



Making the New World Their Own

*Chinese Encounters with Jesuit
Science in the Age of Discovery*

Qiong Zhang

SCIENTIFIC AND LEARNED CULTURES AND THEIR INSTITUTIONS

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By

Qiong Zhang



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Three Folangji men. Cai Ruxian 蔡汝賢 (*jinshi* 1568), *Dongyi tuxiang* (東夷圖像 Illustrations of Eastern Barbarians, 1586), 415. Courtesy of *Siku quanshu cunmu congshu bianji chubun gongzuo weiyuanhui* (四庫全書存目叢書編輯出版工作委員會 Committee on the Editing and Publication of *SKCM*), Beijing.

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This book is printed on acid-free paper.

*For my parents,
and for my family—
Daoshan, Chang, and Ray*



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Winston Salem, North Carolina
December 2014

List of Abbreviations

ARSI	Archivum Romanum Societatis Iesu, Jesuit archives in Rome.
BIHP	<i>Zhongyang yanjiuyuan lishi yuyan yanjiusuo jikan</i> 中央研究院歷史語言研究所集刊 (Bulletin of the Institute of History and Philology, Academia Sinica [BIHP]). Published in Guangzhou, 1928–Beiping, 1930–Taipei, 1950–present.
JLCC	James Legge, trans. <i>The Chinese Classics</i> . With critical and exegetical notes, prolegomena, and copious indexes. 5 vols. Originally published by Oxford University Press, 1893. Reprint Hong Kong: Hong Kong University Press, 1960.
Mercator	Gerardus Mercator (1512–1594). <i>Atlas sive cosmographicae meditationes de fabrica mundi et fabricati figura</i> (Atlas or Cosmographical Meditations on the Creation of the World and on the Form of Created Matter), 1595. Digital reproduction of the copy held at the Lessing J. Rosenwald Collection. Oakland, Calif.: Octavo, digital edition, 2000.
Mercator Amended	Gerardus Mercator (1512–1594). <i>Atlas or a Geographicke Description of the Regions, Countries and Kingdomes of the World, Through Europe, Asia, Africa, and America, Represented by New & Exact Maps</i> . Translated by Henry Hexham. Amsterdam: Henry Hondius and Iohn Iohnson, 1636.
Ortelius	Abraham Ortelius (1527–1598). <i>Theatrum orbis terrarum</i> (The Theater of the Whole World). Antwerp: Apud Aegid, Coppenium Diesth, 1570. Copy held at the Newberry Library, Chicago.
Plancius	Petrus Plancius (1552–1622). <i>Orbis terrarum typus de integro multis in locis emendates</i> (A New World Map, Updated in Many Places). Engraved by Jan van Doetecam. Amsterdam, 1594. Digital scan of copy held at Princeton University Library. Accessed at: http://gissserver.princeton.edu.go.libproxy.wakehealth.edu/map/1931 .
SKCM	<i>Siku quanshu cunmu congshu</i> 四庫全書存目叢書 (Books Listed as “To Be Preserved” by the Editors of the Complete Collection of the Four Treasures). Photolithographic reproduction. In four divisions: <i>jing</i> (經 Classics), <i>shi</i> (史 Historical Works), <i>zi</i> (子 Philosophical Texts), and <i>ji</i> (集 Collectanea). A total of 1,200 vols. Jinan: Qilu shushe, 1995–1997.

- SKJH* *Siku jinhui shu congkan* 四庫禁毀書叢刊 (Books Listed as "To Be Banned or Destroyed" by the Editors of the Complete Collection of the Four Treasures). Photolithographic reproduction. In four divisions: *jing* (經 Classics), *shi* (史 Historical Works), *zi* (子 Philosophical Texts), and *ji* (集 Collectanea). A total of 634 titles in 311 vols. Beijing: Beijing chubanshe, 2000.
- SKQS* *Jingyin wenyuange siku quanshu* 景印文淵閣四庫全書 (Complete Collection of the Four Treasures). Photolithographic reproduction of the edition preserved at the Pavilion of Literary Profundity (the Imperial Library), 1773–1782. Edited by Ji Yun 紀昀 (1724–1805) et al. In four divisions: *jing* (經 Classics), *shi* (史 Historical Works), *zi* (子 Philosophical Texts), and *ji* (集 Collectanea). A total of 3,461 titles in 1,500 vols. Taipei: Taiwan shangwu yinshuguan, 1983–1986.
- SSJZS* *Shisanjing zhushu* 十三經注疏 (Thirteen Classics with Commentaries and Subcommentaries). Editor-in-chief Li Xueqin 李學勤. 13 vols. Beijing: Beijing daxue chubanshe, 1999.
- TDWX* *Tianzhujiao dongchuan wenxian* 天主教東傳文獻 (Collection of Documents on the Spread of Catholicism in the East). 3 vols. Photolithographically reproduced edition. Taipei: Taipei xuesheng shuju, 1964.
- TDWXS* *Tianzhujiao dongchuan wenxian sanbian* 天主教東傳文獻三編 (The Third Collection of Documents on the Spread of Catholicism in the East). 6 vols. Photolithographically reproduced edition. Reprint. Taipei: Taipei xuesheng shuju, 1984.
- TDWXS* *Tianzhujiao dongchuan wenxian xubian* 天主教東傳文獻續編 (The Second Collection of Documents on the Spread of Catholicism in the East). 3 vols. Photolithographically reproduced edition. Taipei: Taipei xuesheng shuju, 1966.
- TXCH* *Tianxue chuhan* 天學初函 (The First Collection of Writings on Heavenly Learning), 1628. Edited by Li Zhizao 李之藻. 6 vols. Photolithographically reproduced edition. Taipei: Taiwan xuesheng shuju, 1965.
- XXSK* *Xuxiu siku quanshu* 續修四庫全書 (Addendum to the Complete Collection of the Four Treasures). Photolithographically reproduced edition. In four divisions: *jing* (經 Classics), *shi* (史 Historical Works), *zi* (子 Philosophical Texts), and *ji* (集 Collectanea). A total of 5,213 texts in 1,800 vols. Shanghai: Shanghai guji chubanshe, 1995–2002.

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Introduction: Globalization, Localization, and Cultural Resilience

I am of the opinion that the Chinese possess the ingenuous trait of preferring that which comes from without to that which they possess themselves, once they realize the superiority of the foreign product. Their pride, it would seem, arises from an ignorance of the existence of higher things.

MATTEO RICCI, S.J. (1552–1610)

Without serving Jesus, you can fathom their techniques.

MEI WENDING 梅文鼎 (1633–1721)¹

This book was inspired by hearing a story told by art historian Eva Ströber. It is the story of the international travels of a kind of stoneware exported from southern China in the sixteenth century—small dishes and boxes, and little ewers, sometimes animal-shaped, that were glazed in yellow, green, and brown. After leaving the kilns of southern China, where did these objects end up? Who used them, and how?²

Ströber's story follows one particular form of such stoneware, ewers that were made in the shape of a crayfish. She encountered several of them in museums around the world. The first that caught her attention were held in European Kunstkammer collections of the sixteenth century. One piece, preserved at the Dresden Porcelain Collection in Germany, was part of a fourteen-piece set of Chinese porcelain that the Grand Duke Fernando

- 1 Matteo Ricci and Nicolas Trigault, *China in the Sixteenth Century: The Journal of Matthew Ricci, 1583–1610*, translated by Louis J. Gallagher, S.J. (New York: Random House, 1953), 22–23; Mei Wending, *Jixuetang shi chao* (續學堂詩抄 Selected Poems from the Hall of Accomplished Learning), 1752 edition, *juan* 2, 17a; translation quoted from Nicolas Standaert, ed., *Handbook of Christianity in China, Volume 1: 635–1800* (Leiden, Boston, and Köln: E.J. Brill, 2001), 699.
- 2 The story presented here is adapted from the abstract of Eva Ströber, “A Ewer in the Shape of a Crayfish from Southern China and Globalisation,” paper delivered at the conference “Contact and Exchange: China and the West,” Folger Institute, Washington, D.C., September 26, 2009. I wish to thank Eva Ströber for permission to cite her abstract. The original is available at: <http://www.folger.edu/template.cfm?cid=3242>. The full version of her paper is published in Dutch as “Het verhaal van een kreeftenkannetje,” in *Vormen Uit Vuur* 206–207, no. 3–4 (2009): 48–56. An English summary of the article is on 76–77.

de'Medici of Tuscany sent to the Saxon court of Christian I in 1590 as a diplomatic gift. A similar piece, on display in the Museum Gustavianum of the University of Uppsala, was collected by Philip Hainhofer (1578–1647) for the famous cabinet of curiosity that he presented to the Swedish king Gustavus Adolphus in 1632.

On the other side of the globe, two of the same kind of ewers are in the Sarawak Museum in Indonesia. They were found on Borneo and acquired for the museum after the Second World War. The Murut and Kelabit people on Borneo had treated these ewers as heirlooms and venerated them as “magic.” Until the middle of the twentieth century, they had used these ewers to contain *borak*, rice wine, which they consumed in large quantities in their head-hunting rituals and other important ceremonies.

The last ewer that Ströber spotted was in a recently published Japanese collection. It is displayed among a group of animal-shaped vessels made in southern China in the sixteenth century. They were acquired in Southeast Asia in the 1980s by two Japanese collectors who admired their qualities as being in perfect accord with the aesthetic principles of traditional Japanese tea ceremony.

How remarkable are the cross-cultural journeys of these little “crayfish”! From the arena of diplomatic exchanges between European nobles to the head-hunting rituals of the Kelabit people and the realm of the Japanese tea ceremony, how seemingly incommensurable were their destinies! And how surprising those destinies would have been to the craftsmen who fashioned the vessels and fired them in the kilns of southern China more than four centuries ago, who would no doubt have ascribed to their products an altogether different usage, befitting their own customs.

As I listened to Ströber’s story, I was instantly struck by how profoundly the ewers had functioned as both literal and metaphorical exemplars of the workings of the twin forces of cultural globalization and localization in the Age of Discovery. Indeed, the sixteenth century saw an unprecedented expansion of human connections around the world. The Portuguese exploration of the African continent in the fifteenth century culminated in Portugal’s discovery of a direct maritime passage to the Indian Ocean. A series of Portuguese conquests in the Indian Ocean led to the creation of the Estado da Índia, the Portuguese State of India. By the middle of the sixteenth century, with the founding of Portuguese colonial outposts in Nagasaki and Macao, the entire Eastern Hemisphere was connected by a single maritime trading network dominated by the Portuguese empire. Meanwhile, the Spanish quest for a westerly route to the East Indies resulted in the accidental “discovery” of the Americas and the establishment of a direct maritime passage from the Atlantic to East Asia following Ferdinand Magellan’s (ca. 1480–1521) voyages of

circumnavigation. By 1565, Spain had conquered the Aztec and Inca empires and founded vast colonies on both sides of the Pacific—in Mexico, Peru, and the Philippines. The communication network across the Pacific between Acapulco and Manila, known as the Manila Galleon, was the conduit through which large amounts of American silver poured into China and Chinese goods reached markets in the Americas and all the way to Europe. Thus, four decades after Magellan's voyages lent direct proof to the notion of the earth as a globe, that notion was already embedded in the routinized operation of two giant trading systems that jointly linked all the major inhabited continents on earth in a full circle. The individual sixteenth-century journeys of crayfish-shaped ewers from the kilns of southern China to various points of Southeast Asia and Europe bear material witness to the efficiency of this network in moving local products into the global circuit and delivering them to their users in places far distant from the site of their manufacture. These ewers also testify to the greater uniformity of material culture across societies around the world that resulted from such global exchange.

Even more remarkable are the extreme contrasts among the different uses made of these ewers by their respective owners. In those contrasts we see, most vividly, the liberty of a consumer in shaping the meaning and function of a commodity. This drives home a point that scholars of the sociology of technology have begun to stress, namely, that *we can never take the use of a technology for granted* (emphasis added).³ These scholars have called attention to the fact that the uses of a product, technological or otherwise, cannot be deduced from the product itself, nor are they determined by the product's manufacturer or designer; rather, they reside with the user. In other words, there is always an "interpretive flexibility" that allows the users to exercise their creative freedom and power to culturally appropriate and domesticate the product.⁴

In this process of cultural appropriation and domestication, individual identities are reaffirmed and entrenched local cultural patterns are perpetuated. Roger Silverstone and others have proposed the concept of "domestication" to describe the transformation of a product from a commodity on the market into a stable fixture of its owner's daily routine and an essential component of his/

3 Editors' introduction, in Nelly Oudshoorn and Trevor Pinch, eds., *How Users Matter: The Co-construction of Users and Technologies* (Cambridge, Mass., and London: The MIT Press, 2003), 1.

4 Trevor J. Pinch and Wiebe E. Bijker developed this concept of "interpretive flexibility" in their article "The Social Construction of Facts and Artifacts: Or How the Sociology of Science and the Sociology of Technology Might Benefit Each Other," *Social Studies of Science* 14, no. 3 (1984): 399–431, especially 412.

her worldview and self-identity. This transformation results from a four-stage process of appropriation, objectification, incorporation, and conversion.⁵ This notion of domestication, stemming from studies of how a commodity is made to take its proper place within the household of its owner, has given new meaning to the term “domestication,” hitherto used largely in studies of cross-cultural borrowing and exchange. Such previous usages of the term are often associated with an interpretive framework for understanding various phenomena of cross-cultural assimilation and appropriation that has been increasingly subjected to critical scrutiny because of its assumption of a clear dichotomy between “native” peoples and cultures and their “foreign” counterparts. In contrast, this new notion of domestication underscores the deeper cognitive and operative mechanisms of interacting with the world that take place within the minds and daily practices of *every individual human*. Ströber’s story dramatizes for us such a process of domestication or localization—a process that enabled crayfish-shaped ewers exported from southern China in the late Ming to lead strikingly different social lives appropriate to their respective end users.

Ströber’s story thus showcases two sorts of simultaneous, complementary forces that were transforming human experience at unprecedented levels during the Age of Discovery: (1) *forces of globalization* that connected all human communities across the face of the globe, bringing about ever more trade, exchange, and sharing among them; and (2) *forces of localization or domestication* through which the traded products from without—objects, technologies, ideas, and practices—are recontextualized, and local patterns further entrenched and intensified. These insights shed fresh light on a broad pattern that has been emerging from the many case studies I have made of aspects of the Jesuit mission and the ensuing cultural and scientific exchange between the Jesuits and Chinese scholars during the late Ming (1368–1644) and early Qing (1644–1911) dynasties. Like the little crayfish-shaped ewers exported from southern China that were made to assume entirely new meanings and functions by their respective consumers, elements of late Renaissance European learning introduced to China by the Jesuits underwent a series of transformations as they settled into the Chinese cultural milieu. Their transformation

5 See Roger Silverstone, E. Hirsch, and David Morley, “Information and Communication Technologies and the Moral Economy of the Household,” in Roger Silverstone and E. Hirsch, eds., *Consuming Technologies: Media and Information in Domestic Spaces* (London and New York: Routledge, 1992), 15–31. On the subject of domestication, see also Merete Lie and Knut Sørensen, *Making Technologies Our Own? Domesticating Technology into Everyday Life* (Oslo: Scandinavian University Press, 1996). It is in this sense, rather than in the sense of “domesticating” what is geopolitically “foreign,” that I use the concept of “domestication” throughout this book.

began at the hands of the Jesuits themselves, who selected them from a vast pool of available European sources, outfitted them in Chinese garb, and often altered their substance in order to fashion them into the intellectual tools of conversion that best suited their local circumstances. Once circulated in Chinese printed media, however, these ideas embarked on a life of their own, regardless of (and often despite) the intentions of their original Jesuit authors. They percolated through various ongoing Chinese discourses, where they were critiqued, appropriated, emulated, or reinvented by Chinese scholars in ways that were full of surprising twists and turns. This book is an attempt to capture and investigate this phenomenon in areas where it was most dramatically played out, namely, the interlinking Jesuit and Chinese discourses in cosmology, cartography, and world geography pertaining to the shape of the earth and the configuration of human civilization.

Another New World Encounter: Jesuit Accommodation and Chinese Cultural Renewal

Within a century of the European “discoveries” of the land, peoples, and civilizations of the Americas, Chinese scholars embarked on their own New World discoveries. These discoveries were found in the cosmological and geographical vision of the earth that they encountered in the texts, treatises, and world maps that the Jesuits wrote in and/or translated into Chinese. This New World was marked by two striking features: (1) the assertion that the earth is a globe, with many oceans covering much of its surface, rather than a single, more or less square landmass flanked by the Four Seas;⁶ and (2) the notion that China is not *the* center of world civilization, for there is a second center, Western Christendom, that rivals if not surpasses China in its cultural splendor. Similar in effect to its European counterpart, this New World threatened to undermine the very foundations of Chinese scholars’ conceptions of the earth and of China’s place on it.

The earliest Jesuit work that presented such a new world vision to the Chinese is Matteo Ricci’s (Li Madou 利瑪竇, 1552–1610) world map entitled “A Complete Geographical Map of Mountains and Seas” (Yudi shanhai quantu 輿地山海全圖), which was first printed in 1584 and went through several revisions until 1608. Ricci had hoped that this knowledge he introduced

6 The English term “square” is not a perfect match for the meaning of the Chinese term here, *fang* 方. *Fang* refers to a four-sided surface on which all corners are right angles. Thus both rectangles and cubes can be described as *fang* in Chinese.

would suffice to wrench his readers out of their conceit that China was the physical center of the world and the unparalleled core of human civilization. To facilitate acceptance of the notion of the globe, Ricci hinted at the presence of this idea in ancient Chinese texts. He also suggested that the Chinese of later times had come to see the world differently because they had misunderstood the statement, found in many of their classical texts, that “Heaven is round and Earth is square” (*tianyuan difang* 天圓地方). This statement, he argued, was originally intended as a metaphorical assertion, not a literal description of the shapes of Heaven and Earth.

This strategy of persuasion is an exact counterpart of Ricci’s approach to Confucianism epitomized by his major Chinese work of apologetics, *The True Meaning of the Lord of Heaven* (Tianzhu shiyi 天主實義, 1603). In that book, Ricci presents the basic doctrines of Catholicism as fundamentally congruent with the teachings of the Confucian classics. Indeed, in these ancient texts one finds remnants of a belief in a supreme deity presiding over a host of spiritual beings that took control of the human realm, referred to as Shangdi 上帝 (Sovereign on High) in the Shang 商 period (ca. 1600–1046 BCE) and as Tian 天 (Heaven) in the Zhou 周 (1046–256 BCE). But centuries before the Jesuits arrived on the scene, the Neo-Confucian scholars of the Song 宋 (960–1279) dynasty had interpreted these terms in ways that explicitly identified this supreme guiding principle of the universe as forming an organic unity with the physical world itself. By the late Ming, such interpretations of the Confucian classics had been instituted in the state-sanctioned orthodoxy and were widely influential among the scholars Ricci personally met. In his catechism, Ricci followed a two-pronged approach in confronting this materialistic outlook on the world among his Chinese audience: on the one hand, he defined God according to Christian beliefs and Catholic scholastic theology and appropriated the authority of the ancient Chinese sages to demonstrate its presence by asserting that “our God is the ‘Sovereign on High’ (Shangdi 上帝) referred to in your ancient classics”;⁷ on the other, he refuted the interpretations of these classics proposed by Neo-Confucian philosophers as fundamental misunderstandings.⁸

7 “吾天主乃古經書所稱上帝也。” See Matteo Ricci, *The True Meaning of the Lord of Heaven* (*T’ien-chu Shih-i*, 1603), a bilingual edition, with English translation, introduction, and notes by Douglas Lancashire and Peter Hu Kuo-chen (Taipei: The Ricci Institute, 1985), 122 (Chinese) and 123 (English).

8 In my dissertation, I have shown the critical role of Aristotelian scholastic learning, especially metaphysics and psychology, in Ricci and later Jesuits’ efforts to Christianize classical Confucianism and refute Neo-Confucian views that ran counter to the Catholic ideas of God and immortality of soul. See Qiong Zhang, “Cultural Accommodation or Intellectual Colonization? A Reinterpretation of the Jesuit Approach to Confucianism during the Late

Ricci's art of persuasion in the scientific as well as the apologetic context, then, is a tour de force of the strategy of cultural accommodation that had been conceived for the Jesuit mission in China by Alessandro Vagnano (1539–1606), the Jesuit Visitor for East Asia from 1574 to 1606, and creatively adapted by Ricci himself. Often referred to as “the Ricci method,” it was a policy followed thereafter by most of the Jesuit missionaries in China. Previous scholars have highlighted different dimensions of this strategy: (a) a respect for and adaptation to Chinese language and customs (manners of speech, dress code, and social etiquette, among other things); (b) an openness to and tolerance of Chinese values, including the Confucian ancestral rites; (c) an emphasis on forging and expanding connections among the Chinese political and intellectual elite; and (d) an extraordinary dedication to publishing scholarly works in Chinese—especially translations or adaptations of selected European works in science and technology—as part of their missionary endeavors.⁹ Although

Sixteenth and Early Seventeenth Centuries,” Ph.D. dissertation, Harvard University, Cambridge, Mass., 1996. The argument of Chapter 4 of my dissertation is presented in my article “Translation as Cultural Reform: Jesuit Scholastic Psychology in the Transformation of the Confucian Discourse on Human Nature,” in G.A. Bailey et al., eds., *The Jesuits: Culture, Learning and the Arts, 1540–1773* (Toronto: University of Toronto Press, 1999), 364–379, which is reprinted in *Revista Portuguesa de História Do Livro* 26 (2010): 365–393. Regarding the broader discussions on the Jesuit approach to Confucianism, Christopher A. Spalatin, S.J. has a brief annotated bibliography of early representative studies in his *Matteo Ricci's Use of Epictetus* (Waegwan, Korea: University of Gregoriana Press, 1975), 85–86, n. 106. Among the works that have been published since then, see especially John D. Young, *East–West Synthesis: Matteo Ricci and Confucianism* (Hong Kong: University of Hong Kong Center of Asian Studies, 1980); Paul Rule, *K'ung-tzu or Confucius? The Jesuit Interpretation of Confucianism* (Sydney; Boston: Allen & Unwin, 1986); Sun Shangyang 孫尚揚, *Jidu jiao yu Mingmo ruxue* (基督教與明末儒學 Christianity and Late Ming Confucianism) (Beijing: Dongfang chubanshe, 1994); Lionel Jensen, *Manufacturing Confucianism: Chinese Traditions and Universal Civilization* (Durham, N.C.: Duke University Press, 1997); Liu Yunhua 劉耘華, *Quanshi de yuanhuan: mingmo qingchu chuanjiaoshi dui rujia jingdian de jieshi jiqi bentu huiying* (詮釋的圓環: 明末清初傳教士對儒家經典的解釋及其本土回應 Circle of Interpretations: The Interpretation of Confucian Classics by Missionaries during the Late Ming and Early Qing and Its Local Responses) (Beijing: Beijing University Press, 2005); Zhang Xiaolin 張曉林, *Tianzhu shiyi yu zhongguo xuetong: wenhua hudong yu quanshi* (天主實義與中國學統: 文化互動與詮釋 The True Meaning of the Lord of Heaven and Chinese Scholarship Tradition: Cultural Interactions and Interpretations) (Shanghai: Xuelin chubanshe, 2005); and Li Tiangang 李天綱, *Kua wenhua de quanshi: jingxue yu shenxue de xiangyu* (跨文化的詮釋: 經學與神學的相遇 A Cross-cultural Interpretation: The Encounter between Chinese Classics and Western Theology) (Beijing: Xinxing chubanshe, 2007).

- 9 For a thoughtful analysis of the various dimensions of “the Ricci method,” see Nicolas Standaert, “Matteo Ricci and the Chinese: Spaces of Encounter between the Self and the

previous scholarship has contributed greatly to our understanding of these accommodative aspects of Ricci's method, the details of how he applied this method, both to spread the notion of the globe and to proselytize for the Christian conception of God, have not been explored in depth to date. These particular aspects of the Ricci method illustrate his dexterity at "domesticating" what he borrowed from his Chinese sources and forging it into an instrument for attaining his end goal—namely, *changing* the minds of his audience and effecting a conversion. In this respect, Ricci faithfully practiced what the founder of the Society of Jesus, St. Ignatius of Loyola (1491–1556), had preached:

Whenever we wish to win someone over and engage him in the greater service of God our Lord, we should use the same strategy for good which the enemy employs to draw a good soul to evil. *He enters through the other's door and comes out his own.* He enters with the other by not opposing his ways but by praising them. He acts familiarly with the soul, suggesting good and holy thoughts which bring peace to the good soul. Later he tries, little by little, to come out his own door, always suggesting some error or illusion under the appearance of good, but which will always be evil. So we with a good purpose can praise or agree with another concerning some particular good thing, dissembling whatever else may be wrong. After thus gaining his confidence, we shall have better success. In this sense *we go in with him his way but come out our own.*¹⁰ (emphasis added)

What Ricci does in his Chinese world maps is precisely that: he tries to use the ancient Chinese authors, whose authority his contemporary Chinese

Other," *Euntes Docete* 63, no. 1 (2010): 105–119. See also idem, "Jesuit Corporate Culture as Shaped by the Chinese," in Bailey et al., eds., *The Jesuits*, 352–363. For major works that aim to elucidate the accommodative aspect of the Ricci method, see P. Johannes Bettray, *Die Akkommodationsmethode des P. Matteo Ricci S.I. in China* (Romae: Apud aedes Universitatis Gregorianae, 1955); D.E. Mungello, *Curious Land: Jesuit Accommodation and the Origins of Sinology* (Honolulu: University of Hawai'i Press, 1989); Erik Zürcher, "Jesuit Accommodation and the Chinese Cultural Imperative," in David E. Mungello, ed., *The Chinese Rites Controversy: Its History and Meaning*, Monumenta Serica Monograph Series, no. 33 (Nettetal: Steyler Verlag, 1994), 31–64; Yu Liu, "The Intricacies of Accommodation: The Proselytizing Strategy of Matteo Ricci," *Journal of World History* 19, no. 4 (2008): 465–487; Florence C. Hsia, *Sojourners in a Strange Land: Jesuits and Their Scientific Missions in Late Imperial China* (Chicago: University of Chicago Press, 2009), especially Chap. 1, "Who Was That Masked Man?"

10 Ignatius of Loyola, *Letters of St. Ignatius of Loyola*, selected and translated by William J. Young, S.J. (Chicago: Loyola University Press, 1959), 51–52.

audience respected, to connect with that audience and eventually make them recognize their errors, including their misunderstanding of what their ancient authors had said on the subject. However, by appropriating the authority of ancient Chinese texts in order to promote the notion of the globe, Ricci and later Jesuits who joined him in the effort inadvertently set this notion—and, indeed, the entire Western learning they introduced to China—on a new journey with unforeseen outcomes.

The first half of the seventeenth century witnessed the sporadic emergence of the theory of “the Chinese origin of Western learning” (*xixue zhongyuan* 西學中源), which grew into an established doctrine through the endorsement of the Kangxi 康熙 emperor (1654–1722, r. 1662–1722) of the Qing dynasty. The adherents of this theory believed that Western learning had originated in ancient China, and that it had somehow been lost in China but had spread to and been preserved in the West.¹¹ The theory was a mocking commentary on the strategy of Jesuit astronomers and mathematicians, among others, who had implicitly or explicitly positioned themselves as purveyors of a superior system of learning produced by the superior civilization of Western Christendom. Ricci and other Jesuits had hoped to undermine what they perceived to be the deeply entrenched Sinocentrism of their Chinese audience. Instead, they had stoked the flames of the very attitude they hoped to expunge—an epistemological ethnocentrism which V.Y. Mudimbe has defined as the view that “there is nothing to be learned from ‘them’ unless it is already ‘ours’ or comes from ‘us’.”¹²

As the historian and philosopher Xiao Jiefu (1924–2008) pointed out, the theory of the Chinese origin of Western learning was not simply a face-saving device invented by the Chinese to justify their borrowing from the Jesuits. By claiming that Jesuit science had roots in Chinese antiquity, these scholars effectively made China the true home of this alien body of knowledge, clearing the way for it to be organically integrated into Chinese learning.¹³ Under the banner of “the Chinese origin of Western learning,” scholars from the late Ming and early Qing discovered simultaneously a new world in the works of the

11 See my discussion in the third section of Chapter 4, and the references on this theory listed in Chapter 4, note 115.

12 V.Y. Mudimbe, *The Invention of Africa: Gnosis, Philosophy, and the Order of Knowledge* (Indianapolis: Indiana University Press, 1988), 17, cited in Rebecca Karl, *Staging the World: Chinese Nationalism at the Turn of the Twentieth Century* (Durham, N.C.: Duke University Press, 2002), 11. I wish to thank Nicole E. Barnes of Duke University for this reference.

13 Xiao Jiefu 蕭蕭父, “The Rough Road to China’s Philosophical Enlightenment,” in idem, *Chuishha erji* (吹沙二集 Blowing off Sand [to Sift Gold], Second Collection) (Chengdu: Bashu shushe, 1999), 553–599.

Jesuits and another that lay hidden in their ancient texts. A sense of mission to retrieve and restore the “lost learning” (*juexue* 絕學) from the ancient past drove many of them to actively investigate and critique both their Jesuit sources and scholarship from the recent Chinese past, to identify weaknesses on both sides, and to venture novel solutions to them all. While the dominant mental construct of the terrestrial space as a square earth framed by the Four Seas gradually cracked under the weight of criticisms both from the Jesuits and from Chinese scholars who adopted their perspective, formerly marginalized or forgotten traditions, such as Zou Yan’s 鄒衍 (305–240) theory of the Nine (Great) Continents (discussed in Chapter 3) and many travel narratives about the outside world, found new relevance and blossomed. The result was a remarkable intellectual efflorescence across the fields from cosmology, cartography, and world geography to classical scholarship—and one that presented itself in the form of a profound cultural renewal.

The cultural resilience displayed in the Chinese encounters with Jesuit science during the late Ming and early Qing is by no means unique to that time and place. A parallel can be found in Chinese history from the third to ninth centuries, when the introduction of Buddhism and the attendant fruits of Indian civilization ushered in a new era of creativity and growth in Chinese thought and culture that was also expressed in the form of a cultural renewal. Similar phenomena took place in early modern Europe after the European geographical discoveries of, and encounters with, hitherto unknown or little-known civilizations. The novel and yet indisputable knowledge gained by European explorers, colonial personnel, and missionaries had every potential to dissolve the authority of classical texts “as rapidly as the Emperor’s clothes in the fairy tale,”¹⁴ as we see in the following travel narrative written by the Jesuit José de Acosta (1539–1600):

I will describe what happened to me when I passed to the Indies. Having read what poets and philosophers write of the Torrid Zone, I persuaded myself that when I came to the Equator, I would not be able to endure the violent heat, but it turned out otherwise. For when I passed [the Equator], which was when the sun was at its zenith there, having entered the zodiacal sign of Aries, in March, I felt so cold that I was forced to go into the sun to warm myself. *What could I do then but laugh at Aristotle’s Meteorology and his philosophy? For in that place and that season, where everything, by*

14 Anthony Grafton, with April Shelford and Nancy Siraisi, *New Worlds, Ancient Texts: The Power of Tradition and the Shock of Discovery* (Cambridge, Mass., and London: The Belknap Press of Harvard University Press, 1992), 2.

*his rule, should have been scorched by the heat, I and my companions were cold.*¹⁵ (emphasis added)

Conventional historiography and much standard pedagogy have tended to wrap the European scholars' responses to such shocking revelations, made by their confreres laboring on the maritime frontiers, in a heroic master narrative about the "Scientific Revolution." Yet recent revisionist scholarship has begun to take note, instead, of the relative slowness to respond, the complexity of the responses, and the extent to which the Western classical tradition was reinvented rather than jettisoned in the course of the sixteenth and seventeenth centuries.¹⁶

The way in which European scholars coped with the apparent contradictions to the biblical account of human history presented by Chinese chronological records is yet another example. Such anomalies were discovered by the Jesuits in China, most notably Martino Martini (Wei Kuangguo 衛匡國, 1614–1661), whose chronology of Chinese history based on Chinese dynastic records showed that seven Chinese emperors had reigned before 2349 BCE, the generally accepted date for the biblical Flood in which everyone on Earth, except Noah and his family, were supposed to have drowned.¹⁷ Once published in

15 Quoted from Grafton, *New Worlds, Ancient Texts*, 1.

16 Major representative works taking this interpretive approach include John H. Elliot, "Renaissance Europe and America: A Blunted Impact?" in Fredi Chiappelli, ed., *First Images of America: The Impact of the New World on the Old* (Berkeley: University of California Press, 1976), 1: 11–23, and idem, "Final Reflections: The Old World and the New Revisited," in Karen Ordahl Kupperman, ed., *America in European Consciousness, 1493–1750* (Chapel Hill: University of North Carolina Press, 1995), 391–408; Michael T. Ryan, "Assimilating New Worlds in the Sixteenth and Seventeenth Centuries," *Comparative Studies in Society and History* 23 (1981): 519–538; Anthony Pagden, "'The Impact of the New World on the Old': The History of an Idea," *Renaissance and Modernity Studies* 30, no. 1 (1986): 1–11, and idem, *The Fall of Natural Man: The American Indian and the Origins of Comparative Ethnology*, Cambridge Iberian and Latin American Studies (Cambridge: Cambridge University Press, 1987); and Grafton, *New Worlds, Ancient Texts*.

17 See Edwin J. Van Kley, "Europe's 'Discovery' of China and the Writing of World History," *The American Historical Review* 76, no. 2 (April 1971): 363. I wish to thank Benjamin Elman for suggesting the European encounter with Chinese chronology as a parallel case. Elman discusses the issue of chronology and the Jesuits' solution within the context of the late Ming calendar reform in his *On Their Own Terms: Science in China, 1550–1900* (Cambridge, Mass.: Harvard University Press, 2005), 85–86. For further studies on this issue, see also Van Kley, "Chinese History in Seventeenth-Century European Reports," and John W. Witek, "Chinese Chronology: A Source of Sino-European Widening Horizons in the Eighteenth Century," both included in the conference volume *Actes du Ille*

Europe, the Jesuit accounts of Chinese history were contested by some and embraced or accommodated to by others. Those who chose to accommodate were able to reconcile Chinese chronology and the biblical tradition by employing the inherent multiplicity of the latter tradition, since computations based on the Hebrew Masoretic texts, the Samaritan Pentateuch, and the Greek Septuagint yielded significantly different dates for the creation of human beings and also for the universal deluge.

Like all these other cases, Chinese as well as European, the late Ming and early Qing scholars' encounters with the Jesuit notion of the globe and presentation of Western Christendom yielded an anomaly that ostensibly threatened to undermine the central tenets of their classical tradition. But inevitably, this classical tradition proved itself again to contain an open and rich store of alternatives for coping with *any and all* anomalies.

Historiographical Context, Thematic Focus, and Approaches

This volume tells the story of the Chinese discoveries of the New World in the early modern era. This story is intricately and centrally concerned with the Jesuit missionaries whose Chinese world maps, cosmological and astronomical treatises, and world geographical texts constituted the majority of the new information about the globe that scholars of the late Ming and early Qing sought to understand and contextualize. As a corporate existence, the Jesuits operated for nearly one-and-a-half centuries in China. During this period, two European states organized and provided financial and logistic support for the Jesuit operations in China: (1) Portugal throughout the entire duration of the mission, from 1579, when the Jesuits made their first tentative entry into

Colloque International de Sinologie, Chantilly 1980: Appréciation par l'Europe de la tradition chinoise, à partir du XVIIe siècle, 195–210 and 223–252, respectively (Paris: Les Belles Lettres, 1983); D.E. Mungello, "A Study of the Prefaces to Ph. Couplet's *Tabula Chronologica monarchiae Sinicae* (1686)," in Jerome Heyndrickx, ed., *Philippe Couplet, S.J. (1623–1693): The Man Who Brought China to Europe*, Monumenta Serica Series, no. 22 (Nettetal: Steyler Verlag, 1990), 183–199; Florence C. Hsia, "Chinese Astronomy for the Early Modern European Reader," *Early Science and Medicine* 13, no. 5 (2008): 417–450; Han Qi, "The Jesuits and Their Study of Chinese Astronomy and Chronology in the 17th and 18th centuries," in Luís Manuel Ribeiro Saraiva, ed., *Europe and China: Science and Arts in the 17th and 18th Centuries (History of Mathematical Sciences: Portugal and East Asia, no. 4)* (Singapore: World Scientific Publishing Co Pte Ltd, 2012), 71–79; and Nicolas Standaert, "Jesuit Accounts of Chinese History and Chronology and Their Chinese Sources," *East Asian Science, Technology, and Medicine* 35 (2012): 11–87.

China, to the proscription of Christianity by the Yongzheng emperor in 1724,¹⁸ and (2) France after 1687. This book focuses on the period from the onset of their mission to the end of the seventeenth century, when all major Jesuit works in Chinese pertaining to the physical images of the earth and world geography were published and representative patterns of Chinese engagement with this Jesuit literature were established. All the major Jesuit authors discussed here arrived under Portuguese patronage.

This study intersects with, builds upon, and responds primarily to two fields of previous scholarship. One concerns *the Jesuits' role as missionary scientists*:¹⁹ why did they write these texts on scientific subjects? Of the available scholarly treatments and empirical maritime narratives about the New and Old Worlds in Renaissance Europe, what did the Jesuits choose to render to their Chinese audience, and how did they present it? The other concerns *the results of these Chinese encounters with Jesuit science*: which of the Jesuit ideas did the Chinese scholars accept, and how did they make use of them? What was the net result of these encounters and exchanges seen from the perspective of the Jesuits who supplied most of the new information about this New World? And how did these encounters affect the trajectories of Chinese thought in the early modern era?

These two sets of questions arise largely from the established historiography that has seen the early modern episode of Sino-European cultural encounters brought on by the Jesuit missionaries in terms of impact and response, that is, Jesuit transmission of European science and learning and the Chinese scholars' reception of it. Some recent scholarship has called into question the fundamental dichotomies presumed by this historiographical approach—dichotomies between Jesuit transmission and Chinese reception, China and the West, and Chinese and Western civilizations.²⁰ This study joins the

18 See my discussion on the Portuguese patronage of the Jesuit mission in the first section of Chapter 6 below, and the sources listed in Chapter 6, note 22. For an overview of the French-sponsored Jesuit mission, see Claudia von Collani, "2.1.2 The Jesuits," in Standaert, ed., *Handbook of Christianity in China, Volume 1*, 313–316.

19 For my usage of the term "science," see the next paragraph below.

20 For a comprehensive review of the previous historiographical approaches to the Jesuit mission in China and the Sino-European cultural encounters occurring within the context of this mission, see Nicolas Standaert, "Methodology in View of Contact between Cultures: The China Case in the 17th Century," in *Centre for the Study of Religion and Chinese Society (CSRCS) Occasional Paper Series*, no. 11 (Hong Kong: The Chinese University of Hong Kong, 2002). See also idem, "New Trends in the Historiography of Christianity in China," *Catholic Historical Review* 83, no. 4 (October 1997): 573–613. For a most forceful critique of the various dichotomies underlying the established historiography in this field, see Roger Hart, *Imagined Civilizations: China, the West, and Their First Encounter*

growing body of revisionist scholarship that problematizes such dichotomies and, instead, considers the Jesuits and the Chinese scholars who engaged with their works not as mere transmitters and receivers, respectively, but as active producers of scientific knowledge in an intercultural and interactive context. Here and throughout this book, I use the terms “scientific knowledge” and “science(s)” in the broadest sense, to designate the outcome(s) of any self-conscious intellectual inquiry conducted for the sake of describing, comprehending, and explaining phenomena in nature and the human realm.²¹

This book aims to add to previous scholarship in three primary ways. First of all, it fills an important gap in the existing literature in Jesuit studies and the history of late imperial Chinese science and thought by offering *a sustained treatment of how the “New World encounters” in the Age of Discovery were experienced by Chinese intellectuals at that time*. The story told here captures the critical moment in Chinese history when the notion of the earth as a globe was officially established. The merging of the conceptions of space entertained by a significant sector of the Chinese intellectual and political elite with those of early modern Europe was accompanied by an avalanche of intellectual and geopolitical transformations in the late Ming and early Qing empires. The Chinese “classical tradition” was reborn. What had been taken as the classical textual bases for the long-held theory of a “round Heaven and square Earth” were now recognized as merely figurative and moralistic statements. Many hints of the notion of the earth as a globe were discovered in classical literature, such as *The Gnomon of Zhou* (Zhoubi 周髀) and *Yellow Emperor’s Inner Canon of Medicine* (Huangdi neijing 黃帝內經), to lend credibility to the claim that this notion had originated in ancient China, from which it had spread to the West. The “Tribute of Yu” (Yugong 禹貢), a chapter in the *Confucian Book of Documents* or *Document Classic* (Shu 書, Shujing 書經, or Shangshu 尚書) and a major classical source for the Square-Earth-and-Four-Seas model of the

(Baltimore, Md.: Johns Hopkins University Press, 2013), especially 2–9. For representative recent works on Jesuit science in China that consciously depart from this historiography, see especially Laura Hostetler, *Qing Colonial Enterprise: Ethnography and Cartography in Early Modern China* (Chicago: University of Chicago Press, 2001), and idem, “Global or Local? Exploring Connections between Chinese and European Geographical Knowledge during the Early Modern Period,” *East Asian Science, Technology, and Medicine* 26 (2007): 117–135; Catherine Jami, *The Emperor’s New Mathematics: Western Learning and Imperial Authority during the Kangxi Reign (1662–1722)* (Oxford: Oxford University Press, 2012); and Hart, *Imagined Civilizations*.

21 Roger Hart offers an incisive discussion on how the concept of science should be defined for the construction of a truly inclusive, global history of science. See Hart, *Imagined Civilizations*, 7–8.

world, was reinterpreted in light of this “global” view of the earth. Cosmologists, cartographers, and world geographers alike increasingly turned to mining the rich reserve of factual knowledge about other lands beyond the seas, accumulated in the Chinese empirical maritime literature, for a local basis on which to ground their new, or reborn, global vision. The infrastructures for the production and circulation of knowledge about the earth, the seas, and world civilizations were thus transformed from a loose network of multiple, disjointed realms of scholarship—cosmological, geopolitical, and empirical maritime—into a relatively coherent set of interlinked discourses. These findings cast significant new light on the recent historiographical debate on the trajectory of Chinese science in the late Ming and early Qing and how it featured in the long view of Chinese intellectual history.²²

Some contemporary scholars have begun to speak of a cultural renewal in the wake of the Chinese encounters with Jesuit science.²³ My book builds upon their insights but seeks to move the conversation forward by offering an in-depth study of this phenomenon within the fields of Chinese scholarship intersected by the various Jesuit discourses on the globe. It sheds new light on the far-reaching scope of this renewal, which extended from cosmology, cartography, world geography, and classical scholarship to political ideology. It also ventures a historical interpretation of how this renewal, defined in terms of the transformations described above, took place at the level of knowledge infrastructure.

Second, my book makes an important methodological contribution in its *rigorous exploration of the “contact zone” as a unique environment for knowledge production and circulation*. Literary theorist Mary Louise Pratt, who first articulated the concept of the “contact zone” as a metaphor for understanding the complex dynamic of cross-cultural interactions in the colonial context, defines it as the “social spaces where cultures meet, clash, and grapple with each other, often in contexts of highly asymmetrical relations of power, such as colonialism, slavery, or their aftermaths as they are lived out in many parts of the world today.”²⁴ She further notes that in the contact zone, the “co-presence, interaction and interlocking understanding” of two hitherto historically and

22 For a brief discussion of this debate and the relevance of this book’s findings to it, see Chapter 7 below.

23 Elman’s *On Their Own Terms* presents a strong argument for such a renewal across multiple fields of natural studies from the mid-sixteenth through the nineteenth centuries. Some other scholars have documented specific cases of this cultural renewal; see especially the works listed in the Bibliography below by Chu Ping-yi 祝平一, Han Qi 韓琦 (of the Chinese Academy of Sciences, Beijing), Kim Yung Sik, Lim Jongtae 임종태, Shi Yunli 石雲裡, and Sun Chengsheng 孫承晟.

24 Mary Louise Pratt, “Arts of the Contact Zone,” *Profession*, 91 (1991): 34.

geographically separate cultures are a paramount reality of intellectual life for members on both sides of the encounter.²⁵ Pratt presents a classical case of the “contact zone” dynamic in her discussion of an 800-page letter to King Philip III of Spain, entitled *The First New Chronicle and Good Government*, written in Spanish and Quechua in the city of Cuzco in Peru in 1613, within four decades of the final collapse of the Incan empire.²⁶ The author of the letter, Filipe Guaman Poma de Ayala, was an Andean who claimed noble Inca descent but had learned and partially adopted the language and culture of the Spanish conquerors. Pratt shows how Guaman Poma borrowed the language and verbal repertoire employed in the standard Spanish chronicles of the American conquest but fused them with the vocabulary, symbolic grammar, and knowledge reserves of the Quechua peoples to create a “New Chronicle” of world history and the Spanish conquest of the Inca empire. This *New Chronicle* delivers a powerful indictment of the greed and brutality of the Spanish conquistadors during their conquest of Andean America and gives a version of the Christian view of human history that places the Andeans, not the Europeans, at the center. In other words, Guaman Poma appropriated both the literary genre and the linguistic resources of the master narratives of the metropole only to subvert them.²⁷

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- 25 Mary Louise Pratt, *Imperial Eyes: Studies in Travel Writing and Transculturation* (London and New York: Routledge, 1992), 7. There is a substantial literature in the history of science that engages this concept of the “contact zone” in the exploration of the sociocultural complexities of knowledge-making occurring within the margins of empires. See, for example, Fa-ti Fan’s study of the encounters between British naturalists and various Chinese communities in the late Qing in Fan, *British Naturalists in Qing China: Science, Empire, and Cultural Encounter* (Cambridge, Mass.: Harvard University Press, 2004). A vibrant field of “contact zone” studies has grown among scholars of colonial and post-colonial discourses. An October 2014 conference convened by Judith Becker at the Leibniz Institute of European History in Mainz brought together a group of scholars who applied, and tested, the concept of the “contact zone” for analyzing the kinds of religious exchanges occurring on all the continents between Christian missionaries and their potential converts within both colonial and post-colonial contexts. See the report of this event by Deborah Gaitskell, School of Oriental and African Studies, University of London, entitled “European Missions in Contact Zones: Transformation through Interaction in a (Post-) Colonial World,” accessed on 10/6/14 at: <http://www.hsozkult.de/hfn/conferencereport/id/tagungsberichte-5587>. I wish to thank my colleague Michael Hughes for providing me with this information.
- 26 See Felipe Guaman Poma de Ayala, *First New Chronicle and Good Government: On the History of the World and the Incas up to 1615*, translated by Roland Hamilton (Austin: University of Texas Press, 2009).
- 27 See especially Pratt, “Arts of the Contact Zone,” 33–37, and the introduction to idem, *Imperial Eyes*.

Pratt herself and many other scholars have extended the concept of the contact zone beyond the original, colonial context to other kinds of cross-cultural encounters in which asymmetrical geopolitical relations are not involved, including those that happen within pedagogical spaces.²⁸ Pratt has noted, for example, that the processes of teaching and learning, especially in a multicultural classroom, have qualities similar to those observed in a contact zone. Although the dominant party in this encounter, the teacher, has power over what s/he transmits to the students, s/he has no control over what the students decide to absorb or how they make use of it. As Pratt perceived, the teacher had to learn to accept the fact that “whatever one says [*sic*] was going to be systematically received in radically heterogeneous ways that we were neither able nor entitled to prescribe.”²⁹

In comparison to other metaphors widely adopted in previous scholarship on cross-cultural encounters, such as “trading zones,” “cultural borderlands,” and “frontiers,”³⁰ the concept of the contact zone, as it was extricated from

28 See, for example, Pratt’s essay mentioned above, “Arts of the Contact Zone,” which was reprinted in Janice M. Wolff, ed., *Professing in the Contact Zone: Bringing Theory and Practice Together*, 1–18 (Urbana, Ill.: National Council of Teachers of English, 2002), and the articles by other authors anthologized in the same volume.

29 Pratt, “Arts of the Contact Zone,” 39.

30 Peter Galison first developed the metaphor of the “trading zone” as a model for explaining how communications, exchanges, and collaborations between scientists from different cultures and disciplines are possible. See Galison, *Image and Logic: A Material Culture of Microphysics* (Chicago: University of Chicago Press, 1997). For a recent application of this model to the study of the Jesuits in China, see Xiang Huang, “The Trading Zone Communication of Scientific Knowledge: An Examination of Jesuit Science in China (1582–1773),” *Science in Context* 18, no. 3 (2005): 393–427. The metaphors of “borderlands” and “frontiers” first emerged among anthropologists who studied individuals and communities far away from the dominant core, on the frontiers or within the borderlands between two or more nations, ethnic groups, or cultural spheres. Some representative works in borderland and frontier studies include Richard White, *The Middle Ground: Indians, Empires, and Republics in the Great Lakes Region, 1650–1815* (New York: Cambridge University Press, 1991); Douglas E. Foley, *The Heartland Chronicles* (Philadelphia: University of Pennsylvania Press, 1995); and James H. Merrell, *Into the American Wood: Negotiators on the Pennsylvania Frontier* (New York: W.W. Norton, 1999). For a broader review of the Border Problematik in American studies, see Scott Michaelsen and David E. Johnson, eds., *Border Theory: The Limits of Cultural Politics* (Minneapolis: University of Minnesota Press, 1997). In a series of articles, Fa-ti Fan has discussed the relative strengths and weaknesses of these metaphors (including “contact zone”) for the study of the global history of science. See especially Fan, “Science in Cultural Borderlands: Methodological Reflections on the Study of Science, European Imperialism, and Cultural Encounter,” and idem, “The Global Turn in the History of Science,” in *East Asian Science, Technology and*

the colonial context, seems particularly apt for conveying the complex psychological and cognitive conditions under which the Jesuits and their Chinese respondents produced their works. These are the paradoxical conditions of (1) co-presence, mutual accommodation, appropriation, collaboration, and interdependence, and (2) the fundamentally confrontational self-positioning vis-à-vis the “Other” taken by most of the individual men on both sides of the encounter.

To be sure, we can speak of the “two sides” of this encounter—the Jesuits and the Chinese—only as aggregates, each consisting as it did of a number of unique human beings rather than a homogeneous community. As individuals, the Jesuits differed among themselves in country of origin, personal background and character, and intellectual training. Likewise, the Chinese scholars involved in these encounters varied greatly in social standing, ethnic origin, intellectual outlook, and personal aspirations. They also entered into different personal relationships with and took different stances toward the Jesuits and their works. Some of these scholars, such as Li Zhizao 李之藻 (1565–1630) and Xu Guangqi 徐光啟 (1562–1633), were the Jesuits’ most trusted allies and patrons who indeed made the spiritual crossing into Christianity. Others, such as Shen Que 沈樞 (1565–1624) and Yang Guangxian 楊光先 (1597–1669), were the Jesuits’ most outspoken critics and detractors. The vast majority of them, to which almost all the Chinese scholars investigated here belong, fell somewhere between these two extremes. Despite individual differences, however, certain features were more or less shared by those on the same “side” of the encounter, and certain patterns of interaction between the two groups resulted from such shared features. The Jesuits, for example, shared a group identity as members of a tightly organized Catholic order with a strong missionary zeal, were bound by the general policy of accommodation established by Matteo Ricci, and worked for the common goal of religious conversion.

As already mentioned, the Jesuit policy of accommodation created the possibility of friendly and productive interchanges between the missionaries and their Chinese associates. The injection and circulation into Chinese media of a new body of “Western learning,” culled from diverse European sources—Aristotelian, scholastic, Ptolemaic, Tychonic, Galilean, classical, biblical, Jesuit, humanist, and empirical maritime, among others—and recrafted by the Jesuits, stimulated a series of vibrant discourses centered on the novel ideas it presented. Such discourses provided a salient thread of continuity in the intellectual lives of Chinese scholars during the otherwise drastic transition from the Ming to the Qing. They

Society, an International Journal 1, no. 2 (2007): 213–231, and 6, no. 2 (2012): 249–258, respectively.

also served as a bridge across the ideological gulf between Ming loyalists and those who voluntarily submitted to Qing rule, and across the political barrier between the Manchus and their conquered Han Chinese subjects.

However, these direct and indirect intellectual exchanges between Chinese and Jesuit scholars were fundamentally driven and delimited by many sources of tension and conflict. Among the Jesuits, this tension and conflict derived largely from (1) their unexamined sense of religious and cultural superiority, (2) their goal to *change* the Chinese view of the world in order to effect a conversion to Christianity, and (3) their conscious awareness of their precarious existence in China as a group of outsiders. The Chinese scholars, for the most part, mirrored in reverse the Jesuit discourses on the superiority of Western Christendom. The emergence of the theory of the Chinese origin of Western learning early in the encounter between the Jesuits and the Chinese energized many of these scholars to retrieve the lost wisdom of ancient China and reclaim Chinese leadership in the world of learning. In other words, they, too, took up a contentious, if not wholly hostile, posturing in relation to the Jesuits and “the West” that the Jesuits promoted.

In this book, I explore how individual Jesuits and Chinese scholars produced their works in a co-present and interdependent setting, with each man nevertheless striving to “domesticate” ideas from the other side in order to fulfill his own priorities and agendas. Precisely because both parties entered the contact zone at cross purposes, the processes of cultural translation, adaptation, and mutual borrowing and appropriation that ensued not only expanded the intellectual horizons of everyone involved but also produced deliberate misinterpretations, misrepresentations, and counter-discourses that aimed to *subvert* the discourses put forward by the “Other.” In the spirit of Pratt, then, my study exposes and explores the “opportunities and risks” of the contact zone, and the surprising twists and turns that can occur in the information flow between two groups of individuals involved in such an encounter. The larger picture resulting from such twists and turns was a paradoxical consequence of the Jesuits’ labors: their discourses on the sphericity of the earth and the marvels of Western Christendom did not work to undermine Sinocentrism but instead reinforced it. In that respect, Chinese scholars of the seventeenth century not only discovered a New World in the Jesuit works but brought it home and made it their own.

The “contact zone” spoken of throughout this book is not a fixed stage on which all these dramas took place. Rather, it refers to the totality of multiple situational, divergent, and continuously reconfigured spaces. Analytically, the contact zone entailed three kinds of spaces in which contacts transpired. First, it refers to the spaces of physical and social interaction between the Jesuits and

their Chinese interlocutors. Second, it designates the mental and spiritual spaces where the Jesuits and their Chinese respondents met and grappled with each other as individual minds, each with his distinct aspirations, commitments, identity, character, and history. Third, it refers to the discursive spaces—often objectified in the form of texts, maps, and other recorded exchanges—from which the Jesuits and Chinese scholars concerned derived their sources and to which their own works contribute. Although the focus of this book is the written knowledge produced by Jesuits and Chinese scholars within these discursive spaces, I also attempt to show how the experiences and energies they gained (and the goals, aspirations, and anxieties they developed) during their encounters in their physical, social, mental, and spiritual spaces of contact shaped the outcomes of their knowledge-making.

The social and geopolitical setting in which this story unfolds altered drastically from 1579 to the end of the seventeenth century. In particular, two major developments touched the personal lives of many of the Jesuits and Chinese scholars studied here in profound ways. The first was the cataclysmic dynastic transition from the Ming to the Qing in 1644, and its aftermath. The second was the maritime interactions, both official and private, between China and various European states, especially Portugal and Spain. The Jesuits assigned to the China mission arrived via Macao, which had become a Portuguese colony in 1557; they also depended on the “royal stipend” from the King of Portugal that reached them via Macao. Thus both their personal well-being and that of their mission were from the outset intricately linked to the larger geopolitical dynamic between the Ming/Qing empires, on the one hand, and the Portuguese and other European communities and institutions operative beyond the Chinese maritime frontiers, on the other.

These circumstances at the contact zone inevitably impinged upon the substance of the intellectual exchange between the Jesuits and Chinese scholars. In particular, the largely hostile Chinese maritime encounters with the Portuguese and the Spaniards (both of whom were known in China as Folangji 佛郎機), both prior to the arrival of the Jesuits and during much of the time they operated in China, impeded the Jesuits’ ability to impart the most up-to-date world geographical knowledge they possessed to their Chinese readers. For their own protection, the Jesuits consciously occluded not only their own material connections with the Portuguese in Macao but also the European identity of the Folangi and the broader realities of European conquests and colonial enterprises overseas. Such knowledge would have been of extreme interest to their Chinese readers, but offering it could have had dire consequences for themselves personally and for their mission as well.

Similarly, the decline of the Ming and its eventual conquest by the Manchus put a new spin on the sensations of freshness and excitement initially experienced by Chinese scholars who glimpsed a wholly new and sophisticated civilization in the works of the Jesuits. A set of discourses on world civilizations centering on the notions of “China” and “the West” evolved among the Jesuits, the Han Chinese of the late Ming and early Qing, and the Manchus (including the Kangxi emperor). This China, variously referred to as Zhongtu 中土 (Chinese Land), Zhonghua 中華 (Central Efflorescence), or simply Hua 華 (Efflorescence) in these discourses, was at once an idealized construct and yet was also identified, if only vaguely, with the various geopolitical entities that now in our modern historical textbooks are all called “China”:³¹ the Ming, the Qing, and the coexisting polities of the Qing and Southern Ming during the period from 1644 to 1662. This idealized China presumably descended from the sage rulers of a golden era in high antiquity, although it has been continuously reimagined throughout Chinese history. During the seventeenth century, the details of that classical civilization came to be reconstructed in terms that were increasingly compatible with the core ideas of Jesuit science. However, the upshot of this reinvention of Chinese classical tradition was the rise of a political ideology that formed the early modern counterpart of modern Chinese nationalism. Indeed, the theory of “the Chinese origin of Western learning” born in this contact zone in the late Ming and early Qing would reemerge as a major motif of the Chinese nationalistic discourses in the post-Opium War era.³²

Third and finally, my book serves to *bridge the gaps between several scholarly communities in the fields with which it intersects*. First, historians of the Jesuit

31 To avoid excessive verbiage, I often use “China” and “Chinese” in this book precisely in this “modern textbook” sense. However, wherever appropriate, I have tried to use the more specific terms, such as “Ming” or “Qing.”

32 See especially Wang Renjun 王仁俊 (1866–1913), *Gezhi guwei* (格致古微 Ancient Subtleties of [Modern] Science, 1896), reprinted in *Siku weishou shu jikan* (四庫未收書輯刊 Books Not Included in the Complete Collection of the Four Treasures), the Ninth Collection, vol. 15 (Beijing: Beijing chubanshe, 1997), 51–148. For recent studies of this text and the broader discourse to which it belonged, see Michael Lackner (Lang Mixie 朗必榭), “Laizi dongfang de kexue? Zhongguo shi ‘Ziduan’ de biao xian xingshi” (來自東方的科學? 中國式自斷的變現形式 Science from the East? Mutated Forms of Self-Assertion, Chinese Style), *Ershiyi shiji* (二十一世紀 The Twenty-First Century) 76, no. 4 (2003): 85–94, and idem, “Ex Oriente Scientia? Reconsidering the Ideology of a Chinese Origin of Western Knowledge,” *Asia Major* 21, part 1 (2008): 183–200.

mission and Chinese science have largely remained disconnected from those working on Chinese maritime history, who tend to focus on trade and exchange and foreign relations, not on intellectual issues. By integrating both Jesuit and Chinese maritime discourses into this narrative about the meeting and melding of late imperial Chinese and Renaissance European worldviews and cosmological visions, I bring these two communities into direct conversation with each other. Second, in the past two decades, historians of East Asian science in mainland China, Taiwan, and Korea have produced much excellent work in their studies of Chinese cosmology, astronomy, and world geography in the early modern era. I have consciously drawn on this body of scholarship, partly because of the scarcity of available Western literature on some of the issues examined here and partly because of my wish to introduce this body of Chinese and Korean scholarship to those Western scholars who cannot otherwise access it.

Outlines of Chapters 2–7

Matteo Ricci's Chinese world maps serve as the historical and logical point of departure for our exploration of the Chinese encounter with the "New World" in the seventeenth century. It was these maps that first exposed Chinese readers to a wholly new cosmological and geographical vision of the earth. The cartographic representation, legends, and introductory essays on Ricci's maps also provided a model, in substance, vocabulary, and rhetoric, for subsequent Jesuit works on related subjects to follow. Chapter 2, "Mapping the Contact Zone," places the production of these maps within the context of the raging vogue of *exotica* among late Ming scholars, which gave the Jesuits their first opportunity to secure a foothold in the Ming empire and establish a social niche among the intellectual elite. This chapter tells how Ricci keenly studied and participated in this discourse of *exotica* and, based on the insights and firsthand knowledge he thus gained, fashioned a map of the world out of both Renaissance European and preexisting Chinese sources he found at the contact zone. Through a close reading of the 1602 edition of Ricci's Chinese world map, "Kunyu wanguo quantu" 坤輿萬國全圖 (Complete Geographical Map of Ten Thousand Countries), I demonstrate that this map was primarily created not as a work of science but as an instrument of persuasion, informed, above all, by Ricci's short-term goal to gain his Chinese readers' acceptance and his long-term agenda to transform their Sinocentric attitudes and promote an idealized image of Western Christendom.

Chapter 3, "Divergent Discourses on the Physical Earth in Premodern China," zooms in on the Chinese intellectual terrain in which new discourses

on the earth would grow in the seventeenth century, sparked at least in part by the stimulation of the Ricci maps and later Jesuit works. A core component of the New World they discovered in the Jesuit corpus is the notion of the *terraqueous globe*, the idea that earth and water are not two separate cosmic entities but form a single, integrated sphere. This notion arose in the West in the early sixteenth century as a conceptual innovation upon the then-dominant Aristotelian scholastic cosmic model. It was proposed in response to the complex configuration of land and water on the surface of the earth discovered by Europeans during their maritime geographical explorations. In this chapter, I present a brief history of the emergence of this notion in the European context, highlighting the heterogeneity of knowledge traditions pertaining to the shape of the earth and its relationship to water in premodern Europe, which made it possible for the European “classical tradition” to be reconstituted rather than altogether demolished when faced with overwhelming anomalies.

Against this backdrop, the main body of Chapter 3 maps out the equally heterogeneous discursive spaces within premodern Chinese thought concerning the physical earth, encompassing multiple, disjointed, partially contending and partially interconnected discourses about the earth and the seas. These discourses were largely carried on within different circuits, addressed different questions and priorities, and employed different concepts and methods of validation. I show that the “Square-Earth-and-Four-Seas” model emerged in a primarily social and geopolitical context and gained prominence through its articulation in classical texts such as the “Tribute of Yu” (Yugong 禹貢) and its embodiment in imperial ideology and state rituals. This model was also assumed by or reinforced through dominant cosmological traditions, especially that of a spherical heaven. But outside these dominant geopolitical and cosmological constructs of the terrestrial and maritime spaces there were many alternatives, albeit minor ones, that expressed the political ideologies or cosmological visions of marginalized communities. There was also a robust empirical maritime narrative tradition purporting to record truthful accounts of foreign lands and peoples overseas. It had accumulated a rich store of world geographical knowledge that frequently belied the Square-Earth-and-Four-Seas model of the world that authors of such literature often took for granted.

Just like the European case, then, this heterogeneity of knowledge traditions in premodern China provided a major source of cultural resilience when Chinese scholars encountered a new world in the Jesuit works. Chapter 4, “The Introduction and Refashioning of the *Terraqueous Globe*,” turns to Chinese cosmology, the first area of scholarship directly touched by this encounter. Following a thematic reconstruction of the Jesuit discourses on the globe and

a broad overview of Chinese scholars' responses to this notion, this chapter delves into the modes and goals of knowledge production for those Chinese cosmologists who actively engaged with the Jesuit corpus. Three in-depth case studies are presented, focusing on the members of the Fang School Xiong Mingyu 熊明遇 (1579–1649), Fang Yizhi 方以智 (1611–1671), and Jie Xuan 揭暄 (1613–1695). These scholars had extensive social and/or intellectual contacts with the Jesuits, appreciated the value of the ideas and factual knowledge found in the Jesuit works, and enthusiastically tested and applied these ideas and facts in their own theorizations. While openly embracing the notion of the globe, however, they also explored and exploited the heterogeneity of Chinese cosmological traditions to make a case for the Chinese origin of the Western notion of the globe. Meanwhile, they took bold possession of the notion and pushed it forward in strikingly innovative fashion through hybridizing it with Qi-based cosmology. All three scholars also consciously sought to ground this new vision of the earth on a bedrock of empirical data mined from Chinese maritime literature. My investigation of the Fang School thus showcases not only the productive interactions and interdependence between the Chinese and Jesuit interlocutors in these cosmological exchanges but also the deeply conflictual and competitive positions taken by the two groups—positions that epitomize the cognitive and psychological conditions of knowledge-making in the contact zone mentioned above.

The gradual entrenchment of the notion of the globe brought about a further transformation, as the corollary of the square earth model—the idea that there are literally four and only four seas that box in a square central landmass along the four cardinal directions (east, west, north, and south)—also began to be abandoned. Chapter 5, “Translating the Four Seas across Space and Time,” documents and interprets a notable phenomenon in late Ming and early Qing Chinese intellectual and cultural history, namely, the steady disappearance of the literal interpretation of the term Sihai 四海 (Four Seas) during this period. This chapter reconstructs two sets of roughly parallel discourses that may be seen as both the causes and manifestations of this phenomenon. One was among the Jesuits, especially Ricci and Giulio Aleni (Ai Rulue 艾儒略, 1582–1649), who were working to develop a Chinese hydrographic terminology to designate the various seas and oceans depicted in Renaissance European world atlases. The other was among the classists, especially evidential scholars Zhu Heling 朱鶴齡 (1606–1683), Gu Yanwu 顧炎武 (1613–1682), and Hu Wei 胡渭 (1633–1714), who were investigating the true meaning of the term “Four Seas” mentioned in the two critical passages in the ancient classic, the “Tribute of Yu.” Both groups liquidated the Four Seas as a literally interpreted concept. I show how the latter group logically connected to the former, and point to

the presence of loops of words and social relations that linked these evidential scholars to the Jesuits despite their apparent reluctance to directly engage the Jesuit material. On a broader note, I suggest here how the classical scholarship on the “Tribute of Yu” came to be dislodged from its former, geopolitical frame of reference and matured into an empirically based study of historical geography, one that consciously drew on the factual geographical knowledge recorded in previous empirical maritime literature and that was growing increasingly compatible with Renaissance world geography. But this intellectual compatibility notwithstanding, the evidential scholars examined here subscribed, more strongly than their counterparts in Chinese cosmology, to the idea of the Chinese origin of Western learning and dedicated themselves to the project of restoring the “lost learning” (*juexue* 絕學), including the mathematical cartography, of ancient China.

Chapter 6, “Taking in a New World,” follows these transformations as they spread into the realm of world geography. This chapter situates two sets of co-evolving world geographical discourses—Jesuit and Chinese—within two interconnected historical frames. One is the interactions in *realpolitik* between various Chinese entities and European groups, especially the Folangji (Portuguese *and* Spaniards), on and beyond the Chinese maritime frontier. The other is the growth of a new empirical maritime literature in the late Ming and early Qing that increasingly focused on these maritime Europeans. Chinese maritime interactions with the Folangji had a difficult beginning in the early sixteenth century, which in turn gave rise to virulent myth-histories in Chinese maritime narratives about the Folangji that were still widely circulated when the first Jesuits arrived. This, plus the fact that Jesuits arrived under the patronage of none other than Folangji created a unique condition of knowledge making for the Jesuits and their Chinese respondents especially in the realm of world geography.

In this chapter, I show how the Jesuits reacted to the Chinese myth-histories about Folangji by erasing or equivocating on the Folangji’s European origins and identities (Ricci), occluding the harsh reality of European colonial conquests in the Americas (Aleni), and offering their counter myth-histories about European Christendom as a unified, peace-loving Confucian Utopia. And they did so, not just to promote European civilization, but also to ensure their personal safety and the survival of their mission. The consequence of this pattern of science-making among the Jesuits was the peculiar fact that the new world image that they conveyed to their Chinese readers was the most ambiguous and confusing in areas where they should have been the most authoritative, namely, their European home states and European colonies overseas. On their part, Many Chinese scholars, such as Xiong Renlin 熊人霖 (1604–1666) and Lu Ciyun 陸次雲

(fl. 1662), demonstrated great openness to the Jesuit descriptions of the wider world. But they too, like their counterparts in Chinese cosmology, worked hard to integrate these new data with previously established knowledge and conventions, intentionally discounted the Jesuits' "counter myth-histories" about the Western Christendom, and persistently pursued questions that reflected their own priorities and concerns. Their insistence to read between the lines in the Jesuit sources for clues to the Folangji Puzzle yielded hilarious mistakes that dramatized for us the dangers as well as opportunities of knowledge making in the contact zone.

The story about the Chinese discoveries of the New World told in these chapters, then, unfolds as a series of mutually constitutive and competing scholarly discourses that reverberated in fields from cosmology, cartography and world geography to classical studies. The encounters between the individual Jesuits and Chinese scholars involved in these discourses formed a fascinating chapter in the early modern global integration of space. Just what did these encounters accomplish, for Chinese science and for the Jesuits and their mission? I will explore these questions in the concluding, 7th chapter, "Jesuit Science and the Shape of Early Chinese Modernity."

Mapping a Contact Zone

Outside the southern and northern city walls of Old Beijing, just slightly to the east of the central axis of the city, stand the Temple of Heaven and the Temple of Earth. The Temple of Heaven, located on the southern or the *yang* side, centers on the Altar of the Circular Mount (*huanqiu tan* 圜丘壇). The altar consists of three levels, each circular in shape, and the top level is a platform with a single circular piece of stone in the middle, symbolizing the “heart of Heaven.” The Temple of Earth, located on the northern or the *yin* side, centers on the Altar of the Square Pond (*fangze tan* 方澤壇), so named because it is a square platform surrounded by a moat that was flooded with water when sacrificial rituals were performed in the temple.

Built in 1420 and 1530, respectively, the Temples of Heaven and Earth were the surviving examples of many such structures that had served as the sites for two of the most important state ritual sacrifices personally performed by the emperor in imperial China. Every year on the winter solstice, the moment marking the rise of the *yang* cosmic force, the Son of Heaven ritually bathed, fasted, and stepped onto the Altar of the Circular Mount to make thanksgiving offerings and renew his solemn vows to Heaven. On the summer solstice, the moment marking the ascent of the *yin* cosmic force, he prostrated at the Altar of the Square Pond, expressing his gratitude and veneration to Earth and praying for its continual blessing. An elaborate symbolism guided the choice of the time for the sacrifices, the colors and shapes of ritual implements to be used, the ritual music to be played in the background, and above all, the design of the two altars where these rituals were to take place. Such symbolism encapsulated the Confucian vision of the sovereign being at the apex of the human community and the center of the universe. Year after year, through these rituals, he reconnected humanity with Heaven and Earth and reestablished the balance between the *yin* and *yang* forces in nature.¹

1 These rituals are described in much detail in Richard J. Smith, *China's Cultural Heritage: The Qing Dynasty, 1644–1912* (Boulder, San Francisco, Oxford: Westview 1983/1994), 157–160. For an in-depth examination of this subject, see Angela Zito, *Of Body and Brush: Grand Sacrifice as Text/Performance in Eighteenth-Century China* (Chicago: University of Chicago Press, 1997), especially Chap. 5. I wish to thank Prof. Dr. Sung Yong Kang, Editor of the *Horizons: Seoul Journal of Humanities*, for kindly granting me his permission to incorporate into the present chapter some of the arguments and material from my article “Matteo Ricci's World Maps in Late Ming Discourse of Exotica,” *Horizons* 1, no. 2 (December 2010): 215–250.

These two altars captured an understanding of what the heavens and the earth looked like in premodern China: the heavens were circular in shape, and the earth was a square space bounded by the Four Seas (Sihai 四海). According to a long-held tradition among modern scholars, this vision of the cosmos had an archaic origin in Chinese history going back to time immemorial.² However, in his recent three-volume work, *In and Outside the Square*, John C. Didier has challenged this monolithic view of ancient Chinese cosmology. He argues that the earliest identifiable Chinese cosmography, that of the Shang (ca. seventeenth–eleventh centuries BCE) and the Zhou (ca. eleventh century–256 BCE), held both the heavens and the earth to be circular.³ It was not until the period from 200 to 700 CE that the so-called Round-Heaven-and-Square-Earth (*tianyuan defang* 天圓地方) model began to crystallize and eventually gain dominance in Chinese thought. Didier identifies the Han dynasty (206 BCE to 220 CE), an era of intensive empire-building, as a crucial period for the germination of this new notion of a square earth. Among the several factors that he suggests were responsible for this new idea is the Han imperial scholars' effort to develop an "emperor-/empire-centered philosophy of legitimacy." In other words, the theory of a square earth was, to a great extent, invented as part of an imperial ideology that exalted one human center above all others.⁴

Although some of the details of Didier's proposal for a paradigmatic shift in premodern Chinese cosmological vision of the earth may be open to debate,⁵

2 For a summary of this interpretation among Chinese and Japanese scholars, see Zhou Guidian 周桂鈿, *Qinhan sixiang shi* (秦漢思想史 The Intellectual History of the Qin and Han Dynasties) (Shijiazhuang: Hebei renmin chubanshe, 1999), 494. For Western scholarship in this tradition, see Joseph Needham and Wang Ling, *Science and Civilisation in China, Volume 3: Mathematics and the Sciences of the Heavens and Earth* (Cambridge: Cambridge University Press, 1959), 210; Sarah Allan, *The Shape of the Turtle: Myth, Art, and Cosmos in Early China* (Albany: State University of New York Press, 1991); and Cordell D.K. Yee, "Taking the World's Measure: Chinese Maps between Observation and Text," in J.B. Harley and David Woodward, eds., *The History of Cartography, Volume 2, Book 2: Cartography in the Traditional East and Southeast Asian Societies* (Chicago: University of Chicago Press, 1994), 96–127.

3 John C. Didier, *In and Outside the Square: The Sky and the Power of Belief in Ancient China and the World, c. 4500–AD 200, Vol. III, Terrestrial and Celestial Transformations in Zhou and Early-Imperial China*, Sino-Platonic Papers, no. 192 (September 2009), 211. Published online; accessed on 6/10/2012 at: www.sino-platonic.org.

4 Didier, *In and Outside the Square, Vol. III*, 214–215.

5 I adopt a significantly earlier date—the end of the Spring and Autumn (771–476 BCE) and the early Warring States (475–221 BCE) period—for the emergence of the Round-Heaven-and-Square-Earth cosmology. See the third and fourth sections of Chapter 3 below and the beginning of Chapter 4.

his work compels us to acknowledge the complexity of premodern Chinese images of the earth and the relatively late date and primarily geopolitical context for the rise of the Square-Earth-and-Four-Seas model as the dominant outlook on the world. Interestingly, the kernel of Didier's insight was anticipated by Matteo Ricci in the seventeenth century. Unlike Didier, however, Ricci's endeavor to historicize the Square-Earth-and-Four-Seas model was not motivated primarily by a quest for historical truth but by his urgent need to debunk this model both as a world geographical vision and as a political ideology. As a Catholic missionary who had come to late Ming China to promote the religion and civilization of Western Christendom, Ricci found this view of the earth—and the cognate presumption of China's centrality on it—to be at the very core of the Sinocentric attitudes he perceived among the Chinese, especially the civil servants of the imperial bureaucracy. Remarkably, Ricci proceeded to discredit this Sinocentric vision of the world by enlisting the help of ancient Chinese authors: while expounding to his Chinese audience the Renaissance European notion of the earth as a globe, he also suggested to them that this was not a notion entertained only by the people of the "Far West" (Yuanxi 遠西, or Great West, Daxi 大西). The ancient Chinese authors themselves, who indeed never erred, had already known the earth to be spherical; it was due only to some misreading of their texts that later Chinese scholars had come to believe that the earth was square. This daring hermeneutic proposition concerning ancient Chinese cosmology, as mentioned in Chapter 1, was a brilliant application of the Jesuit missionary method of cultural accommodation. True to the recommendations of St. Ignatius of Loyola, Ricci was a Jesuit who "enters through the other's door and comes out his own."⁶

Ricci's Chinese world maps are the first Jesuit works that brought a version of late Renaissance European cosmology, cartography, and world geography into the Chinese intellectual arena. The thematic focus, linguistic usages, and tactics of presentation that he adopted in these maps laid the foundation for later Jesuit discourses in these areas and the concurring discourses among Chinese scholars which they stimulated. For this reason, my exploration of the encounters and fusions between premodern Chinese and Renaissance European cosmological and world geographical visions during the Jesuit era begins with a close, contextualized study of these Ricci maps. A vast literature has been devoted to the study of these maps.⁷ In what

6 Ignatius of Loyola, *Letters of St. Ignatius of Loyola*, 51.

7 See, in particular, Kenneth Ch'en 陳觀勝, "Li Madou dui zhongguo dilixue zhi gongxian jiqi yingxiang" (利瑪竇對中國地理學之貢獻及其影響 Matteo Ricci's Contributions to, and Influences on, Geographical Knowledge in China), *Yugong banyue kan* (禹貢半月刊 Yugong

follows I build on this literature but also move the conversation forward in two ways. First, the previous literature displays a preponderant emphasis on the cartographical aspects of Ricci's maps, whereas the form and content of the legends on his maps have not received adequate treatment.⁸ I address this relative neglect by zooming in on these legends, especially those about the wonders of the Old and New Worlds, and interpret them as the hallmarks of a cartographic product improvised by Ricci both to mirror and to transform

Biweekly Journal) 5, no. 3–4 (1936): 51–72, and idem, “Matteo Ricci's Contributions to, and Influences on, Geographical Knowledge in China,” *Journal of the American Oriental Society* 59 (1939): 325–359; Pasquale M. D'Elia, S.J., *Il mappamondo cinese del p. Matteo Ricci, S.I.* (The Chinese World Map of Matteo Ricci, S.J., Preserved at the Vatican Library) (Città del Vaticano: Biblioteca apostolica Vaticana, 1938), and idem, “Recent Discoveries and New Studies (1938–1960) on the World Map in Chinese of Father Matteo Ricci, S.J.,” *Monumenta Serica* 20 (1961): 82–164; Cao Wanru 曹婉如 et al., “Zhongguo xiancun Li Madou shijie ditu de yanjiu” (中國現存利瑪竇世界地圖的研究 A Study of the Extant Copies of Matteo Ricci's World Maps in China), *Wenwu* (文物 Cultural Relics), no. 12 (1982): 57–70; Lin Dongyang, “Li Madou de shijie ditu jiqi dui mingmo shiren shehui de yingxiang” (利瑪竇的世界地圖及其對明末士人社會的影響 The World Map of Matteo Ricci and Its Influence in Chinese Intellectual Circles at the End of the Ming Dynasty), in *Jinian Li Madou laihua si bai zhounian zhongxi wenhua jiaoliu guoji xueshu lunwen ji* (紀念利瑪竇來華四百周年中西文化交流國際學術論文集 Essays from the International Conference Held in Commemoration of the Four-Hundredth Anniversary of the Arrival of Matteo Ricci in China), 312–378 (Taipei: Furen daxue chubanshe, 1983); Huang Shijian 黃時鑒 and Gong Yingyan 龔纓宴, *Li Madou shijie ditu yanjiu* (利瑪竇世界地圖研究 A Study of Matteo Ricci's World Maps) (Shanghai: Shanghai guji chubanshe, 2004); and Hui-Hung Chen, “The Human Body as a Universe: Understanding Heaven by Visualization and Sensibility in Jesuit Cartography in China,” *The Catholic Historical Review* 93, no. 3 (July 2007): 517–552. In addition, Theodore N. Foss, “La cartografia di Matteo Ricci” (Matteo Ricci's Cartography), in Maria Cigliano, ed., *Atti del convegno internazionale di studi ricciani* (Papers from the International Convention of Ricci Studies, Macerata-Rome, October 22–25, 1982), 177–195 (Macerata: Centro Studi ricciani, 1984), contains a relatively comprehensive list of works published in various European languages up to the early 1980s. There are also many important works on the history of Chinese cartography that address the legacies of Ricci's world maps. See especially Cordell D.K. Yee, “Reinterpreting Traditional Chinese Geographical Maps,” and also his “Traditional Chinese Cartography and the Myth of Westernization,” both in Harley and Woodward, eds., *The History of Cartography, Volume 2, Book 2*, 35–70 and 170–202, respectively; and a series of studies by Richard J. Smith, including *Chinese Maps* (New York: Oxford University Press, 1996), and idem, “Mapping China's World: Cultural Cartography in Late Imperial China,” Chap. 2 of Smith, *Mapping China and Managing the World: Culture, Cartography and Cosmology in Late Imperial Times*, Series on Asia's Transformations/Critical Asian Scholarship (New York: Routledge, 2013).

8 Some important exceptions to this trend are acknowledged in the discussions below.

late Ming Chinese scholars' fascination with the exotic world beyond their borders.⁹

This interpretation forms part of my second, larger goal in this chapter, which is to bring a "contact zone" perspective to bear on the ongoing historiographical debate on the nature and agency of the scientific endeavors of the Jesuit missionaries in China in general, and of Ricci's cartographical venture in particular. The master narrative that has dominated (and to a great extent continues to dominate) the scholarship on Jesuit science in China in both China and the West portrays the Jesuit missionaries as transmitters of a superior system of scientific knowledge from Europe to China.¹⁰ This perception forms part of a Eurocentric narrative of world history born in the European homeland and maritime frontiers as a consequence of Europeans' encounters with the non-Western world during the Age of Discovery through their geographical explorations, colonial expansion, and religious missions. Its ultimate origin lies in the triumphal tales told by the Jesuit missionaries in China themselves. The two major sources of this view are (1) Ricci's journals, which he wrote in Italian in 1608, two years before his death, as a memoir of and reflection on his years of missionary work in China, and (2) Nicolas Trigault's (Jin Nige 金尼閣, 1577–1628) liberal Latin translation and augmentation of Ricci's journals, which Trigault produced on his special assignment back to Europe in 1612 and published in Augsburg, Germany, in 1615. Ricci intended his journals to serve as

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- 9 For a fuller discussion of this dimension of Ricci's maps, see Qiong Zhang, "Matteo Ricci's World Maps in Late Ming Discourse of Exotica," *Horizons: Seoul Journal of Humanities* 1, no. 2 (December 2010): 215–250. An earlier version of that article was presented at the History of Science Society annual conference in Minnesota in November 2005.
- 10 Besides J.F. Baddeley's work discussed below, seminal studies in this tradition include, among others, Henri Bernard-Maitre, S.J., *Matteo Ricci's Scientific Contribution to China*, translated by Edward Chalmers Werner (Peiping: Henri Vetch, 1935), and Kenneth Ch'en, "Li Madou dui zhongguo dilixue zhi gongxian jiqi yingxiang" and "Matteo Ricci's Contributions to, and Influences on, Geographical Knowledge in China." This view continues to prevail among Chinese scholars, including Lin Jinshui 林金水, whose work has contributed immensely to our understanding of Ricci's social networking among and intellectual exchange with scholars of the late Ming. See Lin, *Li Madou yu Zhongguo* (利瑪竇與中國 Matteo Ricci in China) (Beijing: Zhongguo shehui kexue chubanshe, 1996), 200–209. For an informative review of representative works on Ricci's maps taking this historiographical approach, see Suet Yee Shery Chanis, "A Cross-Cultural Transformation that Drew Boundaries: Matteo Ricci and His Mapmaking in Ming China," M.A. thesis of University of South Florida, 2008, 2–3; accessed on 10/5/14 at: <http://scholarcommons.usf.edu/etd/170>. On the broader historiographical shifts in the fields of Jesuit studies and the history of Christianity in China, see Standaert's reviews listed in Chapter 1, note 19.

an archival source for consultation by his superiors and future successors, whereas Trigault had the burden of molding Ricci's account into a heroic tale of the "Christian Expedition into China" for the broader European public, in the hope of drawing their endorsement and material support for the China mission, which was the main purpose of his tour in Europe.¹¹

In his journals, Ricci recalled the circumstances that had led him to create his first world map in Chinese. He noted that the map was

the best and most useful work that could be done, at that time, in order to dispose China to belief in matters appertaining to our Holy Faith. For the Chinese up till then had printed many maps bearing the title "Description of the Whole World" [Tianxia zongtu 天下總圖, literally, "Comprehensive Map of All under Heaven"]. In them nearly the whole space was taken up by the fifteen provinces of China, with only a fringe of

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- 11 Ricci explained his intention to write these journals as records for his successors in his letter to Father João Álvares on Feb. 17, 1609, in Matteo Ricci, *Lettere (1580–1609)*, edited by Francesco D'Arelli (Macerata: Quodlibet, 2001), 524–525. The text by Nicolas Trigault (1577–1628), in contrast, was produced for the European reading public as propaganda. In 1612, Trigault, who newly arrived in China, was sent back to Europe to procure material support and new recruits for the China mission. He brought the Italian manuscript of Ricci's journals with him on his voyage back to Europe, during which he rendered it into Latin and added some new material excerpted from Ricci's other writings, his own account of Ricci's death and burial, and a description of some new developments in the mission after 1610. This Latin text by Ricci and Trigault was first published in Augsburg, Germany, in 1615 under the title *De Christiana expeditione apud Sinas suscepta ab Societate Iesu* (The Christian Expedition into China Undertaken by the Society of Jesus). It was subsequently reprinted four times (1616, 1617, 1623, and 1684), and many European vernacular translations of this Latin text were published as well—in German in 1617, Spanish in 1621, French in 1616, 1617, and 1618, and Italian in 1622. An abridged version in English was published in 1625. Trigault's became the first major source through which the European reading public learned about the Jesuit operations in China and about Chinese society and civilization. Until its rediscovery by the Jesuit Father Tacchi Venturi in 1910, Ricci's Italian original of Trigault's Latin text remained largely forgotten. This Italian version was first published by Venturi in 1911 as part of Ricci's "complete works." An annotated version of this text, in three volumes, was produced by Pasquale M. D'Elia, S.J., as Matteo Ricci, S.J., *Fonti Ricciane. Documenti Originali Concernenti Matteo Ricci e la Storia della Prime Relazioni Tra L'Europa e la Cina (1579–1615)*, edited with commentaries by D'Elia (Roma: La Libreria Dello Stato, 1942–1949). See Liu Junyu's 劉俊餘 note on the manuscript and printed editions of Ricci's journals in Matteo Ricci, *Li Madou zhongguo chuanjiao shi* (利瑪竇中國傳教史 History of Matteo Ricci's Mission in China), translated by Liu Junyu and Wang Yuchuan 王玉川 (Taipei: Guangqi chubanshe/Furen daxue chubanshe, 1986), 4–5.

sea round them, in which were islands bearing the names of such foreign kingdoms as the Chinese had heard of, all these together not equaling in size a single small Chinese province.¹² This being their imagination of the greatness of their country and the smallness of the rest of the world, they held their country supreme, tantamount to the whole world. In comparison, the rest [to them] were barbarous and uncultured states in which one could expect to find no masters.¹³

In this reflection, Ricci's assessment of the abysmal state of Chinese world geographical knowledge is already evident. Trigault's account, much longer and more elaborate than Ricci's, further dramatizes the Chinese backwardness on world geographical matters and places the blame for it squarely on the presumed self-imposed isolation of the Chinese people throughout their history. Trigault wrote:

Of all the great nations, the Chinese have had the least commerce, indeed, one might say that they have had practically no contact whatever, with outside nations, and consequently they are grossly ignorant of what the world in general is like. True, they had charts...that were supposed to represent the whole world, but their universe was limited to their own fifteen provinces, and in the sea painted around it they had placed a few little islands to which they gave the names of different kingdoms they had heard of. All of these islands put together would not be as large as the smallest of the Chinese provinces. *With such a limited knowledge, it is evident why they boasted of their kingdom as being the whole world, and why they called it Tianxia, meaning, everything under the heavens....* To them the heavens are round but the earth is flat and square, and they firmly believe that their empire is right in the middle of it. ...Because of their ignorance of the size of the earth and the exaggerated opinion they have of themselves, the Chinese are of the opinion that only China among the nations is deserving of admiration. Relative to grandeur of empire, of public administration and of reputation for learning, they look upon all other people not only as barbarous but as unreasoning animals. To them,

12 Up to this point, I have followed (with a little modification) J.F. Baddeley's translation of Ricci's passage in his "Father Matteo Ricci's Chinese World Maps, 1584–1608," *The Geographical Journal* 50, no. 4 (October 1917): 256. However, I added the Chinese characters, which are found in D'Elia's version of Ricci's original text. The remainder of this passage is entirely my own translation.

