁹⁷ If harmonious personal relationships are established, all individuals involved will have good relations with each other even if a business activity fails. So with good relations between them, they will still have chances in the future to work together again. However, if there are no harmonious personal relationships, they will not have any chances to work together in the future. Thus, the writers of the three letters try to establish friendly personal relations with their readers. The writer of the third letter also integrates a personal relationship into the business relationship, trying to

⁷⁹⁵ Huang, Andrulis, and Chen, *A Guide*, 183—84.

⁷⁹⁶ *Ibid.*, 181.

⁷⁹⁷ *Ibid.*, 182.

put his business transaction on a more personal level. These writers hope that, by building strong personal relationships with their readers, they can still work together in the future.

Often, parties involved in a business relationship do not want to carry out any substantial activity quickly because they think hammering out harmonious interpersonal relationships is more important. They believe that as long as they maintain a proper relationship, their business activity will eventually be fruitful. Personal relationships often endure even after business is over.⁷⁹⁸ After all, building harmonious personal relationships should be the primary goal in business activities, as well as in social interactions.⁷⁹⁹

At a more societal level, the indirect approach seems to help build a harmonious social structure. From Confucius's perspective, as I noted above, proper interpersonal relations stabilize society. In other words, human relations, for Confucius, should contribute to a harmonious social structure. In addition, individuals involved in a business transaction should promote the common good for all—shared benefits which Confucius called “kindness to people.”⁸⁰⁰ If one party seeks profits without considering the interests of others, then the stability of society will be gradually eroded. Individuals with moral integrity involved in business activities always keep in mind the interests of others, communities, and the whole society. The catalogue introduction, for instance, (by establishing a connection between instrumentation industry and patriotism) helps all the manufacturers to rise above business profits and to promote the common good of all—all the People's Republic.

The indirect mode of professional communication provides an ideal means by which people approach business issues or transactions because it allows them to reduce antagonism and suspicion through developing proper interpersonal relationships, and through establishing their credibility. It also allows them to make concessions to each other through humbling themselves and shunning profits. In short, by this means, people tactfully sacrifice their interests without being forced to do so. This self-sacrifice helps businesses rise above the desire for profits, promotes even distribution of profits, and enhances cooperation between businesses, thus helping to build and reinforce a harmonious social structure. Looked at in this way, the indirect mode of communication is just one textual mechanism to promote the ‘common good’ for society by reducing antagonism between businesses. Thus it helps build and strengthen a harmonious social structure.

⁷⁹⁸ Yum, “The Impact of Confucianism,” 380.

⁷⁹⁹ *Ibid.*, 381; Huang, Andrulis, and Chen, *A Guide*, 182—83.

⁸⁰⁰ Huang, Andrulis, and Chen, *A Guide*, 182.

The catalogue introduction is worthy of more discussion here because it does not employ the same strategies as the three letters do. For instance, it does not use the long greeting or leave-taking rituals; instead, it comes right to the point of introducing China's instrumentation industry. Here, the Bureau creates a harmonious relationship with its readers without using any degrading terms to refer to itself. Rather, it just remains silent about its own role of leadership in China's instrumentation industry. More importantly, it stresses the role played by all the manufacturers. The introduction does not employ the leave-taking ritual either; it simply ends with a short statement about its willingness to take suggestions to revise the catalogue. In short, it seems that the catalogue introduction manifests Confucian philosophy without employment of any obvious rituals or terms we see in the three letters, terms like "useless," "Zuxia," "humble," "bows down," and "younger brother." I argue that the Bureau does not use any rituals or degrading terms because it knows that the readers of the catalogue include customers from Western cultures. And as I suggested at the very beginning of this chapter, the use of Confucian philosophy, especially with rituals and terms, does not quite work for readers from Western cultures.

So it is not uncommon to explain away the indirect mode of communication, like the one that exists in professional communication in China, as an ineffective approach. For example, Americans might regard the rituals to establish personal relationships in communication as mere "digressions."⁸⁰¹ Americans are "quick to the point" in communication, and eschew long greeting and leave-taking rituals, preferring to exchange only minimal pleasantries, before talking about pertinent issues. If a greeting ritual is too long, Americans will become impatient.⁸⁰² Clearly, professional writers in China are not usually quick to the point; instead, they are willing to engage in greeting rituals, build interpersonal relationships, and discuss personal feelings, before focusing on pertinent business issues. When they do talk about business issues, they integrate personal relationships with business relationships. However, if one takes only the surface value of the indirect mode, one misses a larger significance of this mode of communication. If we look under the surface, we find that this indirect approach embodies writers' desire to build harmonious relationships with their readers, and to promote the common good for all. It is generally considered an effective approach to communication in China.

⁸⁰¹ Edward C. Stewart and Milton J. Bennett, *American Cultural Patterns: A Cross-cultural Perspective* (Yarmouth, Maine: Intercultural Press, 1991), 156.

⁸⁰² *Ibid.*, 156.

CHAPTER TWELVE

A PRECURSOR OF MODERN CHINESE TECHNICAL COMMUNICATION BOOKS— CHINA'S FIRST COMPREHENSIVE TECHNICAL WRITING BOOK: *ON THE WORKS OF NATURE* (天工開物)

Song Yingxing's 宋應星 (1587—cir. 1665 CE) *On the Works of Nature* covers nearly all the major technological subjects of its time.

Indeed, the book covers agricultural, handicraft, and industrial technologies and their applications: growing grains, weaving clothing materials, dyeing, preparing grains, collecting salt, making sugar, making ceramics, casting, hammer-forging, manufacturing boats and carts, obtaining vegetable oils, making paper, smelting metals, making weapons, collecting pearls and gems, making vermilion and ink, and others.

The early 17th century in Chinese history, remembered for its resistance against the futility of the idealist school of philosophy led by Lu Jiu-yuan 陆九渊 (1139—1193 CE) and Wang Shou-ren 王守仁 (1472—1529 CE), which had dominated Chinese philosophy since the 16th century, was a period characterized by an “upsurge of interest in the materialistic aspects of life and publication of several works of a factual and technological character that have become classics in their fields.”⁸⁰³ *On the Works of Nature* is one of these books.

Its author, Song Yingxing, a native of Jiangxi province in Southern China, was born in 1587. He spent most of his life investigating technological subjects. He was already 47 when he started this book. When he completed the book three years later, he wrote a preface for his own book. As he indicated in the preface, the subjects covered in his book were vastly different from those covered by official books sanctioned by the

⁸⁰³ E. Z. Sun and S. Sun, eds. and trans., *Chinese Technology in the Seventeenth Century* (New York, Dover Publications, 1996), vi.

Imperial court, books that usually helped males obtain official ranks through taking Imperial examinations. So Song Yingxing declares, “Ambitious scholars will undoubtedly toss this book on their desks and give it no further thought: it is a work that is in no way concerned with the art of advancement in officialdom.” Rather, the book was intended to introduce general technological subjects to both men and women who were “cut off from the outside world, and who would wish to know farming, or who might wonder about the technology of silk weaving.”⁸⁰⁴ In this respect, Song Yingxing wrote a technical book in the form of descriptions and instructions to appeal to a general readership possessing average reading abilities, instead of expert and professional readers. From a modern perspective, Both Yabuuchi Kiyoshi 藪内 清 and Pan Jixing 潘吉星 think the book is important as it covers the production processes and techniques of major industries.⁸⁰⁵

This book might well be considered a precursor of modern Chinese technical communication books aimed at a general readership. As such, this book manifests many of the major features as revealed in the classics I have discussed in the previous chapters of this book: The four-part text structure: *qi* (起 beginning), *cheng* (承 joining, continuing), *zhuan* (转 turning point), and *he* (合 concluding); unity between nature and humans; classification of objects; attention to the context; indirect style, and employment of nouns (names).

Formal Structure of the Text: Accommodating Different Readers' Information Needs

On the Works of Nature consists of 18 chapters, in addition to the Introduction: Grains, Clothing Materials, Dyes, Preparation of Grains, Salt, Sugars, Ceramics, Casting, Boats and Carts, Hammer Forging, Calcination of Stones, Vegetables Oils and Fats, Paper, Metals, Weapons, Vermillion and Ink, Yeasts, and Pearls and Gems.

Each of these 18 chapters is further divided into several sections of materials and equipment descriptions, process explanations, or instructions.

⁸⁰⁴ Song Yingxing 宋應星, *Tiangong Kaiwu* 天工開物 [On the works of nature] (Taipei, Taiwan: World Books Press, 2002), 1.

⁸⁰⁵ Yabuuchi Kiyoshi 藪内 清, “On the *Tiangong Kaiwu*,” [in Japanese,] in *Studies on the Tiangong Kaiwu*, ed. Yabuuchi Kiyoshi (Tokyo: Koseisha, 1954), 2; Pan Jixing 潘吉星, “*Tiangong Kaiwu* Jiaozhu Ji Yanjiu” 天工开物校注及研究 [Critical annotations and studies on *Tiangong Kaiwu*] (Chengdu: Bashu Shushe, 1989), 21, 92.

For example, “Chapter 6: Sugars” consists of seven sections. Of these seven sections, three provide instructions for performing tasks: planting sugar cane, making white sugar, and making animal-shaped candy. Three sections describe varieties of sugar, honey, and maltose. One section explains the process of making sugar.

Generally speaking, the author combines equipment and material descriptions, process explanations, and task instructions in these chapters to accommodate different readers’ information needs.

A Four-part Textual Structure

The text of *On the Works of Nature* illustrates the four-part textual structure as championed by the oracle-bone inscription texts: beginning, continuing, turning point, and concluding.

The preface to the book is the “beginning,” where Song elaborates on the reasons why he has written this book. The major reason, as I have pointed in the above section, is to introduce general technological subjects to both men and women who were “cut off from the outside world, and who would wish to know farming, or who might wonder about the technology of silk weaving.”⁸⁰⁶ Then, “Part 1: Grains” is the “continuing,” where Song elaborates on what he has promised in the Introduction — introducing farming, especially various grains, and its related fields, like materials for clothing and sugars.

One might wonder why farming is placed immediately after the Introduction. In Chinese history, agriculture has always been referred to as the ‘root’ of society, while trade and commerce, and the handicraft industry were referred to as the “branch”; therefore, throughout Chinese history, social and economic theories, and politics, all attempted to emphasize this “root.”⁸⁰⁷ The arrangement of the parts in the book suggests that Song prioritizes farming over the branch-like handicraft industry and trade.

Indeed, “Part 2: Artisanship” is the turning point, where Song begins to deal with the branch—handicraft industry, including making wagons, boats, paper, and forging hammers. This part constitutes the turning point because it deals with something different from the “root.”

Finally, “Part 3: Minerals” is the conclusion, where Song describes minerals and gems and other objects that are hidden underground or under water. Song claims that nature produces many things, and that people’s

⁸⁰⁶ *Ibid.*, 1.

⁸⁰⁷ Fung, *A Short History*, 18.

life depends on trade—exchanging what they have with what they do not have.⁸⁰⁸ It seems that all the objects discussed in Part 2 and Part 3 are for trade. Finally, Song concludes his book thus: “all this is the manifestation of the wonders of nature through commonly earthly occurrences. With this, I conclude my book on the Divine Creations.”⁸⁰⁹

Also, with this four-part textual structure, we also see the rhetorical pattern Song has employed in the text: inductive reasoning—from evidence to conclusion; the traditional rhetorical pattern employed in Chinese communication.

Unity Between Nature and Humans

In Song’s view, nature is rich in inexhaustible and precious resources. Even the title of the book suggests that all the artifacts, resources, and materials discussed in the book are the works of nature. So these artifacts, resources, and materials cannot be attained with only human skills. On the other hand, they cannot be obtained without human skills.

天覆地載，物數號萬，而事亦因之，曲成而不遺，豈人力也哉。⁸¹⁰

Between Heaven and Earth, exist things numbered in the tens of thousands; thus, humans must also perform as many tasks. Adapting to the cycles of nature, human have produced myriads of objects. All this is not accomplished by humans alone; nature also plays an important role in it.

五行之內，土為萬物之母。⁸¹¹

Within the five elements, Earth is the mother of everything.

In other words, nature supplies while humans make:

草木之實，其中蘊藏膏液，而不能自流。假媒水火，凭藉木石，而后傾注而出焉。此人巧聰明。⁸¹²

⁸⁰⁸ Song Yinxing 宋應星, *Tiangong Kaiwu* 天工開物 [On the works of nature] (Taipei, Taiwan: World Books Press, 2002), 233.

⁸⁰⁹ *Ibid.*, 308.

⁸¹⁰ *Ibid.*, 1.

⁸¹¹ *Ibid.*, 201.

⁸¹² *Ibid.*, 215.

In the seeds of grasses and trees exists oil, but it won't come pouring out in liquid form unless the forces of water, fire, and the pressure of wooden and stone tools are used. This technique is an ingenuity of humans that is impossible to measure.

On the Works of Nature emphasizes human skills as well as the forces of nature. The purpose of emphasizing human skills is to obtain resources from nature. In the process of this, humans must correlate their activities with the cycles of nature. For Song, the key to obtaining natural resources is to maintain harmony between human activities and natural ones.⁸¹³ If this harmony is maintained, the crafts and skills of humans will reveal the images of nature.

愿者肖仙梵之身，而尘凡有至象。巧者夺上清之魄，而海宇遍流泉。
814

The devout fashion metal into divine likeness for this mortal world by copying the Divine in nature; the skilled artisans mint coins circulating everywhere by copying the outline of the moon.

In the book, Song offers many suggestions and instructions for users to maintain harmony between nature and humans. Only by following the cycles of nature can humans create everything they need in their daily life. The title of the book literally means “The Works of Nature Open Up Things.” For Song, humans are just copying images of nature, so more attention is given to nature—the context in which humans are working. Thus the book “demonstrates how workmen grasped the properties of natural materials by tinkering and experimenting with them.”⁸¹⁵ Throughout the book, Song keeps reminding us that what we are engaging in, is actually the work of Divinity. For example, the first agriculturalist, Song tells us, is a Divine figure,⁸¹⁶ which suggests that the agriculture we are engaging in today is Divine work. Even the yeasts we use today were invented by semi-Divine figures.⁸¹⁷

⁸¹³ Wang Nan 王楠, “Ancient Chinese Attitudes toward Technics: Chinese Philosophy of Technology Prior to the 1800s,” in *Philosophy of Engineering, East and West*, ed. Carl Mitcham (Cham: Springer, 2018), 71.

⁸¹⁴ Song, *Tiangong Kaiwu*, 156.

⁸¹⁵ Timothy Brook, “The Crafting of the 10,000 Things: Knowledge and Technology in Seventeenth-Century China by Dagmar Schäfer,” *Harvard Journal of Asiatic Studies* 73, no. 1 (June 2013): 158.

⁸¹⁶ Song, *Tiangong Kaiwu*, 1.

⁸¹⁷ *Ibid.*, 297.

Equipment and Material Descriptions: Classification of Objects

Song was a highly skilled technical writer who knew how to describe a variety of materials and equipment. He always begins by classifying into different categories what he is describing, and then describes these categories one by one, much as Guan Zhong does in *Guanzi*. When describing a category, he provides general overviews first, before he provides detailed descriptions. More importantly, when describing equipment, he also discusses its dimensions, materials, functions, capabilities, and benefits. Though he claims in the preface that his purpose “is to help those who would wish to know what various implements look like,”⁸¹⁸ his technical descriptions actually meet his readers’ various information needs, to get to know equipment and materials and to prevent problems.