13 Ricci, *Fonti Ricciane*, vol. I, N. 262, 208–209.

there is no other place on earth that can boast of a king, of a dynasty, or of culture. The more their pride is inflated by this ignorance, the more humiliated they become when the truth is revealed.¹⁴ (emphasis added)

Despite the fact that Trigault's assertion of Chinese isolation in the past could not have been farther from the truth, it served his purpose of arguing for the importance of the Jesuit intervention in China. In these stories told by Ricci and Trigault, the significance of Ricci's cartographical venture is underscored by the radical novelty and superiority of the European images of the world that Ricci conveyed to his Chinese readers, in contrast to the ones they had learned from their local sources. This dichotomy between a superior Western science and its backward Chinese counterpart was seamlessly incorporated into the first modern scholarly treatments of Jesuit cartography in China.

One of the first modern scholars to draw attention to Ricci's Chinese world maps, J.F. Baddeley, observed in an article on these maps that "Father Ricci's immediate object was not to make additions to European knowledge, but to convey that knowledge to the Chinese."¹⁵ Following Ricci and Trigault closely, he tells us that Ricci's depiction of the world

was absolutely new to China; [thus] the utmost curiosity was excited; the mission-house became the meeting-place of intelligent men from near and far; and, on Ricci's own evidence, confirmed by that of his translator and, to some extent, biographer, Trigault, *it seems evident that the European conception of the world and of the material and moral universe, now for the first time opened to their view, came upon the Chinese with the force of revelation.*

14 Matteo Ricci, S.J. (Li Madou 利瑪竇, 1552–1610) and Nicolas Trigault, S.J. (Jin Nige 金尼閣, 1577–1628), *China in the Sixteenth Century: The Journal of Matthew Ricci, 1583–1610*, translated from Trigault's Latin text by Louis J. Gallagher, S.J. (New York: Random House, 1942/1953), 166–167. Transliteration of Chinese characters has been modified. For Trigault's original, see Matteo Ricci and Nicolas Trigault, *De Christiana expeditione apud Sinas suscepta ab Societate Iesu* (Augsburg: Apud Christoph. Mangium, 1615), 182–184. As we can see, Trigault's narrative is built upon Ricci's insights but offers a much more elaborate caricature and explanation of the Chinese view of the world. Interestingly, Wang Yuchuan's 王玉川 Chinese translation of this section of Ricci's journals—which is presumably based on Ricci's Italian original in Ricci, *Fonti Ricciane*, vol. I, N. 262, with consultation of Trigault's text—follows entirely Trigault's version here. See Ricci, *Li Madou zhongguo chuanjiao shi*, translated by Liu Junyu and Wang Yuchuan, 146–147.

15 Baddeley, "Father Matteo Ricci's Chinese World Maps," 256.

*The map, then, must assuredly mark an epoch in the history of Chinese world-knowledge if not of Chinese thought.*¹⁶ (emphasis added)

Since the mid-twentieth century, as more historians with access to Chinese sources and deeper knowledge of Chinese science have joined the discussion, many elements of this triumphal tale, told by the historical figures themselves and mainstream modern scholars alike, have begun to be questioned. The pre-modern Chinese view of the earth and Chinese scholars' world geographical knowledge have been found to have been far from monolithic,¹⁷ as testified to by Didier above, which makes the dichotomy between a superior Western science and a backward Chinese science problematic. The extent to which Ricci learned from and made accommodations to Chinese cartographic knowledge, conventions, and sentiments has also been noted. Indeed, some recent scholars have emphasized Ricci's role in conveying a newly detailed and accurate representation of the East Asian region, especially China, to European cartographers, precisely by incorporating into his own maps what he learned about East Asia from the Chinese maps he consulted. These scholars thus make a claim opposite to that of Baddeley cited above—namely, that Chinese cartographers contributed to the perfection of our modern world picture through the Western spread of the Ricci maps.¹⁸ Meanwhile, the long-term impact of Ricci's maps on Chinese cartography has been revealed to be very limited. Thus, contrary to earlier studies that largely focused on Ricci's contributions to and influences on Chinese cartographic techniques and geographical knowledge, a reverse question has been raised: Given that Ricci's maps had a fairly wide circulation in original editions and reproductions in Chinese works, why did they make no lasting impression on Chinese mapmaking?¹⁹

16 Baddeley, "Father Matteo Ricci's Chinese World Maps," 261.

17 A fuller exploration of this multiplicity is the subject of Chapter 3 below.

18 See, in particular, Boleslaw Szcześniak, "Matteo Ricci's Maps of China," *Imago Mundi* 11 (1954): 127–136; Theodore N. Foss, "Jesuit Cartography: A Western Interpretation of China," *Review of Culture*, Second Series, 21 (1994): 133–156, and idem, "Cartography," in Standaert, ed., *Handbook of Christianity in China, Volume 1*, 752–770; and Li Jixiang (Lee Chi-Hsiang) 李紀祥, "Yutu shi yu jieshou shi zhong de haiguo yu dadi—Qing ji shijie xintu zhi fenxing" (輿圖史與接受史中的海國與大地—清季世界新圖之分型 Worldviews Based on "the Maritime Country" versus "the Whole Earth" in the Chinese History of Maps: A Temptation to Distinguish Models from the Late Ching's New World Maps), *Furen lishi xuebao* (輔仁歷史學報 Fu Jen Historical Studies) 22, no. 1 (2009): 27–94.

19 Yee, "Traditional Chinese Cartography," 176. My article, Zhang, "Matteo Ricci's World Maps in Late Ming Discourse of Exotica," was an attempt to resolve this question.

Another important historiographical development in this area, to which the present study intends to contribute, is to take seriously the social and intellectual networks that the Jesuits had to enter to survive and carry on their missionary work in China, for these networks formed an integral part of the historical setting of the Jesuits' knowledge-making. Nicolas Standaert, in a series of articles, has defined a space of "in-between"—between the "Self" and the "Other"—in which to locate the Jesuits in China as missionaries and men of learning. This approach emphasizes the role of interaction and communication—between individual Jesuits, on the one hand, and their close associates and the wider Chinese audience, on the other—in the shaping of these Jesuits' self-identity, missionary agenda, authorship of their works, and the outcome of the knowledge they produced as well.²⁰ In his 2013 book *Imagined Civilizations: China, the West, and Their First Encounter*, Roger Hart complicates the story further by delving deeply into the political agendas of Ricci's Chinese collaborators, and in so doing turns the conventional triumphal tale inside out. Rather than glorifying Ricci's role in spreading an advanced Western science into China, what emerges from Hart's analysis is how Ricci's Chinese collaborators "hijacked" him into producing texts that served *their* agenda. Hart challenges the legitimacy of crediting Ricci as the author of his Chinese world maps altogether. He refers to the third edition of Ricci's maps, the "Complete Geographical Map of Ten Thousand Countries" (Kunyu wanguo quantu 坤輿萬國全圖, 1602; see Figure 2.1, discussed in detail below), as "*conventionally* attributed to Matteo Ricci, produced in collaboration of [*sic*] Li Zhizao" (emphasis added).²¹ Indeed, Hart suggests that it was not Ricci but his Chinese collaborators—in this case Li Zhizao 李之藻 (1565–1630),²² a Christian convert and powerful patron of Ricci's and an ambitious official of the Ming court—whose political agendas dictated the terms in which the legends on the "Ricci maps" were cast.²³

20 See especially Nicolas Standaert, "Methodology in View of Contact between Cultures," 23–47; idem, "Matteo Ricci and the Chinese: Spaces of Encounter between the Self and the Other"; and idem, "Matteo Ricci: Shaped by the Chinese," *China Heritage Quarterly*, no. 23 (2010), accessed on 12/1/2013 at: http://www.chinaheritagequarterly.org/features.php?searchterm=023_standart.inc&issue=023.

21 Hart, *Imagined Civilizations*, 253.

22 For further studies of Li Zhizao's life and work, see Fang Hao 方豪, *Li Zhizao yanjiu* (李之藻研究 A Study of Li Zhizao) (Taipei: Taiwan shangwu yinshu guan, 1966); Yuen-Sang Leung, "Towards a Hyphenated Identity: Li Zhizao's Search for a Confucian-Christian Synthesis," *Monumenta Serica* 39 (1990–1991): 115–130; and Yu Liu, "The Spiritual Journey of an Independent Thinker: The Conversion of Li Zhizao to Catholicism," *Journal of World History* 22, no. 3 (2011): 433–453.

23 Roger Hart develops this argument partly by critiquing the translation and interpretation of Ricci's legend on Europe in his 1602 map that I give in Zhang, "Matteo Ricci in Late

Hart's interpretation opens an exciting line of inquiry that may revolutionize our understanding of the dynamics of the production of Jesuit science in China. Indeed, there is ample indication in our firsthand Jesuit and Chinese accounts that the Jesuits received much assistance from their Chinese tutors, collaborators, and other informants in the writing and publication of works issued under their names. However, while acknowledging a degree of collaboration from Ricci's Chinese associates, I hesitate to take the further step, as Hart has done, of denying Ricci full authorship of the maps. For one thing, I have found no substantial evidence in my research that ties any of the specific contents of these maps to the *imposition* of a detail by a particular Chinese collaborator of Ricci's at the expense of Ricci's own interests and agendas. What seems closer to the truth is that his agendas themselves evolved over time, in part as a consequence of his interactions with his Chinese collaborators, and that a number of these collaborators may also have shared and facilitated some of his agendas for their own career advancement. Another sign of Ricci's full agency for his works is that during his long journey from southern China to Beijing (1583–1601), he continuously forged new friendships and working relationships with patrons and collaborators from diverse social backgrounds and aspirations. Yet in contrast to the rich and varied social interactions he had with these individual men, his published Chinese works exhibit a remarkable continuity in terms of the core vocabulary they employ and certain key themes they stress; the major points he conveys in these works are also consistent with what he wrote that he had done or had sought to achieve in those works, whether in his personal journals or in letters to his Jesuit superiors and other correspondents in Europe.²⁴

Based on these consistencies, I remain convinced that it was Ricci who was speaking throughout these writings and who articulated the chief messages delivered in the works published under his name. Thus, while situating myself within the broader interpretive scheme that emphasizes how Ricci's dynamic interactions with Chinese scholars informed his world maps, I continue to regard these maps as spontaneous products of the contact zone shaped both by the European sources Ricci brought with him to China and by what he learned from and about the individual Chinese whom he encountered in his years there. To the extent that his maps weave these diverse sources together, they may be seen as impromptu maps of the contact zone in which he found

Ming Discourse of Exotica." My detailed response to that critique appears in note 108 below. Here I wish to thank Hart for drawing me into the debate.

24 A rigorous linguistic analysis of all the works published under Ricci's name, employing the tools of digital humanities, may offer a solution to this debate on the authenticity and integrity of Ricci's authorship of these works.

himself. But Ricci did not merely mirror the contact zone with a hybrid product haphazardly arrived at; he exerted his conscious intent and *power* over what he had learned at and about the contact zone. Out of the diverse sources and insights he gained, Ricci fashioned maps of his own to deliver a clear agenda: to open up the minds of his Chinese readers to the wonderful achievements of Western Christendom as the *other* center of world civilization.

The Jesuits in the Late Ming Discourse of Exotica

“The hour has arrived when divine mercy turns his eyes to this miserable realm and opens with a mighty hand the door shut tight to the preachers of the Holy Gospels.”²⁵ Thus Ricci recorded in his journals, later in life, the story of how the Jesuit mission in China had begun. In hindsight, however, the “divine mercy” that enabled Ricci and his senior colleague Michele Ruggieri (1543–1607) to obtain the official land grant on which to build their first residence inside China in 1583 took the form of a fortuitous combination of several historical contingencies. According to the Sea Ban (*haijin* 海禁) on private shipping put in place by the founder of the Ming dynasty two centuries earlier, the only foreigners allowed into the empire were emissaries of tributary states and merchants associated with such states arriving on prescheduled trading missions. That ban had been lifted in 1567, making it theoretically possible to admit such foreigners as Ricci and Ruggieri, who claimed to have been drawn by Chinese high culture and virtue and to be seeking permanent residence in China. However, there were no specific laws or regulations set by the court that obliged customs officials and local magistrates to respond to such requests or that showed them how to proceed. In the midst of mounting crises on the coast and incessant military campaigns against pirate attacks, foreigners were an easy target of suspicion. Thus the individual officials who had to handle the missionaries’ request generally avoided taking the personal responsibility to approve it. But they were not without their own vulnerabilities. As always, officials were liable to corruption and seduction, and it was through a combination of heavy bribery and subtle allure, accomplished with exotic and pricy articles—such as a Western clock, paintings, and prisms—that the fathers pushed open and got their foot inside the otherwise tightly shut door.²⁶

25 Ricci, *Fonti Ricciane*, vol. I, 177. The English translation is quoted from Ronnie Po-chia Hsia, *A Jesuit in the Forbidden City: Matteo Ricci, 1552–1610* (Oxford and New York: Oxford University Press, 2010), 79.

26 For an account of the vicissitudes that Ruggieri and Ricci experienced before finally obtaining the land grant for their first residence, see Hsia, *A Jesuit in the Forbidden City*,

The power of such curious Western objects can be gauged fully only within the broader cultural and intellectual context of the late Ming. Despite the fact that frequent crises at the northern border and pirate attacks on the maritime frontier often translated into xenophobic attitudes, members of the late Ming elite—the class of scholars and officials—were captivated by an unprecedented thirst for new knowledge. To climb the ladder of success via the civil service examinations, they still had to study the Confucian classics in light of the state-sanctioned orthodox commentaries on these works written by the Song-dynasty Neo-Confucian philosophers. For many late Ming elites, however, such moral and metaphysical discourses no longer held the center of their attention; rather, their interests were gravitating toward things mundane, practical, anecdotal, and fantastic.

The epitome of this intellectual shift was the newly emerging ideal of scholarly perfection captured in the title *bowu junzi* 博物君子 (“erudite gentleman”). Linguistically, this title is reminiscent of the Confucian injunction *gewu zhizhi* 格物致知 (indicating that one must vigorously investigate the principles of things so as to achieve deeper knowledge of universal moral principles). However, a perusal of representative works written by such gentlemen of erudition reveals that the *wu* 物 (“things”) they investigated were primarily strange and rare objects, from peculiar animals, trees, minerals, food, and medicine to extraordinary artifacts such as antiques, rare manuscripts, and artwork. The meaning of the term *ge* 格 (“investigate”) also took an empirical turn, for these erudite gentlemen were no longer satisfied with merely reading about such things in books but wished to investigate them in situ, interview eye witnesses, and, if possible, collect such objects for display. The more rapid dissemination of information through printed media during this period, such as the periodic newsletter *Court Proceedings* (Dibao 邸報) issued by the Ming court to civil servants of the empire, combined with the availability of official excuses for travel, kept these scholars constantly on the hunt for the strange and exotic.

Fascination with the strange was not itself a novelty in the late Ming. A distinct literary tradition known as “records of the strange” (*zhiguai* 志怪) had emerged during the Six Dynasties (220–589 CE). This tradition stretched back to the second half of the last millennium BCE and persisted well into the eighteenth century. These “strange writings” often took the form of brush notes (*biji* 筆記), in which literati jotted down things they had seen, heard, or read about that they deemed noteworthy. Classified as “minor narratives” (*xiaoshuo* 小說), the records of the strange offered an alternative historiography to the official, dynasty-centered histories by purposely collecting and organizing

64–83. I explore more fully the hostile social environment in which these first Jesuits launched their mission in southern China in the first two sections of Chapter 6 below.

the kind of information that was often left out of such histories—such as hearsay and alleged firsthand accounts about exotic lands and peoples, natural prodigies, and strange human encounters with ghosts, demons, animal spirits, immortals, and gods. In other words, “records of the strange” were alternative attempts to order the world on the part of their authors and the various political and religious groups these authors advocated.²⁷ Regardless of the individual authors’ agendas, these records of the strange both reflected and sustained an abiding interest in exploring cosmic mysteries in Chinese culture. Taken as a whole, they constituted a dimension of Chinese thought that had its intellectual counterparts in other major civilizations of the premodern and early modern world. Indeed, the same thirst for knowledge about the strange and marvelous is abundantly evident in the works of classical Greek and Roman authors such as Herodotus (ca. 484–ca. 425 BCE) and Pliny the Elder (23–79 CE), and in the medieval bestiary of the Latin West, the *Book of Curiosities* of medieval Islam, and the many cabinets of curiosity of early modern Europe.²⁸

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- 27 For some representative studies of *zhiguai* 志怪 (“records of the strange”) literature, see Li Jianguo 李劍國, *Tang qian zhiguai xiaoshuo shi* (唐前志怪小說史 The History of the *Zhiguai* Minor Narratives before the Tang Dynasty), (Tianjin: Nankai daxue chubanshe, 1984), and idem, *Songdai zhiguai chuanqi xulu* (宋代志怪傳奇叙錄 Introductions to and Anthology of the Anomaly Accounts and Legends from the Song Dynasty), (Tianjin: Nankai daxue chubanshe, 1997); Robert Campney, *Strange Writings: Anomaly Accounts in Early Medieval China* (Albany: State University of New York Press, 1996); Judith Zeitlin, *Historian of the Strange: Pu Songling and the Chinese Classical Tale* (Stanford, Calif.: Stanford University Press, 1997); Tak-Hung Leo Chan, *The Discourse on Foxes and Ghosts: Ji Yun and Eighteenth-Century Literati Storytelling* (Honolulu: University of Hawai‘i Press, 1998); and Xiaohuan Zhao, *Classical Chinese Supernatural Fiction: A Morphological History* (Lewiston, NY: The Edwin Mellen Press, 2005).
- 28 James S. Romm, *The Edges of the Earth in Ancient Thought: Geography, Exploration, and Fiction* (Princeton, NJ: Princeton University Press, 1994), demonstrates the prevalence of this fascination with the strange and the marvelous in the European classical texts on world geography. A recently discovered Egyptian manuscript dated to the late twelfth or early thirteenth century, itself a copy of an eleventh-century Arabic text, contains a world geographical treatise entitled *Kitāb Gharā’ib al-funūn wa-mulāḥ al-ʿayūn*, which is loosely translated as *The Book of Curiosities of the Sciences and Marvels for the Eyes*. This manuscript is now held at the Bodleian Library of Oxford University, and the digital images of it can be accessed at <http://www.bodley.ox.ac.uk/bookofcuriosities>. For a study of this text, see Yossef Rapoport and Emilie Savage-Smith, “The Book of Curiosities and a Unique Map of the World,” in Richard J.A. Talbert and Richard W. Unger, eds., *Cartography in Antiquity and the Middle Ages: Fresh Perspectives, New Methods* (Leiden: Brill, 2008), 121–138. For recent studies on the discourses of exotica in early modern Europe, see Mary Campbell, *The Witness and the Other World: Exotic European Travel Writing, 400–1600*

The late Ming discourse of exotica was the culmination and transformation of this long-standing tradition of narrating the strange. The “erudite gentlemen” who propelled the discourse on (strange) things in the late Ming continued to record their findings in the form of brush notes. Although brush notes were still formally classified as minor narratives, their output in this period was so great, and so many respected scholars chose to present their lifetime’s work in this form, that the genre of brush notes ceased to be regarded as minor except in name. Nor was the intellectual interest in collecting and studying strange things considered a marginalized, alternative countercurrent in late Ming thought, for it had become a part of the mainstream intellectual pursuits of the elite. This is evident in the appearance of a large number of brush notes dedicated to exploring the strange written by highly successful scholars and officials, and also in the ubiquity of entries on strange things in most of the brush notes published from 1550s to the end of the Ming in 1644.²⁹

The publication of these brush notes itself also indicated an unprecedented appetite for exotica among the reading public. This appetite drove an explosion of reprints of works on exotica from earlier periods as well. Particularly popular was an illustrated account of foreign peoples entitled *Record of Naked Creatures* (Luochong lu 羸蟲錄). This is a version of the *Illustrated Account of Foreign Lands* (Yiyu tuzhi 異域圖志), dated possibly to the early fifteenth century, which in turn bears some textual resemblance to the *Record of Foreign Lands* (Yiyu zhi 異域志) by the fourteenth-century author Zhou Zhizhong 周致中. During the late Ming, the *Record of Naked Creatures* went through numerous reprints, both as a stand-alone text and as part of the dozens of encyclopedias published in this period.³⁰ Although much greater in intensity

(Ithaca, NY: Cornell University Press, 1989); Paula Findlen, *Possessing Nature: Museums, Collecting, and Scientific Culture in Early Modern Italy* (Berkeley: University of California Press, 1996); Lorraine Daston and Katharine Park, *Wonders and the Order of Nature, 1150–1750* (Cambridge, Mass: MIT Press, 1998); and the essays in Pamela Smith and Paula Findlen, eds., *Merchants and Marvels: Commerce, Science, and Art in Early Modern Europe* (New York: Routledge, 2001).

29 See, in particular, Xie Zhaozhe’s 謝肇淛 (1567–1624), *Wuzazu* (五雜俎 Fivefold Miscellany, 1618), reprinted edition (Shanghai: Shanghai shudian, 2009); Li Rihua 李日華 (1565–1635), *Zitaoxuan zazhui* (紫桃軒雜綴 Assorted Notes Composed at the Purple Peach Veranda), reprinted edition (Shanghai: Zhongyang shudian, 1936), and idem, *Weishuixuan riji* (味水軒日記 Diaries from the Water-Tasting Veranda), reprinted edition (Shanghai: Shanghai yuandong chubanshe, 1996); and Shen Defu 沈德符 (1578–1642), *Wangli yehuo bian* (萬曆野獲編 Unofficial Gleanings of the Wanli Reign), 3 vols., reprinted edition (Beijing: Zhonghua shuju, 2007).

30 For a recent study of this text and its print history in the late Ming, see Yuming He, “The Book and the Barbarian in Ming China and Beyond: The *Luochong lu*, or ‘Record of Naked Creatures,’” *Asia Major* 24, no. 1 (Spring 2011): 43–85.

and scope, the late Ming discourse of exotica had much in common with the earlier tradition of narrating the strange in terms of its content, focus, and media of communication. In this sense, it can be seen as the culmination of that tradition.

There was, however, something qualitatively different about the discourse of exotica in the late Ming, in that it gave a distinctly performative turn to what had formerly been an intellectual pursuit confined largely to the scholar's studio. The love of new knowledge about terrestrial and cosmic mysteries was now deeply embedded in the daily drama performed on the stage of the real world. It became enmeshed with individual authors' and readers' psychological, aesthetic, and personal, as well as intellectual, self-expression as authentic humans. The late Ming was a time when scholars of taste, as trend-setters, openly flaunted their peculiar hobbies and obsessions.³¹ For example, Xie Zhaozhe 謝肇淛 (1567–1624), a scholar-official and the author of a voluminous collection of notes entitled *Fivefold Miscellany* (Wuzazu 五雜俎, 1618), admitted to a “weakness” for rare books and for travel. He acknowledged that “reading a book that is rare to find or seeing a mountain or river that I have never been to is like acquiring the utmost treasure or tasting an uncommon flavor; the extraordinary pleasure therein cannot be communicated with words.”³² What such connoisseurs sought was an *authentic* encounter with the rare and exotic. Whereas earlier authors of the records of the strange had been satisfied with *claiming* that what they wrote down came from credible eye witnesses or trustworthy texts, the late Ming collector of tales of the strange turned a critical eye to what previous books had passed down and wanted to verify them for himself. Thus, in *Fivefold Miscellany*, Xie Zhaozhe reported that macaque monkeys (*husun* 胡獼猴) were said to possess the ability to transform themselves into humans. Since he had heard that they frequented two kinds of places—the civil service examination halls, which were empty when the exams were not in session, and run-down, abandoned government office buildings—Xie resided alone in both kinds of place in the city of Hangzhou for months at a stretch, in hopes of catching a glimpse into how the macaques would metamorphose. However, as he confided in his brush notes, he failed in this attempt because no macaques showed up.³³ Nonetheless, his active research into the realm of strange phenomena in nature, employing on-site observations, speaks to the

31 On the late Ming and early Qing culture of obsession, see Judith Zeitlin, “The Petrified Heart: Obsession in Chinese Literature, Art, and Medicine,” *Late Imperial China* 12, no. 1 (June 1991): 1–26.

32 Xie Zhaozhe, *Wuzazu*, *juan* 13, 259.

33 Xie Zhaozhe, *Wuzazu*, *juan* 9, 173.

desire to differentiate fact from myth that was to become the intellectual signature of a new era:³⁴ Many of Xie's contemporaries shared the same action-oriented approach to knowledge acquisition by traveling to new places and meeting new people. In this respect, these erudite gentlemen of the late Ming were indeed remarkably close in spirit to their counterparts in Renaissance Europe.

For some of these scholars, the realm of possibility now suddenly expanded beyond their wildest imagination with the arrival of the first Jesuits. The Jesuits' mission residence, located on the bank of the river just outside the eastern edge of the city of Zhaoqing, was ideally positioned to catch scholarly traffic and interested onlookers alike, for the city hosted the offices of the viceroy of the twin provinces of Guangdong and Guangxi, the prefect of Zhaoqing, the magistrate of Gaoyao county, and the regional military garrisons. When settling in, Ricci and Ruggieri found their front gate besieged by crowds of curious residents from the neighborhood eager to peek inside and willing to make way only for important guests arriving in sedan chairs. The foundation and pattern of the Jesuits' social networking with the Chinese elite were laid there at the mission residence in these early years, and would continue to sustain the rest of Ricci's missionary career in China: he would spend the majority of his waking hours receiving important Chinese guests and paying them return visits. "We don't have to go out to preach to them," as he later recalled, "but they bring themselves to us."³⁵

By 1588, the mission residence in Zhaoqing, for which Ricci assumed full responsibility after Ruggieri's reassignment back in Europe, had been transformed into a site of cultural tourism, a proto-museum of sorts that rivaled the cabinets of curiosity in early modern Europe. As Ronnie Po-chia Hsia describes in his 2010 biography of Ricci,

Crowds came to gawk at the grand clock, western oil paintings with their strange perspectival techniques, engravings and prints, astronomical and mathematical instruments, and western books bound in leather and stamped with golden letters; the more refined visitors examined books on cosmography and architecture, marveled at the geographical novelties depicted on the wall map of the world, and even questioned Ricci

34 For a critique of Xie Zhaozhe's research methodology, see Mark Elvin, "The Man Who Saw Dragons: Science and Styles of Thinking in Xie Zhaozhe's *Fivefold Miscellany*," *Journal of the Oriental Society of Australia* 25–26 (1993–1994): 1–41.

35 Matteo Ricci, Letter to P. Claudio Acquaviva, General of the Society of Jesus, August 22, 1608, in Ricci, *Lettere*, 496.

about the contents of the books: the countries, politics, customs, and religion of the West.³⁶

An outstanding product of the humanistic curriculum at the Roman College, the flagship of Jesuit education, and having had among his mentors some of the best-known Jesuit scholars of the time, such as the mathematician and astronomer Christopher Clavius (1538–1612), Ricci was quite an erudite man himself by the standard of his fellow Jesuits. His quick wit, gift of superior memory, and keen interest in mathematics, astronomy, and geography all came in handy as he tried to field the questions of his inquisitive guests. His public persona quickly changed from that of a monk of the West (*xiseng* 西僧), the first appellation that the Jesuits adopted for themselves under Ruggieri's stewardship, into that of a master of the Way (*daoren* 道人) or master of esoteric arts (*yiren* 異人), a title often used in the late Ming for men of cultivation who had presumably mastered cosmic mysteries and acquired special powers.³⁷ This transformation was much helped by the circulation of firsthand reports from Ricci's visitors. Such reports included intriguing descriptions of his personal features, such as that "he had a purple beard and blue eyes" and that "his face had the color of peach blossoms"; of the curious objects he showed them, such as the Bible that "had fine sheets of paper that felt like a beauty's skin";³⁸ and of his extraordinary personal experiences. On this last topic, Ricci told them that he had been at sea for three or four years before arriving in China, whereas in reality he had spent most of that time stationed at the Jesuit College in Goa.³⁹ Such stories were quickly picked up and further dramatized by his visitors. Thus one of them reported:

36 Hsia, *A Jesuit in the Forbidden City*, 111. Curiosity about Ricci's person and the various kinds of Western objects he brought continued to be the major reason that attracted visitors to his mission house later in his career. See, for example, Ricci's letter to Father Claudio Acquaviva from Nanchang, November 4, 1595, in Ricci, *Lettere*, 315.

37 Hsia, *A Jesuit in the Forbidden City*, 136. *Daoren* 道人 or *yiren* 異人 was the intermediate title which Ricci adopted before his official switch to the next title, *xiru* (西儒 Western scholar), around 1595, while in Nanchang.

38 Li Rihua, *Zitaoxuan zazhui*, 25.

39 Ricci departed Lisbon with his group on March 24, 1578, and arrived in Goa on September 13 of that same year. He was assigned to Goa to complete his theological studies at the Jesuit College while teaching Latin grammar there. In August 1582 he was relocated to Macao to help Ruggieri start the China mission. But in accounting for his voyages, Ricci simplified the itinerary so that it sounded as though the sea voyage alone took three or four years. For example, in his memorial accompanying his tributary presents to the Wanli Emperor, drafted in the twenty-eighth year of Wanli reign (1600), Ricci stated: "My home

Li Madou [Ricci] began the voyage with ten companions, passing through more than a thousand countries and 60,000 *li*. It took six years for their boat to reach Annam and enter our southern border in Guangdong. By then all his companions had perished. Madou alone was able to resist harmful influences through the powers of his esoteric arts and to fend off diseases by his consummate skills of breathing and meditation.⁴⁰

In such accounts, Ricci emerged as the stuff of legend, exoticized and familiarized at the same time through allusions to prototypes of the esoteric man or the master of the Way. A new discourse of Occidental exotica arose among late Ming scholars. Its focus began with Ricci's very person and extended to the culture and religion of the Far West.

It was the momentum of this new discourse that drew Ricci into the enterprise of mapmaking. As early as 1584, Wang Pan 王泮 (*jinshi* 1565), the prefect of Zhaoqing to whom Ricci and Ruggieri owed the land grant for their residence, paid them a visit and saw a world map hanging on the wall of their reception hall. After learning what it was, Wang asked Ricci to "make his map speak Chinese"⁴¹ so that Wang could investigate its contents. Never dreaming

country is very far away. It has never participated in any tributary relations [with China]. However, after hearing of your celestial dynasty, of its esteemed teachings and culture, I resolved to come and bathe myself in its enlightening radiance. Should I be able to do so, even if I were to be stranded in this foreign land as a result, I would have no regrets. Thus I bade farewell to my country and sailed the oceans on a distant journey. It took a voyage of three years across an expanse of over 80,000 *li* before I arrived in Guangdong." Ricci, *Li Madou zhongwen zhuyi ji*, 232. Ruggieri told similar stories about his voyage to China. For example, he wrote in one of his first Chinese poems: "I traveled from the Far West to India/A trip of over three years I valiantly began/Time and again I study the works of the great past/And communicate the sacred religion to the laity." Quoted with modification from Albert Chan, S.J., "Michele Ruggieri, S.J. (1543–1607) and His Chinese Poems," *Monumenta Serica* 41 (1993): 158. For further discussion on this issue, see D'Elia's comments in Ricci, *Fonti Ricciane*, vol. I, N. 234, note 1 (on pages 181–183).

40 Li Rihua, *Zitaoxuan zazhui*, 24–25.

41 Ricci and Trigault, *China in the Sixteenth Century*, 166. There are no adequate sources for determining the identity of this European map displayed in the Jesuit residence in Zhaoqing at this time. Although scholars agree that the atlas of Abraham Ortelius (1527–1598) was the major European source for the later editions of Ricci's maps, of which there are extant samples or imitations, and Ortelius's *Theatrum orbis terrarum* (Antwerp: Apud Aegid. Coppenium Diesth, 1570) is listed among the tributary gifts that Ricci presented to the Wanli Emperor in 1601, Ricci did not receive a copy of this book until a later date. See Hui-Hung Chen, "The Human Body as a Universe," 522, citing D'Elia, *Il mappamondo cinese del p. Matteo Ricci*, 169, and D'Elia's comments in Ricci, *Fonti Ricciane*, vol. I, 207.

what it would lead to, Ricci drew a cursory version of the map, not paying too much attention to its cartographical details, and rendered it into Chinese. He was surprised when he learned that the prefect subsequently “caused it to be printed offhand, without me seeing it again, I not dreaming that it was to be printed. And he valued it so highly that he kept the block by him and would not allow any copies to be printed save those that he wanted to give to the principal persons in China.”⁴² Ricci’s map came to be in such high demand as a gift item that he took the opportunity to revise and expand it each time it went into print. His map thus went through multiple editions under different titles over the next two and a half decades.⁴³ Each of the reprints and editions was issued at the demand of a Chinese patron who oversaw the carving and printing process of the maps and bore the entire cost. There were several

42 Ricci, Letter to P. Claudio Acquaviva, November 30, 1584, in Ricci, *Lettere*, 92. Translation cited from Baddeley, “Father Matteo Ricci’s Chinese World Maps,” 259. In the letter Ricci explains that the map contains a number of inaccuracies, resulting partly from his own mistakes due to haste and partly from errors made by the printers.

43 The first edition of Ricci’s world map, “Yudi shanhai quantu” (輿地山海全圖 A Complete Geographical Map of Mountains and Seas), appeared in 1584 and is now lost. This edition was produced at the request of Wang Pan 王泮, the prefect of Zhaoqing, who kept all of the copies himself for use as personal gifts. But Ricci also made at least two similar copies on his own as gifts. One of these gift copies, from the hands of Ricci or Wang Pan, came into the possession of Zhao Kehuai 趙可懷, the governor of the metropolitan district of the Ming southern capital Yingtian 應天府, who had a copy of it carved on a stone in the city of Suzhou. The second edition, “Shanhai yudi quantu” (山海輿地全圖 A Complete Geographical Map of Mountains and Seas), was printed in 1600. As stated above, the third edition, “Kunyu wanguo quantu,” was printed in 1602. The fourth edition, known as “Liangyi xuanlan tu” (兩儀玄覽圖 A Mysterious Visual Map of the Two Forms), was printed in 1603. In 1608, a court eunuch presented a copy of the 1602 edition to the Wanli Emperor, who took a great interest in it and demanded that twelve copies of it be made as gifts for the royal princes. Court eunuchs accordingly made twelve copies based on that 1602 edition. Baddeley, “Father Matteo Ricci’s Chinese World Maps,” 266–267, contains a translation of Ricci’s account of the events related to the creation of this 1608 edition of twelve copies. Judging from the surviving copies of this edition, it seems that its major difference from the 1602 edition is the addition of illustrations of ships, fishes, and sea monsters. For further information on the various editions of Ricci’s world maps, the location of their extant copies, and the relationships among these editions, see Hong Weilian 洪煥蓮, “Kao Limadou de shijie ditu” (考利瑪竇的世界地圖 On the World Map of Matteo Ricci), *Yugong banyue kan* (禹貢半月刊 Chinese Historical Geography) 5, nos. 3–4 (1936): 1–50; Cao Wanru 曹婉如 et al., “Zhongguo xiancun Li Madou shijie ditu de yanjiu,” 59; John D. Day, “The Search for the Origins of the Chinese Manuscript of Matteo Ricci’s Maps,” *Imago Mundi* 47 (1995): 94–117; Foss, “La cartografia di Matteo Ricci,” 184–186; and Huang Shijian and Gong Yingyan, *Li Madou shijie ditu yanjiu*, Chaps. 1–4.

underground, pirated versions of his maps as well. Among the various editions of Ricci's world maps, the above-mentioned 1602 edition, "Complete Geographical Map of Ten Thousand Countries" (Figure 2.1), sponsored by Li Zhizao and carved by the artist Zhang Wentao 張文燾, enjoyed the widest dissemination through several reprints, with a total of more than one thousand copies being made by Ricci's own estimate.⁴⁴

The tremendous success of this map of 1602 bears witness to Ricci's personal transformation from an object of curious gaze into a true master of the late Ming discourse of exotica. Almost two decades of intense social networking among, and close observation of, Chinese scholar-officials had given Ricci an intimate knowledge of his Chinese audience. He had, to paraphrase St. Ignatius's metaphor, entered the house through the door of his Chinese interlocutors. He was able to speak using their idioms and to fascinate their imaginations. In the meantime, he did not lose sight of his end goal, as a missionary, of leading them out of the house through his own door. As we have seen in his reflection on his mapmaking excerpted from his journals in the introduction to this chapter, Ricci's primary concern in making his world maps was to awaken his readers from their Sinocentric conceit and expose them to the reality of a much larger world outside China, and especially to the splendors of Western Christendom. In the following analysis of his 1602 map, we will see how his competing agendas—to both connect with and transform his readers—impressed themselves upon his mapmaking.

Matteo Ricci's World Map as a Product of the Contact Zone

From its visual representation of the globe to the exotic worldview it conveyed—and its exquisitely crafted legends about foreign lands and peoples—Ricci's "Complete Geographical Map of Ten Thousand Countries" of 1602 (see Figure 2.1) baffled and enamored his Chinese audience like no other work of exotica they had ever seen. Stretching to a height of 5.5 feet and a width of 12.5 feet, the colossal map presents the world in an oval projection, capturing in visual form the shape of the earth as a globe.

In the four corners of the map Ricci inserted diagrams entitled "Diagram of the Nine Heavens" (Jiuchong tian tu 九重天圖; see Chapter 4, Figure 4.3), "The Armillary Sphere" (Tiandi yi 天地儀), "The Image of the Northern Hemisphere" (Chidao beidi banqiu zhi tu 赤道北地半球之圖), and "The Image of the Southern Hemisphere" (Chidao nandi banqiu zhi tu 赤道南地半球之圖).

44 Hostetler, *Qing Colonial Enterprise*, 53.

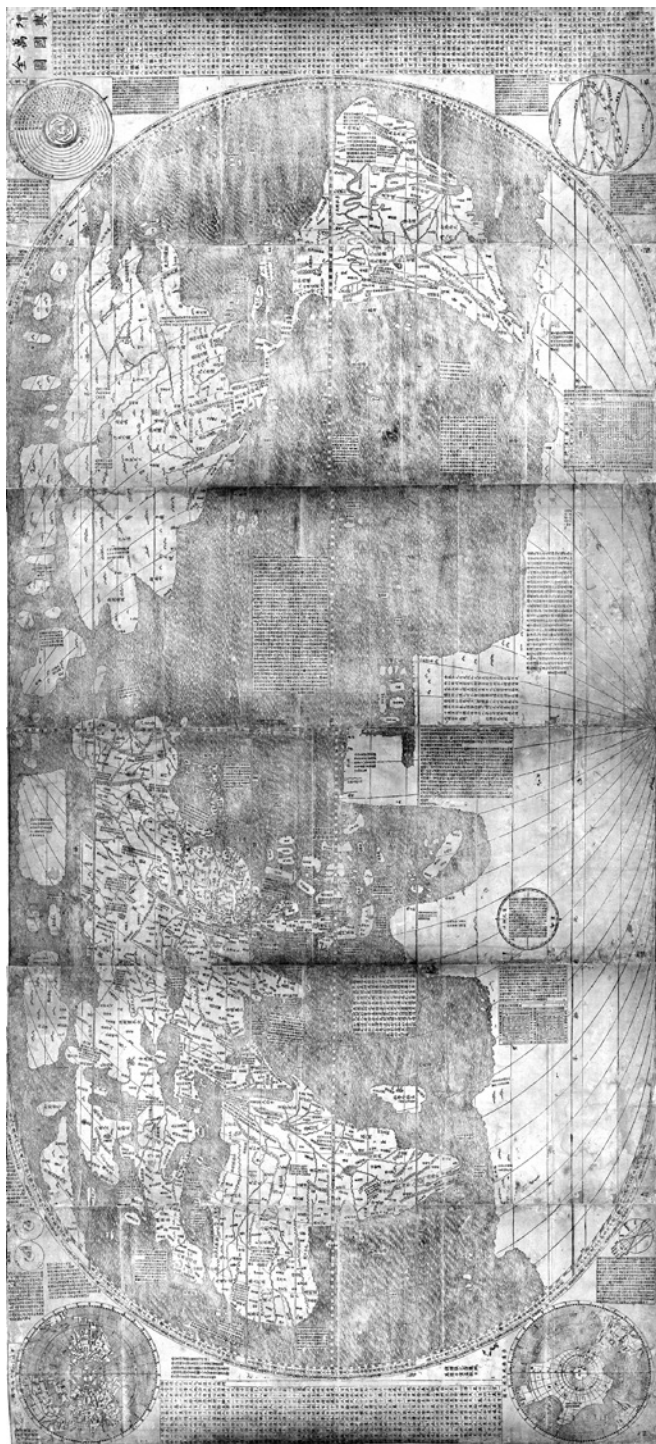


FIGURE 2.1 Matteo Ricci's (Li Madou 利瑪竇, 1552–1610) “Complete Geographical Map of Ten Thousand Countries” (*Kunyu wanguo quantu* 坤輿萬國全圖), Beijing, 1602

DIGITAL IMAGE OF COPY OWNED BY JAMES FORD BELL TRUST, USA. PHOTO COURTESY OF THE BELL TRUST

In the general introduction to the map, occupying some 12 long, vertical lines printed on the map's right margin, Ricci outlined the then-orthodox Catholic view of the cosmos and the late Renaissance European geographical knowledge of the world. He taught that the earth is a globe resting at the center of the cosmos, and coined the term *dìqiú* 地球 (literally, "terrestrial sphere") to designate it. He introduced the notions of the equator, the North and South Poles, and the latitudes and longitudes; drawing on his personal observations, he ascertained that 1 degree of latitude on earth equals 250 *li*, and thus that the earth's circumference is 90,000 *li*.⁴⁵ Ricci also discussed the tropical, temperate, and arctic zones, the seasons, and the variations of the lengths of day and night. He wrote that the earth's landmass consists of five continents—Europe (Ouluoba 歐羅巴), Libya or Africa (Liweiya 利未亞), Asia (Yaxiya 亞細亞), South and North America (Nanbei yamolijia 南北亞墨利加), and Magellanica (Mowalanijia 墨瓦蠟泥加)—each containing over a hundred countries. In several shorter essays inserted in the spaces close to the corners of the map, Ricci explained the causes of the solar and lunar eclipses, the relative sizes of the earth and the sun, the translucency and solidity of the crystalline celestial spheres, the sizes of the planets and the fixed stars, their respective distances from the earth, and so forth. In other words, the "Complete Geographical Map of Ten Thousand Countries" was far more than just a world map; it served as a primer for late Renaissance European astronomy, cartography, world geography, and Aristotelian scholastic natural philosophy.⁴⁶

45 One *li* = about 0.5 kilometer (or about 0.3 miles). Huang Shijian and Gong Yingyan note that Ricci first fixed 1 degree of latitude and longitude as 200 *li* and the earth's circumference as 72,000 *li*, but around 1600 he adopted these new figures—1 degree as 250 *li* and the earth's circumference as 90,000 *li*. See Huang Shijian and Gong Yingyan, *Li Madou shijie ditu yanjiu*, 21–22. Ricci's calculation was found to be incorrect. In the late Kangxi reign (1702), it was readjusted to 200 *li*. The present measurement of the earth's equatorial circumference is 40,075.017 km or 80,150.034 *li*, or 222.63 *li* per degree.

46 Ricci's major Western sources in these areas were Alessandro Piccolomini (1508–1578), Abraham Ortelius, Gerardus Mercator (1512–1594), Petrus Plancius (1552–1622), and Christopher Clavius. The oval projection and other major cartographical features of Ricci's 1602 "Complete Geographical Map of Ten Thousand Countries" (see Figure 2.1) were modeled after Ortelius's *Theatrum Orbis Terrarum* (Theater of the World). Ricci had a number of copies of this text in his possession. He presented one of them to the Royal Prince of Jian'an (Jianan wang 建安王) in Nanchang in 1595, and another to the Wanli Emperor in 1601. He was receiving more copies of the book from Europe as late as 1608. However, the exact editions of these copies are unclear. On Ricci's European cartographical sources, see E. Heawood, "The Relationships of the Ricci Maps," *The Geographical Journal* 50, no. 4 (1917): 271–276; Day, "The Search for the Origins of the Chinese Manuscript of Matteo Ricci's Maps"; Lin Dongyang, "Li Madou de shijie ditu,"

Ricci's visual representation of the world, which combines a strong quantitative feature (with parallel longitudes and latitudes meticulously drawn and precisely marked) with a prominent narrative element (through the insertion of numerous text boxes containing legends of various lengths) makes his map a striking anomaly in Chinese cartographical tradition. As Richard Smith has pointed out, there were two major approaches to mapmaking in premodern China, which persisted alongside each other well into the late imperial era without being explicitly recognized as competing, or even different, traditions. One of these was based on relatively precise mathematical measurements, and the other was based primarily on cultural data.⁴⁷ Typical of the former are maps produced to serve administrative functions (such as the management of tax collection, water conservancy, and river transport) and for purposes of military defenses.⁴⁸ These maps represent distances and topographical features of the land with remarkable precision, following a grid-based system that dates back to Pei Xiu 裴秀 (223–271 CE), if not earlier.⁴⁹ The oldest extant Chinese grid-based map, the “Map of the Tracks of Yu” (Yuji tu 禹迹圖, Figure 2.2), was carved in stone in 1137 and is now preserved in the Forest of Stone Steles Museum in Xi'an, China. It consists of 5,110 grids with each grid representing approximately 100 *li*, for an overall scale of approximately 1:5,000,000. The map captures the Chinese river systems, lakes, and coastlines with great precision.

321–326; D'Elia, *Il mappamondo cinese del p. Matteo Ricci*, Chap. 11; and Huang Shijian and Gong Yingyan, *Li Madou shijie ditu yanjiu*, 63–72.

47 Smith, *Chinese Maps*, 34–35, and idem, *Mapping China and Managing the World*, 52–62.

48 Even among such administrative or military maps, the grid-based mapping method was not widely employed. In his studies of maps in late Ming local gazetteers, Zhang Zhejia 張哲嘉 found that there was no conscious awareness of cartographical genres, nor were there centrally established conventions or directives for cartographers who created maps for the local government. The choice was left to local administrators. See Zhang Zhejia, “Mingdai fangzhi de ditu” (明代方志的地圖 The Maps in the Local Gazetteers of the Ming Dynasty), in Huang Kewu 黃克武, ed., *Hua zhong you hua: Jindai zhongguo de shijie biao shu yu wenhua gou tu* (畫中有話: 近代中國的視覺表述與文化構圖 When Images Speak: The Visual Representations and Cultural Mappings in Modern China) (Taipei: Institute of Modern History, Academia Sinica, 2003), 184–207.

49 Pei Xiu 裴秀 (223–271 CE), whose influence on the history of Chinese cartography is compared to that of Ptolemy in the West, is credited with the formulation of the principles of scale, grid, triangulation, and the representation of uneven heights on a plane surface. However, it has been suggested that some rudimentary form of these principles may have been proposed by Zhang Heng 張衡 (78–139 CE). Howard Nelson, “Chinese Maps: An Exhibition at the British Library,” *The China Quarterly* 58 (1974): 359. In the latter half of Chapter 5 below, I discussed the conscious movement to revitalize Pei Xiu's principles of mathematical cartography in the late seventeenth century.

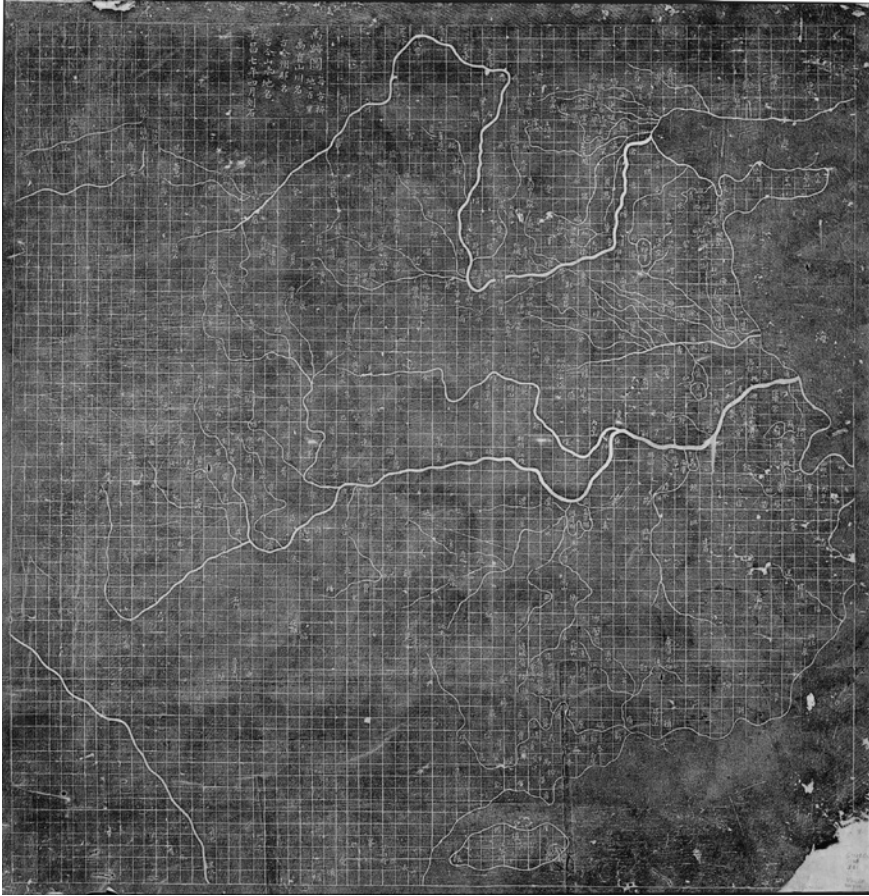


FIGURE 2.2 *Rubbing of “Map of the Tracks of Yu” (Yuji tu 禹迹图), carved in stone in 1137 CE.*
UNITED STATES LIBRARY OF CONGRESS, GEOGRAPHY AND MAP DIVISION, DIGITAL ID:
G7821C.CT001493

In contrast, maps with a strong ethnographic orientation, including those purported to depict the entire known world, tended to fall within the approach based primarily on cultural data.⁵⁰ Their visual representations were more symbolic and schematic than topographical, paying little attention to spatial coordination but instead relying heavily on textual annotations to communicate such information. A representative from the Ming dynasty is the “Map of Advantageous Terrain, Chinese and Foreign, Past and Present” (Huayi gujin

50 Major exceptions to this norm are the maps drawn by Luo Hongxian 羅洪先, who applied the grid system to all lands he mapped, including distant regions such as Africa. On Luo and his maps, see further discussion below.

xingsheng zhi tu 華夷古今形勝之圖, Figure 2.3). This map is set in a square and features a view of the world with China taking up most of the map. In contrast to the “Map of the Tracks of Yu,” this map is more symbolic than accurate, even in its depiction of Chinese topographical features: the Great Wall is drawn as a horizontal straight line, and the coasts are drawn only roughly. Instead, it offers rich annotation on the histories of various cities and administrative regions inside the country. Some of China’s well-known neighbors, such as Korea and Japan, are described in text boxes hanging off China’s eastern coast, which list their names, sizes, histories, customs, administrative structures, and relationships with China. Where familiarity ends, cultural imagination takes over. Thus the text box at the southeastern corner says: “Within the sea are the lands of pygmies, giants, hairy people, women, humans with perforated chests, and other such creatures, the names of which cannot



FIGURE 2.3 “Map of Advantageous Terrain, Chinese and Foreign, Past and Present” (*Huayi gujin xingsheng zhi tu* 華夷古今形勝之圖), undated. In Zhang Huang 章潢 (1527–1608), *Tushu bian* (圖書編 *Compilation of Illustrations and Texts*, 1613), juan 34, 4a–b.

PHOTO COURTESY OF HARVARD-YENCHING LIBRARY

be fully enumerated.”⁵¹ Such strange creatures were the denizens of the imaginary outer edges of the world depicted and popularized by the *Classic of Mountains and Seas* (Shanhaijing 山海經, fourth to first centuries BCE), the Chinese counterpart of the medieval Latin bestiary that stood at the fountainhead of the literary tradition of *zhiguai*, “records of the strange.”⁵²

Rather than reflecting all the world geographical knowledge the Chinese had accumulated throughout the centuries, such a culturally based world map is a premodern Chinese counterpart of the “View of the World from 9th Avenue” by Saul Steinberg.⁵³ Like Steinberg’s depiction of a New Yorker’s view of the primacy of Manhattan, with only a nod to the rest of North America, the Pacific Ocean, and the existence of Asia, “The Map of Advantageous Terrain” expresses an ideological construct of the world that prioritized the position and interests of the Chinese state. It thus captured in visual form a worldview

51 “Gujin tianxia xingsheng zhi tu” 古今天下形勝之圖, in Zhang Huang 章潢 (1527–1608), *Tushu bian* (圖書編, Compilation of Illustrations and Texts, 1613), *juan* 34, 4a. I consulted the copy held at Harvard-Yenching Library. The “Land of Women” here refers to the mythical land where all inhabitants were women. See further discussion below. This map (see Figure 2.3) is a horizontal, expanded version of the “Map of Advantageous Terrain, Past and Present” (Gujin xingsheng zhitu 古今形勝之圖) by Yu Shi 喻時 printed in 1555. The original of Yu Shi’s map is now held at Archivo General de Indias in Seville, Spain. An imitation of this map was created in 2013 by a team of Taiwanese scholars led by Huang Yilong 黃一農 and is now held at Chinese National Museum. For a further study of this map, see Ren Jincheng 任金城, “Xibanya cang Ming ke Gujin xingsheng zhitu” (西班牙藏明刻古今形勝之圖 A Ming Edition of the Map of Advantageous Terrain, Past and Present, Archived in Spain), *Wenxian* (文獻 The Documents) 17 (1983): 213–221.

52 There is a large body of secondary scholarship on the *Classic of Mountains and Seas* (Shanhaijing 山海經, fourth to first centuries BCE). For some recent studies, see especially Richard E. Strassberg, *A Chinese Bestiary: Strange Creatures from the Guideways through Mountains and Seas* (Berkeley: University of California Press, 2002), and Vera Dorofeeva-Lichtmann, “Mapping a ‘Spiritual’ Landscape: Representing Terrestrial Space in the *Shan hai jing*,” in Nicola di Cosmo and Don Wyatt, eds., *Political Frontiers, Ethnic Boundaries, and Human Geographies in Chinese History* (London: RoutledgeCurzon, 2003), 35–79, and idem, “Mapless Mapping: Did the Maps of the *Shanhai Jing* Ever Exist?” in Francesca Bray, Vera Dorofeeva-Lichtmann, and Georges Metailie, eds., *Graphics and Text in the Production of Technical Knowledge in China: The Warp and the Weft* (Leiden: E.J. Brill, 2007), 217–294.

53 The “View of the World from 9th Avenue,” by Saul Steinberg, appeared on the cover of the March 29, 1976 issue of *The New Yorker*. The picture presents what is sometimes called a “parochial New Yorker’s” view of the world seen from Manhattan, looking west across North America and the Pacific Ocean to the Eurasian continent, which consists of three countries: China, Japan, and Russia. I wish to thank my colleague Win-chiat Lee for providing me with this reference.

that had crystallized in the notion of “All under Heaven” (Tianxia 天下). The earliest Chinese term for the world,⁵⁴ “All under Heaven” denotes the earth as a clearly stratified space: although technically all people on Earth reside under the same Heaven, the Chinese alone occupied the center, from which they radiated civilizing influences into the outlying regions of the barbarians. Distance from China coincided with degree of disorder and wilderness.⁵⁵ A philosopher from the Song dynasty, Shi Jie 石介 (1005–1045), once put it this way: “Heaven is above, and Earth is below. That which lies in the middle is called the Central State (Zhongguo 中國), and those [regions] which lie on the sides are called the Four Barbarians. The Four Barbarians are the peripheries, and the Central State is the core.”⁵⁶

In light of these two implicit premodern Chinese cartographical traditions—the mathematical, grid-based style, and the symbolic, cultural, and heavily textualized style of mapping—Ricci’s map would have appeared quite out of the ordinary to his audience. To be sure, the combination of mathematical features and narratives (legends) was a prominent feature of Renaissance European world atlases. But by his own account,⁵⁷ Ricci most certainly expanded the proportion of legends on his map, thereby stretching symbolic and cultural features beyond those found in his European sources. In taking this step, we see the priority he set for his mapmaking, a priority undoubtedly born of his daily contact with late Ming scholars during his missionary work.

Just what Ricci’s priority was is revealed through a closer examination of how he may have arrived at his verdict that the Chinese were convinced of

54 The more modern term for the world, *shijie* 世界, conveys the Buddhist view of infinite space and time, as in the saying “Shijie zhi da wu qi bu you” 世界之大無奇不有 (So vast is the world that there is no want of curiosities in it).

55 For the geographical dimensions of this notion of Tianxia 天下 (All under Heaven) defined by the “Yugong” 禹貢 (Tribute of Yu) chapter in the Confucian classic *Shujing* 書經 (Book of Documents), and by the later commentators on this text, see the fourth section of Chapter 3 below.

56 Shi Jie 石介, *Zulai shi xiansheng wenji* 組徠石先生文集 (Collected Works by Mr. Shi), with punctuation and commentaries by Chen Zhie 陳植鏗 (Beijing: Zhonghua shuju, 1984), 116. For the broader discourse on China and Chineseness in which Shi Jie participated, see Peter Bol, “Geography and Culture: Middle-Period Discourse on the Zhong guo—the Central Country,” in Huang Yinggui 黃應貴, ed., *Kongjian yu wenhua changyu: Kongjian zhi yixiang, shijian yu shehui de shengchan* (空間與文化場域: 空間之意象、實踐與社會的生產 Space and Cultural Field: The Imaginings, Practices, and Social Production of Space) (Taipei: Hanxue yanjiu zhongxin, 2009), 61–105.

57 Ricci and Trigault, *China in the Sixteenth Century*, 166.

“the greatness of their country and the smallness of the rest of the world,” as he put it in his journal entry quoted in the introduction to this chapter. Previous scholars have demonstrated that Ricci was familiar with Chinese maps of both cartographical genres, and also with Chinese maritime literature from the Yuan and Ming periods. Of the symbolic type of maps, Ricci and Ruggieri obtained, early in their stay in Zhaoqing, a version of the “Map of Advantageous Terrain, Chinese and Foreign, Past and Present” shown in Figure 2.3, which was also circulated under the titles “Map of Advantageous Terrain, Past and Present” (Gujin xingsheng zhi tu 古今形勝之圖) and “Map of Advantageous Terrain under Heaven, Past and Present” (Tianxia gujing xingsheng zhitu 天下古今形勝之圖).⁵⁸ Of the grid-based type of maps, Ricci studied and made use of the “Maps of Extended Territory” (Guangyu tu 廣輿圖, 1541) drawn by Luo Hongxian 羅洪先 (1504–1564, *jinshi* 1529), which were based on earlier maps (now lost) made by the Yuan-dynasty scholar Zhu Sibei 朱思本 (1273–1333). Both Zhu and Luo were major representatives of Chinese mathematical cartography.⁵⁹ In contrast to maps such as the one shown in Figure 2.3, Luo’s “Maps of Extended Territory” included several maps of foreign lands, such as the “Map of Barbarians in the Sea of the Southwest” (Xinan haiyi tu 西南海夷圖), which traces, beyond the Indian Ocean, the outline of the African continent, albeit not drawn to scale.⁶⁰ Ricci would have seen such maps, given the extent to which he made use of this work by Luo. Furthermore, Ricci studied several Chinese maritime narratives from the Yuan and Ming periods that described foreign lands, especially those in Southeast Asia and the Indian Ocean world. As Zhao Yongfu has meticulously documented, Ricci’s map of 1602 (see Figure 2.1) derives quite a number of its legends from the *Informative Records about Distant Lands* (Shuyu zhouzi lu 殊域周諮錄, 1574) written by the Ming scholar Yan Congjian 嚴從簡 (*jinshi* 1555). Among these is Ricci’s legend about Hormuz (Hulumosi 忽魯謨斯), a frequent port of call for

58 See, for example, Li Xiaocong 李孝聰, *Ouzhou shoucang bufen zhongwen gu ditu xulu* (歐洲收藏部分中文古地圖叙錄 A Descriptive Catalogue of Pre-1900 Chinese Maps Seen in Europe) (Beijing: Guoji wenhua chubanshe, 1996), 61–62, cited in Foss, “Cartography,” in Standaert, N., ed., *Handbook of Christianity in China, Volume 1*, 754.

59 On Ricci’s uses of Luo Hongxian’s “Guangyu tu,” see Szcześniak, “Matteo Ricci Maps of China,” and the close comparison between Ricci’s description of the Ming empire in his journals and the corresponding text in Luo’s “Guangyu tu” in Huang Shijian and Gong Yingyan, *Li Madou shijie ditu yanjiu*, 72–74.

60 See the “Xinan haiyi tu” (西南海夷圖 Map of Barbarians in the Sea of the Southwest) in Luo Hongxian 羅洪先, *Guangyu tu quanshu* (廣輿圖全書 Complete Book of Maps of Extended Territory), photolithographic reprint of the 1579 edition (Beijing: Guoji wenhua chubanshe, 1997), *juan* 2, 86a–b.

Zheng He's 鄭和 (1371–1433) fleet during his voyages in the early Ming (1405–1433).⁶¹

Yet in the journal entry in which Ricci describes the *Chinese* ignorance of world geography, he fails to mention this rich and expansive store of world geographical knowledge in Chinese literature which he himself had found useful, referring instead only to the more schematic and Sinocentric view also found among his Chinese sources. Indeed, his description of the “Comprehensive Map of All under Heaven” in that passage matches quite literally what we see in the “Map of Advantageous Terrain” shown in Figure 2.3.

Ricci's peculiar choice requires some explanation. A highly likely hypothesis is that he did not intend his assessment in his journals to stand as a rigorously tested conclusion about the level of Chinese learning in these fields, but meant it simply as an impressionistic opinion formed from his everyday encounters with Chinese scholars. In the context of the late Ming discourse of exotica, Ricci would have met far more erudite gentlemen and curiosity seekers than students of the mathematical cartography of Zhu Siben and Luo Hongxian. Indeed, it must have been the Sinocentric bias of the scholars who frequented Ricci's mission residence in Beijing (which he founded after he settled in Beijing in 1601) that prompted him and his junior colleagues to include the question “Is China the center of the world?” in a Chinese text entitled *Answers to Questions from Visitors* (Shi ke wenda 釋客問答), an anonymous compilation apparently intended to prepare new Jesuit recruits for the questions they were most likely to be asked by their Chinese visitors.⁶² In other words, Ricci's selective focus on the Chinese maps of the “All under Heaven” genre seen in Figure 2.3 in his representation of the state of Chinese cartography and world geography—and also his conscious expansion of the legends and other symbolic features of his 1602 map—reveal who he perceived his primary audience to be and what his priorities were in making his maps.

Discussions on the Sphericity of the Earth and Its Implications

Although Ricci was first swept into mapmaking by his Chinese patrons in 1584, with each subsequent edition of his world map he was able to expand his map,

61 See Zhao Yongfu 趙永福, “Li Madou kunyu wanguo quantu suo yinyong de zhongguo ziliao” (利瑪竇坤輿萬國全圖所引用的中國資料 The Chinese Sources Incorporated into Matteo Ricci's “Complete Geographical Map of Ten Thousand Countries”), in *Lishi dili yanjiu* (歷史地理研究 Research in Historical Geography), no. 1 (1986): 206.

62 The *Shi ke wenda* (釋客問答 Answers to Questions from Visitors) is an anonymous text compiled at the Jesuit residence in Beijing during the early years of Ricci's stay there. This title, currently held at the Bibliothèque de France, Manuscrits chinois 7024, is cited in Hsia, *A Jesuit in the Forbidden City*, 213.

recalibrate his legends and explanatory essays, and thus attain better balance between the interests and expectations of his readers and his own priorities. As the culmination of this continued revision, his 1602 map delivered his finest product. It is a map of exceptional mathematical rigor that nonetheless offers a rich array of New and Old World wonders culled from both Chinese and European sources. This new discourse of exotica, however, formed part of a lesson in world geography—a lesson about the globe, the multiple continents and oceans, and the “ten thousand” countries that, not surprisingly, had the effect of de-centering China and mythologizing European Christendom.

A critical piece in this lesson is Ricci's general introduction to his map. He broaches the notion of the globe in his opening lines, which read:

The earth and the sea are both spherical. Together they form a single globe, situated at the center of celestial spheres, like the yolk in *a hen's egg* which is surrounded by the white. *Those who said that the earth is square were referring to the earth's fixed and immobile nature and not its [physical form].*⁶³ (emphasis added)

Here Ricci announces a shockingly new concept, that of the globe, by invoking and transforming some important classical sources familiar to his readers. The first is the egg metaphor, which had been made famous by the Eastern Han polymath Zhang Heng 張衡 (78–139 CE). Zhang Heng was a chief proponent of the cosmological tradition known as the Theory of Spherical Heaven (Huntian shuo 渾天說), which postulates that the earth is located at the center of the cosmos, enwrapped by a single revolving, spherical heaven. Based on this theory Zhang invented an armillary sphere, known as the *hunyi* 渾儀 (literally “spherical device”), to assist in the observation and measurement of astronomical phenomena. In his work explaining the principles of *hunyi*, Zhang wrote:

63 “地與海本是圓形而合爲一球，居天球之中，誠如雞子，黃在青內 有謂地爲方者，乃語其定而不移之性，非[語]其[形體]也。” Ricci, “Kunyu wanguo quantu,” in idem, *Li Madou zhongwen zhuyi ji* (利瑪竇中文著譯集 The Chinese Works and Translations of Matteo Ricci), edited by Zhu Weizheng 朱維錚 (Shanghai: Fudan University Press, 2001), 173. Unless otherwise noted, subsequent quotations from the texts on Ricci's map “Kunyu wanguo quantu” all come from this reprinted edition. In this reprinted edition, the sentence quoted here contains three characters that were covered with smeared ink. I have supplied the missing characters here, placing them inside square brackets, based on the version of this same introductory essay on the Ricci map held at the John Ford Bell Library, Minneapolis, Minnesota, USA.

The heavens are like a hen's egg and as round as a crossbow bullet; the earth is like the yolk of the egg, and lies alone in the center. Heaven is large and earth small. Inside the lower part of the heavens there is water. The heavens are supported by Qi, the earth floats on the waters.⁶⁴

Ricci's allusion to Zhang's egg metaphor highlighted for his readers an apparent commonality between the geocentric cosmic model that he was presenting and the Chinese cosmological Theory of Spherical Heaven: both viewed the earth as located at the center of the universe. But he also illuminated another aspect presumably already conveyed in Zhang's egg metaphor, namely, the globular, yolk-like shape of the earth. In this way Ricci stretched the metaphor much farther than its conventional usages had hitherto warranted. If we examine closely the passage from Zhang Heng just quoted above, we can see that the only features of Heaven and Earth that he describes through use of the egg metaphor are (1) the shape of Heaven, (2) the position of Earth in relation to Heaven, and (3) the comparative sizes of Heaven and Earth. The question of whether or not the earth is also shaped like the yolk of an egg does not enter the discussion. In fact, as a number of scholars have already pointed out, the Theory of Spherical Heaven that Zhang Heng advocated was entirely compatible with the idea of a flat and square earth.⁶⁵ Extant textual evidence even

64 Zhang Heng, *Hunyi zhu* (渾儀注 Commentary on the Armillary Sphere); translation cited from Needham and Ling, *Science and Civilisation in China*, 3: 217. The authorship of this text has been disputed by some modern scholars; see, for example, Chen Jiu Jin 陳久金, "Huntianyi zhu fei zhang heng suozuo kao" (渾天儀注非張衡所作考 An Examination [of Evidence Indicating That] *Huntianyi zhu* Was Not Written by Zhang Heng), *Shehui kexue zhanxian* (社會科學戰綫 Social Science Front), no. 3 (1981): 145–152.

65 See Yee, "Taking the World's Measure," 120–122. Historians in China have debated whether or not Zhang Heng and other theorists of a Spherical Heaven believed in the sphericity of the earth. Much of this debate literature appears in six collections of essays on the history of Chinese astronomy published from 1978 to 1994. The majority of the scholars who engaged in the debate argued in the negative. See, in particular, Tang Ruchuan 唐如川, "Zhang Heng deng huntian jia de tianyuan diping shuo" (張衡等渾天家的天圓地平說 Zhang Heng and Other Huntian Theorists' Idea of Spherical Heaven and Flat Earth), *Kexue shi jikan* 科學史集刊 (Journal of Collected Studies in the History of Science) 4 (1962): 47–58, and idem, "Dui 'Zhang Heng deng huntianjia tianyuan diping shuo' de zai renshi" (對張衡等渾天家天圓地平說的再認識 Further Demonstration of Zhang Heng and Other Huntian Theorists' Idea of Spherical Heaven and Flat Earth), in *Zhongguo tianwenxue shi wenji* (中國天文學史文集 Collected Essays in the History of Chinese Astronomy) (Beijing: Kexue chubanshe, 1989), vol. 5: 217–238; Wang Lixing 王立興, "Huntian shuo de dixing guan" (渾天說的地形觀 The Shape of the Earth According to the Huntian Theory), in *Zhongguo tianwenxue shi wenji*, vol. 4: 126–148 (Beijing: Kexue

suggests that Zhang Heng himself may have entertained such a view about the earth. In one of his famous rhapsodies, Zhang describes an imperial-ritual building, the Fumiao 複廟, erected in Luoyang, the eastern capital of the Han, as follows: it “has two stories and a double roof. Eight windows and nine rooms. It is round like Heaven, square like Earth.”⁶⁶ In his cosmological essay “The Numinous Structure [of Heaven]” (Lingxian 靈憲), Zhang also wrote that the earth is “flat and at rest.”⁶⁷ Likewise, over subsequent centuries, although Zhang Heng’s egg metaphor continued to be influential among astronomers, no serious attempt was made to explore its implication for understanding the shape of the earth. A case in point is that when the Ming-dynasty scholar and court official Li Xian 李賢 (1408–1466, *jinshi* 1433) ventured to propose that the earth must be spherical, the only things he stated in support of his hypothesis were that all natural objects must be round and that only human artifacts can be either round or square.⁶⁸ He mentioned neither Zhang Heng nor his egg metaphor in the argument.

If the idea of a “globe” was an unconventional interpretation of Zhang Heng’s egg metaphor, then Ricci assured his readers that this was how it had originally been meant. But didn’t many ancient Chinese texts explicitly teach that the earth is square? Didn’t the exact phrase “Heaven is round and Earth is

chubanshe, 1986); and Zumeng Jin’s 金祖孟, “A Critique of ‘Zhang Heng’s Theory of a Spherical Earth,’” in Dainian Fan and R.S. Cohen, eds., *Chinese Studies in the History and Philosophy of Science and Technology* (Dordrecht and Boston: Kluwer Academic Publishers, 1996), 427–432. Jin went so far as to argue that Huntian theory was formulated in such a way that it was actually incompatible with the idea of a spherical earth. For arguments in support of the view that Zhang Heng did hold the earth to be spherical, see Zheng Wenguang 鄭文光, “Huntian Shuo de diqiu guan” (渾天說的地球觀 The Shape of the Earth as Understood by Huntian Theory), in *Zhongguo tianwenxue shi wenji*, vol. 1: 118–142 (Beijing: Kexue chubanshe, 1978).

66 Zhang Heng, “Dongjing fu” (東京賦 Eastern Capital Rhapsody), in Xiao Tong 蕭統 (501–531), comp., *Wen xuan, or, Selections of Refined Literature*, translated with annotations and introduction by David R. Knechtges, vol. 1 (Princeton, NJ: Princeton University Press, 1982), 263, cited in Yee, “Taking the World’s Measure,” 120.

67 Zhang’s full statement reads: “Heaven is the embodiment of *yang* powers; it is therefore circular and mobile; Earth is the embodiment of *yin* powers; it is therefore flat and at rest.” Zhang Heng, *Lingxian* (靈憲 The Numinous Structure [of Heaven]), photolithographically reproduced edition in *Baibu congshu jicheng* 百部叢書集成 (A Compilation of One Hundred Books), as *juan* 26 of its subseries *Jingdian jilin* 經典集林 (Collection of Classical Texts), (Taipei: Yiwen yinshuguan, 1968), 1b.

68 Li Xian 李賢 (*jinshi* 1433), “Wuxing shuo” (物形說 On the Shapes of Objects), in Huang Zongxi 黃宗羲, ed., *Mingwen shoudu* (明文授讀 Essays Transmitted from the Ming) (Tokyo: Kyuko shoin, 1972), 1: 275.

square" (*tianyuan difang*) occur in such important ancient texts as *Master Lü's Spring and Autumn Annals* (*Lüshi chunqiu* 呂氏春秋, ca. 239 BCE), *Works of Philosophers at the Court of Prince Huainan* (*Huainanzi* 淮南子, second century BCE), and the *Gnomon of Zhou* (*Zhoubi suanjing* 周髀算經, ca. first century CE)? Ricci anticipated such questions when he informed his readers that "those who said that the earth is square were referring to the earth's fixed and immobile nature and not its [physical form]." Ricci opines in his journals that the Chinese had always believed out of ignorance that Heaven was round and Earth square. In the introduction to his world map, however, he asserts that when ancient Chinese authors said that "Heaven is round and Earth is square," they intended it to be understood not literally but metaphorically.

In disputing the authenticity of the literal interpretation of this ancient saying and proposing a metaphorical reading of it, Ricci's introduction is not without Chinese precedents. A text from the first century BCE, *Book of Rites in the Tradition of Dai the Senior* (*Dadai lijì* 大戴禮記), compiled by Dai De 戴德, includes a conversation that presumably took place between Zengzi 曾子 ("Master Zeng," i.e., Zeng Shen 曾參, 505–435 BCE), a disciple of Confucius, and his pupil Shan Juli 單居離. Shan Juli asks Zengzi whether it is really true that Heaven is round and Earth square. In reply, Zengzi expresses doubt, arguing that if it were true, then the four corners of the earth would not be well covered. Instead, he offers two possible non-literal interpretations of the expression "Heaven is round and Earth is square" (*tianyuan difang*). One is by analogy to the head and feet of the human body: Heaven is on the top (*shangshou* 上首), and therefore round; and Earth is at the bottom, and therefore square (*xiashou* 下首). The second interprets the roundness of Heaven and the squareness of Earth in terms of their respective natures, or ways of operation as cosmic entities. Zengzi points out that "roundness" describes the brightness of Heaven, which stems from its *yang* or expansive nature, whereas "squareness" describes the darkness of the earth, which comes from its *yin* or receptive nature. In either case, Zengzi suggests, the ancients must not have meant to describe the actual shapes of Heaven and Earth with these terms.⁶⁹

Another alternative interpretation was advanced by Zhao Shuang 趙爽, the third-century commentator on the *Gnomon of Zhou*. An anonymous collection of ancient Chinese texts on astronomy and mathematics compiled around the

69 Dai De 戴德 (first century BCE) and Wang Pingzhen 王聘珍, *Dadai lijì jiegū* (大戴禮記解詁 Explanations and Philological Assessments on the *Book of Rites in the Tradition of Dai Senior*), reprinted edition in *Shisan jīng qīngren zhùshū* (十三經清人注疏 Qing Scholars' Commentaries on the Thirteen Classics), collated and punctuated by Wang Wenjin 王文錦 (Beijing: Zhonghua shuju, 1983), 98–99.

first century CE, the *Gnomon of Zhou* commanded great authority due to its presumed antiquity as a work from the early Zhou dynasty (ca. 1050–256 BCE). It has been regarded as one of the oldest and most important *loci classici* of the cosmological tradition known as the Theory of Vaulted Heaven (Gaitian shuo 蓋天說), which was traditionally understood to have explicitly envisaged Heaven to be round and Earth to be square.⁷⁰ This text offers not just one but several variants of this cosmology. According to the version that became dominant in later centuries, Heaven is circular in shape and arches over the entire Earth like a giant circular rain hat. It pivots around a vertical axis, carrying the stars with it. Earth is square at its base but dome-shaped on the top, hence it is taller in the middle and slopes down to the four sides. When it rains, water rushes to the sides to form the Four Seas. A key passage involving the phrase *tianyuan difang* is found in the first chapter of the *Gnomon of Zhou*:

The square pertains to Earth, and the circle pertains to Heaven. Heaven is a circle and Earth is a square. The numbers of the square are basic, and the circle is produced from the square. One may represent Heaven by a rain hat. Heaven is blue and black; Earth is yellow and red. As for the numbers of Heaven making a rain hat, the blue and black make the outside, the cinnabar and yellow make the inside, so as to represent the positions of Heaven and Earth.⁷¹

70 For further discussions on Gaitian (Vaulted Heaven) theory, including alternative interpretations of Gaitian cosmology, see Needham and Wang Ling, *Science and Civilisation in China*, 3: 210–216; Christopher Cullen, *Astronomy and Mathematics in Ancient China: The “Zhou bi suan jing”* (Cambridge: Cambridge University Press, 1996), 128–137; Shigeru Nakayama, *A History of Japanese Astronomy: Chinese Background and Western Impact*, Harvard-Yenching Institute Monograph Series, vol. XVIII (Cambridge, Mass.: Harvard University Press, 1969), Part 1, “The Early Impact of Chinese Astronomy: From the Sixth Century to the Early Sixteenth Century”; Jiang Xiaoyuan 江曉原, “Zhoubi suanjing gaitian yuzhou jigou kao” (周髀算經蓋天宇宙結構考 Inquiries into the Structure of the Cosmos in *Zhoubi suanjing*), *Ziran kexueshi yanjiu* (自然科學史研究 Studies in the History of Natural Sciences) 15, no. 3 (1996): 248–253; and Zhou Guidian, *Qinhan sixiang shi*, 492–505.

71 “方屬地，圓屬天，天圓地方。方數為典，以方出圓。笠以寫天。天青黑。地黃赤。天數之為笠也。青黑為表，丹黃為裡，以象天地之位。” English translation cited from Cullen, *Mathematics and Astronomy in Ancient China*, 174. I have capitalized Heaven and Earth to be consistent with the rest of my usage in this book. For the Chinese text, see Zhao Shuang 趙爽, comm., *Zhoubi suanjing* (周髀算經 The Gnomon of Zhou), photolithographically reprinted edition (Shanghai: Wenwu chubanshe, 1980), *juan shang*, 10a–b.

In his third-century commentary on this passage, Zhao Shuang pointed out that the above statement should not be read literally. He wrote:

Things possess shapes that are either round or square, and numbers are either even or odd. *Heaven moves and is thus circular*, and [a circle] is [produced by] an odd number. *Earth rests still and is thus square*, and a square is [produced by] an even number. This [pairing of circle and square, and by extension, of odd and even numbers] was meant to match the parallelism of the cosmic *yin* and *yang*. *It was not intended to describe the actual shapes of Heaven and Earth*. Heaven cannot be fathomed in its entirety, nor can we see the whole shape of the earth. How can we be sure whether they are circular or square?⁷² (emphasis added)

Here Zhao Shuang voices his skepticism, arguing that the real shapes of Heaven and Earth are unknowable. Instead, he offers a philosophical reading of the text, linking the “squareness” of the earth to its *yin* qualities, manifested through its stability and immobility. Both Zengzi and Zhao Shuang were arguing against a position that probably had become an entrenched view in their time, and their interpretations remained minor, underexplored alternatives throughout the centuries.

It is also important to note that their skepticism about the round-Heaven-and-square-Earth cosmic model did not spring from the same position that Ricci espoused many centuries later. Zengzi’s skepticism was based on geometrical reasoning about the mismatch between the round and the square. This means that he would have been open to either of two cosmic models: round Heaven covering a round Earth, or square Heaven covering a square Earth. As for Zhao Shuang, he held that any absolute statement about the exact shape of Heaven and Earth was unwarranted due to the limitations of human observation. Of these two sources of alternative interpretations of “round” and “square,” Zhao Shuang’s was framed in terms that are closer to the one Ricci adopted. We do not know whether Ricci discovered this third-century source on his own or learned of it from one of his Chinese associates.⁷³ The presence of such alternative voices in the Chinese commentary

72 “物有圓方，數有奇偶。天動為圓，其數奇；地靜為方，其數偶。此配陰陽之義，非實天地之體也。天不可窮而見，地不可盡而觀，豈能定其圓方乎？” Zhao Shuang, *Zhoubi suanjing*, 10a.

73 A very likely informant would have been Qu Rukui 瞿汝夔 (Taisu 太素, 1549–1612), whose father served as the First Minister of Rites in Nanjing, the southern capital of the Ming. By

traditions on various classics reflected the fact that Chinese cosmological thought had never been monolithic. It is to his credit, and was perhaps also at the suggestion of his Chinese collaborators, that Ricci was able to exploit such Chinese textual resources to lend authority to the foreign concept of the earth being a globe.

The notion of the globe implies that the earth's surface has no center. Ricci dwells on this point at some length in his general introduction to his map of 1602. After defining the concepts of longitude and latitude as well as the Northern and Southern Hemispheres, he turns to the meaning of directions and positions on Earth: here on Earth, he writes, "both 'above' and 'below' and all four sides are inhabited by living creatures. Being a globe, there is originally no such fixed distinction as above or below, since all of it is surrounded by the heavens. Wherever you are, if you look up, you see the heavens. Within the six directions, where your feet stand counts as 'below', and where your head points to counts as 'above.'" To drive this point home, he cites as proof his personal observation while sailing around the Cape of Good Hope: there, he says, "I still had the heavens above my head and not beneath my feet."⁷⁴ All this is to say that there is no place on Earth that can be properly called the "Central State" (or the "Middle Kingdom," *Zhongguo*).

In this discussion on the shape of the earth, we see that Ricci accentuated his two key points to his audience—namely, that the earth is spherical, and that consequently China (or any other place on earth) cannot be the physical center of the world. However, he managed to do so without directly challenging the saying that "Heaven is round and Earth is square" found in some of the most respected Chinese classical texts. Instead, he presented his points as an alternative reading of these texts, and justified this both through subtle allusions to early Chinese commentarial traditions on these texts and through invoking his personal observations during his maritime travel en route to China. This strategy of persuasion appealed to those late Ming scholars who privileged travel and personal experiences as a way to gain new knowledge.

his own account, Qu first met Ricci in 1589 and "studied mathematics and astronomy with him for two years before departing." The two developed a lasting friendship that contributed greatly to Ricci's success in expanding his network within the elite circle. Qu's memory of how he met Ricci can be found in Qu's 1599 preface to Ricci's *Jiaoyou lun* (交友論 On Friendship), in Ricci, *Li Madou zhongwen zhuyi ji*, 117–118; the quoted sentence appears on 117; translation cited from Hsia, *A Jesuit in the Forbidden City*, 121. Ricci's account of the early years of their friendship can be found in Ricci and Trigault, *China in the Sixteenth Century*, 230–235.

74 Ricci, "Kunyu wanguo quantu," in idem, *Li Madou zhuyi ji*, 173–174.

Introduction of the Wider World Outside China

Ricci applied the same strategy to introduce his readers to the wider world outside China. As our previous examination of his journals has shown, Ricci's goal was to expose his readers to the vastness of the earth and the existence of other advanced world civilizations, especially Western Christendom. Here on his world map of 1602 (see Figure 2.1), in his introductory essay, toponyms, and legends, we find Ricci pursuing this goal by consciously invoking but reinterpreting or redirecting the established tropes in the Chinese world geographical and cosmographic literature. He described the vastness of the surface of the globe and delineated its five continents. The term he chose to designate the word "continent," *dazhou* 大州, would have reminded his readers of the Da Jiuzhou 大九州 (Nine Great Continents) coined by Zou Yan 鄒衍 (ca. 350–270 BCE), a cosmologist of the late Warring States period. Zou had hypothesized that there were nine great continents on the earth, separated from each other by sea, and that China occupied only one-ninth of one of these continents. However, lacking substantial empirical proof, this idea had been scoffed at as grand and fantastical, not to be taken seriously.⁷⁵ Now Ricci brought new relevance to Zou's "great continents" and gave them concrete substance.

Ricci clearly identified the respective boundaries of these continents and the seas surrounding them. The term that he used to refer to these seas was none other than Sihai 四海—the Four Seas that, in one of its entrenched usages in premodern Chinese world geographical and cosmological texts, stood as a collective label for the waters presumably flanking the four edges of the earth: the East Sea 東海, West Sea 西海, South Sea 南海, and North Sea 北海. He spoke of the four seas surrounding the American continents and the four seas surrounding the southern portion of Libya (the African continent). In the latter case, Ricci did not literally mean *four* seas, because he was only talking about the seas on the east, south, and the west of the continent.⁷⁶ His liberal usage of the term Sihai transformed this concept from an absolute marker of the four boundaries of a square-shaped terrestrial space that featured China at its center into a collective reference to the numerous seas and oceans that surround the many dry lands, large and small, that are said to exist on the vast surface of the globe.⁷⁷ At the heart of this new usage that Ricci

75 For further discussion of Zou Yan 鄒衍 (ca. 350–270 BCE) and the Nine Great Continents, see the fourth section of Chapter 3 below.

76 Ricci, "Kunyu wanguo quantu," in idem, *Li Madou zhuyi ji*, 174.

77 The Chinese world geographical and cosmological discourses on the Four Seas (Sihai 四海) before and after the arrival of the Jesuits are explored more fully in the third section of Chapter 4 and in Chapter 5.

forged for the term Sihai was his wish to help his audience form the new, relativized sense of spatial direction necessary to comprehend the notion of the globe and the vastness of the world outside China.

The Fantastic Narrative Style of Ricci's Legends

Ricci's subtle borrowing and transformation of preexisting Chinese concepts, such as those of *dazhou* and Sihai, demonstrate his extraordinary willingness to enter "through the other's door." The same spirit is even more amply displayed in the place names and legends on his map. Despite its highly sophisticated mathematical measurements, the 1602 map's presentation of the outside world echoes the language, content, and fundamental cosmological presumptions that characterized the kind of Chinese world maps that Ricci disparaged in his journals—namely, maps that were symbolic and cultural representations of All under Heaven. The narrative style of his map's legends bears an uncanny resemblance to the style of early and medieval Chinese *zhiguai* literature (or records of the strange), which supplied the bulk of descriptions about strange lands and marvelous beings depicted on pre-modern Chinese world maps. An example is the legend that Ricci placed just north of Uruguay on his world map of 1602, describing the following hybrid animal:

On this land there is a beast; its upper body resembles that of a fox, and the lower body that of an ape. It has the feet of humans and the ears of an owl. Under its belly there is an expandable pouch for its young ones to rest in.⁷⁸

This hybrid animal (Figure 2.4) is based on the report of an opossum given by Vicente Yáñez Pinzón, who accompanied Columbus on his first voyage to the Indies. But Pinzón is said to have spotted the animal on the Paria peninsula in modern-day Venezuela, not anywhere near Uruguay.⁷⁹ Ricci relayed this report to his Chinese readers in a prose style that would have reminded them of the

78 "此地有獸,上半類狸,下半類猴,人足梟耳,腹下有皮,可張可合,容其所產之子休息于中." Ricci, "Kunyu wanguo quantu," in idem, *Li Madou zhongwen zhuyi ji*, 202.

79 Miguel de Asúa and Roger French note that "in Paria, near Boca del Dragón, Pinzón saw a prodigious beast: a quadruped with its anterior half like a fox and its posterior half like an ape, with feet like those of a human being and ears like those of an owl. In its belly it had something like a pouch, where the young ones were concealed until it was safe for them to get out and look for their food without the help of their parents." Asúa and French, *A New World of Animals: Early Modern Europeans on the Creatures of Iberian America* (Aldershot: Ashgate, 2005), 13.

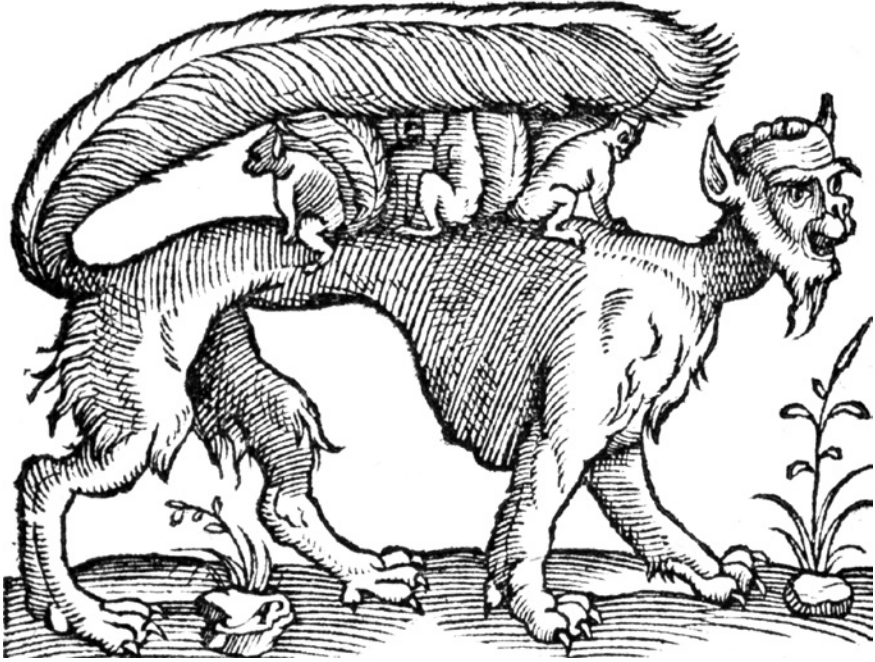


FIGURE 2.4 *The first European image of an opossum (su), created and popularized by André Thévet (1516–1590) based on earlier explorers’ reports. André Thévet, Singularitez de la France Antarctique, autrement nommée Amerique, & de plusieurs terres & isles decouvertes de nostre temps (Anvers: Christophe Plantin, 1558).*

GORDON COLLECTION, UNIVERSITY OF VIRGINIA LIBRARY. A SIMILAR IMAGE OF A SU IS SHOWN ON THE ILLUSTRATED MANUSCRIPT COPIES OF RICCI’S 1602 MAP (SEE FIGURE 2.1) MADE IN 1608

Classic of Mountains and Seas. Perhaps not coincidentally, the character he chose for “owl,” *xiao* 梟, also figures prominently in the *Classic of Mountains and Seas* as a component of the names of hybrid monsters.⁸⁰

80 For example, *juan 1* (at 8b–9a) of the “Classic of the Southern Mountains” (Nanshanjing 南山經) mentions a strange creature, the Yong 翬, describing it as having the shape of an owl and the face of a human, but with four eyes (*qi zhuang ru xiao, ren mian si mu*; 其狀如梟, 人面四目). *Juan 2* (at 4a) of the “Classic of the Western Mountains” (Xishanjing 西山經) refers to a creature in the shape of an owl that has a human face but only one leg (*qi zhuang ru xiao, ren mian er yi zu*; 其狀如梟, 人面而一足). I consulted the digital images of the *Shanhajing* based on the *Chizaotang siku quanshu huiyao* 摛藻堂四庫全書薈要 (Complete Collection of Four Treasures Housed at Chizaotang) edition, under *shibu* 史部 (History Division), available online and accessed on 2/17/2013 at: <https://archive.org/details/o6o78592.cn> (*juan 1–4*). Ricci’s talent for imitating the narrative forms of classical Chinese texts has also been observed by other scholars. See, for example,

As already mentioned in the discussion of the “Map of Advantageous Terrain” (see Figure 2.3), the *Classic of Mountains and Seas* was a seminal source of *zhiguai* literature. The fantastic creatures depicted in this text were the prototypes of many of the strange inhabitants of later Chinese narratives about foreign lands across a variety of literary genres, from outright imaginative tales to dynastic histories and travel accounts. Despite its fanciful descriptions of subhuman races and monstrous animals in the lands within and beyond the Four Seas surrounding China, the *Classic of Mountains and Seas*’ accounts of major landmarks inside China contained much recognizable topographical data, and thus from early on it was considered an important source to consult on geographical matters.⁸¹ When the official bibliography in the *History of the Sui Dynasty* (Suishu 隋書) introduced “geography” as a new subcategory under the heading of history within the Four Treasures (*siku* 四庫) system (the classics, history, philosophy, and collected writings), the *Classic of Mountains and Seas* was placed there as a geographical text.⁸² This official status would change in the course of the eighteenth century, when Ji Yun 紀昀 (1724–1805), chief editor of the *Complete Collection of the Four Treasures* (*Siku quanshu* 四庫全書), placed it squarely within the category of “accounts of the strange and minor narratives” (*zhiguai xiaoshuo*), which contains components of what may be regarded as premodern China’s closest parallels to the Western notion of fiction.⁸³ But back in the late Ming, when Ricci was composing the legends for his world map, the *Classic of Mountains and Seas* still commanded much authority as a classical source of world geography. An indication of this is the fact that a sixteenth-century compilation of civil service examination questions and

Ronnie Hsia’s comments on the stylistic resemblances between Ricci’s *Jiaoyou lun* (交友論 On Friendship, 1595) and the Confucian *Analects*, in Hsia, *A Jesuit in the Forbidden City*, 155–157.

81 That the *Classic of Mountains and Seas* was counted as a geographical source is evident from the earliest extant historical reference to it by Sima Qian (?145–86 BCE), who had to argue *against* its reliability as such a source, citing the fact that the Chinese emissary Zhang Qian (d. 114 BCE), who traveled west of China on a mission to establish diplomatic contacts with states in Central Asia (139–126 BCE), made no mention in his reports of Mount Kunlun, the mythological axis of the world that features so importantly in the *Classic of Mountains and Seas*. Strassberg, *A Chinese Bestiary*, 13.

82 Strassberg, *A Chinese Bestiary*, 19.

83 The first early modern scholar to express serious doubts about the credibility of the geographical content of the *Classic of Mountains and Seas* was Hu Yingling 胡應麟 (1551–1602). Hu placed the *Classic of Mountains and Seas* among minor narratives (*xiaoshuo*) rather than in the category of geography, but his categorization only gained official recognition with the *Siku quanshu* 四庫全書 (Comprehensive Imperial Compilation of the Four Libraries, 1772–1782). Strassberg, *A Chinese Bestiary*, 22, 24.

model successful essays, entitled *Ming-Dynasty Imperial Examination Policy Questions and Judgments [of Answers]* (Huangming ce heng 皇明策衡), includes a number of essay questions that required the examinees to address the importance of natural studies by referencing the *Classic of Mountains and Seas*, among other works.⁸⁴ Thus the association with the *Classic of Mountains and Seas* that Ricci's legends elicited must still have been a powerful one.

Ricci also responded to his readers' eagerness to find the wildest and strangest things imaginable in the remote "corners" of the earth. His map offered them a spectacular selection of New and Old World wonders then circulating in European travel literature. It featured extraordinary natural landscapes, such as Mount Atlas in Africa:

This is the highest mountain peak in the world. The upper part of the mountain remains sunny all day long. Winds, clouds, rain, and snow occur, if at all, only in the lower section of the mountain. One cannot see to the summit of the mountain, and therefore the natives call it the Pillar of Heaven. Inhabitants here sleep without dreams, which is the most strange.

Likewise, Ricci's map includes descriptions of peculiar creatures such as the fragrance-emitting cat of central Africa, whose sweat was scraped off with a stone and used by Europeans as perfume, and the four- or five-foot-long flying dragons coiling about trees seen all over Melaka. It also depicted various savage tribal peoples, such as the cannibals in Brazil, who "do not live in houses but in underground caves and like to eat human flesh, although they eat only the flesh of men and not of women."⁸⁵

Into this mix Ricci blended many fabulous lands. Some of these belonged to the European "New World discoveries" in the Americas that were only recently becoming the stuff of legend, such as the Land of the Giants (Changren guo 長人國), a reference to Patagonia, where Ricci noted that "the inhabitants were no taller than 1 *zhang*"—approximately 10 feet 4 inches—and that "they adorn their faces by painting them in various colors."⁸⁶ Some of these lands

84 The copy of the *Huangming ce heng* 皇明策衡 I consulted was the microfilm copy held at the UCLA Library. I wish to thank Professor Benjamin Elman for pointing me to this source.

85 See Ricci, "Kunyu wanguo quantu," in idem, *Li Madou zhongwen zhuyi ji*, 214 (Mount Atlas), 212 (fragrance-emitting cat), 209 (flying dragons in Melaka), and 202 (Brazilian cannibals).

86 Ricci, "Kunyu wanguo quantu," in idem, *Li Madou zhongwen zhuyi ji*, 204.

had fired the European cultural imagination for thousands of years, such as the Land of the One-Eyed People (Yimu guo 一目國), the Land of Women (Nuren guo 女人國), and the Land of Dwarves (Airen guo 矮人國). All of these, at least in name, had their counterparts in Chinese mythological traditions (see, for example, Figure 2.5). Ricci located the Realm of the One-Eyed People on the northwestern coast of the Caspian Sea, though without providing any accompanying legend (Figure 2.6). This placement tallied roughly with his Western sources, such as Herodotus and Pliny's accounts of the Arimaspians, the one-eyed people who constantly stole gold from the winged beasts, the griffins.⁸⁷ But since Ricci rendered the Caspian Sea as Beigao Hai 北高海 (literally, "High Sea of the North"), placing these Arimaspians north of the Caspian Sea evoked an association with the Land of One-Eyed People described in the *Classic of Mountains and Seas*, which is said to be located "beyond the Northern Sea."

Ricci located the Land of Dwarves (Figure 2.7) on the Northwestern frontier of Russia, near the shore of what is now known as the Pechora Sea. The accompanying legend reads:

The men and women of this realm are only a little over 1 *chi* [about 12.6 inches]⁸⁸ tall. At the age of five they have children, and at eight they are already old. Being constantly devoured by cranes, they lived in caves in order to stay safe. Here they wait until the three summer months, when they come out and destroy the eggs of their enemies. They travel by riding on goats.⁸⁹

The placement of this realm near the Arctic Zone, and the overall cartographical representation of the polar area on Ricci's map, suggest a degree of influence from Gerardus Mercator (1512–1594).⁹⁰ Mercator depicted the Arctic

87 See, for example, Herodotus, *Histories*, *The Histories*, 3.116 and 4.15, translated by Aubrey De Sélincourt (Baltimore, Md.: Penguin Classics, 1954), 222 and 247 respectively; and Pliny the Elder (23–79 CE), *The Natural History of Pliny*, 7.2, translated, with copious notes and illustrations, by John Bostock and H.T. Riley (London: Henry G. Bohn, York Street, and Covent Garden, 1855–1857), 2: 123; and the recent study on the subject in Jonathan Ratcliffe, "Arimaspians and Cyclopes: The Mythos of the One-Eyed Man in Greek and Inner Asian Thought," *Sino-Platonic Papers*, no. 249 (June 2014), Published online; accessed on 11/10/2014 at: www.sino-platonic.org.

88 In Ming times, 1 *chi* amounted to about 32 cm, or 12.6 inches.

89 See Ricci, "Kunyu wanguo quantu," in idem, *Li Madou zhongwen zhuyi ji*, 210.

90 Lin Dongyang has observed that Ricci's representation of the Arctic Zone resembles neither Mercator's nor Ortelius's, though it is closer to the former than the latter. Mercator depicted the North Pole as consisting of four islands surrounded by non-freezing



FIGURE 2.5 A late Ming illustrated account of the Land of One-Eyed People (Yimu guo 一目國). The Chinese caption says: "The Land of the One-Eyed People is located beyond the Northern Sea. Its inhabitants have only one eye on their faces, but their hands and feet are normal." Wang Qi 王圻 (fl. 1565–1614) and Wang Siyi 王思義, *Sancai tuhui* (三才圖會 Assembled Illustrations of the Three Realms, 1609), juan 33 (renwu, juan 13), 37b

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Zone as a mythical region consisting of four islands, one of which was inhabited by the pygmies. However, Mercator's description of the pygmies reads rather differently from Ricci's. It says: "Here live pygmies, at most four feet tall, who are like those in Greenland called Scraelings."⁹¹ Rather, the bulk of Ricci's legend seems to have been derived from the classical tale about the pygmies engaging in perennial combat with the cranes, a folk motif shared by many ancient cultures.⁹² In the West, these mythical creatures had been depicted by Homer in the eighth century BCE, and their physical existence had been recognized by Aristotle and Pliny the Elder, among other celebrated ancient and medieval authors.⁹³ In his *Natural History*, Pliny located these crane-battling pygmies somewhere north of the Black Sea, in Ethiopia and in India. Regarding the pygmies in India, Pliny wrote:

[They] are but three spans in height, that is to say, twenty-seven inches only. They enjoy a salubrious atmosphere, and a perpetual spring, being sheltered by the mountains from the northern blasts; it is these people that Homer has mentioned as being waged war upon by cranes. It is said, that they are in the habit of going down every spring to the sea-shore, in

water, and Ortelius depicted an entire polar continent. Ricci, in contrast, marked the Arctic Zone with numerous scattered islands—some large, some small. Lin Dongyang, "Li Madou de shijie ditu," 323.

- 91 This legend appears on the Arctic inset on Mercator's map of 1569. It is transcribed and translated into English in G.R. Taylor, "A Letter Dated 1577 from Mercator to John Dee," *Imago Mundi* 13 (1956): 65.
- 92 See A. Scobie, "The Battle of the Pygmies and the Cranes in Chinese, Arab, and North American sources," *Folklore* 86, no. 2 (1975): 122–132, and Kirsten A. Seaver, "Pygmies' of the Far North," *Journal of World History* 19, no. 1 (March 2008): 63–87.
- 93 For some well-known descriptions of the pygmies in ancient and medieval Western literature, see, Homer, *Iliad*, with an English translation by A.T. Murray, revised by William F. Wyatt, 3.5 (Cambridge, Mass., and London: Harvard University Press, 1999), 1: 129; Aristotle, *History of Animals: Books VII–X*, 7(8).12, edited and translated by D.M. Balme, prepared for publication by Allan Gotthelf (Cambridge, Mass., and London: Harvard University Press, 1991), 131–133; Pliny the Elder, *Natural History*, 6.22, 7.2, 10.30, in idem, *The Natural History of Pliny*, 2: 46, 132, and 501; and Isidore of Seville (ca. 560–636), *The Etymologies of Isidore of Seville*, translated with introductions and notes by Stephen A. Barney, Jennifer A. Beach, and Oliver Berghof, Book 11 (West Nyack, NY: Cambridge University Press, 2002), 245. In his *History of Animals*, 7(8).12, Aristotle spoke of the cranes and the pygmies as follows: The cranes migrate "from the Scythian plains to the marshes above Egypt from where the Nile flows; it is the region whereabouts the pygmies live (for they are no myth, but there truly exists a kind that is small, as reported—both the people and their horses—and they spend their life in caves)."

a large body, seated on the backs of rams and goats, and armed with arrows, and there destroy the eggs and the young of those birds; that this expedition occupies them for the space of three months, and that otherwise it would be impossible for them to withstand the increasing multitudes of the cranes. ...Aristotle, indeed, says, that they dwell in caves; but, in all other respects, he gives the same details as other writers.⁹⁴

Ricci's legend about the dwarves resembles Pliny's except in one important detail: his dwarves, at 1 *chi* or 12.6 inches in height, were less than half the size of Pliny's pygmies. Ricci's account departs even more significantly from his contemporary European sources such as Mercator, who placed the pygmies' height at 4 feet. From our perspective, Ricci's tale of an entire human race that grows to a height of only 12.6 inches sounds far less plausible than the tales of Pliny and Mercator. Why did he choose to depart so significantly from his European sources on this?

If we turn to the Chinese sources, the answer seems evident. Pygmies of various names populated the Chinese literature of the strange, just as they did early Western literature. The *Classic of Mountains and Seas* contains three references to the lands of pygmies: Xiaoren guo 小人國 (The Realm of Little People), Jiaoyao 焦僥國 (The Realm of Jiaoyao), and Zhouao guo 周饒國 (The Realm of Zhouao). It identifies the pygmies variously as *xiaoren* 小人 ("little people"), *jingren* 靖人 ("small people"), or *junren* 菌人 ("mushroom people").⁹⁵ Historical sources also abound in eye-witness accounts about pygmies. However, these pygmies were mostly believed to be of minuscule size, ranging from 0.1 to 15 inches in height. One such sighting of pygmies, which reportedly took place in 1574, was implicated in the most dramatic political avalanche of the Wanli 萬曆 reign (1573–1620), the ripple effects of which were reaching officialdom just when Ricci arrived in southern China. It was said that, in 1574, workers constructing a section of the Great Wall in Gansu accidentally came upon about a thousand small coffins, each measuring approximately 1 *chi* (12.6 inches) in length and holding a tiny body inside. This shocking incident reportedly occurred just a year after the usurpation of imperial power by the senior Grand Secretary Zhang Juzheng 張居正 (1525–1582), who installed himself as the regent as well as tutor to the Wanli Emperor (1563–1620). The presumed (re)surfacing of these dead pygmies at that particular juncture was perceived as Heaven's warning against Zhang. Reports of the sighting began to

94 Pliny the Elder, *The Natural History of Pliny*, 132.

95 See *Shanhaijing*, "Dahuang dongjing" 大荒東經, "Dahuang nanjing" 大荒南經, and "Haiwai nanjing" 海外南經 (see note 80 above).

be openly and widely circulated only after Zhang's death in 1582 and the subsequent purge by the Wanli Emperor of many highly placed officials loyal to Zhang.⁹⁶ Given the extent of Ricci's social networking among officials and scholars, gossip about the tiny pygmies must have reached his ears. Ricci may also have encountered some version of the tiny pygmies through reading Chinese literature. In any case, he recalibrated the size of the pygmies he put on his own world map.

Ricci did not, however, nod to every flight of fancy that he found in the Chinese literature of exotica. His legend on the Land of Women, for example, offers a subtle antidote to the Chinese tale about an all-female society where inhabitants became pregnant by gazing at their own reflections in a well or by exposing themselves to certain winds while bathing in a river.⁹⁷ On his map, Ricci identifies the Land of Women with the land of the Amazons described by Strabo (ca. 64 BCE–after 21 CE) and other Greek authors, and places it to the west of the Caspian Sea.⁹⁸ His legend reads: "This realm existed in the past. There were male inhabitants as well, but often when a baby boy is born it is killed. Now there are men as well as women, so only the name of old has remained."⁹⁹

Here Ricci offers a more naturalized version of the Chinese legend about the Land of Women and, even then, relegates its existence to the historical past. This retreat into history allowed Ricci to reconcile the apparent conflict between ancient texts and present realities, while at the same time conveying a strong sense of his commitment to the pursuit of truth. Indeed, in an explanatory note to accompany another edition of his map, Ricci explicitly proclaimed his dedication to seeking truth. He said in the note that, while selecting data to be included on the map, he screened a vast body of information he had

96 For some contemporary accounts of this "discovery" of the pygmies and its political implications, see Yu Shenxing 於慎行 (1545–1608), *Gushan bichen* (穀山筆塵 Desultory Notes of [Master] Gushan, 1613), *juan* 15, *Yuan Ming shiliao congkan* (元明史料叢刊 Sources in Yuan and Ming History) edition (Beijing: Zhonghua shuju, 1984), 177; and Shen Defu, *Wangli yehuo bian*, 3: 725.

97 The earliest account of the Land of Women appears in *Shanhaijing*, *juan* 7, "Haiwai xijing" (海外西經 Classic of the Western Lands beyond the Sea), (at 2b). See *Shanhaijing*, *juan* 6–18, accessed on 11/20/2014 at <https://archive.org/details/o6o82213.cn>. For a late Ming version of the legend, see Wang Qi 王圻 and Wang Siyi 王思義, comps., *Sancai tuhui* (三才圖會 Assembled Illustrations of the Three Realms, 1609), *renwu* (Division on Humanity), *juan* 12 (Shanghai: Shanghai guji chubanshe, 1988), 827.

98 See Strabo, *The Geography of Strabo*, with an English translation by Horace Leonard Jones, Book 11, Chap. 5, Section 1 (London: William Heinemann, and New York: G.P. Putnam's Sons, 1928), 5: 233–235.

99 Ricci, "Kunyu wanguo quantu," in idem, *Li Madou zhongwen zhuyi ji*, 211.

brought with him from Europe and eliminated the things that contradicted his personal observations. In the same spirit, he decided to eliminate the fabulous creatures that were recorded on Chinese maps showing foreign countries, such as “people with three heads, with a single arm, people without thighs or without bellies, *with eyes in the rear*, with bodies joined, people who do not die, etc.” (emphasis added). He states, “I have never heard or seen anything the like, and the Europeans, too, who are busy traveling everywhere by sea and land, never have reported such things. How could I dare to add such exaggerations, which would be insults to the Creator?”¹⁰⁰

Despite such a self-conscious proclamation of commitment to rational truth and empirical facts, Ricci faithfully reproduced the bulk of real and imaginary places familiar to his readers, especially on the part of the map that covered the regions closer to China. Here he has seven legends based on descriptions of strange tribal groups to the north of China that were found in Chinese historical accounts.¹⁰¹ One of these groups was the “Niuti tujue” 牛蹄突厥 (Ox-Hoofed Turks), who “have human bodies with the feet of oxen.” Another such legend, about “Guiguo” 鬼國 (Land of Disembodied Spirits), reads: “The people here wander about by night and hide themselves by day. They flay deer and wear the hide as their clothing. Their ears, eyes, and noses are like those of ordinary people, but their mouths are on the tops of their heads. They feed on deer and snakes.”¹⁰² In areas around the Arctic, Ricci

100 Translation cited from D’Elia, “Recent Discoveries and New Studies,” 158. This note appeared in the 1603 edition of Ricci’s map, “Liangyi xuanlan tu” (兩儀玄覽圖 A Mysterious Visual Map of the Two Forms; see note 43 above). Since Ricci’s legends on that fourth edition of his map are entirely the same as on the third—namely, the 1602 edition examined here (see Figure 2.1)—we can assume that the principle he laid out in that note applied to the 1602 map as well.

101 Detailed textual comparisons reveal that Ricci derived seven of his entries on the 1602 map—Guiguo 鬼國 (Land of Disembodied Spirits), Qu du mei 區度寐, Wa jie zi 襪結子, Yu jue lu 軀厥律, Niuti tujue 牛蹄突厥 (Ox-Hoofed Turks), Wu luo hou 烏洛候, and Bei shiwei 北室韋—from the critical bibliographical studies entitled *Wenxian tongkao* (文獻通考 A Thorough Investigation into [Historical] Literature) by Ma Duanlin 馬端臨 (ca. 1254–ca. 1323). The latter had been reprinted at least three times during the late Ming (1522, 1524, 1573) before Ricci’s arrival in China. See Ch’en, “A Possible Source for Ricci’s Notices on Regions Near China,” *T’oung Pao* 34 (1938): 179–190; D’Elia, “Recent Discoveries and New Studies,” 117–118; and Huang Shijian and Gong Yingyan, *Li Madou shijie ditu yanjiu*, 75.

102 Ricci, “Kunyu wanguo quantu,” in idem, *Li Madou zhongwen zhuyi ji*, 205. “Guiguo” (Land of Disembodied Spirits) is also found in the *Classic of Mountains and Seas*. See Strassberg’s discussion in *A Chinese Bestiary*, 197–198.

marked down “Gouguo” 狗國 (Land of Dogs, or perhaps of Dog-Headed People)¹⁰³ and “Yecha guo” 夜叉國 (Land of Nocturnal Devils).

A brief comparison of some of the creatures that Ricci excluded as unreal and those that he eventually included suffices to show that his self-proclaimed standard of reason and truth fractured along the way. For example, what significant difference is there between the “people with eyes in the rear,” whom he rejected as the stuff of fables in his note quoted above, and the denizens of the “Land of Disembodied Spirits” whose mouths open on the top of their heads—or 12-inch pygmies for that matter, or the One-Eyed People, all of whom found their way onto his map? These signs of a splintered rationality indicate that at times Ricci opted to compromise his personal conviction about what truly existed in nature in order to gain the confidence of his readers as a purveyor of geographical truth. His presentation of the wider world outside China, which dovetailed so closely in form and content with an established Chinese narrative tradition about foreign lands and peoples, struck a familiar chord in the

103 The place name “Gouguo” 狗國 on Ricci’s map is without an accompanying legend. It is difficult to tell whether Ricci was using it to render the “Land of Dogs” or “Land of Dog-Headed People.” It is possible that Ricci partially drew on Western legends about the cynocephali, “dog-headed people,” but his placement of Gouguo at the northeastern tip of the Eurasian continent seems to correspond more closely to the accounts of Gouguo in Chinese travel accounts and dynastic histories. For example, Yao Silian’s *Liangshu* 梁書 (History of the Liang Dynasty, 502–557), *juan* 54 (Accounts of Foreign Peoples), tells of how a man sailing east into the open sea encountered an island country in which “the womenfolk were like those in China, albeit speaking an unintelligible language, whereas the men had human bodies and dog heads, and therefore barked [instead of talking].” See Ge Zhaoguang, “Shanhaijing, zhigong tu, he luxing ji zhong de yiyu jiyi—Li Madou laihua qianhou zhongguo ren guanyu yiyu de zhishi ziyuan jiqi bianhua” (山海經, 職貢圖, 和旅行記中的異域記憶—利瑪竇來華前後中國人關於異域的知識資源及其變化 Historical Memories of Foreign Lands Reflected in the *Shanhaijing*, *Zhigong tu*, and Travelogues: Chinese Sources of Knowledge about Foreign Lands and Their Changes around the Time of Matteo Ricci’s Arrival in China), in Zhong Caijun 鍾彩鈞 and Yang Jinlong 楊晉龍, eds., *Ming qing wenxue sixiang zhong zhi zhuti yishi: xueshu sixiang pian* (明清文學思想中之主體意識: 學術思想篇 Consciousness of Subjectivity in Ming-Qing Literature: A Collection on Intellectual Currents) (Taipei: Zhongyang yanjiu yuan zhongguo wenze yanjiu suo, 2004), 355; and Wu Liwei, “Ming qing chuanjiao shi dui shanhaijing de jiedu” (明清傳教士對《山海經》的解讀 Interpretations of *Shanhaijing* by Jesuit Missionaries during the Ming and Qing), *Zhongguo lishi dili luncong* (中國歷史地理論叢 Journal of Chinese Historical Geography) 20, no. 3 (2005): 119. In the late Ming illustrated encyclopedia *Sancai tuihui*, Gouguo was located some two years and two months’ journey from the southern capital of the Ming dynasty, Nanjing. See Wang Qi and Wang Siyi, *Sancai tuihui*, 829.

hearts of his readers. And indeed, it is this familiarity that facilitated its acceptance, as Trigault reported in his version of Ricci's journals:

When they [Chinese spectators] first saw our delineation of the universe, some of the uneducated laughed at it and made fun of it, but it was different with the better instructed, especially when they studied the placement of the parallels and meridians and the equator, relative to the Tropics of Cancer and of Capricorn. Again, when they learned of the symmetry of the five zones, and after reading the customs of so many different people, and *seeing the names of many places in perfect accord with those given by their own ancient writers*, they admitted that the chart really did represent the size and figure of the world.¹⁰⁴ (emphasis added)

Trigault's report of Ricci's observation may be taken as indirect testimony to the facts that Ricci accommodated his representation of the wider world to the expectations of his Chinese readers *with conscious intent* and full agency, and that his priority in crafting these legends was to gain acceptance, not teach geographical truth. This explains why he departed from his European sources to accommodate the commonplace knowledge he found shared among his Chinese readers, and why he included certain foreign lands and exotic creatures from established Chinese sources even when they contradicted his personal knowledge of the truth.

The Valorizing of Western Christendom

The profound irony of Ricci's choosing to boost his credibility by bending the truth points to the motives behind his mapmaking endeavor in China. In hindsight, the Renaissance world map that Ricci brought to China was far more modern and accurate than its traditional Chinese counterparts despite the compromises he made. But to construe Ricci's mapmaking primarily as an act of cultural transmission and to measure its success or failure by the extent to which he conveyed the more advanced European knowledge to his Chinese readers—as has been done in the conventional narrative—is to fundamentally misunderstand the meaning and purpose of his effort. More than a scientific document, Ricci crafted his 1602 map as an instrument of persuasion. All the compromises that he made in this extensive discourse of exotica were simply part of a tour de force to further enable him to “enter through the other's

104 Ricci and Trigault, *China in the Sixteenth Century*, 167. I have removed the capitalization of “the five zones” in this translation to avoid possible confusion of them with the Five Zones discussed in Chapter 3 below.

door and come out his own,” to quote once more the words of St. Ignatius of Loyola.

The point at which Ricci wished his readers to exit with him was the point at which his depiction of the outside world *diverged* from his Chinese readers' expectations. Such a divergence was subtle but significant. As Michael Harbsmeier has pointed out, any “culture or civilization has her own barbarians, heathens, unbelievers, savages, primitives or whatever the specific ‘counter-concepts’ may be.”¹⁰⁵ But each culture follows its own cosmological strategy or xenological paradigm in relating itself to other cultures. Whereas in the West there had been since Greek antiquity a tendency to create evolutionary schemes that relegated the cultural “stranger” back to earlier, less civilized times or less technologically sophisticated, “primitive” communities, the Chinese had adopted a strategy to systematically “spatialize all the categories of ‘otherness.’”¹⁰⁶ The dominant view of the world in premodern China saw China as the unparalleled center of world civilization. Next to this core lay the zone of Sinicized, or “cooked,” barbarian tribes; beyond that was the zone of untamed, or “raw,” barbarians; and still farther from the center lay the zone of utter wilderness.¹⁰⁷ Depending on the narrator's religious orientation, India, the birthplace of Buddha, might be viewed with exceptional respect. Ricci followed the Chinese xenological scheme by locating all the savages and subhuman races far away from China, mostly in Africa, the Americas, and on the Eurasian continent in areas around the Caucasus and the Arctic Zone. But he contradicted the Chinese cosmological scheme by presenting Europe—the Far West—as the *other* civilizational center of the world, and one that in every way rivaled, if not surpassed, China. His legend on Europe reads:

The continent of Europe has over thirty countries. All adopt the political system of the ancient kings. *They adhere to no heterodox doctrines, and all follow the holy faith of the Lord of Heaven.*¹⁰⁸ Their officials are divided

105 Michael Harbsmeier, “On Travel Accounts and Cosmological Strategies: Some Models in Comparative Xenology,” *Ethnos* 50, nos. 3–4 (1985): 273.

106 Harbsmeier, “On Travel Accounts and Cosmological Strategies,” 298. I owe this reference to Strassberg, *A Chinese Bestiary*, 10.

107 I explore this worldview more fully in Chapter 3.

108 Roger Hart presents a different translation of this text. It reads: “The continent of Europe has over thirty countries. All implement the laws of the past sovereigns. No heterodox doctrines are followed. *They only believed in the Lord of Heaven, the Emperor on High, and the doctrines of the ancient sage kings*” (emphasis added). The major difference in our readings concerns the italicized portion, which in turn largely results from the different punctuation schemes we have adopted. Hart punctuates the text as follows: “此歐羅巴

州,有三十餘國。皆用前王政法。一切異端不從,而獨崇奉天主、上帝、聖教。” (Hart, *Imagined Civilizations*, 253.) This punctuation scheme turns Tianzhu 天主 (Lord of Heaven), Shangdi 上帝 (Sovereign on High), and *shengjiao* 聖教 (sacred/sagely teaching) into three separate objects of the verb phrase 獨崇奉 (only revere/only follow), a treatment which makes Hart’s rendering of 聖教 into the unequivocally Confucian and non-Christian expression “the doctrines of the ancient sage kings” theoretically feasible (but only one of many alternatives). My translation is based on the punctuation scheme adopted by Zhu Weizheng 朱維錚, editor of the collected works by Ricci, *Li Madou zhongwen zhuyiji*, in which Ricci’s 1602 map is reprinted. Zhu’s version of this passage reads: “此歐羅巴州,有三十餘國。皆用前王政法。一切異端不從,而獨崇奉天主上帝聖教。” According to this punctuation scheme, 聖教 becomes the proper object of 獨崇奉, whereas 天主 and 上帝 are terms modifying the source of the 聖教. I believe that Zhu’s punctuation scheme is a closer match to the grammatical structure of the whole sentence, because the segment of the sentence immediately prior to the italicized portion in Hart’s translation above says that these European states do not follow any heterodoxy (一切異端). Grammatically, then, what the Europeans do follow and only follow (獨崇奉), as stated in the segment in question, should be another set of beliefs or doctrines (教), one that contradicts heterodoxy. In this context, the proper object of 獨崇奉 is the 聖教 (sacred/sagely teaching) established by 天主 and 上帝, both of which are terms that, in the context of Ricci’s apologetics, refer to the Christian God. Thus by 天主上帝聖教 Ricci was unequivocally referring to the teachings of Jesus Christ.

Underlying this difference between our linguistic translations is our deeper disagreement on Ricci’s agency in shaping the legends of the Ricci maps, a point noted at the beginning of this chapter. For Hart, this particular legend was crafted by Ricci’s collaborator, in this case Li Zhizao, to make Western Christendom sound to the map’s Chinese readers like a better version of an unequivocally Confucian civilization than China itself. Hart suggests that these linguistic manipulations by Ricci’s powerful converts/patrons formed part of the latter’s larger narrative about a superior West and a China in decline, a contrast that they exaggerated so as to prod the Wanli Emperor to side with them and promote Christianity and Western learning in the empire as a novel solution to the many crises faced by the late Ming court. In other words, it was Li Zhizhao and other collaborators of Ricci’s who dictated their own agenda through crafting these legends, with Ricci and his maps becoming pawns in their bid to gain imperial favor and hence greater political power. Incidentally, Hart misidentifies this 1602 edition of Ricci’s map as having been commissioned “at the behest of the Wanli emperor” (Hart, *Imagined Civilizations*, 253), whereas the imperially commissioned edition of Ricci’s maps were the twelve copies engraved in 1608 (see note 43 above).

I argue here that, although Hart may be correct in suggesting that Ricci’s patrons such as Li Zhizhao promoted Europe as a Confucian Utopia, Ricci had his own motives for portraying Europe in ideal terms that would be appealing to his Confucian readers. This “Confucianization” of Europe is perfectly consistent with the policy of accommodating Christianity to classical Confucianism that Ricci had officially pursued since 1595. Furthermore, Ricci adopted that policy to advance his own interests as a missionary, and was not induced to do so through manipulation by his powerful patrons who did so to

into three ranks. The top rank governs matters of religion, the second, secular civil affairs, and the third, the military. Their soil yields five cereals, five metals, and a hundred fruits of the earth, and their wine is made of grape juice. Their craftsmanship is exquisite, and their knowledge of

advance their own agendas. It was Qu Rukui (see note 73 above) who persuaded Ricci to abandon his Buddhist persona and accommodate Catholicism to Confucianism as early as 1592. Though born to a high-ranking official of the Ming, Qu was himself uninterested in a career in officialdom. He was instrumental to Ricci's successful networking among the late Ming political elite, but his relationship with Ricci defied such a politicizing analytical scheme. While it is important to see Ricci's "itineraries" in China as meaningfully shaped by the individuals he encountered, I do not think we should discount Ricci's power to pursue his own agenda.

Returning to the technical aspect of the above-mentioned translation, I do not think the sentence concerned should be translated with an unequivocal Confucian undertone. Ricci and other Jesuits had been using Tianzhu 天主 (Lord of Heaven) as the Chinese name for the Christian God since 1583; it was a term improvised by a commoner in Guangdong who was among the first converts Ruggieri made there in 1583 (Hsia, *A Jesuit in the Forbidden City*, 81–82). Shangdi 上帝 (Sovereign on High) was originally an unequivocally Confucian term that Ricci accepted as another way to render "God." He made this identification in his Chinese catechism *Tianzhu shiyi* (天主實義 True Meaning of the Lord of Heaven, 1603), the first draft of which was completed in 1595, well before his first brief meeting with Li Zhizao in 1598. In this catechism Ricci articulated the key notions of Catholicism and the basic elements of the Catholic-scholastic worldview primarily with a Confucian readership in mind. He openly embraced the term Shangdi in the Confucian classics as a possible reference to God; however, he also carefully laid out the full meaning of the Christian conception of God (Tianzhu, Lord of Heaven) by supplying it with a grounding in the Catholic-scholastic worldview and a brief but clearly presented story about Jesus Christ's birth.

Finally, *shengjiao* 聖教 (literally, "sacred teaching") is not necessarily understood as the "doctrines of the ancient sage kings" as Hart's translation suggests. It was a term also used by Buddhists and Daoists to designate their sacred teachings. An example of such usages is the famous "Datang sanzang shengjiao xu" (大唐三藏聖教序 Preface to the Sacred Teachings of the *Tripitaka* of the Great Tang, 648), attributed to Emperor Taizong in commemoration of the accomplishments of the Buddhist monk Xuan Zang 玄奘 (602–664). Here the *shengjiao* in the title refers to the sacred teachings of the Buddha. Daoists also use the same phrase to refer to the teachings of Taishang laojun 太上老君, the supreme Daoist deity. For example, it occurs in the Song-dynasty (960–1279) Daoist scripture *Yuqing Taiyuan neiyang zhenjing* (玉清胎元內養真經), in *Zhengtong daoang* (正統道藏 Orthodox Daoist Canon). Thus the phrase 天主上帝聖教 quoted above is in my opinion Ricci's reference to Catholicism, defined here as the "sacred teachings of the 天主 (Lord of Heaven), also known as 上帝 (Sovereign on High)." This reading of the phrase is consistent with Ricci's previous efforts to Christianize the Chinese terms he appropriated.

the celestial and human realms is thorough and all-embracing. Their customs are simple and honest, and the rules governing the five human relationships are observed in earnest. Their material riches are opulent. Both rulers and subjects are healthy and prosperous. All year round they are in communication with foreign countries. Merchants and traders travel around the world. Being 80,000 *li* away, there had been no contact between Europe and the Middle Kingdom until some 70 years ago.¹⁰⁹ (emphasis added)

Here, Europe stands as a society that respects scholarship and tradition, upholds moral and spiritual rectitude, enjoys the harmony of minds, and is well-endowed, productive, and cosmopolitan. It is, in other words, an incarnation of the Confucian ideal of Datong 大同, a society of great unity and prosperity.

Ricci's legend on Rome gives further substance to the supreme unity and harmony of Europe:

In this country there is a pope who leads a celibate life. He lives in Rome to perform his duties as head of the Catholic religion. *All European countries revere him.*¹¹⁰ (emphasis added)

It hardly deserves mention why Ricci painted such a highly sanitized image of Western Christendom.¹¹¹ In time, his Chinese associates and converts

109 Ricci, "Kunyu wanguo quantu," in idem, *Li Madou zhongwen zhuyi ji*, 214. Lionel Giles notes that "the first Portuguese navigator to reach China for purposes of trade was Fernao Perez, who arrived at Canton with seven ships in 1517. Hence we may conclude that this legend appeared in the first edition of Ricci's map (1584)." Giles, "Translations from the Chinese World Map of Father Ricci," *Geographical Journal* 52, no. 6 (1918): 377.

110 Ricci, "Kunyu wanguo quantu," in idem, *Li Madou zhongwen zhuyi ji*, 210.

111 The Jesuits broadcast this idealized image of Europe as far as the Ming court. Diego de Pantoja and Sabbathin de Ursis (1575–1620), in their appeal to the court in defense of Catholicism during the persecution of 1616–1617, stated: "As for the customs [of our land], things dropped on the roads are never taken away by others; doors never have to be locked at night. Within a radius of tens of thousands of *li*, there is rarely anyone who tells a lie, does malicious things, assaults women, commits thefts or cheating, or badmouths others. Even when there is such a one, he or she is not to be tolerated but is turned against by everyone else. As for people too poor to be clothed, patients too destitute to get treatment, bodies abandoned without proper burials, individuals endangered without getting relief, rich people who make a profit out of indebting others, corrupt officials who make mockery of the laws, such things are never to be seen. As for rebellions and insurrections, not only they are not to be found today, but [they] have never been heard of or recorded

would deploy this vital piece of (mis)information about the European Utopia to galvanize support for their own campaigns to revitalize Chinese civilization through adoption of Western learning and Catholicism.¹¹² But for Ricci to arrive at this portrayal from the contemporary reality of a war-torn and spiritually divided Europe was a deep affront to his explicit pledge to represent the truth. It has been pointed out that Ricci had a tendency to speak in fables in his Chinese writings. Here indeed we see him drifting from the realm of rational discourse into that of fiction.¹¹³

Unlike Europe, other world civilizations, such as that of India, suffered greatly in Ricci's treatment. His description of India stands in stark contrast to those found in some of his contemporary European sources. For example, the entry on India in Abraham Ortelius's (1527–1598) world map reads:

That there is hardly a better and more famous country in the world, nor larger, comprised under one and the same name than India is something that almost all writers jointly agree on. ...This whole country in general is most rich and fortunate, not only for its multitude of nations...and for its almost infinite [number of] towns and villages, but also for its abundance of all kinds of commodities. ...It provides the world with spices, and precious stones, providing a greater supply of these commodities than all other countries of the whole world together.¹¹⁴

in our histories since Catholicism was practiced. ...Of course, this is not something we could take credit for but the benefit of observing the teachings of Catholicism and worshipping God." "Zoushu" 奏疏 (Memorial), in Nicholas Standaert et al., eds., *Xujiahui cangshulou ming qing jian yesuhui wenxian* (徐家匯藏書樓明清間耶穌會文獻 Chinese Christian Texts from the Zikawei Library) (Taipei: Furen daxue Shenxueyuan, 1996), 1: 120–121.

- 112 The fact that the Chinese gained their first knowledge of early modern Europe primarily through such Jesuit propaganda stymied the development of a scholarly Occidental discourse. See Timothy Brook, "Europacology? On the Difficulty of Assembling a Knowledge of Europe in China," in Antoni Uçerler, ed., *Christianity and Culture: Japan and China in Comparison: 1543–1644* (Rome: Institutum Historicum Societatis Iesu, 2009), 269–293. For a study and critique of how Jesuit converts/patrons such as Xu Guangqi 徐光啟 (1562–1633) exploited this Occidental discourse to strengthen their political position at the imperial court, see Hart, *Imagined Civilizations*.
- 113 See Sher-shiueh Li, "The Art of Misreading: An Analysis of the Jesuit 'Fables' in Late Ming China," in Luo Xuanmin and He Yuanjian, eds., *Translating China* (Bristol and Buffalo: Multilingual Matters, 2009), 70–94.
- 114 Ortelius, *Theatrum Orbis Terrarum*, 48; translation cited with adaptation from Marcel Peter René van den Broecke, *Ortelius' "Theatrum Orbis Terrarum" (1570–1641)*:

Ortelius's account of India reflects the continuing grip of the classical trope over the latest Indographic literature in circulation in Europe at his time. That trope portrayed India as a place of luxury, exuberance, and superabundance.¹¹⁵ It originated in the fabulous stories of India first told by Ktesias the Knidian and Megasthenes (350–290 BCE) and popularized by Strabo, Pliny, and other late classical sources.¹¹⁶ Such classical sources shaped how the Europeans of medieval Latin Christendom imagined the Garden of Eden, which is said to be located in the East.¹¹⁷ Even in the sixteenth century, European travelers to India continued to write in that narrative tradition despite their varied and complex personal experiences there. The more realistic ethnographical writings about India would not emerge until the seventeenth century.¹¹⁸ But we get a preview of that rising new paradigm here in Ricci's legend of India on his 1602 world map. In that legend, Ricci repeats some of the usual praises of India—for its rich store of spices, gold, and gems and its thriving maritime trade—but he hastens to add that

the people have a dark complexion and meek temperament. In the south people are scantily dressed. They have no paper but write on leaves of trees, using an iron awl to bore letters onto them. There are different kings and different languages in different regions. ...Their kings are not hereditary [from father to son] but are passed down to the children of female siblings. Kings only leave material provision enough for their sons to subsist.¹¹⁹

Characteristics and Development of a Sample of "On Verso" Map Texts, Netherlands Geographical Studies 380 (Utrecht: A-D Druk b.v.-Zeist, 2009), 97–98.

- 115 Stefan Halikowski Smith attributes this characterization of the classical trope to the Belgian historian Albert Deman. See Smith, "Perceptions of Nature in Early Modern Portuguese India," *Itinerario* 31, no. 2 (2007): 17. For further discussion of this "Wonders of the East" narrative tradition, see Romm, *The Edges of the Earth in Ancient Thought*, Chap. 3; Campbell, *The Witness and the Other World*, Chap. 3; Rudolf Wittkower, "Marvels of the East," *Journal of Warburg and Courtauld Institutes* 5 (1942): 159–197; and Smith, "Perceptions of Nature in Early Modern Portuguese India."
- 116 J.W. McCrindle, *Ancient India as Described by Ktesias the Knidian, Being a Translation of the Abridgement of His "Indika" by Phôtios, and of the Fragments of that Work Preserved in Other Writers* (London: Trübner & Co., 1882); and idem, *Ancient India as Described by Megasthenês and Arrian; Being a Translation of the Fragments of the Indika of Megasthenês Collected by Dr. Schwanbeck, and of the First Part of the Indika of Arrian* (London: Trübner & Co., 1877).
- 117 Genesis 2:8: "The Lord God planted a garden eastward in Eden."
- 118 See Smith, "Perceptions of Nature in Early Modern Portuguese India."
- 119 Ricci, "Kunyu wanguo quantu," in idem, *Li Madou zhongwen zhuyi ji*, 212. Giulio Aleni (Ai Rulue 艾儒略, 1582–1649) gave similar descriptions of India in his *Zhifang waiji* 職方外紀

To Ricci's Confucian readers, none of these attributes of the people of India—scanty clothing, lack of paper and ink, and the matrilineal descent of kingship—made for a respectable civilization. Such a crude and unflattering review of Indian society and culture not only served the Jesuit agenda to discredit Buddha and his teachings¹²⁰ but also reinforced the point that Ricci reiterated in his conversations with his Chinese associates, namely, that there was no civilization worthy of the name lying within the vast stretch of space between Europe and China.¹²¹ Thus Ricci's 1602 "Complete Geographical Map of Ten Thousand Countries" started with a forceful presentation of the conception of the globe but stopped short of conveying a truly global consciousness. What it managed to do was to crack open the Sinocentric view of the world just enough to insert Europe into it as the other beacon of human civilization. In this sense, it was not a product of true science but a fusion of two ethnocentrisms.

(Records of Regions beyond the Jurisdiction of the Imperial Geographer, 1623). See Bernard Hung-kay Luk, "A Study of Giulio Aleni's *Chih-fang Wai-chi* 職方外紀," *Bulletin of the School of Oriental and African Studies* 40 (1977): 67.

120 For example, in a book devoted to the refutation of Chinese religions, entitled *Xingmi pian* (醒迷篇 Treatise for Awakening [the People] from Delusion, 1667), the Chinese Catholic author Luo Guangping 羅廣平 used precisely these negative descriptions about India by Ricci to discredit the Buddha and his homeland. Luo wrote: "You, teacher at the Buddhist monastery! You take the Buddha as your master. [Do you know that] Buddha is a [mere] human born in Xizhu 西竺? ...The modern name of the land Tianzhu 天竺 is India. ...Countries west of us rarely see anyone practice Buddhism anymore. It has gone extinct there. Only we Chinese still hold on to the mistaken belief [in him]. What good can come of it? *The culture of India is only such that they are still writing on palm leaves [instead of on paper]*" (emphasis added). Luo Guangping, *Xingmi pian* (醒迷篇 Treatise for Awakening [the People] from Delusion, 1667), in *Yesuhui luoma dang'an guan mingqing tianzhujiao wenxian* (耶穌會羅馬檔案館明清天主教文獻 Chinese Christian Texts from the Roman Archives of the Society of Jesus), edited by Nicolas Standaert and Ad Dudink (Taipei: Ricci Institute, 2002), 9: 279.

121 For example, Xu Guangqi, one of Ricci's converts with a prominent official position in the Ming court, recalled the following words by Ricci: "During my journey from the West, I crossed 80,000 *li* on the sea and passed through hundreds of countries as if struggling through dense thickets. When I finally arrived in the Middle Kingdom, the prevalence of benevolent and righteous ways, rites and music, and the flourishing of civil and material culture made me feel as though the clouds had been dissipated and I was able to see the blue sky *again*" (emphasis added). Xu Guangqi 徐光啟 (1562–1633), "Ba ershiwu yan," in idem, *Xu Guangqi ji* 徐光啟集 (Collected Works by Xu Guangqi), edited by Wang Chongmin 王重民 (Shanghai: Zhonghua shuju, 1963), 1: 87–88.

Conclusion

The above discussion demonstrates that Ricci's world maps were a truly intercultural product of the contact zone. Indeed, our story about the genesis of these maps indicates that they were born from a joint push by the late Ming Chinese literati, who yearned to know about the outside world, and by Ricci, who was eager to sell Catholic Europe and its religion to them. Our analysis of his "Complete Geographical Map of Ten Thousand Countries" also reveals the extent to which the circumstances of its birth shaped the content of this map. In particular, we have shown how Ricci's competing agendas at this particular juncture of his mission—his short-term goal to intrigue and entertain his Chinese hosts and to gain their trust, and his long-term objectives to transform their worldview and shatter their Sinocentrism—guided his creation of this map out of the conceptual resources of both Renaissance Europe and late Ming China.

Earlier scholars have pointed out that Ricci's efforts to incorporate Chinese sources into his world maps yielded some important cartographical advances, most notably the much more accurate portrayal of the Ming empire on his maps than on those of his European sources.¹²² In contrast, his inclusion of numerous mythical place names (such as Gouguo, "Land of Dogs/Dog-Headed People") and fabulous legends (such as that of the 12-inch-tall pygmies) on his maps has also begun to be noted.¹²³ But such signs of apparent "regression"

122 See the references in note 18 above.

123 These exotic features of Ricci's world maps were inherited by later Jesuit geographical works in Chinese, such as Guilio Aleni, *Zhifang waiji* 職方外紀 (Records of Regions beyond the Jurisdiction of the Imperial Geographer), and Ferdinand Verbiest (Nan Huai ren 南懷仁, 1623–1688), *Kunyu tushuo* 坤輿圖說 (Illustrated Account of the Geography of the World, 1674). For secondary studies on these later works, see Luk, "A Study of Aleni's *Chih-fang Wai-chi*"; Hartmut Walravens, "Father Verbiest's Chinese World Map (1674)," *Imago Mundi* 43, no. 1 (1991): 31–47; Minsun Chen, "Ferdinand Verbiest and the Geographical Works by Jesuits in Chinese, 1584–1674," in John W. Witek, S.J., ed., *Ferdinand Verbiest, S.J. (1623–1688): Jesuit Missionary, Scientist, Engineer and Diplomat*, Monumenta Serica Monograph Series 30 (Sankt Augustin: Steyler Verlag, 1994), 123–133; Tongyang Lin [Lin Dongyang], "Ferdinand Verbiest's Contribution to Chinese Geography and Cartography," in Witek, ed., *Ferdinand Verbiest*, 135–164; Foss, "Jesuit Cartography"; Hui-Hung Chen, "The Human Body as a Universe"; Zou Zhenhuan 鄒振環, "Zhifang waiji: Shijie tuxiang yu haiwai lieqi" (職方外紀: 世界圖像與海外獵奇 *Zhifang waiji: World Image and the Search for Novelty Overseas*), *Fudan xuebao (shehui kexue ban)* (復旦學報社會科學版 Fudan Journal, Social Sciences Edition), no. 4 (2009): 53–62; and Lai Yu-chih (Lai Yuzhi) 賴毓芝, "Zhishi, xiangxiang yu jiaoliu: Nan Huai ren Kunyu quantu zhi dongwu tuxiang yanjiu" (知識、想像與交流: 南懷仁《坤輿全圖》之動物圖像研究

in Ricci's world maps remain awkward anomalies—unaccounted for, and unaccountable—in the present, predominantly celebratory master narrative about the Jesuits in China as “missionary-scientists.” What emerges from our discussions above is the fact that both the advances and the “regressions” in Ricci's maps were mere *by-products* of a process of science-making that was oriented toward building trust among his Chinese audience.

Although presented primarily as a work of translation, Ricci's “Complete Geographical Map of Ten Thousand Countries” offered instead a version of the cultural contact zone in the late Ming that Ricci had reconstituted to reflect both (1) his understanding of what counted as the established view of the earth among late Renaissance European scholars, travelers, and explorers, and (2) his “diagnosis” of the state of Chinese cosmology, cartography, and world geography. To the extent that late Renaissance Europe was witnessing a similar vogue of fascination with exotica, especially about the New World discoveries, Ricci's inclusion of the legend about the Land of Giants (Patagonia) and other similar entries is a rather faithful mirroring of his European sources. But he most certainly accentuated this feature by altering his European sources to make them more fantastic (as in his entry of pygmies), and by including numerous entries culled from Chinese sources in order to impress his Chinese readers and gain their acceptance.

In addition, Ricci highlighted the key features of the late Renaissance and Catholic-scholastic worldview that he saw as missing in China. He crafted the various essays on the map to enlighten his readers about what he deemed to be the essential facts about the earth and China's position on it: that the earth is a globe located in the center of the universe; that there is no “middle” point on the face of this globe; and that the “Great Ming” belongs to part of Asia, which is in turn only one of five large continents on earth. But in teaching these strikingly novel and potentially offensive lessons, Ricci sought to facilitate their acceptance by making various accommodations to his Chinese audience's sentiments and language. He put China close to the center of the map, instead of on the eastern edge as it was on his European source maps, and told his readers that their ancients had known the earth to be spherical. He also appropriated

Knowledge, Imagination and Exchange: Studies of the Animal Images in Nan Huaiyuan's [Verbiest's] “Kunyu quantu”), paper presented at the conference “Liang'an Gugong disan jie xueshu yantaohui: shiqi-shiba shiji (1662–1722) zhongxi wenhua jiaoliu” (兩岸故宮第三屆學術研討會:十七、十八世紀(1662–1722)中西文化交流. The Third Academic Symposium Organized by the Palace Museums across the Strait: Sino-Western Cultural Exchange in the Seventeenth and Eighteenth Centuries, 1662–1722), held in Taipei, November 15–17, 2011.

but transformed the usage of certain existing Chinese concepts such as those of the Four Seas and the (Nine) Great Continents, first proposed by Zou Yan. His glorification of Europe and the Catholic Church, part of the improvised contents of his map, was also formulated to suit his Confucian audience's taste. The various accommodations Ricci made, as shown in our close analysis of his 1602 map above, must certainly have reflected the knowledge and insights he gained through interactions with Chinese scholars, some of whom may even have been partners in the creation of his maps. But given Ricci's long-term attention to the late Ming fascination with *exotica*; the personal reflections in his journals concerning the state of Chinese world geography and what he had achieved in his maps; and his broader apologetic strategy to accommodate Confucianism, which he had begun to consciously pursue as early as 1592—given all this, there is every reason to believe that Ricci owned and orchestrated the agenda behind the creation of these maps.

The themes stressed in Ricci's Chinese world maps would constitute the key points of later Jesuit Chinese works on related topics. Ricci's and his Jesuit successors' gesture to represent Renaissance European visions of the earth in idioms familiar to their Chinese audiences sparked a series of discourses in cosmology, geography and cartography, and classical scholarship among Chinese scholars in the late Ming and early Qing. Many of these developments unfolded along trajectories that the missionaries would never have anticipated or desired. It is to these stories that we turn in the following chapters.

Divergent Discourses on the Physical Earth in Premodern China

In hindsight, the single most important scientific idea that crossed from Renaissance Europe to China in the course of the early modern Jesuit mission was the notion of the terraqueous globe. Although this exact term was not coined until 1646, by the French scholar Philippe Labbé,¹ Matteo Ricci had already announced the substance of this concept at the very beginning of his general introduction to his 1602 “Complete Geographical Map of Ten Thousand Countries” (Kunyu wanguo quantu): “The earth and the sea are both spherical. Together they form a single globe.”² This notion had not emerged until the early sixteenth century, and it was only late in that century, around the time of Ricci’s departure from Europe, that it had begun to prevail among European scholars. The birth and the eventual triumph of this notion in Western Europe were among the most significant intellectual fruits of the New World discoveries described in the introduction to this volume (see Chapter 1 above). Ricci’s injection of this new notion into the Chinese realm of thought, and his efforts to link it with existing Chinese terms and concepts about the earth and the seas, created an intellectual zone of contact between Renaissance Europe and late Ming China. This chapter delineates the various Chinese discourses on the physical earth with which this new notion of the terraqueous globe intersected. It begins with a brief history of the intellectual developments in the West that led to the emergence and establishment of the notion of the terraqueous globe, as a necessary background and point of reference for the discussions to follow.

1 See W.G. L. Randles, “Classical Models of World Geography and Their Transformation Following the Discovery of America,” in Wolfgang Haase and Meyer Reinhold, eds., *The Classical Tradition and the Americas* (Berlin and New York: W. de Gruyter, 1994), vol. 1.1: 74. Randles notes that Philippe Labbé, *Géographie Royale* (Paris, 1646), refers to this unified sphere of earth and water as “Globe terraque.” I wish to thank one of the anonymous reviewers of this manuscript for providing me with this reference.

2 See Chapter 2, note 63 above.

The European Context of the Notion of the Terraqueous Globe

The notion of the terraqueous globe was the culmination of more than two millennia of European speculation, exploration, and theorization about the earth and its relationship to the sea. A close examination of this history reveals a complex intellectual terrain encompassing a wide range of often mutually conflicting or isolated strands of thought or traditions of knowledge in the West, many of which dated back to classical antiquity.³ One of the oldest terms designating the earth, *oikoumene* in Greek and *orbis terrarum* in Latin, conveys the image of the earth as a flat disk with the ocean circulating around it like a river. This notion is credited to Homer (ca. eighth century BCE). It was widely shared among Greek and Roman authors who discussed matters of world geography, and as we will see, its influence persisted in Western Europe well into the early Renaissance.⁴ This view of the earth reflected the known world as seen from the perspective of the Mediterranean observer at its center. The earth is seen as a single circular, continuous landmass consisting of three parts: Asia, Europe, and Africa.

Another tradition that took hold among Greek mathematicians and natural philosophers viewed the earth as a sphere. Pythagoras (ca. 582–500 BCE)

3 The following brief survey of this historical development in Western thought draws on materials and perspectives presented in O.A.W. Dilke, *Greek and Roman Maps* (London and Reading: Thames and Hudson, 1985); Thomas Goldstein, "The Renaissance Concept of the Earth in Its Influence upon Copernicus," *Terrae Incognitae* 4 (1972): 19–51; Randles, "Classical Models of World Geography"; Edward Grant, "In Defense of the Earth's Centrality and Immobility: Scholastic Reaction to Copernicanism in the Seventeenth Century," *Transactions of the American Philosophical Society*, New Series, 74, no. 4 (1984): 1–69, and idem, "A New Look at Medieval Cosmology, 1200–1687," *Proceedings of the American Philosophical Society* 129, no. 4 (December 1985): 417–432; Hildegard Binder Johnson, "New Geographical Horizons: Concepts," in Freddi Chiappelli, Michael J.B. Allen, and Robert L. Benson, eds., *First Images of America: The Impact of the New World on the Old* (Berkeley, Los Angeles, and London: University of California Press, 1976), 2: 615–633; and Martin W. Lewis, "Dividing the Ocean Sea," *Geographical Review* 89, no. 2, *Oceans Connect* (1999): 188–214. Specific references to these sources and other works consulted are noted individually below.

4 In Homer, *Iliad*, Book 14, line 200, Hera says: "For I shall see the bounds of fertile earth/And Oceanus, father of the gods." The Greek geographer of late antiquity Strabo explains this mythological figure Oceanus in terms of the physical Ocean that touches all the extremities of the land. See Dilke, *Greek and Roman Maps*, 63. Some maps from the Renaissance, such as Cantino's Planisphere (1502), still depict, among the various oceans on earth, an "Ocean Sea" (*Mare Oceanus*); see Lewis, "Dividing the Ocean Sea," 198. For my discussion on the influence of the concept of the Ocean Sea on Ricci's hydrographic terminology, see the first section of Chapter 5 below.

may have been the first among the Greeks to hold this view.⁵ Aristotle (384–322 BCE) accepted this idea but offered two very different models of it to account for the surface of the earth and its relationship to the sea. One of these was articulated as a part of his concentric, geocentric cosmic model. This model places the earth at the center of the universe, surrounded by the three other elemental spheres of increasingly lesser density—water, air, and fire—and by the ethereal spheres of the heavens farther above them. Aristotle elaborated on the structure of the elemental spheres by applying the general laws of physics he had postulated, stressing that the earth's center would coincide exactly with the center of all other higher spheres, including water, and that the outer surface of an element is tightly lodged with the inner surface of the elemental sphere immediately above it. This is necessary to avoid the formation of vacuums and to keep the entire sublunar system mechanically stable.⁶ This model thus completely submerged the earth under the sea, a point that collided with the basic observational facts of world geography. Into this model Aristotle's followers in late antiquity would insert, through misinterpretation of his theories, a quantitative estimate of a 1 to 10 ratio between the volumes of any two successive elemental spheres, according to which the earth was said to be surrounded by ten times its volume in seawater. This pseudo-Aristotelian doctrine makes the sea an even more preponderant presence over and above the *entire* surface of the earth than is the case in Aristotle's original model.

Aristotle entertained a very different view of the earth, however, when he discussed the geography of the known world and concerned himself with matters such as the distribution of mountains and rivers, the directions of winds, and other climate conditions. Drawing on the ideas of Parmenides

5 The Greek author Diogenes Laertius (fl. third century CE), citing earlier Greek sources, said that Pythagoras held the universe to be “animate, intelligent, spherical, with the earth at its center, the earth itself too being spherical and inhabited round about.” According to Diogenes, Pythagoras hypothesized the existence of antipodes, for whom “our ‘down’ is their ‘up.’” See Diogenes Laertius, *Lives of Eminent Philosophers*, with an English translation by R.D. Hicks, in 2 vols., Book 8, 25–26 (London: William Heinemann, and New York: G.P. Putnam's Sons, 1925), 2: 343.

6 For Aristotle's presentation of his concentric, geocentric model of the cosmos, see Aristotle, *On the Heavens*, with an English translation by W.K.C. Guthrie, Book II, Chap. 4 (Cambridge, Mass.: Harvard University Press, and London: William Heinemann Ltd, 1939), 153–163; idem, *The Physics*, with an English translation by Philip H. Wicksteed and Francis M. Cornford, Book IV, Chap. 5 (London: William Heinemann Ltd, 1929), 1: 320–327; and idem, *Meteorologica*, with an English translation by H.D.P. Lee, Book II, Chap. 2 (Cambridge, Mass.: Harvard University Press, and London: William Heinemann Ltd, 1952), 130–133.

(ca. 515–ca. 450 BCE),⁷ he divided the earth into five zones: two habitable, temperate zones, stretching from the two tropics to the Arctic and Antarctic Circles, respectively; two uninhabitable frigid zones, namely, the Arctic and Antarctic Circles; and the uninhabitable torrid zone between the two tropics. Aristotle did not elaborate on the southern inhabitable zone. His discussion of the northern inhabitable zone practically equates it with the *oikoumene*—the entire known world. His description of the shape of this zone also reflects the Homeric image of the earth as a disk. He suggests that if one slices this northern inhabitable zone off the spherical earth, from the bottom of the northern tropics to the bottom of the Arctic Circle, one obtains a tambourine-shaped landmass. This model of Aristotle speaks to the strong hold that the notion of *oikoumene* had on world geographical discourses at the time, to the extent that Aristotle had to try to reconcile it with his spherical model of the earth.⁸ It is perhaps also due to his attention to the realm of world geographical experiences in this context that he did not include the superimposing elemental sphere of water over all surfaces of the earth in this model.

In late antiquity, two more variants of the spherical model of the earth were proposed. One was attributed to Crates of Mallos (fl. ca. 150 BCE), a Greek geographer from Sicily. This model was expounded upon by Cicero (106–143 BCE) and Macrobius (ca. 395–436). Macrobius's commentaries on Cicero's *Dream of Scipio* provide us with the most detailed extant exposition on and defense of Crates's model.⁹ This model builds on the above-mentioned theory of five zones and hypothesizes the existence of four landmasses on the surface of the

7 On Parmenides, see Dilke, *Greek and Roman Maps*, 25.

8 On the tambourine-shaped northern inhabitable zone of the earth, see Aristotle, *Meteorologica*, Book II, Chap. 5, 362b, at 179–181. For his discussion of the five zones, see *Meteorologica*, Book II, Chaps. 5–6, at 174–197. For a close analysis of Aristotle's geographical thought and his attempt to bridge the Homeric and the spherical models of the earth, see Malcolm Wilson, *Structure and Method in Aristotle's "Meteorologica": A More Disorderly Nature* (Cambridge: Cambridge University Press, 2013), 164–169 and 207–216. See also the succinct but insightful treatment of this topic in Randles, "Classical Models of World Geography," 8–10.

9 Ambrosius Aurelius Theodosius Macrobius, *Commentary on the "Dream of Scipio,"* translated by William Harris Stahl, Book 2, Chaps. 5 and 7 (New York: Columbia University Press, 1952), 200–206 and 208–212. For further discussions on this model held by Crates, Cicero, and Macrobius, see William Harris Stahl, "Astronomy and Geography of Macrobius," *Transactions of the American Philological Association* 73 (1942): 232–258; Dilke, *Greek and Roman Maps*, 36–37; Randles, "Classical Models of World Geography," 10–12; and Tomislav Bili, "Crates of Mallos and Pytheas of Massalia: Examples of Homeric Exegesis in Terms of Mathematical Geography," *Transactions of the American Philological Association* 142, no. 2 (Autumn 2012): 295–328.

earth, two in the northern inhabitable zone and two in the southern inhabitable zone. These landmasses are kept apart by two circuits of oceans that flow at right angles: the equatorial ocean that stretches across the wide belt of the torrid zone, separating the northern hemisphere from the southern one; and the meridional ocean that runs north-south through the two poles, separating the Eastern from the Western Hemisphere. These four landmasses are named Oikoumene, the known world, *Perioikoi* (the other landmasses in the northern hemisphere opposite Oikoumene), *Antoikoi* (the landmass directly south of Oikoumene, located within the same hemisphere), and *Antipodes* (the landmass directly south of *Perioikoi*). Macrobius makes it clear that even though the unnavigable oceans and the insufferable heat of the torrid zone make it impossible for inhabitants of one landmass to communicate with those of another, by dint of reasoning alone one can be sure that these unknown lands exist and are populated similarly to the landmass of Oikoumene.¹⁰

A fourth variant of the spherical model of the earth was advanced by Claudius Ptolemy (ca. 90–ca. 168 CE). Ptolemy agreed with Aristotle that the earth is spherical and rests at the center of the heavens, but he did not subscribe to Aristotle's concentric cosmic model. Instead, he developed a much simpler geometrical conception of the cosmos, represented by a two-sphere model with the earth at the center, surrounded by an immense sphere of the fixed stars.¹¹ From a geometrical point of view, Ptolemy treated the seas as an integral part of the earth, as is clear in his observation that the “*continuous surface of land and sea* (as regards its broad features) is spherical” (emphasis added).¹² Here, in contrast to the overwhelming presence of water relative to the earth in the Aristotelian concentric model, one finds tiny mediterraneans that fill up the various cavities on the surface of the earth. Based on this spherical model of the earth, Ptolemy brought his astronomical and mathematical skills to bear on world geography and cartography, and became a pioneer in transferring the astronomers' method of determining the position of stars on the celestial sphere with a system of coordinates (in terms of longitudes and latitudes) into one of locating and cartographically representing any given place on the surface of the earth. He also developed the method of determining these coordinates by observing positions of the stars and recording the

10 Macrobius, *Commentary on the “Dream of Scipio,”* Book 2, Chap. 5, 204–205.

11 Claudius Ptolemy, *Ptolemy's Almagest*, translated by G.J. Toomer (New York: Springer-Verlag, 1984), 43.

12 Claudius Ptolemy, J. Lennart Berggren, and Alexander Jones, *Ptolemy's “Geography”: An Annotated Translation of the Theoretical Chapters* (Princeton, N.J.: Princeton University Press, 2000), 60.

local time and length of day at a given place, turning geographical surveys of location and distances into an essentially astronomical exercise.¹³

Thus, many of the components that made up the understanding of the physical earth which Ricci presented in his Chinese world maps had already been developed in rudimentary form by the end of late antiquity: the sphericity of the earth; the climate zones; the presence of multiple landmasses; the unity of water and earth to form a single sphere; the astronomical approach to determining longitudes and latitudes; and the explanations of time differences and seasonal cycles in terms of differences in longitude and latitude. Most of these ideas had converged in the Ptolemaic model. But Ptolemy was mistaken in one significant respect: by reversing the ratio of the volume of water relative to that of the earth asserted by the Aristotelians of late antiquity in their concentric model of the cosmos, his model did not allow for large oceans to form around entire landmasses and thus offer passages from one landmass to another. In addition, his cartographical ideals and skills of projection remained largely unrealized due to the lack of necessary data for calculating longitudes and latitudes. The world map presented in his *Geography* was the same *oikoumene* familiar to his contemporaries in the Mediterranean basin. But most importantly, Ptolemy's *Geography* did not influence major developments in Western thought until its rediscovery and reproduction in 1300.¹⁴ Its reappearance would stimulate a new era in European mathematical cartography and provide new tools for navigators as well as geographers of the Renaissance.

In the interim centuries, however, biblical influences contributed a new strand of distinctly Christian thought on the earth and its relationship to the sea. The idea that the earth is a sphere was vehemently denounced by some of the Latin Church Fathers. Lactantius (240–ca. 320 CE), for example, jeered at it in his *Divine Institutes*. He firmly believed that the earth is flat. The very suggestion that there are people standing not only on the “top” but also on the “bottom” of the earth struck him as unimaginable. He wrote:

Is there anyone so senseless as to believe that there are men whose footsteps are higher than their heads? Or that things that are with us in a recumbent position, with them hang in an inverted direction? That crops and trees grow downwards? That the rains, and snow and hail fall upwards to the earth? [...] But if you inquire from those who defend those

13 For further discussion on Ptolemy's contribution to mathematical cartography, see Dilke, *Greek and Roman Maps*, 75–82.

14 For the textual history of Ptolemy's *Geography*, see Ptolemy, Berggren, and Jones, *Ptolemy's "Geography"*, 41–45.

marvelous fictions, why things do not fall into that lower part of the heaven, they reply that such is the nature of things, that heavy bodies are borne to the middle as we see spokes in a wheel; [...] I am at a loss what to say respecting those who, when they have once erred, consistently persevere in their folly, and defend one vain thing by another.¹⁵

Another “flat-earthier,” Cosmas Indicopleustes, a sixth-century Nestorian monk from Alexandria, developed a model of the earth as a rectangle surrounded by impassible seas on the basis of his interpretation of biblical sources.¹⁶ Meanwhile, the idea of antipodes implied in some classical models of a spherical earth also encountered criticism on theological grounds. St. Augustine, for example, did not object to the idea of a spherical earth in itself, but he denied the possibility that the “underside” of the earth, separated by unnavigable waters, was at all inhabitable, for if it were, it would have been inhabited by humans *other than* the descendants from one first man, and this would explicitly contradict Scripture, in which “there is absolutely no falsehood.”¹⁷

In the thirteenth century, as the Aristotelian corpus was systematically translated into Latin and adopted as the backbone of the liberal arts curriculum in Western European universities, Aristotle’s concentric, geocentric cosmic model began to be reinterpreted in light of Christian theology. It would eventually be integrated into the orthodox Catholic scholastic worldview. A major innovation was introduced to this model by medieval scholastics, to accommodate both the apparent fact that there is dry land on earth for human habitation and their conviction that the landmass occupied by the known

15 W. Fletcher, *The Works of Lactantius* (Edinburgh, 1871), 196–197, quoted in Randles, “Classical Models of World Geography,” 18.

16 See Maja Kominko, trans., *The World of Kosmas: Illustrated Byzantine Codices of the Christian Topography* (Cambridge: Cambridge University Press, 2013), and Cosmas Indicopleustes, *The Christian Topography of Cosmas, an Egyptian Monk*, translated from the Greek by John Watson McCrindle (London: Printed for the Hakluyt Society, 1897). For a recent study of Cosmos’s world map and cosmography, see Stefan Alfred Faller, “The World According to Cosmas Indicopleustes—Concepts and Illustrations of an Alexandrian Merchant and Monk,” *Transcultural Studies*, no. 1 (2011): 193–232; see especially the map of the earth and the four seas on 209.

17 St. Augustine, *City of God against the Pagans*, quoted in Randles, “Classical Models of World Geography,” 19. For a study of the motif of antipodes in Western literature and the Christian polemic against antipodes, see Gabriella Moretti, “The Other World and the ‘Antipodes’: The Myth of the Unknown Countries between Antiquity and the Renaissance,” in Wolfgang Haase and Meyer Reinhold, eds., *The Classical Tradition and the Americas* (Berlin and New York: W. de Gruyter, 1994), vol. 1.1: 241–284.

world is the only dry land on earth. What they did was to shift the center of the sphere of the earth upward, away from the center of the sphere of water, to allow a portion of the earth (about one-quarter of its surface) to emerge as dry land. An engraving from Johannes de Sacrobosco, *Sphaera* (ca. 1220), depicts an adapted model of the elemental spheres, showing a small section of the earth's surface emerging above the sphere of water (Figure 3.1).

Two kinds of explanations were offered for this change introduced into Aristotle's original formulation of the concentric model. One is providential and often appears in accounts of Creation. It states that on the first day God created the concentric elemental spheres, allowing the earth to be fully submerged under water. But on the third day He made a part of the earth emerge above water to provide a habitat for humans, animals, and plants.¹⁸ The other justification the scholastics proposed employs a distinction between the center of weight and the center of magnitude of an object, first articulated by Archimedes (ca. 287–212 BCE): although, at its adjusted position, the center of

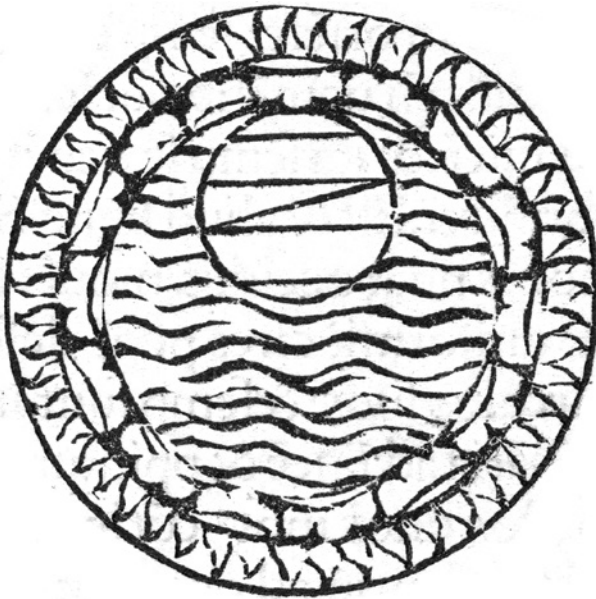


FIGURE 3.1 *An illustration of the earth emerging from water. Engraving, Johannes de Sacrobosco, Sphaera (ca. 1220).*

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¹⁸ An example of this argument is Paul de Burgos's *Additiones* (1429). For an analysis of this text, see Randles, "Classical Models of World Geography," 44–45.

the earth's magnitude is uplifted and thus does not coincide with the center of the sphere of water, the center of the earth's weight does coincide with the center of the weight of the sphere of water. This is presumably because air is able to enter the earth from the hollows in the dry land, rendering the upper part of the earth much lighter than its submerged part.¹⁹ Thus the revised model still featured the earth at the center of gravity for the elemental spheres. In this revised Aristotelian scholastic cosmic model, we see the lingering image of the world as *oikoumene* / *orbis terrarium*, a flat disk surrounded by an immense body of water.

Beginning in the mid-fifteenth century, European mariners and explorers, aided by new navigational technologies, astronomical instruments (such as astrolabes), and new maps, ventured farther and farther into unknown waters. Measurements taken by Bartholomew Diaz (1450–1500) and other Portuguese sailors who explored the African coast and rounded the Cape of Good Hope in 1488 revealed beyond doubt that the *oikoumene* actually stretched over a curved surface across the equator and reached as far south as latitude 34.22° South. Christopher Columbus's accidental landing on Hispaniola in 1492, the "discovery" of Brazil by Pedro Álvares Cabral (ca. 1467–1520) in 1500, and especially the subsequent Portuguese exploration of the South American coastlines in 1501 brought the reality of a new, large, separate, and inhabited mainland into full view for European spectators. A Latin pamphlet describing the findings of the 1501 expedition, entitled none other than *Mundus Novus* (New World), was published in 1503. It was attributed to the Italian explorer Amerigo Vespucci (1454–1512), a member of that expedition, but was actually written by an unknown author based on an authentic letter by Vespucci. Its instant popularity, testified to by its translation into multiple European vernaculars and its 60 editions produced within the next 22 years, led to the naming of this new mainland "America," after the pamphlet's putative author. The writer of this pamphlet directly confronted all who doubted the existence of a new continent or the possibility that such a new continent was inhabited, declaring: "But that this their opinion is false and utterly opposed to the truth, this my last voyage has made manifest; for in those southern parts, I have found a continent more densely peopled and abounding in animals than our Europe or Asia or Africa."²⁰

19 Jean Buridan (ca. 1300–1358) was the first medieval scholastic to pursue this line of argument. For further discussion of this argument, see Grant, "In Defense of the Earth's Centrality," 24–25, and Randles, "Classical Models of World Geography," 32–33.

20 Amerigo Vespucci and Robert Wallisch, *Der Mundus Novus des Amerigo Vespucci: Text, Übersetzung und Kommentar* (Wien: Österreichische Akademie der Wissenschaften,

It was the realization of the true magnitude of the Old World and the discovery of the New that stoked a sense of urgency for a further revision to the Aristotelian scholastic model of the earth. The new notion, that of the teraqueous globe, was proposed by many scholars inside and outside the scholastic circle beginning as early as 1506.²¹ Some of these scholars were inspired precisely by Ptolemy's model of the earth.²² Its endorsement and rigorous proof by such an influential Jesuit scholar as Ricci's mentor Christopher Clavius (1538–1612) enabled it to prevail among the scholastics.²³ The notion of the teraqueous globe fused the two conceptually distinct elemental spheres of water and earth in the Aristotelian cosmic model into a single globe. This two-in-one fusion rendered it theoretically possible for some parts of the earth to emerge above water while other parts remained submerged, thus accounting for the multiple continents and numerous bodies of water, large and small, that were known to exist or that might yet be discovered on the surface of the globe.

This sketch of the history of European understanding of the physical earth from antiquity to the late Renaissance, too brief to do justice to the richness of the material surveyed, serves nevertheless to foreground several salient features of this development. The first such feature was the *multiplicity of perspectives and traditions* that constituted the so-called Western heritage in world geography, and the *remarkable tolerance for cognitive dissonance* shared among scholars during this period. This cultural resilience permitted the emergence of alternatives to a prevalent theory or model when the latter encountered intractable anomalies. An example is the role of the Ptolemaic model in stimulating the notion of the teraqueous globe for some of its earliest proponents. The collapse of the Aristotelian-scholastic model, which featured an earth

2002), 12. English translation cited with modification from Randles, "Classical Models of World Geography," 51–52.

- 21 A partial list of these scholars includes Raffaello Maffei da Volterra (1451–1522) in 1506, Joachim Vadianus (1484–1551) in 1515, Martín Fernández de Enciso (ca. 1470–1528) in 1519, Jean Fernel (1497–1558) in 1528, and Nicolas Copernicus (1473–1543) in 1543. For further discussion of their works bearing on this topic, see Grant, "In Defense of the Earth's Centrality," 22–32, and Randle, "Classical Models of World Geography," 64–74.
- 22 Jean Fernel is a case in point. See the discussion of his text in Randles, "Classical Models of World Geography," 67–68.
- 23 Christopher Clavius expounded and demonstrated the idea that the earth and water share the same center of gravity and form a single sphere in his *In sphaeram Ioannis de Sacrobosco commentaries* (Commentary on the *Spheres* by Joannis de Sacrobosco). This book was tremendously successful, seeing 18 editions between 1570 and 1618. On Clavius's important role in facilitating the acceptance of this notion among the scholastic circle, see Grant, "In Defense of the Earth's Centrality," 27–31.

slightly emerging above water, did not bring about a fundamental rupture in Western world geographical thought; it only reconstituted it by shifting the weight of opinion away from the then dominant Aristotelian-scholastic model and toward the Ptolemaic one.²⁴

The second and related feature concerns what may be called the *highly compartmentalized “infrastructure” for knowledge production and transmission* in premodern and early modern Europe. This infrastructure was formed around circuits (when seen in terms of their participants) or discourses (when seen in terms of the contents being exchanged among the participants). Such circuits consisted of people who were investigating similar questions, reading similar texts, and employing similar validation methods. These circuits or discourses tended to be isolated from one another. Certain seed ideas (e.g., *oikoumene*; a spherical earth), presumptions, and priorities were shared among members of one circuit or discourse, either synchronically or over time through generations, but they were often slow to migrate across circuits. Aristotle provides us with an exemplary case of a person holding completely contradictory views about the same subject when participating in different discourses. This circuit-based infrastructure was the ultimate source of the multiplicity of perspectives and traditions described above.

The third prominent feature was the *relative autonomy of the realm of practical world geographical knowledge* gained through travel, trade, and explorations, especially those occurring in maritime space, from the realm of theoretical knowledge or models. It is true that there was a dynamic interplay between these two realms of knowledge, which occurred at a much-quicken pace during the Renaissance. Ptolemaic theories about how to determine the longitude and latitude of a given place helped mariners in identifying their positions and directions during their voyages; in return, the measurements they took of such coordinates at different points on the globe not only yielded data for more accurate maps of the world but empirically validated Ptolemy's theory about the sphericity of the earth. However, this interplay notwithstanding, the emergence of the notion of the terraqueous globe demonstrates the power of practical knowledge to explode mythical constructs and drive theoretical innovations. Although the contours of the premodern Chinese intellectual terrain were vastly different from those surveyed above, in them we encounter these same general features seen in their European counterparts.

24 Randles, “Classical Models of World Geography,” and Johnson, “New Geographical Horizons,” both stress this multiplicity. This is also the key theme emphasized in the revisionist scholarship on the impact of the New World discoveries on the Old World in Europe, discussed in Chapter 1 above.

Discourses on the Physical Earth in Premodern China: A Working Classification

The coexistence of multiple disparate and often competing circuits or discourses can be observed in many different realms of natural knowledge in premodern China, but it was especially pronounced in the case of geography. Previous scholars have already observed many different categories or traditions of world geographical knowledge in premodern China.²⁵ A major fault-line has been drawn between (1) the dominant Confucian geographical and cartographical traditions, and (2) the minor but persistent cosmographical traditions that dated back to the early mythological geographies of the *Classic of Mountains and Seas* and that were, in later centuries, infused by the Daoist cosmocentric, rather than the Confucian humanocentric, view of the world. The former traditions have been characterized as being consciously attentive to empirical accuracy. They yielded a large number of maps about the Chinese empires and their various regions over the centuries, which served a variety of practical administrative functions for those imperial states. However, they rarely ventured to produce maps of the wider world, for lack of reliable geographical data. The latter, in contrast, thrived on making daring and richly imaginative assertions about strange lands and exotic creatures beyond China, beyond the seas, and beyond the earth.

Building on such findings in previous scholarship, and taking the insights gained from the preceding brief survey of the European case as a point of departure, I propose here a two-tiered classification scheme of the premodern Chinese discourses pertaining to the physical earth. On the higher tier, we find the more abstract and totalizing spatial visions or schemes about the earth, which often contain a strong ideological and cosmological component. At this level we can place, first of all, the Sinocentric world geographical discourses that were more or less based on the “All under Heaven and Four Seas” (Tianxia-Sihai) model of the world. These discourses were often consciously allied to the Confucian

25 See, in particular, the classification of Chinese world geographical works by He Changqun 賀昌群, “Han yihou zhongguo ren duiyu shijie dili zhishi de yanjin” (漢以後中國人對於世界地理知識之演進 The Development of Chinese World Geographical Knowledge after the Han), *Yugong* (禹貢 Tribute of Yu) 5, no. 3–4 (1936): 121; and the systematic analysis of these genres by Lim Jongtae 임종태, “Sŏgu chirihaek-e taehan tong’asia segye chiri chŏnt’ong-ŭi panŭng: 17–18 segi Chungguk kwa Chosŏn ŭi kyŏng’u” (西歐地理學에 대한 東아시아 세계地理傳統의反應: 17–18世紀中國과朝鮮의境遇 Impact of Western Geography on East Asian Geographical Tradition in Seventeenth- and Eighteenth-Century China and Korea), *Korean Journal for the History of Science* 26, no. 2 (2004): 315–344.

imperial ideology and embodied in state sacrificial rituals. Given their close ties to the imperial state, we may call such discourses *geopolitical discourses*. Beyond them, there were also discourses on the shape of the earth that placed it in relation to other cosmological entities (heaven, the sun, the moon, and even the sea) rather than in relation to the imperial body politic, although they needed at times to be coopted into the service of an imperial ideology. I refer to these discourses as *cosmological discourses*. In both categories of discourses, we encounter a multiplicity of seed ideas, theories, or models. Besides the dominant, often Sinocentric constructs, there are always other alternative visions of the physical earth that leaned toward de-centering China and expressing peripheral, competing ideologies and cosmologies. Such was the case with the view of the world centering on Mount Kunlun 崑崙 in early Chinese mythology; the hypothesis of Nine Great Continents by Zou Yan (ca. 305–240 BCE), discussed below; and the Buddhist vision of the earth centering on Mount Sumeru.

On the lower tier, in contrast, people move about and experience nature, observe landscapes, take note of the contours of land and sea, and formulate, record, and transmit their knowledge of the world in languages that are diverse and localized. The sites of production of these geographical discourses coincide with the proper stages of daily life and individual action—in trade, commerce, travel, and other such activities. Knowledge about the earth thus derived is more concrete, and inherently diverse and fragmentary, than is knowledge obtained on the higher tier. For lack of a better term, we may call these *empirical maritime geographical discourses* because the most relevant and important forms of such world geographical discourses are maritime in focus.

These two tiers of discourses relate to each other in fluid and complex ways: although an intellectual articulation of concrete geographical knowledge often draws on one or another overarching spatial scheme, it retains its integrity and basis of expression through localized language. In other words, empirical data gained on the ground can and often do spill out of the totalizing scheme adopted, while an ideological spatial scheme often engages and incorporates empirical maritime geographical knowledge, albeit usually with a view to validating and perpetuating itself. The discussion below follows this classification scheme in tracing the formation of some of these dominant discourses in premodern China.