Some readers, as the author suggests in the preface, need to know what various implements or materials look like, so the author devotes quite a few sections to descriptions of these implements and materials. For example, Song classifies looms into two categories: drawloom and waistloom. Here is how Song describes the drawloom:

凡花機通身度長一丈六尺，隆起花樓，中托衢盤，下垂衢腳（水磨竹棍為之，計一千八百根）。對花樓下掘坑二尺許，以藏衢腳（地氣濕者，架棚二尺代之）。提花小廡坐立花樓架木上。機末以的杠卷絲，中用疊助木兩枝，直穿二木，約四尺長，其尖插於筓兩頭。疊助，織紗羅者，視織綾絹者減輕十餘斤方妙。其素羅不起花紋，與軟紗綾絹踏成浪梅小花者，視素羅只加桃(2)二扇。一人踏織自成，不用提花之人，閒住花樓，亦不設衢盤與衢腳也。其機式兩接(3)，前一接平安(4)，自花樓向身一接斜倚低下尺許，則疊助力雄。若織包頭細軟，則另為均平不斜之機。坐處斗二腳，以其絲微細，防遏疊助之力也。⁸¹⁹

The drawloom frame has a total length of six *chi*. At the upper part of the frame a figure tower is located. Below it, a drawer board is placed for keeping the many heddles of the weaving harnesses in their proper positions. On the lower end of each heddle hangs a separate rigid rod or weight, which is made of water-polished bamboo rod, numbering 1,800 to a loom. A pit of about two *chi* deep is dug in the ground at a spot directly beneath the “figure tower” to make room for the “rigid rods” (where the ground is damp the pit can be replaced by the construction of a two-*chi*-

⁸¹⁸ *Ibid.*, 1.

⁸¹⁹ *Ibid.*, 38—39.

high frame) on which the loom rests. A cross-plank is provided in the figure tower for the drawboy to sit or stand on.

The warp threads are wrapped in parallel order on a warp beam, placed in the front of the loom. Toward the middle part of the loom, two driving shafts are connected separately with two wooden poles four *chi* long, which are in turn attached separately to the two ends of a reed.

The frame of the drawloom consists of two sections. The front section is level. The back section declines one *chi* from the figure tower to the weaver's body or cloth roll, thus increasing the force of the driving shafts. For weaving kerchiefs and other small, delicate items, however, a small loom of level surface is used; and the loom threads are operated by the two feet of a seated weaver. This is because the very fine silk fibers used for making such fabrics may not be able to withstand the force of the driving shafts.

In this section of description, the author follows a spatial order, proceeding from the top of the drawloom and moving to the bottom. He then ends his descriptions by pointing out the two parts of the drawloom. His main purpose is to help his readers get to know what a drawloom looks like. As if descriptions alone were not sufficient, the author also integrates a two-frame drawing to help his readers see the relationship among the various parts of the drawloom. Probably, the author was aware that it was easier to present physical characteristics visually than verbally.

Sometimes, the author provides descriptions to help readers prevent problems. For example, in “Weaknesses of Silkworms” the author identifies various weaknesses of silkworm.

凡蠶畏香，復畏臭。若焚骨灰、淘毛圍者，順風吹來，多致觸死。隔壁煎鮑魚、宿脂，亦或觸死。灶燒煤炭，爐蒸沉、檀，亦觸死。懶婦便器搖動氣侵，亦有損傷。若風則偏忌西南，西南風太勁，則有合箔皆僵者。凡臭氣觸來，急燒殘桑葉煙以抵之。⁸²⁰

Silkworms are afraid of both fragrances and bad odors. They die if exposed to such smells as from the burning of bones, from the cleaning of latrines, and often also from the frying of fish or other odoriferous meats next door. They likewise will die if exposed to such smoke as that from coal stoves, incense, or sandalwood burners. They are also injured by the smell of night pots that some indolent woman may carelessly shake up. The southwest wind is dangerous: when it is too strong an entire trayful of silkworms are known to have stiffened and died. When bad odors approach, leftover mulberry leaves should be burned, and the smoke will ward off the odors.

⁸²⁰ Ibid., 33.

In the above description, the author outlines several avoidances for silkworms. Clearly the description is intended to help readers prevent silkworm-related problems, injuries and death. Put differently, the description provides advice on caring for silkworms. Readers, by avoiding what is described, can prevent silkworm injuries and deaths. In another section titled “Silkworm Diseases,” the author outlines the criteria for evaluating silkworms, helping readers recognize and prevent silkworm diseases. For example, while identifying a symptom of silkworm sickness, the author suggests the following:

凡蠶將病，則腦上放光，通身黃色，頭漸大而尾漸小；並及眠之時，遊走不眠，食葉又不多者，皆病作也。急擇而去之，勿使敗群。⁸²¹

If the head of a silkworm becomes shiny, its entire body yellow, and its head increases in size while the tail part contracts; or if when a molting period is due, a worm remains wakeful, wandering about but eating little; such are the signs of sickness, and the affected silkworm must be immediately eliminated so as not to infect others.

When Song describes materials, he classifies his materials into different categories to help organize and format information to aid readability and, perhaps, memorability of the text. For example, in describing coal in Chapter 11, Song presents the following paragraphs:

凡煤炭，普天皆生，以供鍛煉金石之用。南方秃山無草木者，下即有煤，北方勿論。煤有三種，有明煤、碎煤、末煤。

明煤大塊如斗許，燕、齊、秦、晉生之。不用風箱鼓扇，以木炭少許引燃，燂熾達晝夜。其傍夾帶碎屑，則用潔淨黃土調水作餅而燒之。

碎煤有兩種，多生吳、楚。炎高者曰[飯炭]，用以炊烹；炎平者曰鐵炭，用以冶鍛。⁸²²

Coal is obtainable everywhere, and is used for the smelting and calcinations of metals and stones. South of Yangtse River, coal is found in mountains that are bare of trees. We need not discuss the situation in North China. There are three kinds of coal: anthracite, bituminous, and powdered.

⁸²¹ Ibid., 34.

⁸²² Ibid., 202.

The large pieces of anthracite coal are about the size of a bushel. The coal is produced in places like Yen, Qi, Qin, and Jin. It is kindled with a little charcoal, and can burn for a whole day without the use of bellows. The fragments beside the large pieces can be used as fuel after being mixed with clean yellow mud and made into cake-shaped briquettes.

Of the bituminous coal, which is mostly produced in Wu and Chu, there are two types: the high volatile is known as “rice coal” and used in cooking, while the low volatile is called “iron coal” and is used in smelting and forging metals.

The author opens the above description with a summary, in which he classifies coal into three kinds. Then he describes them one by one. In describing bituminous coal, he further classifies it into two sub-types. Song’s method is very similar to the Ramist principle of visual display, though Song is not using bracketed display to classify information. Nevertheless, Song very effectively accentuates his classification and organization of information when he is describing coal.

Process Explanations: Classification Again

Song’s second purpose in the book is to help readers understand how technology works, so we find many chapters and sections devoted to process explanations. For example, Chapter 12, which describes methods and implements for oil-extraction, exemplifies Song’s process description. First, the author discusses the usefulness of vegetable oils, and then he classifies oils into different grades such as sesame-seed oil, turnip oil, rape-seed oil, and soy oil, and finally he explains the process of extracting them.⁸²³ Then he describes the equipment used in extraction process and its various parts in detail; finally, he explains the process of obtaining oils: seeds are roasted, rolled, screened, and pressed. The author describes the process by following functional order, i.e., according to the sequence by which oils are extracted. To help his readers visualize what the extraction equipment looks like, the author integrates a drawing that illustrates three workers at the oils press.

This chapter and other chapters explaining processes share one common feature I have mentioned above. That is, the author always begins the chapter by summarizing the usefulness of the products to be produced; then he classifies the products into various categories; next, he describes equipment used in the process of producing these veracious categories; finally, he explains the process. Though he is describing processes of

⁸²³ *Ibid.*, 215.

delivering various products, Song always classifies these products into smaller categories. This particular way of organizing information not only helps readers learn how some implements work, but more important, it helps them get to these products more efficiently.

Technical Instructions: Attention to Context

Though the author claims in the preface that the main purpose of the book is to help individuals understand how technological processes work, quite a few chapters provide advanced technical instructions for performing various tasks critical to human welfare; some tasks, like iron casting and ship building, even involve large and heavy objects. Technical instructions in the book appear as narrative prose.

Today's technical instructions are organized into various steps and grouped into clusters according to the tasks to be performed. Song's technical instructions, however, are recorded in narrative prose and are organized according to topics, not tasks. Here is a section of instructions for making animal-shaped candy:

凡造兽糖者，每巨釜一口，受糖五十斤。其下发火慢煎，火从一角烧灼，则糖头滚旋而起。若釜心发火，则尽沸溢于地。每釜用鸡子三个，去黄取青，入冷水五升化解。逐匙滴下用火糖头之上，则浮沍黑滓尽起水面，以笊篱捞去，其糖清白之甚。然后，打入铜铤，下用自风慢火温之，看定火色，然后入模。凡狮、象糖模，两合如瓦为，杓写糖入，随手覆转倾下。模冷糖烧，自有糖一膜靠模凝结，名曰享糖，华筵用之。⁸²⁴

To make animal-shaped candy, fill a large pot with fifty cattles of sugar and heat it gradually from below. The sugar syrup will boil gently if the fire is placed to one side of the pot; however, it will boil over and overflow to the ground if the fire is placed directly under the center of the pot. Add a mixture of the whites of three eggs and half a pint of water slowly to each pot of sugar, with the aid of a spoon. Slowly heat the added mixture and the sugar syrup. Now the impurities and scum will float to the surface. Then skim them off with a rattan strainer. Then transfer the clean and clear syrup into a copper pot and warm it over a low fire of coal briquettes. After the syrup is cooked for some time, pour it into the molds in the shape of a lion or an elephant, etc. Turn the mold immediately around after ladling the liquid sugar into the mold to allow the syrup to flow off. Since the mold is cold and the syrup is hot, a layer of sugar will naturally adhere to

⁸²⁴ *Ibid.*, 131.

the inside of the mold and solidified. This is called feast candy and is used at banquets.

Though he uses many action verbs, e.g., fill, add, transfer, pour, and turn around, Song rarely provides detailed actions or information. For example, what actions should one perform in order to “heat it gradually from below”? How does one “transfer the clean and clear syrup into a copper pot”? How large is “a large pot”? How slow is “slowly”? How much time counts as “cooked for some time”? It seems that the author is helping readers create an ideal environment in which to make candies. Indeed, Song is paying more heed to the general context than to the specific individual actions that occur in the context. This stress on the context illustrates the influence of the classics I have discussed in this book. In addition, the author provides feedback to help readers check whether they are following instructions correctly. For example, “now the impurities and scum will float to the surface” draws readers’ attention to the result so that they know they did the right thing.

More important, this book forecasts what modern technical communicators would do: using accurate measuring units to help readers understand the task, for example, “fifty catties of sugar,” “three eggs,” and “half a pint of water”; providing cautions, such as that the syrup “will boil over and overflow to the ground if the fire is placed directly under the center of the pot.” Use of accurate measuring units and the elements of feedback and caution are conducive to successful performance of the task.

Indirect Style

On the Works of Nature employs an indirect style in its discussion of production processes and techniques. In other words, the book does not immediately begin to describe production processes or provide instructions in a chapter. Instead, it always begins a chapter with a paragraph in which Song establishes the context where a process or a task performance takes place. In establishing the context, Song actually tells the readers that all we are engaging now is the works of Divine Heaven. For example, in Chapter 5: Salt, Song starts by claiming that salt is the product of Heaven:

天有五气，是生五味。⁸²⁵

Heaven has five *qi*,⁸²⁶ which gives birth to five tastes.

⁸²⁵ Ibid., 99.

⁸²⁶ “qi” means vapors or phenomena.

Then Song elaborates on the history of salt and importance of consuming salt. Only after introducing the history and significance of salt does Song begin to describe the processes of producing various types of salt.

The indirect style employed in *On the Works of Nature* is not quite the same as that employed in the previous classics I have discussed in this book. The indirect style in these classics indicates “suggestiveness,” which means that instructions do not instruct directly through spelling out specific actions, but instruct through narrations and descriptions. The indirect style used by Song is very similar to that driven by Confucianism: to establish Song’s credibility as the author.

Song attempts to show his readers that he is a credible author, who knows the production processes and techniques. Therefore, he begins every chapter with a review of the significance, and sometimes history, of the process or product he covers in the chapter. More important, Song establishes a connection between Heaven’s works and human labor. In short, he is showing to his readers that human labor is part of Heaven’s works.

This indirect style serves two purposes: First, to establish the author’s credibility; second, to show that human works are part of Heaven’s works.

Names (Nouns) as Chapter Titles and Section Headings

In this book, Song uses names (nouns) for most of the chapter titles and section headings, even though these chapters are task-oriented process explanations or technical instructions. For example, Chapter 1 is titled “Grains,” though it provides technical instructions for ploughing, harrowing, weeding, sowing and watering rice and wheat. It also explains the processes of cultivation and care of rice and wheat. In addition, Song uses nouns for the 12 section headings in Chapter 1, though each section is comprised of highly action-oriented process descriptions or technical instructions: General Introduction, Rice, Healthy Rice, Rice Work, Rice Disasters, Irrigation, Wheat, Wheat Work, Wheat Disasters, Millet and Sorghum, Hemp, and Legumes. These sections headings, except for “Rice Workm,” “Irrigation,” and “Wheat Work,” are not even suggestive of action-oriented process descriptions or technical instructions.

In Western culture, when developing process descriptions or technical instructions, professional communicators usually use informative titles to indicate the process to be explained or the task to be performed. For example, one could use “To Keep Rice Healthy” and “How to Prevent Wheat Disasters” instead of “Healthy Wheat” and “Wheat Disasters.” Professional communicators rarely use anything but nouns as titles like

“Grains” or “Sorghum” for instructions or process explanations, simply because such noun titles are not very informative. Researchers have pointed out that for the titles of instructions, using verbs, either gerunds or infinitives, is more effective and informative than merely using nouns.⁸²⁷ For titles of process descriptions, using “How” or “Description of the Process of” phrases (such as “How Your Water Heater Makes Hot Water” and “Description of the Process of Building a Two-tube Superhet Radio”) is more effective and informative than using only nouns “Water Heater” or “Two-tube Superhet Radio.”⁸²⁸ The verbs in technical instructions effectively and clearly specify the tasks to be performed, while the “How” and “Description of Process of” phrases in process descriptions clearly indicate the nature and scope of the processes.

But most of the chapter titles and section headings in Song’s book use nouns which do not suggest process descriptions or technical instructions, much less tasks to be performed or the nature and scope of the processes covered. Rather, these titles and headings suggest that these chapters and sections provide definitions. For example, the first section of Chapter 7 is “Tiles.” The noun ‘tiles’ makes it appear as if this section would describe various types of tiles, but actually it provides technical instructions for making tiles.

As I have discussed in the previous chapters, especially Chapter 3, using name-nouns is a Chinese cultural tradition. From the Confucian perspective, using correct names ensures clarity, avoids ambiguity, and promotes social harmony in society. The *Classic of Changes*, one of the six Confucian classics, suggests that when correct names are used, “all under Heaven will be established.”⁸²⁹ The idea is that human society and nature repeat themselves in cycles. In order for human society to be stable and proper, people must follow these changing cycles. In Fung’s words, people must “acknowledge the inevitability of the world as it exists. . . . If we can act this way, we can in a sense, never fail.”⁸³⁰ The correct use of names, in turn, facilitates the smooth transition from cycle to cycle, and in so doing, maintains social harmony.