Dadi and Sihai: Images of Land and Sea in Early China

The modern Chinese phrase designating the planet earth, Diqiu 地球 (literally, “terrestrial sphere”), was a gift from Ricci. It has become such an indispensable part of modern Chinese vocabulary that Chinese historians nowadays are no

longer conscious of the irony implied when they assert that “the ancient Chinese regarded Diqu as flat and square.” The ancient Chinese would have referred to the earth as *dadi* 大地, the great terrestrial mass, or simply *di*, the terrestrial mass. In a poetic context, it was sometimes referred to as *dakuai* 大塊 (literally, the “large block”). Similar to the English word “earth,” *dadi* and *di* had different shades of meaning in classical Chinese. The terms were sometimes used to designate the kind of dry land suitable for dwelling and farming, in contrast to mountains, rivers, lakes, and seas. At other times, they meant the whole terrestrial realm that encompassed not only dry land but such ecological environments as lakes and rivers that are sustained by the landmass. In the latter usage, *dadi* or *di* referred to the earth as a cosmographic entity that contrasted with Tian (Heaven), on the one hand, and Sihai (the Four Seas), on the other.

Implicit in this linguistic usage of *dadi* or *dakuai* is the image of the earth as an immense block of more or less flat land. When did this view of the earth begin to entrench itself so deeply in Chinese consciousness that it was inscribed in their language? John Didier, whose arguments are presented at the beginning of Chapter 2, makes a strong case that early Chinese cosmology was far from monolithic. But it seems that the image of a flat and square earth originated much earlier than Didier’s suggestion of 200–700 CE. Its beginning may be traced to the turn of the first millennium BCE, during the late Shang (1600–1050 BCE) and the early Zhou (ca. 1050–256 BCE), and by the last three or four centuries BCE, it had become prevalent. Our review of the European case above shows that in the premodern world the Chinese were not remarkable for assuming the earth to be flat and square. The idea that the earth is a sphere is certainly not a self-evident truth, nor can it be readily derived from the daily perceptions of our immediate surroundings.²⁶ If anything, the Huaxia 華夏 people’s pristine perception of the vast North China plains, their home environment, may have contributed early on to the idea that the earth is flat. Remnants of such perceptions are captured in the enigmatic divination manual from the early Zhou, the *Book of Changes* (Yijing 易經), which describes the image of Kun 坤, or the earth, with the characters *zhi* 直, *fang* 方, and *da* 大: straight, square, and great.²⁷

26 Indeed, as Chu Ping-yi has noted, “few of us could, off the top of our head, offer scientific evidence for the earth being round.” Chu Ping-yi 祝平一, “Trust, Instruments, and Cross-Cultural Scientific Exchanges: Chinese Debate over the Shape of the Earth, 1600–1800,” *Science in Context* 12, no. 3 (1999): 385.

27 See *Zhou yi* (周易 Book of Changes), translated into modern Chinese with commentaries by Song Zuoying 宋祚胤, *Guoxue jiben* 國學基本 edition (Changsha: Yuelu shushe,

Two important features of early Chinese social practice may also have contributed to this image of the earth as a flat and square space. The first is the ancient Chinese system of farm organization known as the well-field system. In its ideal form, this system organized farming communities into basic units of eight households, each unit working on a square block of land occupying 900 *mu*. A reconstruction of this system is shown in Figure 3.2. The block had distinctly marked outer boundaries and was internally partitioned into nine equal, square subunits. Within the block there were large and small roads and irrigation ditches that subdivided and connected its various subunits. In this way the block resembles the various ancient characters for “well”—namely,

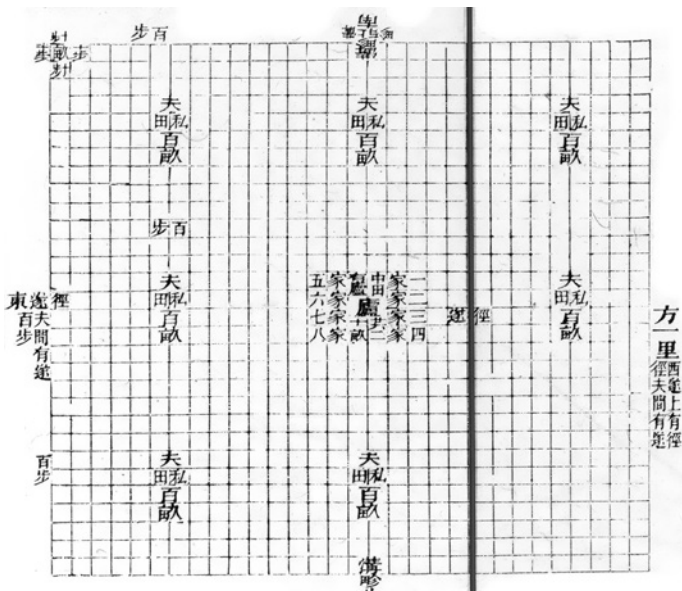


FIGURE 3.2 A reconstructed image of the well-field system. Tang Zhongyou 唐仲友 (1136–1188), *Diwang jingshi tupu* (帝王經世圖譜 *Illustrated Manual of Imperial Statecraft*), juan 8. Congshu jicheng chubian 叢書集成初編 edition (Shanghai: Shangwu yinshuguan, 1937), 2: 300.

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2000), 18. On the broader patterns of spatial perception in early China which contributed to the formation of the notion of the earth as square, see Li Ling 李零, “Zhongguo gudai dili de dashiye” 中國古代地理的大視野 (The Broad Perspective on Geography in Ancient China), in idem, *Zhongguo fangshu xukao* 中國方術續考 (Second Collection of Inquiries into Chinese Divinatory Arts), 194–205 (Beijing: Zhonghua shuju, 2006).

jing 井 or 井田 (in oracle-bone inscriptions) or 井 (in bronze inscription)—hence its name, “well-field” (*jingtian* 井田). Each household farmed one of the eight outlying smaller squares of 100 *mu* in the well-field as its private plot, and cultivated collaboratively the public plot in the center of the well-field. The yields of the private plot each household kept for its own sustenance, and those from the public plot were rendered as taxes to the government or kept for purposes of communal welfare. According to Mencius (372–289), who provides the earliest explicit account of this system, it had existed in the golden era of the Xia, Shang, and the early Zhou dynasties. The historical validity of his claim has been disputed by some modern scholars, who note the implausibility of putting such a rigid land system into practice. However, recent philological research, archeological finds, and studies of materials in bronze and oracle-bone inscriptions have convinced most scholars that some form of a well-field system did exist during the early Zhou and possibly had earlier origins, although some maintain that it may not have been applied across all areas of Zhou or have approached the ideal form laid out by Mencius.²⁸

28 The major early sources for our knowledge of the well-field system are *Mencius* 孟子, Chap. 5, “Tengwengong 1” (滕文公上 Duke Tengwen, Part 1); *Zhouli* (周禮 Rites of Zhou), chapters on “Kaogongji” (考工記 Records of Inspection of the Craftsmen) and “Diguan” (地官 Administrative Officers); *Chunqiu guliang zhuan* (春秋谷梁傳 Guliang’s Commentary on the *Spring and Autumn Annals*), “Xuanguong shiwu nian” (宣公十五年 The Fifteenth Year of Duke Xuan); *Hanshi waizhuan* (韓詩外傳 Outer Commentary on the *Book of Poetry* by Master Han); and Ban Gu 班固, *Hanshu* (漢書 History of the Former Han), *juan* 23, “Xingfa zhi” (刑法志 Records of Penal Law), and *juan* 24, “Shi huo” (食貨 Food and Goods). Whether or not the “well-field system” actually existed in early China has been a topic of much debate in the past century. For a summary of the early phase of this debate, see H.D. Fong, “Bibliography on the Land Problems in Ancient China,” *Nankai Social and Economic Quarterly* 8 (1935): 325–384. For a survey of the most recent developments in this area among Chinese scholars, see Zhou Xinfang 周新芳, “Jin nian lai jingtianzhi yanjiu de xin jinzhan” (近年來井田制研究的新進展 New Developments in the Research on the Well-Field System in Recent Years), *Yantai shifan daxue xuebao* (煙臺師範大學學報 Learned Journal of Yantai Normal University), no. 3 (1997): 45–48. Some representative works from the past decades that affirmed the existence of some form of this system include Hou Jiaju 侯家駒, “Jingtian congkao” (井田叢考 Collected Studies of the Well-Field System), *Dalu zazhi* (大陸雜誌 The Continent Magazine) 67, no. 3 (1983): 11–30; Du Zhengsheng 杜正勝, “Guanyu Zhoudai guojia xingtai de lice—‘fengjian chengbang’ shuo chuyi” (關於周代國家形成的蠡測—封建城邦說芻議 The Feudal City-State in Ancient China: An Analysis of Zhou-Dynasty State Formation), *BIHP* 57, no. 3 (1986): 465–500; and Liu Huan 劉桓, “Shishuo Xizhou jinwen zhong guanyu jingtian de liangtiao shiliao” (試說西周金文中關於井田的兩條史料 Interpreting Two Primary Sources on the Well-Field from the Bronze Inscriptions of the Western Zhou), *Renwen*

Second, the square layout of early Chinese cities and city-states may have suggested or reinforced the notion of a flat and square earth. As the architectural historian He Yeju has observed, the rulers of the Zhou, after conquering the Shang dynasty (ca. 1600–1050 BCE) to their east, launched a wave of city building to extend the infrastructure for governing the now much larger kingdom. The Zhou king perfected the feudal system already in practice in the Shang dynasty. With his self-acclaimed title of “Son of Heaven,” he maintained nominal control of the entire Zhou kingdom, now referred to as All under Heaven (Tianxia). But he only exercised personal rule over the original homeland of the Zhou, relegating governance of the newly conquered territories to his kinsmen and victorious army officers. The fiefs received dominions proportionate to their ranks: duke, marquis, count, viscount, and baron. Each dominion constituted a feudal state (*guo* 國) within All under Heaven. The feudal lords ruled over their respective dominions while pledging loyalty to the Zhou king, to whom they offered tribute and military support.

Cities of proportionate size and pomp were built across the realm as the political and economic hubs of the various feudal states. Archeological finds from some of these cities corroborate accounts of early Zhou city planning given in classical texts such as *Records of Inspection of the Craftsmen* (*Kaogongji* 考工記).²⁹ They reveal a uniform design of the city as a walled square, partitioned into nine equal parts by large horizontal and vertical meridians, or roads, in a way that imitated the structure of the well-fields. At the center of the city, surrounded by the markets, workshops of the various trades, and dwellings of the administrative staff and ordinary residents, was the court of the presiding lord. The city, in turn, was located at the center of the much larger square that was the lord's state, since it was surrounded on all sides by

zazhi (人文雜誌 Humanities Journal) 4 (1993): 98–100. For a recent critique of arguments in favor of the historical existence of the well-field system in the early Zhou, see Lai Jiancheng 賴建誠, *Jingtian bian: Zhushuo bianbo* (井田辨: 諸說辯駁 On the Well-Field System: Clarifying and Disputing Various Previous Theories) (Taipei: Taiwan xuesheng shuju, 2012).

29 *Kaogongji* 考工記 (Records of Inspection of the Craftsmen) is the earliest extant text covering various crafts and engineering skills in ancient China. Historians have debated its authorship and date, but the majority opinion holds that it originated in the state of Qi 齊 during the transition from the Spring and Autumn period (771–476 BCE) to the Warring States period, with some later contents appended to it. See Li Qiufang 李秋芳, “Ershi shiji *Kaogongji* yanjiu zongshu” (20世紀考工記研究綜述 A Survey of Twentieth-Century Scholarship on the *Kaogongji*), *Zhongguoshi yanjiu dongtai* (中國史研究動態 Trends in Chinese Historical Studies 2004), no. 5: 10–17.

the well-fields under the lord's control.³⁰ In ideal form, then, the early Zhou kingdom was a hierarchical network of squares that extended from the Zhou king's domain proper, at the center, into the outlying city-states of the feudal lords. This may very well have been the model on which the author of the "Tribute of Yu" (Yugong 禹貢) imagined the legendary ruler Yu's Nine Provinces and Five Zones (discussed below).

The correlation between this emphasis on the shape of the square in the early Chinese social management of space and the eventual emergence of the belief in a square earth strongly suggests that this belief must have evolved primarily within a social and geopolitical context in which the earth was primarily perceived as territories, or as a habitat for human communities, and in which its boundaries might not necessarily coincide with its actual physical limits.

In time, the four boundaries of the earth came to be conceptualized in terms of Sihai 四海 (the Four Seas). The terms *hai* 海 (sea) and Sihai are relatively late in origin. The character *hai* appears in the bronze inscription "Xiaochen sugui" 小臣速簋 dated to the early Western Zhou.³¹ In classical texts, the character *hai* was used with two different meanings: one is Tianchi 天池, the "pond of Heaven," which all rivers are believed to flow into; the other is *hui* 晦, or "darkness."³² The former is descriptive, whereas the latter is evaluative,

30 He Yeju 賀業鉅, *Zhongguo gudai chengshi guihua shi luncong* (中國古代城市規劃史論叢 Essays on the History of City Planning in Ancient China) (Beijing: Zhongguo jianzhu gongye chubanshe, 1986), 2–18, and idem, *Kaogongji yingguo zhidu yanjiu* (考工記營國制度研究 Studies on the System of City Planning Contained in the *Kaogongji*) (Beijing: Zhongguo jianzhu chubanshe, 1985), 24–38. He Yeju suggests that the well-field system served as a model for early Zhou city planning and that, conversely, the breakdown of the well-field system toward the end of the Spring and Autumn period, together with the decay of the feudal system, contributed to the irregular formations of the cities emerging or rebuilt during the Zhou dynasty's second wave of city building occurring at this time. See also Wu Juanyu 吳雋宇, "Jingtianzhi yu zhongguo gudai fangxing cheng zhi" (井田制與中國古代方形城制 The Well-Field System and the Square Plan of Ancient Chinese Cities), *Jianzhu lishi yu lilun* (建築歷史與理論 History and Theory of Architecture) 10 (2009): 54–57.

31 Ming-chorng Hwang, "Ming-tang: Cosmology, Political Order and Monuments in Early China," Ph.D. dissertation, Harvard University, 1996, 20.

32 Hwang, "Ming Tang Cosmology," 21. The first of these usages is given in Xu Shen's 許慎 (ca. 55–ca. 149) etymological dictionary *Shuowen jiezi* (說文解字 Explanation of the Origin and Composition of Chinese Characters, 121 CE), *juan* 11, reprinted edition (Beijing: Jiuzhou chubanshe, 2001), 638. The second usage is listed in two early lexicographical compilations: the *Shiming* (釋名 Explication of Terms, ca. 200 CE), attributed to Liu Xi 劉熙; and the *Guangya* (廣雅 Expanded Compilation and Explanation of Chinese Characters [modeled after *Erya*], early third century CE), by Zhang Yi 張揖.

and explicitly negative. The term Sihai does not appear in the oldest written records, such as the oracle-bone inscriptions and bronze inscriptions, but it came to be widely used during the Eastern Zhou, especially the Warring States Period (403–221 BCE). Previous studies have pointed out two possible origins of this term. It may have been derived from the coastal people's actual observation of the sea on the east, the "pond of Heaven," as the boundary of land, which then was extended to the other unseen boundaries of the earth.³³ But other usages of Sihai seem to have had less to do with actual bodies of water than with the archaic conception of territorial boundaries of the Huaxia people, dated to the Shang if not earlier.

Indeed, some previous scholars have shown that the Shang people imagined the world to be shaped like the space enclosed by the two horizontal strokes in the Chinese character 亞: that is to say, it consists of five squares—a square in the center, which is the *zhongtu* 中土 (the Central Land) or *zhongshang* 中商 (the Central Shang), and four outer squares on its north, south, east, and west sides, representing the *sifang* 四方, literally, the four quadrates of the earth beyond Shang territory.³⁴ The Shang people referred to foreign peoples and their territories as *fang*, such as *kufang* 苦方, *qiangfang* 羌方, and *guifang* 鬼方. Etymological analysis of the character *fang* 方 in the Shang oracle-bone inscriptions, in which it appears as 𠂔, indicates that this ideogram was derived from the Shang people's ritual for exorcising evil spirits that were presumed to be roaming on the fringes of their territory, ready to wreak havoc: it depicts the hanging of a corpse on a tree, a token that may originally have been devised to terrorize such spirits. Understandably, the *fang* was also a place to which villains at home were said to be exiled. Hence the term *sifang* 四方, the four quadrates of the earth, was connected with other archaic terms such as *sihui* 四晦 (the "four darknesses") and *sizui* 四罪 (the "four villains") in early Chinese literature. As Ming-chong Huang has demonstrated, many statements in the oldest extant texts where these three terms—*sifang*, *sihui*, and *sizui*—were used reoccur in texts dating from the Warring States period, but in these later cases, instead of those three terms the newer term Sihai was used.³⁵

33 Wu Yinghui 吳慧穎, "Sihai wuyi yu wenhua xinli de yanbian" (四海五義與文化心理的演變 The Five Meanings of the Term "Four Seas" and the Evolution of [Chinese] Cultural Psychology), *Hengyang shizhuan xuebao* (*shehui kexue ban*) (衡陽師專學報 社會科學版 Journal of Hengyang Teachers' College, Social Science Edition) 18, no. 5 (October 1997): 71; Hwang, "Ming Tang Cosmology," 21.

34 For further discussion on Shang cosmology, see Allan, *The Shape of the Turtle*.

35 Hwang, "Ming Tang Cosmology," 21–22. For general studies of the concept of Sihai (Four Seas), see Wang Yong 王庸, "Sihai tong kao" (四海通考 A General Examination of [the

These etymological findings about *hai* and Sihai suggest a strong possibility that the early Chinese conceptualization of the sea was influenced by two very different cultural systems and worldviews. One was the maritime cultural system of the aboriginals residing in the eastern and southern lands close to the sea. They comprised two large tribal groups: the Dongyi 東夷 people (also known as Jiuyi 九夷), who inhabited the areas surrounding the coast of modern-day Bohai Bay and the Yellow Sea; and the Yue 越 people, the native inhabitants of the middle and lower Yangzi River valley and modern-day southeastern China. The Dongyi were seafaring peoples who created successively the Beixin culture (北辛文化, 7400–6400 BP), Dawenkou culture (大汶口文化, 6600–4600 BP), and Longshan culture (龍山文化, 4500–4000 BP). Typical sites of these cultures feature large amounts of remains of marine products and fishing tools. The ancient Yue people created the Hemudu culture (河姆渡文化, 7800–7100 BP) and the Liangzhu culture 良渚文化 (5300–4200 BP), excavated from modern-day southeastern China. The ruins at the Hemudu culture sites indicate that the Yue people cultivated rice and excelled at boat construction. Several canoes in these ruins dated to 7000–6000 BP. The Yue people are known to have been interacting with the Malay peninsula by sea by the early first millennium BCE, and may possibly have developed sailing boats around that time.³⁶

The other cultural system was that of the early agriculturalists of the North China Plain near the Yellow River and its tributaries, known as the Huaxia 華夏族 (Huaxia group). The stories of these people have been recounted and

Concept of] the Four Seas), *Shixue yu dixue* (史學與地學 History and Geography) 2 (1926): 269–287, and Wu Yinghui, “Sihai wuyi yu wenhua xinli de yanbian.”

- 36 For further studies on these early maritime cultures, see Zhu Jianjun 朱建君, “Dongyi haiyang wenhua jiqi zouxiang” (東夷海洋文化及其走向 The Maritime Culture of the Dongyi and Its Later Trajectories), *Zhongguo haiyang daxue xuebao* (*shehui kexue ban*) (中國海洋大學學報 (社會科學版) Journal of Ocean University of China, Social Sciences Edition) 2, no. 2 (2004): 21–25; Wu Chunming 吳春明, “Huan zhongguo hai haiyang wenhua de tuzhu shengcheng yu hanren chuancheng lungang” (環中國海海洋文化的土著生成與漢人傳承論綱 On the Aboriginal Origination of the Maritime Culture near the Seas Surrounding China and Its Inheritance by Han Chinese), *Fudan xuebao* (*shehui kexue ban*) (復旦學報 (社會科學版) Fudan Journal, Social Sciences Edition), no. 1 (2011): 124–131; and Lin Huadong 林華東 and Wei Lili 韋立立, “Lun hemudu wenhua ji yue wenhua de haiwai chuanbo” (論河姆渡文化暨越文化的海外傳播 On the Overseas Dissemination of Hemudu Culture and Viet Culture), 141–174, and also Yang Chengkan 楊成檻, “Hemudu yizhi he yuezu xianmin” (河姆渡遺址和越族先民 The Hemudu Ruins and the Ancestors of the Viets), 175–187, both in Zhejiang shen wenhua ju (浙江省文物局 Zhejiang Province Cultural Bureau), ed., *Hemudu wenhua yanjiu* (河姆渡文化研究 Studies of Hemudu Culture) (Hangzhou: Hangzhou daxue chubanshe, 1998).

relished through the centuries. They are credited with the creation of the Peiligang culture (裴李崗文化, 9000–7000 BP), Cishan culture (磁山文化, 8100–7000 BP), and Yangshao culture (仰韶文化, 7000–5000 BP) in the Neolithic era. Their legendary ruler, Yandi 炎帝 (Emperor Yan, traditionally dated to ca. 3000 BCE), is often referred to as Shennong 神農, the Divine Farmer, who taught the knowledge of agriculture and herbal medicine. Another cultural hero, Huangdi 黃帝 (the Yellow Emperor, traditionally dated to ca. 2717–ca. 2599 BCE), is credited with the invention of clothing, carts and other vehicles, arithmetic, medicine, and the Chinese characters, among other things.

These neighboring tribal groups—the Huaxia, the Dongyi, the Yue, and many other minor groups—engaged in constant warfare with each other. It was the agriculturalists who, during the last three millennia, gradually triumphed over the rest and expanded first eastward and then southward, assimilating the seafaring peoples and their cultures in the process. The founding myth of Chinese civilization came to be told from the perspective of the winner: the Chinese people now refer to themselves as *yan huang zisun* 炎黃子孫 (the descendants of Emperors Yan and Huang); and Huaxia 華夏 or Zhonghua 中華 (“the Hua[xia] at the Center”) became labels for China or for the Chinese as a nation. In the subsequent construction of Chinese cultural identity and the formation of an orthodox cosmology, the land-centered agriculturalists’ perspective on the world came to dominate that of the seafaring peoples. This dominance expressed itself through the prevalent usage, in the classical literature dating to late antiquity, of *hai* (sea) in the sense of *hui*, or darkness (rather than in the sense of Tianchi, the “pond of Heaven”), and of Sihai in the sense of the four quadrates (i.e., the peripheries), four darknesses, or four villains. Such usage reflected the sentiment and perspective of land-based peoples who regarded the sea as a place of danger and chaos. For the Dongyi and Yue peoples, in contrast, the sea was their lifeblood and the cradle of their civilization. Their gradual assimilation into the Huaxia civilization ensured that their geopolitical construct of the earth and the sea would remain peripheral. But their maritime way of life, fascination with the sea, navigational technologies, and knowledge of the sea and the wider world beyond it formed an important current in Chinese thought, especially in Chinese empirical maritime geographical discourses.

The “Tribute of Yu” and the Formation of a Geopolitical Discourse on the Four Seas

Late antiquity saw the rise of a geopolitical discourse that aimed at mapping out All under Heaven as an ideal state and a unified cultural realm. The term

“All under Heaven,” which dated to the early Zhou, was used to designate this ideal state and civilization. Although a truly centralized imperial government did not come into being until 221 BCE, when the Qin dynasty was founded, a discourse on the absolute power of the rightful sovereign had already begun in the early Zhou, at the turn of the first millennium BCE. The Zhou king was seen as representing the apex of political power and human morality. It was believed that he received the Mandate of Heaven to rule because of his exemplary virtue. As his title “Son of Heaven” suggests, the king’s dominion was universal and absolute. One of the poems from the early Zhou recorded in the *Book of Poetry* declares: “Under the wide Heaven, All is the king’s land. Within the sea-boundaries of the land, All are the king’s servants.”³⁷

By the late Zhou, this idealized political and cultural realm of China began to be imagined in geographical terms. The major classical source that systematically delineates the geographical expanse, topographical features, economic resources, administrative structure, and cultural ecology of this ideal Chinese state is a chapter entitled the “Tribute of Yu” (Yugong 禹貢) in a text known in English as the *Book of Documents* or *Document Classic*. The *Book of Documents* is one of the six Confucian classics said to have been personally edited by Confucius on the basis of materials stored in the Zhou royal archives, some of which had presumably been handed down from dynasties as far back as the third millennium BCE, during the era of the sage-rulers Yao 堯, Shun 舜 and Yu 禹. The chapter “Tribute of Yu” thus assumed great antiquity, being perceived as an archival account of the sage-emperor Yu incorporating Yu’s own speeches. It was not until the early twentieth century that its antiquity came to be a subject of much debate. Gu Jiegang 顧頡剛, a chief proponent of the “Doubting Antiquity” School (Yigu pai 疑古派), argued that the “Tribute of Yu” must have been composed during the late Warring States period, around the third century BCE. Another scholar, Xin Shuzhi 辛樹幟, dated it to the early Zhou dynasty, before or around the mid-tenth century BCE. Here we follow the majority of scholars, who date it to the middle of the first millennium BCE, close to the time of Confucius.³⁸ The consensus among modern scholars is that this work is not a true record of some Chinese state already existing at the time

37 “溥天之下，莫非王土；率土之濱，莫非王臣。” The Chinese text and its English translation are quoted from JLC, vol. 4, *The She King or the Book of Poetry* (Hong Kong: Hong Kong University Press, 1960), 360–361.

38 For a survey and critique of these propositions, see Wang Chengzu 王成祖, *Zhongguo dilixue shi: xianqin zhi mingdai* (中國地理學史：先秦至明代 History of Chinese Geography: From the Pre-Qin Era to the Ming Dynasty) (Beijing: Shangwu yinshuguan, 1988), 4–6.

of Yu but a depiction of a Chinese Utopia mixed with partial geographical facts about the various feudal states under the rule of the Zhou king. These imaginations are centered on Yu's heroic act of taming a flood, his establishment of an administrative scheme and equitable system of tribute for the large empire, and his rule by virtue.

The "Tribute of Yu" chapter in the *Book of Documents* is only one of many versions of the legends about Yu that circulated in ancient sources. The oldest known sample of this kind is a description of Yu's accomplishments inscribed on the inside bottom of a ritual bronze vessel, dated to the ninth century BCE, that was discovered in 2002.³⁹ However, none of these sources matches the scope and geographical detail presented in the narrative of the "Tribute of Yu." This text begins by telling how, after assuming the task of flood control, Yu "spread out the soil, and following the mountains and cutting down trees, established the heights and enlarged the rivers."⁴⁰ Using the major rivers as natural boundaries, Yu divided the land into nine provinces (*jiuzhou* 九州; hereafter Nine Provinces): Yi 冀, Yan 兗, Qing 青, Xu 徐, Yang 揚, Jing 荆, Yu 豫, Liang 梁, and Yong 雍. Then he conducted a detailed survey of each of the provinces and organized the people there to drain the inundations, dredge the rivers, and remedy the lands. Thus,

throughout the nine provinces a similar order was effected: the grounds along the waters were everywhere made habitable; the nine hills were cleared of their superfluous wood and sacrificed to; the sources of the nine rivers were cleared; the nine marshes were well banked; and connections were established for all places within the *Four Seas*.⁴¹ (emphasis added)

With the land restored, Yu proceeded to study the soil conditions and mineral resources in each of the provinces, and determined the amount and kinds of local products the provinces should forward to the government as tribute.

39 This vessel, known as "Sui gong xu," or "Bin gong xu," is now held at the Poly Museum of Beijing (Baoli Yishu Bowuguan 保利藝術博物館). For a recent study of this archeological discovery and its tremendous significance in validating the antiquity of many Chinese classical sources, see Edward Shaughnessy, "The Bin Gong Xu Inscription and the Beginnings of the Chinese Literary Tradition," in Wilt Idema, ed., *The Harvard-Yenching Library 75th Anniversary Memorial Volume* (Hong Kong: The Chinese University Press, 2007), 1–19; n. 23 of this article carries a partial list of the Chinese literature on this subject.

40 I am following Shaughnessy's translation in Shaughnessy, "The Bin Gong Xu Inscription," 8.

41 "九州攸同,四隩既宅,九山刊旅,九川滌源,九澤既陂,四海會同." Translation quoted with modification from JLCC, vol. 3, *The Shoo King*, 141.

In the last section of the text, another division of the land besides the nine provinces is introduced—the system of five concentric domains, or zones, known as *wufu* 五服 (literally, “five zones of submission”; hereafter Five Zones, Figure 3.3). At the center was the Zone of the Sovereign (Dianfu 甸服), which

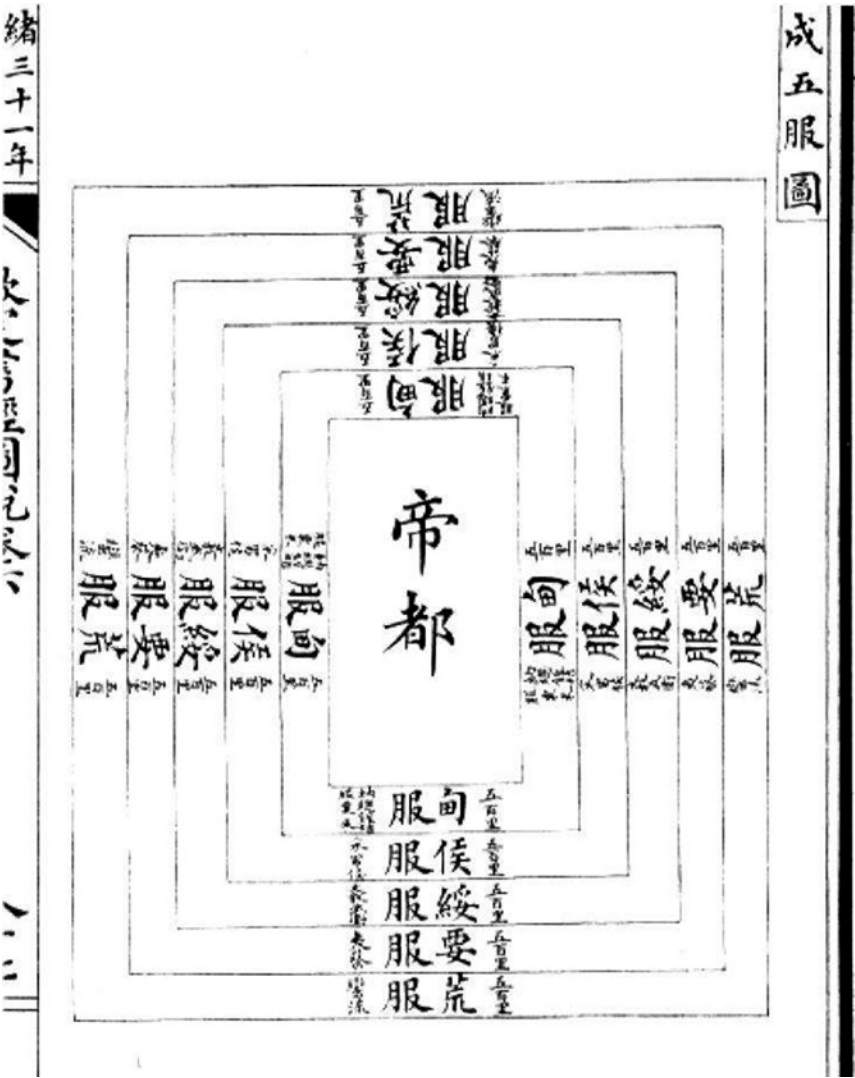


FIGURE 3.3 “Establishment of the Five Zones, with the Able Assistance [of Yu]” (*Bicheng wufu tu* 弼成五服圖). Sun Jianai 孫家鼐 et al., *Qinding shujing tushuo* (欽定書經圖說 *Imperial Edition of the Illustrated Account of the Document Classic*, 1905), juan 6, 87a. PHOTO COURTESY OF HARVARD-YENCHING LIBRARY

occupied a square area measuring 500 *li* from the palace in the center to the midpoint of each side.⁴² The 500 *li* beyond the four sides of this central square constituted the Zone of the Nobles (Houfu 侯服). Within this zone were the cities and lands of the sovereign's high ministers and great officers, and the principalities of the barons and princes. The 500 *li* beyond it formed the Peace-Securing Zone (Suifu 綏服). Within the first 300 *li* of this zone, the residents "cultivated the lessons of [Chinese] learning and moral duties," while in the remaining 200 *li* beyond that, the residents participated in the military defense of the king. Beyond this third zone lay a fourth 500 *li* area, the Zone of Restraint (Yaofu 要服). The first 300 *li* within this zone were inhabited by barbarian tribes known as the *yi* 夷, and the remaining 200 *li* beyond were occupied by criminals undergoing the lesser banishment. Finally, there was the Wild Zone (Huangfu 荒服). The first 300 *li* within this zone were inhabited by barbarian tribes known as the *man* 蠻, and the remaining 200 *li* beyond that were populated by criminals undergoing the greater banishment. These Five Zones were ordered so that the political stability and cultural identity of the inner zones were protected, with alien, uncooperative, or disruptive forces kept safely on the fringes. The "Tribute of Yu" thus concludes:

On the east, reaching to the sea; on the west, extending to the moving sands; to the utmost limits of the north and south: —his fame and influence filled up to the bounds of the *Four Seas*. Yu presented the dark-colored gem stone, and announced the completion of his work.⁴³ (emphasis added)

As seen in these two passages quoted from the "Tribute of Yu," both the Nine Provinces and the Five Zones had the Four Seas as their outer boundaries. However, there is much ambiguity as to what the Four Seas are or where they

42 The length of *li* changed, and in general became longer, over time. At present 1 *li* = 0.5 kilometer, or around 0.31 mile. The "Tribute of Yu" text here simply states that the first "500 *li*" constitute the Dianfu 甸服 (Zone of the Sovereign), but from early on, commentators have interpreted the text to mean that the zone extended 500 *li* on each side of the central palace, from the east, west, north, and south, so that the central square of the Dianfu actually measured 1,000 *li* on each side. See Kong Yingda 孔穎達 (574–648), *Shangshu zhengyi* (尚書正義 The True Meaning of the *Book of Documents*), collated by Liao Mingchun 廖明春 and Chen Ming 陳明 (Beijing: Beijing daxue chubanshe, 2000), 199.

43 "東漸于海,西被于流沙,朔南暨聲教訖于四海。禹錫玄圭,告厥成功。" Translation quoted from JLCC, vol. 3, *The Shoo King*, 150. Legge notes that the "gem-token was conferred by the emperor on the noble, —a delegation to him of his dignity and authority."

are located, because the geographical expanse of the Nine Provinces does not overlap exactly with that of the Five Zones. According to the text, all nine provinces are directly under the administrative control of the king and owe a proper tribute to the sovereign, but this is clearly not the case with the two outermost zones, which are said to be inhabited by non-Chinese peoples, the *yi* and *man*, and by exiled criminals. In other words, in the “Tribute of Yu” there is a discrepancy between the Nine Provinces which make up the ideal imperial Chinese state and the Five Zones which constitute the ideal, hierarchical world order seen from the perspective of the Chinese at the center. The statement that concludes the discussion of the Five Zones—that Yu’s “fame and influence filled up to the bounds of the Four Seas”—suggests that this all-encompassing world was still thought of as culturally Chinese, and therefore as subject to the transformative influences of the Son of Heaven.

Thus the term Four Seas, as the boundary marker of these two different geographies of All under Heaven, is left with two possible referents: either to the peripheral spaces within the wider world that is inhabited by non-Chinese peoples, or to the four actual seas that presumably lie farther beyond it. This semantic ambiguity associated with the Four Seas is not unique to the “Tribute of Yu.” In other ancient classical texts as well, the term Four Seas similarly vacillates between its metaphorical usage as the margins of the Chinese political state, or civilization, and its literal usage as the four actual seas that presumably framed the wider known world. The metaphorical usage is prominent enough that the oldest Chinese dictionary, *Approaching Refined [Usages]* (Erya 爾雅), dated to around the third century BCE, offers the following definition: “The nine Yi 夷, the eight Di 狄, the seven Rong 戎, and the six Man 蠻 are called the Four Seas.”⁴⁴ In contrast, a later source, Zhang Hua’s 張華 (230–300 CE) *Records of Myriad [Notable] Things* (Bowu zhi 博物志), notes that these literal and metaphorical usages are easily reconciled, in that these alien groups are called the Four Seas “because they do all live close to those seas.”⁴⁵ In other words, whereas our etymological study above indicates that the oldest usages of the term Four Seas were associated with the idea of “territorial boundaries,” in time the Four Seas came to mean both (1) the boundaries of a China-centered world and (2) the four actual bodies of water that presumably lie beyond these

44 Erya (爾雅, *Approaching Refined [Usages]*), Section 9, “Shidi” (釋地 Explanations of Words Related to Places), quoted from SSJZS, vol. 13, *Erya zhushu* 爾雅注疏 (Commentaries and Subcommentaries on *Approaching Refined [Usages]*), by Guo Pu 郭璞 (276–324) and Xing Bing 邢昺 (931–1010), 199.

45 Zhang Hua 張華 (230–300 CE), *Bowu zhi* (博物志 *Records of Myriad [Notable] Things*) (Beijing: Zhonghua shuju, 1985), *juan* 1, 2.

boundaries. Where exactly are these seas located? If we follow the scheme of the Five Zones laid out in the “Tribute of Yu” and tabulate the sizes of the concentric zones, we arrive at a square land area, comprising the wider definition of All under Heaven, that measures 5,000 *li* from north to south and east to west. The Four Seas are supposed to enclose this space on its four sides.

Due to its presumed antiquity and its prestige as a chapter in a Confucian classic, the “Tribute of Yu,” a geographical work that is nevertheless centrally concerned with the manufacture of an imperial ideology, exerted a profound influence on Chinese intellectual history. A classical scholarship dedicated to the textual and substantive studies of this text, known as *yugong xue* 禹貢學 (Yugong learning), evolved over the centuries, producing an immense literature that fills literally tens of thousands of pages.⁴⁶ The special symbiosis between this branch of classical scholarship and the welfare of the imperial state is manifested in the fact that the earliest extant monographs on the “Tribute of Yu” all date to the Southern Song (1127–1279 CE), a period in Chinese history when a self-conscious Confucian state faced perpetual territorial infringement from its powerful and aggressive northern neighbors, and when the daily struggle to save both Chinese culture and the Chinese state dominated the collective consciousness of the scholar-gentry class.⁴⁷ Another sign of this strong link between Yugong studies and the imperial state is the fact that many Yugong scholars were prominent court officials, some of whom

46 A selection of this Yugong literature has been published as part of *Zhongguo lishi dili wenxian jikan* (中國歷史地理文獻輯刊 Collections of Literature on Chinese Historical Geography) under two separate series—Series 1, *Yugong jicheng* (禹貢集成 Collection of Yugong Studies), and Series 2, *Shangshu yugong pian jicheng* (尚書禹貢篇集成 Chapters on the “Tribute of Yu” in Commentaries on the *Book of Documents*)—altogether comprising 15 large volumes. For Series 1, see Li Yongxian 李勇先, ed., *Zhongguo lishi dili wenxian jikan: Yugong jicheng* (Shanghai: Shanghai jiaotong daxue chubanshe, 2009).

47 In his doctoral dissertation, Martin Hofmann examines all three monographs on the “Tribute of Yu” from the Southern Song, by the high official Cheng Dachang 程大昌 (1123–1195), the philologist Mao Huang 毛晃 (*jinshi* 1148), and the teacher Fu Yin 傅寅 (1148–1215), respectively. He argues that, despite their disparate social backgrounds and different approaches to this text, the three authors shared a common understanding of the “Tribute of Yu” as a truthful depiction of the actions of a sage-king. All of them held the social/spatial order that Yu had established to be the benchmark for the present. Thus these authors all came to discover that the “barbarians” were an integral part of the Nine Provinces and Five Zones established by the Great Yu, and struggled to define the ideal mode of relationship between the Chinese and the barbarians. See Martin Hofmann, “Reconsidering the Spatial Order of the Great Yu—Song Commentaries on the Yugong,” Ph.D. dissertation, Julius-Maximilians-Universität zu Würzburg, Germany, 2007.

lectured on this text to the emperors and crown princes.⁴⁸ Given such special connections, the discourses on the “Tribute of Yu” can be considered to be geopolitical discourses. Here the term “geopolitical” is used in the literal sense, since these discourses inhabit the intellectual spaces of both state ideology and geographical knowledge. As He Xinhua observed in a recent study, such a discourse forms an essential part of any empire-building project:

Any kind of mental construct of the world cannot be formed without a basis in a spatial construct. Any kind of world order must first be grounded in a geographical space. Mountains, rivers, deserts, seas, east, west, south, north, center, periphery, interior, and exterior are all spatial elements in the construction of a world order. Before the Qin and Han dynasties, especially during the Zhou, ancient thinkers expressed, in their several classical works and with substantively geographical concepts such as “mountain” and “sea” and terms for directions and positions, a Chinese-style, unified and hierarchical vision of the world, the “All under Heaven” model. This model of the world influenced how historically the Chinese empire formed its policies regarding the outer world, and served as the ideological foundation for its tributary system in East Asia.⁴⁹

48 An example is Xu Luqing 徐鹿卿 (1170–1249) of the Southern Song dynasty. In a lecture to Emperor Ningzong (r. 1194–1224) in 1218, he reminded the emperor that studying “Tribute of Yu” is more than simply understanding the meaning of its words and sentences. The important message to take away from this text is to know “the great pains the ancients took to rid people of their sufferings, the immensity of their territorial expanse, and the jurisprudence with which they laid down laws to govern the people. ...The Song dynasty came to the possession of All under Heaven because of its humanness. Its original territory encompassed all the nine provinces. But since we retreated to the south, all that remain are Yang, Jing, and Liang provinces and 10 to 20 percent of Xu Province. Emperor Guangwu of the Han dynasty once beheld a Map of China and lamented: ‘Numerous are the cities and towns of All under Heaven! What I possess is only one small portion of them’. Your Majesty’s sacred learning is profound and brilliant. Would not you be similarly inspired?” Xu Luqing 徐鹿卿, *Qingzheng cunqao* 清正存稿 (Preserved Texts by [Sir] Qingzheng), *juan* 4; Chinese text quoted in Li Yongxian 李勇先, “Editor’s Preface,” in idem, ed., *Zhongguo lishi dili wenxian jikan*, 1: 1–7, at 4.

49 He Xinhua 何新華, “Tianxia guan: yizhong jiangou shijie zhixu de quyuxing jingyan” (天下觀: 一種建構世界秩序的區域性經驗 All under Heaven: A Local Experience in the Construction of a World Order), *Ershiyi shiji* (二十一世紀 Twenty-First Century) 32 (November 2004), online edition, accessed on 9/10/2013 at <http://www.cuhk.edu.hk/ics/21c/supplem/essay/0409072g.htm>.

The “Tribute of Yu” and the slightly later text “Imperial Geographer” (Zhifang 職方), a chapter in the Confucian classic *Rites of Zhou* (Zhouli 周禮),⁵⁰ were central to the formation of this geopolitical discourse on All under Heaven. The key concepts articulated in these texts, such as those of the Nine Provinces, Five Zones (or Nine Zones in “Imperial Geographer”), and Four Seas, essentially delineated an imperial social order as it is unfolded in territorial space.

Beyond this geopolitical discourse proper, the “Tribute of Yu” also shaped the basic orientation of traditional Chinese geographical thought. As Tang Xiaofeng has pointed out, mainstream Chinese geography was, from the very beginning, a legitimizing tool for imperial authority.⁵¹ It flourished in areas such as the geography of territorial boundaries (so-called *jiangyu dili* 疆域地理) and the historical geography of administrative infrastructures (so-called *yange dili* 沿革地理), while other forms of geographical knowledge that were irrelevant or even potentially threatening to the functions and stability of the imperial dynasty were stymied. Discussions about the seas in and of themselves, outside the context of border security, and speculations about other possible worlds beyond the seas were not viewed as serious inquiries. The fate of Zou Yan’s 鄒衍 (ca. 305–240 BCE) hypothesis about the world’s “Nine Great Continents” (Da Jiuzhou 大九州) illustrates this point. According to the Grand Historian Sima Qian (?145–86 BCE), Zou Yan was a productive scholar whose works totaled more than a hundred thousand words. In these works he developed a system of natural philosophy and an imaginative world geography that contrast sharply with the image of All under Heaven depicted in “Tribute of Yu.” Sima reported that, in Zou’s opinion,

what the scholars refer to as the Central States (Zhongguo 中國, China) occupied just one of the eighty-one parts of All under Heaven. He called the Central States the “Sacred Township of the Red County” (*chixian shenzhou* 赤縣神州). The “Sacred Township of the Red County” itself contained nine provinces (*zhou*), the nine that Yu ordered, but these could not be counted as “continents” (*zhou*). Outside the Central States there

50 See SSJZS, vol. 4, *Zhouli zhushu* (周禮注疏 Commentaries and Subcommentaries on the *Rites of Zhou*), by Zheng Xuan 鄭玄 (127–200) and Jia Gongyan 賈公彥 (seventh century), *juan* 33, section on “Zhifang” (職方 Imperial Geographer), 877.

51 Tang Xiaofeng called it “dynastic geography.” See Tang Xiaofeng 唐曉峰, “Zhongguo gudai de wangchao dili xue” (中國古代的王朝地理學 Dynastic Geography of Ancient China), in *idem*, *Renwen dili suibi* (人文地理隨筆 Random Jottings on Human Geography) (Beijing: Sanlian chbanshe, 2005), 255–270.

were nine [*sic*] places like the “Sacred Township of the Red County,”⁵² and these were called the “nine continents.” There were small seas around each of them, and people and animals could not travel between them. A cluster of these [nine continents] in the same region formed one [great] continent. There are altogether nine such [great] continents, and then a great sea (*dayinghai* 大瀛海) surrounds them all. That sea stretches between Heaven and the Earth.⁵³

Compared to the image of the world depicted in the “Tribute of Yu”—that of a square space of 5,000 *li* centered on China and bounded by the Four Seas—the All under Heaven envisaged by Zou Yan is immense indeed. In this world, there are nine great continents, each of which is made up of nine small continents (for a total of 81 small continents), of which China occupies just one. Such a world picture threatened to puncture the myth of the universal prerogative of the Chinese ruler as the Son of Heaven. In the absence of substantial empirical evidence, Sima Qian described Zou Yan’s ideas as “transcendent and unconventional” (*hongda bujing* 閎大不經).⁵⁴ Perhaps this is why none of Zou Yan’s writings survived beyond classical antiquity. The several passages about Zou Yan written by Sima Qian, inserted in his “Biographies of Mencius and Xunzi,” are among the few clearly identifiable descriptions of Zou’s thought transmitted down to the present day. Zou’s hypothesis about the numerous seas and continents beyond China inspired many works of the *zhiguai* genre (“records of the strange” dedicated to the exploration of cosmic mysteries), but it left little trace in mainstream Chinese geographical thought as a possible framework for organizing the geographical facts gained over the centuries through actual interactions with the outside world.

52 According to the first statement in this quote—that the Central States occupied one of the eighty-one parts of the world—this sentence should read: “Outside the Central States there were *eight* places like the ‘Sacred Township of the Red County,’” so that there would be altogether nine such places, including the Central Region, that made up one of the nine “great continents.”

53 Sima Qian 司馬遷, *Shiji* (史記 Historical Records), *juan* 74, “Mengzi Xunqing Liezhuan” (孟子荀卿列傳 Memoirs of Mengzi and Excellency Xun), in the digital reprinted edition in the *Zhonghua lishi wenku* (中華歷史文庫 Library of Chinese History) (Beijing: Beijing zhuoqun shuma keji youxian gongsi, 2001), 1486. Translation partially based on Ssu-ma Ch’ien (Sima Qian), *The Grand Scribe’s Records, Vol. 7: The Memoirs of Pre-Han China*, edited by William H. Nienhauser, Jr., and translated by Tsai-fa Cheng et al. (Bloomington and Indianapolis: Indiana University Press, 1994), 180–181.

54 Sima Qian (Ssu-ma Ch’ien), *The Grand Scribe’s Records*, 180.

It is perhaps not coincidental that such a majestic, open-minded vision of the world should come from Zou Yan, a native of the State of Qi. People of the states of Qi and Lu, on the modern-day Shandong peninsula, dwelled in a unique ecological environment dominated by the sea. They had inherited a maritime culture with a long tradition, dating back to the Dongyi people of the prehistoric era. In their geographical speculations as well as in their myths, they dared to imagine other lands, peoples, and creatures in and beyond the seas. The two world geographies articulated by the “Tribute of Yu” and by Zou Yan, each equally imaginary in its own way, can thus be seen to have embodied the competing worldviews of agriculturalist and maritime cultures going back to high antiquity.⁵⁵ We know, of course, that it was the agriculturalist perspective that suited the interests of the Chinese land-based empires.

During the imperial era, the Four Seas, along with other major landmarks of Chinese topography—the Four Rivers (Sidu 四瀆), the Five Mounts (Wuyue 五嶽), and the Five Hills (Wuzhen 五鎮)—would become objects of state sacrifices, both on set schedules and at times of major natural catastrophe.⁵⁶ These sets of fours and fives are rich with symbolism: the Four Seas marked the territorial boundaries of All under Heaven on its four sides; the Four Rivers nurtured its

55 For further studies of Zou Yan's theory within the context of ancient Chinese maritime culture, see Guo Yongfang 郭永芳 and Song Zhenghai 宋正海, “Da jiuzhou shuo—zhongguo gudai yizhong fei zhengtong de haiyang kaifang xing diqiu guan” (大九州說—中國古代一種非正統的海洋開放型地球觀 The Theory of Nine Great Continents: An Unorthodox Oceanic and Open View of the Earth in Ancient China), *Da ziran tansuo* (大自然探索 Discovery of Nature), no. 2 (1984): 144–148. For discussions on the coexistence of a land-based and an ocean-based system of mythologies in early Chinese literature, see Gu Jiegang 顧頡剛, “Zhuangzi he Chuci zhong kunlun he penglai liangge shenhua xitong de ronghe” (莊子和楚辭中崑崙和蓬萊兩個神話系統的融合 The Integration of the Kunlun and Penglai Types of Myths in *Zhuangzi* and *Chuci*), *Zhonghua wenshi luncong* (中華文史論叢 Studies in Chinese Literature and History), no. 2 (1979): 31–57; Gao Lifan 高利芬, “Penglai shenhua de haiyang siwei jiqi yuzhou guan” (蓬萊神話的海洋思維及其宇宙觀 The Oceanic Mode of Thought and Cosmogony in Penglai Myth), *Zhengda zhongwen xuebao* (政大中文學報 National Cheng-Chi University Chinese Literature Journal), no. 6 (2006): 103–124; and Wang Qing 王青, “Zhongguo de neilu xing yu binhai xing shenhua” (中國的內陸型與瀕海型神話 Chinese Inland and Maritime Myths), *Nanjing shida xuebao (shehui kexue ban)* (南京師大學報 [社會科學版] Journal of Nanjing Normal University, Social Science Edition), no. 3 (2010): 116–124.

56 Sidu 四瀆 include the Yangzi, Yellow River, Huai River and Ji River; Wuyue 五嶽 refers to Mount Tai 泰 in the east, Mount Heng 恒 in the north, Mount Heng 衡 in the south, Mount Hua 華 in the west, and Mount Song 嵩 in the center; and Wuzhen 五鎮 comprises Qi Hill 沂山 in the east, Huiji Hill 會稽山 in the south, Wu Hill 吳山 in the west, Yuwulu Hill 醫巫閭山 in the north, and Huo Hill 霍山 in the center.

entire people in the interior; and the weights of the Five Mounts and the Five Hills stabilized the empire on its east, west, north, south, and at its center. During most years of the Ming dynasty, these sacrifices were performed both at the Altar of the Earth outside the northern capital of Beijing and at the temples around the country designated for this purpose. Sacrifices to the God of the East Sea took place in Laizhou 萊州 of Shandong Province; to the God of the West Sea, in Puzhou 蒲州 of Shanxi Province; to the God of the North Sea, in Huaiqing 懷慶 of Hebei Province; and to the God of the South Sea (Figure 3.4), in Guangzhou 廣州 of Guangdong Province. Since the West Sea and the North Sea were too far away to be seen from their respective Chinese borders, no specific temples were built for their gods. Instead, “distant sacrifices” (*yaoji* 遙祭) were offered at the temples of the God of the Yellow River and the God of the Ji River, respectively.⁵⁷ The performance of these ritual sacrifices symbolically reaffirmed the Son of Heaven’s possession of this territory, while simultaneously seeking to secure the gods’ continued protection of its integrity, prosperity, and peace.

The Square-Earth-and-Four-Seas Model of the World in Premodern Chinese Cosmological Discourses

For the most part, the Chinese cosmological discourses on the earth and the seas reflected this imperial ideological geography that postulated the Four Seas circumscribing a square earth. Of the three major cosmological traditions in premodern China, two of them—the Theory of Vaulted Heaven (*Gaitian shuo*) and the Theory of Spherical Heaven (*Huntian shuo*)—as well as their later variants, tacitly or explicitly subscribed to this world picture. The third, the Theory of Infinite Empty Space (*Xuanye shuo* 宣夜說, literally, “theory of ‘ubiquitous darkness’”), was simply too abstract to have much bearing on such a matter. As already noted in Chapter 2, one version of the Theory of Vaulted Heaven depicts a heaven covering the surface of the earth and pivoting daily around its center point. The earth is said to be square at its base and dome-shaped on its top. The rainwater falling on the earth drains along its slopes to the four sides to form the Four Seas. A later variant of this theory, proposed by Yu Song 虞聳 in around 265 CE, similarly holds that Heaven is like half of an

57 Wang Yuanlin 王元林, “Ming Qing guojia lizhi zhong de sihai jisi” (明清國家禮制中的四海祭祀 Sacrifices to the Four Seas in the State Rituals of the Ming and Qing), *Tansuo yu zhengming* (探索與爭鳴 Exploration and Debate), no. 4 (2011): 75.

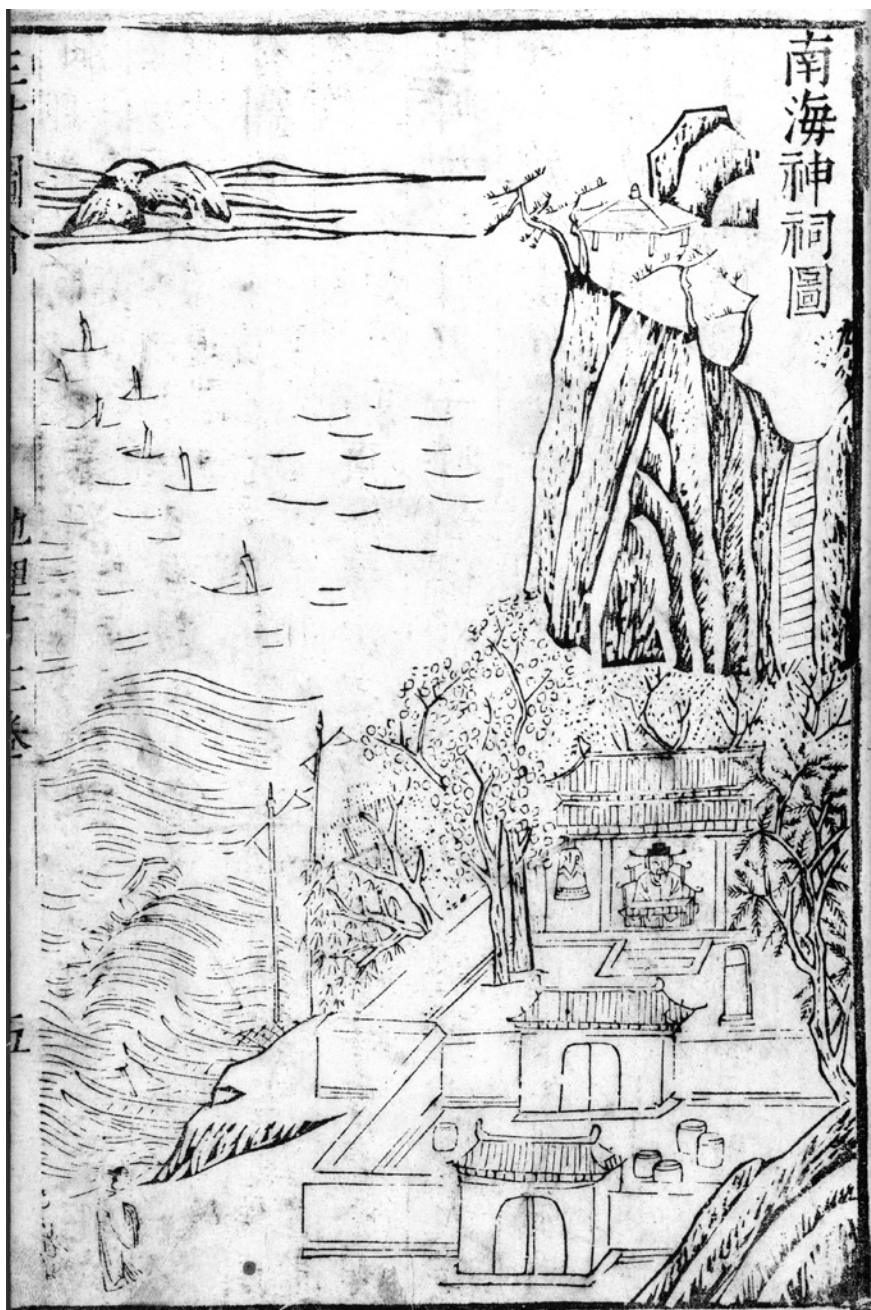


FIGURE 3.4 *The Temple of the God of the South Sea*. Wang Qi 王圻 (fl. 1565–1614) and Wang Siyi 王思義, *Sancai tuhui* (三才圖會 *Assembled Illustrations of the Three Realms*, 1609), juan 16, “Division of Geography” (dili 地理), juan 12, 5a.

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eggshell enclosing the earth. The bottom of Heaven touches the surface of the Four Seas.⁵⁸

The Theory of Spherical Heaven, in contrast, posits a circular and solid celestial sphere that envelops a much smaller earth, which is believed to be floating on water that fills the bottom half of the celestial sphere. In this theory, there is water both around the edges of the earth, where it is known as the Four Seas, and below it. The existence of water around and at the base of the earth serves two explanatory functions: to account for the basic empirical facts that earth (or rather, dry land) ends where water begins, and that, despite its tremendous weight, the earth is stably suspended in the middle of the celestial sphere without gravitating toward the sky below it. In the latter case, the presence of water below the earth is said to provide mechanical support for it. Later adherents of this cosmological theory also employed this model to explain some other notable geographical phenomena, such as the apparent equilibrium between the rivers and the seas and between land and water. This dynamic balance between land and sea had inspired Qu Yuan's 屈原 (fl. fourth century BCE) famous question: "Rivers course eastward to the sea day after day, [but] who understands why the sea never overflows?"⁵⁹

The same puzzle had led the Chinese in antiquity to imagine mythological places presumably lying in the eastern extremity of the sea, such as Weilü 尾閭, a bottomless canyon that absorbs all the water from the rivers, or the Wojiao 沃焦, a giant, burning stone, tens of thousands of miles wide and deep, that vaporizes all the water that reaches it with its scorching heat. However, He Chengtian 何承天, a scholar who served as Palace Aid to the Imperial Censor (Yushi zhongcheng 御史中丞) of the Liu Song 劉宋 dynasty (420–479 CE), ventured a cosmological explanation of this phenomenon based on the model of a spherical heaven. He observed that

58 See Yu Song 虞聳, "Qiongtian lun" 穹天論 (On the Arching Heaven), quoted in Fang Xuanling 房玄齡 et al., *Jinshu* (晉書 History of the Jin Dynasty), *juan* 11, "Tianwen shang" (天文上 Astronomy, Part 1) (Beijing: Zhonghua shuju, 1974), 2: 280.

59 "東流不溢,孰知其故?" In Qu Yuan 屈原 and Lin Geng 林庚, *Tianwen lunjian* (天問論箋 A Study and Annotation of *Tianwen*) (Beijing: Renmin wenxue chubanshe, 1983), 19. *Tianwen* (Inquiries into the Heavens) forms part of a larger text, *Chuci* (Songs of Chu), that has been ascribed to Qu Yuan. Although the authorship of *Chuci* as a whole has been debated, most scholars agree that *Tianwen* is Qu Yuan's authentic work. See David Hawkes, "Ch'u Tz'u 楚辭," in Michael Loewe, ed., *Early Chinese Texts: A Bibliographical Guide* (Berkeley: The Society for the Study of Early China and the Institute of East Asian Studies, University of California, 1993), 51.

Heaven is shaped like a perfect sphere, and the bottom part of it is filled with water. It is said that the earth has four sides. On its eastern side, there is a place called Yanggu 暘穀, which is where the sun rises, and on its western side, a place named Mengsi 蒙汜, where the sun goes under. [Teachings of] Master Zhuang (Zhuangzi 莊子) also stated: “The fish of the Northern Ocean metamorphoses into a bird and takes flight to the Southern Ocean, etc.”⁶⁰ This parable must have been a remnant of some pristine knowledge testifying to the existence of water on the four sides of the earth. These bodies of water are the Four Seas. Since the Five Phases [of Metal, Water, Wood, Fire, and Earth] are linked in a sequence of mutual production in which Metal produces Water, it follows that all rivers originate from the mountains [where minerals are harbored]. The rivers then pour down from the heights and rush into the sea. The sun, being the essence of yang Qi, radiates light and is blazingly hot. Every night when it enters the sea, all water along its passage is dried up. The rivers then empty themselves into the sea to fill the deficit. That is why the sea neither shrinks during drought nor overflows during floods.⁶¹

According to He Chengtian, then, the sun literally wades through water every night to complete the rest of its daily revolution around the earth. This necessarily results in a considerable loss of water in the sea due to the burning heat of the sun, and the rivers flow into the sea to compensate for this loss.

A millennium later, the philosopher Wang Tingxiang 王廷相 (1474–1544) revisited Qu Yuan’s question and proposed a much more sophisticated idea of aquatic circulation to answer it. Wang delineated a system of circulation that brings seawater up into the sky through vaporization, then down into the rivers in the form of rain, and finally back into the seas through river flows. Wang contended that this process of circulation involves only minimal loss of water.

60 The statement inside these quotation marks is actually a paraphrase of the opening lines of *Zhuangzi*, Chap. 1, “Xiaoyao you” (逍遙遊 Carefree Wandering). The original terms designating the northern and southern oceans in *Zhuangzi* are Beiming 北冥 and Nanming 南冥, respectively. See Zhuang Zhou 莊周 (fl. late fourth and early third century BCE), *Zhuangzi* (莊子 [Teachings of] Master Zhuang), with commentaries by Guo Xiang 郭象 (d. 312 CE) (N.p: Zhejiang shuju, 1876), *juan* 1 a–b. I consulted HathiTrust’s digitalized version of this text on 9/21/2014 at <http://hdl.handle.net/2027/keio.10811327353>.

61 Shen Yue 沈約 (441–513), *Songshu* (宋書, History of the Liu Song), *juan* 23, Records 13: 天文志, Chap. 1, reprinted in *Zhonghua Shuju Bianjibu* (中華書局編輯部 Editorial Staff of Zhonghua Shuju), ed., *Lidai tianwen lili deng zhi huibian* (歷代天文律曆等志彙編 Compilation of Records of Astronomical and Calendrical Affairs in [Chinese] Dynastic Histories) (Beijing: Zhonghua shuju, 1975), 1: 294–295.

As for the balance between land and the sea level, he attributed it to the fact that the Four Seas around the earth and the water that sustains the earth from below are in fact connected: “Since the earth floats above this water, how can the seas fill up and overflow onto it?”⁶² Yet despite the remarkable advances that Wang Tingxiang made over He Chengtian, he subscribed to the same ideas about the positions and cosmic functions of the Four Seas that He had asserted.

The original Theory of Spherical Heaven encountered much criticism due to its assumption that the sun and other celestial bodies must pass through the water below the earth in their revolutions around the earth. In response to such criticisms, some of its adherents developed two major new variants. The first was introduced by Qiu Guangting 邱光庭 of the Five Dynasties (907–960 CE), who grafted the Daoist concept of “hardened Qi” (*gang Qi* 剛氣) onto the cosmic model of a spherical heaven. Qiu found this idea in the works of the Daoist Ge Hong 葛洪 (283–343 CE). According to Qiu, Ge had hypothesized that “at the height of 4,000 *li* above the earth, the Qi in Heaven becomes so hardened and strong that things suspended there will not fall.”⁶³ Qiu borrowed this idea and postulated that a thick layer of hardened Qi separates the water below and around the earth from the celestial sphere. He thus gave a new reading to the original egg-yolk metaphor that Zhang Heng had articulated for the Theory of Spherical Heaven:⁶⁴

62 Wang Tingxiang 王廷相 (1474–1544), “Yashu, shang” (雅述, 上 Refined Discourse, Part 1), in idem, *Wangshi jiacang ji* (王氏家藏集 Collections of Writings Stored in the House of the Wang Clan) (Taipei: Weiwen tushu chubanshe youxian gongsi, 1976), 2507–2508 (the quotation appears on 2508); see also a similar discussion by Wang Tingxiang, “Da tianwen jiushiwu shou” (答天問九十五首 Ninety-Five Entries in Answer to [Qu Yuan’s] Inquiries into the Heavens), in idem, *Wangshi jiacang ji*, *juan* 41, 1804.

63 Qiu Guangting 邱光庭 gave Ge Hong’s 葛洪 (283–343 CE) *Baopuzi* (抱樸子 Master Who Embraces Simplicity) as his source for this statement. I have not been able to locate this reference in *Baopuzi*. However, the association of these ideas with Ge Hong must have been well established because it is mentioned in many literary works before Qiu’s time. For example, the Tang-dynasty poet Lu Guimeng 陸龜蒙, in his poem “Piaomiao feng” (縹緲峰 Peak [behind the] Drifting Mists), included the following lines: “葛洪話剛氣, 去地四千里。苟能乘之游, 止若道路耳” (Ge Hong spoke of a hardened Qi, 4,000 *li* away from the earth. If one could ride this Qi and roam [the heavens], wouldn’t one feel [as steady as if] treading a roadway?). The Chinese text is quoted from Peng Dingqiu 彭定球 (1645–1719) et al., eds., *Quan Tangshi* (全唐詩 Complete Anthology of Poems from the Tang), *juan* 618 (Beijing: Zhonghua shuju, 1960), 18: 7121.

64 For Zhang Heng’s egg-yolk metaphor, see the second section of Chapter 2 above.

Beyond the seas, there is a vast stretch of space that is filled up with hardened Qi. This hardened Qi contains the seawater [so that it does not scatter].... Beyond the Qi is the celestial sphere. Hence the celestial sphere surrounds Qi, while Qi surrounds water, and water surrounds the earth. The earth resides inside and Heaven outside. Heaven contains the earth in a way similar to an egg: the yolk is the earth, the white is water, the membrane is hardened Qi, and the shell is the celestial sphere.⁶⁵

Another revision to the Theory of Spherical Heaven went one step farther by eliminating the layer of water below the earth as a separate cosmic entity altogether, thus making the earth hang freely in space, supported only by Qi. Remnants of this idea can be traced back to a remark made in the Han-dynasty medical classic *The Yellow Emperor's Inner Canon of Medicine* (Huangdi neijing 黃帝內經, ca. first century BCE). There, in response to the Yellow Emperor's question, "Can we say that the earth stays low?," Qi Bo 岐伯 says, "The earth lies below us human beings, but it is suspended in the middle of the great void." The Yellow Emperor then asks, "Suspended by what?," to which Qi Bo replies, "It is Qi that holds it up."⁶⁶ The Song-dynasty Confucian philosophers Shao Yong 邵雍, Cheng Hao 程顥, Cheng Yi 程頤, Zhang Zai 張載 (1020–1077), and especially Zhu Xi 朱熹 (1130–1200) all took up this idea and provided it with a systematic cosmological justification.⁶⁷ For these philosophers, all beings in the cosmos ultimately derived their existence from Qi; even Heaven itself is

65 Qiu Guangting 邱光庭, "Haichao lun" (海潮論 On Tidal Waves), in Dong Gao 董誥 et al., eds., *Quan Tangwen* (全唐文 Collection of All Surviving Prose from the Tang Dynasty, Compiled in the Nineteenth Century), *juan* 899 (Shanghai: Shanghai guji chubanshe, 1992), 4161. See also Chen Meidong's 陳美東 discussion of Qiu's theory in his *Zhongguo gudai tianwenxue sixiang* (中國古代天文學思想 Astronomical Thought in Ancient China) (Beijing: Zhongguo keji chubanshe, 2007), 236–238, and idem, "Gu yindu dilun-shuilun-fenglun-konglun shuo zai zhongguo" (古印度地輪-水輪-風輪-空輪說在中國 The Ancient Indian Theory about the "Wheel of Earth-Wheel of Water-Wheel of Wind-Wheel of Air" in China), *Ziran kexueshi yanjiu* (自然科學史研究 Studies in the History of Natural Sciences) 17, no. 4 (1998): 302–303.

66 This is my own translation, based on the Chinese text in the chapter "Wu yunxing dalun" (五運行大論 Major Discussion on the Five Motions), in Liu Xiru 劉希茹 and Li Zhaoguo 李照國, trans., *Huangdi neijing: Suwen* (黃帝內經: 素問 The Yellow Emperor's Inner Canon of Medicine: Plain Conversation), Library of Chinese Classics, Chinese-English Edition (Xi'an: Shijie chubanshe, 2005), 2: 752.

67 These Neo-Confucian philosophers fall along different lineages. Zhang Zai distinguished himself from the rest by championing the primacy of Qi over Li (principle), and thus was seen as a chief proponent of the School of Qi. However, all of them subscribed to the same notion that Qi was the ultimate constituent of cosmic phenomena.

not a solid sphere but a mass of hardened Qi. This heavenly Qi is said to be able to sustain the earth and other celestial bodies in their proper places because of its rapid spinning motion.⁶⁸ In this revised cosmic model of the Theory of Spherical Heaven, the seas came to be regarded as an integral part of the earth itself rather than a separate cosmic entity.⁶⁹

These two variants developed by Qiu Guangting and Zhu Xi based on Zhang Heng's original theory are strikingly parallel to the modifications introduced to the Aristotelian concentric cosmic model during the late Middle Ages and the Renaissance. However, even in Zhu Xi's model, where the land and water are united into one, they are not integrated as they are in the notion of a terraqueous globe. Rather, the land continued to be imagined as a square block.⁷⁰ Furthermore, whereas the notion of a terraqueous globe circulated widely among Renaissance astronomers in the course of the sixteenth century and was adopted by increasing numbers of them in lieu of the formerly orthodox Aristotelian-scholastic model, Qiu and Zhu's variants remained mere alternatives to Zhang Heng's theory. Even Zhu Xi, who systematically expounded the idea that the earth is suspended not by water but by air alone, sometimes contradicted himself by reverting to the original Theory of Spherical Heaven. He told his pupils that "under and around the four sides of the earth there is sea-water flowing. The earth floats on water, [through which it] connects with the heavens. The heavens enwrap both water and the earth."⁷¹ The Four Seas were such an engrained part of the premodern Chinese perception of the cosmic order that they were encountered in all realms of Chinese intellectual life, from medical theories about the human body to poetic expressions of daily human experience.⁷²

68 See, for example, Zhu Xi, *Zhuzi yulei* (朱子語類 Assorted Sayings of Master Zhu), edited by Li Jingde 黎靖德, collated and punctuated by Wang Xingxian 王星賢, reprinted edition (Beijing: Zhonghua shuju, 1986), 1: 6 and 23.

69 For example, Shao Yong stated that "As water, fire, soil and stones collect, the entire body of the earth is formed. That is all there is to it" (皇極經世書. 觀物篇五一); cited in Chen Meidong, *Zhongguo gudai tianwenxue sixiang*, 239.

70 See the further discussion on Zhu Xi's model in the third section of Chapter 4 below.

71 Zhu Xi, *Zhuzi yulei*, 1: 28.

72 For example, *The Yellow Emperor's Inner Canon of Medicine: Spiritual Pivot*, Chap. 33, "Hailun pian" (海論篇 Discourse on the Seas), asserts that "the human body has Four Seas, in resonance with the Four Seas between Heaven and Earth." See Cao Bingzhang 曹炳章, comp., *Zhongguo yixue dacheng* (中國醫學大成 Comprehensive Compendium of Chinese Medical Literature), Vol. 2, *Huangdi neijing lingshu jizhu* (黃帝內經靈樞集注 Collected Commentaries on *The Yellow Emperor's Inner Canon of Medicine: Spiritual Pivot*), commentated on by Zhang Yinan 張隱庵, reprinted edition (Shanghai: Shanghai

The cosmological discourses of the Four Seas were not entirely congruent with their geopolitical counterparts, to be sure. Nor were they entirely congruent with each other. For the most part, cosmologists speculated that the earth was much larger than the All under Heaven described in the “Tribute of Yu,” but the concrete figures they proposed differed. Several texts from the last centuries BCE that agreed among themselves set the dimensions of the space within the Four Seas as 28,000 *li* from east to west and 26,000 *li* from north to south, which describes a rectangular area rather than a perfect square.⁷³ Over time, those figures became larger, reflecting the expanding scope of Chinese interactions with the outside world, especially during the heydays of the Tang (618–906) and Yuan (1271–1368) dynasties. Thus we find the astronomer Zhao Youqin 趙友欽 (1271–ca. 1335) acknowledging that the distance between the eastern and western seas measures over 50,000 *li*, making the absolute center within the Four Seas somewhere north of India and west of Mount Kunlun. However, he still maintains that Yangcheng 陽城, the presumed old capital of Yu’s Xia dynasty, is the center of the earth cosmologically speaking. It is the part of the earth that is located directly under the center point of the firmament. In other words, Zhao posited that the earth is closer to the celestial sphere on its western side than its eastern side, leaving a much larger maritime space on the east than on the west.⁷⁴

keji chubanshe, 1990), *juan* 4, 24. The Four Seas in the body consist of the Sea of Water and Grain, the Sea of Blood, the Sea of Qi, and the Sea of Marrow. Well into the seventeenth century, medical commentators generally took the cosmological side of the analogy as given. For poems, see, for example, Li Bo’s “Ri churu xing” (日出入行 The Sun’s Daily Journey), “日出東方隈, 似從地底來, 曆天又入海, 六龍所舍安在哉”:

O Sun that rose in the eastern corner of Earth,
Looking as though you came from under the ground,
When you crossed the sky and entered the deep sea,
Where did you stable your six dragon-steeds?

Li Bo’s text is from Peng Dingqiu et al., eds., *Quan Tangshi*, *juan* 162, 3: 1687. The English translation is from Arthur Waley, *The Poet Li Po*, A.D. 701–762 (London: East and West, Ltd, 1919), 16. I consulted the scanned version of this text on 9/22/2014 at: <http://www.archive.org/stream/poetlipoad70176200waleuoft/>.

73 See further discussions on this in the third section of Chapter 6 below (“Integration of the New with the Old”) below.

74 Zhao Youqin 趙友欽, *Ge xiang xinshu* (革象新書 A New Study of Astronomical Phenomena), in SKQS, *zi*, vol. 786: 242–243. Zhao’s adapted model reflects an asymmetrical view of the earth’s configuration in relation to the sea that became increasingly prevalent during and after his time. This view is captured in the maxim “Tian qing xibei, di buman dongnan” 天傾西北, 地不滿東南 (Heaven tilts in the northwest, and Earth is incomplete in the southeast). Marta Hanson has explored how medical scholars in late

These intricacies notwithstanding, the cosmological discourses share fundamental characteristics with the geopolitical ones, in that the Four Seas remained a schematic concept, a mythical construct that was derived more from ideological and cultural presumptions than from empirical facts. The idea that there are no more or less than *four* seas that are positioned exactly along the *four* cardinal directions around a central space—namely, the earth (in a cosmological context) or All under Heaven (in a geopolitical context)—reflects a spatial perception that fixes absolute meaning to such directional terms as up and down, north and south, east and west. As seen earlier in this chapter, this kind of spatial perception was at the heart of Lactantius's rejection of the notion of a spherical earth. But such rejection was less common among Western astronomers, who were in the habit of employing three-dimensional models to represent celestial bodies and describe their movements in three-dimensional space, a practice notably absent among Chinese astronomers and cosmologists.⁷⁵

Furthermore, the development of correlative thinking in late antiquity had also encouraged the Chinese tendency to assign fixed meaning to vertical and

imperial China applied this geographical notion to conceptualize regional differences, especially between the north and south, with respect to the natural environment, human physique, and the distributions of epidemics. See Hanson, *Speaking of Epidemics in Chinese Medicine: Disease and the Geographical Imagination in Late Imperial China* (London and New York: Routledge, 2011), especially her discussions on 50–53. Two illustrations featuring this maxim from medical texts dated to the late Yuan (ca. 1330–1333) and mid-Ming (ca. 1488–1505) can be found on pages 52 and 53. For some recent discussions on the notion of “the mid-point of the earth” (*dizhong* 地中) in Chinese astronomical literature, see Guan Zengjian 關增建, “Zhongguo tianwen shi shang de dizhong gainian” (中國天文學史上的地中概念 The Concept of Earth's Center in the History of Chinese Astronomy), *Ziran kexueshi yanjiu* (自然科學史研究 Studies in the History of Natural Sciences), 19, no. 3 (2000): 260–261; and Lim Jongtae, 17, 18 *segi Jungguk gwa Joseon ui sogu jirihak ihae: jigū wa daseot daeryuk ui wuhwa* 17, 18 세기 중국과 조선의 서구 지리학 이해: 지구와 다섯 대륙의 우화 (World Geographical Knowledge in Seventeenth- and Eighteenth-Century China and Korea: Discourses on the Earth and the Five Continents) (Paju: Changbi Publishing, 2012), 108–116.

- 75 On the contrasting approaches of Western and Chinese astronomy, see Nathan Sivin, “Cosmos and Computation in Early Chinese Mathematical Astronomy,” *T'oung Pao*, Second Series, 55, no. 1–3 (1969): 1–73; Kiyosi Yabuuti, “Chinese Astronomy: Development and Limiting Factors,” in Shigeru Nakayama and Nathan Sivin, eds., *Chinese Science* (Cambridge, Mass.: MIT Press, 1973), 91–103; and Nakayama Shigeru, “Incommensurability between Western Geometrical and Chinese Numerico-Algebraic Astronomy: Takebe Katahiro's Interpretation of Planetary Limit Degrees,” *East Asian Science, Technology, and Medicine* 30 (2009): 93–102.

horizontal directions.⁷⁶ These were perceived not just as spaces but *places* where a particular set of natural phenomena were said to occur. Hence the north was correlated with cold and the south with heat, the east with sunrise and the west with sunset, and so on. Some of these associations (such as that of the north with cold and south with heat) reveal the Sinocentric nature of such spatial perceptions, but over time they were justified as immutable laws of nature through correlative cosmology, in which the four directions and the center were sympathetically and symbolically correlated with the Five Phases (*wuxing* 五行, metal, wood, water, fire, earth). Within this spatial scheme, the earth came to be described as though it were a flat square with “four sections/quadrates” (*sifang* 四方) and “four sides” (*simian* 四面). Consequently, since water was thought to naturally flow *down* when there is an elevation and only stay still in a horizontal plane, the Four Seas had to lie *below* the earth and around its four sides.⁷⁷

Contours of Land and Sea in Chinese Empirical Maritime Literature

In contrast to the model of the world as a single landmass enclosed by the Four Seas, discussed above, the Chinese literature describing the seas and foreign lands based on actual encounters with the outside world reveals a much more complex picture. This literature consists of multiple strands. A major category is made up of official accounts of Chinese military encounters and diplomatic exchanges with foreign states, descriptions of various foreign peoples and polities contained in the twenty-five dynastic histories (*ershiwu shi* 二十五史), court chronicles and records (such as the *shilu* 實錄, Veritable Records, and *tongdian* 通典, Comprehensive Statutes), and local gazetteers. There is also a

76 Guan Zengjian 關增建 has described this feature of the Chinese conception of space as the “absoluteness of spatial orientation” in his article “Zhongguo gudai de kongjian guan’nian” (中國古代的空間觀念, Conception of Space in Ancient China), *Daziran tansuo* (大自然探索 Discoveries of Nature) 15, no. 4 (1996): 113–118. There are, of course, exceptions to this general pattern. Zhao Shuang, commentator on the *Zhoubi suanjing*, for example, advocated a relative notion of directions. See Lim Jongtae, “Sōgu chirihak-e taehan tong’asia segye chiri chōnt’ong-ŭi panŭng,” 321.

77 Yang Guangxian’s 楊光先 (1597–1669) attack on the Jesuit Adam Schall’s notion of the globe stemmed from this deep-seated cultural notion. Similar sentiments were voiced by Zhang Yongjing 張雍敬 in his *Dingli yuheng* (定曆玉衡 Fixing the Calendar and Weighing the Stars, late seventeenth century). For further discussion of Yang’s and Zhang’s responses to the notion of the globe, see the first two sections of Chapter 4 below.

large variety of non-official material, ranging from first-person narratives and travelogues to secondary and tertiary digests. During the Northern and Southern Dynasties period and the Tang dynasty, memoirs written by Buddhists, both Chinese and foreign, who traversed the continental and maritime routes between China and other Buddhist countries (India, Korea, Japan, and Southeast Asian polities), provided a major source of knowledge about those countries. In the Song dynasty, when the “Maritime Silk Road” overtook the continental routes as China’s main conduit of economic exchange with the world market, a burgeoning literature developed on the maritime experiences of traders and explorers, both on the sea and in the foreign lands they visited. Veteran mariners also composed nautical guidebooks for seafarers. This maritime literature continued to grow in the Yuan and peaked in the early Ming, at the height of Zheng He’s voyages (1405–1433). The world geographical and ethnographical knowledge contained in these official and non-official sources also reached the reading public through popular encyclopedias and collections of random jottings, or brush notes (*biji*), written by well-read scholars.⁷⁸

This diverse literature constitutes what may be called an empirical maritime discourse on the earth and the seas. Although the dominant cosmological and ideological constructs of the world, presented above, provided the overall framework within which many Chinese travelers organized their observations of the relative locations of foreign lands overseas—sometimes producing egregious misreports⁷⁹ because of it—maritime literature gradually developed

78 Chen Jiarong (Chan, Kai-wing 陳佳榮) has done a great deal of work categorizing and critically assessing these sources. See (1) his master’s thesis, “Sui yiqian zhongguo guji suozai youguan nantai jiaotong shiliao yanjiu” (隋以前中國古籍所載有關南海交通史料研究 Southeast Asia in Chinese records before the Sui Dynasty), Hong Kong University, 1995, an open source available at: www.worldiok.com/blog/pdf/477-602.pdf (accessed 7/20/2013); and (2) his paper, “Gudai zhongguo haiyang shiliao de zhengui, yinan ji jiyi” (古代中國海洋史料的珍貴, 疑難及輯佚 The Value, Perplexity, and Compilation of Ancient Maritime Historical Data), presented at the Haiyang wenhua xueshu yantao hui (海洋文化學術研討會 Research Workshop on Maritime Culture), held at National Cheng Kung University, Tainan, Taiwan, October 8–9, 2010, available online at: <http://www.worldiok.com/blog/?p=1650> (accessed 7/22/13).

79 A mystery riddling the field of early Japanese history concerns the location of the country of Yamatai. The origin of this mystery is a description of this country found in the Chinese text “Wo ren zhuan” (倭人傳 Accounts of the Wa People) in the *Weizhi* (魏志 Records of the Wei Dynasty). The text gives an itinerary to the “Country of Yamatai” from Daifang, the southernmost of the former Han Chinese commanderies on the Korean peninsula (near modern-day Seoul). According to this itinerary, one heads southeast across the Korean Strait and then turns south instead of east. This direction would place Yamatai in the sea far south of Kyushu. Indeed, most premodern Chinese maps mistakenly represent the

a new set of terms outside the core geographical vocabulary established in the tradition of the “Tribute of Yu,” such as Tianxia (All under Heaven), Jiuzhou (Nine Provinces), Siyi (Four Barbarians), and Sihai (Four Seas). For example, in the chapter on foreign peoples (Zhuyi zhuan 諸夷傳) in the *History of the Liang Dynasty* (Liangshu 梁書), the author Yao Silian 姚思廉 (d. 637) notes that countries in what is now Southeast Asia are “located in the land south of Jiaozhou [modern-day northern Vietnam] and on [several] large *haizhou* 海洲 in the southwest.”⁸⁰ Here he introduces the term *haizhou* 海洲, instead of *dao* 島 or *yu* 嶼 (island), to designate a large landmass surrounded by the sea. This usage presents such large islands as somewhat comparable to the continental space, or *luzhou* 陸州, occupied by the Nine Provinces (*Jiuzhou*) of China.⁸¹ This term was adopted by some of the maritime literature developed in later centuries. Knowledge of such complex formation of land and water on the earth also kept Zou Yan’s theory of the Nine Great Continents alive within the genre of minor narratives known as *zhiguai* (records of the strange). Thus by the Song dynasty, with the rapid expansion of Chinese maritime activities in the South China Sea and the Indian Ocean, Zou Yan’s notion of the Nine Great Continents surrounded by the Great Rim Sea (Daying Hai 大瀛海)—the sea that presumably separates the earth from the sky—exploded into popularity through the immortal works of some of the greatest poets of the time, such as Su Shi 蘇軾 (1037–1101) and Lu You 陸遊 (1125–1210).⁸²

Japanese islands as aligned north to south rather than tilting from southwest to northeast. Gao Hong 高洪 developed a sophisticated argument to resolve this mystery, showing that this misperception of the orientation of the Japanese islands was due to the Chinese cosmological notion of the size and shape of the earth. See Gao Hong, “Xiematai guo fangwei zhiyan: yi gudai zhongguoren haiwai shikongguan wei zhongxin” (邪馬台國方位厄言: 以古代中國人海外時空觀為中心 Some Remarks on the Location of the Country of Yamatai Centering on the Ancient Chinese Perceptions of Time and Space Overseas), *Riben yanjiu* (日本研究 Japan Studies), no. 1 (1994): 37–42.

80 Yao Silian 姚思廉, *Liangshu* 梁書 (History of the Liang Dynasty) (Beijing: Zhonghua shuju, 1973), 783.

81 Chen Jincheng 陳金城 has noted this conceptual innovation of *haizhou* 海洲 as an extension of the concept of *luzhou* 陸州. See his “Nanchao sishi ‘siyi zhuan’ zuanxiu yuanyin zhi tantao—jian lun nanchao yu yuwai jiechu de xin shiye” (南朝四史‘四夷傳’纂修原因之探討—兼論南朝與域外接觸的新視野 Inquiries into the Reasons That the Four Histories of the Southern Dynasties Included “Accounts of the Siyi,” with a Subsidiary Discussion on the New Perspectives Gained through Foreign Contacts during the Southern Dynasties), *Kongda renwen xuebao* (空大人文學報 National Open University Journal in the Humanities), no. 19 (2010): 242.