These cycles are manifest in our daily social activities and social life as small cycles and these small cycles are, in Owen’s term, “constituents” of large cycles.⁸³¹ For a cycle to be successfully completed, each participant

⁸²⁷ Farkas, “Logical,” 46.

⁸²⁸ John Lannon, *Technical Communication*, 11th ed. (New York: Longman, 2007), 512—14.

⁸²⁹ Legge, *The I Ching*, 242.

⁸³⁰ Fung, *A Short History*, 45.

⁸³¹ Owen, “Reproduction,” 291.

must perform his or her correct role and actions, and one's activities are related to his or her status, position, or name/title. Thus, someone named "farmer" must perform certain tasks at certain times for a cycle to be correctly completed and for harmony to be maintained.

To ensure completeness of large cycles, we must first ensure completeness of small cycles, and to ensure completeness of small cycles, we must correctly name the constituents of the small cycles. For Confucius, within this process, the use of correct names, helps clarify individuals' roles and responsibilities, human activities, and the recipients of human actions - the 'constituents' of the repeating cycles of social processes. When correct names are used, individuals can perform their roles by conforming to the 'essence' defined by their names.

In his book, Song uses lots of name-nouns as titles and headings. In other words, he simply accumulates the names of events, things, and actions, that are expected to happen in agrarian processes or any other mechanical processes; naming them seems to guarantee the success of the farmers' and manufacturers' work. The significance of accumulating names in agriculture and other industries lies in the fact that these names represent their complete cycles. As I have pointed out in the above paragraphs, for Confucius, using correct names helps human society and nature repeat themselves harmoniously. Agriculture, together with other related industries, is cyclic, consisting of series' of events and human activities. Farmers and other handicraftsmen always want an agrarian cycle or a manufacturing cycle to proceed as predicted; that is, all events and human activities should occur in the expected order to guarantee success. In the book, Song seems to speak out this desire, by accumulating names to complete an agrarian or manufacturing cycle uninterrupted by any unexpected events.

Song also seems to use correct names to avoid ambiguity in communication processes. An agrarian or manufacturing cycle consists of events and activities: four seasons, human rituals and rites, men's and women's farming and manufacturing activities, animals, seeds, plants, crops, tools, mechanisms, etc. These events and activities must be very clear to individuals, and individuals must respond to these events and activities properly. One way Song helps individuals respond to these events is to name the 'constituents' of these events and activities. So, by identifying these constituents, people can learn the names of the constituents - recipients of human actions - and can perform the right actions towards the recipients, to help complete agrarian or manufacturing tasks.

Integrating Visuals

Another major feature of this book is that the author employs 100 full-page, detailed drawings to help readers visualize worksites, mechanisms used, various parts of devices or mechanisms, and the relative positions of machines and operators.

What is noteworthy, is the way the author establishes connections between the visuals and the texts they support. The author, when using visuals to support the text, does not number them. He does not specifically refer to a visual in the text; sometimes he only tells his readers that a drawing is available for a machine, but without telling them where the drawing is placed. The author instead places the visuals either at the beginning of a chapter or at the end of a chapter, and labels them with the topics they cover. For example, a figure that shows a drawing that is labeled “Purifying Syrup with Ceramic Utensils” is placed right at the beginning of the instructional paragraph on making animal candy. Readers themselves, after reading the instructions, must figure out which step the visual is supporting. In other words, there is a loose connection between the visual and the text it supports. This way of integrating visuals is very similar to that employed by the *Classic of Changes*, which always places a hexagram image at the beginning of the text which it illustrates.

This way of establishing a connection between a visual and the text corroborates Hall’s, and Stewart and Bennett’s notions of high-context culture. In a high-context culture, an individual’s thinking style “involves a high degree of sensitivity to context [and] relationships [among individual events],”⁸³² and it stresses the unity between context and individual events and objects. To put it into a nutshell, “in high-context communication, most of the information is either in the physical context or internalized in the person.”⁸³³ Perhaps Song, when he was integrating the drawings, believed that his readers, with the drawings before them, could very easily figure out which part of the text they support.

Influenced by traditional Chinese classics, as I have discussed in this book, Song’s book manifests numerous features of technical writing texts in the Chinese tradition. Song’s book illustrates the four-part textual structure, stresses unity between nature and humans, gives attention to context, describes materials and equipment, provides technical instructions, explains processes, uses nouns for titles, and employs visuals. Meanwhile,

⁸³² Stewart and Bennett, *American Cultural Patterns*, 42.

⁸³³ Edward T. Hall, Context and Meaning, in *Intercultural Communication*, ed. L. Jamovar and R. Porter (Belmont, California: Wadsworth, 1997), 47. 45-54, 1997.

the many features in the book suggests that Song's book is a precursor of modern Chinese technical writing intended for a general readership. It seems that Song's book serves as a key link between Chinese technical writing in antiquity and present-day Chinese technical writing.

CHAPTER THIRTEEN

CONCLUSION: HOW TRADITIONAL CHINESE CLASSICS HELP US REVEAL PATTERNS OF MODERN TECHNICAL WRITING TEXTS WE MIGHT HAVE MISSED

The traditional Chinese classics influence modern Chinese technical writing in many ways, as I have shown in the previous chapters. In this chapter, I focus on three major ways in which the traditional classics influence modern Chinese technical writing: the four-part textual structure, attention to context, and use of nouns.

The Four-part Textual Structure

The four-part textual structure—*qi* (起 beginning), *cheng* (承 joining, continuing), *zhuan* (转 turning point), and *he* (合 concluding) - as championed by the traditional classics, is certainly made manifest in modern Chinese technical writing texts. For example, Andy Kirkpatrick has studied 40 request letters written by native Chinese speakers and found out that these letters generally follow the pattern of “salutation—preamble (facework)—reason—request.”⁸³⁴ In the “salutation” part, the author of a letter praises the recipient; in the “preamble (facework)” part, the author continues the salutation by further praising the recipient through introducing him or herself referencing how he or she got to know the recipient, and how he she likes the recipient. In the “reason” part, the author brings up the reasons for the request that follows; in the “request” part, the author comes to the main point of the letter - making a request.

⁸³⁴ Andy Kirkpatrick, “Information Sequencing in Mandarin Letters of Request,” *Anthropological Linguistics* 33, no. 2 (Summer 1991): 183, 188, 198.

For example, in one of the letters, the author begins by praising a radio station - the recipient of the letter: "I consider both programs to be extremely well produced."⁸³⁵ Next, the author continues the praise by claiming that he or she "follow[s] the programs closely" because "China's Central Broadcasting Station's English programs are rather abstruse."⁸³⁶ This part also serves to join the beginning with the next part; the "turning point." In this part, the author brings up the reasons for the request: "I like studying English," and writes that listening to the radio programs "has been of great benefit."⁸³⁷ In the final part; the "conclusion," the author makes the two requests: for one set of English-teaching materials and a radio station calendar.⁸³⁸

This four-part textual structure in the Chinese request letters, identified by Kirkpatrick, is actually the four-part textual structure of *qi* (起 beginning), *cheng* (承 joining, continuing), *zhuan* (转 turning point), and *he* (合 concluding). The "salutation" begins a business letter; the "preamble (facework)" part continues the praise; the "reason" part is the "turning point" - from praising to requesting; and the "request" part concludes the letter.

We may also look at this four-part textual structure from two other perspectives: first, the inductive reasoning pattern; second, an indirect style of communication.

First, this four-part textual structure also demonstrates the inductive reasoning sequence that Chinese technical writing texts usually employ. Researchers have established that modern Chinese technical writing texts employ the inductive reasoning structure.⁸³⁹ This particular reasoning sequence usually places general statements at the beginning, and the

⁸³⁵ Ibid., 189.

⁸³⁶ Ibid., 190.

⁸³⁷ Ibid., 190.

⁸³⁸ Ibid., 190.

⁸³⁹ H. Cheng, "The Eastern and Western Ways of Thinking and Their Influences on Chinese and English Languages," [in Chinese,] *Journal of Anhui University* 29, no. 3 (2005): 50-51; M. Cheung, "The Globalization and Localization of Persuasive Marketing Communication: A Cross-linguistic Socio-cultural Analysis," *Journal of Pragmatics* 42, no. 2 (2010): 375-76; Xia Li 夏莉, "Yinghan Lunbian Yupian Hongguan Jiegou ji Xinxi Zhankai Moshi Duibi Xiuci Yanjiu" 英汉论辩语篇宏观结构及信息展开模式对比修辞研究 [A contrastive rhetorical study of the macro structure and information development model in English and Chinese argumentative texts], *Journal of Zhengzhou University* 40, no. 1 (January 2007): 146-147.

conclusion at the end. As the request letter shows, the author does not make the requests until after he or she has presented the justification for them. The justification consists of praising the recipient and discussing the reasons for the requests. As I have pointed out in Chapter 1, this sequence was also employed in the oracle-bone inscription texts, as the “justification-result-conclusion” sequence.

Second, this four-part textual structure also demonstrates the indirect style of communication championed by the traditional Chinese classics, particularly by Confucianism. As I have shown in Chapter 11, modern business letters written by native speakers of Chinese employ the indirect style of communication. Here, as the request letter shows, before making the requests, which are the main point of the letter, the author attempts to establish a friendly relationship with the recipient by praising the radio station - the recipient - and by presenting the fact that he or she depends upon the recipient for studying English. In so doing, the author humbles him or herself, an ethical principle championed by Confucianism, as I have shown in Chapter 11.

Attention to Context

As I have attempted to demonstrate in the previous chapters, traditional Chinese classics, especially the *Classic of Changes*, all give attention to context, stressing the context while de-emphasizing the individuals within the context.

In this section, I would like to examine a modern Chinese instructional manual to discuss how the philosophy of emphasizing contexts is employed. I choose an instructional manual for installing a household water heater because water heaters are popular household products in China now. The manual is targeted at every household in China; it is relatively short (about the size of a booklet) and focuses on one major task; installing a water heater. I do not analyze this water-heater installation manual to prove that modern Chinese instructional manuals consciously incorporate the philosophical thoughts of the *Classic of Changes* or any other Chinese classic. The authors of these manuals have probably never read these classics. But the theory advanced by them, emphasizing the situation as a whole while de-emphasizing individuals, has been so influential in the past three thousand years that it permeates every aspect of Chinese culture.⁸⁴⁰ Thus, the major principles pioneered by

⁸⁴⁰ Huang, Andrulis, and Chen, *A Guide*, 69—72.

these classics may help us uncover a pattern of meaning in modern Chinese instructional manuals.

The manual I choose has five major parts: “Forward,” “Uses and Features,” “Specifications and Dimensions,” “Parts,” and “Precautions and Installation.” I illustrate only “Precautions and Installation” because only this part seems relevant to my discussion.

The following is my translation of the selected sections of “Precautions and Installation” which illustrate how individual steps focus on non-action-oriented information rather than on action-oriented instructions. I have omitted some steps in the precautions in the interest of space, but the steps omitted are similar to those I include here.

PRECAUTIONS

Installing this water heater greatly affects your safety, so observe these points:

- Use gas in accordance with the model of the unit.
- Do not use this product for a purpose other than heating water.
- Install this product in a well-ventilated area.
- The vent pipe can be used only after it has been installed in accordance with this manual (see the figure).
- Do not install this product too close to combustible materials.
- . . .
- Do not use this product in a dusty place.
- Do not install this product under electric wires or near electric appliances. Keep this product at least 400mm away from any electrical appliances.
- Keep both the plug and the receptacle dry to prevent electric shock. The grounding terminal screw on the heater should be connected to a ground.
- The vent pipe should be installed as the figure shows. The perforated end of the vent pipe must be jutting outside the wall at least 100mm. Do not block the pipe.
- The power cord should not touch the vent pipe to avoid damages to the insulation of the cord by high temperatures.
- The figure shows the environment in which to install this product.

INSTALLATION

1. To Install the Vent Pipe:
 - Use only the vent pipe that comes with this product.
 - Do not use any other vent pipes; do not modify the vent pipe.

- To elongate the pipe, use the flexible aluminum pipe, but do not elongate the pipe by more than 3 meters. Secure bends and joints with the supplied aluminum clamps. Do not bend the aluminum flexible pipe more than twice. The vent pipe must have a 1° downward slope to drain condensed water from the pipe.
 - Wrap the vent pipe with insulation at least 20mm thick if it goes through a flammable wall.
 - Keep the vent pipe at least 55mm away from any furniture or eaves.
 - Do not install the vent pipe above the ceiling. If it has to be above the ceiling, wrap it around with insulation at least 20mm thick.
 - To make service easier, do not stuff concrete into the gap between the vent pipe and the pipe hole in the wall.
 - Create an air outlet of at least 155cm² close to the ceiling and an air inlet of at least 100mm² close to the floor.
2. To Install the Tank:
 - Drill holes in the wall according to the specifications on the bottom of the tank and drive an expansion bolt into the wall above these holes. Hang the tank on the bolt and then fasten the tank to the bottom support with an expansion screw. (The Φ 70mm hole is used for installing the vent pipe.)
 3. To Install Incoming Cold Water Line:
 - The cold-water inlet is a G/2 threaded end. The end and the incoming line can be connected with a flexible connector or black iron piping. A shut-off valve should be installed in the cold-water supply line. Make sure the filter in the inlet is not blocked.
 4. To Install Outgoing Hot Water Line:
 - The hot-water outlet is a G/2 threaded end.
 5. To Install Incoming Gas Line:
 - The gas-line inlet is a G1/2 threaded end.
 - When using liquefied gas, connect the end with the gas line with a flexible connector with a washer, making sure the internal diameter of the flexible connector is 9.5mm.
 - When using pipe gas, connect the end with the gas line with copper piping with a shutoff valve of 45mm² in working area.
 6. To Install the Transformer:
 - The transformer converts AC 220V/50Hz electricity into AC 36V/50Hz and AC 12V/50Hz to be used by the heater.

- Install the transformer between the heater and receptacle, and keep it at least 1.3m away from the heater and the receptacle, at least 1.6m away from the floor. Keep the areas around the transformer and receptacle dry.⁸⁴¹

After reading this manual, we sense that the precautions and the installation sections provide the same information, although the installation section occasionally tells a user what to do to install this water heater, (e.g., drill a hole in the wall to hang the water tank). But generally, both sections seem to discuss an ideal situation in which to install this product. The last step in the “Precautions” section summarizes the essence of the entire section: The figure shows the ideal environment in which to install the product. Although the step does not refer specifically to any visual, it appears to refer to the one below it. This illustration, and the one below the steps in the “Installation,” both depict the ideal environment for installing the product, suggesting that the steps in both the “Precautions” and the “Installation” sections serve to inform readers about creating an ideal environment for installing the product. From the “Precautions” section, for example, we learn that this product should be installed in a well-ventilated place where no explosives or combustible materials are stored. From the “Installation” section, we learn that the vent pipe should be at least 55mm away from furniture and that the vent pipe should not have more than two bends. Both also discuss some potential problems and offer some perspectives on these problems. For instance, can this product be installed if the space is very limited? Can this product be used without a grounded receptacle? Can the gas tank and the gas inlet on the water heater be connected with an iron pipe? Can the transformer be installed on the water tank to save space? Given the perspectives that both sections offer, users can decide for themselves if they can install this product in their residences.

Therefore, this manual provides contextual information rather than individual-task-oriented instructions to guide users in installing this product. Although, after reading this manual, we know where this product can be installed, we do not know any specific actions that we must take to install it. For example, none of the steps in “To Install the Vent Pipe” tell users specifically where, and how, to connect the pipe to the water heater. In other words, this manual focuses more on the relationships between the context and the objects existing in it and relationships between the objects.

⁸⁴¹ “Instruction Manual for Shinnda Household Water Heater,” (Guangdong, China: Milky Way Household Appliances 2008), 3—8.

This manual also employs visual illustrations, but these illustrations seem to show the positions of various parts in relation to each other rather than demonstrate task performance. They show the positions of the various parts. They also show side views of how the heater is positioned on the wall. Thus, the illustrations, like the verbal steps, focus on context. For instance, the ideal context is one in which the water tank, transformer, receptacle, vent pipe, and air outlets are positioned exactly as the visuals show. Additionally, the visuals are rather loosely integrated with the textual steps. For example, the 4th step in the precautions section tells readers to “see the figure.” Yet, which figure the reader should see is not specified; it does not seem to refer to the figure above it because that figure identifies the various parts in the previous section. Only after reading the entire “Precautions” section would the readers realize that the 4th step refers to the figure on the next page. But that figure does not have any labels either, making it more difficult for the readers to make the necessary connections between the figure and the verbal steps. So the figures are not closely integrated with the verbal steps, either through positioning or labeling.

Like the *Classic of Changes*, the manual also includes visuals containing technical data that the general public cannot easily understand. For example, the table carries technical specifications that only professionals can understand. More important, the information is not even relevant to the general users, especially when they are installing the product, although it may help professionals repair the water heater or damaged parts. Thus, like the *Classic of Changes*, this manual seems more appropriate for the professionals, in this case, electricians or technicians who install or repair water heaters, even though it is supposedly targeted at the general public. In general, Chinese instructional manuals are more appropriate for professionals to use, rather than for non-professionals, even when the manuals are targeted at the general public.⁸⁴² This manual is typical of other Chinese instructional manuals in that the instructions do not spell out every required action for installation. Such detailed instruction would be unnecessary for professionals, who, with a real water heater and the visual

⁸⁴² Daniel Ding and John Jablonski, “Challenges and Opportunities: Two Weeks of Teaching Technical Communication at Suzhou University, China,” *Technical Communication* 48, no. 4 (November 2001): 430; Li Qian, Joyce Karreman, and Menno DT De Jong, “Entertaining or Functional: An Analysis of Visuals in Chinese and Western Household Appliance Manuals,” in *2018 IEEE International Professional Communication Conference (ProComm)* (New York: IEEE 2018), 95.

illustrations from this manual, could easily figure out how to install the product.

As my discussion of the water heater manual suggests, modern Chinese instructional manuals read like the *Classic of Changes* and other Chinese classics, in that they provide more contextual information and offer various perspectives on contextual problems, rather than guidance-oriented steps to guide readers in completing a task. With the contextual information and various perspectives, readers can evaluate the situation and decide for themselves whether or not to undertake the task.

Use of Nouns

Confucianism is actually a philosophy centered around agriculture. It is the “theoretical expression of different aspects of the life of the farmers.”⁸⁴³ So, in many respects, as Fung has pointed out, Confucianism expresses what the farmers feel but are not capable of expressing, because these farmers have received very little education.⁸⁴⁴ The major purpose of Confucianism is to justify and theorize the farmer-based social system.

Agriculture is cyclic, consisting of a series of events and human activities. Farmers always want an agrarian cycle to proceed as predicted, that is, all events and human activities should occur in the expected order to guarantee a bumper harvest. With a bumper harvest, society will remain stable and harmonious.

From Confucian perspective, using correct names ensures clarity, avoids ambiguity, and promotes social harmony in society. The *Classic of Changes* suggests that when correct names are used, “all under Heaven will be established.”⁸⁴⁵ The idea is, that human society and nature repeat themselves in cycles. In order for human society to be stable and proper, people must follow nature’s changing cycles. In Fung’s words, people must “acknowledge the inevitability of the world as it exists. . . . If we can act this way, we can in a sense, never fail.”⁸⁴⁶ The correct use of names, in turn, facilitates the smooth transition from cycle to cycle and, in so doing, maintains social harmony.

These cycles are manifest in our daily social activities and social life, as small cycles, and these small cycles are, in Owen’s term, “constituents” of large cycles.⁸⁴⁷ For a cycle to be successfully completed, each participant

⁸⁴³ Fung, *A Short History*, 20.

⁸⁴⁴ *Ibid.*, 20—21.

⁸⁴⁵ Legge, *The I Ching*, 242.

⁸⁴⁶ Fung, *A Short History*, 45.

⁸⁴⁷ Owen, “Reproduction,” 291.

must perform his or her correct role and actions, and one's activities are related to his or her status, positions, or name/title. Thus someone named as 'farmer' must perform certain tasks at certain times for a cycle to be correctly completed and for harmony to be maintained. To ensure completeness of large cycles, we must first ensure completeness of small cycles, and to ensure completeness of small cycles, we must correctly name the constituents of the small cycles. For Confucius, within this process, the use of correct names helps clarify individuals' roles and responsibilities, human activities, and the recipients of human actions - the "constituents" of the repeating cycles of social processes. When correct names are used, individuals can perform their roles by conforming to the "essence" defined by their names.

The *Classic of Poetry* championed the tradition of naming things, and other Chinese classics I have discussed in this book also manifest this tradition. They exemplify many Confucian thoughts, including the Confucian concept of naming things.

This traditional practice of naming things could enable us to perceive a pattern in the visual display of information on a Chinese website which might have escaped our attention. For example, as I have pointed out in Chapter 3 of this book, the Chinese Ministry of Science and Technology, on its own website, www.most.gov.cn/eng, has issued a call for papers for the 4th International Symposium on Soft Science,⁸⁴⁸ but the announcement never specifies the procedure to submit a paper or a proposal, though it does announce the deadline. Instead, it lists all the topics and themes the symposium will cover, as well the as names of all the organizers, including the chair, deputy-chairs, secretary general, advisors, and others. It even names all the speakers at the previous three symposiums. Perhaps, providing names helps them ensure that they provide only relevant information; information that is useful to all users, regardless of their particular circumstances. Put it differently, they present only what can be expected by all readers in a task. In this way, names encourage readers to expect what they will encounter in a task, thus helping each individual to plan for the future. Besides, this Chinese tradition of naming things may also be responsible for the extra large amount of information that Chinese webmasters cram into a single page.⁸⁴⁹ So, after examining five Chinese websites which each contain large amounts of information on a single page, Rogers advises international web designers to "[m]ake as much

⁸⁴⁸ MOST, "Call for Paper."

⁸⁴⁹ Rogers, "The Culture," 11.

important information available as possible” when they develop online pages for Chinese users.⁸⁵⁰

Web Sites of CMCT and CM: Examples That Name Things

In this section, I examine the official website of the Chinese Ministry of Culture and Tourism (CMCT), and the official website of the Chinese Embassy in the US (CE). This analysis focuses on its visa application procedure page, particularly how the page’s features (e.g., naming the constituents of a cycle of visa application, such as the various categories) are designed to help the web users go through the entire procedure of applying for a Chinese visa. I choose to analyze these two web pages because the tourist ministry and the embassy are supposed to help tourists get a Chinese visa, so they are popular websites among US citizens who intend to get a Chinese visa.

The splash page of the CMCT Web site contains many links, one of which is “Visit China.”⁸⁵¹ If you click on it, you are taken to a page that contains many further links. One of these is “Getting a Visa.” If you click on this, you are taken to a page that shows: “A Brief Introduction to Chinese Visa.” The introduction discusses the reasons why you want a Chinese visa, lists China’s visa authorities, defines 16 visa categories, like validity period, number of entries and duration of each stay of Chinese visa, and elaborates on these 16 categories. For example, under “3. Types of Chinese Visa,” 16 types are listed. Here are the first five:

3. Types of Chinese Visa:

Chinese visas fall into the types of diplomatic visas, courtesy visas, public service visas, and ordinary visas. Ordinary visas can be further classified in the following categories:

- (1) C Visa: Issued to foreign crew members of means of international transportation, including aircraft, trains and ships, or motor vehicle drivers engaged in cross-border transport activities, or to the accompanying family members of the crew members of the above-mentioned ships.
- (2) D Visa: Issued to those who intend to reside in China permanently.
- (3) F Visa: Issued to those who intend to go to China for exchanges, visits, study tours, and other activities.
- (4) G Visa: Issued to those who intend to transit through China.

⁸⁵⁰ *Ibid.*, 13.

⁸⁵¹ CMCT, “Services,” accessed November 15, 2019, <http://english.www.gov.cn/>.

(5) J1 Visa: Issued to resident foreign journalists of foreign news organizations stationed in China. The intended duration of stay in China exceeds 180 days.⁸⁵²

But this never specifies how to apply for a Chinese visa, though the link is named “Getting a Chinese Visa.”

If you go to the homepage of the Chinese Embassy in the US (CE), as suggested by the web site of CMCT, this page contains many links, and one of them is “Consular Services.”⁸⁵³ If you click on it, a drop-down menu appears. On this menu, if you choose “How to Apply (a Chinese Visa),” you get these instructions:

How to Apply
2017/03/22

- STEP 1: Select a visa category that best describes your trip to China and prepare your visa application including necessary supporting documents accordingly.
- STEP 2: Submit your application to the Visa Office of the Chinese Embassy/ Consulate General based on your State of residence
- STEP 3: Pay the visa application fee at the Visa Office and pick up your visa.

Please select a visa category based on the purpose of your visit to China and click the category code to see detailed requirements.

These steps are followed by a list of 16 visa categories. Here is the C Visa category:

C Visa: Foreign crew members of means of international transportation, including aircraft, trains and ships, or motor vehicle drivers engaged in cross-border transport activities, or to the accompanying family members of the crew members of the above-mentioned ships.⁸⁵⁴

⁸⁵² Ibid., “A Brief Introduction to Chinese Visa,” accessed November 15, 2019, http://english.www.gov.cn/services/visit_china/2014/08/23/content_281474982978372.htm.

⁸⁵³ CE, “Chinese Embassy in the United States of America,” accessed November 15, 2019, <http://www.china-embassy.org/eng/>.

⁸⁵⁴ Ibid., “How to Apply,” accessed November 15, 2019, <http://www.china-embassy.org/eng/visas/hrsq/>.

At the end of this list of 16 visa categories is an elaboration of each type, and the documents required.

Confucianism holds that the *Classic of Changes*, with its style of naming constituents, can train individuals to use language well. Such training includes teaching individuals to repeat names and categories to communicate the meanings of objects and items.⁸⁵⁵ Chinese professional communicators seem to practice this Confucian view of language by naming the constituents of the visa application procedure. Naming these constituent parts helps the web designers ensure the continuity of the application procedure, and choose the information relevant to all web users. In this way, Chinese web designers appear to communicate their meanings clearly to the web users - namely, “I want you to learn the names and know what they mean before you perform the task.” Even when they do provide a step-by-step procedure, as is seen on the website of the Chinese Embassy in the US, Chinese web designers do not describe task performance. Rather, they show the positions of these steps in the procedure in relation to each other. In other words, they just name these steps to show what they are. For example, Step 2 tells visa applicants to “submit your application to the Visa Office of the Chinese Embassy/Consulate General based on your State of residence.” It does not tell them where to get an application form, nor does it explain how to submit it, or, if they need to apply personally, or through an agent. Indeed, naming the constituents is a strategy that Chinese web designers use to communicate their meanings to their users. Even when they are specifying steps in a procedure, they seem just to name the steps without prescribing specific actions, or how to perform them.

In essence, the information Chinese visa applicants need is on this page. The information, however, looks more like an inventory, naming items such as visa categories and required documents, rather than a set of instructions or a process for applying for a visa. In fact, this process seems to provide visa applicants with more information about Chinese visa types than information on the application procedure.

Final Words

Finally, I want to stress that not every Chinese technical writing text manifests the features championed by the classics I have discussed in this book. For example, many modern Chinese technical writing texts have adopted the style of the American manual, which pays more attention to

⁸⁵⁵ Lau, *The Analects*, 42—44.

individuals instead of context, especially since the style of the West was introduced to China after it opened its door to the outside world over 20 years ago. Actually, Western writing philosophy began to influence Chinese technical writing back in the late 19th century. John Fryer, a college professor from the US, who edited a very influential Chinese scientific magazine from 1876 to 1896 in Shanghai, titled *A Monthly Journal of Popular Scientific Information with Which Is Incorporated the Peking Magazine*, published numerous scientific and technical articles by Western authors on various subjects including chemistry, mathematics, manufacture, the use of Western technology, etc.⁸⁵⁶ As the contemporary magazine and newspaper of *A Monthly Journal* acknowledged, the magazine was very influential at the time.⁸⁵⁷ Thus, we might as well conclude that the articles by Western authors also influenced Chinese popular scientific and technical writing, though the influence could be very limited, given the fact that most of the Chinese were illiterate at that time.

But ever since China opened its doors to the world in the late 1970s, more and more Western technical writing rhetoric and texts have been introduced to China. A large number of Western technical writing instructors and practitioners have either taught technical writing classes or worked in China. All this has exerted influence on Chinese technical writing. It is not surprising to read a Chinese technical writing text which does not employ the four-part textual structure, give attention to context, adopt an indirect style, or use nouns. However, the Chinese classics I have discussed in this book have left indelible marks on modern Chinese technical writing artifacts.

⁸⁵⁶ Adrian Arthur Bennet, *John Fryer: The Introduction of Western Science and Technology into Nineteenth-century China* (Cambridge, Massachusetts: Harvard University Press, 1967), 50—55.

⁸⁵⁷ *Ibid.*, 53.

BIBLIOGRAPHY

- Adler, Joseph A. “Minford, John, trans., *I Ching (Yijing): The Book of Changes*.” *Dao* 14 (2015): 147—152.
- Allen, Joseph. “Postface: A Literary History of the *Shi Jing*.” In *The Book of Songs*, translated by Arthur Waley and edited by Joseph R. Allen, 336-383. New York: Grove Press, 1996.
- Allan, Sarah. *The Shape of the Turtle: Myth, Art, and Cosmos in Early China*. Albany: State University of New York Press, 1991.
- Allen, Sarah M. “Narrative Genres.” In *The Oxford Handbook of Classical Chinese Literature (1000 BCE—900 CE)*, edited by Wiebke Denecke, Wai-ye Li, and Xiaofei Tian, 273—87. New York: Oxford University Press, 2017.
- Anderson, E. N. *The Food of China*. New Haven: Yale University Press, 1988.
- Anderson, Poul. “The Practice of *Bugang*.” *Cahiers d’Extreme-Asie* 5, no. 1 (1989): 15—53.
- Baidu 百度. “Attached Reports (*Bie Lu* 别录).” In *Baidu Encyclopedia (Baidu Baike 百度百科)*. Accessed August 10, 2018.
<https://baike.baidu.com/item/%E4%B8%83%E7%95%A5%E5%88%AB%E5%BD%95/15757489>.
- . “Liji Neize Taolun” 礼记内则讨论 [On Liji Neize]. In *Baidu Baike 百度百科 [Baidu encyclopedia]*. Accessed April 2, 2019,
<https://baike.baidu.com/item/礼记·内则/14114466>.
- Ban, Gu 班固. *Han Shu* 汉书 [*History of the Former Han*]. In *Ershiwu Shi Diyi Juan* 二十五史第一卷 [Twenty-five histories, vol. 1]. Shanghai: Shanghai Guji Chubenshe and Shanghai Shudian, 1988.
- Barbaso-Schwartz, Alma. “Traditional Chinese Medicine: Ancient Holistic Healing.” *Home Health Care Management & Practice* 16, no. 6 (2004): 494—98.
- Bennet, Adrian Arthur. *John Fryer: The Introduction of Western Science and Technology into Nineteenth-century China*. Cambridge, Massachusetts: Harvard University Press, 1967.
- Brook, Timothy. “The Crafting of the 10,000 Things: Knowledge and Technology in Seventeenth-Century China by Dagmar Schäfer.” *Harvard Journal of Asiatic Studies* 73, no. 1 (June 2013): 156—63.