82 See, for example, Su Shi 蘇軾 (1037–1101), “He Huang Xiucui jian kongge” (和黃秀才鑒空閣 Viewing the Tower of Emptiness with Scholar Huang), in idem, *Su Shi shiji hezhu*

The hydrographic terminology employed in this literature also evolved beyond the framework of the Four Seas around this time. Since late antiquity, belief in the existence of a West Sea off China's western frontier had led to the consecutive identification of Qinghai Lake (Qinghai Hu 青海湖), Bosteng Lake (Bositeng Po 博斯騰泊), the Aral Sea, the Caspian Sea, the Indian Ocean, and the Mediterranean as *the* West Sea by different authors at different time periods. For the same reason, Lake Baikal and even the Black Sea had been identified as *the* North Sea.⁸³ However, alongside this system of naming, a much more complex vocabulary evolved out of the conventions of Chinese mariners who navigated various sectors of the seas around China and beyond. One of these new terms was *yang* 洋 (closer to the modern notion of "ocean"), which came into use in the Song dynasty to designate the deeper and vaster oceans beyond the Chinese coastal seaboard. The Southeast Asian waters in today's South China Sea began to be referred to increasingly not as Nanhai 南海, the South Sea, but as *yang* 洋. During the Yuan dynasty, parts of this ocean traveled by the west-turning and east-turning nautical routes passing through the Southeast Asian waters gradually came to be called the Western Ocean (Xiyang 西洋) and Eastern Ocean (Dongyang 東洋), respectively, with the western coast of Kalimantan as the dividing line.⁸⁴ The Western Ocean was further divided

(蘇軾詩集合注 Collection of Poems by Su Shi with Commentaries), compiled by Feng Yingliu 馮應榴, *juan* 44 (Shanghai: Shanghai guji chubanshe, 2001), 3: 2244–2245; and Lu You 陸遊 (1125–1210), "Chun chou qu" (春愁曲 Song to [Ameliorate] Springtime Melancholy), in *Jiannan Shigao jiaozhu* (劍南詩稿校注 Collected Poems by Jiannan [Lu You]), collated and annotated by Qian Zhonglian 錢仲聯, *juan* 4 (Shanghai: Shanghai guji chubanshe, 1985), 2: 388–389.

83 For a discussion on these issues, see Wang Yong, "Sihai tong kao."

84 For further studies on the naming of the seas in Chinese maritime history, see Nan Mingzi 南溟子 (pen name of Chen Jiarong 陳佳榮), "Dongxi yang kaoshi" (東西洋考釋 Inquiries into the [Terms] Eastern and Western Oceans), *Dongnanya yanjiuhui tongxun* (東南亞研究會通訊 Bulletin of the Society of Southeast Asian Studies), no. 2 (1981): 276–280, and idem, "Song Yuan Ming Qing zhi dong xi nan bei yang" (宋元明清之東西南北洋 The Eastern, Western, Southern, and Northern Oceans in the Song, Yuan, Ming, and Qing Dynasties), in Chen Jiarong, *Nanmingji: Haijiao pian* (南溟集: 海交篇 Collected Works by Nan Mingzi: On Maritime Exchanges), 364–373 (Hong Kong: Qiling shuye youxian gongsi, 2002), originally published in *Haijiaoshi yanjiu* (海交史研究 Research on the History of Maritime Exchange), no. 1 (1992): 9–15; Wang Ermin 王爾敏, "Jindaishi shang de dongxi nanbei yang" (近代史上的東西南北洋 The East, West, South, and North Oceans in Modern History), *Zhongyang yanjiu yuan jindaishi yanjiu suo jikan* (中央研究院近代史研究所集刊 Bulletin of the Institute of Modern History, Academia Sinica), no. 1 (1986): 101–113; and Qiu Xuanyu 邱炫煜, "Zhongguo haiyang shi shang de 'dong nanya' mingci suoyuan de yanjiu" (中國海洋史上的'東南亞'名詞溯源的研究 Inquiries into

into two zones: the waters east of the Melaka Strait were known as the Small Western Ocean (Xiao Xiyang 小西洋), and the waters west of it, encompassing the entire Indian Ocean, came to be called the Great Western Ocean (Da Xiyang 大西洋).

Zhou Qufei (jinshi 1163)

By the Song dynasty, the Chinese already had a very good, if not entirely accurate, idea of the configuration of most of the lands and seas connected by the Maritime Silk Roads. One of the first authors to offer a broad picture of this wider world was Zhou Qufei 周去非 (*jinshi* 1163). Zhou held a number of appointments as Educational Commissioner in Qinzhou 欽州, Guangxi, a vibrant port city on the Gulf of Tonkin, referred to in China as Beibu Wan 北部灣 in Song times.⁸⁵ Zhou took advantage of his time in Qinzhou to learn more

the Origins of the Term “Dongnanya” in Chinese Maritime History), in Wu Jianxiong 吳劍雄, ed., *Zhongguo haiyang fazhanshi lunwen ji* (中國海洋發展史論文集 Collected Essays on the History of Chinese Maritime Development) (Taipei: Zhongyang yanjiuyuan, 1991), 4: 311–329; and essays in Angela Schottenhammer and Roderich Ptak, eds., *The Perception of Maritime Space in Traditional Chinese Sources* (Wiesbaden: Harrassowitz, 2006), especially Li Xiacong 李孝聰, “Zhongguo lishi shang de haiyang kongjian yu yanhai ditu” (中國歷史上的海洋空間與沿海地圖 Maritime Space and Coastal Maps in Chinese History), 155–176, and Roderich Ptak, “The Sino-European Map (Shanghai yudi quantu) in the Encyclopaedia *Sancai tuhui*,” 191–207.

- 85 For the role of Qinzhou 欽州 and Guangxi region as a whole in Song-dynasty maritime trade, see Lu Ren 陸韜, “Songdai Guangxi haiwai maoyi xingqi chutan” (宋代廣西海外貿易興起初探 An Initial Investigation into the Rise of Maritime Trade in Guangxi during the Song Dynasty), *Haijiaoshi yanjiu* (海交史研究 Research on the History of Maritime Exchange) 31 (1997): 19–29; and Wu Xiaoling 吳小玲, “Cong nanhai yihao kan songdai guangxi beibuwan de duiwai jiaowang” (從“南海I號”看宋代廣西北部灣的對外交往 Overseas Interactions Occurring in the Region near Guangxi Beibuwan during the Song Dynasty as Seen through the Nanhai Yihao [Shipwreck]), in Huang Weizong 黃偉宗 and Tan Zhongjian 譚忠健, eds., *Haishang dunhuang zai yangjiang—Shoujie nanhai yihao yu haishang sichou zhilu luntan wenji* (海上敦煌在陽江—首屆南海I號與海上絲綢之路論壇文集 Maritime Dunhuang at Yangjiang: Collection of Essays from the First Forum on Nanhai Yihao [a Song-dynasty ship that sank in the South China Sea] and the Maritime Silk Road) (Hong Kong: China Review Academic Publishers Limited, 2011), open source accessed on 9/29/13 at: <http://hk.crntt.com/crn-webapp/cbspub/readBook.jsp?coluid=wskj&coluname=%E7%B6%B2%E4%B8%8A%E9%96%8B%E5%8D%B7&bookid=41404>. There is a rich literature on the history of maritime trade during the Song dynasty; see especially Shiba Yoshinobu, “Sung Foreign Trade: Its Scope and Organization,” in Morris Rossabi, ed., *China among Equals: The Middle Kingdom and Its Neighbors, 10th–14th Centuries* (Berkeley: University of California Press, 1983), 89–115; and Derek Heng, “Shipping, Customs Procedures, and the Foreign Community: The ‘Pingzhou ketan’ on

about the maritime world beyond the port city. He talked to many mariners, merchants, and interpreters working for foreign traders arriving in Qinzhou, and his findings became the subject of two chapters in his *Notes Answering [Curious Questions] from the Land beyond the Pass* (Lingwai daida 嶺外代答, 1178), a book otherwise dedicated to the local history, culture, and products of Guangxi.⁸⁶ At the beginning of the first of these chapters on foreign countries, Zhou gives an overview of the various polities that can be reached by maritime routes from China. We are told that “these foreign countries mostly border on the sea, each occupying a corner of the land near water. Each of these countries has its peculiar products, and they convene at certain trading centers to exchange their goods.” Zhou describes a body of water called the Great Southern Ocean (Nan Dayanghai 南大洋海) that stretches south from Samboja (Sanfoqi 三佛齊) in present southeast Sumatra.⁸⁷ He observes that “there are tens of thousands of islands in it, all inhabited,” but notes that “there is no passage farther south” of this ocean.⁸⁸ Using this region as a reference, he points to what lies to the east and west. He writes:

East of Dupo 閩婆 [in present Java] is the Great Eastern Ocean 東大洋海 (Dong Dayanghai).⁸⁹ The water level drops down from here. The Country of Women is located here. Heading farther east, [one arrives at] Weilü, from which some of the ocean waters vanish. That is not a place of the human world. However, [if one steers] slightly to the northeast instead,

Aspects of Guangzhou's Maritime Economy in the Late Eleventh Century,” *Journal of Song-Yuan Studies*, no. 38 (2008): 1–38. The footnotes in Heng's article offer a very useful guide to this literature; see especially page 3, n. 9, and 5, n. 15.

- 86 For a further study of Zhou Qufei's knowledge of the seas and comparison with what was current in contemporary Arabic sources, see Hyunhee Park, *Mapping the Chinese and Islamic World: Cross-Cultural Exchange in Pre-Modern Asia* (Cambridge: Cambridge University Press, 2012), 46–50.
- 87 For this and other possible locations of Sanfoqi 三佛齊, see Zhou Qufei and Yang Wuquan 楊武泉, coll. and annot., *Lingwai daida jiaozhu* (嶺外代答校注 *Notes Answering [Curious Questions] from the Land beyond the Pass*) (Beijing: Zhonghua shuju, 1999), 87, n. 1; and Chen Jiarong, Xie Fang 謝方, and Lu Junling 陸峻嶺, *Gudai nanhai diming huishi* (古代南海地名匯釋 *Compilation and Explanations of Ancient Geographical Terms about the South Sea*) (Beijing: Zhonghua shuju, 1986), 129–131.
- 88 Zhou Qufei and Yang Wuquan, *Lingwai daida jiaozhu*, 74.
- 89 The term Dupo 閩婆 had been used to refer variously to Java, Sumatra, and the Malay peninsula in Chinese sources before Song times, but modern scholars concur that during the Song this term referred to Java, possibly the Medang or Mataram Kingdom. See Zhou Qufei and Yang Wuquan, *Lingwai daida jiaozhu*, 89, n. 1, and Chen Jiarong, Xie Fang, and Lu Junling, *Gudai Nanhai diming huishi*, 722–724.

one arrives at the kingdoms of Koryo and [Later] Paekche, [on the present Korean peninsula].⁹⁰

Zhou Qufei's narrative bears traces of the mythological belief in the above-mentioned Weilü, the bottomless chasm on the fringe of the East Sea that presumably absorbed all excessive water from the rivers to keep the volumes of the seas in balance. However, the broad spatial alignment between the various states he identified in Southeast and East Asia is on the whole correct. On the west, Zhou tells us,

There are countless countries located on the sea in the southwest, but we can show roughly where they are using Jiaozhi 交趾 [in present northern Vietnam] as a point of reference. Directly south of Jiaozhi are Champa [in present central Vietnam], Zhenla 真臘 [in present northern Cambodia and southern Laos], and Foluoan 佛羅安 [on the Malay Peninsula].⁹¹... To the west of these is a great sea known as the Sea of Ceylon. In this sea there is a large landmass (*zhou* 洲) named Ceylon [i.e., Sri Lanka]. Crossing this sea farther west, one finds several more countries. The southernmost one is Kulam [Quilon, on the present southeastern Indian coast]. To its north are the Ghaznavid dynasty,⁹² Nalanda, and the Indian states. To the west of these states is another sea, called the Eastern Sea of the Muslims 東大食海 (Dong Dashi Hai) [i.e., the Arabian Sea]. Across this sea on the west are the Arabian countries. The land of Arabia is large and holds numerous Arab countries. Farther west of Arabia there is another sea, called the Western Sea of the Muslims 西大食海 (Xi Dashihai) [i.e., the Mediterranean].⁹³ Sailing all the way west across this sea,

90 Zhou Qufei and Yang Wuquan, *Lingwai daida jiaozhu*, 74–75. “Later Paekche” was founded in 900 but annexed by Koryo in 936, so this information given by Zhou Qufei was outdated.

91 Scholars have identified different places on the Malay peninsula as possible referents of Foluoan 佛羅安. See Chen Jiarong, Xie Fang, and Lu Junling, *Gudai Nanhai diming huishi*, 437–438.

92 Here Zhou Qufei uses the term Daqin 大秦. This term had diverse usages in early Chinese sources, the most common of which was to designate the Roman empire or the Syrian coast. But this evidently does not apply here, given the context in this passage and Zhou's detailed description of the country of Daqin in a later section. I am following Yang Wuquan's interpretation here in identifying it with the Ghaznavid dynasty. See Zhou Qufei and Yang Wuquan, *Lingwai daida jiaozhu*, 96, n. 1.

93 I have borrowed the translations of the names of these two seas from Hyunhee Park, *Mapping the Chinese and Islamic World*, 48. However, I adopt a reading of Zhou Qufei's

one arrives at Mulanpi 木蘭皮 [Almoravide, on the northwestern African coast and in southern Spain], where there are again over a thousand countries. From here, farther west, is the place where the sun goes under. Nobody knows anything about it.⁹⁴

Here, Zhou Qufei has sketched out the whole expanse of the land and sea that mariners encounter traveling south and west of Jiaozhi (northern Vietnam), from the Sea of Ceylon, the Indian subcontinent, the Arabian Sea, the Arabian Peninsula, and the Mediterranean to Western Europe. Combined with the previous passage, he has captured a mostly accurate configuration of land and sea in the Eastern Hemisphere, stretching from Korea and Indonesia to Morocco and Spain. Zhou's remarks on the two dangerous zones on the eastern and western frontiers of this world—Weilü in the Great Eastern Ocean, and the place in the westernmost sea where the sun sets—indicate that the basic spatial framework he used to organize this maritime geographical knowledge was similar to the one employed by He Chengtian, who, as we have seen, was an adherent of the early form of the cosmological theory of Spherical Heaven.

However, the details of the configuration of land and sea emerging from Zhou Qufei's account portray a much more complex picture. The Great Southern Ocean is said to offer no further passage south of the large nexus of islands below Sumatra. What could be blocking it? Does Zhou believe that there may be *another* large landmass (such as Australia)? Also, he identifies Arabia, correctly, as a landmass that sits between two large seas (the Eastern Sea and Western Sea of the Muslims), which is a recognition of the fact that the seas do not just surround a land but can be surrounded by land. Zhou also

"Western Sea of the Muslims" that differs from Park's. Park identifies this sea as the Red Sea and consequently interprets Mulanpi 木蘭皮, which the Arabs reached by sailing this sea, as "countries in the Mediterranean coast." I follow Yang Wuquan in identifying the Western Sea of the Muslims as the Mediterranean, and Mulanpi as Almoravide. This choice is based in part on the phonetic proximity between Mulanpi and Almoravide, and in part on Zhou Qufei's descriptions of Mulanpi offered in a later section of this text. There, Zhou refers to this sea as a huge sea (*juhai* 巨海). He writes that the Muslims sailed this sea on their giant, luxurious ships that could carry a thousand men. It took them a hundred days to arrive at Mulanpi, sailing straight west from the eastern bank of it. See Zhou Qufei and Yang Wuquan, *Lingwai daida jiaozhu*; Yang Wuquan's discussion on Mulanpi is found on page 107, n. 1. This reading is also consistent with Zhang Xinglang's 張星烺 interpretation of Mulanpi in his *Zhongxi jiaotong shiliao huibian* (中西交通史料彙編 Collection of Historical Sources on the History of Sino-Western Communications) (Beijing: Zhonghua shuju, 1977), 1: 152.

94 Zhou Qufei and Yang Wuquan, *Lingwai daida jiaozhu*, 75.

entirely bypasses the standard names of the Four Seas and instead gives a list of five seas by different names, based on mariners' conventions: the Great Southern Ocean (the area of the Pacific extending from south of Sumatra to the present Australia), the Great Eastern Ocean (the eastern part of the South China Sea and the Pacific Ocean), the Sea of Ceylon, and the Eastern Sea and Western Sea of the Muslims. What did this expanded vocabulary and factual knowledge about the sea mean for his contemporary scholars who were trying to make sense of classical texts such as the "Tribute of Yu"?

Hong Mai (1123–1202)

The maritime geographical knowledge possessed by Zhou Qufei would have been enough to dispel the myth that there are exactly Four Seas surrounding either the Nine Provinces of China or somewhere further beyond them. Zhou's contemporary Hong Mai 洪邁 (1123–1202), a scholar known for his down-to-earth intellectual interest in the urban life of the Southern Song, did exactly this.⁹⁵ In his collection of brush notes entitled *Random Jottings by Rongzhai* (Rongzhai suibi 容齋隨筆), we find him declaring that

the Four Seas are actually one and the same. The land of China is taller in the northwest and lower in the southeast. The so-called East Sea, North Sea, and South Sea are in fact the same sea. The waters of this sea off the northern section of the coast, down to Qingdao and Cangzhou, are called the North Sea; off the southern section of the coast down to Jiaozhi, Guangdong, and Guangxi, the South Sea; and east of Wu and Yue regions, the East Sea. There is no such thing as the West Sea proper. The Four Seas referred to in the *Book of Poetry*, *Book of Documents*, and *Book of Rites* must not be meant literally but only as a figure of speech. The "Puchang Sea" [present Lop Nur] described in the "Account of the Western Region" in the *History of the Han Dynasty* seems to be just a body of standing water. As for the [other] "West Sea" which Gan Ying 甘英 is said to have seen as he arrived in Tiaozi 條支 [Characene and Susiana?] on General Ban Chao's 班超 orders, that must be just the western extension of what we call the South Sea.⁹⁶

95 Hong Mai is the author of *Yijian zhi* (夷堅志 Record of the Listener and Recorder), a massive collection of tales and anecdotes transmitted among the populace that offers an intimate look into the social life and religious rituals of the common people in the Song dynasty. For a study of this text, see Edward Davis, *Society and the Supernatural in Song China* (Honolulu: University of Hawai'i Press, 2001).

96 Hong Mai, *Rongzhai suibi* (容齋隨筆 Random Jottings by Rongzhai [Hong Mai]) (Shanghai: Shanghai guji chubanshe, 1978), *juan* 3, 33.

Hong Mai's bold dismissal of the literal reading of the "Four Seas" in the Confucian classics is remarkable. In the apparent discrepancy between the teaching of the classics and empirical reality, he gave precedence to the latter, honoring the indisputable fact that there are no real seas on the northern and western frontiers of China and taking note of how these terms—east sea, north sea, and south sea—were actually applied in everyday life. The reason Hong gave for not believing the sea that Gan Ying saw at Tiaozhi to be *the* "West Sea" also indicates that he was aware of how far west the "South Sea" extended. This suggests that Hong was abreast of the kind of maritime knowledge Zhou Qufei presented in his *Notes Answering [Curious Questions] from the Land beyond the Pass*. His estimate that this sea is somewhere in the distant southwest, rather than in the region directly west of China, is consistent with the conclusion many modern scholars have reached, which identifies this "West Sea" as the Persian Gulf.⁹⁷ This estimate tallies well with the itinerary from China to Tiaozhi given in the "Chapter on Western Regions" of the *History of the Later Han* (Hou hanshu 後漢書), which precedes the story it tells of Gan Ying's aborted mission to Daqin.⁹⁸ According to this itinerary, one would first depart

97 In his translation of the "Chapter on the Western Region" of the *History of the Later Han*, John E. Hill identifies Tiaozhi as Characene and Susiana, and Gan Ying's "West Sea" as the Persian Gulf. Some other scholars identify this "West Sea" as the Caspian Sea. See, for example, my colleague Jeffery D. Lerner's "On the Inland Waterways from Europe to Central Asia," *Ancient West and East* 13 (2014): 155–174. For a review of the ongoing debate on the meaning of Tiaozhi and the West Sea in the early Chinese records, see n. 1 in "Section 9—The Kingdom of Tiaozhi (Characene and Susiana)," in John E. Hill, trans., *The Western Regions according to the Hou Hanshu: The Xiyu Zhuan "Chapter on the Western Regions" from Hou Hanshu 88* (second edition, extensively revised with additional notes and appendices, 2003), published online, accessed 7/20/2013 at: http://depts.washington.edu/silkroad/texts/hhshu/hou_han_shu.html#sec9. See also Gong Yingyan 龔纓晏, "Er shi shiji lixuan tiaozhi he daqin yanjiu shuping" (20世紀黎軒條支和大秦研究述評 Review of Studies on Lixuan, Tiaozhi, and Daqin in the Twentieth Century), *Zhongguoshi yanjiu dongtai* (中國史研究動態 Trends in Chinese Historical Studies), no. 8 (2002): 19–28.

98 Gan Ying was sent on a mission to establish trade relations with Daqin, the Roman empire. He arrived at Tiaozhi by the Persian Gulf, intent on crossing it. However, the Parthian sailors he met discouraged him from doing so. They said: "The ocean is huge. Those making the round trip can do it in three months if the winds are favorable. However, if you encounter winds that delay you, it can take two years. That is why all the men who go by sea take stores for three years. The vast ocean urges men to think of their country, and get homesick, and some of them die." Gan Ying decided to not pursue his original plan and returned home instead. Translation quoted from Hill, trans., *The Western Regions according to the Hou Hanshu* (see note 97 above). Historians have conjectured that the

from the Yumen Pass outside Dunhuang and take the southern path to the Kingdom of Yutian 於闐 (in present Khotan) in the southwest of the Tarim Basin; then, from Yutian, one would embark on a journey *southwest* for 60 days on foot to arrive at the Kingdom of Wuyishanli 烏弋山離 (Kandahar), and then travel another 100 days due southwest on horseback before reaching Tiaozi.⁹⁹ It seems that Hong Mai paid attention to such important geographical details reported in the *History of the Later Han* before forming his judgment.

Cheng Dachang (1123–1195)

Another contemporary of Zhou Qufei, Cheng Dachang 程大昌 (1123–1195), also keenly engaged with the world geographical data accumulated in historical and contemporary empirical maritime literature. But his approach to such knowledge differed markedly from that of Hong Mai. Cheng wrote one of the three earliest extant monographs on the “Tribute of Yu.” A leading classicist, he had the prestige to present lectures on this text to Emperor Xiaozhong of the Southern Song. In a note entitled “The Four Seas” (Sihai 四海), he acknowledged a greatest challenge for a Yugong scholar:

Among the Four Seas, the one east of Shandong is the East Sea, and the one off the southern coast is the South Sea. That much is a plain truth for everyone to see. However, the “Tribute of Yu” says that Yu’s footsteps reached “as far west as the flowing sands,” but it does not actually say that he reached the West Sea. [Similarly,] it says that Yu left tracks as far north-east as Jieshi 碣石, but the entire classic does not identify a North Sea. This being the case, why, then, does the text say that “[Yu’s transformative influences] reached the Four Seas”? Why *Four*?¹⁰⁰ (emphasis added)

It was with the burden of resolving such questions that Cheng turned to the historical texts to mine their data. There he found what he was looking for:

Parthians must have been afraid that a direct relation between Han and Rome would break their monopoly over the transactions along this segment of the Silk Road; therefore they deliberately misinformed Gan Ying about the length and danger of the voyage crossing the Persian Gulf—an early instance of world geographical knowledge being deployed in a trade war.

99 See Fan Ye 範曄 (398–445), *Hou hanshu* (後漢書 History of the Later Han), with comments by Li Xian 李賢 et al., *juan* 88, “Xiyu zhuan” (西域傳 Chapter on the Western Regions) (Beijing: Zhonghua shuju, 1999), 1970–1973.

100 Cheng Dachang, “Sihai” (四海 The Four Seas), in his treatise *Beibian beidui* (北邊備對 Answers to Geographical Questions about the Regions North of China), in *xxsk*, vol. 737: 725.

Now, during the reign of Emperor Wudi 武帝 [141–87 BCE], many envoys were sent out across Chinese borders in the four directions, and some of them did really reach the seas in the north and the west and saw them with their own eyes. Therefore, the existence of the North and West Seas is not just hearsay. Envoys of the Former Han dynasty did find the sea to the west of Tiaozhi, and this was recorded in the dynastic history. During the Later Han dynasty, Ban Chao again sent Gan Ying¹⁰¹ on a mission, who arrived at the same place. West of the West Sea there is yet another land called Daqin.... Foreigners and maritime merchants frequently interact with the people there. The North Sea is very far away. The Han-dynasty General Huo Qubing 霍去病 [140–117 BCE] is said to have [ventured deep into the Xiongnu territory and] encircled and vanquished them at the Langjuxu 狼居胥 Mountain. That mountain is located near Hanhai 瀚海, and that is the North Sea.¹⁰² [Han envoys] Su Wu 蘇武 [?–60 BCE] and Guo Ji 郭吉 [fl. 114 BCE] were both detained by the Xiongnu near the North Sea.... This is evidence that the Four Seas referred to by the *Book of Poetry* and the *Book of Documents* are indeed there, and that they surround the Yi [Barbarians] and the Xia [Chinese] as a whole.¹⁰³

Thus, although there are no seas immediately to the north and west of China, Cheng Dachang was able to find these seas farther west and north to complete the world picture envisaged in the “Tribute of Yu.” In his *Illustrations and Maps of Mountains and Rivers in the “Tribute of Yu”* (Yugong shanchuan dili tu 禹貢山川地理圖), a book based on his lectures to the emperor written in 1177 and dedicated to the emperor, we find Cheng’s illustration of that world picture (Figure 3.5).¹⁰⁴ Note that the map is oriented west side up. It depicts a rectangular space, almost all of which is taken up by the Nine Provinces of Yu. The names of these provinces are indicated by the characters in the black circles. The land is shown as surrounded by the sea on three sides. Although

101 Cheng Dachang’s original text says Gan Hua 甘華 instead of Gan Ying 甘英; the latter is the correct name.

102 See Ban Gu 班固, *Hanshu* (漢書 History of the Former Han), *juan* 55, “Wei Qing He Qubing zhuan di er shi wu” (衛青霍去病傳第二十五 Biographies No. 25: Wei Qing and He Qubing), in Si Ding 施丁 and Ban Gu 班固, *Hanshu xinzhu* (漢書新注 New Commentaries on the *History of the Former Han*) (Xi’an: Sanqin chubanshe, 1994), 3: 1743–1744.

103 Cheng Dachang, “Sihai,” in idem, *Beibian beidui*, in *XXSK*, vol. 737: 725.

104 Cheng Dachang, *Yugong shanchuan dili tu* (禹貢山川地理圖 Illustrations and Maps of Mountains and Rivers in the “Tribute of Yu”) (Beijing: Zhonghua shuju, 1985), at start of *juan* 1, no page number.

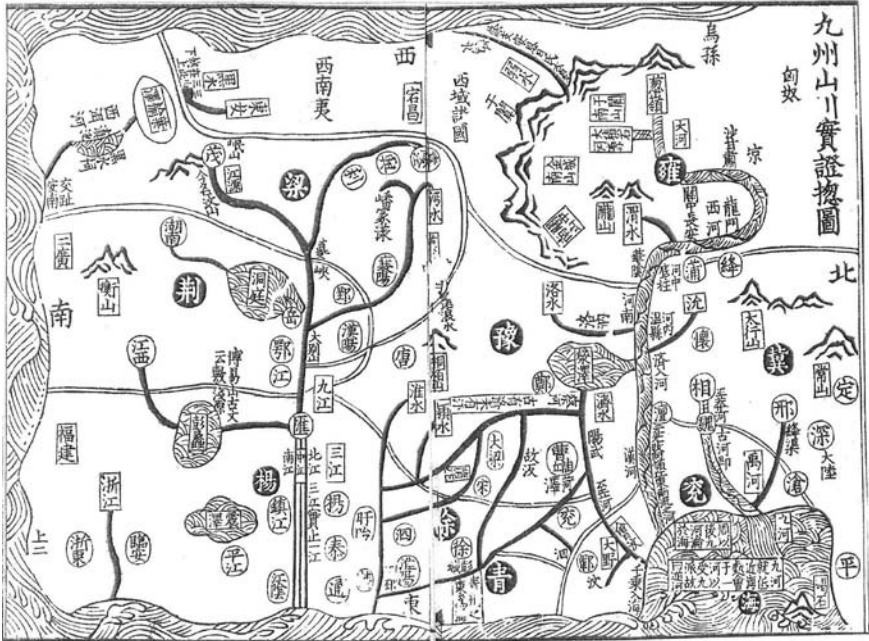


FIGURE 3.5 "Truthful and Verified General Illustration of the Mountains and Rivers in the Nine Provinces" (*Jiuzhou shanchuan shizheng zongtu* 九州山川實證總圖), by Cheng Dachang 程大昌 (1123–1195). Cheng Dachang, *Yugong shanchuan dili tu* (禹貢山川地理圖 *Illustrations and Maps of Mountains and Rivers in the "Tribute of Yu"*). PHOTO-REPRODUCED EDITION (BEIJING: ZHONGHUA SHUJU, 1985), AT START OF JUAN 1, NO PAGE NUMBER

the North Sea is not shown on the map, its presence is implied, for Cheng states in the accompanying prefatory remarks on this map that he had to omit certain things "due to the vastness of the Four Seas and the limited space on the printed page."¹⁰⁵

The title of this map is the "Truthful and Verified General Illustration of the Mountains and Rivers in the Nine Provinces." Indeed, in the text where Cheng explains how he made the various identifications of the historical names of rivers and seas mentioned in the "Tribute of Yu," he consistently emphasizes that he based them on proven facts. But a close examination of his explanations shows a highly selective use of such "facts." For example, although from the passage quoted above it is clear that Cheng took the Western Sea reached by the envoys of the Former Han to be the same sea encountered by Gan Ying

105 Cheng Dachang, *Yugong shanchuan dili tu*, juan 1, 2b.

of the Later Han, he ignored the southwesterly location given in the *History of the Later Han* for Gan Ying's West Sea (possibly the Persian Gulf) and instead chose the one given in the source from the Former Han, which places the sea to the west of China, possibly at the site of either the Aral Sea or Caspian Sea.¹⁰⁶

Also, the text of the "Tribute of Yu" spoke of a river called Ruoshui 弱水 (literally "Weak-Water"), the floodwaters of which were safely conducted away by Yu to the west of the Nine Provinces. According to Cheng Dachang, previous commentators on the "Tribute of Yu" had debated among themselves as to which river the text was referring to as the Weak-Water, but they were looking in the wrong places—within the western bounds of the Nine Provinces—and naturally, since this part of the land was higher than all other regions in China, none of the rivers they claimed to be the Weak-Water actually flowed westward, as stated in the classic. Cheng instead identified the Guishui 媯水 (Amu Darya) as the Weak-Water treated by Yu. He explained why: this was the only river that fit the context in the "Tribute of Yu," especially its assertions that (1) "The Weak-Water flows west," (2) "[Yu's] fame and teaching reach the *Four Seas*," and (3) "To the east, [Yu's accomplishments] spread to the sea; to the west, [they] *extend* to the flowing sands." Both Sima Qian's *Historical Records* (Shiji) and Ban Gu's 班固 (32–92 CE) *History of the Former Han* (Hanshu 漢書) mention a Guishui that originated from Mount Kunlun and flowed west, and a certain Weak-Water that flowed into the West Sea (possibly the Aral or Caspian Sea); however, neither text clearly identifies the Guishui with the Weak-Water.¹⁰⁷ Cheng not only connected the two but argued that this river flowed west across a distance of some tens of thousands of *li*, collecting all other rivers of the Western Region along the way and emptying them all into the sea. This river, the Guishui, then, must be the Weak-Water that Yu had conducted away from the Nine Provinces, and as the final destination of such a majestic river, the sea that it flows into must be *the* West Sea, the sea that completes the cosmic picture of "Heaven, Earth, and the Four Seas."¹⁰⁸

Clearly, Cheng Dachang's approach to the available empirical knowledge about the seas was the opposite of Hong Mai's. He started with the assumption that a West Sea must exist according to the classic, and then proceeded to turn

106 See Sima Qian, *Shiji*, *juan* 123, "Dayuan liezhuan" (大宛列傳 Records on Dayuan), digital reprinted edition in the *Zhonghua lishi wenku*, 2177; Cen Zhongmian 岑仲勉, *Hanshu xiyu zhuan dili jiaoshi* (漢書西域傳地理校釋 Geographical Notes on the Records of the Western Regions in the *History of the Former Han*) (Beijing: Zhonghua shuju, 1979), 165.

107 See Sima Qian, *Shiji*, 2096; Cen Zhongmian, *Hanshu xiyu zhuan dili jiaoshi*, 68, 165, 204.

108 Cheng Dachang, *Yugong shanchuan dili tu*, *juan* 2, 10b. See also the boxed texts in his illustration of the Weak-Water and the West Sea on 9b–10a.

a randomly discovered sea west of China, recorded in historical literature, into such a majestic sea on his map. Furthermore, based on his above reference to “Heaven, Earth, and the Four Seas,” it is evident that Cheng was depicting the Four Seas as the extremities of the earth. His cartographic representation of that world ends with Tiaozhi on the west and conveniently leaves out Daqin—the land which, in his fact-finding note on the Four Seas quoted above, he has said actually exists west of the “West Sea.” Thus in Cheng Dachang’s case we have a striking example in which the geopolitical construct of the Four Seas as the physical boundaries of All under Heaven is a conscious departure from the empirical maritime knowledge of the seas already available. It must be noted that such a mythical construct of the Four Seas as the physical boundaries of a China-dominated world was adopted by many other Yugong scholars, from Cheng Dachang’s own time to the Ming dynasty.¹⁰⁹

Conclusion

Ricci was not exaggerating when he reported seeing Chinese world maps in which the world “was limited to their own fifteen provinces, and in the sea painted around it they had placed a few little islands to which they gave the names of different kingdoms of which they had heard.”¹¹⁰ Chinese world maps of the Tianxia (All under Heaven) genre, such as Cheng Dachang’s representation of the Nine Provinces and the Four Seas that we see in Figure 3.5, or the caricature-style map in Figure 3.6, certainly validate Ricci’s description. Figure 3.6 is entitled none other than “Map of All under Heaven” and dates to around 1600.¹¹¹ It depicts the world as coterminous with a more or less square

109 For example, in commenting on the sentence “[Yu]’s fame and reputation reach the Four Seas,” Cai Shen 蔡沈 (1167–1230), another Southern Song–dynasty Yugong scholar, also said that although Yu’s governance was confined to the Five Zones (or Domains), Yu’s “fame and reputation reach the Four Seas where the earth ends (*di jin sihai* 地盡四海).” Cai Shen, *Shujing jizhuan* (書經集傳 Collected Commentaries on the Book of Documents) (Shanghai: Shanghai guji chubanshe, 1987), 38. See also the same point made by the Ming-dynasty Yugong scholar Zheng Xiao 鄭曉, in his *Shangshu yugong tushuo* (尚書禹貢圖說 Illustrated Explanation of the “Tribute of Yu” in the Book of Documents, prefaced in 1564), in *XXSK, jing*, vol. 54: 431–476, with “Illustration of the West Sea” at 439, and text on the Four Seas at 473–474.

110 This is quoted more fully in the introduction to Chapter 2 above.

111 This map (Figure 3.6) was included by Pasquale M. d’Elia in his *Il mappamondo cinese del p. Matteo Ricci, S.I.* (Città del Vaticano: Biblioteca apostolica Vaticana, 1938), where it is inserted between pages 122 and 123. D’Elia’s source was Giuseppe Musso, *La Cina ed i*

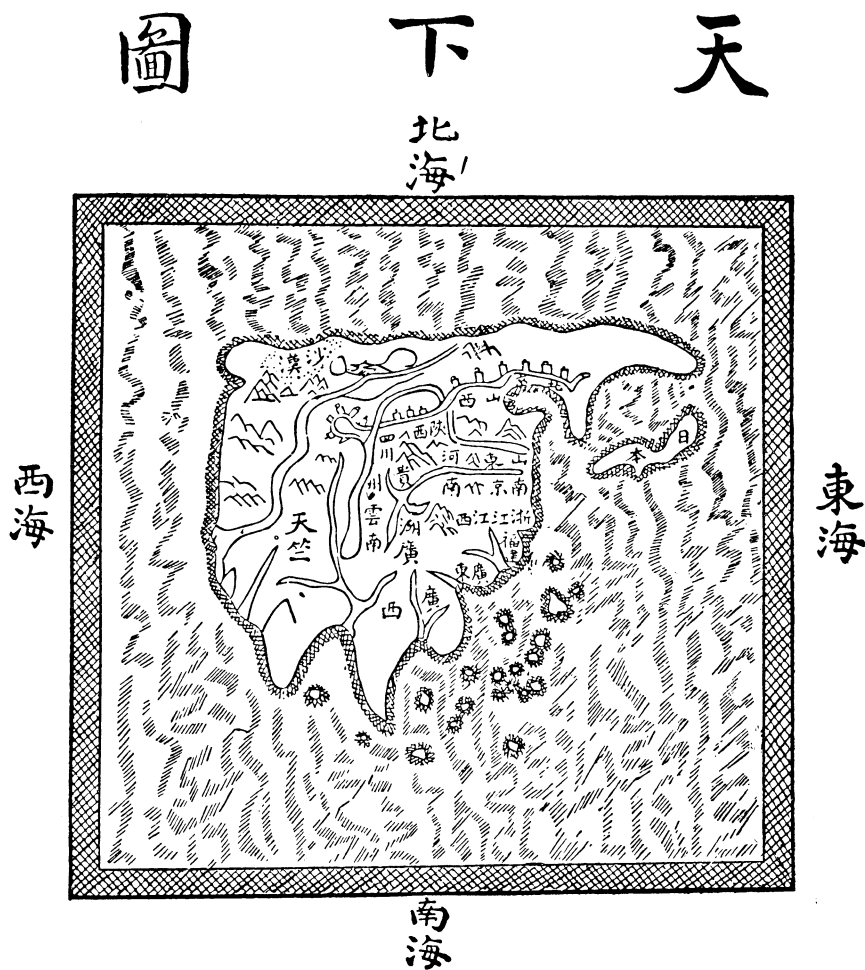


Fig. 6

IL MONDO, OSSIA LA CINA, IN MEZZO AI QUATTRO MARI (ca. 1600)

Da Musso, *La Cina ed i Cinesi*, Milano, 1926, I, p. 320.

FIGURE 3.6 "Map of All under Heaven" (*Tianxia tu* 天下圖), ca. 1600. Pasquale M. d'Elia, *Il mappamondo cinese del p. Matteo Ricci, S.I. (Città del Vaticano: Biblioteca apostolica Vaticana, 1938)*, insert between 122 and 123.
PHOTO COURTESY OF HARVARD COLLEGE LIBRARY

Cinesi, loro leggi e costumi (Milano Ulrico Hoepli, 1926), 1: 320. But Musso did not identify the author or date of the map; he merely stated that the map was "from the Author's personal collection." My investigation into the identity of its author has not revealed anything conclusive. Richard Smith has pointed to the similarity between this map and

landmass flanked by the Four Seas. The markings of waves around the landmass and the four sets of Chinese characters written outside the square frame of the map indicate that the mapmaker was depicting the Four Seas literally, as four distinct seas stretching across the boundaries of the central landmass along the four cardinal directions. The only fully represented part of the landmass depicts the administrative units of the Ming empire—its two metropolitan areas around the capitals of Beijing and Nanjing, and its thirteen provinces.

Yet “All under Heaven” was only one world cartographical genre in premodern China. There was another that more fully represented the extent of empirical knowledge gained from centuries of active engagement with the world through maritime exploration, travel, trade, and exchange. A case in point is the “Map of the Unified Territory and Dynastic Capitals throughout History” (Honil kangni yeoktae kukto chi to 混一疆理歷代國都之圖), better known as the “Kangnido” in Western literature, the original copy of which is dated to 1402 (Figure 3.7). It was made in Korea but modeled on two Chinese maps. Its depiction of China and immediately surrounding regions was based on the “Map of the Unified Imperial Domain” (Hunyi jiangli tu 混一疆理圖) by the monk Qingjun 清濬, with revisions and expansions on the Japanese islands and the Korean peninsula drawn from local sources. Its depiction of the larger world, especially west of India, was modeled on Li Zemin’s 李澤民 “Map of the Distant Reaches of the Fame and Teachings [of Chinese Sages]” (Shengjiao guang bei tu 聲教廣被圖), which assimilated many Islamic cartographic influences.

Although the original Kangnido of 1402 is lost, judging from the earliest extant copy of it, dated to between 1479 and 1485,¹¹² this map captured most of

“Sihai Huayi zongtu” (四海華夷總圖 General Map of the Chinese and Barbarian Lands within the Four Seas), which likewise portrays all of the Four Seas around the central landmass and, besides China, also gives substantial attention to India (Tianzhu 天竺). Lim Jongtae has noted the peculiarity of this map in showing all four seas around the central landmass and suggests that this may be a sign of Jesuit cartographical influence, for most Chinese maps, like Cheng Dachang’s, assumed the North Sea to be too far away to be appropriately represented. Other signs of possible Jesuit influence that Lim has identified are: (1) its conspicuous rendering of the main Japanese islands, in contrast to premodern Chinese and Korean maps, which tended to represent them as small islands, and (2) its depiction of continental southeast Asia and the Indian subcontinent as two sharp protrusions, rather than slight curves, as they were shown in earlier Chinese maps. I wish to thank both of them for offering these insights.

112 This copy of the Kangnido is held at Ōmiya Library, Ryūkoku University Academic Information Center, Kyoto, Japan. The date of this copy is unknown, and previous scholars

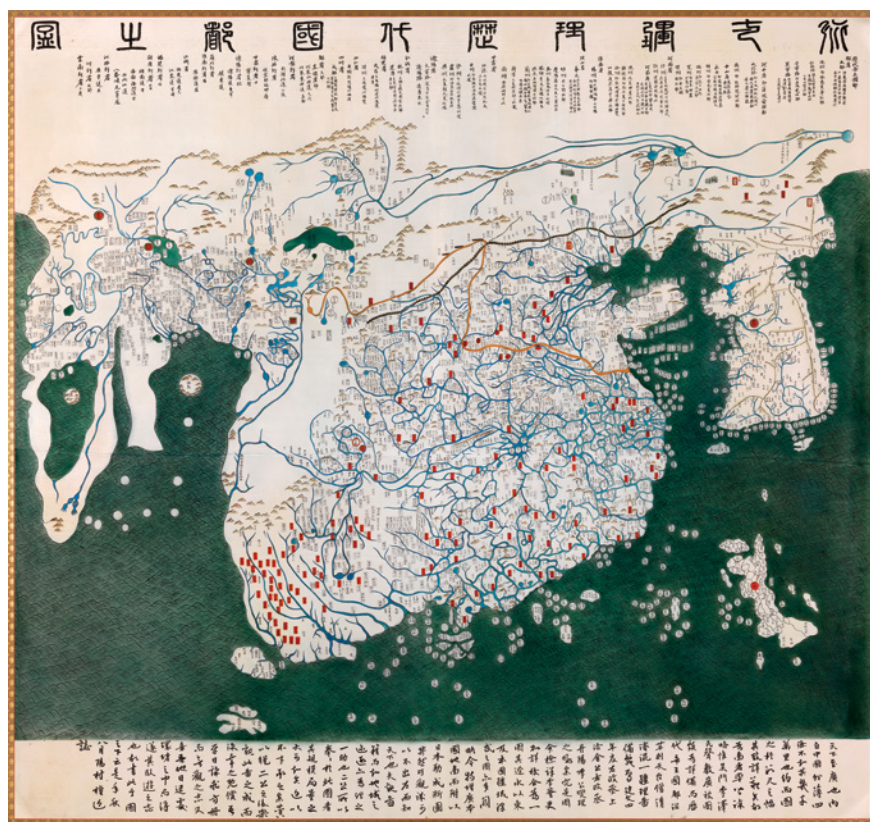


FIGURE 3.7 “Map of the Unified Territory and Dynastic Capitals throughout History,” or “Kangnido” (Honil kangni yeoktae kukto chi to 混一疆理历代国都之图), original copy dated to 1402, by Yi Hoe 李荇 and Kwon Kūn 权近. Imitation of earliest extant copy (dated to between 1479 and 1485).

COURTESY OF KYUJANGGAK, THE ROYAL LIBRARY OF CHŎSEN DYNASTY, KOREA

the Afro-Eurasian continent from Japan to Europe and Africa. In maps of this genre, then, we find representations of the world that are more closely allied to the realm of experiences of the outside world. On such maps China often still occupies a larger space than it deserves proportionately, but this fact is often consistent with the greater extent of actual knowledge about China available

have variously dated it from the second half of the fifteenth century to the early sixteenth century. I am following the date proposed by Kenneth R. Robinson, “Choson Korea in the Ryukoku Kangnido: Dating the Oldest Extant Korean Map of the World (15th Century),” *Imago Mundi: The International Journal for the History of Cartography* 59, no. 2 (2007): 177–192.

to the mapmakers, in comparison to their knowledge about the world beyond its borders.¹¹³

The stark contrast between this type of world maps and the “All under Heaven” world cartographical genre exemplified in Figure 2.3 (seen in Chapter 2) and in Figures 3.5 and 3.6 above is instructive. It adumbrates the divergence of epistemologies, conceptual apparatus, and priorities that separated Hong Mai from Cheng Dachang—and indeed, the divergence between Cheng Dachang who wrote the fact-finding essay *Answers to Geographical Questions about the Regions North of China* (Beibian beidui) and Cheng Dachang the Yugong scholar and author of the *Illustrations and Maps of Mountains and Rivers in the “Tribute of Yu”* (Yugong shanchuan dili tu). More broadly, our above survey of the “infrastructure” of knowledge production and transmission within the pre-modern Chinese discursive spaces that intersected with the Jesuit notion of the terraqueous globe, as brief and “schematic” as it inevitably is, reveals an intellectual landscape that is not all that different from the European scene. It is dominated by the same phenomena of heterogeneity and compartmentalization, as multiple coexisting and coevolving discourses originating from the different needs and practices of individuals, communities, and the imperial state—each possessing its more or less separate canons, vocabularies, and methods of validation—produced knowledge of different, more or less mutually insulated lineages, genres, or traditions.

In Chapter 2, we saw how Ricci exploited this heterogeneity in the two cultural worlds of the late Ming and Renaissance Europe to create a world map

113 In a recent article on the post-Ricci Chinese development in world cartography, Li Jixiang (Lee Chi-Hsiang) 李紀祥 has reacted to the master narrative that dates the history of modern world cartography in China to the arrival of Ricci's world maps. He points precisely to the maps of this genre to deconstruct this chronology. See Li Jixiang, “Yutu shi yu jieshou shi zhong de haiguo yu dadi.” For some recent studies on maps of this genre, see Wang Qianjin 汪前進, Hu Qisong 胡啓松, and Liu Ruofang 劉若芳, *Juanben caihui daming hunyi tu yanjiu* (絹本彩繪大明混一圖研究 A Study of the “Daming hunyi tu” Painted in Color on a Silk Scroll) (Beijing: Wenwu chubanshe, 1995); Chen Jiarong 陳佳榮, “Qingjun jiangtu jin an zai?” (清浚疆圖今安在? Where is the Map of the Unified Realm by Qingjun?), *Haijiaoshi yanjiu* (海交史研究 Research on the History of Maritime Exchange), no. 2 (2007): 49–64; Chen Jiarong, “Xiancun zui xiangjing de yuanchao jiangli zongtu—Qingjun Guanglun jiangli tu luexi” (現存最詳盡、準確的元朝疆裏總圖—清浚《廣輪疆理圖》略析 A Brief Analysis of the Most Detailed and Accurate Extant General Map of Yuan-Dynasty Territories: The “Guanglun jiangli tu” by Qingjun), *Haijiaoshi yanjiu*, no. 2 (2009): 1–30; Sun Guoqing 孫果清, “Hunyi jiangli lidai guodu zhitu” (混一疆理歷代國都之圖 Map of the Unified Territory and Dynastic Capitals throughout History), *Ditu* (地圖 Map), no. 4 (2005): 89–90; and Robinson, “Choson Korea in the Ryukoku Kangnido.”

that best served his short- and long-term goals formulated at the contact zone, even as he consciously transmitted a monolithic, abysmal view of Chinese science and a heroic recounting of his and other Jesuits' roles as transmitters of an advanced European civilization to China.¹¹⁴ The circulation of such narratives in Europe would stoke the rising European consciousness of science as an area in which the West surpassed the rest, and lend credence to the emerging master narrative about the global triumph of Western science.

But a closer look at the kinds of knowledge that the Jesuits produced in the contact zone as men of science, and how this knowledge was taken up thereafter by their Chinese counterparts, reveals a much more complex picture. Much as the European New World discoveries boosted the Western classical tradition, so the Chinese discovery of a New world vision in the works of the Jesuits did not result in a dramatic overhaul of the supposedly backward Chinese knowledge system. Rather, it stimulated a fundamental reconstitution of the preexisting knowledge infrastructure. The first vital step toward this transformation occurred in the realm of cosmology, as the notion of a terraqueous globe, buttressed by a range of overwhelming empirical facts of both European and Chinese origin, came to be favorably discussed, accepted, and recontextualized by a significant number of Chinese scholars. This was followed by a transformation of classical scholarship, especially Yugong studies, which became gradually decoupled from preexisting geopolitical discourses and acquired its own methodology and goals as a self-conscious field of empirical research. Finally, this transformation was accomplished through the integration of Chinese and European empirical maritime knowledge in world geography. In the process, the geographical and cartographical knowledge accrued in the long Chinese empirical maritime discourses gained new prominence, providing a common, trusted frame of reference for Chinese cosmologists, classicists, and world geographers alike. In the following chapters, we consider each of these developments in its turn.

114 Ricci's journals, in the Latin version produced by Trigault (i.e., Ricci and Trigault, *De Christiana expeditione apud Sinas suscepta ab Societate Iesu*) gave European intellectuals their first systematic review of Chinese learning. In these journals, and in several of his lengthy personal letters (e.g., his "Letter to Claudio Acquaviva, S.S.J.," from Nanchang, 4 November 1595, and "Letter to Girolamo Costa," 14 August 1599, in Ricci, *Lettere*, 316 and 363, respectively), Ricci made disparaging assessments about the state of Chinese natural knowledge, including ideas about the earth.

The Introduction and Refashioning of the Terraqueous Globe

The Jesuit missionaries' introduction of the notion of the terraqueous globe during the late sixteenth and the seventeenth century sparked a series of new and sustained cosmological discourses among Chinese intellectuals of the late Ming and early Qing. These discourses focused on the earth's shape, its relation to the sea, its place in the cosmos, and the dynamics that sustain it in that place. The idea of a flat and square earth, to which Chinese geopolitical and cosmological discourses had for the most part implicitly or explicitly subscribed, came to be intensely reexamined in light of this new notion.

Like the original European proponents and defenders of the notion of the terraqueous globe in the early sixteenth century, the Jesuits who now joined Matteo Ricci in promoting this notion to their Chinese audience not only resorted to mathematical and philosophical reasoning but called on European explorers' and travelers' reports of their overseas experiences, as well as on their own personal observations made during their maritime voyages to China. In these Jesuit narratives, cosmological and maritime discourses on the earth converged and reinforced each other. For the Chinese intellectuals who took a positive interest in this Jesuit literature, this consistency was compelling. It seemed to them that the time had arrived to explore alternatives to the theory of a spherical heaven and a square earth.

Like their Renaissance counterparts of the preceding decades who were confronted by various anomalies borne of the New World discoveries, these Chinese scholars first turned to their own ancient texts. The theory of a spherical heaven and square earth had abundant textual basis in classical literature, some of which, such as the Confucian classic *Book of Changes* and the "Tribute of Yu" (Yugong) chapter in the *Book of Documents*, claimed great antiquity. But just how ancient was this theory? When Ricci and other Jesuits insinuated their notion of the terraqueous globe into the existing Chinese textual traditions by borrowing certain ancient Chinese terms and metaphors and reinterpreting others, another horizon of meaning in these ancient texts was suddenly opened up. The apparent textual edifice on which the model of a flat and square earth was built began to show cracks. A new, "global" image of the earth began to reveal itself. To interested Chinese scholars, it became evident that

such an image had already been there in these same ancient texts, awaiting their discovery.

Jesuit Introduction of the Notion of the Terraqueous Globe

The first Jesuits to arrive in China, Michele Ruggieri and Matteo Ricci, had begun to introduce the notion of the globe as early as 1584. In that year, Ricci created his first Chinese world maps representing the earth as a sphere. Ruggieri, meanwhile, published the first Chinese catechism, *The Veritable Record of the Lord of Heaven* (Tianzhu shengjiao shilu 天主聖教實錄, 1584). In this book, he gives the following exposition of Genesis, about the creation of earth and water:

On the first day, four things were created. The first is the earth. The earth is very large, with a circumference of 90,000 *li*. Located in the core of the earth is Hell. The earth's substance is heavier than water; therefore it lies underneath water, and water floats above the earth. The second thing created is water on earth. Water surrounds the earth much like the *egg-white enwraps the yolk*. And the earth resides under the water like the *yolk of an egg*. ...On the third day, the Lord of Heaven created land for humans and animals to live on. At the time, earth and water were in a chaos. He raised part of the earth higher up to become mountains, so that people besieged by water would have a place to dwell on. He deepened part of the earth to make rivers and seas, so that the chaotic waters could be conducted away from the ground.¹ (emphasis added)

Here Ruggieri uses the egg-yolk metaphor to describe the relationship between water and earth according to the original Aristotelian cosmic model, namely, as two elemental spheres stacked on each other. It is not clear, however, whether or not he was intentionally borrowing this metaphor from a Chinese

1 Michele Ruggieri, *Tianzhu shengjiao shilu* (天主聖教實錄 *The Veritable Record of the Lord of Heaven*), in *TDWXXB*, vol. 2: 782–785. The passage cited above comes from the edition revised by Manuel Dias, Jr. (Yang Manuo 陽瑪諾, 1574–1659), Gaspar Ferreira (Fei Qigui 費奇規, 1571–1649), and João Monteiro (Meng Ruwang 孟儒望, 1602–1648) with the approval of Francisco Furtado (Fu Fanji 傅汎際, 1589–1653), during the years when Furtado served as Vice-Provincial of the mission to China (1635–1641 and 1646–1647). The earliest edition of this text that I consulted, held at ARSI, states that the earth's circumference is more than 72,000 *li* (see Jap Sin I 189, 12b). The smaller figure was also adopted by Ricci until 1600. See Chapter 2 above, note 45.

source. It is also interesting to note that he followed the tradition of Paul de Burgos and others who reconciled the Aristotelian concentric model of the four elements with the evident presence of dry land on earth by offering a providential explanation for the latter—namely, that dry land is the result of a further creation for the divine purpose of endowing humans and animals with a viable habitat. In other words, Ruggieri's treatment of the subject did not communicate the new concept of the terraqueous globe as it was forged in the early and mid- sixteenth century, but adopted a standard account within the genre of Christian catechism that can be traced back to the fifteenth century, if not earlier.²

As we have seen in Chapter 2, Ricci did not refer to the processes of creation in his general introduction to his world map of 1602; he simply asserted the notion of the terraqueous globe and connected it with the Huntian (Spherical Heaven) cosmologists' egg-yolk metaphor. In the natural philosophical treatise he published some time later, *The Structure and Significance of the Heavens and the Earth* (Qiankun tiyi 乾坤體義, 1605),³ Ricci revisited this point and stated it in a more refined form:

The earth and the sea are both spherical. Together they form a single globe, situated at the center of celestial spheres. It is indeed true that the celestial spheres are like a hen's egg, and the earth is like the yolk surrounded by the white. Those who said that the earth is square were referring to the earth's *virtue of quietude and immobile nature* and not to its physical form.⁴ (emphasis added)

These lines set the tone for later Jesuits in China who expounded on the notion of the globe, and they became, arguably, the most frequently cited sentences in

2 See my discussion of this early in Chapter 3, and the reference in Chapter 3, note 18. This providential account of the shape of the earth and configuration of land and sea is found in some later Jesuit works as well, such as Alfonso Vagnoni, S.J. (Gao Yizhi 高一志, 1566–1640), *Kongji gezhi* (空際格致 Investigation into the Material Compositions of the Elemental Spheres, 1633), photolithographically reprinted in *TDWXSXB*, vol. 2: 883. It is possible that these authors were not consciously aware of the differences between these two concepts of the earth.

3 This 1605 date of publication is tentative. See Zhu Weizheng's 朱維錚 discussion on the history of this text in his introductory remarks in Ricci, *Qiankun tiyi* (乾坤體義 The Structure and Significance of the Heavens and the Earth), 1605, in idem, *Li Madou zhongwen zhuyi ji* (利瑪竇中文著譯集 The Chinese Works and Translations of Matteo Ricci), edited by Zhu Weizheng 朱維錚, 516–517.

4 Matteo Ricci, *Qiankun tiyi*, 518.

the textual traffic both among the Jesuits and between them and their Chinese respondents during the late Ming and the early Qing. Ricci's presentation of the globe has three basic aspects: (1) that earth and water do not exist apart from each other but form a single globe, for which he coined the term *diqu* 地球 (literally, "terrestrial sphere"); (2) that this idea of *diqu* is the true essence of the Huntian cosmologists' egg-yolk metaphor; and (3) that the saying "Heaven is round and Earth is square" (*tianyuan difang* 天圓地方), found in many Chinese classical texts, was intended as a moral and figurative statement. The character *fang* (方, "square") in the sentence should be read as a description not of the physical squareness of the earth but of the properties of the earth that make it a suitable abode for humans and animals, that is, its quietude and stability.

What Ricci suggests is that the Chinese have come to believe the earth to be flat and square because they have lost touch with the truth already known to their ancient sages. As a foreigner still fresh to the Chinese field of classical studies, Ricci skirted the tricky issues of hermeneutics and focused instead on demonstrating that the earth is a globe and cannot be otherwise. He offered a precise geometrical description of the earth as a perfect sphere, with North and South Poles, 360° in longitude and latitude, and an equatorial circumference of 90,000 *li*.⁵ The greatest stumbling block to the Chinese reception of the idea of the globe stemmed from a commonsensical assumption voiced by the Confucian scholar Yang Guangxian 楊光先 (1597–1669) that spatial directions, such as the "top" and "bottom" of the earth, were absolute. We have seen Ricci addressing this problem in his world map of 1602, and again here in *The Structure and Significance of the Heavens and the Earth*. He elaborated on the relativity of spatial directions on the surface of a globe, and reinforced it by citing his personal observations made during his sea voyages to China:

With a thickness of 28,636 *li* and 36 *zhang*,⁶ the earth is inhabited by living beings on its top and bottom and the four sides. Being round, it has no distinction between top and bottom. All is surrounded by the heavens. Where could there be a place on earth that does not have the sky above it? Within the six dimensions [of up and down, east and west, north and south], where the feet stand is down and where the head points to is up.

5 Until the rise of Newtonian physics, the earth was treated as a perfect sphere. For the post-Newtonian developments on the shape of the earth, see John L. Greenberg, *The Problem of the Earth's Shape from Newton to Clairaut: The Rise of Mathematical Science in Eighteenth Century Paris and the Fall of "Normal" Science* (Cambridge and New York: Cambridge University Press, 1995).

6 1 *zhang* 丈 = 3.333 meters.

It is a mistake to draw an [absolute] distinction between up and down based on where one stands. Besides, on my voyage from the Far West to China, I crossed the equator and saw that the North and South Poles were both down on the ground; there was no difference on either side. But when [we] went farther south and crossed the Cape of Good Hope,⁷ I saw that the South Pole appeared above the ground by 36°. That means the place is located at the direct opposite point on the globe from where China is. And yet I still saw the sky above my head and not down [below my feet]. Thus I was convinced of the truth that the earth is spherical and that all its surfaces are inhabited.⁸

Later Jesuits further expanded on Ricci's arguments for the sphericity of the earth. First, from an astronomical perspective, they elaborated two points that had been made by Ricci—namely, that changes in one's latitude result in changes in one's horizon, and that there is a time difference between two places that is proportionate to the difference in their longitudes; both points could be traced to classical sources.⁹ In addition, they cited as evidence the curved shadow of the earth on the moon observed during a lunar eclipse. Ricci and other early Jesuits could not readily use this as evidence; instead, they had to educate their Chinese audience that a lunar eclipse was caused by the imposition of the earth between the sun and the moon, and thus that it *was* the shadow of the earth cast on the moon.¹⁰ Ricci explained and illustrated the

7 Ricci's original term for the Cape of Good Hope is "Dalang Feng" 大浪峰 (Peak of Great Waves).

8 Ricci, *Qiankun tiyi*, 519.

9 See Aristotle, *On the Heavens*, with an English translation by W.K.C. Guthrie (Cambridge, Mass.: Harvard University Press, and London: William Heinemann Ltd, 1939), 253; and Claudius Ptolemy, *Ptolemy's Almagest*, translated and annotated by G.J. Toomer (New York: Springer-Verlag, 1984), 40–41, respectively.

10 The Yuan astronomer Zhao Youqin 趙友欽 took note of the round shadow he observed at lunar eclipse and concluded that, since it was round, it must not be the shadow of the earth but something else. See Chu Ping-yi, "Trust, Instruments, and Cross-Cultural Scientific Exchanges: Chinese Debate over the Shape of the Earth, 1600–1800," *Science in Context* 12, no. 3 (1999): 389. For Zhao's remarks on this, see Zhao Youqin, *Gexiang xinshu* (革象新書 A New Study in Astronomical Phenomena), reprinted in *SKQS, zi*, vol. 786: 249. Cordell Yee notes an illustration in the late Ming encyclopedia *Sancai tuhui* 三才圖會 (Assembled Illustrations of the Three Realms) compiled by Wang Qi 王圻 and Wang Siyi 王思義 and published in 1609, showing the earth between the sun and the moon as the cause for a lunar eclipse. But as Yee also points out, this illustration may have been late in origin and reflected the influences of the Jesuits. See Yee, "Taking the World's Measure," 119, n. 75, and fig. 5.21 on page 122.

causes of lunar eclipses in his “Complete Geographical Map of Ten Thousand Countries.” Other Jesuits also treated this subject extensively.¹¹ But it seems that Francisco Furtado (Fu Fanji 傅汎際, 1589–1653) was the first Jesuit to explicitly refer to the curved shadow on the moon during lunar eclipses as a proof that the earth is round. He was followed by Alfonso Vagnoni (known by two Chinese names—Wang Fengsu 王豐肅 before 1624, and Gao Yizhi 高一志 after; 1566–1640) and Francesco Sambiasi (Bi Fangji 畢方濟, 1582–1649).¹²

Second, they invoked common daily perceptions to demonstrate the existence of a curvature on the surface of the earth. Sabbathin (or Sabatino) de Ursis (Xiong Sanba 熊三拔, 1575–1620), for example, in his *Explanation of the Gnomon* (Biaodu shuo 表度說, preface 1612), points to the fact that we can only see things within the range of 300–400 *li*; if standing on top of a very tall mountain, we may see as far as 500 *li* but no farther. Similarly, oftentimes we hear the clapping of thunder but do not see any dark clouds in the sky. This is because, whereas sounds travel far, our sight is limited to the range of 300–400 *li*. De Ursis said that these phenomena are all caused by the curvature of the earth's surface, which obstructs our vision.¹³ Furtado, in his translation of the Latin commentaries on Aristotle's *De Caelo* (On the Heavens) produced by the Jesuit College of Coimbra, Portugal (known as *Conimbricensis*), entitled *On Heaven and Earth* (Huanyou quan 寰有詮, 1628), adapted the example given by Ptolemy that when a boat is approaching the shore from the sea, people on board first see the top of a mountain on land, and then, as they come closer to the shore, they see the foot of the mountain emerging as if out of the water. Furtado used this example to show that the sea is also spherical.¹⁴

Third, they continued Ricci's effort to establish a relativized sense of direction on earth. Giulio Aleni (Ai Rulue 艾儒略, 1582–1649) stated this point more

11 See Manuel Dias, Jr., *Tianwen lue* (天問略 Brief Answers on Questions about the Heavens, 1615), reprinted in *TXCH*, vol. 5: 2707–2718; and Giacomo Rho, *Chongzhen lishu lyin* (崇禎曆書曆引 Introduction to the Chongzhen Calendar, preface 1636), Japanese reprinted edition by Watanabe 渡辺 in 1855, copy held at Waseda University, *juan* 1, 30a.

12 Francisco Furtado, *Huanyou quan* (寰有詮 On Heaven and Earth, 1628), reprinted in *SKCM*, *zi*, vol. 94: 172; Alfonso Vagnoni, *Kongji gezhi*, reprinted in *TDWXS*, vol. 2: 878. Francesco Sambiasi presented this argument in the long introduction to his Chinese world map “Kunyu quantu” (坤輿全圖 Complete Geographical Map of the Earth, ca. 1648). The full text of that introduction is translated in Ann Heirman, “An Introduction to the World Map of Francesco Sambiasi (1582–1649),” *Annali dell'Istituto Universitario Orientale di Napoli* 60–61 (2000–2001): 372.

13 Sabbathin de Ursis, *Biaodu shuo* (Explanation of the Gnomon, preface 1612), reprinted in *TXCH*, vol. 5: 2550–2551.

14 Furtado, *Huanyou quan*, in *SKCM*, *zi*, vol. 94: 172.

bluntly than Ricci had done. At the beginning of his *Records of Regions beyond the Jurisdiction of the Imperial Geographer* (Zhifang waiji 職方外紀, 1623), Aleni observes: “Since the earth is spherical, nowhere on earth is not the center. The distinction of east, west, north, and south is only made in reference to the place at which one happens to be located. It is not absolutely fixed.”¹⁵ Other Jesuit authors elaborated on the relativity of spatial directions on earth by supplying it with a fuller cosmological and natural philosophical context within the Aristotelian framework. De Ursis, for example, devoted much space in his discussion on the sphericity of the earth to the question:

Some may ask: if the earth is really a sphere, then there would be living beings inhabiting it on its top, bottom, and the four sides. Where would the people residing at the bottom of the earth put their feet?¹⁶

To answer this question, De Ursis introduced the Aristotelian notions of natural places and natural movements to explain why the earth is of necessity round, immobile, and at the center of the cosmos, and why, despite the earth's circularity, human beings and animals can stand and move about on its surface at ease from any point on the globe. He observes that,

first of all, all things in the world have their natural places. The highest place is the top of the heavens, and the lowest is in the center of the earth. Second, [of all sublunar objects], some things are light and other things are heavy. The lightest and finest go up to the highest place. This is the case with fire. The heaviest goes down to the lowest place. This is the case with the earth. Third, heavy objects have a center of weight within their own bodies. ...Fourth, the center of the earth is the natural place of all heavy objects. The respective centers of weight of these objects are all inclined to move toward it, thereby causing these objects to fall vertically toward it. ...Therefore, while on the surface of the earth, they are stable and can stand on the ground. Thus we know that the distinction of up and down is just this: “down” means farther from the sky and closer to the

15 See Giulio Aleni and Xie Fang 謝方, *Zhifang waiji jiaoshi* (職方外紀校釋 Collated and Annotated Edition of *Records of Lands beyond the Jurisdiction of the Imperial Geographer*) (Beijing: Zhonghua shuju, 1996), 27. I refer later to several different editions of Aleni's *Zhifang waiji*; except for this edition, annotated by Xie Fang, all others give Aleni as the sole author.

16 De Ursis, *Biaodu shuo*, in *TXCH*, vol. 5: 2555–2556.

center of the earth, and “up” means closer to the sky and farther from the center of the earth.¹⁷

De Ursis goes on to argue that the same reason that makes all heavy objects at ease on the earth is also why the earth is round and why it is able to hang motionless in the middle of space without external support:

Since all earthy particles on the four sides wish to descend toward their natural places in the center of the earth, the ones falling from the east would be balanced by the ones falling from the west; the ones falling from the south would be balanced by the ones falling from the north. As they encounter those from the opposite sides, they collect and spread around the center of the earth [to form a sphere].¹⁸

This line of argument was extended to the seas on the earth by Ferdinand Verbiest (Nan Huai ren 南懷仁, 1623–1688) decades later, in the aftermath of what was known as “the Calendar Case.” This case refers to a series of charges against the Jesuit Adam Schall von Bell (Tang Ruowang 湯若望, 1592–1666) and his subordinates, including Verbiest himself, which were brought to the Manchu court by Yang Guangxian early in the reign of the Kangxi 康熙 Emperor (b. 1654, r. 1662–1722). Adam Schall von Bell had been serving as the head of the Imperial Astronomical Bureau (Qintian Jian 欽天監) at the Qing court under the Shunzhi 順治 Emperor (b. 1638, r. 1643–1661) since the Manchu conquest of China in 1644. During the reign of the Shunzhi Emperor, both Western learning and Catholic teachings gained momentum, due in part to the Qing court’s formal adoption of Western calendrical methods and Schall’s amicable personal relationship with the young Shunzhi Emperor.¹⁹ Yang perceived these developments as a dangerous threat to Chinese learning and the Chinese way of life. With a great sense of urgency, he wrote and circulated a series of essays at his own expense, vehemently denouncing Western calendrical methods and their astronomical basis as well as the Catholic doctrines propagated by Schall and his leading converts.

17 De Ursis, *Biaodu shuo*, in *TXCH*, vol. 5: 2556–2558.

18 De Ursis, *Biaodu shuo*, in *TXCH*, vol. 5: 2558. See also the similar argument presented in Furtado, *Huanyou quan*, in *SKCM*, *zi*, vol. 94: 172, and Vagnoni, *Kongji gezhi*, in *TDWXS*, vol. 2: 879. For the Aristotelian sources of this argument, see Aristotle, *On the Heavens*, 247–249.

19 Robert Entenmann observes that this was a period of continuous expansion for the Christian communities in China. See Entenmann, “3.1 The Creation of Christian Communities,” in Standaert, ed., *Handbook of Christianity in China, Volume 1*, 555.

In 1664, three years after the death of the Shunzhi Emperor, Yang Guangxian published his polemic essays in a two-volume collection entitled *I Cannot Do Otherwise* (Budeyi 不得已). One of these essays, “A Mirror Deployed by the King of Justice in Hell [to Expose Evil Souls]” (Nie jing 聶鏡, prefaced in 1662), offered the most elaborate arguments yet raised against the Jesuit notion of the globe. Targeting the image of the globe presented in a world map that Yang attributed to Schall,²⁰ Yang’s arguments closely paralleled those deployed by the “flat-earthers” in European late antiquity and the early Middle Ages: namely, that antipodes cannot exist and that the sea cannot adhere to the “sides” and the “bottom” of the globe.²¹ On the latter point, Yang stated that

the surface of a body of water is the most level of all surfaces. The nature of water is such that it flows on an inclined plane, stays still on a level one, and overflows when it fills [a lower space]. If the earth is indeed a globe, then wouldn’t the water in the pits on the sides and the bottom half of the globe pour down? Let me ask Ruowang [i.e., Schall]: of all the strange things taught in his doctrine, is there such a thing as spherical water, water that clings to the walls, and water floating on a higher plane that does not fall down? Let’s give Ruowang a jar filled with water. If he can tilt the jar and not spill any water from it, or, if he can turn the jar upside down and not cause its contents to pour out, then I will be convinced that there are indeed inhabited territories on the sloping sides and on the bottom half of the earth. If he cannot produce these effects, then that means the earth is flat just as the surface of water is, and cannot possibly be spherical. If indeed there are countries existing on the curving edges and the bottom of the globe, then these places are surely immersed in water.

20 Yang Guangxian referred to this map as “Yudi tu” (輿地圖 Geographical Map of the Earth) and described it as consisting of twelve sheets, each covering 30° of longitude on the globe and corresponding to one of the twelve celestial palaces (十二宮). Earlier scholars have expressed much confusion over the identity of this map. Based on Yang’s description, it should be the map in twelve sheets that is included in Schall’s “Huntian yi shuo” 渾天儀說 in the *Chongzhen lishu* 崇禎曆書, juan 5. See Xu Guangqi 徐光啓 et al., *Chongzhen lishu* (崇禎曆書 Books on Calendrical Astronomy of the Chongzhen Reign), compiled by Pan Nai 潘籟 (Shanghai: Shanghai guji chubanshe, 2009), 1879–1881. For a review of previous literature on the identity of this Schall map, see Eugenio Menegon, “Yang Guangxian’s Opposition to Johann Adam Schall: Christianity and Western Science in His Work *Budeyi*,” in Roman Malek, ed., *Western Learning and Christianity in China: The Contribution and Impact of Johann Adam Schall von Bell, S.J. (1592–1666)* (Sankt Augustin: China-Zentrum and the Monumenta Serica Institute, 2007), 328, nn. 76 and 77.

21 See my discussion of these arguments toward the beginning of Chapter 3 above.

Westerners [who are said to be living on the opposite side of the earth from the Chinese] then must belong to the likes of fish and turtles, and Ruowang cannot possibly be a human being.²²

Against what he regarded as a sure absurdity, Yang reiterated the Huntian cosmological model of the earth as a flat and square block resting on water and flanked by the Four Seas. He wrote:

[Schall] is ignorant of the fact that Heaven is derived from Qi and shaped like a sphere formed by two bowls inverted on top of each other. *Enclosed in the sphere is a vacuous space in the upper part and water in the lower part.* Floating on this water is the lump of earth. The surface of the earth has level grounds which become flat plains, tall places which become mountains, and indented areas which become rivers. *The water on which the earth rests makes up the Four Seas that lie to its East, West, North, and South, respectively.* ...Since the Earth resides on the water, it is evident that all ten thousand countries are located above the horizon, and the bottom of the Earth sustaining these countries all lies under the horizon, for the horizon is nothing but the level surface of the water of the Four Seas.²³ (emphasis added).

Besides such intellectual criticisms, Yang Guangxian charged Schall with having selected an inauspicious time for the burial of the late Shunzhi

- 22 Yang Guangxian 楊光先 (1597–1669), “Nie jing” (聶鏡 A Mirror Deployed by the King of Justice in Hell [to Expose Evil Souls], preface dated to 1662), in idem, *Budeyi fu er zhong* (不得已, 附二種 I Cannot Do Otherwise, with Two Appendices), collated and annotated by Chen Zhanshan 陳占山 (Huangshan: Huangshan chubanshe, 2000), 57. My translation of this passage is partially adapted from Menegon, “Yang Guangxian’s Opposition to Johann Adam Schall,” 329.
- 23 Yang Guangxian, *Budeyi*, 58. For further studies of Yang’s resistance to Western learning, see Chu Ping-yi 祝平一, “Kua wenhua zhishi chuanbo de ge'an yanjiu—mingmo qingchu guanyu diyuan shuo de zhengyi, 1600–1800” (跨文化知識傳播的個案研究—明末清初關於地圓說的爭議, 1600–1800 The Formation of Factual Knowledge in Trans-Cultural Scientific Transactions: The Debate over the Sphericity of the Earth in China, 1600–1800), *BIHP*, 69, no. 3 (1998): 589–670, and idem, “Trust, Instruments, and Cross-Cultural Scientific Exchanges”; Chen Meidong 陳美東 and Chen Hui 陳暉, “Mingmo qingchu xifang diyuanshuo zai zhongguo de chuanbo yu fanxiang” (明末清初西方地圓說在中國的傳播與反響 The Spread of the Western Theory of the Sphericity of the Earth in China during the Late Ming and Early Qing and Its Ramifications), *Zhongguo keji shiliao* (中國科技史料 The Chinese Journal for the History of Science and Technology) 21, no. 1 (2000): 6–12.

Emperor's infant son Prince Rong (Rong Qingwang 榮親王) in 1558, thus causing the untimely demise of the emperor himself from measles at the age of twenty-three. In 1665, the four regents of the young Kangxi Emperor—who wished to curb the political influence of Chinese court officials, which had grown during the reign of the Shunzhi Emperor, and to assert Manchu domination over the imperial bureaucracy—promptly ordered a trial of Schall and his subordinates by a supreme court. Schall and his party were found guilty of treason, and five of the Chinese astronomers under Schall were executed in 1665. Schall himself barely escaped the same fate; his death sentence was commuted to house arrest due to his old age, and also the timely intervention of a powerful earthquake at the capital. He died in disgrace a year later.²⁴

In the winter of 1668 and spring of 1669, the Kangxi Emperor, who had assumed personal rule only the year before, revisited the Calendar Case in an attempt to wrest control of the Qing state from the hands of his former regents, especially Oboi 鰲拜 (d. 1669). On his demand, Verbiest and the team of Muslim astronomers under Yang Guangxian, who had succeeded Schall as the new head of the Astronomical Bureau, conducted a series of astronomical contests to demonstrate which of the three available calendrical systems was superior—the Great Concordance (Datong 大統) system, the Muslim (Huihui 回回) system, or the Western system. At those contests, Verbiest is said to have defeated his opponents on every score. The Kangxi Emperor rehabilitated Schall posthumously and removed Yang from office. The victorious Verbiest was appointed the Administrator of the Calendar.²⁵ Remembering Yang's criticisms of Schall's notion of the globe, Verbiest addressed them in his *Illustrated*

24 For further studies on the charges of treason and the subsequent trials of Schall and his staff, see Huang Yilong 黃一農, "Zeri zhi zheng yu Kangxi liyu" (擇日之爭與康熙曆獄 Disputes over the Selection of Dates and the Calendar Case during the Reign of Kangxi), in *Qinghua xuebao* (清華學報 (新) Tsing Hua Journal of Chinese Studies, New Series) 21, no. 1 (1991): 247–280; and Shu-Jyuan Deiwiiks, "The Secret Manchu Documents on the Trial of Jesuit Missionary Johann Adam Schall (1592–1666) before the Supreme Court of Peking," *Monumenta Serica* 51 (2003): 641–648. For studies of Yang Guangxian and the Calendar Case as a part of the broader anti-Christian movements in the late Ming and early Qing, see Ad Dudink, "2.6.3 Opponents," in Standaert, ed., *Handbook of Christianity in China, Volume 1*, and the list of primary and secondary sources at the end of this section in Standaert's handbook.

25 The events described here are recorded in "Tang Ruowang, Yang Guangxian, Nan Huairan" (湯若望楊光先南懷仁 Biographies of Tang Ruowang, Yang Guangxian, and Nan Huairan), in *juan 272* of Zhao Erxun 趙爾巽, *Qingshi gao* (清史稿 Dynastic History of the Qing) (Beijing: Zhonghua shuju, 1977), vol. 33: 10019–10025. For further studies on this second phase of the Calendar Case, see Elman, *On Their Own Terms*, 136–144; Jami, *The Emperor's New Mathematics*, 57–65.

Account of the Geography of the World (Kunyu tushuo 坤輿圖說, 1674). He adapted de Ursis's argument quoted above and pointed out that water is like any other heavy object on earth—it is subject to the same centripetal force that propels it in a natural movement toward the center of the earth rather than away from it.²⁶

Finally, the Jesuits also supplied direct evidence from European maritime explorations to support their claim that the earth is round and inhabited on all sides. Aleni's *Records of Regions beyond the Jurisdiction of the Imperial Geographer* began with a map of the world and an accompanying text entitled "Explanation of the General Map of the Five Continents and Their Boundaries," in which he laid out the basic arguments on the sphericity of the earth. These were reinforced throughout the book with stories about European voyages to various parts of the world. In his coverage on Magellanica, Aleni told the dramatic tales of the voyages of circumnavigation made by Ferdinand Magellan's (Mowalan 墨瓦蘭) fleet in 1519–1522, and wrote that the surviving members of the crew eventually succeeded in "sailing around the entire globe, passing through the equator four times and crossing a distance of 300,000 *li*. This is the most remarkable feat that human maritime history had ever seen."

In his chapter on the seas and oceans, Aleni further described the two nautical routes by which the Jesuits and other Europeans had arrived in Guangzhou in south China: the eastern route, by rounding the African continent and crossing the Indian Ocean and South China Sea to arrive in Guangzhou from the west; and the western route, by crossing the Atlantic and then either changing to a land route westward across central America or sailing around the southern American continent through the Strait of Magellan, and finally crossing the Pacific to arrive in Guangzhou from the east. These narratives articulated the notion of the globe in concrete terms.²⁷ In his *Investigation into the Material*

26 Ferdinand Verbiest (Nan Huairan 南懷仁), *Kunyu tushuo* (坤輿圖說 Illustrated Account of the Geography of the World, 1674), in *SKQS, shi*, vol. 594: 734.

27 Aleni and Xie Fang, *Zhifang waiji jiaoshi*, 141–142 (Magellan's voyages, direct quotation from 142), and 157–158 (sea routes). Decades later, a scholar named Chen Houyao 陳厚耀 was summoned by the Kangxi Emperor to express his opinion on the shape of the earth. Chen cited exactly this as proof that the earth is round. See Han Qi 韓琦, "Chen Houyao zhaodui jiyuan shizheng" (陳厚耀召對紀言釋證 Explanation and Verification of [Accounts in] Chen Houyao's *Records of Meetings and Exchanges* [with the Kangxi Emperor]), in Tang Yijie 湯一介, ed., *Wenshi xinlan: Zhejiang guji chubanshe jianshe ershi zhounian jinian lunwenji* (文史新瀾: 浙江古籍出版社建社二十周年紀念論文集 New Waves in Literary and Historical Scholarship, in Commemoration of the Twentieth Anniversary of the Founding of Zhejiang Guji Press) (Hangzhou: Zhejiang guji chubanshe, 2003), 463.

Compositions of the Elemental Spheres (Kongji gezhi), Alfonso Vagnoni also wove some of these European maritime adventures into his account of the shapes of elemental earth and water. He stated that European navigators “sailed around the globe over a hundred years ago and saw that there were people living everywhere on it.” The firsthand information they collected about different parts of the world makes it “no longer necessary to doubt that all four sides of the earth are inhabitable.”²⁸

General Reception of the Notion of the Globe in Seventeenth-Century China

The Jesuits mobilized all the available intellectual resources they had to propagate the notion of the terraqueous globe. They tried to show not only that this idea stands to sound reason but that it is a truth validated by astronomical observations, our daily perceptions of the terrestrial landscape, and European maritime geographical discoveries. The striking novelty of this image of the world was registered in the responses of those Chinese who first witnessed it on the world maps of Matteo Ricci. Li Zhizao 李之藻, who sponsored the printing of the 1602 edition of Ricci’s “Complete Geographical Map of Ten Thousand Countries,” frankly acknowledged in his preface to the map that the idea “that the seas attach themselves to the earth, and together [with the earth] they make up a single globe and that there are living beings dwelling all over its surfaces is an altogether startling revelation.”²⁹ A copy of an earlier version of Ricci’s world map entitled “Complete Map of Mountains and Seas” (Shanghai yudi quantu 山海輿地全圖) came into the possession of the Viceroy of Guizhou Province Guo Zizhang 郭子章 (1542–1618). Guo was so impressed by it that he took the initiative to reprint it in a reduced, booklet form around 1604. In his preface to this booklet, he similarly observed that “this is something that has never been heard of before in the millennia of Chinese history.”³⁰

28 Vagnoni, *Kongji gezhi*, in *TDWXS*, vol. 2: 870 and 871.

29 Li Zhizao 李之藻, preface to Ricci’s “Complete Map of Ten Thousand Countries,” in Ricci, *Li Madou zhongwen zhuyi ji*, 179.

30 Guo Zizhang 郭子章, “Shanghai yudi quantu xu” (山海輿地全圖序 Preface to the “Complete Map of Mountains and Seas”), in idem, *Binyisheng qian cao* (蟬衣生黔草 Manuscripts from Guizhou Province [Written by] “The Scholar in a Cloak of Moss”), in *SKCM*, *zi*, vol. 155: 357. The date of Guo’s booklet version of Ricci’s “Complete Map of Mountains and Seas,” ca. 1604, is based on the fact that Guo sent a copy of it to Ricci in the northern capital that year. See D’Elia, “Recent Discoveries and New Studies (1938–1960) on the World Map in Chinese of Father Matteo Ricci, S.J.,” 96. D’Elia’s article contains

As previous scholars have observed, this new conception of the earth made great headway with the Chinese educated elite in the course of the seventeenth century, although the resistance to it remained considerable, as we have seen in the case of Yang Guangxian. Its spread benefited greatly from three interrelated developments during this period. The first was the rising tide toward practical learning among late Ming and early Qing Confucian literati, which came as a reaction to the excessive emphasis on introspection and tendency toward moral relativism among some lineages of the then-influential Neo-Confucian Yangming School of Heart-and-Mind.³¹ These scholars sought to revitalize Confucian learning as an investigation into the universal principles operating in nature and society, and to refocus attention on bringing practical benefit to the state and the people through such studies. Some of these scholars, such as Xu Guangqi 徐光啟 (1562–1633) and Li Zhizao 李之藻 (1565–1630; mentioned in Chapter 2), were drawn to the Jesuits on account of their moral character, the rigor of their creed, and the new knowledge they brought, and hence became their converts and advocates.

The second development was the calendrical reform of the late Ming, which generated public interest in and institutional support for Jesuit astronomy. The need for such a reform was exposed after the Board of Astronomy miscalculated by half an hour the time of the solar eclipse that occurred on December 15, 1610. The fact that the prediction of that same eclipse made by the amateur Jesuit astronomer Diego de Pantoja (Pang Diwo 龐迪我, 1571–1618) proved accurate gave Xu Guangqi and Li Zhizao the ideal occasion to push for a thorough calendrical reform by borrowing Western methods.³² Their proposals would not materialize until 1629, during the reign of the last Ming Emperor, Chongzhen 崇禎 (r. 1628–1644), after a similar failure at predicting the solar eclipse, when a “Calendrical Bureau” was established under Xu’s direction as the institutional basis for the reform. The Jesuits Niccolò Longobardo

translations of the full texts of many Chinese prefaces to Ricci’s world maps, including Guo’s.

- 31 See the full discussion of this development in Ge Rongjin 葛榮晉, *Zhongguo shixue sixiang shi* (中國實學思想史 A History of Chinese Thought in Practical Learning) (Beijing: Shoudu shifan daxue chubanshe, 1994), vol. 2.
- 32 See Xu Guangqi, “Xiuli shishi shu” (修曆十事疏 Memorial about Ten Tasks of the Calendrical Reform), and Li Zhizao, “Qing yi xiyang lifa shu shu” (請譯西洋曆法書疏 Memorial Requesting the Translation of Western Books on Calendrical Methods), both found in Sun Chengze 孫承澤 (1592–1676), *Chunming mengyu lu* (春明夢餘錄 Record of Dreams of the Capital) (Beijing: Guji chubanshe, 1992), vol. 2: 1196–1197, and 1197–1198, respectively. Li Zhizao lists 14 superior features of Western astronomy, the first of which is the idea that both Heaven and Earth are spherical. See Sun Chengze, *Chunming mengyu lu*, vol. 2: 1197.

(Long Huamin 龍華民, 1557–1654), Adam Schall von Bell, Giacomo Rho (Luo Yagu 羅雅穀, 1592–1638), and Johannes Schreck (also known as Terrenz, and as Deng Yuhuan 鄧玉函, 1576–1630) were officially invited to participate in the project. Together with a team of more than fifty Chinese astronomers, they translated or compiled some 46 titles in a total of 137 volumes, producing a massive compendium entitled *Books on Calendrical Astronomy of the Chongzhen Reign* (Chongzhen lishu 崇禎曆書, completed between 1631 and 1635). These works introduced the theoretical and mathematical rubrics of Western astronomy centering on the system of Tycho Brahe.³³ A new calendar was established in 1643 and was planned to be adopted in the following year, but the Ming ended before this was realized. The Manchu rulers became the beneficiaries of the Ming calendrical reform. The new calendar, known as “Shixian li” 時憲曆, was officially adopted on October 19, 1644, thereby paving the way for the official appointments and splendid careers of Schall and Verbiest in the Manchu court during the reigns of the Shunzhi Emperor and Kangxi Emperor, respectively.