- Brotton, Jerry. *A History of the World in 12 Maps*. New York, Penguin Books, 2014.
- Cahill, David. "The Myth of the "Turn" in Contrastive Rhetoric." *Written Communication* 20, no. 2 (2003): 170-194.
- Chai, Ch'u and Winberg Chai "Introduction." In *Li Chi: Books of Rites: An Encyclopedia of Ancient Ceremonial Usages, Religious Creeds, and Social Institutions*, vol. 1, translated by James Legge, xxiii—lxxx. New York: University Press, 1967.
- Cao, Cao. "Divine Tortoises Enjoy Longevity." In *Selected Poems from Every Dynasty, Vol 1*, edited by Ji Zhenhuai, Feng Zhongyan, Chen Yixin, and Ni Qixin, 152. Beijing: Beijing Youth Press, 1980.
- Cai, Jingfeng. "A Historical Overview of Traditional Chinese Medicine and Ancient Chinese Medical Ethics." *Ethik in der Medizin*, 10, no. 1 (September 1998): S84—S91.
- CE. "Chinese Embassy in the United States of America." Accessed November 15, 2019. <http://www.china-embassy.org/eng/>.
- . "How to Apply." Accessed November 15, 2019. <http://www.china-embassy.org/eng/visas/hrsqr/>.
- Chan, W. *A Source Book in Chinese Philosophy*. 4th ed. Princeton, NJ: Princeton University Press, 1998.
- Chang, Yuzhi 常玉芝. *Research on Yin and Shang Calendars* [In Chinese.] Changchun, China: Jilin Wenshi Publisher, 1998.
- Chang, Kwang-chih. *The Archaeology of Ancient China*. New Haven: Yale University Press, 1968.
- . "Food and Food Vessels in Ancient China." *Transactions of the New York Academy of Sciences* 35, no. 6 Series II (1973): 495-520.
- . *Shang Civilization*. New Haven: Yale University Press, 1981.
- Che, Xingjian 車行健. "Lun Zheng Xuan Dui "Li Ji Yueling" De Kaobian" 論鄭玄對“禮記月令”的考辯 [On Zheng Xuan's textual research on the "Monthly Commands" in the *Classic of Rites*]. *Donghua Renwen Xuebao* diyi qi 東華人文學報 第一期 [Journal of Donoghua Humanities, no. 1 (July 1999)]: 183—96.
- Chen, Jiujiu 陈久金. "Lun 'Xi Xiaozheng' shi shiyue taiyangli" 论“夏小正”是十月太阳历 [On "Xia Minor Calendar" as a solar calendar of ten months]. *Studies in the Natural History of Sciences* 1, no. 4 (1982): 305—19.
- Chen, Liping 陈丽萍 and Huang Bozhang 黄伯璋. "Kaogong Ji Sheji Linian Zhongde Tianren Sixiang" "考工记"设计理念中的天人思想 [The thought of unity between Heaven and humans shown in design theory in the "accounts of examining artisanship"]. *Wenyi Zhengming*

- 2010 Nian 6 Qi 文艺争鸣 2010 年 6 期 [Debates in literature and arts 6 (2010)]: 66—67.
- Chen, Meidong 陈美东. "Yueling, Yin-Yang Jia yu Tianwen Lifa" 月令, 阴阳家与天文立法 [Monthly commands, members of Yin-Yang school, and astronomical calendar]. *Zhongguo Wenhua Di Shieer Qi* 中国文化 第十二期 [Chinese culture, no. 12 (1995)]: 185—95.
- Cheng, H. "The Eastern and Western Ways of Thinking and Their Influences on Chinese and English Languages." [In Chinese.] *Journal of Anhui University* 29, no. 3 (2005): 50-53.
- Chen, Peizhang 陈佩璋. "Nongqiaochengzhuo de Li Hongzhang" 弄巧成拙的李鸿章 [Li Hongzhang who outsmarts himself]. *Overseas Chinese Daily* 侨报 January 20, 2000.
- Chen, Thomas S. N., and Peter S. Y. Chen. "The Liver in Traditional Chinese Medicine." *Journal of Gastroenterology and Hepatology* 13 (1993): 437—42.
- Chen, Wangdao 陈望道. *Xiucixue Fafan* 修辞学发凡 [The study of rhetoric]. Hong Kong: Hong Kong Daguang Press, 1964.
- Cheng, Chung-ying. *New Dimensions of Confucian and Neo-Confucian Philosophy*. Albany: State University of New York Press., 1991.
- Cheung, M. "The Globalization and Localization of Persuasive Marketing Communication: A Cross-linguistic Socio-cultural Analysis." *Journal of Pragmatics* 42, no. 2 (2010): 354—376.
- Ching, Julia. *Mysticism and Kingship in China: The Heart of Chinese Wisdom*. Cambridge: Cambridge University Press, 1997.
- Chu, Hsi-Chin Janet, Janet Swaffar, and Davida H. Charney. "Cultural Representations of Rhetorical Conventions: The Effects on Reading Recall." *Tesol Quarterly* 36, no. 4 (2002): 511-541.
- CMCT. "Services." Accessed November 15, 2019.
<http://english.www.gov.cn/>.
- . "A Brief Introduction to Chinese Visa." Accessed November 15, 2019.
http://english.www.gov.cn/services/visit_china/2014/08/23/content_281474982978372.htm.
- Confucius. "The Analects 论语." In *Four Books Annotated Together* 四书集注, edited by Zhu Xi 朱熹, 49—188. Taipei: Wenhua Tushu Gongsi 文化图书公司, 1984.
- Cook, Constance A. "The Pre-Han Period." In *Chinese Medicine and*

- Healing: An illustrated History*, edited by TJ Hinrichs and Linda L. Barnes, 5—29. Cambridge, MA: The Belknap Press of Harvard University Press.
- Curran, James. "Medical Classic: The Yellow Emperor's Classic of Medicine." *BMJ* 336 (April 2008): 777.
- Dai, Wusan 戴吾三. "Lun *Kaogong Ji* de Shengchan Jishu Guanli 论考工记的生产技术管理[On production and technology management in *Kaogong Ji*]. *Da Ziran Tansuo* 1996 Nian Di 15 Juan Di 1 Qi 大自然探索 1996 年第 15 卷第 1 期 [Journal of nature exploration 15, no. 1 (1996)]: 119—24.
- Dai, Wusan 戴吾三 and Deng Mingli 邓明立. "*Kaogong Ji* de Jishu Sixiang" "考工记" 的技术思想 [Technological thought in *Kaogong Ji*]. *Ziran Bianzhengfa Tongxun* Di 18 Juan 1996 Nian Di 1 Qi 自然辩证法通讯第十八卷 1996 年第 1 期 [Journal of Dialectics of Nature 18, no. 1 (1996)]: 39—44.
- Dai, Wusan 戴吾三 and Gao Xuan 高宣. "*Kaogong Ji* de Wenhua Neihan" "考工记" 的文化内涵 [Cultural connotation of the "accounts of examining artisanship"]. *Qinhua Daxue Xuebao* 1997 Nian Di 12 Juan Di 2 Qi 清华大学学报 1997 年第 12 卷第二期 [Journal of Qinghua University 12, no. 2 (1997)]: 6—12.
- Di, C. "Pianzhang Xiuci Chutan 篇章修辞初探" [A preliminary discussion of text rhetoric]. *Xiucixue Lunji* 2 (1984): 289—306.
- Diemer, Stefan. "Recipes and Food Discourse in English—a Historical Menu." In *The Chef's Special Culture and Language Use 10*, edited by Cornelia Gerhardt, Maximiliane Frobenius, and Susanne Ley, 165—81. Amsterdam: John Benjamins Publishing Company, 2013.
- Ding, Daniel. "Rationality Reborn: Historical Roots of the Passives Voice in Scientific Discourse." In *The Essays in the Study of Scientific Discourse: Methods, Practice, and Pedagogy*, edited by John T. Battalio, 117—35. Stamford, Connecticut: Ablex Publishing Corporation, 1998.
- . "The Passive Voice and Social Values in Science." *Journal of Technical Writing and Communication* 32, no. 2 (2002): 137—54.
- . "The Emergence of Technical Communication in China—Yi Jing (I Ching) the Budding of a Tradition." *Journal of Business and Technical Communication* 17, no. 3 (2003): 319-345.
- . "When Traditional Chinese Culture Meets a Technical Communication Program in a Chinese University: Report on Teaching Technical

- Communication in China." *Technical Communication* 58, no. 1 (2011): 34—51.
- . "The Emergence of Technical Communication in China—Yi Jing (I Ching) the Budding of a Tradition." *Journal of Business and Technical Communication* 17, no. 3 (2003): 319—45.
- Ding, Daniel, and John Jablonski. "Challenges and Opportunities: Two Weeks of Teaching Technical Communication at Suzhou University, China." *Technical Communication* 48, no. 4 (November 2001): 421-34.
- Ding, Huiling. "Technical Communication Instruction in China: Localized Programs and Alternative Models." *Technical Communication Quarterly* 19, no. 3 (2010): 300-317.
- Dong, Kaichen 董恺忱. "Lun yueling tichai de Zhongguo nongshu" 论月令体裁的中国农书 [On Chinese agricultural literature in the style of monthly commands]. *Zhongguo Nongye Daxue Xuebo* 1982 dibajuan, diyiqi 中国农业大学学报 1982 第 8 卷第 1 期 [Journal of Beijing Agricultural University 8, no. 1 (1982)]: 83—93.
- Dou, Keyang. "Paradigm Lost in the Interpretation of *The Book of Changes*." *Canadian Review of Comparative Literature* 41, no. 3 (September 2014): 254—69.
- Du, Shiran 杜石然, Fan Chuyu 范楚玉, Chen Meidong 陈美东, Jin Qiupeng 金秋鹏, Zhou Shide 周世德, and Zeng Wanru 曹婉如. *Zhongguo Kexuejishu Shigao* Shangxiace 中国科学技术史稿上下册 [Draft of the history of Chinese science and technology, 2 vols.]. Beijing: Kexue Chubanshe, 1982.
- Du, Zhongguo 杜正国. "Kaogongji Zhongde Lixue yu Shengxue Zhishi" 考工记中的力学与声学知识 [Knowledge of mechanics and acoustics in "Kaogongji"]. *Wuli Tongbao* 1965 Nian Di 6 Qi 物理通报 1965 年第 5 期 [Bulletin of Physics, no.6 (1959)]: 255—57, 267.
- Dudbridge, Glen. "Libraries, Book Catalogues, Lost Writings." In *The Oxford Handbook of Classical Chinese Literature (1000 BCE—900 CE)*, edited by Wiebke Denecke, Wai-ye Li, and Xiaofei Tian, 147-159. New York: Oxford University Press, 2017.
- Editing Group. *Baihua Yi Jing* 白话易经 [Classic of Changes in vernacular]. Beijing: China Folk Art Press, 1989.
- Ekstrom, Martin S. "One Lucky Bastard: On the Hybrid Origins of Chinese 'Literature.'" *Bulletin of the Museum of Far Eastern Antiquities* 72 (2002): 70-110.
- Elman, Benjamin A. "The Story of a Chapter: Changing Views of the Artificer's Record" ("Kaogong Ji" 考工记) and the *Zhouli*." In

- Statecraft of and Classical Learning*, edited by Benjamin Elman and Martin Kern, 330—55. Leiden: Brill, 2010.
- Fan, Wenlan 范文澜. *Zhongguo Tongshi* 中国通史 [Comprehensive history of China. 10 vols.]. Beijing: Renmin Press, 1978.
- Fan, Zhimin 樊志民. *Qin Nongye Lishi Yanjiu* 秦农业历史研究 [A study of agriculture in Qin dynasty]. Xian, China: Sanqin Chubanshe, 1997.
- Fan, Zhimin 樊志民, and Zhu Hongbin 朱宏斌. “Yuelingshu yu Zhongguochuantong nongye guanlisixiang zhi shanbian” 月令书与中国传统农业管理思想之嬗变 [Evolution of literature on monthly commands and Chinese traditional thoughts of agricultural management]. *Zhongguo Nongshi* 2002 nian di 21 juan di 3 qi 中国农史 2002 年第 21 卷第 3 期 [Journal of Chinese agricultural history 21, no. 3 (2002)]: 96—103.
- Farkas, David K. "The Logical and Rhetorical Construction of Procedural Discourse." *Technical Communication* 46, no. 1 (1999): 42—54.
- Falkenhausen, Lothar von. “Wenren Jun, *Ancient Chinese Encyclopedia*.” Review of *Ancient Chinese Encyclopedia of Technology: Translation and Annotation of Kaogong ji* by Wenren Jun. *EASTM* 40 (2014): 100—03.
- Feng, Zuoming, ed. *A Comprehensive Reader of Social Interaction*. 3 vols. [In Chinese.] Taipei, Taiwan: Cultural Books, 1988.
- Fu, Daobin 傅道彬. “Yueling Mushi de Shijian Yiyi yu Sixiang Yiyi” 月令”模式的时间意义与思想意义 [Significance of time and thoughts in the literature modeled on the Monthly Commands]. *The Northern Forum*, no. 3 (2009): 125—34.
- Fung, Yu-lan. *A Short History of Chinese Philosophy*. Translated by Derk Bodde. New York: The Free Press, 1966.
- . *Zhongguo Zhexue Shi Shangji* 中国哲学史上集 [A history of Chinese philosophy, vol. 1]. Chongqing, China: The Commercial Press, 1944.
- Gainer, Rochelle D. “History of Ergonomics and Occupational Therapy.” *Work* 31, no. 1 (2008): 5—9.
- Galambos, Imre. “The Chinese Writing System.” In *The Oxford Handbook of Classical Chinese Literature (1000 BCE—900 CE)*, edited by Wiebke Denecke, Wai-yee Li, and Xiaofei Tian, 31—45. New York: Oxford University Press, 2017.
- Gao, Biren 高碧仁. “Bazhen Shuolue” 八珍说略 [A brief introduction to the eight treasures of the Zhou dynasty]. *Pengtiao Zhishi Yijiujiusi Nian Sanqi* 烹调知识 1994 年 3 期 [Culinary knowledge 3 (1994)]: 43—44.
- Gao, Heng. 诗经今注 *Shi Jing Jinzhu* (Classic of Poetry annotated today).

- Shanghai: Shanghai Guji Press, 1987.
- Gao, Lan 高岚, and Shen Heyong 申荷永. “Rongge Xinlixue yu Zhongguo Wenhua” 荣格心理学与中国文化 [Jungian psychology and Chinese culture]. *Xinli Xuebao* 心理学报 [Journal of psychology] 30, no. 2 (1998): 219-223;
- Gao, S., and M. Handley-Schachler. “The Influences of Confucianism, Fengshui and Buddhism in Chinese Accounting History.” *Accounting, Business and Financial History* 13 (Spring 2003): 41-68.
- Goats, Geoffrey C. “Massage—the Scientific Basis of an Ancient Art: Part 1. The Techniques.” *British Journal of Sports Medicine* 28, no. 3 (1994): 149—152.
- Goodrich, Carrington. “Chinese Food over the Millennia.” *Journal of the American Oriental Society* 99, no. 1 (January—March 1979): 87—90.
- “Grand Criteria.” *Classic of Documents*, vol. 2, pp. 7—10. 1209.
- Guo, Moruo 郭沫若. “Kaogong Ji de Niandai yu Guobie” 考工记的年代与国别 [Date and provenance of Kaogong Ji]. In *Moruo Wenji* 16 Juan 沫若文集 16 卷 [Collected works of Moruo, vol. 16], 381—85. Beijing: Renmin Wenxue Chubanshe, 1962.
- . *Jiaguwen Heji Diwu Ce* 甲骨文合集第五册. [A collection of Oracle-bone Inscriptions, vol. 5]. Beijing: Zhonghua Shuju, 1979.
- . *Jiaguwen Heji Dshisan Ce* 甲骨文合集第十三册 [A collection of Oracle-bone Inscriptions, vol. 13]. (Beijing: Zhonghua Shuju, 1982).
- . *Guo Meoruo Quanji Lishi Pian Diyi Juan* 郭沫若全集历史篇第一卷 [Complete works of Guo Moruo, on history, vol. 1]. Beijing: Renmin Publishing House, 1982.
- . *Zhongguo Guodai Shehui Yanjiu* 中国古代社会研究 [A study of Chinese ancient society]. Beijing: The Commercial Press, 2017.
- Guo, Wentao 郭文韬. “Yuelign Zhongde Nongxue Sixiang Chutan” “月令”中的农学思想初探 [Initial exploration of agricultural thought in the “Monthly Commands”]. *Gujin Nongye Erlinglingling Nian Diyi Qi* 古今农业 2000 年第一期 [Journal of agriculture ancient and today, no. 1 (2000):] 1—8.
- Hall, Edward T. *Beyond Culture*. New York: Anchor/Doubleday, 1976.
- . “Context and Meaning.” In *Intercultural Communication*, edited by L. Jamovar and R. Porter, 45—54. Belmont, California: Wadsworth, 1997.
- Harbsmeier, Christopher. *Science and Civilization in China, Vol. 7, Pt. 1: Language and Logic*. Cambridge: Cambridge University Press, 1998.
- He, Jiuying, Wang Ning, and Dong Kun. *Sources of Sinitic Words (Ci Yuan 辞源)*. Beijing: Shangwu Yishu Guan, 2015.

- He, Qiuying 何秋璜 and Han Yunbo 韩云波. “*Yijing Xushi Yaosu yu Xushi Yiyi Lunxi*” 易经叙事要素与叙事意义论析 [Analyzing narrative features and their significance in the *Classic of Changes*]. *Xinan Minzu Daxue Xuebao* 2006/6 Zong Di 178 Qi 西南民族大学学报 2006/6 总第 178 期 [Journal of Southwest Minzu University 178 (June 2006):] 119—22.
- He, Zhaowu, Bu Zhijin, Tang Yuyuan, and Sun Kaitai. *Zhongguo Sixiang Shi* 中国思想史 [A history of Chinese thoughts]. Beijing: Chinese Youth Press, 1982.
- Hollmann, Thomas O. *The Land of the Five Flavors: A Cultural History of Chinese Cuisine*. Translated by Karen Margolis. New York: Columbia University Press, 2013.
- Hu, Shi 胡适. 中国哲学大纲 *Zhongguo Zhexue Dagang* (A complete outline of the history of Chinese philosophy). Rpt. Shanghai: Shanghai Guji Chubanshe, [1919] 2000.
- Huang, Peirong 黄沛荣. *Mr. Chu Wan-Li's Unique Accomplishment in Yixue Scholarship: Final Report on the Results of Special Research Topics Assisted by the Ministry of Science and Technology*. [In Chinese.] Taiwan: Chinese Culture University, 2015.
- Huang, Q., R. Andrusis, and T. Chen. *A Guide to Successful Relations with the Chinese: Opening the Great Wall's Gate*. New York: International Business Press, 1994.
- Hutchinson, G. O. “Read the Instructions: Didactic Poetry and Didactic Prose.” *The Classic Quarterly* 59, no. 1 (May 2009), 196—211.
- “Instruction Manual for Shinnda Household Water Heater.” Guangdong, China: Milky Way Household Appliances, 2008.
- Jia, Jinhua 贾晋华. “An Interpretation of the Term *fu* 赋 in Early Chinese Texts: From Poetic Form to Poetic Technique and Literary Genre.” *Chinese Literature: Essays, Articles, Reviews (CLEAR)* 26 (December 2004): 55—76.
- Jing, Julia. *Mysticism and Kingship in China: The Heart of Chinese Wisdom*. Cambridge: Cambridge University Press, 1997.
- Jung, C. G. “Forwardm.” In *The I Ching or Book of Changes*, 3rd ed., edited by Richard Wilhelm and translated by Cary F. Baynes, xxi—xxxix. Princeton, NJ: Princeton University Press, 1984.
- Kastner, Joerg. *Chinese Nutrition Therapy: Dietetics in Traditional Chinese Medicine*. New York: Thieme, 2009.
- Keightley, David N. *Sources of Shang History: The Oracle-bone Inscriptions of Bronze Age China*. Berkeley: University of California Press, 1985.

- . *The Ancestral Landscape: Time, Space, and Community in Late Shang China*. Berkeley: University of Berkeley Institute of East Asian Studies, 2002.
- . "Marks and Labels: Early Writing in Neolithic and Shang China." In *Archaeology of Asia*, edited by Miriam T. Stark, 177-201. Malden, MA: Blackwell, 2006.
- Keng, Hsuan. "Economic Plants of Ancient North China as Mentioned in *Shih Ching* (Book of Poetry)." *Economic Botany* 28 (October 1974): 391—410.
- Kern, Martin. "Bronze Inscriptions, the *Shijing* and the *Shangshu*: The Evolution of the Ancestral Sacrifice during the Western Zhou." In *Early Religion Part One: Shang through Han (1250 BC-220AD)*, edited by John Lagerway and Marc Kalinowski, 143-200. Danvers, MA: Brill, 2009.
- . "Shi Jing Songs as Performance Texts: A Case Study of 'Chu Ci' (Thorny Caltrop)." *Early China* 25 (2000): 49—111.
- . "Offices of Writing and Reading in the *Rituals of Zhou*." In *Statecraft of and Classical Learning*, edited by Benjamin Elman and Martin Kern, 64—93. Leiden: Brill, 2010.
- Kho, Kian Lam. "Dragon on a Platter: The Art of Naming Chinese Dishes." In *Food & Communication: Proceedings of the Oxford Symposium on Food and Cookery 2015*, edited by Mark McWilliams, 227—35. London: Prospect Books, 2016.
- Kirkpatrick, Andy. "Information Sequencing in Mandarin Letters of Request." *Anthropological Linguistics* 33, no. 2 (Summer 1991): 183—203.
- Knechtges, David R. "Food in Early Chinese Literature." *Journal of the American Oriental Society* 106, no. 1 (January—March 1986): 49—63.
- . "Questions about the Language of *Sheng Min*." In *Ways and Words: Writing about Reading Texts from Early China*, edited by Pauline Yu, Peter Bol, Stephen Owen, and Willard Peterson, 14—24. Berkeley: University of California Press, 2000.
- Knoblock, John, and Jeffrey Riegel, trans. *The Annals of Lu Buwei: A Complete Translation and Study by John Knoblock and Jeffrey Riegel*. Stanford, California: Stanford University Press, 2000.
- Kolin, Philip C. *Successful Writing at Work*. 6th ed. Boston: Houghton Mifflin Company, 2001.
- Kong, Anguo 孔安国, and Yingda Kong 孔颖达, eds. *Wuyingdian*

- Shishanjing Zhushu Di 11 Juan* 武英殿十三经经注疏, vol. 11 [Wuyingdian Edition of 13 Classics Annotated and Re-annotated vol. 11]. Beijing: Wuyingdian, 1739.
- Kong, Yingda 孔颖达, ed. *Liji Zhengyi* 礼记正义 [Meanings of Liji rectified]. Prague: E-artnow s. r. o., 2018.
- Kong, Yingda 孔颖达, Wang Bi 王弼, and Han Kangbo 韩康伯, eds. *Zhouyi Zhengyi* 周易正义 [Corrected Meanings of the Changes of Zhou]. In *Shishanjing Zhushu* 十三经注疏 [Thirteen classics, with commentary and sub-commentary], edited by Ruan Yuan 阮元, 5—108. Hangzhou, China: Zhejiang Guji Chubanshe, 1998.
- Lam, Chiu-Wa, and G. B. Berrios. “Psychological Concepts and Psychiatric Symptomatology in Some Ancient Chinese Medical Texts.” *History of Psychiatry* iii (1992): 117—28.
- Lan, Ching, Steven L. Wolf, and William W. N. Tsang. “Tai Chi Exercise in Medicine and Health Promotion.” *Evidence-Based Complementary and Alternative Medicine* 2013 (2013): 1—3.
- Lannon, John. *Technical Communication*. 11th ed. New York: Longman, 2007.
- Lao Tzu. *Tao Te Ching*. Translated by D C. Lau. Middlesex, England: Penguin Books, 1963.
- Lau, D. C., ed. *The Analects*. Translated by D. C. Lau. Middlesex, England: Penguin Books, 1987.
- Legge, James. 1861-71. *The Chinese Classics: With a Translation, Critical and Exegetical Notes, Prolegomena, and Copious Indexes*. 5 vols. Hong Kong: Lane, Crawford & Co.
- , trans. *Li Chi: Books of Rites*, vol. 1. New Hyde Park, NY: University Press, 1967.
- , trans. and ed. *The I Ching*, 2nd ed. New York: Dover Publications, Inc., 1963.
- Li, Chonggao. “殷契甲骨文中有关生殖生育与先天疾病的文字记载 Texts about reproductivity and congenital diseases as recorded in the Yin Dynasty oracle bone Inscriptions.” *China Eugenics and Genetics Journal* 7, no. 7 (January 1999): 6—9.
- Li, Feng. *Landscape and Power in Early China: The Crisis and Fall of the Western Zhou 1045—771 BC*. Cambridge: Cambridge University Press, 2008.
- Li, Liangsong. “Exploring Bone Injury Medicine Recorded in the Oracle Bone Inscriptions” *Orthopedics in Traditional Chinese Medicine* 24, no. 3 (March 2012): 43—45
- Li, Liangsong, and Xuechun Liu. *Culture of the Oracle Bone Inscriptions*

- and Chinese Traditional Medicine*. Beijing: China Zhongyiyao Chubanshe, 2017.
- Li, Min 李民 and Wang Xingguang 王星光. "Luelun Kaogong Ji Che de Zhizao Gongyi" 略论考工记车的制造工艺 [A brief discussion about production and workmanship of chariots in "Kaogong Ji"]. *Henan Shifan Daxue Xuebao* 1985 Nian Di 2 Qi 河南师范大学学报 1985 年第 2 期 [Journal of Henan Normal University, no. 2 (1985)]: 66—72, 35.
- Li, Qian, Joyce Karreman, and Menno DT De Jong. "Entertaining or Functional: An Analysis of Visuals in Chinese and Western Household Appliance Manuals." In *2018 IEEE International Professional Communication Conference (ProComm)*, pp. 90-97. New York: IEEE, 2018.
- Li, Qiu Fang 李秋芳. "Ershi Shiji "Kaogong Ji" Yanjiu Zongshu" 20 世纪 "考工记" 研究综述 [A synthesis of 20th century studies of "Kaogong Ji"]. *Zhongguoshi Yanjiu Dongtai* 2004 Nian Di 5 Qi 中国史研究动态 2004 年第 5 期 [New trends in research in Chinese history, no. 5 (2004)]:10-17.
- Li, Shuangyan, and Qiliang Cui. "Survey on the Current Status of Technical Writing in China and Its Implications on MTI Education." *Foreign Language Research* 201, no. 2 (2018): 50-56.
- Li, Ung Bing. *Outlines of Chinese History*. Taipei: Ch'eng-Wen Publishing Company, 1967
- Li, Yujie 李玉洁. *Huanghe Liuyude Nonggeng Wenming* 黄河流域的农耕文明 [Agricultural civilization in the Yellow River Valley]. Beijing: Kexue Chubanshe, 2010.
- Lin, Xinwei 林新為. *An Inquiry into the Impetus of the Ecological Conscience in the Thought of I-Ching*. [In Chinese.] Master thesis, National Central University, Taiwan, 2010.
- Liu, Guangding 刘广定. "Zaiyan Kaogong Ji" 再研 "考工记" [Research on "Kaogong Ji" again]. *Guangxi Minzu Xueyuan Xuebao* 2005 Nian Di 11 Juan Di 3 Qi 广西民族学院学报 2005 年第 11 卷第 3 期 [Journal of Guangxi Minority Nationality Institute 11, no. 3 (August 2005)]: 7—12.
- Liu, Xiang. *Guan Zi* 管子. New York: Metro, 2014.
- Lo, Vivienne. "The Han Period." In *Chinese Medicine and Healing: An Illustrated History*, edited by TJ Hinrichs and Linda L. Barnes, 31—64. Cambridge, Massachusetts: The Belknap Press of Harvard University Press, 2013.

- Lou, Yuqian. "An Overview of Development of Traditional Chinese Medical Treatment of Arthritis." *Zhonghua Yangsheng Baojian* 3 (June 2012): 25—26.
- Lu, D. P. "Influence of *I-ching* (*Yijing*, or *The Book Of Changes*) on Chinese Medicine, Philosophy and Science." *Acupuncture and Electro-therapeutics Research* 38, no. 1-2 (2013): 77—133.
- Lu, Meijuan, and Jerome R. Busemeyer. "Do Traditional Chinese Theories of Yi Jing ('Yin-Yang' and Chinese Medicine Go Beyond Western Concepts of Mind and Matter." *Mind and Matter* 12, no. 1 (2014): 37—59.
- Lu, Xing. *Rhetoric in Ancient China, Fifth to Third Century, BCE: A Comparison with Classical Greek Rhetoric*. Columbia: University of South Carolina Press, 1998.
- Lu, Yi-chun 盧怡君. "Chuangshi Zhidao—*Yijing* Suoyin Sixiang yu Laibunici de Pubian Wenzhi Yanjiu" 創世之道—“易經”索引思想與萊布尼茨的普遍文字研究 [Ontological perspective—*Yijing* figurism and Leibniz's research on universal characters]. *Tsing Hua XueBao* 清化學報 [Tsing Hua journal of Chinese studies 47, no. 3 (September 2017)]: 509—45.
- Luo, Z., and Wang R. "Persimmon in China: Domestication and Traditional Utilizations of Genetic Resources." *Advances in Horticultural Science* 22, no. 4 (2008): 239—43.
- Luo, Zhufeng, ed. *Hanyu Da Cidian* 汉语大辭典. Shanghai, China: Shangwu Yinshu Guan, 1994.
- Ma, Kan-Wen. "Acupuncture: Its Place in the History of Chinese Medicine." *Acupuncture in Medicine* 18, no. 2 (December 2000): 88—99;
- Ma, Rusen. "Astronomy and Weather in the Oracle-bone Inscriptions from the Shang Ruins." *Shang Dynasty Ruins Journal* 2 (1999): 9—10.
- Ma, S. Y. "The *I Ching* and the Psyche-body Connection." *Journal of Analytical Psychology* 50 (2005): 237—50.
- Maciocia, Giovanni. *The Foundations of Chinese Medicine E-Book: A Comprehensive Text*. Edinburgh: Elsevier Health Sciences, 2015.
- Makeham, John. "The History of the Development of *Zhou Yi* “周易” Studies in the West—An Overview." *中国研究集刊* [Anthology of China studies 3 (June 1986)]: 158—175.
- Mao, Heng 毛亨, Zheng Xuan 郑玄, and Kong Yingda 孔颖达, eds. *Maoshi Zhengyi* 毛诗正义 [Meanings of classic of poetry as annotated by Mao Heng are rectified, vol. 1]. Beijing: Beijing University Press, 2004.