The third important development that facilitated the positive interest in the notion of the globe was the Kangxi Emperor's personal interest in and active promotion of this notion in particular, and of Western learning in general. A talented mathematician and astute politician, Kangxi recognized not only the practical aspect of Western learning but its potential for manufacturing an image for himself as the sage ruler of a new era. Thus he carefully controlled the access to this new knowledge by his Han subjects, diligently acquired skill in mathematics and astronomy from his Jesuit tutors, and then found ways to stage demonstrations in front of his awestruck (and often bewildered) ministers and other scholars.³⁴ He also challenged his Han

33 For the history and various versions of this compilation, see Zhu Jiajin 朱家潛, “Chongzhen lishu yu Xinfu lishu” (《崇禎曆書》與《新法曆書》 *Calendrical Compendium of the Chongzhen Reign and Calendrical Compendium of the New Method*), in *Gugong bowu yuan yuankan* (故宮博物院院刊 *Palace Museum Journal*), no. 4 (1980): 39–41; and Chu Ping-yi 祝平一, “Shouer daxue kuizhangge cang chongzhen lishu jiqi xiangguan shiliao yanjiu” (首爾大學奎章閣藏崇禎曆書及其相關史料研究 *A Study of the Calendrical Compendium of the Chongzhen Reign and Other Related Materials Housed in Kyujanggak*), *Kyujanggak* 34 (2009): 250–262. Events related to the Ming calendrical reform are recorded in the “Records on Calendrical Matters,” in Zhang Tingyu 張廷玉 et al., eds., *Mingshi* (明史 *History of the Ming*), *juan* 31 (Beijing: Zhonghua shuju, 1974), 3: 515–545, especially 527–545. For further discussions on the reform, see Keizō Hashimoto, *Hsü Kuang-Ch'i and Astronomical Reform: The Process of the Chinese Acceptance of Western Astronomy, 1629–1635* (Osaka: Kansai University Press, 1988).

34 See Catherine Jami, “Imperial Control and Western Learning: The Kangxi Emperor's Performance,” *Late Imperial China* 23, no. 1 (June 2002): 28–49, and her 2012 book *The Emperor's New Mathematics*.

subjects with scientific questions such as “Is the earth round or square?” and urged them to research the available literature and present their opinions.³⁵ He also actively sought the company of scholars in the country who were known for mastering Western learning and engaged them in learned exchanges.³⁶ Due to his patronage, the study of Western learning, especially mathematics and astronomy, became a fashionable pursuit among a significant number of scholars of the early Qing, including those who identified themselves as “survivors of the Ming” and were ideologically opposed to the Manchu court. With the official adoption of Tycho Brahe’s astronomical system in the Qing and the Kangxi Emperor’s personal conviction as to the sphericity of the earth, the new celestial globe installed for the imperial observatory under the direction of Verbiest no longer carried the square box in the lower part of the instrument representing the earth, which had been a regular fixture in the previous designs of the armillary sphere (*hunxiang* 渾象) in China.³⁷

Patterns of Chinese Appropriation of the Terraqueous Globe: Examples from the Fang School

The favorable circumstances discussed above facilitated the circulation of Jesuit scientific writings among Chinese scholars and stimulated the formation of new scholarly communities where Jesuit ideas were discussed, interpreted,

35 See Chen Houyao’s personal memories of one of such occasions, as presented in Han Qi, “Chen Houyao zhaodui jiyuan shizheng,” 463.

36 This is the subject of some of the highly interesting studies by Han Qi 韓琦 and Catherine Jami. See, especially, Han Qi, “Junzhu he buyi zhijian: Li Guangdi zai Kangxi shidai de huodong jiqi dui kexue de yingxiang” (君主和布衣之間: 李光地在康熙時代的活動及其對科學的影響 Between the Emperor and the Mathematician: Li Guangdi’s Activity during the Kangxi Reign and Its Influence on Science), *Qinghua xuebao* (清華學報 (新) Tsing Hua Journal of Chinese Studies, New Series) 26, no. 4 (1996): 421–445, and idem, “Chen Houyao zhaodui jiyuan shizheng”; and Jami, *The Emperor’s New Mathematics*, especially the chapters on Mei Wending.

37 The Kangxi Emperor’s personal belief in the notion of the globe can be seen in his writings in natural studies. See, for example, Kangxi (Aixinjueluo Xuanye 愛新覺羅. 玄燁), *Kangxi jixia gewu bianyizhu* (康熙幾暇格物編譯注 The Kangxi Emperor’s Investigations into Natural Phenomena Conducted during Occasional Leisure), edition with modern Chinese translation and notes by Li Di 李迪 (Shanghai: Shanghai guji chubanshe, 1993), 21 and 38. For the new design of the armillary sphere of the Kangxi era, see Yi Shitong 伊世同, “The Kangxi Celestial Globe: A Milestone in the History of Sino-Western Cultural Exchange,” in John W. Witek, S.J., ed., *Ferdinand Verbiest (1623–1688): Missionary, Scientist, Engineer and Diplomat* (Sankt Augustin: Steyler Verlag, 1994), 167.

tested, and transformed. An extraordinary testimony to such desire for association among scholars interested in Western learning is provided by Zhang Yongjing 張雍敬 (seventeenth century). A native of Xiushui 秀水 in Zhejiang Province, Zhang studied many Jesuit works in astronomy and other subjects and was the author of a book of 18 chapters entitled *Dingli yuheng* (定曆玉衡 Guidelines for Producing Calendars), in which he expounded and critiqued the Jesuit ideas he learned. During his studies of these subjects, Zhang found many points in Jesuit works difficult to understand or accept, including the notion of the globe. Around 1686, he walked for over 1,000 *li* to Xuancheng 宣城, Anhui Province, to meet Mei Wending, who was well known for his expertise in Western mathematics and calendrical science. He brought much foodstuff with him on the trip, settled into a hostel near Mei's home, and carried on discussions with Mei for a period of more than a year. He kept notes of where they agreed and where they did not, and wrote a book about his stay there entitled *Records of a Study Tour in Xuancheng* (Xuancheng youxue ji 宣城遊學記). Unfortunately this document, which could have provided us with an intimate look into the dynamic exchanges among such scholarly communities, was not published, and the only surviving manuscript copy of it was destroyed by the Red Guards during the Cultural Revolution.³⁸

Zhang Yongjing was one of the few scholars who remained unconvinced of the sphericity of the earth after making vigorous efforts to understand and test the Jesuit notion.³⁹ However, many other scholars of his time did constructively and creatively engage this notion and derived new insights from it for

38 See Bai Shangshu 白尚恕, "Xuancheng youxue ji zhuizong ji" (《宣城遊學記》追蹤記 Tracing the Tracks of *Xuancheng youxue ji*), in Wu Wenjun 吳文俊, ed., *Zhongguo shuxue shi lunwenji* (中國數學史論文集 Collected Essays in the History of Chinese Mathematics) (Jinan: Shandong jiaoyu chubanshe, 1996), vol. 4: 142–145.

39 Zhang Yongjing set out his arguments against the notion of the globe in *Dingli yuheng* (Guidelines for Producing Calendars), *juan* 5, reprinted in *XXSK, zi*, vol. 1040: 488–494. On his criticisms of Western calendrical methods and astronomical theories, see Chu Ping-yi, "Fan xifa: Dingli yuheng chutan" (反西法: 《定曆玉衡》初探 Against Western Methods: A Preliminary Investigation into *Dingli yuheng*), in Zhuo Xinping 卓新平, ed., *Xiangyu yu duihua: Mingmo qingchu zhongxi wenhua jiaoliu guoji xueshu yantao-hui lunwen ji* (相遇與對話: 明末清初中西文化交流國際學術研討會文集 Encounters and Dialogues: Papers Presented at the International Conference on Sino-European Cultural Exchange in the Late Ming and Early Qing) (Beijing: Zongjiao wenhua chubanshe, 2003), 348–365; and idem, "Adoption and Resistance: Zhang Yongjing and Ancient Chinese Calendrical Methods," in Feza Günergun and Dhruv Raina, eds., *Science between Europe and Asia: Historical Studies on the Transmission, Adoption and Adaptation of Knowledge*, Boston Studies in the Philosophy of Science, vol. 275: 151–161 (Dordrecht, Heidelberg, London, New York: Springer, 2011).

resolving some of the long-standing concerns in Chinese cosmological discourses. In this section, we examine one such scholarly community, referred to by some modern historians as the Fang School (Fangshi xuepai 方氏學派).⁴⁰ Members of this group shared a strong interest in cosmological issues and produced a substantial corpus on this subject. Their works collectively offer us an ideal showcase of how the Jesuit discourses on the terraqueous globe served to stimulate the formation of new cosmological discourses on the earth and the Four Seas in the late Ming and early Qing—discourses that derived resources from both Jesuit and preexisting Chinese sources and in which the mutual isolation between the previous Chinese cosmological and empirical maritime traditions we observed in Chapter 3 was markedly broken.

This community was formed around Xiong Mingyu 熊明遇 (1579–1649) and Fang Yizhi 方以智 (1611–1671) and their respective children and disciples, including, among others, Jie Xuan 揭暄 (1613–1695), a pupil of Fang's; You Yi 游藝 (ca. 1614–1684), who studied under both Xiong and Fang; Xiong's son Xiong Renlin 熊人霖 (1604–1666); and Fang's three sons, especially his second son, Fang Zhongtong 方中通 (1634–1698). The group was typical of those late Ming and early Qing scholars who were drawn to Jesuit science because of their broader pursuit of practical learning.

Xiong Mingyu was the senior member in this group and had the most extensive contact with the Jesuits and their inner circle of friends, such as Xu Guangqi and Li Zhizao. A native of Jiangxi Province, Xiong received the *jinshi* degree in 1601. In 1613–1615, when he was in the northern capital awaiting court confirmation of his promotion to Supervising Secretary in the Ministry of War, he developed friendships with Diego de Pantoja, Manuel Dias, Jr., Francesco Sambiasi, and possibly Sabbathin de Ursis.⁴¹ He studied their works, wrote prefaces to Pantoja's moral treatise *Seven Conquests* (Qike 七克, 1614) and de Ursis's *Explanation of the Gnomon* (Biaodu shuo), and was involved in the correction and proofreading of Dias's *Brief Answers to Questions on the Heavens* (Tianwen lue), which was the first Jesuit text devoted exclusively to the exposition of European astronomical theories and the latest discoveries, including

40 One of the first to use the term "Fangshi xuepai" 方氏學派 (The Fang School) to label this circle of scholars is Zhang Yongtang 張永堂, in his *Mingmo fangshi xuepai yanjiu chubian: Mingmo lixue yu kexue guanxi shilun* (明末方氏學派研究初編: 明末理學與科學關係試論 First Collection on the Fang School of the Late Ming: An Initial Study on the Relationship between Neo-Confucianism and Science in the Late Ming) (Taipei: Wenjing wenhua shiye youxian gongsi, 1987).

41 See Xu Guangtai 徐光台, "Xiong Mingyu yu younian Fang Yizhi" (熊明遇與幼年方以智 Xiong Mingyu and Little Fang Yizhi), *Hanxue yanjiu* (漢學研究 Chinese Studies) 28, no. 3 (2000): 267.

the telescopic discoveries made by Galileo.⁴² Xiong approached these materials with a strong interest in traditional Chinese cosmology and astrology. He wrote two books in these areas, *Manuscript on Principles* (Zecao 則草, 1620) and *Manuscript on the Investigation [of the Principle of Things] to Attain [Knowledge]* (Gezhi cao 格致草, 1648), the latter being an expansion of the former. In these books he presented the ideas learned from the Jesuit writings and applied them to reexamining what had been said on these subjects in previous Chinese literature. These texts, especially the second, more mature work, profoundly influenced the interests in and general attitude toward Western science taken by the younger members of this group.⁴³

Fang Yizhi, the other leader of the group, came from a prominent scholar-gentry family in Tongcheng 桐城, Anhui Province, which descended from the famous scholar Fang Xuejian 方學漸 (1540–1615), an early figure in what came to be referred to as “the Tongcheng School” in studies of the *Book of Changes* (Yijing 易經). Fang Yizhi met Xiong Mingyu for the first time in 1619, when he followed his father Fang Kongzhao 方孔炤 (1591–1655) to Changxi 長溪 in Fujian Province, where the senior Fang served as the prefect of Funing Circuit 福寧道 and Xiong was the superintendent of the Circuit’s military affairs. Xiong presented a copy of his soon-to-be published *Manuscript on Principles* to the senior Fang. It was this text which gave the eight-year-old Fang Yizhi his first exposure to Western learning.⁴⁴

Fang Yizhi became a brilliant scholar with many talents and broad interests. During his twenties and thirties, he collected and studied Jesuit writings on a wide variety of topics, from astronomy, cosmology, world geography, and human physiology to logic and linguistics. He also maintained close friendships with Francesco Sambiasi, Adam Schall von Bell, and possibly the Polish

42 Rui Magone, “The Textual Tradition of Manuel Dias’s *Tianwenlue*,” in Luis Saraiva and Catharine Jami, eds., *The Jesuits, the Padroado and East Asian Science (1552–1773)* (Singapore: World Scientific, 2008), 123–138, at 134. For further studies of this text, see also Henrique Leitão, “The Contents and Context of Manuel Dias’s *Tianwenlue*,” included in the same collection, 99–121.

43 For studies of Xiong’s *Gezhi cao* and its influences on members of this group, see Zhang Yongtang 張永堂, *Mingmo qingchu lixue yu kexue guanxi zailun* (明末清初理學與科學關係再論 The Second Collection on the Relationship between Neo-Confucianism and Science in the Late Ming and Early Qing) (Taipei: Taiwan xuesheng shuju, 1994), 36–39; and Feng Jinrong 馮錦榮, “Mingmo Xiong Mingyu *Gezhi cao*” (明末熊明遇《格致草》 The *Gezhi cao* by the late Ming [Author] Xiong Mingyu,” *Ziran kexue shi yanjiu* (自然科學史研究 Studies in the History of Natural Sciences) 16, no. 4 (1997): 304–328.

44 The *Zecao*’s influence on Fang Yizhi’s intellectual development is established by Xu Guangtai’s reinterpretation of a critical passage in Fang’s memories of his childhood encounter with Xiong Mingyu. See Xu Guangtai, “Xiong Mingyu yu younian Fang Yizhi.”

Jesuit Jan Mikołaj Smogulecki (Mu Nige 穆尼閣, 1610–1656).⁴⁵ His best-known works, *Comprehensive Explanation of Names and Terms* (Tongya 通雅, prefaces dated to 1641 and 1642) and *Preliminary Records of the Principles of Things* (Wuli xiaozhi 物理小識, completed in 1643), reflect his encyclopedic knowledge and his overall positive reception of Jesuit science. These works have been regarded as major monuments in late Ming evidential scholarship and natural studies, respectively.

Fang Yizhi received his *jinshi* degree in 1640, at age 29, but his official career as Examining Editor of the Hanlin Academy (*Hanlinyuan jiantao* 翰林院檢討) was cut short when the Ming dynasty ended. He later served briefly at the court of the Southern Ming, but court intrigue and circumstances of Manchu conquest in southern China made him decide, in 1651, to give up his official career and devote his life to scholarship and spiritual quest as a Zen monk. He continued to direct the studies of his sons and pupils and maintained exchanges with them mostly through writing.⁴⁶ Jie Xuan, You Yi, and the three junior Fangs formed a close intellectual companionship among themselves as well. Fang Yizhi and these junior members of the group commented on and responded to each other's works. Fortunately for us, their published works bear the paper trails of some of these lively exchanges, for their original texts are typically interlaced with numerous comments made by other members of the group, printed in smaller characters. The following discussion focuses on Xiong Mingyu, Fang Yizhi, and Jie Xuan.

Xiong Mingyu (1579–1649)

Xiong Mingyu, the most senior member of the Fang School, was one of the first late Ming scholars to both accept the Jesuits' notion of the globe and internalize their rhetoric that this concept was fundamentally consistent with ancient Chinese teachings. In his preface to de Ursis's *Explanation of the Gnomon* (Biaodu shuo), Xiong quoted the statement attributed to Qibo 歧伯, the legendary minister of the Yellow Emperor, recorded in the *Yellow Emperor's Inner Canon of Medicine* (Huangdi neijing), that "the earth is in the center of the

45 For a reconstruction of Fang Yizhi's (and his sons') interactions with the Jesuits and the list of Jesuit works Fang read, see Zhang Yongtang, *Mingmo fangshi xuepai yanjiu chubian*, 110–121.

46 For further biographical accounts of Fang Yizhi, see Willard J. Peterson, *Bitter Gourd: Fang I-Chih and the Impetus for Intellectual Change* (New Haven and London: Yale University Press, 1979), Zhang Yongtang, *Mingmo fangshi xuepai yanjiu chubian*, 142–147, and Shen Xinpu 沈信甫, *Fang Yizhi yixue xingshang sixiang yanjiu* (方以智易學形上思想研究 A Study of Fang Yizhi's Thoughts on the *Book of Changes* and Metaphysical Issues) (Xinbei: Huamulan wenhua chubanshe, 2011), 17–33.

celestial sphere and held in place by nothing but Qi.” He used this to show that the concept of the globe was already present at the time of the Yellow Emperor.

In his preface Xiong asserted, as a matter of fact, that the Chinese had then had excellent calendrical methods, thanks to the wise counsel of Qibo and the assistance of court astronomers Xi 羲 and He 和 and five other government functionaries. This knowledge had been transmitted from generation to generation among the descendants of these astronomers who continued to serve the courts of subsequent rulers—a transmission interrupted only by the widespread social disturbance occurring toward the end of Western Zhou, when the astronomers were dislocated. A further blow came with the massive book-burning campaign of the Qin dynasty in 213 BCE, which left few textual clues from which later Chinese astronomers might recover the full extent of the knowledge their ancestors had once possessed.⁴⁷ Xiong thus saw the arrival of Jesuit science as a most welcome intervention:

It is said that hearing of something one hundred times is not as credible as seeing it once. The countrymen of Europe in the Western Region sailed everywhere on the seas, circled the entire earth, observed the positions of the stars above and recorded the customs of the people below. They collected all the knowledge thus acquired into their books, which speak with great certainty and sound reason.⁴⁸

Like many of his contemporaries who commended the works of the Jesuits, Xiong urged his readers to learn from the example of Confucius. He recalled that Confucius once went to consult with the Prince of Tan, a minor state in present eastern Shandong Province, upon hearing that the prince was in fact a direct descendant of the ancient ruler Shaohao 少昊, and thus privy to the historical knowledge of why Shaohao had entitled all his functionaries after the names of birds. It is said that after this consultation, Confucius quoted the ancient saying “When the Son of Heaven loses his functionaries, expert knowledge scatters among the Four Barbarians,” and commented that “Now I really

47 Xiong Mingyu, preface to *Biaodu shuo*, in de Ursis, *Biaodu shuo*, in *TXCH*, vol. 5: 2528–2529. This account of the decline of Chinese astronomy is based on, but not entirely identical to, the stories told in Sima Qian, *Shiji* (史記 Historical Records), *juan* 26, “Lishu” (曆書 Calendars), digital reprinted edition in the *Zhonghua lishi wenku* (中華歷史文庫 Library of Chinese History) (Beijing: Beijing zhaoqun shuma keji youxian gongsi, 2001), 539–557, and in Ban Gu 班固, *Hanshu* (漢書 History of the Former Han), *juan* 21, “Lili zhi” (律曆志 On Music and Calendars), reprinted with commentaries in Si Ding and Ban Gu, *Hanshu xinzhu*, 649–724.

48 Xiong Mingyu, preface to *Biaodu shuo*, in de Ursis, *Biaodu shuo*, in *TXCH*, vol. 5: 2529.

do believe that this is so.” The point of Xiong’s story is clear: the Jesuits *were* the modern princes of Tan whose lessons the Chinese must heed.⁴⁹

Xiong’s *Manuscript on the Investigation [of the Principle of Things] to Attain [Knowledge]* (*Gezhi cao*) is a systematic effort to fit the notion of the globe and other aspects of Jesuit science, such as astronomy, cosmology, and the theory of four elements, into the Confucian *gezhi* 格致 framework, that is, within a system of inquiries concerning the principles of things for the ultimate enrichment of moral knowledge. The “things” Xiong discusses in the book range from large objects, such as the earth and celestial bodies, to atmospheric phenomena, such as rain, hail, and thunder, to animals and insects. He devotes four sections to explicating the notion of the terraqueous globe and other related ideas. The first of these, entitled “General Discussion on Great Cosmic Bodies” (*Daxiang henglun* 大象恒論), establishes the notion of the globe as a basic element of Confucian cosmology. Xiong asserts that “the saying ‘Heaven is round and Earth is square’ (*tianyuan difang*) is a characterization of the respective virtues of Heaven and Earth. In reality, both Heaven and Earth are round objects. Earth is only a dot residing in the middle of Heaven like a round pellet.” To help his readers make the mental switch to embrace the globe, he invites them to imagine themselves beholding the earth as a whole from afar:

On the four sides of the earth, the dented spaces are occupied by seawaters, the protruding places are mountains, and the level lands are arable fields. People standing on this globe all take the heavens as above. Even though we cannot see it with our own eyes, [we can imagine that] people on the opposite side of the globe whose feet are pressing against the earth opposite to us still take the heavens as above and are not walking around parallel to the ground. People simply need to open their [mind’s eye] widely and take the mountains, rivers, and seas, foreigners and Chinese altogether as forming one single round pellet. Then they will get the idea.⁵⁰

49 Xiong Mingyu, preface to *Biaodu shuo*, in de Ursis, *Biaodu shuo*, in *TXCH*, vol. 5: 2529–2530. The story of Confucius’s consultation with the Prince of Tan is recorded in the *Zuo zhuan* (左傳 Zuo’s Commentary [on the *Spring and Autumn Annals*], 525 BCE): see *SSJZS*, vol. 7, *Chunqiu zuozhuan zhengyi* 春秋左傳正義 (Elucidating the True Meaning of Zuo’s Commentaries on the *Spring and Autumn Annals*), 1360–1366. Key elements of this story, such as the term “Prince of Tan” and the saying quoted by Confucius that “when the Son of Heaven loses his functionaries, expert knowledge scatters among the Four Yi,” appear frequently in the writings of those who took a positive approach to Western learning introduced by the Jesuits. See, for example, Guo Zizhang’s preface to Ricci’s world map, “Shanghai yudi quantu” (mentioned in note 30 above).

50 Xiong Mingyu, *Gezhi cao* (Manuscript on the Investigation [of the Principle of Things] to Attain [Knowledge], 1648), in Xiong Zhixue 熊志學, ed., *Hanyu tong* (函字通 Penetrating

In light of this new—or rediscovered—vision of the earth, Xiong Mingyu created two subheadings in this first section, under which he reexamined earlier literature on the shape of the earth and its relationship to the seas. The first subheading, “Sages’ Words Reinvestigated and Validated” (Ge yan kaoxin 格言考信), contains things said by sages and worthies that, according to Xiong, have been able to withstand the test of reason. In this subsection he placed the above-mentioned quote from Qibo in the *Yellow Emperor’s Inner Canon of Medicine*, among other items.⁵¹ The second subheading, “Unfounded Ideas to Be Set Aside” (Miaolun cun yi 渺論存疑), contains remarks that had been in wide circulation but were now found to have no basis in fact or reason. In this section Xiong listed the remark made in the Huntian cosmological text attributed to Zhang Heng, *Commentary on the Armillary Sphere* (Huntianyi zhu), that “there is water on the outside as well as the inside of the heavens. Both Heaven and Earth are supported by Qi but float on water.” He then notes that “to say that there is water inside and outside of Heaven is pathetic indeed. If there is water there, then Heaven would not be able to rotate (*hun*) through it!”⁵²

Xiong also caught Zhu Xi’s 朱熹 (1130–1200) self-contradiction about the existence of a cosmic sea that lay below and around the earth. As mentioned in Chapter 3, Zhu sometimes spoke of the earth as being surrounded by Qi but at other times reverted to the old Huntian belief that the earth is supported and surrounded by the Four Seas. Xiong included quotes from Zhu’s works under both subheadings. Under the “Unfounded Ideas” subheading, we find the following from Zhu’s *Zhuzi yulei* (Assorted Sayings of Master Zhu):

The other side of the sea is contiguous with Heaven. Some have been puzzled as to why the sea never fills up despite the rivers flowing continuously into it. This is probably because the sea itself empties this water [into some cosmic sea below]. Some people have seen whirlpools by the sea that were sucking the water down.⁵³

After this quote, Xiong comments that “the *Assorted Sayings* [of Master Zhu] contain falsehoods [like these] as well as truths. They reflect his pupils’ diverse opinions [rather than Master Zhu’s own].” Thus Xiong voices his judgment

[the Secrets of] the Universe), copy held at the United States Library of Congress, 8b–9a.

51 Xiong Mingyu, *Gezhi cao*, 9b.

52 Xiong Mingyu, *Gezhi cao*, 10b.

53 Xiong Mingyu, *Gezhi cao*, 11a. These remarks are quoted from Zhu Xi, *Zhuzi yulei*, 1: 28.

without directly criticizing Zhu Xi. It is evident that, for Xiong, the notion of the Four Seas, or of a cosmic sea that presumably supports the earth from below and fills the spaces between the earth and the heavens, no longer made sense.

As he had already indicated in his 1614 preface to de Ursis's *Explanation of the Gnomon* (Biaodu shuo), Xiong was convinced of the sphericity of the earth primarily because he believed that the Europeans had proven it by circumnavigating the earth and seeing all parts of the globe. Here, in his *Manuscript on the Investigation [of the Principle of Things]*, Xiong demonstrates considerable interest in the facts conveyed by the Jesuits about the maritime space on the earth and its circumnavigability. In another section of this work, entitled "There Are No Vacuums or Obstacles on the Round Earth" (Yuandi zongwu xia ai 圓地總無罅礙), where he introduces the Aristotelian idea that the elemental spheres of earth, water, air, and fire are contiguous to each other, leaving no room for a vacuum, Xiong notes that this does not impede movement on the earth. "In fact," he writes, "navigators can sail around the earth as if making a circle." He also observes that there is more water than dry land on the earth, yet sailors can still find their way around on the vast sea by "using longitudes running north to south and latitudes [such as the] equator. They measure the position of the sun during the day and of the stars at night and are able to determine the high or low [of their location] and the distance they have traveled. Thus the earth can be navigated."⁵⁴ Xiong was quick to appreciate the theoretical utility of the notion of the globe for navigation, for, without this notion, Chinese navigators had only been trying to measure their latitude on the sea and not longitude. However, Xiong seems to have been overly optimistic about the Europeans' capacity for astronomical observations at that time. In fact the technology for determining longitude at sea remained unavailable in Europe for another one and a half centuries.

Xiong returns to the subject of the oceans in his third section, entitled "There Are No Fixed Directions or Sides on the Spherical Earth" (Yuandi zongwu fangyu 圓地總無方隅). Here he invokes maritime navigation in a mental experiment designed to test his point that all spatial differentiations on earth are relative. He writes:

The earth is in the center of the heavens, round like a pellet. Seawaters attach themselves to the earth, and both are enwrapped by Qi. They are both spherical. Being spherical, it lacks inherent spatial differentiation in terms of sides or directions. [If you keep going] east, then you arrive at

54 Xiong Mingyu, *Gezhi cao*, 151b–152a.

the west, and [if you keep] looking south, then the south becomes north. Take the sailors as an example. Two ships embarking from the same place on a big ocean, one heading east, the other heading west, may both arrive in China. The ship sailing east would arrive from the west [of China], the one sailing west would arrive from the east of China. This accords with reason and cannot be otherwise.⁵⁵

Xiong even adapted a drawing from de Ursis's *Explanation of the Gnomon* to illustrate this point. De Ursis had used the image in a different context, to illustrate the contemporary equivalent of today's International Date Line.⁵⁶ De Ursis's image (Figure 4.1) shows two boats taking opposite routes from Da Xiyang 大西洋 (the Great Western Ocean, i.e., Atlantic Ocean) to Xiao Xiyang 小西洋 (the Small Western Ocean, i.e., Indian Ocean), with the endpoint of their journeys shown at the bottom of the earth.⁵⁷ Xiong's image (Figure 4.2) shows two ships sailing away from the Atlantic—represented by European-style castles—toward China, represented by a tower. Xiong also reoriented de Ursis's image so that China is on top of the drawing, in the time zone marked 午 (*wu*, noon), and Europe is at the bottom of the drawing, in the time zone marked 子 (*zi*, midnight).

The prominence of maritime themes in Xiong's enunciations of the notion of the globe raises an interesting wrinkle: because maritime traffic off the eastern and southern coast of the Ming empire remained heavily regulated even after the 1567 lifting of the "Sea Ban" (*haijin*) due to frequent pirate attacks, most Chinese in the late Ming had little direct experience at sea with which to gauge the truth of the stories of European maritime explorations told by the Jesuits. It would have been altogether legitimate for them to wonder whether

55 Xiong Mingyu, *Gezhi cao*, 153a–b.

56 De Ursis used two identical images (see Figure 4.1) to illustrate a "thought experiment" that he designed to show the sphericity of the earth. The experiment supposes that two ships start from the same place in the Atlantic Ocean but sail in opposite directions, one to the east and the other to the west. They move at the same speed and arrive at the same point in the Indian Ocean, exactly 180° longitude away from where they started. De Ursis calculated the time differences between them as their journeys progressed and concluded that in the end the ship heading west would arrive in five days and the one heading east would arrive in six days, and that this is so because the earth is round. See de Ursis, *Biaodu shuo*, in *TXCH*, vol. 5: 2552–2555 (the identical images appear on 2553 and 2554).

57 Although this is the direction of the voyages according to de Ursis's text, the image (see Figure 4.1) seems to suggest that the boats are starting from Xiao Xiyang at the bottom of the earth and arriving at Da Xiyang at the top, for the prows of both boats are pointing toward the castle representing Da Xiyang on the top.

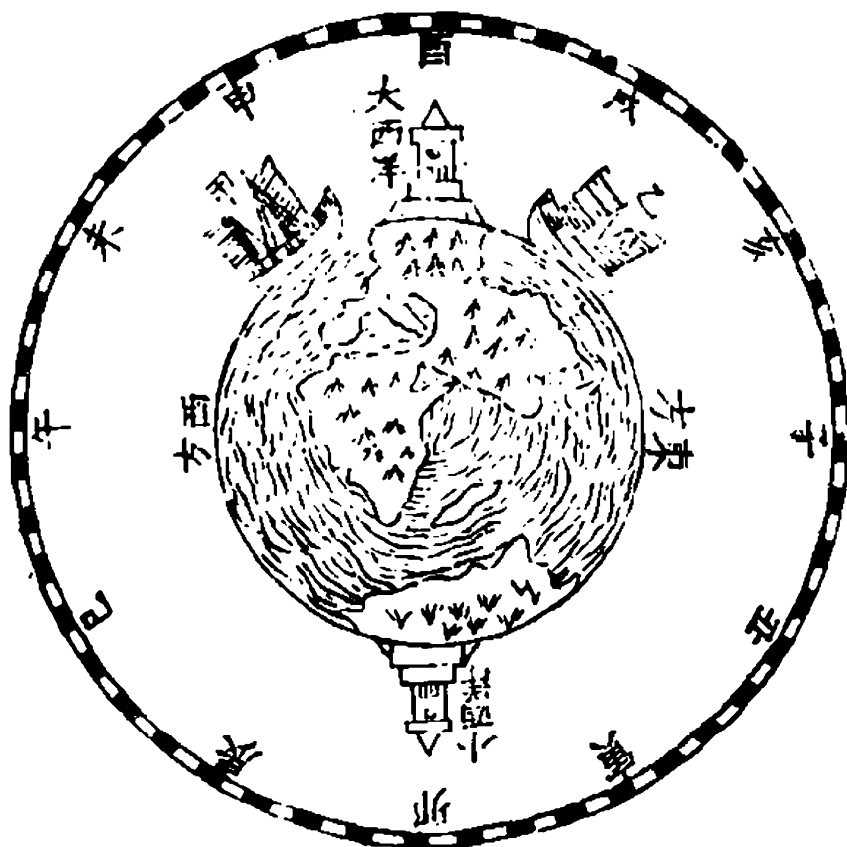


FIGURE 4.1 *An illustration of the notion of time differences due to the sphericity of the earth, by Sabbathin de Ursis (Xiong Sanba 熊三拔, 1575–1620). De Ursis, Biaodu shuo (表度說 Explanation of the Gnomon, preface 1612).*

PHOTOLITHOGRAPHIC REPRINT IN *TXCH*, VOL. 5: 2553

the missionaries had simply made up these stories to impress or mislead them. Indeed, Wei Jun 魏濬 (1553–1626? *jinshi* 1604), a competent and successful scholar-official, denounced Ricci's world map on the basis of these very concerns. In an essay entitled "Ricci's Theory Is Absurd and Deludes the World" (*Lishuo huangtang huoshi* 利說荒唐惑世), he said that Ricci's "Complete Map of the World depicts things vast, distant, and undeterminable. [He] deceives people with [tales about] objects that they cannot verify with their own eyes and about places where they cannot go. [What he gives us] is like a painting of ghosts: nobody can tell whether or not the painter did a good job."⁵⁸

58 Wei Jun 魏濬, "Lishuo huangtang huoshi" (利說荒唐惑世 Ricci's Theory Is Absurd and Deludes the World), in Xu Changzhi 徐昌治, ed., *Shengchao poxie ji* (聖朝破邪集



FIGURE 4.2 An illustration of the relativity of directions on the earth due to its sphericity, by Xiong Mingyu 熊明遇 (1579–1649). Xiong Mingyu, Gezhi cao (格致草 *Manuscript on the Investigation [of the Principle of Things] to Attain [Knowledge]*), printed in Xiong Zhixue 熊志學, ed., Hanyu tong (函宇通 *Penetrating [the Secrets of] the Universe*, editor preface 1648), 153a.

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What made Xiong so ready to believe the Jesuit maritime stories and even actively propagate them?

An examination of Xiong Mingyu's official career and some of his other writings suggests that he was able to accept the Jesuit maritime narratives because he had been actively studying the maritime traffic along and beyond China's coasts and found that the knowledge he had thus accumulated was consistent with the Jesuit story. During most of Xiong's official career, he held primarily military posts. In the late Ming, the suppression of piracy and the safeguarding of the long Chinese coastal frontier were a critical part of the

Collected Essays Exposing Heterodoxy, 1639), *juan* 3, reprinted in Xia Guiqi 夏瑰琦, ed., *Jidu jiao yu zhongguo wenhua congkan zhi yi* (基督教與中國文化叢刊之一 Series in Christianity and Chinese Culture, No. 1) (Hong Kong: Jiandao shenxue yuan, 1996), 183–186, at 183. Xia cites an entire but brief biographical entry on Wei Jun from *Fujian tongzhi* (福建通志 Gazetteer of Fujian), *juan* 46, on 186, n. 1.

operations of the Ministry of War. Xiong engaged in these tasks at both the logistical and the tactical level: he had experience directing the actual operations of anti-piracy campaigns as a commander of troops at Funing Circuit 福寧道 in coastal Fujian, and also handled the challenges of formulating general tactics while serving in such high positions as Vice-Minister of War (1628–1629) and Minister of War (1631). In 1619, a General's Office was established at the port of Dinghai 定海 to safeguard the mouth of the Min River from pirates, and Shen Yourong 沈有容 (1557–1627) became the first army general to staff this office. Xiong contributed a commemorative essay on this occasion, in which he wrote: “I arrived to command troops stationed in Wenma 溫麻 on imperial decree. As I sailed out east into the sea, I could not help but sigh: ‘How vast it is, this sea, which has brought such great benefit and pain to the world!’” Xiong went on to mention the benefits the sea brought to the people and the great harm that was inflicted on them when pirates came from the sea. He counted the wealth generated by maritime trade as its major benefit. Xiong mentioned that some Europeans had told him that Chinese silk, porcelain, cloth, and other objects were in great demand in India and the regions farther west.⁵⁹ This made him understand why

[foreign merchants] often come by sea on their large barges to trade with us. In the south⁶⁰ they would disembark at Panyu 番禺, and near Fujian they would disembark at Lisong 蠡宋 [Luzon?]. These merchants, whose [ancestors] were never among those tribute-bearing peoples listed at the time of Yu [and] whose homelands lay beyond the realm of the earth measured by Tai Zhang [太]章 and Shu Hai [豎]亥,⁶¹ were arriving

59 In this essay Xiong Mingyu refers to Europeans as “people of the Extreme West (Jixi 極西).” But in his essay on “Folangji” 佛郎機 (from *Franques*, or Franks, a generic name the Muslims called Europeans, and that the Chinese adopted for both the Portuguese and the Spaniards; see note 63 below and the extended discussion of Folangji in Chapter 6), where he gives a similar account of the maritime trade, Xiong explicitly identifies his source as the Europeans whom he knew personally—namely, the Jesuits. See Xiong Mingyu 熊明遇, “Sucao xia: Folangji,” in idem, *Luxue lou ji* (綠雪樓集 Collections of Works Written in the Green Snow Villa), reprinted in *SKJH, ji*, vol. 185: 177–178, at 178.

60 The term Xiong Mingyu uses for “the south” is 南越, which could mean the “Kingdom of the Southern Viets” (203–111 BCE), a polity in modern-day southern China and northern Vietnam, or the Southern Viets, to which the majority of the native inhabitants of Guangdong and Guangxi provinces belonged. Based on his other usages of this term in the essay, it is evident that Xiong is referring to southern China.

61 Tai Zhang 太章 and Shu Hai 豎亥 were two legendary fast walkers. In *Huainanzi* (淮南子 Master Huai), *juan* 4, it is said that Yu the Great assigned them the task of measuring the size of the world from north to south and from east to west. See John S.

on hundreds of ships each year, carrying tens of thousand pieces of gold. Our merchants would then let them buy what they so desired—silks, porcelain, cloth, and the like. If we had Guan Zhong 管仲 [725–645 BCE] to manage [our accounts] with his abacus, and [Father of Commerce] Fan Li 範蠡 [536–448 BCE] to serve as our strategist, we could collect the proceeds [from this trade] to enlist more soldiers, procure more horses, and subsidize our preparations for battle with the barbarians on the northwestern frontier. Would not that be a great benefit?!⁶²

Xiong's description of this burgeoning maritime trade on and beyond the Ming empire's southern and southeastern coasts captures how the expansion of the Europeans' role in early modern global trade was experienced from the Chinese side. Although his was still a very Sinocentric narrative, it did acknowledge the presence of the Europeans and their distant home countries that had hitherto remained relatively unknown to the Chinese. Xiong tried to learn about these trading activities and the various Chinese and foreign merchant groups involved in them. The collection of essays he wrote entitled "Records of Foreign Islanders" (Daoyi zhuan 島夷傳) indicates that his knowledge of the true identities of, and relationships among, the European groups—the Portuguese, Spaniards, and Dutch—was seriously flawed.⁶³ But he seems to have been aware of the fact that many of these Europeans were engaged in triangular trade.

Major, *Heaven and Earth in Early Han Thought: Chapters Three, Four, and Five of the "Huananzi"* (Albany: State University of New York Press, 1993), 147.

- 62 Xiong Mingyu 熊明遇, "Shen canjun dinghai xinshu luocheng xu" (沈參軍定海新署落成序 Speech Commemorating the Founding of General Shen's New Administrative Headquarter at Dinghai), in idem, *Luxue lou ji*, in *SKJH, ji*, vol. 185: 137–138; the text quoted appears on 137.
- 63 Like most other scholars in the late Ming, Xiong Mingyu conflated the Portuguese active in Macao and Southeast Asia with the Spaniards in the Philippines and referred to all of them as "Folangji" 佛郎機. He distinguished them from another group whom he called "Ouluoba ren" 歐羅巴人 (Europeans), among whom he included the Jesuit missionaries. For him, both groups were "islanders." Xiong discussed the Dutch in a separate essay, "Hongmao fan" 紅毛番 (Red-Haired Foreigners), in which he writes about the first appearance of the Dutch off the Chinese coast in the Penghu islands in 1604 and gives a detailed description of their personal features, their ships, and their cannons. See Xiong Mingyu, "Daoyi zhuan" (島夷傳 Records of Foreign Islanders), in idem, *Luxue lou ji*, in *SKJH*, 185: 176–187, especially 177–179. For a recent study of this text, see Tang Kaijian 湯開建, "Wanli monian Xiong Mingyu bixia de ouzhou sanguo" (萬曆末年熊明遇筆下的歐洲三國 Three European States Described by Xiong Mingyu toward the End of the Wanli Reign), *Zhongxi wenhua yanjiu* (中西文化研究 Studies of Chinese and Western Cultures) 1, no. 1 (2002): 148–168. In Chapter 6, I explore how this ongoing Chinese

The Dutch, as he noted, were selling the goods they bought in China to some other countries before going back home. He also noticed the recent rise of Luzon as a center of maritime trade and said that many Chinese merchants “loaded their large ships with Chinese silks, porcelain, candies, and other merchandise and sailed to Luzon day and night, treating Luzon almost like their true home.”⁶⁴ Xiong, of course, did not know that these merchants were lured to Luzon by the New World silver that the transpacific Manila Galleon had regularly brought to Luzon since 1565 by the shipload. The Spaniards would use their silver to buy large quantities of Chinese goods at a bulk rate, and then resell them in Spanish America and Western Europe for handsome profits. But Xiong did recognize that the goods brought to Luzon by Chinese merchants were not consumed by the locals, whom he said were poor, but were purchased with silver by those who had recently subjugated Luzon, namely, the Folangji 佛郎機 (the Spaniards).⁶⁵ It appears that Xiong believed that these Folangji were residents of a small island adjacent to Luzon, so it must have been difficult for him to imagine how these people alone were able to absorb the tremendous volume of Chinese luxury goods brought to the area on such a constant basis.

The new information Xiong was receiving from the Jesuits—about the Americas, the European interests in navigation and trade, the Eastern and Western nautical routes the Europeans could take to arrive in the waters of the South China Sea, and the conception of the terraqueous globe itself—must have helped him put all the pieces of maritime information he had gathered into their proper places. The fact that Xiong had sought knowledge about the maritime world beyond China and had thus already accumulated information that dovetailed with the new world picture the Jesuits introduced explains, at least in part, why he so readily accepted the Jesuit arguments for the notion of the terraqueous globe. Xiong’s case demonstrates that the late Ming anti-piracy campaigns did not simply foster xenophobic attitudes toward the Jesuits among some Chinese scholars (although this is a fact that cannot be denied) but motivated many others to learn about the outside world and thereby acquire for themselves a reliable, empirical knowledge base with which to

discourse on maritime Europe set another parameter for the Jesuits as they crafted images of Western Christendom for their Chinese readers in their world geographical works.

64 See Xiong Mingyu, “Daoyi zhuan,” in idem, *Luxue lou ji*, in *SKJH*, vol. 185: 178.

65 Xiong Mingyu, “Daoyi zhuan,” in idem, *Luxue lou ji*, in *SKJH*, vol. 185: 179. For further discussion of the Chinese knowledge of the Spanish and Portuguese colonial enterprises in Southeast Asia, see the first section of Chapter 6 below. On the Folangji 佛郎機, see notes 59 and 63 above.

assess and assimilate the new, “global” view of the earth the Jesuits introduced. In other words, the mental switch from the Square-Earth-and-Four-Seas model to that of the terraqueous globe accomplished by a scholar such as Xiong Mingyu did not occur in the fashion of a typical “conversion,” or total conceptual overhaul, precisely because his prior maritime knowledge remained relevant and foundational to this process of mental transformation.

Fang Yizhi (1611–1671) and Jie Xuan (1613–1695)

The junior members of Xiong Mingyu's circle, especially Fang Yizhi and Jie Xuan, provide further examples of how this new notion of the terraqueous globe settled into the ongoing Chinese cosmological discourse while bringing new life to it. Fang discussed the shape of the earth in the first chapter of his major work in natural studies, *Preliminary Records on the Principles of Things* (Wuli xiaozhi). In the entry entitled “Round [Celestial] Bodies,” he wrote:

“Heaven is round and Earth square” is a description of their respective virtues. In reality, the earth is round. It resides in the center of the heavens. A metaphor for this is a pea (*dou* 豆) inserted into a pork [urinary] bladder (*pao* 脬): put a pea in the bladder, and then blow air to inflate it; [you will find that] the pea stays in the middle of the bladder. Some may say: this is just an idea coming from the Far West. [I,] the “Foolish One,” would [tell them]: when the Yellow Emperor inquired of Qibo, “Is the earth down below?” Qibo replied, “The earth is below humans, but it is in the center of the heavens.” The Emperor asked again, “What does it rest on?” He said, “Qi holds it up.” Master Shao [Shao Yong 邵雍, 1011–1077] and Master Zhu [Zhu Xi] both said that the earth is suspended in space and does not fall down. [To say that this idea belongs to the Far West] is to regard scholars such as Pingzi 平子 [Zhang Heng], Yixing 一行 [683–727], and Kangjie 康節 [Shao Yong] as not having ever lived among the world! Confucius said: “There is a saying that ‘when the Son of Heaven loses his functionaries, expert knowledge scatters among the Four Barbarians’.” Now I totally believe in this.” Earlier scholars have not investigated the heart of the matter when they pass along the idea that the earth floats above water and the heavens surround the water. They are all mistaken! The shape of the earth is like a walnut. The protrusions are mountains, and indentations are the seas.⁶⁶

66 Fang Yizhi 方以智, *Wuli xiaozhi* (物理小識 Preliminary Records on the Principles of Things) (Shanghai: Shangwu yinshuguan, 1937), 18.

Like Xiong, Fang accepted the Jesuits' moralistic interpretation of the ancient Chinese teaching that "Heaven is round and Earth square." He went even farther than Xiong in documenting the presence of the notion of the terraqueous globe in China before the arrival of the Jesuits. Although for the Jesuits, and perhaps for their first devoted converts such as Xu Guangqi and Li Zhizao, this reinterpretation of the classical teaching might have served a primarily strategic function, once the presumed correlation between the foreign and the familiar was accepted and taken seriously by the younger generation of Chinese scholars, it created an intercultural environment for their knowledge production in which the identities of many newly introduced or reinvented concepts and metaphors became indistinct or confused. The metaphor of Paodou (脬豆, "pork bladder and pea") for Heaven and Earth, which Fang refers to in the passage just quoted, is a good example. Based on our available sources, Fang was the first scholar to articulate it exactly in those terms. It appeared here in his *Preliminary Records on the Principles of Things* and in many of his other writings. It then reappeared in the works of his sons and students, especially Jie Xuan, and became a trademark of the cosmological discourses of the Fang School.

The origin of this Paodou metaphor remains a mystery. All the members of the Fang School, including Fang Yizhi himself, claimed that it originated with the Jesuits. Jie Xuan even explicitly identified Adam Schall's *All Evidence Indicates That the Lord Rules* (Zhu zhi qunzheng 主制群徵) as its source.⁶⁷ However, searches in this and a number of other relevant Jesuit Chinese texts yield no such evidence.⁶⁸ But similar metaphors did exist within the Huntian cosmological tradition. As modern scholar Wang Lixing has pointed out, the Huntian cosmologists had been using inflated, semi-transparent ox or pig urinary bladders as models for the outer shell of the spherical heaven since perhaps the Song dynasty.⁶⁹ The model was derived from a sport popular among

67 Jie Xuan 揭喧, *Xuanji yishu* (璿璣遺述 Remarks to Elucidate Ancient Astronomical Legacy), *juan* 2, 4a, reprinted from the edition by Huiyoutang 會友堂 (Hall for the Meeting of Friends) edition of 1765 in SKCM, *zi*, vol. 55: 404.

68 I looked but did not find such a metaphor in these Jesuit works. Nor did Shi Yunli, who attempted it some years ago. See Shi Yunli 石雲裡, "Jie Xuan dui ouzhou yuzhou xue yu lixue yuzhou lun de tiaohu" (揭喧對歐洲宇宙學與理學宇宙論的調和 Jie Xuan's [Efforts to] Harmonize European and Neo-Confucian Cosmology), *Jiuzhou xuelin* (九州學林 Chinese Culture Quarterly) 2, no. 2 (2004): 54, n. 48.

69 Wang Lixing 王立興, "Huntian shuo de dixing guan" (渾天說的地形觀 The Shape of the Earth According to the Huntian Theory), in *Zhongguo tianwenxue shi wenji* (中國天文學史文集, 第四集 Collected Essays in the History of Chinese Astronomy), vol. 4: 139 (Beijing: Kexue chubanshe, 1986).

young boys in ancient China, known as *cuju* 蹴鞠 (or 蹴毬), in which players would pass a ball to one another by kicking, and in which dropping the ball to the ground counted against the player. Initially the ball was made of a leather sac filled with feathers or other stuffing. By the Song dynasty, this had been replaced with a kind of bouncy ball formed by an ox or pig bladder filled with air.⁷⁰

The Yuan-dynasty cosmologist Zhao Youqin 趙友欽 (1271–ca. 1335) made use of this ball to illustrate the relationship between Heaven and Earth. He suggested that we can use a *cuju* to symbolize Heaven: “Fill its bottom half with water and put a wooden block on it to represent the flat earth. On the surface of the board put some tiny objects to represent the myriad things on earth. [We will find that] despite the constant spinning of the ball, the objects on the wooden block would not feel it.”⁷¹ Zhao used this model to explain why the earth remains stable and is not affected by the daily revolution of Heaven. During the early Ming, Huang Runyu 黃潤玉 (1389–1477) adapted this metaphor to resolve another standing issue in Huntian cosmology, namely, why the earth is able to stay in the middle of the celestial sphere and not drift to the sides. He cited an experiment that he claimed to have done in childhood:

When I was a child I used to play with pork bladders. I filled a bladder half-full of water, put a large ball made of earth in it, and then blew in air to fill it up completely. I could see that the water stayed down below and that the earth ball floated in the middle, and [as I blew air into it], the air [carried drops of water and] moved up and down as if it were clouds. This is what Heaven and Earth look like. It means that beyond the great vacuity there must be something [like the bladder wall] that contains the Qi [between Heaven and Earth].⁷²

A further adaptation of Zhao Youqin’s metaphor appeared in the works of the late Ming scholar Zhu Zaiyu 朱載堉 (1536–1610), in which he replaced the original wooden block with a blade of grass to represent the earth floating on water.⁷³

70 Jiang Shaoyu 江少虞, *Songchao shishi lei yuan* (宋朝事實類苑 A Classified Collection of Events and Facts of the Song dynasty, 1145) (Shanghai: Shanghai guji chubanshe, 1981), *juan* 52, at 2: 684.

71 Zhao Youqin, *Gexiang xinshu*, in *SKQS, zi*, vol. 786: 224.

72 Huang Ruiyu 黃潤玉, *Haihan wanxiang lu* (海涵萬象錄 Records of Ten Thousand Phenomena Encompassed by the Seas), *Siming congshu* 四明叢書 (Book Series Published in Siming) edition (Siming: Zhangshi yue yuan, 1933), *juan* 1, 3a.

73 Wang Lixing discusses the connections between these three authors in his article “Huntian shuo de dixing guan,” 139–140.

In other words, there was a long tradition among Huntian cosmologists of using pig or ox urinary bladders (the “Pao”) to represent the celestial sphere. The Paodou metaphor of the Fang School closely resembles the one used by Huang Runyu,⁷⁴ as they both refer to the blowing of Qi to explain why the earth stays in the center. However, there is one critical difference: the Paodou metaphor of the Fang School makes no more mention of water in the lower half of the bladder, because the pea has replaced the combination of water and earth as two separate entities found in Huang’s and other Huntian models. In that limited sense, this metaphor has definitely integrated the Jesuit notion of the terraqueous globe. Could the Paodou metaphor have been born in the contact zone, during one of Fang Yizhi’s conversations with Schall, and if so, who was its real author? Our texts tell us nothing about the circumstances of its birth. What we do know is that the metaphor served as an important image via which members of the Fang School, especially Fang Yizhi himself and his student Jie Xuan, reinvented the Jesuit concept of the terraqueous globe and made it an organic component of Chinese cosmology.

As discussed in Chapter 3, one of the Chinese cosmological discourses on the Four Seas centered on the phenomena which had led the poet Qu Yuan to wonder: “Rivers course eastward to the sea day after day, [but] who understands why the sea never overflows?” According to the Huntian cosmologist He Chengtian, the earth and the sea level were able to maintain a dynamic balance because the sun vaporized the excess water from the rivers each day as it waded through the water to complete its daily revolution around the earth. Wang Tingxiang, in contrast, argued that this balance was due in part to water circulating from the sea back to the rivers in the form of rain, and in part to the fact that the earth floats above water and thus cannot be overflowed by water. In an interesting essay entitled “Sources and Flows” (Yuanliu 源流), included in his collection of philosophical essays *Uniting the Opposites* (Dongxi jun 東西均, 1652),⁷⁵ Fang Yizhi proposed a new solution to this problem by applying the notion of the terraqueous globe. He wrote:

The crux of the matter resides with the heart of the earth. The ancients did not quite expound on this point. It is something yet to be comprehended on our own. Now, we all know that water flows downward, but do you realize that it also flows upward? The blood in our body is like the

74 Shi Yunli makes this observation in his article “Jie Xuan dui ouzhou yuzhou xue yu lixue yuzhou lun de tiaohu,” 53–55.

75 I avoid the literal translation of *dong xi* 東西 (“East and West”) in the title of the book so as to prevent any geographical or cultural connotations commonly associated with these two terms.

water on earth. If [it is true that blood only flows downward], then when we stand up, wouldn't all our blood flow down to the bottom of our feet, leaving our brains completely drained of blood? Conversely, isn't it strange that the top of Kunlun Mountain is never dried up? The earth resides in the middle of the heavens and is a globe. On all sides of the globe and within the six directions, everywhere on the earth people take what lies below their feet as "down" and what is above their head as "up." *Qi blows against the earth, and makes it rotate like a spinning top.* People clinging onto the earth like ants and cannot detect such spinning motion of the earth. The North and South Poles on earth correspond to those of the heavens and remain still. Qi alternates from season to season. ...In all directions there are seas, which surround the lands and are connected with each other. Every country has a large mountain such as Kunlun, which branches into other mountains. These mountains are like the pivoting joints on our elbows and the hips. The marrows and essences produced by these joints enter into the bloodstream in the *jing* 經 and the *luo* 絡 meridians, and in this way the *jing* and *luo* meridians resemble rivers and seas. [A legend has it that] there is [a giant burning rock] in the sea named Wojiao 沃焦 [which vaporizes all water in contact with it]. We do not have to take this literally, but the idea behind it is close to the truth. All seas eventually flow into the heart of the earth. The middle of the earth is not solid but is half earth, half water, with minerals and stones mixed in them. ...Therein are tens of thousands, or even tens of millions, of *jing* and *luo* meridians and hollows, and residing in these hollows are tigers, strange beasts, monsters, ghosts, and spirits. Inside the heart of the earth, there is also Qi spinning, resonating with the movement of the Qi outside the earth. That is why tidal waves respond to alternation of the phases of the moon. It has always been told that the earth floats on water and that it rises and falls [with it]. This appears right, but actually it is not, because those people [who thought it] did not yet know that the earth is a globe and that the heart of the earth exchanges with the Qi of Heaven through respiration. From this it can be inferred that waters from all the seas are sucked into the heart of the earth, from where they enter into *jing* and *luo* meridians and through them rise to the top of the mountains. Sources become flows, and flows return and become sources. ... Heaven and Earth are two, but the heart of Heaven and the heart of Earth are connected.⁷⁶ (emphasis added)

76 Fang Yizhi, *Dongxi jun* (東西均注釋 Uniting the Opposites, 1652), with annotations and commentary by Pang Pu 龐樸 (Beijing: Zhonghua shuju, 2001), 273–274.

Here Fang employs yet another form of water circulation to explain the dynamic balance between rivers and seas and between land and water: while rivers flow into the seas, the seas also feed into the sources of the rivers, as the heart of the earth sucks the water down from the seas and pumps it up to the top of the mountains where rivers originate. This explanation presumes the notion of the terraqueous globe, but not exactly the same one the Jesuits had been advocating. First of all, the earth does not rest but rotates like a “spinning top.” What makes it spin is the cosmic Qi that “blows” onto it. Here we see clearly the Paodou metaphor at work, even though Fang does not use the words *pao* and *dou*.⁷⁷ Second, although in Aristotelian cosmology the earth may contain a mixture of other elements, including air and fire, its center is regarded as a place where the heaviest particles of the cosmos collect.⁷⁸ It is not so in Fang Yizhi’s model. Taking a hint from the Song Confucian philosophers such as Zhang Zai and Zhu Xi, who had hypothesized that cosmic Qi pervades the

77 The Song philosopher Zhang Zai 張載 (1020–1077) may have already hypothesized that the earth pivots, but his text on this remains ambiguous and has been interpreted in many different ways over the centuries. See Chen Meidong 陳美東, *Zhongguo gudai tianwenxue sixiang* (中國古代天文學思想 Astronomical Thought in Ancient China) (Beijing: Zhongguo keji chubanshe, 2007), 507–510. If we believe, with Chen Meidong, that Zhang Zai did have a conception of such a movement, then the source of this movement would have come from inside the earth and not, as Fang Yizhi argues here, from the external impact of the blowing cosmic Qi, for in the same text in which this controversial passage is found, Zhang explicitly states that “for all things that rotate, their movements must have a dynamic mechanism. That means its movement must come from an inside source.” See Zhang Zhai 張載, *Zhangzi zhengmeng* (張子正蒙 Correcting Youthful Ignorance), with commentaries by Wang Fuzhi 王夫之 (1619–1692) and modern introduction by Tang Qinfu 湯勤福 (Shanghai: Shanghai guji chubanshe, 2000), 101–102. Yung Sik Kim offers a very different reading of this section of Zhang Zai’s text, to the effect that such an idea of the earth’s rotation is entirely absent. See Kim, “Independent Development, Transmission from the West, and Chinese Forerunners: Ideas about the Earth’s Rotation in Seventeenth- and Eighteenth-Century East Asia,” *Asia Major*, Third Series, 22, no. 2 (2009): 107–109.

78 In their explanations of why earthquakes happen, the Jesuits had spoken about the air and fire that are trapped in the loose soil and the hollows under the ground, but this only involves the upper layers of the earth rather than the “heart” of the earth. See Nicolo Longobardi, *Dizhen jie* (地震解 Explaining Earthquakes, 1626), photolithographically reproduced edition in *Faguo guojia tushuguan mingqing tianzhujiao wenxian* (法國國家圖書館明清天主教文獻 Ming-Qing Catholic Literature Held at the National Library of France) (Taipei: Taipei lishi xueshe, 2009), vol. 5: 1–23; and Vagnoni, *Kongji gezhi*, in *TDWXS*, vol. 2: 1016–1028.

body of the earth and that this Qi has a spinning motion,⁷⁹ Fang now imagined the earth to be a full-bodied, breathing creature that engages in dynamic exchanges with Heaven. According to him, the earth is like the human body lined with large and small hollows where strange creatures hide. It is also criss-crossed by millions of meridians along which water, dwelling at the heart of the earth, is propelled back up to the top of mountains, and through which the heart of the earth “inhales” the cosmic Qi outside the surface of the earth.

Coming from a family with a long and distinguished tradition in the studies of the *Book of Changes*, Fang Yizhi dedicated the latter half of his life to the search for a philosophical system that would successfully unite the three divided traditions in China—Confucianism, Buddhism, and Daoism—on the basis of the fundamental insight embodied in the *Book of Changes*. Fang believed that Westerners were “precise at gauging the concrete workings of natural phenomena but obtuse when it came to fathoming the deeper principles and ultimate sources of all things.”⁸⁰ His essay “Sources and Flows,” written after his intensive engagement with Western learning, represents his attempt to borrow the strengths of these “princes of Tan” to serve his larger philosophical goals. To that end, he refitted the terraqueous globe to make it fully align with his cosmological and spiritual vision, one in which all parts of the universe are connected, and all conceptual opposites harmonized, through the power of the all-encompassing cosmic Qi.

Fang’s student Jie Xuan, in contrast, used the Paodou metaphor to further develop Huntian cosmology itself. As stated in Chapter 3, the original Huntian model attributed to Zhang Heng postulated a circular Heaven, a more or less square lump of earth at its center, and the Four Seas, which support the earth

79 For Zhang Zai, see note 77 above. Zhu Xi also noted that “Heaven enwraps the earth, but the Qi of Heaven also pervades the earth,” and that “there are hollows in the earth.” See Zhu Xi, *Zhuzi yulei*, 1: 6.

80 The Chinese reads “Xiangyu yan zhice er zuoyu yan tongji” 詳於言質測而拙於言通幾. Quoted from Fang Yizhi, “Wuli xiaozhi zixu” (物理小識自序 Author’s Preface to *Wuli xiaozhi*), in idem, *Wuli xiaozhi* (n.p.). For further discussion of Fang’s critique of Aristotelian natural philosophy in light of his own philosophical beliefs and the distinction he drew between Zhice 質測 (Measurement of Corporeal Matters) and Tongji 通幾 (Metaphysical Comprehension of Reality), see Lim Jongtae, “Restoring Unity of the World: Fang Yizhi and Jie Xuan’s Responses to Aristotelian Natural Philosophy,” in Saraiva and Jami, eds., *The Jesuits, the Padroado and East Asian Science*, 145–147. Willard J. Peterson puts this in the broader context of the Ming-Qing transition and argues that Fang Yizhi’s critical turn represented a broader pattern of disengagement from Western learning manifested among intellectuals living through the dynastic transition. See Peterson, “From Interest to Indifference: Fang I-chih and Western Learning,” *Ch’ing-shih wen-t’i* (Late Imperial China) 3, no. 5 (1976): 72–85.

from below and separate it from the sky on all four sides. The Four Seas were deemed necessary to explain why the earth stays where it is and does not fall to the sides or bottom of the celestial sphere. Difficulties in accounting for celestial movement across this body of water had led to two revisions. The first, advanced by Qiu Guangting, shrinks the body of water and introduces a layer of “hardened Qi” (*gang Qi*) below it that is presumably powerful enough to support the earth yet permeable enough to allow the celestial sphere an easy transit through it.

A further revision was introduced by the Song Confucian scholars, who simply conceptualized the water and earth as one entity, also called “the earth,” and argued that this earth is held up simply by cosmic Qi. Indeed, even Heaven itself is just Qi. Zhu Xi, for example, said that “Heaven enwraps the earth, and the earth is just an object in the middle of Heaven. Heaven with its Qi revolves on the outside, and the earth stays at rest in the center. If Heaven’s revolution stops for even a brief moment, the earth would fall down.”⁸¹ This newer Huntian cosmic model, however, stops short of holding the earth and water to be a thoroughly integrated entity in the manner of the terraqueous globe, for upon closer analysis, this combined entity “earth” features a lump of earth stacked on top of a broader base of water. In other words, it is only a miniature form of the original Huntian model of the Earth-and-Four-Seas.⁸²

81 Zhu Xi, *Zhuzi yulei*, 1: 6. For further discussion of Zhu Xi’s cosmological views on Heaven and Earth, see Yung Sik Kim, *The Natural Philosophy of Chu Hsi (1130–1200)* (Philadelphia: American Philosophical Society, 2000), 135–171, and Shi Yunli, “Jie Xuan dui ouzhou yuzhou xue yu lixue yuzhou lun de tiaohu,” 51–53.

82 This conclusion is based on my reading of the following textual evidence, especially the italicized portion of the following extracts: (1) Zhu Xi, *Zhuzi yulei*, 1: 27: A student expressed his confusion to Zhu Xi when Zhu taught that the Duke of Zhou had fixed Yuzhou 豫州 as the center of the earth, with 5,000 *li* to its north and south. The student said that the earth apparently was much shorter than 5,000 *li* in the south. Zhu Xi replied: “Although the sea is closer in the south, the earth has not terminated right where land meets the sea. Beyond the sea there are various foreign island countries. This means that the earth runs continuously to those parts and that in those places the seas still have a bottom. *The earth terminates only where the seas become bottomless.*” (2) Huang Runyu, *Haihan wanxiang lu* (juan 1, 2b–3a): Huang was an advocate of this second revised Huntian model. He asserted that “Heaven encloses the earth, and the earth is supported by Qi.” But in the same context where he said this, we find him refuting a theory which holds that the earth is not motionless but rises and falls by a distance of up to 30,000 *li*, citing the following: “*If [the earth] rises up by 30,000 li, then the seawater would have all disappeared [from its horizon]; and if it falls by 30,000 li, then the earth would have all been inundated by this water.* What an absurd idea they have, these stuffy scholars!” (All emphases added.)

When Jie Xuan entered the conversation with his first book on natural studies, entitled *Book on the Heavens* (Haoshu 昊書, 1645), he had already discarded the original Huntian cosmologists' Earth-and-Four-Seas model of the world and its newer variants in favor of the Jesuit notion of the terraqueous globe. It is evident from this book that while Jie adhered to the Song Confucians' Qi-based cosmology, he believed that previous scholars had largely failed to use it to account for any concrete phenomena. In his "Introductory Remarks" to *Book on the Heavens*, Jie proudly declares: "To take all things in nature as the products of *yin* and *yang* Qi, and explain all changes in nature as the results of Qi's actions, are vague remarks that anybody can make, even the Western scholars [i.e., the Jesuits]. But people do not understand exactly how and why these things happen. I point this out to them [in this book]." As Sun Chengsheng has observed, Jie's *Book on the Heavens* did not offer anything substantially new in comparison with scholars in previous centuries to warrant such a claim.⁸³ However, it did convey the ideal that Jie continued to strive for in his studies in the subsequent decades.

In 1659, Jie Xuan met Fang Yizhi for the first time and performed a ritual to become a student of Fang's. He devoted much time to reading, discussing, and critiquing Jesuit writings in natural studies. For several years he joined Fang's sons in preparing the manuscript of Fang's *Preliminary Records on the Principles of Things* (Wuli xiaozhi) for publication. In the process he hand-copied the twelve chapters of Fang's manuscript and made 92 entries of comments on it, which were printed along with Fang's text. Jie's second major work in natural studies, *Remarks to Elucidate Ancient Chinese Astronomical Legacy* (Xuanji yishu 璿璣遺述, preface 1675), developed out of these comments as well as a thorough reworking of some of the ideas he had presented in *Book on the Heavens*.⁸⁴ In this new book, Jie not only reaffirms the notion of the

83 Sun Chengsheng 孫承晟, "Mingqing zhiji shiren dui xifang ziran zhexue de fanying—Yi Jie Xuan Haoshu he Xuanji yishu wei zhongxin" (明清之際士人對西方自然哲學的反應—以揭暄《昊書》和《璿璣遺述》為中心) (Ming-Qing Scholars' Responses to Western Natural Philosophy: Centering on Jie Xuan's *Haoshu* and *Xuanji yishu*), Ph.D. dissertation, Institute for the History of Natural Sciences, CAS, Beijing, 2005, 26; the remarks by Jie Xuan are found on 25.

84 For further discussions on the history of Jie Xuan's *Xuanji yishu* and its relationship to Fang Yizhi's works, see Zhang Yongtang, *Mingmo fangshi xuepai yanjiu chubian*, 181–184; Sun Chengsheng, "Jie Xuan Xuanji yishu chengshu jiqi liuchuan kaolue" (揭暄《璿璣遺述》成書及流傳考略 A Brief Inquiry into the Formation and Dissemination of Jie Xuan's *Xuanji yishu*), *Ziran kexue shi yanjiu* (自然科學史研究 Studies in the History of Natural Sciences) 28, no. 2 (2009): 214–226; and Chen Yue 陳悅, "Jie Xuan de xueshu jiaowang jiqi zhushu" (揭暄的學術交往及其著述 Jie Xuan's Scholarly Intercourse and

terraqueous globe but offers fifteen proofs to demonstrate it, some of which are drawn from his Jesuit sources and some of which are entirely his own. An examination of where his proofs overlap with those presented by the Jesuits shows that he worked hard to bring the Jesuit material into conversation with existing Chinese sources, including maritime literature.

For instance, to demonstrate one of his proofs—that “water is always spherical”—Jie Xuan cites a story told in *Journals from the Northern Expedition* (Beizheng lu 北征錄), by the early Ming author Jin Youzi 金幼孜, who accompanied Emperor Yongle 永樂 (r. 1403–1424) on his expedition into northern Xiongnu territories in 1410. Jin writes of a lake that the Ming troops passed by on their marches. The lake is large like a sea; its shores stretched over 1,000 *li*, and seven rivers empty themselves into it. In his journal, Jin describes a phenomenon that he and his companions found the most bizarre: “Looking farther into the lake, the water is as tall as a mountain. All you see there are white waves that rise and fall. Of all things in the world, nothing is more level than water. When I pass by rivers and lakes, I see that the water is always flat. This is the only place where I find water as tall as a mountain when seen from afar, but extremely low when seen up close. I cannot think of any reason why this is so.”⁸⁵

This passage had been cited by Fang Yizhi in his *Preliminary Records on the Principles of Things*, in an entry entitled “The Sphericity of Water” (Shui yuan 水圖). There, Fang recounted the story without giving any analysis, but Jie made a commentary on it, which is printed in small characters in Fang’s text. It reads: “[Jie] Xuan says: The shape of the earth is round, and water clings to the earth; therefore, water should also be round. All rivers, lakes, and even the water in a basin are all higher in the middle. It is just that people can hardly notice it.”⁸⁶ Here, in his *Remarks to Elucidate Ancient Chinese Astronomical Legacy*, Jie expands on that commentary and points out that all water drops that fall through the air are round, whereas all water drops that adhere to a surface, such as a tabletop or the sides of a cup, are always half-round, like a dome. Since the earth is round, the water that clings to it must also be tall in the middle.⁸⁷ Jie’s proof and the collaborative context in which he first

His Writings), *Harbin gongye daxue xuebao (shehui kexue ban)* (哈爾濱工業大學學報 (社會科學版) Journal of HIT, Social Sciences Edition) 11, no. 2 (2009): 1–9.

85 Jin Shan 金善 (or Jin Youzhi 金幼孜, 1368–1431), *Jin wenjing gong beizheng lu* (金文靖公北征錄 *Journals from the Northern Expedition* by Master Jin Wenjing), in *xxsk, shi*, vol. 433: 119.

86 Fang Yizhi, *Wuli xiaozhi*, 48.

87 Jie Xuan, *Xuanji yishu*, *juan* 2, 8a–b, in *SKCM, zi*, vol. 55: 406. For further discussion of Jie’s proofs for the sphericity of the earth, see Sun Chengsheng, “Mingqing zhiji shiren dui xifang ziran zhexue de fanying,” 45–52.

developed it indicate that such efforts to “domesticate” the Jesuit arguments for the terraqueous globe by meshing them with a body of empirical evidence drawn from existing Chinese sources—in this case, empirical maritime literature—were an important part of the scholarly culture within the Fang School.⁸⁸

The far more significant move that Jie Xuan took toward making the Jesuit notion of the terraqueous globe his own was his thorough recontextualization of this notion in his *Remarks to Elucidate Ancient Chinese Astronomical Legacy*. In this magnum opus Jie agrees with the Jesuits that the earth and water form a single globe and that it stays still in the center of the celestial sphere, but he removes these ideas from their original cosmological, philosophical, and religious context and weds them to the Song Confucian philosophers’ Qi-based cosmology. The Jesuits had put the terraqueous globe at the center of a neatly stratified cosmos in which the division between celestial and sublunar spheres was essential. Within the sublunar spheres, there were further divisions: the terraqueous globe is said to be surrounded by a sphere of Air, which is in turn divided into three zones—warm, cold, and hot, from bottom to top—the uppermost of which is surrounded by the sphere of Fire (Figure 4.3). In this cosmic model, each sphere has its natural place and natural movement.⁸⁹ The Jesuits presented this orderly universe as God’s creation for divine purposes. Apparently, Jie was attracted to the orderliness of this world picture,⁹⁰ but he tried to arrive at a “celestial dynamics” that accounts for this order without recourse to either Aristotelian teleology or Christian creationism. He found the key to the solution by pondering the Paodou metaphor. Jie wrote:

88 Jie Xuan’s efforts, however, predated his membership in the Fang School. In his *Haoshu*, he already cited his personal observations made while sailing on a boat to show the same point. There, he writes that “even at a mere distance of 10 *li* away from the shore, [I noticed that] water and sky are already merged together, and the shore is nowhere to be seen. Isn’t this proof that water is higher in the middle and that the earth is low on all sides?” Cited from Jie Xuan 揭暄, *Haoshu* 昊書 (Book on the Heavens), 1859 edition, *juan* 5, 11a–b; the copy consulted is held at the library of the Chinese Academy of Sciences (CAS), Beijing. I wish to thank Dr. Sun Chengsheng of the Institute of the History of Natural Sciences at CAS for kindly sharing his photocopy of this part of the text with me.

89 For further study of the Jesuit presentation of this cosmic model and its Chinese reception, see Sun Chengsheng, “Mingmo chuanhua de shuijingqiu yuzhou tixi jiqi yingxiang” (明末傳華的水晶球宇宙體系及其影響 The Transmission of Crystalline Spheres Theory to Late Ming China and Its Influence), *Ziran kexue shi yanjiu* (自然科學史研究 Studies in the History of Natural Sciences) 30, no. 2 (2011): 170–187.

90 See Jie Xuan, *Xuanji yishu*, in *SKCM*, *zi*, vol. 55: 398–399.

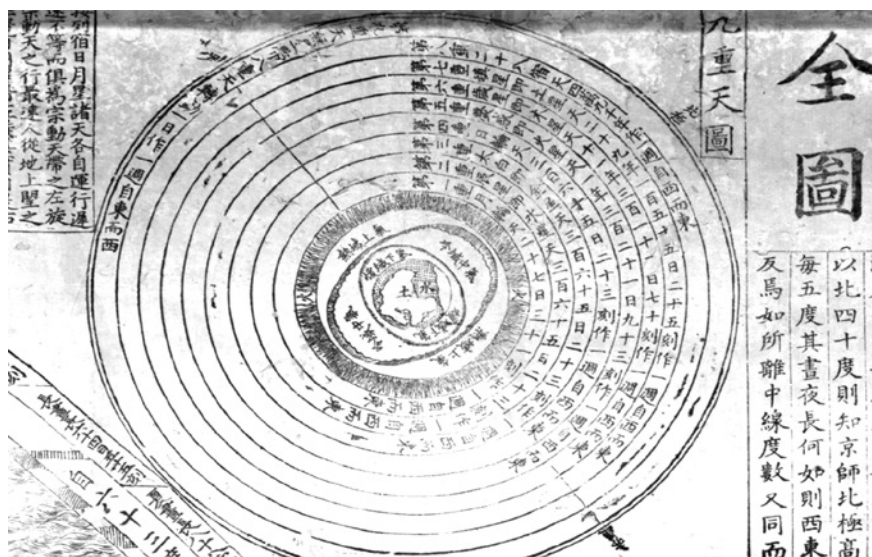


FIGURE 4.3 "Diagram of the Nine Heavens" (*Jiuchong tian tu* 九重天圖) by Matteo Ricci (*Li Madou* 利瑪竇, 1552–1610). Upper right corner of Ricci's world map, "Complete Geographical Map of Ten Thousand Countries" (*Kunyu wanguo quantu* 坤輿萬國全圖), 1602 (detail of Fig. 2.1).

COURTESY OF THE JAMES FORD BELL TRUST

The Western scholars have a Paodou metaphor. Master Fushan 浮山 [i.e., Fang Yizhi] described it this way in his *Yangfu* 陽符 [Yang Signs]: "Blow air into the urinary bladder and put the pea in it. The pea will stay in the middle. From this we can understand the [relative] positions of Heaven and Earth. Blow air at the pea through an inserted tube,⁹¹ then the pea will rise up perpendicularly. This shows that objects can be lifted by Qi. During the winter solstice, people put ashes into the bladder and let young boys and girls blow at it. The Qi would carry the ashes with it and turn around and around in the bladder. After a long while, [the ashes] settle in the middle and collect into clumps. This gives us a clue to how the separation of Heaven and Earth came about." I myself have seen a game [people play at the market]. They make two pills with *gansui* 甘遂 and licorice, put them inside a bladder, [and then blow air into it]. The two pills would dangle inside, one rising, the other falling. One is going,

91 The text says "yi chang chui dou" 以腸吹豆 (literally, "blow at the pea using [a section of] the intestine").

the other coming. From this we can see why the sun and moon sometimes move apart and sometimes come together.⁹²

If the Paodou metaphor was indeed once improvised by Schall or some other Jesuit missionary to show Fang Yizhi that the earth is round and can be suspended in the middle of the celestial sphere by air alone, it seems to have worked quite differently for Fang than for Jie Xuan. As Jie describes it above, this metaphor is now stretched into new territories, ranging from the formation of the earth to the movements of the celestial bodies. Indeed, the most innovative ideas that Jie offers in his *Remarks to Elucidate Ancient Chinese Astronomical Legacy* may originate from the insights he derived from this metaphor. These include: (1) that the earth and other celestial bodies are a crystallization of the same cosmic Qi⁹³; (2) that in its free state, the cosmic Qi fills the space between Heaven and Earth and the hollow spaces in the earth⁹⁴; (3) that the earth's sphericity and stillness are the result of the circular motion of Qi inside the celestial sphere; and (4) that this same circular motion of cosmic Qi is also responsible for the myriad diverse movements we observe of the sun, the moon, and the planets.⁹⁵ Jie developed these insights further by using several other metaphors. One of these is the whirlpool metaphor, which he used to show the mechanism by which the rotation of Qi generated the earth at the center of the cosmos. Jie said:

The earth belongs to the center of the celestial sphere. It rests there motionless, not of its own accord [but because it was made so], because the celestial sphere revolves around and around, encircling the earth, and exerts pressure on it from all sides, so that it cannot but converge in the middle. This is like [what happens when we] stir [muddy] water in a basin in a circular motion. The mud and sand gather in the middle and stay there. They form a round mass there not because of any properties inherent in themselves.⁹⁶

Here Jie is proposing a distinct alternative to Aristotelian natural philosophy in explaining the causes of the sphericity and stillness of the earth. The terraqueous

92 Jie Xuan, *Xuanji yishu*, in *SKCM*, *zi*, vol. 55: 397. The text that Jie Xuan cites here must be Fang Yizhi's *Yangfu zhongyan* 陽符中衍, which has been lost. See Shi Yunli, "Jie Xuan dui ouzhou yuzhou xue yu lixue yuzhoulun de tiaohu," 54, n. 48.

93 Jie Xuan, *Xuanji yishu*, in *SKCM*, *zi*, vol. 55: 400.

94 Jie Xuan, *Xuanji yishu*, in *SKCM*, *zi*, vol. 55: 398–399.

95 Jie Xuan, *Xuanji yishu*, in *SKCM*, *zi*, vol. 55: 391–397 and 405.

96 Jie Xuan, *Xuanji yishu*, in *SKCM*, *zi*, vol. 55: 405.

globe, now resituated within the cosmic whirlpools of Qi, has become fully his own. There is a broader lesson about the movements of the celestial bodies to be drawn from the whirlpool metaphor as well. Jie reviewed the different Western models the Jesuits introduced to account for these motions: first the Aristotelian model, which postulates two kinds of celestial movements—a leftward revolution shared by all nine or twelve concentric crystalline spheres, and an individual rightward revolution by each celestial sphere, carrying along the respective planets embedded in them; then the Ptolemaic model, employing the deferent and epicycles; and finally the geo-heliocentric model of Tycho Brahe. For Jie it seemed that “the more precise their theories, the more amiss they appear on the inherent principles of things. The more accurate their calculations, the farther they are from knowing the true cause.”⁹⁷ In contrast, Jie proposes that all the diverse movements of the sun, the moon, the planets, and the stars can be reduced to a single celestial movement—the westward diurnal revolution of cosmic Qi:

In my humble opinion, there is only one celestial sphere and not two. There is only one [celestial] movement and not two. There is only westward revolution and no eastward revolution. ...Heaven is generated by Qi and moved by Qi. Blown by Qi from the outside, the celestial bodies are lifted up; filled by Qi from the inside, they spin [on their own axes]. ...The planets seem to retrograde. Most people do not know why this happens and think that these planets go against the celestial sphere. They do not understand that the planets retrograde because they participate in the celestial movement. Why so? I have a theory called “grooves moving forward but beads rolling backward” to explain it. The sun, the moon, and other celestial bodies are like round beads that run within the veins inside the celestial sphere. The beads are mobile, so they roll within their respective tracks. As the celestial tray rotates rapidly, the beads inevitably roll backward. We can test this theory this way. Let’s make a tray with a smooth board and carve six grooves on it. The grooves must be perfectly circular, smooth, and deep, one surrounding the other. Put a round bead in each of the grooves, starting from the innermost to the outermost, and make sure the beads are in good alignment. Use copper or lead to make the beads, and make them small and smooth. Peas can also be used, but they should be smooth and easy to roll. ...Now we stabilize the center of the round tray with one hand and spin it counterclockwise [with the other]. As the tray spins rapidly, the beads inevitably roll backward. ...It is like when a boat bumps at the shore, people on the boat will be jerked backward, and if a rider gives his horse a sudden whip [and it

97 Jie Xuan, *Xuanji yishu*, in *SKCM, zi*, vol. 55: 391.

speeds up abruptly], his body will be thrown back slightly. ...When the tray rotates, the things in the grooves cannot stand still. Round objects would roll; standing objects would fall flat, and light and small objects would fly out. It is by a fixed law that things happen this way. It is only that we do not always notice them. Therefore, the backward motion of [the planets] is caused by their moving forward along with the celestial sphere. The speed of their backward motion differs from one planet to another. Why? Because these planets are located at different heights [from the center] and have different distances to cover in order [to complete their respective revolutions]. The inner ones have smaller rounds to complete than the outer ones and can do so more easily.⁹⁸

At the very end of his book, Jie Xuan summarizes the major conclusions he has drawn from these metaphors with an illustration entitled “Diagram of the Revolution of the Vast Spherical Mass of Cosmic Qi” (Haotian yiqi hunlun xuanzhuan zhi tu 昊天一氣混淪旋轉之圖; Figure 4.4). The accompanying explanation reads:

The heavens are [formed of] one vast mass of Qi and are not to be distinguished into separate layers. This Qi is very thick, more stiffened on the outside and rarefied on the inside. The Qi on the outside [rotates] and pulls the Qi on the inside along with it. Its power diminishes as it extends farther inside the Qi and stops altogether at the center [i.e., the earth]. The sun, the moon, and the planets are attached to this Qi. Since they are at different distances [from the center], their rotation speeds also differ. They retrograde because of their weight, in the same way the beads in the grooves on the spinning tray roll backward as the tray moves forward. Furthermore, the impact from the fiery Qi of the sun causes [Mercury and Venus] to move along and around [the sun] in small circles, much like a stream that flows forward produces small whirlpools wherever it encounters obstacles. ...[We find] the outer [planets] moving forward and the inner ones backward, and [see that they] rise in the east and set in the west. They appear to be hesitating, stopping, moving forward or backward. But in reality they are all within the same Qi and share the same source of power [generated by the rotation of the outermost Qi]. All of them rotate leftward. The Qi of all things stems from the same Qi, and the distinct movements of all [celestial bodies] ultimately come from the same movement.⁹⁹

98 Jie Xuan, *Xuanji yishu*, in *SKCM, zi*, vol. 55: 393.

99 Jie Xuan, *Xuanji yishu*, in *SKCM, zi*, vol. 55: 488; Jie's original image is found on 487.

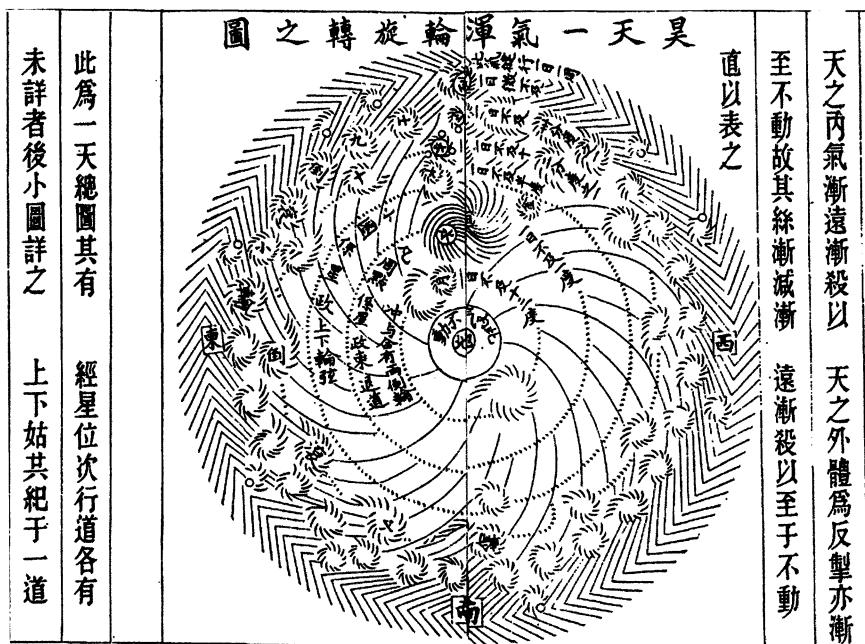


FIGURE 4.4 "Diagram of the Revolution of the Vast Spherical Mass of Cosmic Qi" (*Haotian yiqi hunlun xuanzhuan zhi tu* 昊天一氣渾輪旋轉之圖), by Jie Yuan 揭暄 (1613–1695). *Jie Xuan, Xuanji yishu* (璿璣遺述 *Remarks to Elucidate Ancient Chinese Astronomical Legacy*). Kehuzhai Collection 刻鵠齋藏版; copy held at the National Science Library, CAS, Beijing. On the Diagram, the circle in the center represents the earth and, clustering around the center line above the earth from the bottom to the top, are small whirlpools representing, respectively, the moon and Mercury (on the left), the sun (on the immediate right), Venus (farther on the right), Mars, Jupiter, and Saturn (on the left of the center line).

The cosmos that Jie Xuan envisages here is like the Paodou model writ large. It consists of a giant spherical mass of Qi with the terraqueous globe at the center. This cosmic Qi moves leftward (i.e., westward) like a whirlpool, on the momentum generated by its outermost layer. The planets are located at different distances from the center of the whirlpool and thus participate in this cosmic rotation at different speeds. This cosmic rotation causes the various observed secondary motions of the planets—their retrogression and spinning (rotation along their respective axes). It also causes the tertiary motions among some of the planets. These are represented on the illustration by the small whirls around the sun, caused by the spinning of the sun that pulls Mercury and Venus to revolve around it; around Jupiter, as it pulls its four satellites around it for the same reason; and around Saturn in the form of the rings

(see Figure 4.4). Thus, through reworking the Paodou metaphor, Jie turned the vague speculations of Huntian cosmology, especially those of the Song Confucian philosophers, into a fully operative Qi-based cosmological theory. This theory not only provided a simple and coherent explanation for the entire set of celestial movements the Jesuits presented, including the discoveries of Galileo, but also generated some highly innovative and, in hindsight, highly valid conjectures, such as the one about the rotation of celestial bodies around their respective axes.¹⁰⁰

China, the “Far West,” and the Goals of the Fang School

The ingenuity and revolutionary nature of Jie Xuan's theory were recognized by many scholars of the early Qing within and beyond the Fang School. These scholars were eager to highlight what was new and superior in Jie's theory in comparison to those introduced by the Jesuits.¹⁰¹ The renowned mathematician Mei Wending, to whom Jie sent a complete draft of his book in 1689, copied many passages from the book and commented that Jie demonstrated not only his “deep mastery of Western scholarship [on the subject] but also considerable new insights.”¹⁰² Jie's book carries several enthusiastic prefaces, some of

100 Many excellent studies on Jie Xuan's cosmological theory have appeared in the past. See especially Shi Yunli, “Jie Xuan dui ouzhou yuzhou xue yu lixue yuzhoulun de tiaohu,” and idem, “*Haoshu*, ‘Xiangwei yizheng’ and *Xuanji yishu*: Jie Xuan ziran zhexue fazhan de sanbuqu” (《昊書》《象緯億證》與《璇璣遺述》: 揭暄自然哲學發展的三部曲 *Haoshu*, “Xiangwei yizheng,” and *Xuanji yishu*: The Three Stages of Development of Jie Xuan's Natural Philosophy), *Jiuzhou xuelin* (九州學林 Chinese Culture Quarterly) 6, no. 3 (2008): 121–148; Lim Jongtae, “Restoring Unity of the World”; Wang Yuanchun 王元春, “Zhongxi wenhua jiaoliu zhong Zhongguo xuezhe duidai shiyan de taidu: yi Jie Xuan *Xuanji yishu* zhongde shiyan wei li” (中西文化交流中中國學者對待實驗的態度: 以揭暄璿璣遺述中的實驗為例 Chinese Scholars' Attitudes toward Experiment during Sino-Western Cultural Exchange: A Case Study of Experiments in Jie Xuan's *Xuanji yishu*), *Kexue jishu bianzhengfa* (科學技術辯證法 Science, Technology and Dialectics) 21, no. 5 (2004): 80–84; and Sun Chengsheng, “Mingqing zhiji shiren dui xifang ziran zhexue de fanying.”