- Mencius. *Mencius*. Translated by D. C. Lau. Harmondsworth: Penguin Books, 1970.
- Minford, John, trans. and ed. *The Essential Translation of the Ancient Chinese Oracle and Book of Wisdom: I Ching*. New York: Penguin Books, 2015.
- “Mobilizing Speech at Gan.” *Classic of Documents*, vol. 1, p. 15. 1209.
- MOST. “Call for Papers for the 4th International Symposium on Soft Science.” *Announcement Board*. Accessed January 27, 2019.
www.most.gov.cn/en/announcementboard/200606/t20060616.34260.htm.
- Mo Zi 墨子. *Mo Zi*. Accessed June 28, 2019.
<https://ctext.org/mozi/indulgence-in-excess/zh>.
- Needham, Joseph. 1954—2004. *Science and Civilisation in China*. 7 vols. Cambridge: Cambridge University Press, 1965.
- Nivison, David. *The Ways of Confucianism: Investigation in Chinese Philosophy*. Chicago: Open Court, 1996.
- Noda, Churyo 能田忠亮. *An Inquiry Concerning the Astronomical Writings Contained in The Li-chi Yueh-ling*. Kyoto: Toho-Bunka-Gakuin Kyoto Kenkyusho, 1938.
- Norrick, Neal R. “Recipes as Texts: Technical Language in the Kitchen.” In *Sprache, Diskurs und Text, Akten des 17. Linguistischen Kolloquiums, Brussel, 1982*, edited by Rene Jongen, Sabine De Knop, Peter H. Nelde, and Marie-Paule Quix, 173—82. Tübingen: Niemeyer, 1983.
- Nylan, Michael. “The Many Dukes of Zhou in Early Sources.” In *Statecraft of and Classical Learning*, edited by Benjamin Elman and Martin Kern, 94—128. Leiden: Brill, 2010.
- Owen, Stephen. “Forward.” In *The Book of Songs*, translated by Arthur Waley and edited by Joseph R. Allen, xii–xxv. New York: Grove Press, 1996.
- . “Interpreting *Sheng Min*.” In *Ways and Words: Writing about Reading Texts from Early China*, edited by Pauline Yu, Peter Bol, Stephen Owen, and Willard Peterson, 25—30. Berkeley: University of California Press, 2000.
- . “Reproduction in the *Shijing* (Classic of Poetry).” *Harvard Journal of Asiatic Studies* 61, no. 2 (December 2001): 287—315.
- Palmer, Martin. “Introduction.” In *I Ching: The Shamanic Oracle of Change*, translated by Martin Palmer, Jay Ramsay, and Zhao Xiaomin, 1—47. San Francisco: Thorsons, 1995.
- Pan, Jixing 潘吉星. “*Tiangong Kaiwu Jiaozhu Ji Yanjiu*” 天工开物校注

- 及研究 [Critical annotations and studies on *Tiangong Kaiwu*]. Chengdu: Bashu Shushe, 1989.
- Pan, Nai 潘鼐. *Zhongguo Hengxing Guance Shi* 中国恒星观测史 [Chinese history of star observation]. Shanghai: Xuelin Publishing House, 1989.
- Pei, Songzhi. *San Guo Zhi*. [In Chinese.] Shanghai: Shanghai Guji Publishing House, 1988.
- Pei, Wen, and Kueihu Lin. "A Study of Competitive Dynamic *Yi Jing* Decision Model of Taiwan Beer Industry." [In Chinese.] *Modern Management*, no. 2 (2012): 93—100.
- Peterson, I. "Oracle Bone Shows a Once-shorter Day." *Science News* 135, no. 24 (June 1997): 374.
- Plato. *The Republic*. Translated by H. D. P. Lee. Baltimore: Penguin Books.
- Quintilian "From *Institutes of Oratory*." In *The Rhetorical Tradition: Readings from Classical Times to the Present*, edited by Patricia Bizzell and Bruce Herzberg, 297—363. Boston: Bedford Books, 1990.
- Qu, Lifang, and Mary Garvey. "Chinese Medicine and the *Yi Jing*'s Epistemic Methodology." *Australian Journal of Acupuncture and Chinese Medicine* 3, no. 1 (2008): 17—23.
- Redmond, Geoffrey, and Tze-ki Hon. *Teaching the I Ching (Book of Changes)*. Oxford: Oxford University Press, 2014.
- Rickette, W. Allyn. "Guanzi (Kuan Tzu): The Book of Master Guan." In *Encyclopedia of Chinese Philosophy*, edited by Antonio S. Cua, 277—80. (New York: Routledge, 2003), 277.
- . *Guanzi: Political, Economic, and Philosophical Essays from Early China*. Boston: Cheng & Tsui Company, 2001.
- Rogers, K. "The Culture of China's Internet." *Intercom* 55, no. 5 (May 2008): 10-13.
- Ross, Frank, Jr. *Oracle Bones, Stars, and Wheelbarrows: Ancient Chinese Science and Technology*. Boston: Houghton Mifflin, 1982.
- Sato, Kazusai 佐藤一斎, ed. 校订音训易经 [Edited and phonetically annotated *Yi Jing*]. Japan: 浪萃書鋪鬆敬堂 [Runkui Shupu Sonjintan], 1841.
- Schaberg, David. "Classics (Jing 经)." In *The Oxford Handbook of Classical Chinese Literature (1000 BCE—900 CE)*, edited by Wiebke Denecke, Wai-Yee Li, and Xiaofei Tian, 170—183. New York: Oxford University Press, 2017.
- Searles, George J. *Workplace Communications: The Basics*, 8th ed. Hoboken, NJ: Pearson, 2020.

- Shandong Zhongyi Xueyuan and Hebei Yixueyuan, eds. *Huangdi Neijing Suwen Jiaoshi Liangce* 黄帝内经素问校释两册 [Yellow Emperor's classic of internal medicine edited and annotated, 2 vols.]. Beijing, Renmin Wenxue Chubanshe, 1982.
- Shaughnessy, Edward L. "Unearthed Documents and the Question of the Oral versus Written Nature of the *Classic of Poetry*." *Harvard Journal of Asiatic Studies* 75, no. 2 (December 2015): 331—375.
- . "The Origin and Development of Western Sinologists' Theories of the Oral-Formulaic Nature of the *Classic of Poetry*." 饶宗颐国学院院刊第三期 *Bulletin of the Jao Tsung-I Academy of Sinology* 3 (May 2016): 133—164.
- . "From Liturgy to Literature: The Ritual Contexts of the Earliest Poems in the *Book of Poetry*." 漢學研究 *Hanxue Yanjiu (Sinology)* 13, no. 1 (June 1995): 134—136.
- . *Unearthing the Changes: Recently Discovered Manuscripts of the Yi Jing (I Ching) and Related Texts*. New York: Columbia University Press, 2014.
- Shi, Nianhai 史念海. "Zhouli, Kaogong Ji, Jiangren Yingguo de Zhuanzhu Yuanyuan" 周礼-考工记-匠人营国的撰著渊源 [Provenance of builders building the capital in "kaogong ji" of *Rituals of Zhou*]. *Chuantong Wenhua yu Xiandai Hua* 1998 Nian 3 Qi 传统文化与现代化 1998年3期 [Traditional culture and modernization, 3 (1998)]: 46—56.
- Shi, Xiaolei 史晓雷. "Kaogong Ji Zhong Chezhi Wenti de Liangdian Shangque" "考工记" 中车制问题的两点商榷 [Discussing two points about specifications of chariots in "Kaogong Ji"]. *Shanxi Daxue* 2008 Nian Quanguo Boshisheng Xueshu Luntan (Kexue Jishu Zhaxue) 山西大学 2008 年全国博士生学术论坛 (科学技术哲学) [Paper presented at the scholarship forum for all-China doctoral students (philosophy of science and technology) at Shanxi University, China, 2008].
- Shih, C. C. "A Study of Ancestor Worship in Ancient China." In *The Seed of Wisdom: Essays in Honour of T. F. Meek*, edited by W. S. McCullough, 186-188. University of Toronto Press, 1964.
- Sima, Qian 司马迁. *Shiji*, 30 vols. [In Chinese.] Shanghai, China: Hanfenlou Publishing House, 1930.
- Sivin, Nathan. "Science and Medicine in Chinese History." In *Heritage of China: Contemporary Perspectives on Chinese Civilization*, edited by Paul S. Ropp, 164—96. Berkeley: University of California Press, 1990.

- . “State, Cosmos, and Body in the Last Three Centuries B. C.” *Harvard Journal of Asiatic Studies* 55, no. 1 (June 1995): 5—37.
- . “Science and Medicine in Imperial China—The State of the Field.” *The Journal of Asian Studies* 47, no. 1 (February 1988): 41—90.
- Smith, Kidder. “The Difficult of the Yijing.” *Chinese Literature: Essays, Articles, Reviews (CLEAR)* 15 (December 1993): 1—15.
- . “Zhouyi Interpretation from Accounts in the Zuozhuan.” *Harvard Journal of Asiatic Studies* 49, no. 2 (December 1989): 421—63.
- Smith, JR., Kidder, Peter K. Bol, Joseph A. Adler, and Don J. Wyatt. *Sung Dynasty Uses of the I Ching*. Princeton: Princeton University Press, 1994.
- Smith, Richard J. “Why the *Yijing* 易經 (Classic of Changes) Matters in an Age of Globalization.” In *Why Traditional Chinese Philosophy Still Matters: The Relevance of Ancient Wisdom for the Global Age*, edited by Ming Dong Gu, 184—207. New York: Routledge, 2018.
- . “The Changes as a Mirror of the Mind: The Evolution of the Zhouyi (周易) in China and Beyond.” Paper presented at the *Fourth International Conference of Analytical Psychology and Chinese Culture, Fudan University, Shanghai, PRC April 10—12, 2009*. https://biroco.com/yijing/D_The_Changes_as_a_Mirror_of_the_Mind.pdf.
- . “Meditation, Divination and Dream Interpretation: Chan/Zen Buddhism, the *I Ching* (Book of Changes), and Other Chinese Devices for Jungian Self-Realization.” Paper presented at the *Third International Conference of Analytical Psychology and Chinese Culture, Guangzhou, September 22—24, 2006*. https://pdfs.semanticscholar.org/7745/1b4c7f786956bf7dc8d73f995ac5c1e925ad.pdf?_ga=2.264832143.1425610735.1567382422-1842048824.1567382422.
- . “Fathoming the *Changes*: The Evolution of Technical Terms and Interpretive Strategies in *Yijing* Exegesis.” *Journal of Chinese Philosophy* 40, no. S1 (December 2013): 146—170.
- . *Fathoming the Cosmos and Ordering the World: The Yijing (I Ching, or Classic of Changes) and Its Evolution in China*. Charlottesville: University Press of Virginia, 2008.
- . *The I Ching: A Biography*. Princeton: Princeton University Press, 2012.
- Song, Qi. “Biographies of Technical Experts.” [In Chinese.] In *Xin Tang Shu*, edited by Ouyang Xiu, 619-622. Shanghai: Shanghai Guji Publishing House, 1988.

- Song, Yinxing 宋應星. *Tiangong Kaiwu* 天工開物 [On the works of nature.] Taipei, Taiwan: World Books Press, 2002.
- State Bureau. *Catalogue of Instruments*. Beijing: Machinery Industry Press, 2001.
- STC. "Defining Technical Communication." Accessed March 21, 2018. <https://www.stc.org/about-stc/defining-technical-communication/>
- Stewart, Edward C., and Milton J. Bennett. *American Cultural Patterns: A Cross-cultural Perspective*. Yarmouth, Maine: Intercultural Press, 1991.
- Sun, E. Z., and S. Sun, eds. and trans. *Chinese Technology in the Seventeenth Century*. New York, Dover Publications, 1996.
- Sun, Yi 孙奕. *Shierbian* p. 1 示儿编第一部. In *The Complete Library of the Four Treasuries* Zi Category 10 四库全书子部第十, edited by Yong Rong 永璠 and Ji Yun 纪昀. Beijing: Imperial Court, 1781. Accessed February 20, 2019. <https://ctext.org/library.pl?if=gb&file=5263&page=83&remap=gb>
- Sun, Zuoyun 孙作云. *Shijing Yu Zhou dai Shehui Yanjiu* 诗经与周代社会研究. Beijing: Zhonghua, 1966): 239—72.
- Takashima, Ken. "Oracle Bone of the Late Shang Dynasty." In *Chinese Medicine and Healing: An Illustrated History*, edited by T. Hinrichs and L. Barnes, 8. Cambridge: The Belknap Press of Harvard University Press, 2013.
- Tang, Teh-kang 唐德刚. "On Trying, Changing, Ossifying, and Revitalizing New Poetry in Literary Transformation after the May 4th Movement in 1909." [In Chinese.] *Biographical Literature* 74, no. 4 (April 1999): 24-38.
- Tebeaux, Elizabeth. *The Emergence of a Tradition: Technical Writing in the English Renaissance, 1475—1640*. Amityville, New York: Baywood Publishing Company, Inc.
- Tebeaux, Elizabeth, and Sam Dragga. *The Essentials of Technical Communication*. 4th ed. New York: Oxford University Press, 2018.
- Tegtmeier, Patricia, Sylvia Thompson, Ron Smith, Deb L. Scroggs, and Sam Dragga. "China Is Hungry: Technical Communication in the People's Republic of China." *Technical Communication* 46, no. 1 (1999): 36-41.
- Tian, Xiaofei. "Literary Learning: Encyclopedias and Epitome." In *The Oxford Handbook of Classical Chinese Literature (1000 BCE—900 CE)*, edited by Wiebke Denecke, Wai-ye Li, and Xiaofei Tian, 132—46. New York: Oxford University Press, 2017.
- Tierney, R. Kenji and Emiko Ohnuki-Tierney. "Anthropology of Food." In

- The Oxford Handbook of Food History*, edited by Jeffrey M. Pilcher, 117—34. Oxford, Oxford University Press, 2012.
- Tu, Wei-ming. “The Confucian Tradition in Chinese History.” In *Heritage of China: Contemporary Perspectives on Chinese Civilization*, edited by Paul S. Ropp, 112—37. Berkeley: University of California Press, 1990.
- Tung, Tso-pin. *Yinxu Wenzi Yibian* 殷墟文字乙编 [The Oracle-bone Inscription from Yin Remains Vol. 2]. Nanking, 1948.
- Tuotuo and Alutu. *Song Shi*. [In Chinese.] Shanghai: Shanghai Guji Publishing House, 1988.
- Varsano, Paula. “Moments.” In *The Oxford Handbook of Classical Chinese Literature (1000 BCE—900 CE)*, edited by Wiebke Denecke, Wai-ye Li, and Xiaofei Tian, 402-423. New York: Oxford University Press, 2017.
- Veith, Ilza. *The Yellow’s Emperor’s Classic of Internal Medicine: Translated with an Introductory Study*. New Edition. Berkeley: University of California Press, 1984.
- Wan, Fang, and Zhong Sheng. *Reflection on Development of Traditional Chinese Medical Theory and Technology* 中医药理论技术发展的方法学思考. Beijing: Kexue Press, 2011.
- Wang, Ching-hsien. *The Bell and the Drum: Shi Ching as Formulaic Poetry in an Old Tradition*. Berkeley: University of California, 1974.
- Wang, Guowei 王国维. *Guantang Jilin* 观堂集林. Taipei: Shijie, 1975.
- Wang, Jianxin 汪新建, and Yu Rongling 俞容龄. “Rongge yu Yi Jing: Goutong Dongxifang Wenhua de Xinli Changshi” 荣格与《易经》：沟通东西方文化的心理学尝试 [Jung and Yi Jing: Psychology to bridge Eastern and Western cultures]. *Nanjing Shida Xuebao (Shihui Kexue Ban)* 南京师大学报 (社会科学版) [Journal of Nanjing Normal University (Social science edition), no. 1 (January 2006)]: 107-110
- Wang Jianyin 王剑引. *Zhongguo Chengyu Da Cidian* 中国成语大辞典 [A dictionary of Chinese proverbs]. Shanghai: Shanghai Dictionary Publisher, 1985.
- Wang, K. *Baguwen Gaishuo* 八股文概说 [A general survey of the eight-legged essays]. Beijing: China Peace Press, 1991.
- Wang, Li 王力. *Gudai Hanyu Quansi Ce* 古代汉语 全四册 [Classic Chinese, 4 vols.]. Beijing: Zhonghua Shuju, 1981.
- Wang, Lihua 王利华, “‘Yueling’ zhongde ziran jielv yu shehui jielv” “月令”中的自然节律与社会节律 [The rhythms of nature and that of society in the “Monthly Commands”]. *Zhongguo Shehui Kexue* 2014

- nian di 2 qi 中国社会科学2004年第二期 [Journal of Chinese social sciences 2 (2014)]: 185—208.
- Wang, Nan 王楠. "Ancient Chinese Attitudes toward Technics: Chinese Philosophy of Technology Prior to the 1800s." In *Philosophy of Engineering, East and West*, edited by Carl Mitcham, 61—73. Cham: Springer, 2018.
- Wang, Xieshan 王燮山. "Kaokong ji Qizongde Lixue Zhishi" 考工记及其中的力学知识 [Accounts of Examining Artisanry and knowledge of mechanics in it]. *Wuli Tongbao* 1959 Nian Di 5 Qi 物理通报1959年第5期 [Bulletin of Physics, no.5 (1959)]: 197—200.
- Wang, X. "Writing Concepts in Chinese Writing Instruction." *Issues in Applied Linguistics* 5, no. 2 (1994): 211—29.
- Wang, Xingguang 王星光 and Fu Kui 符奎. "Xue Guangqi Kaogong Ji Jie Tanxi" 徐光启“考工记解”探析 [Analyzing Xu Gongqi's *Explaining Kaogong Ji*]. *Fudan Xuebao* 2011 Nian Di 4 Qi 复旦学报2011年第4期 [Journal of Fudan University, no. 4 (2011)]: 34—43.
- Wang, Zhichang 王志长, ed. *Zhouli Zhushu Diqi Ben* 周礼注疏二十本 [Commentary and sub-commentary to Rituals of Zhou, 20 bks.]. Beijing: Shuye Tang 书业堂, 1792.
- Wen, Yiduo 闻一多. *Mythologies and Poetry* [In Chinese.] Shanghai: Shiji Publishing Group, 2006.
- Wenren, Jun 闻人军. *Kaogong Ji Yizhu* 考工记译注 [Vernacular translation and annotation of Accounts of Examining Artisanry]. Shanhai: Shanghai Guji Chubanshe, 2018.
- Wilhelm, Richard. "Introduction." In *The I Ching or Book of Changes*, 3rd ed., edited by Richard Wilhelm and translated by Cary F. Baynes, xlvii—lxii. Princeton, NJ: Princeton University Press, 1984.
- Williams, D. "The Barbed Walls of China: A Contemporary Grassland Drama." *The Journal of Asian Studies* 55, no. 3 (1996): 665—91.
- Wu, Liqun 吴立群. "Cong Yi Jing de 'Yi' Kan 'Tianren Heyi' de Hexie Guan 从易经的“易”看“天人合一”的和谐观 [Harmonious view of unity between heaven and humans examined from the perspective of Yi Jing's yi]. *Chuansha Xuekan* Liushiba Ce Er Hao 船山學刊 68册第2号 [Chuanshan journal 68, no. 2 (2008):] 137—39.
- Wu, Shuping 吴树平, and Changyang Lai 赖长扬, eds. *Baihua Sishu Wujing Quan Sijuan* 白话四书五经全四卷 [Fours books and five classics in vernacular, 4 vols.]. Beijing: Guji Wenhua Press, 1992.
- Wu, Y. *Wenzhang Jiegou Xue* 文章结构学 [Study of Prose Structure]. Beijing, China: China Renmin University Press, 1989.
- Wu, Zhicheng 吴志成. "Mayi Shiliao zhi Xintantao" 蚂蚁食疗之新探讨

- [New exploration of diet therapy with ant]. *Heilongjiang Zhongyiyao Yijiujiling Nian Yiqi* 黑龙江中医药 1990 年 1 期 [Journal of Chinese traditional medicine in the province of Heilongjiang 1, (1990)]: 9—12.
- Xia, Li 夏莉. “Yinghan Lunbian Yupian Hongguan Jiegou ji Xinxī Zhankai Moshi Duibi Xiuci Yanjiu” 英汉论辩语篇宏观结构及信息展开模式对比修辞研究 [A contrastive rhetorical study of the macro structure and information development model in English and Chinese argumentative texts]. *Journal of Zhengzhou University* 40, no. 1 (January 2007): 146—147.
- Xiao, Dewu 肖德武. “Qi Keji Wenhua de Yiyi jiqi Kexue Yiyun—Cong Kaogong Ji, Guanzi, he Qimin Yaoshu Sanbu Mingzhu Tanqi 齐科技文化的意义及其科学意蕴—从“考工记,” “管子,” 和“齐民要术”三部名著谈起 [Significance of science and culture in the state of Qi and its implications for science—a discussion based on three classics of “Accounts of Examining Artisanry,” *Master Guanzi*, and *Popular Agricultural Technology for the Common People*]. *Qilu Shifan Xueyuan Xuebao* 2011 Nian 4 Yue Di 26 Juan Di 2 Qi 齐鲁师范学院学报 2011 年 4 月第 26 卷第 2 期 [Journal of Qilu Normal College 26, no. 2 (April 2011)]: 17—22.
- Xiao, Fang 萧放. “‘Yueling’ Jishu Yu Wangguan Zhishi” “月令”记述与王官之时 [Accounts of monthly commands and the time of imperial officials]. *Journal of Baoji College of Arts and Science* 21, no. 4 (December 2001): 48—55.
- Xiao, Nan 萧楠. “Shilun Buci Zhongde Gong yu Baigong” 试论卜辞中的艺“工”与其“百工” [On “gong” and “baigong” in oracle-bone inscriptions]. *Kaogu* 1981 Nian Di 3 Qi 考古 1981 年第 3 期 [Archeology 3 (1981)]: 266—70.
- Xu, Zhen-tao, F. R. Stephenson, and Tao-tiao Jiang. “Astronomy on Oracle Bone Inscriptions,” *Quarterly Journal of Royal Astronomical Society* 36 (1995): 397—406.
- Yabuuchi, Kiyoshi 藪内 清. “On the Tiangong Kaiwu.” [In Japanese.] In *Studies on the Tiangong Kaiwu*, edited by Yabuuchi Kiyoshi, 1—24. Tokyo: Koseisha, 1954.
- Yan, Yiping. *Jiagu Xue* 甲骨学 (*The Oracle Bone Studies*, 2 vols.) Taipei: Yiwen Publishing House, 1978.
- Yang, Kuan 杨宽. “Yueling Kao” 月令考 [Examination of monthly commands], *Qilu Xuebao* 1942nian dierqi 齐鲁学报 1941 年第二期 [Qilu journal, no. 2 (1942)]: 1—36.
- Yang, Qingzhong. *The History of Yixue in the 20th Century*. [In Chinese.] Beijing: Renmin Publishing House, 2000.

- Yang, Zude 杨祖德, Li Xinsheng 李新生, and Zhang Xinke 张鑫科. "Keshiyong de Kunchong" 可食用的昆虫 [The edible insects]. Daziran Yijiubajiu Nian Sanqi 大自然 1989 年 3 期 [Nature 3, (1989)]: 41.
- Yawar, Athar. "Spirituality in Medicine: What Is to Be Done?" *Journal of the Royal Society of Medicine* 94 (October 2001): 529—33;
- Ye, Chunfang 叶纯芳. "Gujin Tushu Jicheng Jingji Dian Zhouli Bu de Wenxian Jiazhi" 古今图书集成-经籍典-周礼部的文献价值 [Philological values of the rituals of Zhou categorized as classics in collection of books ancient and modern]. *Zhongguo Wenzhe Yanjiusuo Tongxun* 中国文哲研究所通讯 [Bulletin of Chinese Literature and Philosophy Research Institute 16, no. 4 (2006)]: 103—20.
- Yi Jing Editing Group. 白话易经编译组 ed. *Baihua Yijing Quanyi Ben* 白话易经全译本 [Classic of Changes in the vernacular]. Beijing: China Folklore Literature, 1989.
- You, Xiaoye. "Conflation of Rhetorical Traditions: The Formation of Modern Chinese Writing Instruction." *Rhetoric Review* 24, no. 2 (2005): 150-69.
- Yum, June Ock. "The Impact of Confucianism on Interpersonal Relationships and Communication Patterns in East Asia." In *Intercultural Communication*, edited by L. Samovar and R. Porter, 374—88. Belmont, CA: Wadsworth, 1991.
- Zhan, Huajun 战化军. "Zhouyi Xici yu Guanzi" 周易系辞与管子 [Commentary on the Appended Statements of Zhouyi and Guanzi]. *Guanzi Xuekan* 1996 Nian Di 4 Qi 管子学刊 1996 年第 4 期 [Journal of Guanzi 4 (1996)]: 1—8.
- Zhang, Bingquan. *Xiaotun Dierben: Yinxu Wenzhi: Bingbian* 小屯第二本: 殷墟文字: 丙编, vol. 2. [Yin remains inscriptions, vol. 2, Bing section]. Taipei: Central Academy, 1965.
- Zhang, Canshen 张灿坤, Xu Guqian 徐国仟, and Zong Quanhe 宗全和, eds. *Huangdi Neijing Suwen Jiaoyi* 黄帝内经素问校译 [Annotation and vernacular translation of *Huangdi Neijing Suwen*]. Beijing: Renmin Weisheng Chubanshe, 1982.
- Zhang, Hanmo. *Authorship and Text-making in Early China*, vol. 2. Berlin: Walter de Gruyter GmbH & Co KG, 2018. <https://www.jstor.org/stable/j.ctvbkk21j.6>.
- Zhang, Tingyu, Xu Yuanmeng, and Liu Bao. *Ming Shi*. [In Chinese.] Shanghai: Shanghai Guji Publishing House, 1988.
- Zhang, Yuliang 张玉良, ed. 白话庄子 *Baihua Zhuangzi* (Zhuang Zi in the vernacular). Xian: Sanqin Press, 1992.

- Zheng, Kesheng. "University of Beijing During the July 7th Incident." [In Chinese.] *Biographical Literature* 74, no. 6 (June 1999): 112-14
- Zheng, Yuankang 郑元康, ed. *Grand Biography of the Classic of Documents* 尚书大传. Hubei, China: Chongwen Shuju, 1877.
- Zheng, Xuan 郑玄 and Jia Gongyan 贾公彦 (fl. 650), eds. *Zhouli Zhushu* 周礼注疏 [Rituals of Zhou with commentary and sub-commentary]. In *Shisanjing Zhushu* 十三经注疏 [Thirteen classics, with commentary and sub-commentary], edited by Ruan Yuan 阮元 (1746—1849), 631—939. Hangzhou, China: Zhejiang Guji Chuban She, 1998.
- Zheng, Xuan 郑玄 and Kong Yingda 孔颖达, eds. *Li Ji Zhenyi* 礼记正义 [Meanings of Classic of Rites rectified]. In *Shisanjing Zhushu* 十三经注疏 [Thirteen classics, with commentary and sub-commentary], edited by Ruan Yuan 阮元 (1746—1849), 1221—1696. Hangzhou, China: Zhejiang Guji Chuban She, 1998.
- Zhong, Zurong 钟祖荣. "‘Yijing’ Qiangua de Guocheng Sixiang yu Jiaoshi Fazhanjieduan Lilun" 易经乾卦的过程思想与教师发展阶段理论 [The changes in the *Qian* Hexagram in *Yijing* and developmental stages of teacher]. *Journal of Beijing Institute of Education* 25, no. 3 (June 2011): 23—26.
- Zhou, Liangfu. "Past and Present: On Cerebrovascular Medicine in China." *China Journal of Cerebrovascular Disease* 11, no. 1 (November 2004): 481—482.
- Zhou, Shucan 周书灿. "Kaogong Ji de Keji Shiliao Jiazhi Xintan" "考工记"的科技史料价值新探 [New exploration of the values of "Kaogong Ji" as a historical source of science and technology]. *Yindu Xuekan* 殷都学刊 2005 Nian Di 2 Qi [Journal of Yin Capital, no. 2 (2005)]: 102—06.
- Zhu, Hongbin 朱宏斌. "Yuelingshu yu Zhongguochuantong nongye guanlisixiang zhi shanbian" 月令书与中国传统农业管理思想之嬗变 [Evolution of literature on monthly commands and Chinese traditional thoughts of agricultural management]. *Zhongguo Nongshi* 2002 nian di 21juan di 3 qi 中国农史 2002 年第 21 卷第 3 期 [Journal of Chinese agricultural history 21, no. 3 (2002)]: 96—103.
- Zhu, Xi 朱熹, ed. *Lun Yu* 论语 [*The Analects*]. Beijing: Zhonghua Book Press, 1991.
- , ed. *Mengzi* 孟子 [Mencius]. Beijing: Zhonghua Book Press, 1991.
- , ed. *Sishu Jizhu* 四书集注 [Four books annotated together]. Taipei, Taiwan: Culture and Book Press, 1995.

Zou, Hui. "The Memory of Landscape in Beijing." *Montreal Architectural Review* 1, (2014): 5—19.

Zou, Wugang 邹梧岗, ed. *Classic of Documents Completely Annotated* 书经备旨 vol. 4. Beijing: Juxiutang, 1730.