101 Sun Chengsheng observes that these Chinese scholars mostly praised Jie Xuan for having surpassed the Westerners. See Sun Chengsheng, “Jie Xuan *Xuanji yishu* chengshu jiqi liuchuan kaolue,” 217.

102 Mei Wending, “Xietian xinyu chaocun” (寫天新語抄存 Copied Excerpts from *Xietian xinyu*), in idem, *Wuan lisuan shumu* (勿菴曆算書目 Books on Calendrical Science and Mathematics in the Library of Wuan [Mei Wending]), reprinted in the *Congshu jicheng chubian* 叢書集成初編 (Complete Collection of Collectanea: First Series), vol. 20 (Shanghai: Shangwu yinshuguan, 1939), 25–26, at 26. *Xietian xinyu* (寫天新語 New Words Being Written on the Heavens) was another title under which Jie Xuan's *Xuanji yishu* was circulated.

which were written by fellow members of the Fang School. His teacher, Fang Yizhi, contributed a preface in which he enumerates six major cosmological innovations Jie introduces in the book and asserts that “in each of these respects he surpasses all the scholars from the West.”¹⁰³ In another preface, Jie’s friend and Fang Yizhi’s son, Fang Zhongtong, considers Jie’s work within a broader scenario that he envisages as a contest of learning between China and the “Far West.” To begin with, Fang Zhongtong clarifies the cultural identity of what was then often referred to as *tianxue* 天學, the study of the heavens. He disputes the common association of this learning with the West:

Since the arrival of the Far Westerners [i.e., the Jesuits], the study of the heavens has become a specialized field of scholarship. During the reign of Chongzhen [Emperor of the Ming], a Calendrical Bureau was established and dedicated to it. Some people practiced it while others derided it. But people [in both groups] have failed to realize that *what this [learning] contains is all the methods of the Chinese sages [that are] based on the original [laws] of Heaven and Earth.*¹⁰⁴ (emphasis added)

These last words convey Fang Zhongtong’s conviction that the study of the heavens is universal, since it has its objective grounding in the laws of Heaven and Earth, and that the ancient Chinese sages were its pioneers. Like many other scholars of the late Ming and early Qing, he implicitly acknowledges the comparative advantage of the “Far West” in this field in the recent past. What he sees in Jie Xuan’s work is the beginning of a new era in which the pendulum is swinging back to China. He hails Jie for “having truly discovered what the Westerners have failed to see and inaugurated a [new] *Chinese* learning of the heavens!”¹⁰⁵ For Fang, then, the arrival of Jie’s theory is a game-changing event; it signals that China has finally regained its position as the proper leader in these fields. He exclaims:

With thousands of years of history to fall back on and the collective wisdom of generations past to take hold of, [Jie Xuan] has earned pride of

103 The Chinese reads “Mei fa yitiao zhechu daxi zhuru zhishang” 每發一條，輒出大西諸儒之上。Quoted from Fang Yizhi, preface to Jie’s *Xuanji yishu*, in Jie Xuan, *Xuanji yishu*, in *SKCM*, *zi*, vol. 55: 383.

104 Fang Zhongtong, preface to Jie’s *Xuanji yishu*, in Jie Xuan, *Xuanji yishu*, in *SKCM*, *zi*, vol. 55: 387. The original of the italicized portion reads: “Jie zhongtu shengren zhifa, tiandi zhi benran ye” 皆中土聖人之法，天地之本然也。

105 The Chinese reads “Ci zhen fa taixi suo weifa, kai zhongtu zhi tianxue zai!” 此真發泰西所未發，開中土之天學哉！Quoted from Fang Zhongtong, preface to Jie’s *Xuanji yishu*, in Jie Xuan, *Xuanji yishu*, in *SKCM*, *zi*, vol. 55: 387.

place for China on behalf of [such great astronomers as] Zhang [Heng], Zu [Chongzhi] 祖[沖之, 429–500], Shao [Yong] 邵[雍, 1011–1077] and Cai [Yong] 蔡[邕, 133–192]. Is he one who is content to remain on a par with [scholars of] the Far West?¹⁰⁶

Conclusion

Our above discussion of the Jesuit discourses about the terraqueous globe and the new cosmological discourses that these ideas stimulated among Chinese scholars of the late Ming and early Qing, such as the members of the Fang School, reveals a very complicated dynamic in the intellectual exchanges occurring at the contact zone between the Jesuits and their Chinese respondents. On the one hand, there was much free, open, spontaneous, and productive exchange between these men as individuals. On the part of the Jesuits, this was manifested by their appropriation of the Huntian cosmologists' egg-yolk metaphor and their likely improvisation of the Paodou metaphor, drawing on similar precedents in the Huntian tradition. Similarly, Chinese scholars such as Xiong Mingyu, the senior and junior Fangs, and Jie Xuan had genuine respect for the Jesuits as scholars and were ready to give them credit where credit was due. They embraced the Jesuits' notion of the terraqueous globe, many of the theoretical arguments the Jesuits brought to bear on it, and the astronomical and world geographical data they presented. The Chinese scholars also undoubtedly shared an awareness that they were living in a new era and that their horizons had expanded beyond those of their predecessors as a result of their encounter with the works of the Jesuits. Members of the Fang School decidedly rejected the Square-Earth-and-Four-Seas model of the world in light of the new knowledge they had acquired. Indeed, Jie Xuan even acknowledged that "in thinking about these [cosmological] issues, I usually take the Western theories as my point of departure; they are precise and clear and thus cannot be disregarded."¹⁰⁷ All these points testify to these Chinese scholars' conscious self-positioning of themselves *between* the old and new, Chinese and Western.

106 The Chinese reads "Sheng qiangu zhi xia, ji qiangu zhi zhi, wei Zhang, Zu, Shao, Cai shen zhongtu zhi qi, qi ganwei yuanxi suo xuanzhi ye?" 生千古之下, 集千古之智, 爲張, 祖, 邵, 蔡申中土之氣, 豈甘爲遠西所軒輊耶? Quoted from Fang Zhongtong, preface to Jie's *Xuanji yishu*, in Jie Xuan, *Xuanji yishu*, in *SKCM*, zi, vol. 55: 387.

107 This is a statement that Jie Xuan made to Qiu Weiping 邱維屏. Qiu relates it in his preface (dated 1675) to Jie's *Xuanji yishu*, in Jie Xuan, *Xuanji yishu*, in *SKCM*, zi, vol. 55: 384.

On the other hand, this intellectual “in-betweenness”¹⁰⁸ did not mask tensions and conflicts between the individual members of these two parties in contact with each other, which arose from their different group or cultural identities and senses of purpose. In theory, group or cultural identities and senses of purpose are not set in stone and can be reshaped by the interactions and exchanges that transpire in the space “in-between.” But what we have seen above is, first and foremost, how these identities and senses of purpose set the parameters for such interactions and exchanges, guided individual members of the two groups as they exercised their creative freedom in response to the new ideas and resources that they found at the contact zone, and channeled the ultimate intellectual products that resulted from such exercises. Thus the Jesuits’ demonstration of the notion of the terraqueous globe wove together triumphant tales of European maritime explorations and geographical discoveries with stories about the remarkable achievements and rapid progress of Western astronomy.¹⁰⁹ This formed part of their larger narrative about the uniqueness and superiority of *Western Christendom*. Such a discourse was essential to the success of their religious mission.

Due in part to the propaganda of court officials such as Xu Guangqi and Li Zhizao, who stressed the gap between Chinese and Western learning to rally support for a Jesuit-advised calendrical reform, many Chinese scholars were willing to concede that contemporary Chinese astronomy and calendrical science had not kept pace with developments in these fields in the West. Yet these scholars also reciprocated the Jesuits’ self-promotion by reviving the ancient myth about a golden age of learning in Chinese high antiquity. Ironically, Ricci and later Jesuits may have inadvertently stoked the revival with their initial general strategy of accommodation. This strategy manifested itself both in their apologetics, in which they presented Catholicism as fundamentally consistent with the beliefs in the “Sovereign on High” (Shangdi 上帝) and “Heaven” (Tian 天) found in the earliest strata of the Confucian classics, and in their attempt to appropriate the egg-yolk metaphor

108 I am borrowing the term “in-betweenness” from Nicolas Standaert, who defines it as the “space ‘between’ the transmitter and the receiver, between the object and the subject, and between the self and the other.” See Standaert, “Methodology in View of Contact Between Cultures,” 40. See Chapter 2, note 20, for a list of his recent articles that bear on this concept.

109 For the Jesuits’ presentation of the strengths of Western astronomy and calendrical science, see Dias, *Tianwen lue*, in *TXCH*, vol. 5: 2629–2630; Giacomo Rho, *Chongzhen lishu liyin*, *juan* 2, 10a–10b. An example of the heroic narratives the Jesuits told of European maritime exploration and world geographical discoveries can be found in Verbiest, *Kunyu tushuo*, 733.

of Huntian cosmology and explain away the apparent contradiction between the notion of the globe and the ancient Chinese teaching on “round Heaven and square Earth.”

We have already seen a version of this ancient myth resurfacing in Xiong Mingyu's 1615 preface to de Ursis's *Explanation of the Gnomon* (Biaodu shuo). In that preface Xiong recalls the time of the Yellow Emperor, when the Chinese had a perfect calendrical system, but goes on to admit that there had been no communication between China and Europe until recent years.¹¹⁰ Three decades later, however, when Xiong reiterates the same myth-history of the decline of Chinese astronomy in his 1648 preface to his *Manuscript on the Investigation [of the Principle of Things] to Attain [Knowledge]* (Gezhi cao), he implies a historical connection between the decline of Chinese astronomy and the origination of astronomy in the West, for he tells of a series of social disturbances in middle and late antiquity that forced many Chinese astronomers to scatter to regions west of China, taking their expertise with them. “That is why,” he writes, “today there are astronomers who are descendants of [the Yellow Emperor's grandson] Zhuan[xu] 顓[頊] living in that part of the world.”¹¹¹ This story about the Chinese origin of Western science was later elaborated on by none other than Mei Wending, a most celebrated expert on Western mathematics during the Kangxi era, and by the Kangxi Emperor himself, an excellent student, and teacher, of Western mathematics in his own right.¹¹² As such, it

110 Xiong Mingyu, preface to *Biaodu shuo*, in de Ursis, *Biaodu shuo*, in *TXCH*, vol. 5: 2530.

111 Xiong Mingyu, author's preface to *Gezhi cao*, in idem, *Gezhi cao*, in Xiong Zhixue, ed., *Hanyu tong*, 2a.

112 See Mei Wending, *Lixue yiwèn bù* (曆學疑問補 (上) Addendum to the [Treatise on the] Questions about Calendrical Studies, Part 1), in idem, *Lixue quanshu* (曆學全書 Comprehensive Collection of [Mei's] Works on Calendrical Studies), in *SKQS, zi*, vol. 794: 55–65; and Kangxi 康熙, *Yuzhi shuli jingyun* (禦製數理精蘊 The Emperor's Discourse on the Fine Essence of Mathematical Principles), Vol. 1, Archive.org version, consulted on 8/29/2013 at: <https://archive.org/details/o6o76284.cn>, and idem, *Yuzhi sanjiaoxing tuisuan falun* (禦制三角形推算法論 The Emperor's Treatise on the Inferences and Calculations Involving Triangles), cited in Wang Yangzong 王揚宗, “Kangxi ‘Sanjiaoxing tuisuan fa lun’ jianlun” (康熙《三角形推算法論》簡論 A Brief Discussion of Kangxi's “On Inferences and Calculations involving Triangles”), *Huowèn* (或問 Inquiries), no. 12 (2006): 118. Kangxi's classical statement on the Chinese origin of Western science is found in the latter treatise, where he writes: “Those who have been discussing the ancient and new [Western] methods have talked about their differences. They do not know about their origins. Calendrical science originated in China and spread to the Far West. Westerners have been able to preserve it and not lose it. They have kept up their observations and adjust it every year, so that their calendars are fixed with great precision. There is no other special technique to it.”

became the standard narrative officially adopted in the *History of the Ming* (Mingshi 明史) compiled during the early and mid-Qing. The chapter “Records of Calendrical Matters” (Lizhi 曆志) in the *History of the Ming* gives the following account of the westward journey of Chinese astronomy, first to Arabia and then to Europe:

Those who came to China from the Western Ocean all referred to themselves as Europeans. Their calendrical system is the same as that of the Muslims but is more accurate. A review of historical records from previous dynasties indicates that those foreigners who knew anything about calendrical methods mostly came from the Western Region and none from areas to our east, south, or north. ...Searching for a reason for this, [we learned that] when [Emperor] Yao sent the [imperial astronomers]—the Xi and He brothers—to make [astronomical] observations in the four quarters [of the earth], he [instructed the] two Xi brothers and the Third Brother He, who were deployed in the east, south, and north, respectively, not to go any farther east beyond Yuyi 嵎夷 [or Yanggu], south beyond Jiaozhi, or north beyond Suofang. Only Second Brother He was asked to go to the west without any specific geographical limits being set to his realm of responsibility. Does this not mean that the influences of Chinese civilization had reached very far west at that time? By the end of the Zhou dynasty [1050–256 BCE], descendants of these astronomers had all scattered. Since the Western Region and Arabia were connected with China by land, whereas in the far south or east they would be obstructed by the seas, and in the far north the weather is severely cold, the Chinese astronomers could only follow the land path and go west, carrying their books and instruments with them. Europe is located to the west of the Muslim countries. Their customs are similar, but they surpass the Muslims in their love of curiosity and novelty and their desire to compete.¹¹³ Therefore, even though their calendrical system originated from the same source as that of the Muslims, they adjusted it age after age, so that the Muslims could no longer match them in their precision. This is an outcome of the Europeans’ competitiveness. Since the Xi and He [brothers’ texts] were no longer in China, what remained of our ancient [astronomical] texts was just *The Gnomon of Zhou* (Zhoubi 周髀). The Westerners’ instruments for observing the celestial phenomena, the theory of the five climate zones, the idea that the earth is round, and

113 This explanation of why Europeans excel in their calendrical science is based on Giacomo Rho’s. See note 109 above.

the method of manipulating the squares (*zhengfang zhi fa* 正方之法)¹¹⁴—none of these goes beyond the ground covered by *The Gnomon of Zhou*. This fact shows the source from which they all derive. *Now we seek knowledge from [these Europeans] and adopt whatever is useful that they have to offer, in order to renew a tradition lost to us for over one thousand and several hundred years.* In spirit, this is in full accord with [what Confucius said]: “When imperial rituals become defunct [in the capital], knowledge about the rites must be recovered from people in the outlying regions.”¹¹⁵ (emphasis added)

114 I have not encountered the exact phrase *zhengfang zhi fa* 正方之法 in any other text I have examined. I translate it literally here to make room for alternative readings, but I believe it refers to the Pythagorean theorem, or, more precisely, to the method of demonstrating this theorem by building three squares along the sides of a right-angle triangle. A Chinese translation of this theorem and the various demonstrations for it appears in *Ji he yuan ben* 幾何原本 (Elements of Geometry, a translation of Euclid's *Elements*, Books I–VI, 1607), reprinted in *TXCH*, vol. 4: 2059–2066. My reading of “正方之法” in this sense is based on the fact that there was a prominent discourse in the early Qing that used the correspondence between the Pythagorean theorem and a statement in the *Zhoubi* (周髀 The Gnomon of Zhou), *juan* 1, namely, “環而共盤得成三四五,” as evidence that Western mathematics originated in ancient China. Indeed, the Kangxi Emperor used precisely the demonstration of this theorem, complete with a textual explanation and an illustration showing the three squares, to explicate the statement from the *Zhoubi* cited above. His discussion on this appears in the first *juan* of Kangxi, *Qinding shuli jingyun* 欽定數理精蘊, in the essay entitled “Shuli benyuan” (數理本源 The Foundation and Sources of Mathematical Principles), where he enunciates his argument that Western mathematics originated in ancient China. I wish to thank Karine Chemla and Han Qi for their insights and bibliographical references that guided my research on this issue, though I bear the responsibility for all possible errors in arriving at the reading I suggest here.

115 Zhang Tingyu et al., eds., *Mingshi, juan* 31, “Lizhi” (曆志 Records of Calendrical Matters), vol. 3, 544. The quote from Confucius is found in Ban Gu, *Hanshu, juan* 30, “Yiwenzhi” (藝文志 Bibliographical Record). The original statement is “仲尼有言，‘禮失而求諸野’”; cited from Chen Guoqing 陳國慶, ed., *Hanshu yiwenzhi zhushi huibian* (漢書藝文志注釋彙編 Collection of Commentaries on the “Bibliographical Record” Chapter in the *History of the Former Han*) (Beijing: Zhonghua shuju, 1983), 165. Han Qi 韓琦 has shown that this narrative in the *History of the Ming* was authored by Mei Wending's 梅文鼎 grandson Mei Juecheng 梅穀成 (1681–1763). The key points of this narrative were derived from the series of essays included in Mei Wending's *Lixue yiwen bu*, especially the essay entitled “Lun zhongtu lifa de chuanru xiguo zhi you” (論中土曆法得傳入西國之由 On the Reason Chinese Calendrical Methods Were Able to Spread into Western Countries). See Han Qi, “Cong Mingshi lizhi de zuanxiu kan xixue zai zhongguo de chuanbo” (從《明史》曆志的纂修看西學在中國的傳播 The Spread of Western Learning in China as Seen from the History of the Compilation of the “Records on Calendrical Matters” in the *History of the Ming*), in *Keshi xin chuan—Qingzhu Du Shiran xiansheng*

Regardless of the historical merit of this claim, it reveals the kind of psychological energy that drove many scholars to study Jesuit science and the ultimate goal they set for such studies—namely, to recover the lost legacy of ancient China and reclaim China's leadership in the realm of natural studies. In our case studies of Xiong Mingyu, Fang Yizhi, and Jie Xuan, we have seen that this was not just a face-saving device employed by the Chinese to license their borrowing or copying of Western ideas; rather, it did guide their efforts to interpret Jesuit ideas (such as the Paodou metaphor), to integrate them with the preexisting Chinese knowledge traditions, and to advance them by creatively engaging available Chinese resources. Especially noteworthy here is the integration of Chinese empirical maritime knowledge into these newly emerging cosmological discourses, which is borne out by our analyses of why Xiong Mingyu gave such a prominent place to maritime themes in his arguments for

congshi kexue shi yanjiu 40 zhounian xueshu lunwen ji (科史薪傳—慶祝杜石然先生從事科學史研究40周年學術論文集 Carrying the Torch in the History of Science: Collection of Essays in Celebration of the Fortieth Anniversary of the Commencement of Professor Du Shiran's Research Career in the History of Science) (Shenyang: Liaoning jiaoyu chubanshe, 1997), 66. For further studies on the late Ming and early Qing argument that Western learning originated in China, see Han Qi, "Bai Jin de Yijing yanjiu he Kangxi shidai de 'xixue zhongyuan shuo'" (白晉的易經研究和康熙時代的西學中源 說 Joachim Bouvet's *Yijing* Studies and the Theory of the Chinese Origination of Western Learning during the Kangxi Era), *Hanxue yanjiu* (漢學研究 Chinese Studies) 16, no. 1 (1998): 185–201; idem, "Mingqing zhiji lishi qiuye lun zhi yuan yu liu" (明清之際禮失求野論之源與流 The Origin of the Theory of "Retrieving Lost Rites from Barbarians" and Its Transmission in the Late Ming and Early Qing), *Ziran kexue shi yanjiu* (自然科學史研究 Studies in the History of the Natural Sciences), no. 3 (2007): 303–311; Liu Dun 劉鈍, "Cong laozi huahu dao xixue zhongyuan—yixia zhibian beijing xia wailai wenhua zai zhongguo de qite jingli" (從 '老子化胡' 到 '西學中源'—'夷夏之辨' 背景下外來文化在中國的奇特經歷 From "Laozi Converting the Central Asians" to "Chinese Origination of Western Learning": The Strange Adventures of Foreign Culture in China against the Backdrop of "Discriminating the Chinese from the Foreign"), *Faguo hanxue* (法國漢學 French Sinology) 6 (2002): 538–564; Minghui Hu, "Provenance in Contest: Searching for the Origins of Jesuit Astronomy in Early Qing China, 1664–1705," *International History Review* 24, no. 1 (March 2002): 1–36; and Wang Yangzong 王揚宗, "Kangxi, Mei Wending yu 'Xixue zhongyuan' shuo zai shangque" (康熙, 梅文鼎與西學中源說再商榷 A Further Critique of [Previous Literature on] Kangxi, Mei Wending, and the Theory of the Chinese Origin of Western Learning), *Zhonghua kejishi xuehui huikan* 中華科技史學會會刊 (Journal of the Society of Chinese Science and Technology) 10 (2006): 59–63. On the continuation of this argument in the modern era, see Quan Hansheng 全漢升, "Qingmo de xixue yuanchu zhongguo shuo" (清末的西學源出中國說 The Theory of the Chinese Origin of Western Learning at the End of the Qing), *Lingnan xuebao* 嶺南學報 (Lingnan Learned Journal) 4, no. 2 (1935): 57–102; and Lackner, "Laizi dongfang de kexue?"

the sphericity of the earth, and of how Fang Yizhi and Jie Yuan incorporated local maritime literature into their demonstrations of the sphericity of the sea.

Also important is the fact that whereas the Jesuits presented Western astronomy and cosmology as a gateway to higher truths about God,¹¹⁶ Fang Yizhi and Jie Yuan rejected the philosophical and religious underpinnings of the Jesuit material and put the terraqueous globe at the center of a cosmos that is formed and sustained by the all-encompassing, self-generating, and self-propelling Qi. These processes of “domestication” (as defined in the introduction to this book) occurred neither haphazardly nor as a result of the human tendency to comprehend what is alien via what is familiar; instead, this domestication was accomplished with *conscious intent*. As Fang Zhongtong’s lauding of Jie Xuan for “having...inaugurated a [new] *Chinese* learning of the heavens!” makes clear, what he saw in Jie’s achievements was the realization of the goal that the Fang School as a group had been working for: a true renewal of ancient Chinese cosmology and, with that, the beginning of a new power dynamic in the scientific exchange between China and the West.

116 The invocation of divine purpose to account for the configuration of earth and sea appeared not only in Jesuit catechisms such as Ruggieri’s *Tianzu shengjiao shilu* (天主聖教實錄 Veritable Record of the Lord of Heaven), discussed above in the first section of this chapter, but also in the Jesuits’ natural philosophical treatises. See, for example, Aleni and Xie Fang, *Zhifang waiji jiaoshi*, 146, and Vagnoni, *Kongji gezhi*, 856. The theological significance of astronomical studies is highlighted by Manuel Dias, Jr., in the preface to his *Tianwen lue*. Dias asks at the end of the preface, “Isn’t the introduction to the studies of the heavens the gateway to Heaven?” Dias, *Tianwen lue*, in *TXCH*, vol. 5: 2632.

Translating the Four Seas across Space and Time

The introduction and recontextualization of the notion of the terraqueous globe in the late Ming and early Qing coincided with two sets of discourses that both had to do with explicating the meaning of the term “Four Seas.” One was led by the Jesuits, who were in the process of developing a Chinese nomenclature to translate the European names for the seas and oceans established in Renaissance world geography. Pursuant to their general approach of accommodation, the Jesuits did this by partially reworking the preexisting Chinese system of naming the maritime spaces, including the names of the Four Seas employed in the mainstream geographical literature. The other set of discourses arose from Chinese scholars in the field of Yugong studies. Over the course of the seventeenth century, this area of classical scholarship gradually emerged from the geopolitical discourses of the “All under Heaven” tradition and became a field of evidential scholarship in historical geography. A telltale sign of this transformation was that the new Yugong scholars began to comment on the two passages in the “Tribute of Yu” (Yugong) in which the term Sihai (Four Seas) appears with an eye to ascertaining what the term must have meant to the legendary sage-ruler Yu and his people *within the realm of historical possibility*. Explicitly or implicitly, participants in both discourses were thus rejecting the notion that there are four and only four seas surrounding China, or the earth—in other words, the notion that underlay the literal usage of the term Four Seas.

Very few paper trails link these new discourses on the “Tribute of Yu” to the writings of the Jesuits. Indeed, the earliest work documented here that contributed to their rise was written by Li Zhi 李贄 (1527–1602) before the arrival of the first Jesuits. As detailed below, Li’s attack on the literal interpretation of the term Four Seas in the “Tribute of Yu” was derived in part from personal knowledge about the global maritime trade acquired during childhood, when he lived near the southeastern coast in Fujian, and also during his years of official appointment near the Ming empire’s southwestern frontier in Yunnan in the early Wanli reign (1573–1620). Furthermore, despite their apparent elision of the fact in their writings, the major evidential scholars of the early Qing, such as Zhu Heling 朱鶴齡 (1606–1683), Gu Yanwu 顧炎武 (1613–1682), and Hu Wei 胡渭 (1633–1714), were linked to the Jesuit discourses through an intricate web of words and social relations. Their consistent rejection of the literal reading of the Four Seas in this classical text, in contrast to the stance of

earlier Yugong scholars such as Cheng Dachang, stemmed from the same global context and the same ideological impulse that had led Xiong Mingyu, Mei Wending, and others to “discover” the idea of the globe and a perfect calendrical science in ancient Chinese texts (as discussed in Chapter 4).

A distinct thematic continuity runs through the works of the major participants of these discourses, whose lives were otherwise shaped by vastly different socio-historical circumstances in the early Wanli era, during the cataclysmic Ming-Qing transition, and in the early years of the Kangxi reign. This indisputable continuity calls into question some of the long-established characterizations of the Ming-Qing divide in Chinese intellectual history. It compels us to take seriously the early Chinese encounters with Jesuit science and the broader maritime context within which they occurred—namely, the arrival of a new phase of global exchange in the Age of Discovery that stretched across the Ming-Qing divide—as yet another major historical setting for the development of Chinese thought in the late sixteenth and the seventeenth century.

Defining the Four Seas in Jesuit Hydrographic Nomenclature

The major participants in the Jesuit discourses on the Four Seas were Matteo Ricci, Guilio Aleni, and Ferdinand Verbiest. Ricci was the pioneer among them, and his major works in this area, his Chinese world maps, were tremendously popular among Chinese scholars during his lifetime. But it was Aleni whose writings on this topic, particularly his *Records of Lands outside the Jurisdiction of the Imperial Geographer* (Zhifang waiji, 1623), reached the widest Chinese readership across several generations, well into the early and mid-Qing. Aleni's influence on his Chinese readers was mirrored by his influence on his Jesuit successors: the major Jesuit work in world geography published after his lifetime, Verbiest's *Illustrated Account of the Geography of the World* (Kunyu tushuo, 1674), reproduced many sections in their entirety from Aleni's text, including those pertaining to maritime place names. For these reasons, the following discussion focuses on Ricci and Aleni.

As noted in Chapter 2, Ricci was the first Jesuit to craft a basic Chinese vocabulary for Renaissance world geographical concepts such as those of the terrestrial sphere (*diqu* 地球) and the five continents (*wu dazhou* 五大州), as well as for names of the continents, countries, major landmarks, and various seas and oceans. Most of the maritime place names he supplied on his “Complete Geographical Map of Ten Thousand Countries” (Kunyu wanguo quantu, 1602) were translations or transliterations of their European counterparts, but some were adapted or created anew to suit Chinese conventions

and sensibilities. The greatest adaptation Ricci made was to add directional terms to the names, which reflected the perspective of Chinese readers looking out to the east, west, north, and south from their position close to the center of the map.

The following discussion takes stock of the names of the major seas and oceans on this world map (Table 5.1) and draws comparisons between them and their European and preexisting Chinese counterparts, where applicable. For the sake of convenience, Table 5.1 groups together Ricci's hydrographic terms based on their relevance to our modern system of classification—the Pacific system, the Indian Ocean system, the Atlantic system, and the Arctic Ocean system—to which is added the category of inland seas. As points of comparison, Table 5.1 lists the corresponding names used by the three major European sources of Ricci's map: the world atlases of Abraham Ortelius (1527–1598), Gerardus Mercator (1512–1594), and Petrus Plancius (1552–1622).¹

Table 5.1 is not intended to be exhaustive; some of the seas in northern Europe, for example, are not listed. But it suffices to demonstrate how Ricci

1 I consulted the following editions of the atlases by Abraham Ortelius: (1) *Theatrum orbis terrarum Abrahami Orтели Antuerp, geographi regii* (The Theater of the Whole World: Set Forth by that Excellent Geographer Abraham Ortelius; *hereafter* Ortelius), translated into English by W.B. [sic] (London: John Norton, 1606), which carries Ortelius's preface to the 1570 edition of this book (unless otherwise noted, subsequent references to the map numbers in Ortelius are based on this 1606 edition); (2) *Theatrum orbis terrarum* (The Theater of the Whole World) (Antwerp: Apud Aegid, Coppenium Diesth, 1570); and (3) *Theatrum orbis terrarum* (The Theater of the Whole World) (Antwerp: Auctoris ære & cura impressum, absolutumque apud Christophorum Plantinum, 1584). The 1570 and 1584 editions I consulted are copies held at the Newberry Library, Chicago. For the atlases of Gerardus Mercator, I used the following two editions: (1) *Atlas sive cosmographicae meditationes de fabrica mundi et fabricati figura* (Atlas or Cosmographical Meditations on the Creation of the World and on the Form of Created Matter, 1595; *hereafter* Mercator), digital reproduction of the copy held at the Lessing J. Rosenwald Collection (Oakland, Calif.: Octavo, digital edition, 2000); and (2) the first English translation of Mercator's atlas, which is based on an amended edition of his work with contributions from Jodocus Hondius (1563–1612) and others, i.e., Mercator, *Atlas or a Geographie Description of the Regions, Countries and Kingdomes of the World, Through Europe, Asia, Africa, and America, Represented by New & Exact Maps* (*hereafter* Mercator Amended), translated by Henry Hexham (Amsterdam: Henry Hondius and John Johnson, 1636). My source for Petrus Plancius is idem, *Orbis terrarum typus de integro multis in locis emendates* (A New World Map, Updated in Many Places; *hereafter* Plancius), engraved by Jan van Doetecam (Amsterdam, 1594), digital scan of copy held at Princeton University Library, accessed on August 20, 2013 at: <http://gisserver.princeton.edu.go.libproxy.wakehealth.edu/map/1931>. For further information on Ricci's European sources, see the second section in Chapter 2 above. In addition, I consulted the "General Glossary of Place Names in 'Kunyu wanguo quantu,'" in Huang Shijian and Gong Yingyan, *Li Madou shijie ditu yanjiu*, 183–209.

TABLE 5.1 *Major Hydrographic names on Matteo Ricci’s “Complete Geographical Map of Ten Thousand Countries” (Kunyu wanguo quantu 坤輿萬國全圖, 1602) and their possible European sources*

	Names on Ricci Map	Location and/or modern names	Names in Ricci’s possible European sources
The Pacific system	Daming Hai 大明海 (Sea of the Great Ming)	The sea that surrounds China on its east and southeast; it is marked slightly to the northwest of the center point of the map	<i>Mare Cin</i> in Ortelius, #47, and Mercator, 39r, but <i>Oceanus Sinensis</i> (Chinese Ocean) in Plancius
	Xiao Dongyang 小東洋 (Small Eastern Ocean)	Marked just east of the main Japanese islands	<i>Oceanus Orientalis</i> (Eastern Ocean) in Ortelius, #48, but no corresponding labels in Mercator; it is part of <i>Oceanus Sinensis</i> in Plancius
	Da Dongyang 大東洋 (Great Eastern Ocean)	Marked on the eastern edge of the Pacific near the southern tip of the Baja California peninsula	<i>Oceanus Orientalis</i> in Ortelius, #48; <i>Mar Del Zur</i> in Mercator, 41r, and Plancius
	Nanhai 南海 (South Sea)	The sea between Java and modern day Australia; it is marked in a U-shaped dent in the central northern frontier of the unknown southern continent “Magellanica”	<i>Mare Lantchidol</i> in Plancius and the world maps of Ortelius and Mercator Amended
	Beilu Hai 孛露海 (Peruvian Sea)	Marked immediately west of the Peruvian coast	<i>Oceanus Peruvianus</i> in Plancius and Mercator Amended, but not present in Ortelius ^a
	Dongnan Hai 東南海 (Southeast Sea)	Marked to the west of the Peruvian Sea	<i>Mar del Zur</i> (South Sea) in Mercator, 41r, and in Ortelius’s world map

	Names on Ricci Map	Location and/or modern names	Names in Ricci's possible European sources
The Indian Ocean system	Mowalani Hai 墨瓦蠟泥海 (Magellanic Sea)	Marked in the southeastern corner of the Pacific just west of the Strait of Magellan	
	Ning Hai 寧海 (Peaceful or Pacific Sea)	In the southeastern region of the Pacific, marked west of the Strait of Magellan	<i>El Mar Pacifico</i> in Ortelius's world map, Plancius, and in Mercator, 41r
	Dong Honghai 東紅海 (Eastern Red Sea)	The bay area between the Baja California peninsula and mainland Mexico	<i>Mar Vermeio</i> in Ortelius, #2
	Banggela Hai 榜葛刺海 (Banggela Sea)	Bay of Bengal	<i>Golfo di Bengala</i> in Ortelius, #48, and Mercator, 39r
	Xiao Xiyang 小西洋 (Small Western Ocean)	Indian Ocean (marked just west of Goa, India)	<i>Oceanus Indicus</i> in Plancius; <i>Mar di India</i> and <i>Mar di Indie</i> in the world maps of Mercator Amended and Ortelius
	Helabi Hai 曷 刺比海 (Helabi Sea)	Arabian Sea	<i>Mare Arabicum et Indicum</i> in Mercator Amended, but <i>Mar indicum ol. Mar Rubrum</i> (Indian Sea or Red Sea) in Ortelius, #49 ^b
	Moshengding Hai 默生丁海 (Moshengding Sea)	The Persian Gulf	<i>Mare di Mesendin olim Persicus Sinus</i> in Ortelius, #4
	Xi Honghai 西 紅海 (Western Red Sea)	The Red Sea	<i>Mar Rosso olim Sinus Arabicus</i> in Ortelius, #4; <i>Mare Rubrum</i> in Mercator, 39r, and in Plancius
	Xinan Hai 西南海 (Southwest Sea)	Marked in the southwestern section of the Indian Ocean, just southeast of the southern tip of Madagascar	

TABLE 5.1 *Major Hydrographic names on Matteo Ricci’s “Complete Geographical Map of Ten Thousand Countries” (cont.)*

	Names on Ricci Map	Location and/or modern names	Names in Ricci’s possible European sources
The Atlantic system	Da Xiyang 大西洋 (Great Western Ocean)	Marked to the west of Portugal	encompasses <i>Occidentalis Oceanus</i> in Ortelius, #5, and Mercator, 35r, and <i>Oceanus Atlanticus</i> in Ortelius, #4
	Yadala Hai 亞大蠟海 (Yadala Sea)	Marked just south of the Fortunate Isles	<i>Oceanus Atlanticus</i> in Ortelius #4, and <i>Atlantici Maris Pars</i> in Mercator, 37r
	Hezheyano Cang ^e 河摺亞諾滄 (Hezheyano Ocean)	Marked twice on the map: one appears just west of Yadala Hai, the other in the eastern extremity of the map, in the area east of Canada	<i>Mare Oceanus</i> (Ocean Sea) in Cantino’s Planisphere; ^d but <i>Mar del Nort</i> (North Sea) in Ortelius (world map), Mercator, 41r, and Plancius
The Arctic Ocean system	Liweiya Hai 利未亞海 (Sea of Libya/Africa)	Southern Atlantic Basin	<i>Oceanus Aethiopicus</i> in the world map of Ortelius, Mercator, 37r, and Plancius
	Bing Hai 冰海 (Ice Sea)	Marked several times in the maritime space above the northern frontier of the Eurasian continent from northern Europe to Siberia	<i>Mare Glaciale</i> (Ice Sea) and <i>Oceanus Septentrionalis</i> (Northern Ocean) in Mercator, 43r; and <i>Oceanus Scythicus</i> (Scythian Ocean) and <i>Mare Septentrionale</i> (North Sea) in Ortelius, #5
	Boerzuoke Hai 伯爾昨客海 (Petzorke Sea)	Marked north of the Gulf of Bothnia	<i>Petzorke Morie</i> in Plancius and Mercator, 35r, but part of <i>Mare Septentrionale</i> in Ortelius, #5
	Beihai 北海 (North Sea)	Marked in the eastern end of the southern Arctic Ocean, just north of the Bering Strait	part of <i>Oceanus Scythicus</i> in Ortelius, #47; <i>Oceanus Tartaricus</i> in Plancius and <i>Mare Tartaricum</i> in Mercator Amended ^e

	Names on Ricci Map	Location and/or modern names	Names in Ricci's possible European sources
Inland Seas	Dizhong Hai 地中海 (Sea between Lands)	The Mediterranean	<i>Mare Mediterraneum</i> in Ortelius, #5, Mercator, 35r, and in Plancius
	Tai hai 大海 (The Great Sea)	The Black Sea	<i>Mare Magiore</i> in Ortelius, #5, and <i>Mare Maior</i> in Plancius; <i>Pontus Euxinus</i> in Mercator, 39r
	Beigao Hai 北海 高海 (Beigao Sea, "High Sea of the North")	The Caspian Sea	<i>Mare de Bachu olim Caspium</i> in Ortelius, #5; <i>Mare de Sala olim Caspium</i> in Mercator, 39r; and <i>Mare de Sala Bachu</i> in Plancius

Note: (1) **Mercator** = Gerardus Mercator (1512–1594), *Atlas sive cosmographicae meditationes de fabrica mundi et fabricati figura* (Atlas or Cosmographical Meditations on the Creation of the World and on the Form of Created Matter), 1595; (2) **Mercator Amended** = Gerardus Mercator, *Atlas or a Geographicke Description of the Regions, Countries and Kingdomes of the World, Through Europe, Asia, Africa, and America, Represented by New & Exact Maps*, translated by Henry Hexham, 1636; (3) **Ortelius** = Abraham Ortelius (1527–1598), *Theatrum orbis terrarum* (The Theater of the Whole World), 1570 (copy held at the Newberry Library, Chicago); and (4) **Plancius** = Petrus Plancius (1552–1622), *Orbis terrarum typus de integro multis in locis emendatus* (A New World Map, Updated in Many Places), 1594.

a. See the Mercator Amended map of the Americas, following p. 435. The Peruvian Sea is not even marked on Ortelius's map that accompanies his treatise #9 on Peru.

b. See the Mercator Amended map of Asia, following p. 401. Mercator, 39r, also used the term *Mare Rubrum* to designate this area. Martin W. Lewis observes that the name Red Sea was used to denote the northwestern section of the Indian Ocean including the Arabian Sea in many European world maps until the 1800s. See Lewis, "Dividing the Ocean Sea," *Geographical Review* 89, no. 2, *Oceans Connect* (1999): 196.

c. To my knowledge, the Chinese character *cang* 滄 was never used to designate the name of a body of water before or after this usage in Ricci's map. In similar contexts, this character is often used only in connection with *hai* 海 (sea), to form the compound term *canghai* 滄海 to mean "vast sea." I have chosen to translate it as "ocean" here, to stress the possibility that Ricci may have intended to convey the vastness and depth of this water.

d. Alberto Cantino, "Carta del Cantino," copy held at Biblioteca estense universitaria, Modena, Italy. Accessed on 9/10/2014 at: <http://bibliotecaestense.beniculturali.it/info/img/geo/i-mo-beu-c.g.a.2.html>. On Cantino's map, however, *Mare Oceanus* is marked in the southern Atlantic basin.

e. The Mercator Amended map of Asia, following p. 401.

tried to preserve a degree of semantic resonance between the two linguistic worlds he brought together through his translation. As Table 5.1 shows, contemporary European cartographers derived the names of seas and oceans from many different sources. A system of naming that resembles the Chinese one of the Four Seas is clearly at work behind such names as *Oceanus Orientalis* (Eastern Ocean), *Oceanus Occidentalis* (Western Ocean), *Mar del Nort* (North Sea), and *Oceanus Septentrionalis* (Northern Ocean). The difference is that these names were created with Europe as the center of reference. Furthermore, the names used by these European cartographers represented a combination of classical usages and the most recent maritime conventions. *Oceanus Scythicus* (Scythian Ocean), found in the depictions of the Arctic Zone by all three cartographers surveyed here, traced its origins to classical authors such as Pliny the Elder.² Similarly, *Mare Oceanus* (Ocean Sea), found in Cantino's Planisphere (1502), was a remnant of the once widely entertained notion of classical Greek antiquity that there is an "Ocean river" that circumscribes the disk-shaped earth.³ In contrast, the division between the *Mar del Zur* (South Sea), designating the eastern/central Pacific in the equatorial reaches, and the *Mare Pacificum* (Pacific Sea), referring to the Pacific Ocean that stretches around the 30° south latitude, was definitely a new convention developed during and shortly after the explorations of the Pacific by Magellan and his crew,⁴ as was the name *Mare Lantchidol* that designates the stretch of water between Java and modern-day Australia, which originated as a combination of two misspelled words—the Malay word *laut* (sea) and the Javanese word *kidul* (south). Thus, literally translated, the name *Mare Lantchidol* is tautological, meaning "Sea of the South Sea." A member on Magellan's crew, Antonio Pigafetta

2 See the description of the Scythian Ocean in *Pliny's Natural History*, Book 6, chap. 14, in Pliny the Elder, *The Natural History of Pliny*, 2: 23–24.

3 See Alberto Cantino, "Carta del Cantino," 1502, copy held at Biblioteca estense universitaria, Modena, Italy. Accessed on 9/10/2014 at: <http://bibliotecaestense.beniculturali.it/info/img/geo/i-mo-beu-c.g.a.z.html>. The Cantino World Map (or Planisphere) occupies a distinct position in the history of world cartography as the first world map that shows the Americas. It was drawn by an anonymous Portuguese cartographer during 1501–1502, based on the most recent geographical discoveries made by the Portuguese empire, at the secret commission of Alberto Cantino, who had been sent to Portugal by Hercule d'Este, Duke of Ferrara, to collect intelligence. The map was smuggled out of Portugal in 1502 and is now preserved at the University of Modena, Italy. For further information on this map, see Jorge Nascimento Rodrigues and Tessaleno Devezas, *Pioneers of Globalization: Why the Portuguese Surprised the World* (Lisbon: Centro Atlantico, 2007), 175–179. For further discussion of this image of the earth and its relationship to the sea in Greek antiquity, see the first section of Chapter 3 above.

4 Martin Lewis, "Dividing the Ocean Sea," 200.

(ca. 1491–1531), was the first explorer who learned these words from the locals, when his fleet passed through this area. He subsequently transmitted it in its misspelled form to European cartographers through his chronicles of the voyages of circumnavigation.⁵

Also worth noting is the tremendous autonomy with which Ortelius, Mercator, and Plancius adopted names. What is now known as the Arabian Sea is called the *Mare Arabicum et Indicum* (Arabian and Indian Sea) in Mercator but appears as the *Mar indicum* or *Mar Rubrum* (Indian Sea or Red Sea) in Ortelius. The modern hydrographic distinction between a sea and an ocean (a sea being a relatively shallow body of water partially bounded by land and an ocean being a vast, unbounded stretch of water) had obviously not yet been established among these authors. Ortelius and Mercator refer to the water surrounding China as the *Mare Cin* (China Sea), whereas Plancius calls it the *Oceanus Sinensis* (Chinese Ocean). There was also much disagreement as to which bodies of water deserved to have their own names. Hence Plancius and Mercator marked down the “Peruvian Sea,” but Ortelius did not.

The multiple naming systems then current among Ricci’s European sources and the general liberty that they exercised in naming (or not naming) the many seas and oceans on earth enabled Ricci to create a suitable Chinese maritime nomenclature by adapting and transforming both his European sources and the preexisting Chinese terminology. The most important effort he made in this respect was his borrowing from the Chinese maritime convention of the two sets of divisions between the Da Xiyang 大西洋 and Xiao Xiyang 小西洋 (Great and Small Western Oceans) and between the Da Dongyang 大東洋 and Xiao Dongyang 小東洋 (Great and Small Eastern Oceans). As discussed in Chapter 3, these terms had evolved from the Yuan to the Ming dynasties and were used to designate the waters navigated by Chinese mariners who followed certain established nautical routes. The dividing line between eastern and western oceans fell roughly along the western coast of Kalimantan at around 110° longitude. The part of the South China Sea west of this line up to Melaka was referred to as the Small Western Ocean, while waters farther west of Melaka, from the Bay of Bengal to the Indian Ocean, Arabian Sea, and Persian Gulf, were collectively referred to as the Great Western Ocean. Waters east of Kalimantan were further divided into the Small Eastern Ocean, which included the part of the South China Sea stretching from the northern coast of Kalimantan to the Philippines, and the Great Eastern Ocean, which included the waterways running from the southern coast of Kalimantan to the Maluku

5 See B.C. Donaldson, “In Search of a Sea: The Origins of the Name Mare Lantchidol,” *The Great Circle* 10, no. 2 (1988): 136–148.

archipelago. By the late Ming, the distinction between the Great and the Small Eastern Oceans became less distinct, and the two areas tended to be referred to together as the Eastern Ocean.⁶ This system of naming the oceans reflected the farthest extent of regular Chinese maritime activities south and west of China before the arrival of the Jesuits.

Ricci took over these terms but entirely redefined them to accommodate the much larger maritime space on the globe introduced in his map. Here, the “Sea of the Great Ming” extends from south of the Korean peninsula to the South China Sea, covering all the waters in the southwestern Pacific that were formerly known as the Small Western Ocean and the Eastern Ocean. Ricci then used the terms Western Ocean and Eastern Ocean to designate all waters west and east of the Sea of the Great Ming, respectively. Thus the Indian Ocean, known to the Chinese before the Jesuits’ arrival as the Great Western Ocean, became the Small Western Ocean, and the Atlantic Ocean became the new Great Western Ocean. To the body of water stretching beyond the eastern boundaries of the Great Sea of the Ming, namely, the northern Pacific, Ortelius had assigned a single name, *Oceanus Orientalis*. Ricci translated this term as Dongyang (Eastern Ocean), a perfect match for its original, but he divided this ocean into two portions and called its western portion, near East Asia, Xiao Dongyang (Small Eastern Ocean), and its eastern portion, near north America, Da Dongyang (Great Eastern Ocean). This ingenious innovation upon Ortelius’s nomenclature allowed Ricci to preserve the symmetry of the preexisting Chinese double-pairing maritime convention of the Smaller/Greater Eastern/Western Oceans.

A concern for symmetry also informed Ricci’s choice of some other maritime place names. An example is his creation of a new pair of seas, Xi Nanhai (Southwest Sea) and Dong Nanhai (Southeast Sea), to designate the southwestern section of the Indian Ocean and the southeastern section of the Pacific (*Mar del Zur*, the “South Sea”), respectively.⁷ The Southwest Sea has no counterpart at all in Ortelius, Mercator, or Plancius. Likewise, Ricci’s renaming of the *Mar Vermeio* (Vermillion Sea) as the Dong Honghai (Eastern Red Sea), and of the *Mar Rosso* (Red Sea) as the Xi Honghai (Western Red Sea), contributed to this sense of balance between the east and west to the Chinese observer. On the north-south axis, as well, Ricci separated the section of the Arctic Ocean

6 Nan Mingzi 南溟子 (pen name of Chen Jiarong), “Song Yuan Ming Qing zhi dong xi nan bei yang,” in Chen Jiarong, ed., *Nanming ji: Haijiao pian*, 368–370.

7 The names for these two seas, however, are not entered at symmetrical latitudes. Dong Nanhai (Southeast Sea) is marked just below the equator to the northwest of Beilu Hai (Peruvian Sea), whereas Xi Nanhai (Southwestern Sea) appears to the southeast of the southern tip of Xian Laolengzu Dao (仙老冷祖島 St. Lorenzo Island, i.e., Madagascar).

(*Oceanus Scythicus* in Ortelius) immediately north of the Bering Strait and named it the Beihai (North Sea), which is a transformation of both the European usages of *Oceanus Septentrionalis* (Northern Ocean) and *Mare Norte* (North Sea) within the European horizon and of the Chinese usages of the term Beihai, which had designated either the areas in and around Bohai Bay (Bohai Wan 渤海湾) in the empirical maritime discourses or the distant, hypothetical sea that presumably bounded the northern frontier of the earth.

Ricci's translation of *Mar Lantchidol* is another excellent testimony to his fine ability to build bridges between the two linguistic and conceptual worlds he inhabited. As a borrowed word in Latin, this name had no meaning besides serving as a proper name. Ricci's typical practice had been to transliterate such names, as he had done for *Mare Arabicum* (translated as Helabi Hai, or Helabi Sea), *Mare di Mesendin* (translated as Moshengding Hai, or Moshengding Sea), and *Golfo di Bengala* (translated as Banggela Hai, or Banggela Sea). But here Ricci chose to do otherwise: he rendered *Mar Lantchidol* as "South Sea," perhaps intentionally restoring its original meaning in Malay/Javanese, or perhaps simply improvising this label based on the location of this sea to the south of the Sea of the Great Ming. In either case, the introduction of this name completed a new set of Chinese maritime terminology that both resembled the preexisting Chinese system of naming the Four Seas (the Eastern Ocean, Western Ocean, North Sea, and South Sea) and challenged his Chinese readers to envision a much larger world.

Ricci urged his readers to take such directional labeling of the seas and oceans as only relative, based on conventions of their own locality. In *The Structure and Significance of the Heavens and the Earth* (Qiankun tiyi, 1605), he consistently uses the term Four Seas as a generic designation for all seas and oceans on the globe. In delineating the overall configuration of land and sea on the globe, for example, Ricci points out that "all over the world, the earth lies under the seas, and the rivers and streams are all connected with the Four Seas [Sihai], forming the same body of water."⁸ In the general introduction to his map of 1602, the "Complete Geographical Map of Ten Thousand Countries," Ricci had used the term Four Seas twice in precisely this sense, to define the boundaries of the African and the American continents. There, he wrote:

As for Libya [i.e., Africa], [it stretches] south to Dalang Shan 大浪山 ["Mount of Great Waves," the Cape of Good Hope], north to the Mediterranean, east to the Western Red Sea and St. Lorenzo Island [i.e., Madagascar], and west to Hezeyano Cang [*Mare Oceanus*, the Atlantic

8 Ricci, *Qiankun tiyi*, in idem, *Li Madou zhongwen zhuyi ji*, 528.

Ocean]. It is only connected with the Asian continent through a thin isthmus below the Holy Land. The rest of it is entirely surrounded by the Four Seas. ...The American continent is all surrounded by the Four Seas, and there is an isthmus between its northern and southern parts.⁹

In this context, the Four Seas can only be understood as “the seas in general” because they refer to two entirely different sets of four seas. Here, in his *Structure and Significance of the Heavens and the Earth*, Ricci further underpins the relativity of the directional labels of the seas by referring to their actual relationships on the globe, where the “East” can simultaneously be the “West.” He notes that “there are numerous countries, and thus it is difficult to know all of them. Each continent has approximately over one hundred countries. They would have been better represented on a sphere. Since it is difficult to make the map spherical, we have to flatten out the sphere and turn circles into lines. To comprehend the [whole] shape of the earth, we need to join the East Sea with the West Sea [in our minds]” (emphasis added).¹⁰ By “the East Sea with the West Sea” Ricci is here referring to the same Hezheyano Cang (Atlantic Ocean) that appears on both the eastern and western edges of his “Complete Geographical Map of Ten Thousand Countries.” If Ricci’s readers begin to mentally join these two parts of the Atlantic together, as he instructed, they will realize that their “West Sea” is one and the same as their “East Sea.”¹¹

Indeed, in this new world picture featuring numerous systems of interconnected seas and oceans, neither the number four nor the four cardinal directions (such as “east” and “west”) can be taken literally or as having a fixed meaning. Thus Ricci’s appropriation of the term Four Seas in his world maps and his other texts ushered in a new era in the evolution of this term in which it cannot but be used figuratively and rhetorically. This exclusively non-literal usage is fully elaborated on by Giulio Aleni in his 1623 *Records of Lands outside the Jurisdiction of the Imperial Geographer*. Following its publication, Aleni’s treatise superseded Ricci’s “Complete Geographical Map of Ten Thousand Countries” as the major source of late Renaissance European world geography for Chinese scholars, due in part to its more portable form of circulation as a book and in part to its inclusion in the first collection of Jesuit Chinese works

9 Ricci, *Li Madou zhongwen zhuyi ji*, 174.

10 Ricci, *Li Madou zhongwen zhuyi ji*, 175.

11 For a study of the permutations of Ricci’s maritime nomenclature seen in some of the Chinese copies of his early maps, see Ptak, “The Sino-European Map (Shanghai yudi quantu) in the Encyclopaedia *Sancai tuhui*.”

edited by Li Zhizao 李之藻, *First Collection of Writings on Heavenly Learning* (Tianxue chuhan 天學初函, 1628).

We learn about the circumstances behind the composition of Aleni's text from a preface Li Zhizao wrote for the text. Li notes that sometime in the early 1610s a court eunuch in charge of Fujian Province's tax revenue obtained four maps from some sailors, "all in European languages." Two Jesuits who were staying in Beijing at the time, Diego de Pantoja (1571–1618) and Sabbathin de Ursis (1575–1620), were commissioned by the court to translate the maps and provide some written commentaries in Chinese. The two missionaries started working on a text that gives a survey of the local customs and products of the places shown on the map, and also created an eight-panel map with the initial plan of transcribing such commentaries onto it. But the project carried on for a long time and was left unfinished when the two missionaries passed away. Li mentions that the manuscript of their written commentaries on the map, still in a fragmentary state, was circulated among and hand-copied by many scholars in the capital.¹² It was Yang Tingyun, another leading Jesuit convert, who helped Aleni edit and expand on Pantoja and de Ursis's manuscript. Aleni and Yang focused on the countries that were far distant and that had never been in communication with China before, a fact duly reflected in the title of the text, *Records of Lands outside the Jurisdiction of the Imperial Geographer*.¹³

Although a composite work with contributions from multiple sources, including Aleni's Chinese collaborators such as Yang Tingyun, Aleni's *Records of Lands outside the Jurisdiction of the Imperial Geographer* exhibits a remarkable continuity with Ricci's "Complete Geographical Map of Ten Thousand Countries" in its insistence on a strictly non-literal usage of the Chinese term Sihai (Four Seas). Aleni devoted four chapters of this treatise to surveying the foreign lands and peoples in Asia, Europe, Africa, and the Americas, and a fifth to discussing the maritime world. He created several sections in the fifth chapter to treat the issues related to maritime nomenclature. In the section entitled "General Remarks on the Four Seas" (Sihai zongshuo 四海總說), Aleni divides

12 In the list of books held at a famous private library of the time known as Qianqing tang 千頃堂, we find a text entitled *Haiwai yutu quanshuo* (海外輿圖全說 Complete Explanation of an Overseas Map), attributed to Diego de Pantoja. This may very well have been one of the manuscript copies Li Zhizao refers to here. For the list of Jesuit works held at Qianqing tang, see Xu Haisong 徐海松, *Qing chu shiren yu xixue* (清初士人與西學 Scholars of Early Qing and Western Learning) (Beijing: Dongfang chubanshe, 2000), 74.

13 See Li Zhizao's preface in Aleni, *Zhifang waiji*, in TXCH, vol. 3: 1273–1276. For further studies on Aleni's *Zhifang waiji*, see Bernard Hung-kay Luk, "A Study of Aleni's *Chih-fang Wai-chi*," and Zou Zhenhuan, "Zhifang waiji: Shijie tuxiang yu haiwai lieqi."

the seas into two categories: he calls the seas surrounded by land “inland and/or mediterranean seas” (*dizhong hai* 地中海), and the seas that surround land “peri-terranean seas” (*huanhai* 寰海).¹⁴ He writes that a peri-terranean sea tends to be vast and known by different names in different parts of the land it surrounds. It may be named after the adjacent continent. Thus the seas close to the Asian continent can be called the Asian Seas; those close to Europe can be called the European Seas. The same is true of the seas surrounding Africa, the Americas, and Magellanica. Even a small country can name a sea near it after itself. People may also name the nearby seas according to the direction to which the seas lie in relation to their land. The sea to their south may be called the South Sea; to their north, the North Sea. The same goes for the east and west. Aleni emphasizes that such direction-based appellations are entirely relative and not universally applicable.

Having thus illuminated the conventional nature of naming the seas, Aleni sets out a formula for correlating the many names for seas and oceans in this new maritime world with the existing Chinese system of the Four Seas:

If we put China at the center, then [the maritime space] from the Great Eastern Ocean to the Little Eastern Ocean is the East Sea; from the Little Western Ocean to the Great Western Ocean is called the West Sea; the seas close to Magellanica constitute the South Sea; and the seas near the North Pole are called the North Sea. In between these seas are the Mediterranean seas. These are all the seas that exist in the world. The so-called Baihai 裨海 and Daying 大瀛 are ludicrous ideas that have no foundation in facts.¹⁵

14 I have coined the term “peri-terranean seas” for lack of another suitable way to translate *huanhai* 寰海.

15 Aleni and Xie Fang, *Zhifang waiji jiaoshi*, 146–147. Aleni’s usage of the term “Great Eastern Ocean” is different from Ricci’s. In the world map Aleni included in the first chapter of his *Zhifang waiji*, to accompany his overview of the world’s five continents, he combined Ricci’s Great Eastern Ocean and Small Eastern Ocean into one ocean, roughly equivalent to the modern-day northern Pacific, designated it the Small Eastern Ocean, and named the part of the Atlantic Ocean shown on the eastern edge of the map the Great Eastern Ocean. Thus his map starts and ends with the same Atlantic Ocean, but the parts of it that appear on the western and eastern edges of the map receive contrasting names—the Great Western Ocean and the Great Eastern Ocean, respectively. Unfortunately, Aleni’s map of the world is missing from some editions of *Zhifang waiji*, including from the TXCH edition. The SKQS edition has a heavily cropped version of the map showing only the areas near the North and South Poles. I also consulted the *Congshu jicheng chubian* (叢書集成初編 Complete Collection of Collectanea: First Series) edition of this text

Thus, more explicitly than Ricci had done before him, Aleni stressed the conditional nature of the labeling of these various seas as East Sea, West Sea, North Sea, and South Sea: these labels are valid only if one takes the perspective of the Chinese.

It is also important to note Aleni's rejection of Baihai 裨海 and Daying 大瀛, two major concepts most commonly associated with Zou Yan's (ca. 350–270 BCE) theory of the Nine Great Continents (Da Jiuzhou 大九州). As already discussed in Chapter 3, Zou Yan postulated the existence of nine clusters of continents, each cluster comprising a set of nine small continents. Zou Yan used the term Baihai 裨海 to refer to the small seas that presumably separated one cluster of nine small continents from another, and the term Daying 大瀛 to refer to the great cosmic ocean (or Great Rim Sea) that presumably surrounded all nine clusters of continents and filled up the space between them and the sky. Aleni's refutation of these two concepts is certainly directed at Zou Yan's theory; however, in the context of defining the meaning of the Four Seas, his refutation of Daying may also be taken as a criticism of the fundamental belief underlying the notion of the Four Seas in previous Chinese cosmological and geopolitical discourses—namely, belief in the existence of a vast body of cosmic water that supports the earth and separates it from the sky on its four sides.

In the next section of his text, entitled “The Names of Seas” (Haiming 海名), Aleni gives a list of the seas and oceans that fall under the respective categories of East Sea, West Sea, North Sea, and South Sea when one takes China as the point of reference. He writes:

Although the seas can be divided into four [categories], each of them consists of numerous seas known by different names. Thus the Sea of the Great Ming, the Pacific Sea,¹⁶ the Eastern Red Sea, the Peruvian Sea, the Xin Yixibania Sea 新以西把尼亞海 [Sea of New Spain, i.e., the Gulf of Mexico and Caribbean], and the Baixier Sea 百西兒海 [Brazilian Sea] are all east seas. The Bay of Bengal, the Persian Sea, Arabian Sea, Western Red Sea, Sea of Libya [Sea of Africa], Hezheyano Canghai, Yadala Sea [the Atlantic], and the Yixibania Sea 以西把尼亞海 [Sea of Spain] are all west seas. As for the south sea, since few people have reached the region, it is

(Beijing: Zhonghua shuju, 1985), in which the map appears in *juan shou* 卷首, 1–5. Subsequent references to Aleni's world map refer to this *Congshu jicheng chubian* edition.

16 Aleni used Taiping Hai 太平海 to translate *Mar Pacifico* (Pacific Sea), whereas Ricci used Ninghai 寧海.

not known by other names. The north seas, on the other hand, include such seas as the Ice Sea, Nova Zembla Sea,¹⁷ and Petzorke Sea.¹⁸

Here, in place of *the* Four Seas, Aleni has substituted the east seas, west seas, north seas, and south sea(s)—all, except possibly the south sea, existing in the plural. Aleni also added some new names of seas to the ones marked on Ricci's world maps, names that reflect the Spanish origin of the source maps Aleni was using when writing his book, though he assimilated them all into this new system of the Four Seas. This new usage of the Four Seas, inaugurated by Ricci and fully articulated by Aleni, was inherited by later Jesuits, most notably Ferdinand Verbiest (1623–1688), who reproduced Aleni's entire section "General Remarks on the Four Seas" in his own treatise on world geography and natural history, the 1674 *Illustrated Account of the Geography of the World*.

Mapping the Four Seas in Late Ming and Early Qing Yugong Scholarship

Coinciding with these Jesuit discourses was another set of discourses, one that erupted within the heart of Confucian classical scholarship over the interpretation of the term Four Seas in the "Tribute of Yu" chapter of the *Book of Documents*. It began with a provocative essay entitled "The Four Seas" (Sihai) by Li Zhi, an iconoclastic thinker whose indomitable spirit made him the Chinese counterpart of Giordano Bruno (1548–1600),¹⁹ an Italian philosopher and cosmologist and Dominican monk convicted of heresy and burned at the stake by the Roman Inquisition. A native of Quanzhou, Fujian Province, Li received the *juren* degree at age 24 and led a moderately successful official career until age 53, when he decided to abandon it all for a life of scholarship untrammelled by social constraints.

17 Neither Ricci nor Aleni marked a sea by the name of Nova Zembla Sea on their maps, but their maps show an arctic island directly north of the Petzorke Sea, named Xin Zengbaila 新增白蠟 (Ricci) or Xin Zengla 新增蠟 (Aleni). Both these names seem to be part translation (*nova* = *xin* 新, "new") and part transliteration (*baila* 白蠟 or *la* 蠟) of "Nova Zembla."

18 Aleni and Xie Fang, *Zhifang waiji jiaoshi*, 147.

19 Timothy Billings aptly refers to Li Zhi as "that legendary iconoclastic intellectual, a sort of Chinese Giordano Bruno." See Billings's "Introduction" in Matteo Ricci, ed., *On Friendship: One Hundred Maxims for a Chinese Prince*, translated by Timothy Billings (New York: Columbia University Press, 2009), 22–23.

As a scholar, Li Zhi was a renowned exponent of the Taizhou School (Taizhou xuepai 泰州學派) within the Confucian School of Heart-and-Mind (*xin xue* 心學) founded by Lu Jiuyuan 陸九淵 (also known as Lu Xiangshan 陸象山, 1139–1192) and Wang Yangming 王陽明 (1472–1529). The School of Heart-and-Mind challenged its orthodox counterpart, the Daoxue 道學 (Learning of the Way) or Lixue 理學 (School of Principle), founded by the Song Neo-Confucian philosophers Cheng Yi, Cheng Hao, and especially Zhu Xi, which emphasized an outward approach to attaining moral perfection through extending one's knowledge of the universal principle operating within things of the world, typically by means of reading books about it (especially the Confucian classics), as well as through fulfilment of one's everyday social responsibilities. Instead, adherents of the School of Heart-and-Mind believed that one could gain insight into the Way of Heaven through examining its embodiment within one's own nature, and thus championed introspection and self-examination as the proper methods of self-cultivation. Of the school's various lineages, the Taizhou School pushed this focus on the individual the farthest and proposed some ideas that were deemed subversive by defenders of the state orthodoxy. Most important for our discussion here is the Taizhou School's insistence that each person use his (or her) own native wisdom, referred to as "child-like" mind (*tongxin* 童心) or naked mind (*chizi zhi xin* 赤子之心), to form judgments, rather than relying on the words of others.²⁰

These ideas came very close to the iconoclastic tenor of Zen Buddhism, and, indeed, led Li Zhi to become a Buddhist monk at age 61. In his essay on

20 For an exposition of the teachings of the Taizhou School's chief representatives, such as Wang Gen 王艮 (1483–1541, founder of the lineage), He Xinyin 何心隱 (1517–1579), as well as Li Zhi, see Miao Runtian 苗潤田, *Zhongguo ruxue sixiang shi*, 6: *Ming Qing* (中國儒學思想史, 6: 明清卷 History of Chinese Confucianism, Vol. 6: Ming and Qing) (Guangzhou: Guangdong jiaoyu chubanshe, 1998), 134–155. The Taizhou lineage joined some other followers of the School of Heart-and-Mind in reconceptualizing the hierarchy among the five human relationships in Confucianism. Lü Miaofen 呂妙芬 points out that He Xinyin regarded friendship as a common foundation for the other four human relationships. See Lü Miaofen, *Yangming xue shiren shequn—Lishi, sixiang yu shijian* (陽明學士人社群—歷史、思想與實踐 The Scholarly Community of the Yangming School: History, Thought, and Practice) (Taipei: Zhongyang yanjiuyuan jindai shi yanjiu suo, 2003), 311–324. For Li Zhi's view that the relationship between husband and wife is prior to all other human relationships, see his essay "Fufu lun yinxu yougan" (夫婦論因蓄有感 Thoughts on Husband and Wife Relations), in Li Zhi, *Li Zhi wenji*, Vol. 1: *Fenshu; Xu fenshu* 李贄文集 1: 焚書續焚書 (Collected Works of Li Zhi, Vol. 1: Writings to Be Burnt; Sequel to Writings to Be Burnt), edited by Zhang Jianye 張建業 et al. and collated by Liu Yousheng 劉幼生 (Beijing: Shehui kexue wenxian chubanshe, 2000), 84–85.

“Child-Like Mind” (Tongxin 童心), we see Li Zhi bring this iconoclasm to bear on the Confucian classics. He wrote:

The *Six Classics*, the *Analects of Confucius*, and *Mencius* were either words of excessive flattery written by [those ancient sage rulers'] court historians or glowing encomiums uttered by their ministers. Or else, they were produced by [Confucius and Mencius's] pedantic, dull-witted disciples who recollected what they remembered of their masters' teachings and committed it to writing. [These texts] often broach a topic and yet do not follow it through, or make a point that contradicts what they said before. [Whoever wrote them,] they must have jotted them down at random. Later scholars, unaware of [how these texts were produced], thought that they came from the mouths of the sages and thus decided to regard them as classics. Who knows that most of what we find in the texts was not the words of the sages? *Even if they did come from the sages, they must have been uttered for particular occasions.* Their words were like a doctor's prescriptions for a disease, which vary with circumstances, so that they can remedy the ills of such half-witted students and pedantic disciples of theirs. Therapies vary based on the nature of sickness, and there are no fixed prescriptions for all ills. How can their words be held to be the utmost truth for ten thousand generations? The *Six Classics*, the *Analects*, and *Mencius* have become the verbal instruments of self-legitimation for Daoxue [Learning of the Way] and the source of wisdom for those who have lost their own. It is evident that these texts are not to be taken as words spoken from someone's child-like mind. Alas! How would I ever be able to find a true sage whose child-like mind is still intact to have a conversation about writing?!²¹ (emphasis added)

Here, without discrediting Confucius or Mencius, Li Zhi has historicized the Confucian classics. His critique of these classics is not just circumstantial (blaming problems in the contents of the texts on the historical circumstances of their transmission) but takes place at a more profound level: he points out that these texts, if they were written by the sages themselves at all, were written for a specific readership within a specific historical context. They could not, and were not intended to, serve as purveyors of eternal truths. This being Li Zhi's broader approach to the Confucian classics, we can understand why he would take aim at the literal interpretation of the term Four Seas in the “Tribute of Yu.” His essay “The Four Seas” begins:

21 Li Zhi, *Li Zhi wenji*, Vol. 1, 93.

Qiu Wenzhuang 丘文莊 [Qiu Xun 丘濬, 1421–1495] said that “since Namviet²² became part of China, we then have a border on the South Sea. But we do not know where the West Sea is.” I think when the “Tribute of Yu” states that “[Yu’s] fame and teachings reached the Four Seas,” it means [by the Four Seas] simply the geographical borders of Yu’s territory. The so-called Four Seas must refer to the Four Quarters (*sifang* 四方). That is why [the *Book of Documents*] also says, “The winds stirred in the Four Quarters.”²³ How could there be *four* seas to the north, south, east, and west [of China], seas that are every bit as real as the one at Namviet for all to see?²⁴

Here Li Zhi points out that the term Four Seas is only a figurative reference to the four borders of Yu’s territory and is not to be taken literally. Li goes on to show that a literal reading of the Four Seas contradicts very basic facts about Chinese geography:

Let’s talk about it based on what has been seen to exist in the Four Quarters of China. Sichuan Province is on the western frontier; Yunnan Province, the southwestern frontier; Shaanxi Province, the northwestern frontier: on all three frontiers there are no seas in sight. From Shaanxi to Shanxi, which can be regarded as the northernmost territory of China, [one encounters] no sea on that frontier, either. Only when one gets to where Liaoning and Hebei converge with Shandong Province does one begin to reach the sea. The sea by Shandong Province can be seen as the east sea. The sea that runs along the coast from Shandong to the lower Huai River valley, Yangzhou, Suzhou, Songjiang, and farther south to Qiantang, Ningbo, and Shaoxing can all be called the east sea. The sea east of Minyue 閩越 [Fujian] can be called southeast sea. Guangdong—that is, Namviet—is now under the jurisdiction of the Commandery of the “South Sea.” People call the waters in this area the South Sea, but actually Guangdong and Fujian border with each other, and this sea can only be properly called the southeast sea. This means that there are no seas on the western, northern, and southern frontiers, nor any seas on the northwestern, southwestern, and northeastern frontiers. There is only a sea off

22 By “Namviet,” Li Zhi means Guangdong Province; Namviet is also mentioned in the next passage excerpted below.

23 “Sifang fengdong” 四方風動. This expression appears in both the “Dayu mo” 大禹謨 and “Gaotao mo” 皋陶謨 chapters of the *Shangshu* (Book of Documents).

24 Li Zhi, *Li Zhi wenji*, Vol. 1, 147–148.

the eastern and southeastern coast. Is it only on the western frontier [as Qiu Xun wondered] that we do not find a sea?²⁵

Li Zhi buttressed his conclusion with further evidence. He pointed out that all three major rivers in China, by which he meant the Yangzi, Han Jiang 漢江, and Yellow River, originate from the same region—the western frontier—and run eastward instead of westward. From this fact he inferred, first, that the western frontier of China must be very far from the sea, and second, that the land farther west of this region must be of higher elevation. In other words, there *cannot* be a sea in that part of the world.

Li Zhi also mentions his observations at the time he was writing (1578), when he was serving as prefect of Yaoan in Yunnan Province. He states that beyond the southwestern border regions of Yunnan,²⁶ there were merchants selling a kind of woven fabric that was made on a wide loom. He has heard that it was traded from the sea farther south. Li Zhi had seen this kind of cloth and found it to be exactly the same kind that merchants back in his native province of Fujian often imported from overseas. Li thus inferred that the sea southwest of Yunnan is not a separate “southwestern sea” but the same sea that loops around the land south of Yunnan to reach Fujian—in other words, it is just part of the southeastern sea. Based on these findings, Li Zhi raises the question:

If we cannot even find such a west sea, then what basis is there for a state sacrifice to be made to the god of this sea? [Furthermore,] Qiu Wenzhuang proposed that the state sacrifices to the North Sea be moved to another place northeast of Beijing, and Yang Sheng'an 楊升庵 [Yang Shen 楊慎, 1488–1559] wished that the distant sacrifices to the West Sea [be moved to] the southwestern part of Yunnan Province. Isn't this all meaningless? Who is there to receive [these sacrificial offerings]? Alas, just by looking

25 Li Zhi, *Li Zhi wenji*, Vol. 1, 148.

26 Li Zhi refers to this area as beyond “Yunnan sanxuanfu zhiwai” 雲南三宣府. By *sanxuanfu* 三宣府 he must mean the three administrative units called the *xuanfu si* 宣撫司 (Offices of Propaganda and Mollification) that governed the southwestern border regions of Yunnan Province, created in the early Ming at Nandian 南甸, Ganya 幹崖, and Longchuan 隴川. For a detailed survey of these and other neighboring border regions during the late Ming, see Gu Yanwu 顧炎武 (1613–1682), *Tianxia junguo libing shu* (天下郡國利病書 On the Natural Advantages and Vulnerabilities of Provinces and Prefectures in the Chinese Empire), reprint of the copy preserved at the Kunshan Library, in *Siku congkan sanbian, shibu* (四庫叢刊三編史部 The Third Book Series of the Four Treasures, History Division) (Taipei: Shangwu yinshu guan, 1966), *juan* 45, 1a–8b.

at this belief in the Four Seas alone we should realize how limited people's views of the world are. How much less do they know about things beyond the Four Seas?²⁷

As noted in Chapter 3, the belief in the existence of the Four Seas at the outer boundaries of Chinese civilization, or Tianxia (All under Heaven), lay at the center of the founding myth of the Chinese empire and was enacted throughout the centuries in the rituals of state sacrifices. Now Li Zhi was not only trying to dissolve this myth, on the grounds of what he viewed as the basic facts of Chinese geography, but poking fun at the imperial rituals that were based on this myth. Li Zhi included this essay in his collection *Writings to Be Burnt* (Fenshu 焚書). He chose this title because, as he explains in his preface to the book, this collection contains pieces originally written only for his most trusted friends; hence “what [I] say [in them] aims directly at the fatal weakness of other recent scholars. Since it hits them right where it hurts, they inevitably wish to destroy me. So they would want to burn the book, and would declare that it deserves to be burnt and discarded rather than be preserved.”²⁸

True to his prediction, Li was charged with the crimes of “daring to advocate perverted ways, deluding the world, and blaspheming the people” (*ganchang luandao, huoshi wumin* 敢倡亂道, 惑世誣民). He was imprisoned at the northern capital in 1602, where he committed suicide at age 76. His works were burnt on imperial order the same year. The book-burning stoked such public interest in Li Zhi's works that some people turned away from reading the original texts of the Confucian Four Books and were instead found to “each clutch a volume of Li Zhi's *Writings to Be Stored* (Cangshu 藏書) and *Writings to Be Burnt* (Fenshu 焚書) in their hands as if they were holding some precious commodities.”²⁹ Several new editions of his collected works were published to meet this demand. This posthumous popularity led to another round of empire-wide burning and banning of Li Zhi's books in 1625.³⁰

27 Li Zhi, *Li Zhi wenji*, Vol. 1, 148–149. For clarification of the first two sentences of this extract, see the discussion of Mao Ruizheng's 茅瑞徵 *Yugong huishu* 禹貢匯疏 (Compendium of Commentaries on the “Tribute of Yu”) later in this chapter.

28 Li Zhi, *Li Zhi wenji*, Vol. 1, 1.

29 Zhu Guozhen 朱國楨, *Yongchuang xiaopin* (湧幢小品), juan 16, “Li Zhuowu” 李卓吾, quoted in Yan Lieshan 鄢烈山 and Zhu Jianguo 朱健國, *Zhongguo diyi sixiang fan: Li Zhi Zhuan* 中國第一“思想犯”: 李贄傳 (The First Thought-Criminal in Chinese History: A Biography of Li Zhi) (Beijing: Zhongguo gongren chubanshe, 1993), 324.

30 See Huang Jie's 黃節 postscript to Li Zhi's *Fenshu*, in Li Zhi, *Li Zhi wenji*, Vol. 1, 245. For the changing verdicts on Li Zhi in changing historical contexts from the Ming-Qing transition to the present, see the informative review in Lü Miaofen, *Yangming xue*

Li Zhi's interpretation of the Four Seas in the "Tribute of Yu" is similar in spirit to the one asserted by Hong Mai (1123–1202), already discussed in Chapter 3. Both authors argued that there is only one sea off of the Chinese border and that this sea stretches continuously along the eastern and southeastern Chinese coast. Hong Mai had concluded from this fact that the term Four Seas in the Confucian classics was only used figuratively and not literally. Why did Hong Mai's view on this matter only find resonance four centuries later, in Li Zhi's writings? Li Zhi wrote his essay on the Four Seas in 1578,³¹ well before his meetings with Ricci, which occurred in 1599 and 1600. Hence it could not have been the result of Jesuit influence. We can hypothesize two sources of inspiration for him: (1) the spirit of the Taizhou School, which subjected classical texts to the test of naked reason,³² and (2) Li's personal discovery of the maritime connection between the area south of Yunnan and his home province of Fujian, an insight he gained from observing that the same wide-loomed cloth from overseas was being traded in both these locations. Unlike his distant predecessor, Hong Mai of the Southern Song, Li Zhi's challenge to the literal reading of the term Sihai was taken up by scholars within the field of Yugong studies.

shiren shequn, 327–329, and the accompanying footnotes. In addition to the literature listed by Lü, see also the three-volume collection of works by the late historian Xiao Jiefu 蕭藎父 entitled *Chuisha ji* (吹沙集 Blowing off Sand [to Sift Gold], First Collection); *Chuisha erji* (吹沙二集 Blowing off Sand [to Sift Gold], Second Collection); and *Chuisha sanji* (吹沙三集 Blowing off Sand [to Sift Gold], Third Collection) (Chengdu: Bashu shushe, 1991, 1999, and 2007). Xiao developed the argument that Li Zhi's thought was part of the larger Chinese Enlightenment movement that prepared the foundation for Chinese modernization. See, in particular, Xiao's article "The Rough Road to China's Philosophical Enlightenment," in idem, *Chuisha erji*, 553–599.

- 31 This information is based on Xu Jianping 許建平, "Fenshu kanke guocheng, banben ji zhenwei" (焚書刊刻過程、版本及真偽 The Publishing, Versions, and Authenticity of *Writings to be Burnt*), *Fudan xuebao* (復旦學報 Fudan Journal), no. 5 (2008): 112.
- 32 Benjamin Elman regards this new emphasis on intellectual independence among members of the Taizhou School, especially Li Zhi, as an important factor contributing to the rise of evidential scholarship in the late Ming and early Qing. See Elman, *From Philosophy to Philology: Intellectual and Social Aspects of Change in Late Imperial China* (Los Angeles: University of California Press, 2001), 76–77. The continuity between Li Zhi's interpretation of the Four Seas in the "Tribute of Yu" and the view of early Qing evidential scholars such as Zhu Heling and Gu Yanwu (discussed below) is an excellent example of the intellectual connections that Elman has suggested.

*Mao Ruizheng's (jinshi 1601) Compendium of Commentaries on the
"Tribute of Yu"*

The first response to Li Zhi's debunking of the literal interpretation of the Four Seas from Yugong scholars was anticlimactic: his essay "The Four Seas" was quoted almost in full, without comment, by Mao Ruizheng 茅瑞徵 (*jinshi* 1601) in his *Compendium of Commentaries on the "Tribute of Yu"* (Yugong huishu 禹貢匯疏, 1632). Mao, a native of Gui'an 歸安 in present-day Zhejiang Province, served in various official capacities in the empire, including the position of geographer for the Ministry of War. The mention of Li Zhi appears in *juan* 12 of Mao's *Compendium*, in the section that covers historical commentaries on the sentence in the "Tribute of Yu" that reads:

Extending eastward into the sea, and westward to the flowing sands, to the far north and south, [Yu's] fame and teachings only stop at the Four Seas.³³

True to the title of his book, Mao was writing in a compiling mode, so he reproduced Li Zhi's essay—and Hong Mai's—along with other works that were diametrically opposed to theirs. For example, whereas Li Zhi argued that there cannot be a sea west of China because the elevation of the land there is so high that all major Chinese river systems originate there and flow eastward (instead of westward) into the sea, Mao partially quotes and partially paraphrases a passage from Wu Cheng 吳澄 (1249–1333) that says quite the opposite:

The story of the "Tribute of Yu" ends with the remark that [Yu's influences] only stopped at the Four Seas. By "stopping" [at those points] it implies that there the earth terminates. The seas that surround the earth on its east, south, west, and north are connected. But the West Sea and North Sea have not been seen. Why so? This is because the earth is high in the west and the north [and thus our views of these seas are obstructed]. If one stands on the top of the heights, there one would find the abysmal waters down below the mountains as deep as wells. Those are the seas.³⁴

33 The Chinese reads "Dongjian yu hai, xi bei yu liusha. Shuo nanji shengjiao qiyu Sihai" 東漸於海西被於流沙朔南暨聲教訖於四海.

34 Mao Ruizheng 茅瑞徵 (*jinshi* 1601), *Yugong huishu* (禹貢匯疏 *Compendium of Commentaries on the "Tribute of Yu"*), *juan* 12, in XSK, *jing*, vol. 54: 774–775. The last two sentences are Mao's paraphrase. Wu Cheng's original sentences are clearer. He wrote: "Those who speak of the Four Seas [in this context] meant that there are seas on the eastern, western, southern, and northern [frontiers of the earth] that are connected with the sea below the earth. The western and northern edges of the earth are high; the earth there

Mao Ruizheng made no effort to analyze these different views or express his own position on these issues. However, the information he gathered in this section helps us fill in the gaps left in Li Zhi's text. In his essay Li Zhi criticized Qiu Wenzhuang (Qiu Xun) and Yang Shen, who proposed a relocation of the sites for state sacrifices to the North and West Seas. Mao quotes two long passages from Qiu and Yang related to these issues, immediately before quoting Li Zhi. From these excerpts we learn that both these proposals about the sacrificial rites were made by Qiu Xun, not by Yang Shen, so that Li Zhi was mistaken in directing his sarcasm at Yang Shen as well as Qiu. Qiu Xun was the Minister of Rites for some years under both Emperor Xianzong 憲宗 (r. 1465–1487) and Emperor Xiaozong 孝宗 (r. 1488–1505). He probably proposed those changes to the state sacrifices while serving in this position.

The excerpts from Qiu Xun make it clear that Qiu subscribed to the image of the world outlined in the "Tribute of Yu." He asserts that "there are great divides between Heaven and Earth" and a distinction between the Chinese and the barbarians: "the Chinese inhabit the interior [of the world] and the barbarians the exterior. When both keep to where they belong, the Heaven-mandated order is attained." For Qiu, imperial ritual sacrifices to the Four Seas expressed and reinforced this hierarchy between the interior and the exterior. He points out that the expansion of the Chinese empire necessitated adjustments to the sites where these rituals should be performed, writing that "at present we make sacrifice to the East Sea at Dengzhou 登州 and to the South Sea at Guangzhou 廣州. Both sites are close to the appropriate seas. But the sacrifices have been made at a distance, at Puzhou 蒲州 to the West Sea and at Huaiqing 懷慶 to the North Sea. Since we built the capital in Yan [Beijing], we

comprises high mountains. Thus the seas on the west and north lie well below the earth, appearing like deep wells. Therefore people cannot see them [from afar inland]." Wu Cheng 吳澄 (1249–1333), *Shu zuanyan* 書纂言 (Commentaries on the *Book of Documents*), *juan* 2, 64b; digital images of texts based on the *Chizaotang siku quanshu huiyao* 摛藻堂四庫全書薈要 (Complete Collection of the Four Treasures Housed at Chizaotang) edition, under *jingbu: shulei* 經部·書類 (Division of Classics: *Book of Documents*), accessed on 9/8/2013 at: <http://archive.org/details/06064701.cn>. Wu Cheng subscribed to an asymmetrical view of the earth that tallies with the one proposed by his contemporary Zhao Youqin 趙友欽 (1271–ca. 1335), whose modified Theory of Spherical Heaven we have discussed in Chapter 3. Wu's statement quoted here indicates that this asymmetrical model that regards the earth as tall and full on the northwest but low and incomplete on the southeast is perfectly compatible with the general, literal understanding of the Four Seas within the cosmology of a spherical heaven. For further details on this asymmetrical model of the earth, see Chapter 3, note 74.

have been going *south* of the capital to make the sacrifices to the *North* Sea. Isn't a place like Huaqing part of the inner court of the Emperor's house?"

To restore the symbolic distinction between the interior and the exterior, Qiu recommended that the distant sacrifices to the North Sea be moved to a place northeast of Beijing instead. He suggested a similar adjustment regarding the West Sea. He notes that he has heard about a great sea to the far west of Yunnan Province that connects to the southwestern island countries. Since Yunnan was now integrated into the Chinese empire as the new frontier in the southwest, he thought it would be proper to move the distant sacrifices to the West Sea from Puzhou in the northwest down to Yunnan.³⁵

As far as we know, Qiu Xun was not successful with his proposals. However, his proposals show us that the impact of the expansion of Chinese maritime activities in the Indian Ocean, especially during the era of Zheng He's voyages (1405–1433), was making itself felt even within the geopolitical discourse on the Four Seas. It did not, however, change Qiu Xun's fundamental view about the Four Seas; he only used this new knowledge about the Indian Ocean to identify a more appropriate site for the state sacrifices to the West Sea. In contrast, Li Zhi—like Hong Mai four centuries before him—had a different concern. Li and Hong were trying to explore truths about these putative seas to settle a matter in Chinese and world geography.

*Xia Yunyi's (1596?–1645) Combined Commentary on the
"Tribute of Yu"*

The next response to Li Zhi from a Yugong scholar was considerably more reflective. It came from Xia Yunyi 夏允彝 (1596?–1645, *jinshi* 1637), a native of Songjiang 松江 in present-day Shanghai municipality. A talented scholar with a commitment to social reform, Xia was a co-founder of the association of literary scholars in the Songjiang area called Jishe 幾社 (Seize-the-Moment Society), established in 1628. Like many similar literary societies founded around this time throughout the Ming empire under the umbrella organization of Fushe 復社 (Restoration Society), his Jishe aimed to assist the newly inaugurated Chongzhen Emperor in chastening officialdom and rebuilding the moral fiber of the empire, which had been devastated by the despotic eunuch Wei Zhongxian (1568–1627) and his political faction, by restoring the "lost learning" (*juexue* 絕學) of antiquity.³⁶ Xia practiced his moral ideals in his

35 Qiu Xun, cited in Mao Ruizheng, *Yugong huishu*, *juan* 12, in *XXSK, jing*, vol. 54: 776–777; all excerpts are from 776.

36 For further information on Jishe 幾社 (Seize-the-Moment Society), see Du Dengchun 杜登春, *Sheshi shimo* (社事始末 History of the Affairs of the Society),

career as a civil servant. While serving as the magistrate of Changle 長樂 in Fujian Province, he was one of seven county magistrates commended by the Minister of Personnel Zheng Sanjun 鄭三俊 for being the most capable and righteous officials in the empire, for which he was granted a personal reception by the Chongzhen Emperor. After the Manchu conquest of the northern capital and the death of the emperor, Xia dedicated himself to the Ming loyalist cause and served at the Southern Ming court in Nanjing. When the Manchu troops pushed down to the lower Yangzi delta, he and some of his friends raised an army to meet them, but their maneuvers failed. Xia made arrangements for his family and then drowned himself in a river as his last act of loyalty to the fallen dynasty.³⁷

Xia Yunyi had studied Mao Ruizheng's *Compendium of Commentaries on the "Tribute of Yu"* and regarded it highly as a reference work because of its inclusive survey of relevant sources; however, he found it repetitive, fragmentary, and lacking in consistency. For this reason he wrote his *Combined Commentary on the "Tribute of Yu"* [*Ancient and Contemporary*] (*Yugong gujin hezhu* 禹貢古今合注), to offer not just a rich compilation of commentaries on the "Tribute of Yu" by previous scholars but one with a clear narrative that reflected his personal understanding of the issues under debate.³⁸ His commentary on the above-quoted statement "Extending eastward into the sea, and westward to the flowing sands, to the far north and south, [Yu's] fame and teachings only stop at the Four Seas" in the "Tribute of Yu" chapter of the *Book of Documents* begins with the following straightforward exposition:

photolithographically reproduced edition in *Zhongguo yeshi jicheng* (中國野史集成 Collection of Unofficial Histories of China), compiled by Miao Yue 繆鉞 et al. (Chengdu: Bashu shushe, 1993), vol. 27: 631–653; and Li Yueshen 李越深, "Songjiang jishe yu yunjian cipai" (松江幾社與雲間詞派 An Introduction to Jishe Society and Its Cloud School of Ci-Poetry), *Zhejiang daxue xuebao* (浙江大學學報 (人文社會科學版) Journal of Zhejiang University, Humanities and Social Sciences) 36, no. 3 (2004): 143–148. For the broader background behind the emergence of Jishe, see William Atwell, "From Education to Politics: The Fu She," in Wm. T. de Bary et al., eds., *The Unfolding of Neo-Confucianism* (New York: Columbia University Press, 1975), 333–367, and Elman, *From Philosophy to Philology*, 113–121.

- 37 See the biography of Xia Yunyi 夏允彝 in Zhang Tingyu et al., eds., *Mingshi, juan* 277, biography no. 165, reprinted in idem, eds., *Mingshi liezhuan* 明史列傳 (Biographies in the *Mingshi*), edited by Zhou Junfu 周駿富 as Series no. 10 of *Mingdai zhuanji congkan: zonglu lei* 明代傳記叢刊: 綜錄類 (Biographical Sources from the Ming: Comprehensive Compilation) (Taipei: Mingwen shuju, 1985), 5: 7098–7099.
- 38 Xia Yunyi 夏允彝, "Fanli" 凡例 (Introductory Remarks), in idem, *Yugong gujin hezhu* (禹貢古今合注 Combined Commentary on the "Tribute of Yu" [Ancient and Contemporary]), in *XXSK, jing*, vol. 55: 1.

This [sentence] describes the geographical extent of [Yu's] transformative influences. ...The [physical] tracks of Yu only reached the East Sea. *The [text] refers to the Four Seas in the sense of the Four Quarters*. The character “sea” (*hai* 海) means “darkness” (*hui* 晦). As a place that deposits dregs and wastes from the rivers, the sea is dark. [The Han-dynasty dictionary] *Approaching Refined [Usages]* (Erya 爾雅) says: “The nine Yi, eight Di, seven Rong, and six Man are called Sihai [the Four Seas].” [Zhang Hua 張華 said that] there are seas on all sides between Heaven and Earth. The earth lies within the seas and probably does not count for very much [in comparison with the seas]. The Yi, Di, Rong, and Man belong to different racial groups and are called collectively the Four Seas. They are so called because they live close to the seas. But it is said that there are more seas beyond these seas.³⁹ [In (*Teachings of*) *Master Lie* (Liezi 列子),] Tang 湯 asked Xia Ge 夏革: “What lies beyond the Four Seas?” Ge said: “Places just like Qizhou 齊州 [China].” Tang asked again: “What have you to prove that?” Ge said: “I traveled east to Ying 營 and saw that the people there are the same as those here. I inquired about places farther east of Ying and was told that those places are no different from Ying either. When I traveled west to Bin 邠, I also found the people there to be quite similar to those here. While there I asked about places farther west of Bin and was told likewise that those places were no different from Bin. Thus I know that the world must be the same beyond the Four Seas, the Four Barren Fields 四荒, or even the Four Extremities 四極.”⁴⁰ (emphasis added)

True to his promise in his introductory remarks, Xia Yunyi presents here a relatively coherent view about the Four Seas and the relationship between Yu's China and the rest of the world by weaving together several different sources. First, he takes a personal stand, by siding with Li Zhi in interpreting the Four Seas as the Four Quarters. Then he justifies this interpretation by invoking the archaic meaning of the character *hai* as *hui* (darkness) given in the etymological

39 This is a quote from Zhang Hua (232–300 CE), *Bowu zhi* (Records of Myriad [Notable] Things), in which Xia Yunyi has inserted the observation that the earth “probably does not count for very much [in comparison with the seas].” See Zhang Hua, *Bowu zhi*, *juan* 1, 2.

40 Xia Yunyi, *Yugong gujin hezhu*, *juan* 5, 34b–35a, in *XXSK, jing*, vol. 55: 154–155. Ying 營 and Bin 邠 are names of two ancient “provinces” located in present Liaoning and Shaanxi, respectively. This conversation between Cheng Tang and Xia Ge is from the chapter “Tangwen” (湯問 Tang's Questions) in the Daoist classic [*Teachings of*] *Master Lie* (Liezi 列子). The original passage can be found in Yang Bojun 楊伯峻, *Liezi jishi* (列子集釋 Collected Commentaries on [*Teachings of*] *Master Lie*) (Beijing: Zhonghua shuju, 1979), 148–149.

dictionary *Explanation of the Origin and Composition of Chinese Characters* (Shuowen jixi 說文解字, 121 CE), and by citing the definition of Sihai as the Four Barbarians (the Yi, Di, Rong, and Man) given in the Han dictionary *Approaching Refined [Usages]*. Next, Xia quotes an early source that he does not name, Zhang Hua's (232–300 CE) *Records of Myriad [Notable] Things* (Bowu zhi 博物志), which refers to the seas on the four sides of the earth and the Four Barbarians living close to those seas. But instead of backpedaling to the literal interpretation of the Four Seas, Xia dwells on the more complex image of the world indicated in Zhang's last statement quoted here—that “there are more seas beyond these seas.” From this hint about the immensity of the world in this sentence Xia glides smoothly into the next unidentified quote, from the Daoist classic [*Teachings of*] *Master Lie* (Liezi), which affirms the similarity of all human beings within and beyond the Four Seas.

Here we see that Xia Yunyi was creating a narrative of his own by selectively and liberally presenting his sources, acknowledging or erasing their identities, and paraphrasing, truncating, or expanding on them as he saw fit. His inclusion of Zhang Hua's *Records of Myriad [Notable] Things* and of the classic [*Teachings of*] *Master Lie* is significant. Both texts expressed a cosmological and world geographical vision that depicted China—and, indeed, humanity itself—as an insignificant part of the infinite universe. Zhang Hua's work had been inspired by Zou Yan's hypothesis of the Nine Great Continents. The apocryphal text [*Teachings of*] *Master Lie* — composed in the Wei (220–265) or Jin (265–419) but attributed to Lie Yukou 列禦寇, a figure sometimes depicted as a scholar and other times as an immortal in many texts from the Warring States period (475–221 BCE)—was informed by the Daoist thought of the [*Teachings of*] *Master Zhuang* (Zhuangzi 莊子). The cosmocentric worldview in these texts had remained a minor alternative to the Sinocentric “All under Heaven” (Tianxia) discourse in previous centuries, especially during periods of a strong, unified empire when Confucian state ideology prevailed. Now Xia was consciously recalling these texts, and by so doing he turned the discussion on the Four Seas, Four Quarters, and Four Barbarians that presumably constituted the outer boundaries of Tianxia into a debate about the vastness of the world and the universality of human civilization.

Xia Yunyi goes on to survey what lies beyond Chinese borders, citing several more sources, including the fact-finding Cheng Dachang,⁴¹ Hong Mai, and Li

41 See the subsection on Cheng Dachang toward the end of Chapter 3 above. It is significant that in this new discourse on the Four Seas, it is Cheng's fact-finding *Beibian beidui* (Answers to Geographical Questions about the Regions North of China) that Xia Yunyi cites as a source of maritime knowledge about the seas, not Cheng's classicist approach in

Zhi, after which he returns to the point he has already suggested through the quote he extracted from [*Teachings of*] *Master Lie*. He writes:

All in all, the earth is boundless. Who can measure where exactly it ends? As for the seas that surround the earth, they are even more immense. *Recently someone sailed across the western ocean and arrived in China. He said that the earth and the sea are both spherical, and together they form a single globe, residing in the center of the heavens, like the yolk of an egg enwrapped by the egg white. Heaven has 360 degrees, and so does the earth. Each degree [on earth] measures 200 li. From the south to the north and from the east to the west, the circumference of the earth is 72,000 li. The earth is 22,908 li thick. It is inhabited on the top, bottom, and the four sides. Where the feet stand is down, and where the heads point to is up. Also he said that when he sailed to China from the Great West, he noticed as he was crossing the Cape of Good Hope (Dalang Shan 大浪山) that the South Pole was 36 degrees above the horizon. That means the Cape of Good Hope is on the opposite side of the globe from China.* His words were truly grand (*hongsi* 閎肆)!⁴² (emphasis added)

Here, in his survey of the world outside China, Xia finds a place for Ricci's description of the globe and Ricci's personal maritime observation at the Cape of Good Hope. The italicized portion of the extract just quoted is almost identical to the opening passages in Ricci's general introduction to his world maps and in his treatise *The Structure and Significance of the Heavens and the Earth* (Qiankun tiyi),⁴³ although Xia makes no mention of Ricci's name. To my knowledge, this is the first citation of Jesuit world geography by a Yugong scholar.

Given the length of his quote from Ricci, it is reasonable to assume that Xia Yunyi had seen some version of Ricci's world maps, or had at least read about the Jesuit descriptions of the world's many continents, seas, and oceans. Such information, especially the names Ricci had given to the various seas, would have been relevant to the topic Xia was wrestling with here. Yet he stops short of engaging with the Jesuit material at this concrete level. He describes Ricci's words as "grand" (*hongsi* 閎肆), a term usually used to convey the expansive, awe-inspiring quality of a literary masterpiece. But for Xia, Ricci's words

his *Yugong shanchuan dili tu* (Illustrations and Maps of Mountains and Rivers in the "Tribute of Yu").

42 Xia Yunyi, *Yugong gujin hezhu*, in XXSK, *jing*, vol. 55: 156.

43 A few sentences in Ricci's original were left out. The figure Xia Yunyi gives here for the earth's circumference, 72,000 *li*, is an older figure that Ricci had used before 1600; see Chapter 2, note 45 above, and also Chapter 4, note 1.

perhaps inspired more awe than belief. Indeed, immediately after presenting Ricci's grand narrative about the globe, Xia turns to Chinese dynastic histories for facts about the physical dimension of the world and declares: "Now let's just talk about this based on what has been recorded about our [expanding] territorial borders over the centuries."⁴⁴ His survey of the sizes of the major Chinese dynasties that follows tells the story of the Chinese empire's (on the whole) continuous expansion and the retreat of the barbarian territories at the outer boundaries of Chinese civilization. This story is consistent with the interpretation of the Four Seas that Xia sets out at the beginning of his work, and thus tacitly lends credence to the grand picture of the world depicted by Zhang Hua, the [*Teachings of*] *Master Lie*, and Ricci.

The New Classicists Zhu Heling (1606–1683) and Gu Yanwu (1613–1682)

Xia Yunyi's choice to die as a martyr to the fallen Ming illustrates how drastically the cataclysm of the Ming-Qing transition changed the life courses of talented and ambitious scholars like him. Many of those who survived the harrowing experience chose to remain private intellectuals rather than pursue the traditional path of officialdom in the service of the new dynasty.⁴⁵ As a result, the social terrain of the field of classical scholarship in general, and Yugong studies in particular, was fundamentally redrawn after the mid-century. Zhu Heling 朱鶴齡 (1606–1683) and Gu Yanwu 顧炎武 (1613–1682) both belonged to this new group of classicists. Gu Yanwu was born to a prominent family in Kunshan, near Suzhou of Jiangsu Province. He was originally named Gu Jiang 顧絳, with the pen name Zhongqing 忠清 (Loyalty to Purity). After the founding of the Manchu Qing 清 dynasty in China, Gu changed his name to Yanwu, with the new pen name Ningren 寧人 (Man of Serenity). Gu was, like Xia Yunyi, a socially engaged intellectual with tremendous organizational energy. He was a member of the literary society Fushe in the last years

44 Xia Yunyi, *Yugong gujin hezhu*, in *XXSK, jing*, vol. 55: 156.

45 On the cataclysmic Ming-Qing transition and its impact on the personal and intellectual lives of Chinese scholars during the mid- and late seventeenth century, see Lawrence D. Kessler, "Scholars and the Early Manchu State," *Harvard Journal of Asiatic Studies* 31 (1971): 179–200; Lynn Struve, "Ambivalence and Action: Some Frustrated Scholars of the K'ang-hsi Period," in Jonathan D. Spence and John E. Wills, Jr., eds., *From Ming to Ch'ing: Conquest, Region, and Continuity in Seventeenth-Century China* (New Haven and London: Yale University Press, 1979), 323–365, and idem, *Voices from the Ming-Qing Cataclysm: China in Tigers' Jaws* (New Haven: Yale University Press, 1993); and Jerry Dennerline, "The Shunzhi Reign," in Willard J. Peterson, ed., *Cambridge History of China, Volume 9, Part 1: The Ch'ing Empire to 1800*, 73–119 (Cambridge: Cambridge University Press, 1999).

of the Ming, and after the Manchu takeover of the northern capital, he accepted an appointment by the Ministry of War in the Southern Ming regime under former Prince Fu 福王, now the Hongguang Emperor (r. June 1644–June 1645). But before Gu Yanwu could take up the position, the southern capital fell and the Hongguang Emperor was taken captive by the Manchus. According to one account, Gu raised an army together with his friends to support the troops of none other than Xia Yunyi in defending the Suzhou area in southeastern Jiangsu.⁴⁶ During the ensuing violence of the Manchu occupation of his home town Kunshan, Gu's birth mother was maimed, two of his younger brothers were killed, and his adoptive mother died of a fifteen-day hunger strike in protest of the Manchu takeover. She left Gu the determination never to betray the Ming. Gu was to remain a fierce Ming loyalist for the rest of his life.

For their resolute refusal to serve the Qing and for their scholarly accomplishments, Gu Yanwu and Zhu Heling, together with two other scholars, were known as the “Four Greatest Commoners” of the early Qing.⁴⁷ Gu and Zhu met as fellow members of a new literary society founded in Zhu's home town of Songling in 1650, an organization formed mostly of self-designated surviving subjects of the fallen Ming, known as Jingyin shishe 驚隱詩社 (literally, “Poet Society of Shocked Hermits”). The two of them formed a lifelong friendship. Zhu Heling had been primarily interested in the works of the Tang poets Du Fu 杜甫 (712–770) and Li Shangying 李商隱 (813–858), but due to Gu's influence, he turned to classical scholarship and produced numerous books in this field. Among them were a 17-juan work entitled *Commentaries on the “Book of Documents”* (Shangshu pizhuan 尚書埤傳, 1673) and a separate commentary

46 Zhi Weicheng 支偉成, *Qingdai puxue dashi liezhuan* (清代樸學大師列傳 Biographies of Qing Masters of Evidential Scholarship), originally published in 1925 by Shanghai Taidong shuju, reprinted edition (Changsha: Yuelu shushe, 1998), 2. The “Tinglin nianpu” (亭林年譜 Chronology of Tinglin [Gu Yanwu]) records Gu's involvement in the military defense of his home county Kunshan, but it does not mention its connection with Xia Yunyi's military operation in the area. See Gu Yansheng 顧衍生, “Gu Tinglin nianpu” (顧亭林年譜 Chronological Biography of Gu Tinglin [Yanwu]), collated and supplemented by Qian Bangyan 錢邦彥, in Gu Yanwu, *Tianxia jingguo libing shu*, juan 50, 8a–8b. Willard J. Peterson, however, notes that Gu's own account of those transitional months does not mention his military involvement. See Peterson, “The Life of Ku Yen-wu (1613–1682), Part I,” *Harvard Journal of Asiatic Studies* 28 (1968): 141–142.

47 The other two were philosophers Huang Zongxi 黃宗羲 (1610–1695) and Li Yong 李顥 (1627–1705). The four were known as Hainei sida buyi 海內四大布衣 (literally, “Four Great Cotton-Clothed Men within the Four Seas”), men who chose not to wear the silk robes of the scholar-official class.

of 12 *juan* on the “Tribute of Yu” chapter of this classic alone, entitled *Extended Notes on the “Tribute of Yu”* (Yugong changjian 禹貢長箋).

Gu Yanwu's scholarship, in contrast, combined classical studies with his long-term interest in practical learning since the late Ming. After the collapse of the last Southern Ming regime in southwestern China in 1662 and the retreat of the main Ming loyalist forces under Zheng Chenggong to Taiwan, Gu gave up his dreams for the restoration of the Ming and decided to devote his life to scholarship. He migrated to central and northern China, where he alternated between farming and traveling. With a caravan of two horses and two mules, he trekked through many parts of the empire, meeting other scholars, collecting books, and investigating local geography and customs. These textual and on-site studies crystallized in his voluminous works, *On the Natural Advantages and Vulnerabilities of Provinces and Prefectures in the Chinese Empire* (Tianxia junguo libing shu 天下郡國利病書), a 120-*juan* collection of notes and essays on the local geography, culture, and economies of various parts of the empire, with especially detailed information on the border regions; *Records of Regional Geography* (Zhaoyu zhi 肇域志), a text comprising thousands of pages in 40 *juan*; and *Records of Knowledge Daily Acquired* (Rizhi lu 日知錄), a massive collection of his *biji* (brush notes) in 32 *juan* that was the culmination of Gu's lifelong practice of evidential scholarship and field observation. *Records of Knowledge* covers all fields of knowledge at the time, from classics, history, philology, economics, and the arts to astronomy, geography, and natural history. All these works dated back to Gu's student years in the late Ming but continued to evolve throughout his research career. With the exception of *Records of Knowledge*, which he published in a shorter, 8-*juan* version in 1671 to meet the demands of his friends, all these works were circulated in manuscript copies only and remained unpublished until after his death.⁴⁸

48 The full version of Gu's *Rizhi lu* (日知錄 Records of Knowledge Daily Acquired) was collated by his student Pan Lei 潘耒 and published in 1695. For further details on the life stories and moral characters of Gu Yanwu and Zhu Heling, see Gu Yansheng, “Gu Tinglin nianpu”; Zhi Weicheng, *Qingdai puxue dashi liezhuan*, 2–5 (on Gu Yanwu) and 20–21 (on Zhu Heling); Peterson, “The Life of Ku Yen-wu (1613–1682),” Parts I and II; and John Patrick Delury, “Despotism Above and Below: *Gu Yanwu's Record of Daily Learning* on Power, Money, and Mores,” Ph.D. dissertation, Yale University, 2007. On the lifelong friendship between Gu and Zhu, see Zhou Jinbiao 周金標, “Gu Yanwu yu Zhu Heling jiaowang kaolun” (顧炎武與朱鶴齡交往考論 Textual Research into the Association between Gu Yanwu and Zhu Heling), *Jiangnan daxue xuebao (renwen shehui kexue ban)* 江南大學學報 (人文社會科學版) (Journal of Jiangnan University, Humanities and Social Sciences Edition) 8, no. 4 (2009): 81–84 and 89.

Zhu Heling and Gu Yanwu's approach to the notion of the Four Seas in the "Tribute of Yu" chapter epitomizes their deep respect for the integrity of the classical text, their meticulous efforts to ascertain the meanings of texts within their historical and linguistic contexts, and their conscious attention to maritime empirical knowledge about the seas off Chinese coasts. Two examples from Zhu's commentaries on the "Tribute of Yu" suffice to show his approach. The first is his discussion of the following sentence in the "Tribute of Yu":

The Weak-Water [River] was conducted westward. ...He channeled the Weak-Water as far as the Heli [Mountains], from which its superfluous waters went away among the moving sands.⁴⁹

As we have seen in Chapter 3, the Song-dynasty Yugong scholar Cheng Dachang, in his eagerness to validate his literal reading of the statement in the "Tribute of Yu" that Yu's "fame and teachings reached the Four Seas," identified the Weak-Water in the sentence just quoted as the Guishui 媯水 (Amu Darya River), and the Aral Sea or Caspian Sea into which that river flows as *the* West Sea. In his *Extended Notes on the "Tribute of Yu,"* Zhu Heling criticized Cheng Dachang for departing from the text and its context. He did not believe that the Guishui was the Weak-Water mentioned in the "Tribute of Yu"—Yu the Great had no business channeling a river that originated west of the Nine Provinces and that flowed even farther west, much less in tracing it all the way to the West Sea. Zhu recalled the historical context of Yu's labors: his urgent task had been to get the floodwaters out of the western province of Yong by leading them west and away from the province. Once they went westward, Yu would have stopped there, letting them go wherever they wreaked no havoc, such as into the moving sands. "That is why," Zhu wrote, "the text says that 'the Weak-Water was conducted *westward*' and not that it '*entered the West Sea*.' This text recorded the true events [of how Yu tamed the floods]."⁵⁰ Here Zhu insists on leaving the Guishui and the so-called West Sea out of the picture—the former because it was beyond the realm of historical possibility, and the latter because it was not mentioned in the text.

49 The Chinese is "Ruoshui jixi...dao ruoshui zhiyu heli, yubo ruyi liusha" 弱水既西...導弱水至于合黎，餘波入於流沙. English translation quoted with slight modification from JLCC, vol. 3, *The Shoo King*, 123–132.

50 Zhu Heling, *Yugong changjian* 禹貢長箋, *juan* 11, 2b. I consulted the photolithographically reproduced edition of this text in vol. 37 of *Siku quanshu zhenben san ji* (四庫全書珍本三集 Manuscript Copies of the Complete Collection of the Four Treasures, Third Series) (Taipei: Taiwan Shangwu yinshuguan, 1971).

The second example occurs in Zhu's *Commentaries on the "Book of Documents,"* in his discussion on the sentence in the "Tribute of Yu" which states that Yu's "fame and teachings reached the Four Seas." Here Zhu does not elaborate on Yu's "fame and teachings" at all but concentrates solely on the Four Seas, indicating that he was aware of a discourse that had formed around this concept. He starts by quoting Hong Mai's view that in the classical literature the term Four Seas was a figurative reference to the seas around the Chinese coast, and that there is only one sea, which is called differently—the north sea, east sea, and south sea—along different sections of the Chinese coast. This is followed by several other sources that survey the seas off and beyond the Chinese borders, including Cheng Dachang's treatise *Answers to Geographical Questions about the Regions North of China* (Beibian beidui)⁵¹ and Li Zhi's essay "The Four Seas." The quote from Li Zhi is the last and longest, and Zhu's own commentary was written in direct response to it. It reads:

My humble opinion: Of [Yu's] Nine Provinces, Ji 冀, Qing 青, Xu 徐, and Yang 揚 are the ones bordering on the coast. The sea is on their east. The South Sea that lies to the east of the land of the Viets is south of Yang. The sea [southwest of] Yunnan loops around [the land] and extends to Annam. Annam is the Nanjiao 南交 of ancient times. It lies directly south of [Yu's tracks depicted in] the "Tribute of Yu." The Man of Yueshang 越裳氏 was referring to the South Sea when he said [to the Duke of Zhou] that "the sea has raised no waves."⁵² The "Tribute of Yu" states that "[Yu] conducted the Black-Water [River] to Sanwei 三危, and then it went away and entered the South Sea." That South Sea is the Southwest Sea [near

51 On Cheng Dachang, see note 41 above.

52 This refers to a passage in the *Hanshi waizhuan* (韓詩外傳 Outer Commentary on the *Classic of Poetry* by Master Han) by Han Ying (second century BCE), which tells the story of a man of Yueshang 越裳氏 who journeyed a long distance from the south to present a pheasant to the Duke of Zhou (ca. 1100 BCE). The duke asked what he had done to deserve this honor, to which the man of Yueshang replied, through his interpreters, "I was sent on this mission by the elders of my country, who said to me: 'It has been so long—indeed three years already—since we have had neither wind storms nor torrential rain, and the sea raised no waves! We surmise that this is because there is a sage emerging in China. You must go there and pay him a tribute. That is why I came.'" Han Ying cites this story to explain the context of the line in the *Classic of Poetry* that says, "For myriad years, there is no moment when [he is] without helpers." See *Hanshi waizhuan*, *juan* 5. I consulted the online edition of this text on 9/14/2013 at: <http://ctext.org/han-shi-wai-zhuan/juan-wu/zh>.

Yunnan].⁵³ Furthermore, the “Tribute of Yu” also says that [Yu] conducted the [Yellow] River to Jieshi 碣石 [near Bohai Bay]. The sea near Jieshi stretches north to the coast of the Liaodong peninsula; therefore it can be regarded as the Northeast Sea. Zhuowu’s 卓吾 [i.e., Li Zhi’s] idea that there is only one sea near China, the one on its east, must have been derived from Buddhist teachings.⁵⁴

Zhu Heling added a note in smaller characters to the last sentence just quoted, explaining the Buddhist view of the earth, which locates China in the eastern corner of the continent Jambudvīpa. His observation that Li Zhi had simply derived his views from Buddhist sources reflects his bias, for he discounts Li Zhi’s attempt to base his argument on facts of Chinese geography. However, Zhu’s comments nevertheless make it clear that he agreed with Li Zhi on a more fundamental level, for both men had abandoned the idea that there were Four Seas that framed China along the *four cardinal directions*. Zhu tried to adduce evidence from the “Tribute of Yu” and other ancient sources, such as the passage about the man of Yueshang in the *Outer Commentary on the “Classic of Poetry” by Master Han* (Hanshi waizhuan 韓詩外傳, second century BCE),⁵⁵ to contradict Li Zhi and show that there is a Northeast Sea, East Sea, and South Sea off the Chinese coast and the Southwest Sea near Yunnan. On the whole, it seems that Zhu concurred with the main points made by Hong Mai; however, whereas Hong Mai’s emphasis was on the oneness of these seas, Zhu recognized that the different names given to them—north, east, and south—held meaning historically and that they were appropriate based on their actual geographical locations relative to the land of China at the time of Yu.

Zhu Heling sent a copy of his *Commentaries on the “Book of Documents”* to Gu Yanwu. Gu read the book and replied to Zhu with a poem praising his accomplishments.⁵⁶ Gu himself also wrote an essay entitled “The Four Seas”

53 Zhu Heling identified the Black-Water mentioned in the “Tribute of Yu” as Lancang jiang 瀾滄江, the name of the upper stream of the Mekong, but mistakenly thought that this river emptied into the sea southwest of Yunnan, namely, into the Bay of Bengal. See Zhu Heling, *Yugong changjian*, juan 11, 9a–12a, and the first of his “Yugong illustrations” preceding juan 1 of this book.

54 Zhu Heling, *Shangshu pi zhuan* 尚書埤傳 (Commentaries on the *Book of Documents*), juan 6, 34a–b (Taipei: Taiwan shangwu yinshuguan, 1972).

55 For this passage from the *Hanshi waizhuan*, see note 52 above.

56 See Gu Yanwu 顧炎武, “Zhu Jushi Helin ji *shangshu pizhuan*” (朱居士鶴林寄尚書埤傳 On the *Commentaries on the “Book of Documents”* Sent to Me by Sir Zhu Heling), in idem, *Gu Tinglin shiwen ji* (顧亭林詩文集 Collection of Poems and Essays by Gu Tinglin), punctuated and collated by Hua Chenzhi 華忱之 (Beijing: Zhonghua shuju, 1959), 422–423.

and included it in his *Records of Knowledge Daily Acquired*. The date of this essay is unknown, but it was not included in the eight-juan version of this book published in 1671.⁵⁷ Gu's essay begins by flatly rejecting the literal interpretation of the Four Seas implied in a passage in *The True Meaning of the "Book of Documents"* (Shangshu zhengyi 尚書正義) written by Kong Yingda 孔穎達 (574–648), the thirty-second-generation descendant of Confucius. Kong's passage says:

The shapes of Heaven and Earth are such that there is water on their four sides. According to the *Book of Zou Yan* (Zou yan shu 鄒衍書), there is an all-encompassing sea that surrounds the Nine Provinces (jiuzhou 九州; "nine zhou"). Thus the Nine Provinces reside within this water, and that is why they are [altogether] called a zhou [i.e., dry land surrounded by water].⁵⁸

Gu does not directly critique Kong's cosmological assumptions about the shape of the earth and the Four Seas, but does demonstrate that the description of the earth or the Nine Provinces flanked by the Four Seas is not found in the classical texts. He observes that "the five classics did not feature the West Sea and North Sea, and the term Four Seas was only a reference to the *wanguo* 萬國—all of the states or polities there were."⁵⁹ Gu also inserts the following note here to expand on this point:

The section on the "Meaning of Rites" (Jiyi 祭義) in the *Book of Rites* (Liji 禮記) says of filial piety that "it is true if applied to the West Sea, and it is also true if applied to the North Sea." Here the term "sea" is used figuratively. In *Zuo's Commentary* [on the "Spring and Autumn Annals"] (Zuo zhuan 左傳), we read that Duke Huan of Qi said, "I am at the North Sea." Here the North Sea refers to his home state of Qi. *Mencius* also said, "Boyi tried to avoid King Zhou 紂; therefore he resided on the shore of the

57 The full text of this earlier version of *Rizhi lu* is appended to Gu Yanwu 顧炎武 (1613–1682), *Rizhi lu jishi* (wai qizhong) (日知錄集釋 (外七種) Records of Knowledge Daily Acquired, with Seven Appendices and Commentaries [by Huang Rucheng 黃汝成, 1799–1837]) (Shanghai: Shanghai guji chubanshe, 1985), 3: 2621–2932.

58 Gu Yanwu, *Rizhi lu jishi* (日知錄集釋 Records of Knowledge Daily Acquired [with Commentaries by Huang Rucheng 黃汝成, 1799–1837]), punctuated and collated by Luan Baoqun 樂保群 and Lü Zongli 呂宗力 (Shanghai: Shanghai guji chubanshe, 2006), 2: 1230. The original passage can be found in Kong Yingda (574–648), *Shangshu zhengyi*, 82.

59 Gu Yanwu, *Rizhi lu jishi*, vol. 2: 1230.

North Sea.”⁶⁰ During Tang times, Weizhou 濰州 was the seat of the North Sea Commandery. Today there is still a temple dedicated to Boyi in that area in Changli 昌黎 County.⁶¹

Those who disagreed with Gu would have easily seen the flaws in his argument in the above note, because the original statement by Zengzi 曾子 recorded in the *Book of Rites*, from which Gu took his quote, lists not just the West Sea and North Sea but a complete set of Four Seas, including the East Sea and South Sea. Thus the sentence as a whole gives ample indication that it is defining the universal applicability of filial piety by using the Four Seas as the outer physical limits of the world.⁶² Similarly, the North Sea where Mencius said Boyi had hidden himself from King Zhou was not just a figurative reference to a region such as a county or commandery, as Gu suggests here, but designated a real sea (Bohai Bay); and Changli County, where Gu says a Boyi Temple is found, *does* border the west coast of this bay.

Nevertheless, Gu Yanwu had additional textual evidence to show that there had been a consistent usage of the terms “sea” and “Four Seas” as figurative references to places other than the seas in early texts. Besides citing the definition, offered in the Han dictionary *Approaching Refined [Usages]*, that “the nine Yi,

60 This quote from the *Zuo zhuan* (左傳 Zuo's Commentary [on the *Spring and Autumn Annals*]) comes from the following passage concerning events occurring in the fourth year of Duke Xi 僖公四年: “The Lord of Zhu said to Duke Huan of Qi: ‘I am at the South Sea and you at the North Sea. We have nothing to do with each other.’” See ssjzs, vol. 7, *Chunqiu zuozhuan zhengyi*, 1: 329. The quote from Mencius appears in both chap. 13 (離婁, 上) and chap. 22 (盡心, 上) of *Mencius*. These sources are identified by Zhao Lisheng 趙儷生 in his “Sihai: Rizhi lu daodu (20)” (四海:《日知錄》導讀(20) The Four Seas: Guided Reading of *Rizhi lu*, no. 20), in idem, *Zhao Lisheng wenji* (趙儷生文集 Collected Writings by Zhao Lisheng), vol. 3, accessed online on 9/15/2013 at: <http://eco.guoxue.com/article.php/10669>.

61 Gu Yanwu, *Rizhi lu jishi*, vol. 2: 1231. The temple must have been a discovery Gu made during his travels in Changli, which is located on the western coast of Bohai Bay in present-day Hebei Province. Gu wrote a poem to commemorate his visit to the area entitled “Changli” 昌黎. See Gu Yanwu, *Gu Tinglin shiwen ji*, 340.

62 The original statement in the *Liji* (禮記 Book of Rites) reads: “Master Zeng said: ‘As for Filial Piety, it fills up the space between Heaven and Earth. It is true when applied to the East Sea; it is true when applied to the West Sea; it is true when applied to the South Sea; and it is true when applied to the North Sea.’” Cited from Zhengxuan 鄭玄, *Liji zhengyi* (禮記正義 The True Meaning of the *Book of Rites*), annotated by Kong Yingda 孔穎達 and collated by Gong Kangyun 龔抗云 and Wang Wenjin 王文錦 (Beijing: Beijing daxue chubanshe, 1999), 1333.

eight Man, six Rong, and five Di are called the Four Seas,⁶³ Gu points out that *The Commentary on the "Rites of Zhou"* (Zhouli zhushu 周禮注疏), in its exposition of the sentence that the office of Xiaoren 校人 "makes sacrifices to the Four Seas, mountains and rivers," explains that "the Four Seas here means the same as the Four Quarters."⁶⁴ Finally, Gu observes that the term *hai* 海 (sea) is not always the word used in early texts to designate the seas or similar bodies of water. As an example he cites the *Book of Changes*, which "defines the hexagram *dui* 兌 in terms of *ze* 澤, instead of *hai*, as a designation for a body of water."⁶⁵

Gu goes on to argue that where the classics do use the term "sea" to refer to real seas, they only involve the one sea off the east coast. He provides several such examples. First, the *Book of Rites*, in its section on "Communal Drinking Rituals" (Xiang yin jiu yi 鄉飲酒義), explains that the sacrificial victim, a dog, must be washed on the steps leading up to the altar, and that the wash water should be placed to the east of the steps. Here the text says that the water should be placed in that position "to emulate the sea on the eastern side of Heaven and Earth."⁶⁶ Gu reminds his readers that this statement means that the ancients knew there was no sea on the west. Again, whereas in the "Book of Yu" (Yushu 虞書) chapter of the *Book of Documents*, Yu 禹 is recorded to have said, "I tamed the nine rivers and conducted them to the Four Seas," Gu observes that in the "Tribute of Yu" (Yugong 禹貢) chapter of the *Book of Documents*, where Yu's activities of flood control are described in detail, only one sea is identified. He writes that "what is called the South Sea [in the 'Tribute of Yu'] is just a different part of that same sea. It is called differently in the same way that we call the western section of the same [Yellow] River the West River."⁶⁷ From this textual analysis Gu concludes:

The "Tribute of Yu" speaks of the Four Seas in two senses: in the statement "To the east it extends to the sea," it means the real sea; in the statement that "[Yu's] fame and teachings spread to the Four Seas," "sea" is used figuratively and generically.⁶⁸

63 These are Gu's exact words. The number and order of the "barbarians" listed here do not match the standard version of the text that we have, which is consistent with the version quoted by Xia Yunyi in the previous subsection.

64 See SSJZS, vol. 4, *Zhouli zhushu* (周禮注疏 Commentaries and Subcommentaries on the *Rites of Zhou*), by Zheng Xuan 鄭玄 (127–200) and Jia Gongyan 賈公彥 (seventh century), 864.

65 Gu Yanwu, *Rizhi lu jishi*, vol. 2: 1230.

66 For the original statement on this ritual, see Zhengxuan, *Liji zhengyi*, 1637.

67 Gu Yanwu, *Rizhi lu jishi*, vol. 2: 1230.

68 Gu Yanwu, *Rizhi lu jishi*, vol. 2: 1231.

Gu then turns to a survey of the seas around and beyond Chinese borders, quoting the same passages from Hong Mai and from the fact-finding Cheng Dachang as Zhu Heling had done in his *Commentaries on the "Book of Documents."* Yet Gu does not quote Li Zhi, whose views on this were quite congenial to his own. We can only guess why: in another essay included in his *Records of Knowledge Daily Acquired*, entitled "Li Zhi," Gu quotes the detailed record in the *Veritable Records of Ming Emperor Shenzong* (Shenzong shilu 神宗實錄) about Li Zhi's case. This record included the official charges against Li Zhi, presented to the Wanli Emperor by Zhang Wenda 張問達, an executive secretary in the Ministry of Rites, and the emperor's decree in response to them, which led to Li Zhi's sentence and imprisonment and the subsequent burning of his books. After quoting this record, Gu comments that "since antiquity there have been few degenerates who have sunk lower than Li Zhi in their licentiousness and defiance of the sages." He then highlights parallels between Li Zhi and other intellectuals in Chinese history whose "demoralizing" influences had been blamed for the collapse of their respective dynasties.⁶⁹ This being Gu's view of Li Zhi, and given the pangs over the fall of Ming that continued to haunt Gu throughout his life, it is understandable that he did not want to mention Li Zhi in a discussion in which he would have been forced to give Li some credit.

Gu Yanwu's attempt to "liquidate" the Four Seas as a literally understood cosmological and geographical concept reveals the semantic *complexity* of the terms "sea" and "Four Seas" in early Chinese texts. Gu demonstrated that many usages of these terms in the classics were figurative and not literal. But as already discussed, not all occurrences of these terms in the classical texts were amenable to this new reading he proposed. Gu's eagerness to purge the literal notion of the Four Seas from the classics speaks not only to his faith in the infallibility of the ancient sages and the texts ascribed to them but to what Gu personally held to be the *truth*, for scholars have "discovered" different truths in the same classics at different times, depending on how they themselves understand the world. During the heyday of Huntian (Spherical Heaven) cosmology, Kong Yingda (574–648) had put his version of the truth—"the shape of Heaven and Earth is such that there is water on their four sides"—into his reading of the *Book of Documents*. Apparently, for Gu, this image of the world no longer held sway. He lived in an era when the Jesuit notion of the teraqueous globe had been widely disseminated and was gaining acceptance among the intellectual elites, thanks to the success of Jesuit astronomy and mathematics in the Qing court, especially during the last two decades of Gu

69 Gu Yanwu, *Rizhi lu jishi*, vol. 2: 1070.

Yanwu's life (1613–1682) when the Kangxi Emperor reigned (r. 1662–1722). Although Gu did not cite this notion of the terraqueous globe to refute Kong's image of the world, it is almost certain that he was familiar with and positively disposed toward it.

Until recently, historians tended to believe that the collapse of the Ming and subsequent transition to the Qing caused a widespread shift in attitude toward Western learning. As a result Gu Yanwu has been seen as a prime example of the new type of Chinese scholars maturing in the early Qing, who disconnected themselves both from affairs of the Manchu state and from the new science of the Jesuits that the Qing promoted under the pretense of the “Chinese origin of Western learning.” But recent studies tell a much more complicated story of the dynamic between evidential scholarship and Western learning in general, and of Gu Yanwu's attitude toward Western learning in particular. For instance, historians have learned that Gu was a friend of both Wang Xichan 王錫闡 (1628–1682) and Xue Fengzuo 薛鳳祚 (1600–1680), two of the most accomplished astronomers of the seventeenth century, who excelled in their mastery of the new (Jesuit) calendrical methods.⁷⁰ In fact, it was Gu Yanwu who brought these two astronomers into contact with each other in 1668. Wang Xichan had been developing a method for predicting solar and lunar eclipses, and Gu recommended that he consult Xue Fengzuo, who had studied and collaborated with the Polish Jesuit astronomer Jan Mikolaj Smogulecki (Mu Nige 穆尼閣, 1610–1656).⁷¹

70 Gu Yanwu regarded Wang Xichan 王錫闡 (1628–1682) highly for his scholarship. In his essay “Guangshi” (廣師 Seeking out Masters from Far and Wide), Gu lists ten men who surpassed him in some way, and Wang tops that list: “His learning penetrates Heaven and Humanity and is precise and unshakable. In this respect I cannot compare with him—Wang Yinxu.” (Yinxu 寅旭 was Wang Xichan's pen name.) Gu Yanwu, *Gu Tinglin shiwen ji*, 134.

71 In his letter of self-introduction to Xue Fengzuo 薛鳳祚, Wang Xichan made it clear that it was Gu Yanwu's praise of Xue's outstanding astronomical expertise that prompted him to write to Xue to seek his instructions on several difficult topics he had been grappling with. See Wang Xichan 王錫闡, “Yi Xueyifu shu” (貽薛儀父書 Letter to Xue Yifu [Fengzuo]), in idem, *Xiao'an xiansheng wenji* (曉庵先生文集 Collection of Essays by Scholar Xiaolan), *juan* 2, reprinted in *Qingdai shiwenji huibian* (清代詩文集彙編 Compilation of Poems and Essays from the Qing Dynasty) (Shanghai: Shanghai guji chubanshe, 2010), 105: 713–714. I wish to thank Chu Longfei 褚龍飛 for sharing this document with me. Chu is completing his Ph.D. dissertation on Xue Fengzuo at the University of Science and Technology of China. He said that he has found no evidence to confirm that Wang and Xue actually met, or even that Xue responded to Wang's letter. On Gu's relationship with these two astronomers, see Chen Yi 陳益, “Gu Yanwu yu xixue dongjian, wai yi pian” (顧炎武與西學東漸 (外一篇) Gu Yanwu and the Eastward Spread of Western

Gu Yanwu's writings also demonstrate his own familiarity with Jesuit astronomical theories. In an entry in his *Records of Knowledge Daily Acquired* entitled "Lunar Eclipses" (Yueshi 月食), he states that "a solar eclipse is caused by the moon covering the sun, and a lunar eclipse is caused by the earth covering the moon. This is what Western astronomical theories say." Gu goes on to argue that "before it was introduced [by the Jesuits], the Chinese already had such a theory." He quotes the Ming author Lu Shen 陸深 (1477–1544), who had attributed a similar theory to some Muslim astronomers from the Western Region, and another, more recent scholar by the name Wan Shi 萬實, though in the end Gu writes that this theory was much older than any of these authors and extends all the way back to Zhang Heng 張衡 (78–139). He then applies his philological techniques to an examination of Zhang Heng's *The Numinous Structure [of Heaven]* (Lingxian 靈憲), and shows that Zhang had already given exactly this explanation of lunar eclipses, but due to a critical corruption of the text in the editions that have been transmitted, whereby the character *di* 地 ("earth") becomes *ta* 他 ("he," or "somebody or something else"), later scholars have been misled into thinking that it was "something else" that was causing the shadow on the moon.⁷²

As seen in Chapter 4, the Jesuits labored in their astronomical texts to explain the cause of the lunar eclipse, and adduced the curved shadow of the earth cast on the moon observed during lunar eclipses, referred to as *anxu* 闇虛 by Chinese astronomers, to demonstrate the sphericity of the earth. Thus we must conclude from Gu Yanwu's "Lunar Eclipses" entry in his *Records of Knowledge Daily Acquired*—and especially from his eagerness to credit Zhang Heng with having discovered the true meaning of *anxu* (i.e., as being the shadow of the earth cast on the moon)—that Gu tacitly accepted the idea that the earth is round.⁷³ Thus Gu's entry on "Lunar Eclipses" indicates that he not only accepted the Jesuit theory on the subject but was in the habit, like many

Learning, with Another Appended Essay), *Kunshan wenhua yanjiu* (昆山文化研究 Studies of Kunshan Culture), vol. 10 (December 2012); online edition accessed on 9/15/13 at: http://www.kswhyj.com/E_ReadNews.asp?NewsID=495.

72 Gu Yanwu, *Rizhi lu jishi*, vol. 3: 1678–1679. Xu Haisong has already called attention to this aspect of Gu Yanwu's approach to Western learning in his *Qing chu shiren yu xixue*, 314–318.

73 This point can also be demonstrated in comparison with an interesting example drawn from an earlier era: the Yuan-dynasty astronomer Zhao Youqin 趙友欽 had cited the round shadow observed on the moon during lunar eclipses as evidence that this shadow could not be that of the earth because "the earth is not round" (*dadi que fei yuanti* 大地卻非圓體). See the beginning of Chapter 4 above, and the references in Chapter 4, note 10.

of his contemporaries (such as Fang Yizhi, Jie Xuan, and Mei Wending), of proving that the Chinese had already had some form of this theory long ago. Seen in this light, Gu Yanwu's essay on the Four Seas is another attempt on his part to use evidential scholarship to demonstrate that the ancient Chinese had never believed that the earth was flat, square, and framed by the Four Seas—just as Ricci and his fellow Jesuits themselves had suggested to their Chinese readers as an initial strategy of persuasion (see Chapters 1 and 2 above).

Hu Wei's (1633–1714) Boring into the "Tribute of Yu"

This new Yugong scholarship among evidential scholars culminated in a 20-juan work by Hu Wei 胡渭 (1633–1714) aptly entitled *Boring into the "Tribute of Yu"* (Yugong zhuizhi 禹貢錐指, prefaced 1701). Unlike Zhu Heling and Gu Yanwu, Hu Wei had entertained hopes of a successful official career. A native of Deqing, Zhejiang, Hu came from a family that had produced generations of successful civil service examination candidates. He lost his father during the Ming-Qing transition but continued his studies under his mother's guidance, passing the qualifying examination at the tender age of 15. It took him almost three decades of trying and failing the formal examinations to decide finally to be satisfied with the life of a private scholar. Hu must have been known to be highly erudite, for he was offered prominent positions as a private tutor in the capital, first at the house of the Grand Secretary of the Grand Secretariat Feng Pu 馮溥 (1609–1692) and, after Feng's retirement in 1682, at the house of Xu Qianxue 徐乾學 (1634–1691), also a secretary of the Grand Secretariat who simultaneously held other titles at the court, the highest of which was the Minister of Punishment.

Xu Qianxue took semi-retirement in 1690 and recruited a group of prominent scholars, including Hu Wei, to Mount Dongting, near Lake Tai in Jiangsu, to compile the *Comprehensive Geography of the Great Qing* (Daqing yitongzhi 大清一統志), transporting a large amount of material from the imperial library with him. In the secluded environment at Mount Dongting, Hu and his fellow team members and friends, such as Yan Ruoju 閻若璩 and Gu Zuyu 顧祖禹, worked for more than two years on the project, until it was suspended. During those years Hu took the opportunity to examine many geographical and historical sources to which he had previously had no access. This research led him to discover numerous errors in earlier commentaries on the "Tribute of Yu," laying the foundation for his *Boring into the "Tribute of Yu."*⁷⁴

74 See the biographical sketch of Hu Wei in Zou Yilin's 鄒逸麟 preface to the reprinted edition of Hu Wei 胡渭 (1633–1714), *Yugong zhuizhi* 禹貢錐指 (Boring into the "Tribute of Yu") (Shanghai: Shanghai guji chubanshe, 1996), 1–5. On Xu Qianxue's official career and

In the introduction to his book, Hu Wei declares that “in ancient times the Four Seas referred to the nine Yi, eight Di, seven Rong, and six Man.”⁷⁵ He elaborates on his position when commenting on the sentence “The Four Seas converge” (*sihai huitong* 四海會同), where he writes:

In ancient texts the Four Seas all referred to lands and not waters. The dictionary *Approaching Refined* [*Usages*] (*Erya*) classified it under the section “Earth” and not “Water.” Lands beyond the Nine Provinces in the “Tribute of Yu” [chapter] are the Four Seas. They are not defined by how far or near the waters are. This is what Liu Xiang 劉向 [79–7 BCE] meant in the *Abundance of Elucidations* (*Shuoyuan* 說苑) that “within the Eight Wildernesses are the Four Seas, and within the Four Seas are the Nine Provinces.” It is only since Song times that scholars began to abandon ancient teachings and took “sea” for seawater, and thus Cai [Shen] 蔡[沈] in his commentaries interpreted the sentence [in the “Tribute of Yu” that says] “the Four Seas converge” and so on as [meaning that] “the waters of the Four Seas all come together and yet each finds its proper destination.”⁷⁶

Hu Wei had read both Zhu Heling’s and Gu Yanwu’s above-mentioned works.⁷⁷ His own position on the meaning of the Four Seas in the “Tribute of Yu” was in full accord with the general conclusion they had arrived at, but he agreed with Zhu more than with Gu about the actual seas that featured in the “Tribute of Yu.” He recapitulated Zhu Heling’s view that all rivers described in the “Tribute of Yu” enter the East Sea, except for the Black-Water that goes to the South Sea. Hu also filled in the loophole left in Gu Yanwu’s note about the meaning of the North Sea in *Zuo’s Commentary on the “Spring and Autumn Annals”* and the text of *Mencius*. He said that the so-called North Sea in these texts is a real sea, the present Bohai Bay, which forms the northern section of the East Sea. Hu investigated the historical records about the military and diplomatic missions to regions north and west of China during the Han and Tang dynasties, and found that the various seas that had been identified as *the* North Sea and West Sea by earlier authors, such as Cheng Dachang the Yugong scholar, were in fact several tens of thousands of *li* away. He concluded that these seas could not have been

scholarship, see Wang Jiaju 王稼句, “Jushe wangshi” (橘社往事 Historical Memories of *Jushe*), in *Shuwu* (書屋 Book House), no. 1 (2012), accessed on 10/3/2013 at: <http://www.housebook.com.cn/201201/08.htm>.

75 Hu Wei, *Yugong zhuizhi*, 13.

76 Hu Wei, *Yugong zhuizhi*, 652. For Cai Shen’s commentary, see his *Shujing jizhuan*, 37.

77 Hu Wei, “Yugong zhuizhi lueli” 禹貢錐指略例 (General Remarks on *Yugong zhuizhi*), in *idem*, *Yugong zhuizhi*, 3.

part of the Four Seas to which Yu is said to have spread his fame and influence. Thus Hu wrote emphatically that “the meaning of the Four Seas here must be understood in the way defined by *Approaching Refined [Usages]*,”⁷⁸ namely, as the “barbarian” lands of the Yi, Man, Rong, and Di.

This attention to quantitative precision in analyzing available empirical maritime literature had already been present in Zhu Heling’s criticism of Cheng Dachang’s identification of Weak-Water with the Amur Darya River, but Hu Wei took it to a whole new level. It was to be the soul of his project. In the “General Remarks” in his *Boring into the “Tribute of Yu,”* he devotes considerable space to the difficulties of engaging in Yugong studies: it was not just a matter of ascertaining facts about the geographical features of mountains, rivers, cities, and administrative domains in China at the time but also involved reconstructing the physical landscape of Yu’s Nine Provinces. Over the course of several millennia, the characters in the ancient texts had acquired new meanings, names of places had been altered beyond recognition, and even the physical landscape itself had changed: some rivers (such as the Yellow River) had altered their courses, and others had appeared or disappeared. Hu prided himself on the thoroughness of his research and the precision of his conclusions. Especially worth noting are his studies of the historical changes in the middle and lower sections of the Yellow River. He discovered that the lower section of the river had changed course five times throughout history, alternating between exiting to Bohai Bay and exiting to the Yellow Sea, and documented this in a long appendix. His became the standard account of the Yellow River well into the 1950s, until more detailed historical studies showed many more major and minor changes in the river’s lower course.⁷⁹

Hu Wei’s concern with accuracy extended to his cartographical representations. He drew up a set of 47 maps to illustrate his findings from the evidential studies on the “Tribute of Yu.”⁸⁰ The last of these, entitled “Map of the

78 Hu Wei, *Yugong zhuizhi*, 652–653; the extracted passage is from 653.

79 Zou Yiling 鄒逸麟, “Hu Wei he tade Yugong zhuizhi” (胡渭和他的禹貢錐指 Hu Wei and His *Yugong zhuizhi*), in idem, *Chunlu shidi lungao* (椿廬史地論稿 Writings on Historical Geography by Chunlu) (Tianjin: Tianjin guji chubanshe, 2005), 572–573. Zou noted that according to the standard account, six more changes have occurred after the latest major change of the river’s course in 1855, thus Hu Wei’s conclusion still stands. The appendix on this topic appears in Hu Wei, *Yugong zhuizhi*, 487–530.

80 Despite his claim of originality, Hu Wei is shown to have borrowed from previous Yugong commentators, such as the late Ming scholar Ai Nanying 艾南英 (1583–1646), who also had applied a grid-based cartography to produce his maps illustrating the geography depicted in the “Tribute of Yu.” Martin Hofmann has explored the use of maps as an illustrative and argumentative method by commentators on Yugong and the complex issue of

Four Seas” (Sihai tu 四海圖, Figure 5.1), depicts the Nine Provinces listed in the “Tribute of Yu” in relation to the Four Seas. The Nine Provinces are represented by the irregularly shaped loops to the east of the center point of this map, each bearing a circular sign with its name written in it. Even a cursory look reveals the striking contrasts between this map and both Cheng Dachang’s “Truthful and Verified General Illustration of the Mountains and Rivers in the Nine Provinces” (Jiuzhou shanchuan shizheng zongtu; see Figure 3.5) and the anonymous “Map of All under Heaven” (Tianxia tu; see Figure 3.6) discussed in Chapter 3. First of all, with the exception of the East Sea, the Four Seas have all but disappeared from Hu’s “Map of the Four Seas.” Instead of signs of water on the sides of the map, Hu created text boxes explaining where and how far away the seas are. In the vertical rectangular

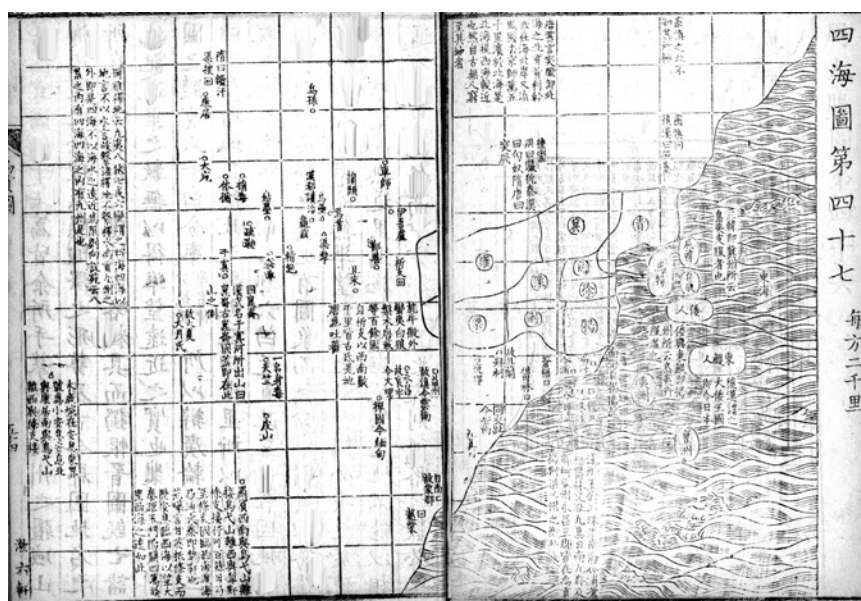


FIGURE 5.1 “Map of the Four Seas” (Sihai tu 四海圖) by Hu Wei 胡渭 (1633–1714). Hu Wei, Yugong zhuizhi (禹貢錐指 Boring into the “Tribute of Yu,” prefaced 1701), in volume of maps at the beginning of the book, 53b–54a

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authorship of these maps due to the frequent appropriation of each other’s illustrations among Yugong scholars. See Hofmann, “Mit falschen Karten? Überlegungen zur Authentizität von Karten in Kommentaren zum Yugong,” in Lena Henningsen and Martin Hofmann, eds., *Tradition? Variation? Plagiat? Motive und ihre Adaption in China*, 275–294 (Wiesbaden: Harrassowitz Verlag, 2012).

text box on the top left of the map, he summarizes his definition of the Four Seas in the “Tribute of Yu,” which we have already seen above. In the square text box, near the top center of the map, he indicates that Tang sources put the North Sea at the distance of approximately 15,000 *li* from the capital. In the square text box at the lower left corner of the map, he explains that according to Fan Ye’s account of Gan Ying’s mission to Daqin in the *History of the Later Han* (Hou hanshu), the West Sea is approximately 40,000 *li* from the Yumen Pass. In the rectangular text box hanging in the water in the southeastern corner of the map, he notes that the nine southern commanderies established by the Han dynasty, including the South Sea Commandery, all lay south and beyond the four eastern provinces treated in the “Tribute of Yu.” In other words, Hu did not deny the existence of these other seas, but he took them to be simply maritime spaces that are too remote to be relevant to the discussion of either the geography of the “Tribute of Yu” or the cultural influences of Yu. Instead, his map represents numerous countries and polities that lie beyond the borders of the Nine Provinces—the real Four Seas in the context of the “Tribute of Yu.”

Second, the Nine Provinces no longer take up nearly the entire land space of Hu Wei’s map as they do on the other two maps, but only a small section near the East Sea. The actual geographical expanses of the Nine Provinces on Hu’s map look far more realistic in scale than those depicted on Cheng Dachang’s map or in the “Map of All under Heaven” (see Figures 3.5 and 3.6). Third, Hu’s map is drawn with grids, and each grid is set to represent 2,000 *li*. That is to say, he consciously followed the mathematical cartographical genre in making these maps.

At the end of his set of 47 maps, Hu included a long essay in which he delves into problems concerning cartographical methods. The essay begins by quoting and expounding the six principles for precise mapmaking stated by the Jin-dynasty scholar Pei Xiu 裴秀 (223–271), namely (1) graduated scale (*fenlü* 分率); (2) rectangular grids (*zhunwang* 准望); (3) distances of actual travel between two places (*daoli* 道裡); (4) high or low elevation (*gaoxia* 高下); (5) angular dimension or alignment (*fangxie* 方邪); and (6) curved or straight lines (*yuzhi* 迂直).⁸¹ The way Hu expounds these principles makes it clear that he had studied the mathematical classic *The Gnomon of Zhou* (Zhoubi), a text which, as we have seen in Chapter 4, was being presented by Mei Wending, the Kangxi Emperor, and other proponents of the theory of Chinese origin of Western

81 The original passages by Pei Xiu 裴秀 are recorded in Fang Xuanling et al., *Jinshu*, juan 34. Needham and Ling, *Science and Civilisation in China*, Volume 3, contains a translation of these passages at 539–540.

learning as one of the few surviving documents testifying to the presence of an advanced mathematics and calendrical method in ancient China.⁸²

In this essay Hu Wei writes profusely about the counterpart of the Pythagorean theorem in *The Gnomon of Zhou*, known as *gougu yansuan fa* 勾股演算法 (i.e., the method of calculating the length of hypotenuse of a right triangle using the lengths of the other two sides). Hu agrees with the Yuan-dynasty scholar Jin Jifu 金吉甫 that it was Yu who originated this method in *The Gnomon of Zhou* and “used it to measure distances and heights, create administrative regions, and set up the Five Domains.”⁸³ Hu compares the golden era of cartography at the time of Yu with the dismal reality of geographical knowledge in his own time. He complains that the local gazetteers on which he had to rely for concrete geographical data to make his Yugong maps provide only the number of *li* between two places and make no mention of what kind of distances these are—horizontal distances derived through computation using the *gougu* method, or unprocessed data collected by pacing the actual roads on the ground between these places. Hu laments the state of decline of Chinese cartography:

Alas! Since the collapse of the Jin 晉 dynasty [265–420 CE] cartography has become an extinguished learning (*juexue* 絕學). How pitiable! I wish there were someone willing to take up the mission to restore ancient learning and memorialize the throne to obtain a decree making all local magistrates survey the roads in their jurisdictions by land and water, take note of the high and low, the precise spatial alignment, and the curving and straight, and submit all these data to the highest official in charge of revenue (*situ* 司徒). This official then would hire mathematicians throughout the country to calculate the correct horizontal distances between these places and, noting their correct positions relative to each other, would then put all the data into a book. ...The maps made on the basis of such data would show all the places correctly; there would be no attaining accuracy in one corner and losing it in another. [If that happens,] then Pei Xiu's extinguished learning would be revived again. Wouldn't that be an achievement worthy of celebration for ten thousand generations?⁸⁴

82 See the last few pages of Chapter 4 above.

83 Hu Wei, “Yugong tu” (禹貢圖 Map of Yugong), in idem, *Yugong zhuizhi*, 122–123 (the page numbers of the maps are not continuous with those of the text in this edition); the direct quote is taken from 123.

84 Hu Wei, *Yugong zhuizhi*, 123–124. Such a massive, empire-wide survey as Hu Wei envisioned was indeed accomplished through the collaboration of European Jesuits and

Here Hu is speaking of a cartographical golden age in Chinese antiquity,⁸⁵ its near extinction in his own time, and his desire for its revival. Doesn't this theme of retrieval and restoration of lost learning sound familiar? The term *juexue* (extinguished learning) points to the intensive discourse on the decline of Chinese mathematics and natural knowledge that emerged in response to the Jesuit introduction of Western learning in China during the late Ming and early Qing. Mei Wending, especially, was widely hailed by his contemporaries for his ability not only to comprehend Western mathematics and astronomy but to understand the abstruse teachings of ancient Chinese texts such as *The Gnomon of Zhou* and *Nine Chapters on the Mathematical Arts* (*Jiuzhang suanshu* 九章算術)—and to demonstrate that Chinese texts agreed with Western ones in certain areas and were superior to them in others.⁸⁶ He was also much credited for his efforts to physically restore extinguished ancient learning (*juexue*) by procuring and preserving older Chinese mathematical and astronomical texts that had become rare to find by his lifetime.

Given the strong parallel between Hu Wei's statements in his essay and these signature themes of Mei Wending's life and work, it may not be unreasonable to suppose that Hu was emulating Mei and participating in the broader ongoing discourse on *juexue*, led by Mei, by *extending* it into the field of cartography. Moreover, although Hu made no written mention of the Jesuits or their works, he was physically and socially near the center stage where Western learning and its supposed Chinese origins were being discussed—namely, the Kangxi court. As mentioned earlier, Hu stayed in Xu Qianxue's household for around eight years. Xu, the much-alienated nephew of Gu Yanwu and a well-respected scholar in his own right, displayed great interest

Chinese/Manchu personnel in 1708–1718, under the patronage of the Kangxi Emperor. See my further discussion on this at the beginning of Chapter 6 below.

- 85 In contrast to this idealized view of ancient Chinese cartography, modern scholarship reveals a much different picture. See, for example, Yu Lizi 羽離子, "Guanyu Zhongguo gudai dingliang zhitu xueshi de wenti" (關於中國古代定量製圖學史的問題 As Regards the History of Ancient Chinese Quantitative Cartography), *Ziran kexueshi yanjiu* 自然科學史研究 (Studies in the History of the Natural Sciences) 10, no. 2 (1991): 177–181.
- 86 Mei Wending captured such "findings" in one of his poems, in which he wrote: "Who would have thought that the teachings of the Europeans are the same as those found in *The Gnomon of Zhou*!?" (Sheizhi ouluo yan, nai yu zhoubi tong 誰知歐羅言, 乃與《周牌》同). Poem quoted in Liu Dun 劉鈍, "Qingchu lisuan dashi Mei Wending" (清初曆算大師梅文鼎 Mei Wending: Master of Calendrical Science and Mathematics in the Early Qing), *Ziran bianzhengfa tongxun* (自然辯證法通訊 Bulletin on Natural Dialectics) 8, no. 1 (1986): 61. This was the cornerstone of Mei's argument that Western learning had originated in China.

in Western learning.⁸⁷ His famous library collection, known as “Mansion for the Transmission of This [Learning]” (Chuanshi lou 傳是樓), boasted 27 Jesuit works in various fields, including Aleni’s *Records of Lands outside the Jurisdiction of the Imperial Geographer* (Zhifang waiji) and many of the other Jesuit works, already examined in Chapter 4, that propagated the notion of the globe.⁸⁸ For most of his official career Xu Qianxue enjoyed the favor of the Kangxi Emperor, who appreciated his talent as a scholar. Although Xu’s main writings were in the areas of classical studies and Chinese geography, he seems to have shared some of Kangxi’s interests in Western learning, as evidenced not only in the Western books he collected but in his preface to Wang Honghan’s 王宏翰 1692 *Original Foundation of Medicine* (Yixue yuanshi 醫學原始), the first major attempt by a Chinese doctor to systematically integrate Western natural philosophy with Chinese medicine,⁸⁹ and in his poems on Western glass mirrors entitled “Mirror Box from the Western Ocean” (Xiyang jingxiang 西洋鏡箱).⁹⁰

Lastly, as editor-in-chief of the official *History of the Ming* (Mingshi 明史), Xu Qianxue invited Mei Wending to the capital to participate in the preparation of the “Records of Calendrical Matters” section of the project (mentioned at the end of Chapter 4 above). Mei arrived in the capital in 1689 and stayed there until 1693, during which time he befriended many scholars at the city, including Hu

87 Xu Qianxue was the son of Gu Yanwu’s sister. The Xu were a powerful and at times oppressive family in the Kunshan area. Gu shunned association with them, especially Xu Qianxue, because of their difference in values. While Gu detested the Qing rulers and continued to see himself as a loyal survivor of the fallen Ming, the Xu brothers all had brilliant official careers serving the Qing state. For the complicated relationships between Gu and Xu, see Bao Hongchang 暴鴻昌, “Gu Yanwu yu Xu Qianxue Xiongdi” (顧炎武與徐乾學兄弟Gu Yanwu’s [Relations with] Xu Qianxue and His Brothers), *Qilu xuekan* (齊魯學刊 Qilu Learned Journal), no. 1 (1998): 74–80.

88 This is based on the list supplied in Xu Haisong, *Qingchu shiren yu xixue*, 75.

89 On Wang Honghan’s project to integrate scholastic natural philosophy and Chinese medicine, see Chu Ping-yi 祝平一 (Zhu Pingyi), “Tongguan tianxue, yixue yu ruxue: Wang Honghan yu Ming Qing zhi ji yixue de jiaohui” (通貫天學, 醫學與儒學: 王宏翰與明清之際中西醫學的交會 Medicine East and West: Wang Honghan’s Synthesis of Christianity, Medicine and Confucianism), *BIHP* 70, no. 1 (1999): 165–201; Xu Haisong, *Qingchu shiren yu xixue*, 146–164; and Qiong Zhang, “Hybridizing Scholastic Psychology with Chinese Medicine: A Seventeenth-Century Chinese Catholic’s Conceptions of *Xin* (Mind and Heart),” *Early Science and Medicine* 13, no. 4 (August 2008): 313–360.

90 See Xu Qianxue’s 徐乾學 preface, in Wang Honghan 王宏翰, *Yixue yuanshi* (醫學原始 Original Foundation of Medicine, 1692) (Shanghai: Shanghai keji chubanshe, 1989); two of Xu’s poems entitled “Xiyang jingxiang” (西洋鏡箱 Mirror Box from the Western Ocean) are included in Wang Fuzhi 王夫之 et al., *Qing shihua* (清詩話 Collection of Poems and Prose from the Qing) (Shanghai: Shanghai guji, 1963), 1: 502.

Wei's close associates Yan Ruojun, Gu Zuyu, and Wan Sitong 萬斯同. It is quite likely that Hu and Mei met in person at one of Xu's social gatherings during the year between Mei's arrival in the capital and Xu and Hu's departure to Lake Tai for the project on the *Comprehensive Geography of the Great Qing* (Daqing yitongzhi, mentioned above), or through one of their mutual friends.⁹¹

Whether or not Hu Wei had personal communications with Mei Wending, the above analysis of Hu's text reveals a common pattern of thought that Hu shared with Gu Yanwu: although both scholars avoided explicit references to the Jesuits or to concepts and geographical data from the Jesuits' world maps, their views of the world, their renewed understanding of China's past heritage, and their dreams for a cultural revival mirrored those of their contemporaries, such as Jie Xuan, Fang Zhongtong, and especially Mei Wending, who, in the service of realizing the same dreams of cultural revival, chose to embrace Jesuit science more openly.⁹²

The Merger of Yugong Studies and Renaissance World Geography

By the late seventeenth century, Hong Mai's (1123–1202) figurative reading of the term Sihai (Four Seas) in the "Tribute of Yu"—rekindled by Li Zhi in the late sixteenth century and given elaborate textual support by early evidential scholars such as Zhu Heling, Gu Yanwu, and Hu Wei—had become a new norm

91 Liu Dun has discussed Mei Wending's views of *Zhoubi* and its relationship with Western mathematics and astronomy, his dedication to restoring and promoting the "extinguished learning" (*juexue* 絕學) of ancient Chinese science, and his socializing at the capital during the years 1689–1693. See Liu Dun, "Qingchu lisuan dashi Mei Wending."

92 In this context, we may note a fundamental continuity between these early evidential scholars and their successors of a later era, especially the so-called Qian-Jia xuepai 乾嘉學派 (evidential scholars during the reigns of Emperor Qianlong [r. 1736–1795] and Emperor Jiaqing [r. 1795–1820]). Qian Daxin 錢大昕 (1728–1804), for example, shared both Hu Wei's renewed appreciation of the importance of quantitative thinking for understanding Heaven and Earth and his narrative of the decline of Chinese mathematics since late antiquity. For Qian, mathematics had once been, and should again become, an essential skill for Confucian scholars. Unlike Hu Wei, who remained a reticent partner in the discourse on the Chinese origin of Western learning, Qian loudly broadcast Mei Wending and others' hypothesis of the westward spread of ancient Chinese mathematics and its perfection by the Europeans in later centuries. See Qian Daxin, "Zeng Tan Jieping xu" (贈談階平序 Preface to the Work of Tan Jieping), in idem, *Qianyan Tang wenji* (潛研堂文集 Collection of Essays from Qianyan Tang), *juan* 23, reprinted in *Qianyan Tang ji* 潛研堂集 (Collected Works of Qianyan Tang), collated and punctuated by Lü Youren 呂友人 (Shanghai: Shanghai guji chubanshe, 1989), 377–378. I wish to thank Benjamin Elman for this reference.

within and beyond Yugong studies. On the whole, commentators on the “Tribute of Yu” now tended to take one or both of two approaches to interpreting the meaning of the term Four Seas in the text. One was to emphasize the historical context of the “Tribute of Yu” and take the Four Seas to be *lands*, rather than real seas, that lay beyond the territorial boundaries of what the sage-king Yu had referred to as the Nine Provinces (namely, China). The other was to document the seas known to exist beyond China by exploring available geographical data about them from earlier empirical maritime literature.⁹³ In the first approach, we find a conscious attention to the “Tribute of Yu” as a text that describes “the tracks of Yu” as a veritable record made by Yu of a historical place in a historical time, albeit under the continued presumption of its ancient origin. This historical awareness—coupled with (a) a renewed emphasis on attaining empirical evidence and accuracy, and (b) the development of new research techniques in phonology and epigraphy that facilitated this goal—enabled Yugong scholarship to transform itself from a core component of imperial Chinese geopolitical discourse into a full-fledged field of historical geography.

93 This is based on my survey of the eight large volumes of historical commentaries on the “Tribute of Yu” compiled by Li Yongxian 李勇先. These two approaches persisted into and through the eighteenth century. See especially the following, all in Li Yongxian, ed., *Zhongguo lishi dili wenxian jikan: Yugong jicheng*: Tang Yirui 湯奕瑞, *Yugong fangyu kao* (禹貢方域考 Research on the Various Regions in the “Tribute of Yu,” 1743?), 3: 318; Xia Zhifang 夏之芳, *Yugong huilan* (禹貢匯覽 Comprehensive Survey of Yugong Literature, preface 1747), 5: 446; Ma Junliang 馬俊良, *Yugong zhu jiedu* (禹貢注節讀 Excerpted Commentaries on the “Tribute of Yu”), and idem, *Yugong tushuo* (禹貢圖說 Illustrated Account of the “Tribute of Yu”), 6: 30 and 88, respectively; and Yan Sisheng 晏斯盛, *Yugong jie* (禹貢解 Explanations of the “Tribute of Yu,” preface 1745), 5: 301–304. Also in Li Yongxian, ed., *Zhongguo lishi dili wenxian jikan*, 5:5, Cao Ercheng’s 曹爾成 *Yugong zhengyi* (禹貢正義 Elucidating the True Meaning of the “Tribute of Yu”) presents an interesting case within the latter trend identified here: Cao’s “Xihai tu” (西海圖 Map of the West Sea) depicts a landmass featuring Yu’s domain at the center. However, this landmass is not presented as a box neatly framed by the Four Seas as it was in Cheng Dachang’s “Truthful and Verified General Illustration of the Mountains and Rivers in the Nine Provinces” (Jiuzhou shanchuan shizheng zongtu 九州山川實證總圖; see Figure 3.5). Various bodies of water are shown on the fringes of the map, but these seas are divided by protrusions of land—the inner Asian steppe on the north, Shandong peninsula on the east, mainland Southeast Asia on the south, and what appears to be a distorted representation of a section of the Indian subcontinent on the west. In other words, even in this map, which appears on the first sight similar to Cheng Dachang’s, we find a complex configuration of land and sea that breaks away from the Tianxia-Sihai model as an organizing spatial scheme. I wish to thank Martin Hofmann of the University of Heidelberg, Germany, for drawing my attention to Cao Ercheng’s map.

In the second approach, “the Four Seas” came to be a generic reference to various seas and oceans in the world, with China as the point of reference, just as Ricci, Aleni, and other Jesuits had suggested. The new classicists’ intellectual adventures into these seas gradually evolved into a discourse on world geography. While maintaining a deep root in the Chinese empirical maritime tradition, this emerging world geographical discourse became, in one way or another, compatible with or integrated into the world geographical framework laid out by the Jesuits. Maps produced in this new discourse on the seas visually displayed this shift of meaning of the term Four Seas, and a new and much enlarged vision of the world underlying it. Here we examine only three examples. They are discussed not chronologically but as representations of three modes of relating preexisting Chinese knowledge of the world’s maritime space with the Renaissance European vision of the world introduced by the Jesuits.

“Map of the Four Seas” by Xu Fa (fl. 1668–1681)

The “Map of the Four Seas” (Sihai tu 四海圖, Figure 5.2) was drawn by Xu Fa 徐發 (fl. 1668–1681) and included in his *Comprehensive Discourse on the Origins of the Heavens and the Principles of the Calendar* (Tianyuan lili

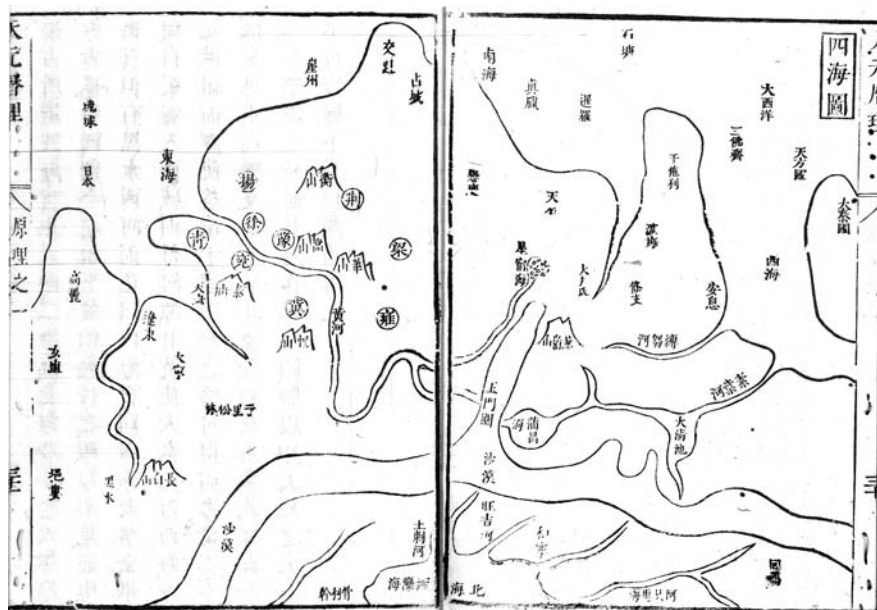


FIGURE 5.2 “Map of the Four Seas” (Sihai tu 四海圖), by Xu Fa 徐發 (fl. 1668–1681). Xu Fa, *Tianyuan lili quanshu* (天元曆理全書 *Comprehensive Discourse on the Origins of the Heavens and the Principles of the Calendar*, preface 1682)

PHOTO COURTESY OF SHANGHAI LIBRARY.

quanshu 天元曆理全書, preface 1682). The map is oriented south side up. The protruding portions of land on the map represent, from left (east) to right (west), the Korean peninsula, the present Shandong peninsula, South China-Vietnam-India, the Persia-Parthian empire, and Daqin. The small circles marked on the mid-eastern section of the largest land protrusion, with characters written in them, represent the Nine Provinces of the “Tribute of Yu.” Although all Four Seas are marked on the map, they are no longer aligned in the shape of a box, as in Cheng Dachang’s map (see Figure 3-5), but reflect the messiness of the real world, albeit represented in a distorted way.⁹⁴ Besides these Four Seas, there are other seas and oceans, including the Great Western Ocean (Da Xiyang 大西洋) in the southwest, which roughly corresponds to the Indian Ocean, two seas to the east and west of the North Sea (Han Hai 瀚海 and Azhili Hai 阿只裡海, respectively), and some inland seas and lakes. In the accompanying explanation of the map, Xu summarily states:

The Four Seas in ancient times referred to the East and South Seas. ... The statement [in the “Tribute of Yu”] that “the Four Seas converge” is only meant figuratively. ...I have consulted Yuan-dynasty Zhu Siben’s 朱思本 maps, such as those of Korea, Jiaozhi [northern Vietnam], the Western Regions, and Beilou 北樓, and the various literature recording the northern expedition of the Yongle Emperor and Zheng He’s Sea Voyages, synthesized them all, and created this Map of the Four Seas here. *I want to show that the world is truly vast and contains many things that we cannot see or hear in the comfort of our homes.* (emphasis added)

The essay following this map, entitled “On the Earth” (Yuandi 原地), reveals that Xu Fa had substantial knowledge of Jesuit views of the globe and the five continents, but his “Map of the Four Seas” shows little trace of that knowledge besides acknowledging the immensity of the world beyond China. Instead, he drew on the empirical maritime knowledge in books

94 This map contains numerous cartographical errors. The most evident ones are its representation of Persia and the Parthian empire as located on a large peninsula, and placement of Gantuoli 幹陀利 at the southern tip of this peninsula and Sanfoji 三佛濟 (Samboja kingdom) in the ocean west of Gantuoli. Gantuoli 幹陀利 in earlier historical sources referred to either the present Sumatra or the southern tip of the Malay peninsula. On the possible location of Gantuoli, see Chen Jiarong, Xie Fang, and Lu Junling, *Gudai nanhai diming huishi*, 122–123.

written by previous Chinese authors, and highlighted the fact that he had done so in his caption.⁹⁵

“Map of the ‘Tribute of Yu’” Attributed to Jie Xuan (1613–1695)

The “Map of the ‘Tribute of Yu’ Shown in Its Terrestrial and Cosmic Dimensions” (Yushu jingtian hedi tu 禹書經天合地圖; Figure 5.3), attributed to Jie Xuan, perhaps as part of his geographical work the *Book of Yu* (Yushu 禹書, completed before 1675), is now lost. The map may actually have been a collaboration produced by Jie Xuan and his teacher Fang Yizhi, or at least made by Jie with some input from Fang Yizhi.⁹⁶ The map that has come down to us was

95 Xu Fa 徐發, *Tianyuan lili quanshu* (天元曆理全書 Comprehensive Book on the Origins of the Heavens and the Principles of the Calendar, preface 1682), in *XXSK, zi*, vol. 1032: 355–356, accompanying explanatory note on 356.

96 In his *Tong ya* 通雅 (A Comprehensive Explication of Terms, 1666), Fang Yizhi 方以智 describes three major river systems beyond the northern and western borders of China that ran north into the Northern Ice Sea, west into the Caspian Sea, and south into the Bay of Bengal, respectively. He writes that he had created—or would create, as no tense indicators are present in the sentence—a map of Yu entitled “Yushu jingtian hedi tu” (禹書經天合地圖 Map of the “Tribute of Yu” Shown in Its Terrestrial and Cosmic Dimensions) by adding the relevant information and the meridians of longitudes and latitudes learned from Jesuit world maps. See Fang Yizhi, *Tong ya*, *juan* 15, 26a, photolithographically reproduced edition (Beijing: Zhongguo shudian, 1990), 204. Fang’s book itself, however, does not carry such a map. But the names, locations, and lengths of these three river systems in his descriptions do match exactly those shown on the map explicitly identified by You Yi as a work by Jie Xuan. We can only hypothesize what might have happened: although the drafts of Fang’s *Tong ya* were completed in 1639, they were not printed until 1666, when Jie Xuan personally brought Fang’s manuscripts to Jianxi 建溪, Fujian, and secured the interest and support of the printer there to have them published. Jie pored over the proofs of the book day and night to ensure their accuracy (Fang Yizhi, *Tong ya*, printer’s introductory remarks, 19–20). It is possible that Fang himself only envisaged such a map and never really made it, and that his ideas inspired Jie Xuan not only to draw such a map but to write an entire book about the subject, namely, his *Yushu* (禹書 Book of Yu). This is a very likely scenario because we know of no maps drawn by Fang Yizhi; Jie Xuan, in contrast, is known to have authored at least two other surviving maps: one is a map of the world; the other, a map of Asia. Both were copies of corresponding Jesuit maps, especially Aleni’s maps in his *Zhifang waiji*. These two maps by Jie Xuan were included in and known as part of Yuan Qi 袁啟, *Tianwen tushuo* (天文圖說 Illustrated Account of the Patterns of the Heavens, 1632), until 2004, when Gong Yingyan 龔纓晏 and Zhao Hui 趙暉 discovered Jie Xuan’s signature on both maps, dated to 1645. See Gong Yingyan and Zhao Hui, “Tianwen tushuo yu xifang chuanjiaoshi” (天文圖說與西方傳教士 *Tianwen tushuo* and Western Missionaries), *Zhejiang daxue xuebao* (*renwen shehui kexueba*) (浙江大學學報 (人文社會科學版) Journal of Zhejiang University, Humanities and Social Science Edition)

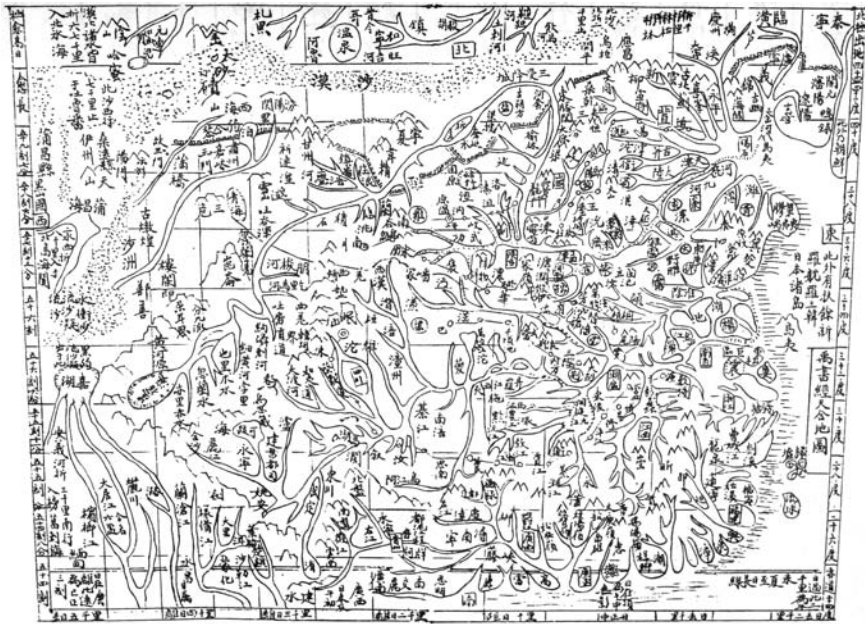


FIGURE 5.3 “Map of the ‘Tribute of Yu’ Shown in Its Terrestrial and Cosmic Dimensions” (*Yushu jingtian hedi tu* 禹書經天合地圖), attributed to Jie Xuan 揭暄 (1613–1695), preserved in *You Yi* 游藝, *Tianjing huowen* (天經或問 *Inquiries into the Movements of the Heavens*, 1675), *juan* 1, 26a, and anthologized in Zhang Fujiang 張福江, comp., *Siku quanshu tujian* (四庫全書圖鑒 *Selected Illustrations from the Complete Collection of the Four Treasures*) (Beijing: Dongfang chubanshe, 2004), 5: 590.

preserved by Jie's friend and fellow member of the Fang School You Yi 游藝 (1614–1684). Like Hu Wei in the note appended to his own map, Jie complains in the note accompanying this map that previous Yugong scholars had drawn maps “with no regard to the actual distances between any two places, whether the roads are straight or curved, broad or narrow, or in which direction they are aligned.” He writes that he is offering here a map of “the ancient tracks of Yu against the landscape today, using grids to precisely represent the distances, and producing a map that matches closely the actual configuration of the land.”⁹⁷ Also like Hu Wei, Jie Xuan does not show all the Four Seas on his map; the only sea outlined on the map is the one along China's east and southern

34, no. 1 (2004): 155–156. These two maps by Jie are found in Yuan Qi, *Tianwen tushuo*, in *XXSK, zi*, vol. 1031: 485–488.

97 You Yi 游藝, *Tianjing huowen* (天經或問 *Inquiries into the Movements of the Heavens*, 1675), *juan* 1, 26a, in Zhang Fujiang 張福江, comp., *Siku quanshu tujian* (四庫全書圖鑒 *Selected Illustrations from the Complete Collection of the Four Treasures*) (Beijing: Dongfang chubanshe 2004), vol. 5: 591; the map appears on 590.

coast. The seas beyond China that are too far away to be represented on the map are indicated in writing.

The difference from Hu Wei's approach, however, was that Jie assimilated Jesuit cartographical methods, using not the traditional Chinese grids but latitudes and longitudes, each degree of which represents 250 *li*. Also, he incorporated Jesuit maritime nomenclature. The writing at the upper left corner of the map indicates that "the rivers north of the desert run 6,000 or 7,000 *li* north into the Bei Binghai 北冰海 [Northern Ice Sea]"; the sentence written near the mid-point of the left border notes that "these two rivers flow 8,000 *li* west into the Beigao Hai 北高海 [Caspian Sea]," instead of Cheng Dachang's Xihai 西海, or West Sea; and the writing near lower left corner says that "the Ganges River flows south for 3,000 *li* and enters the Banggeli Hai 榜葛利海 [Banggela Sea, Bay of Bengal]."⁹⁸ The rest of the map, of course, was entirely Chinese, with two sets of place names, one from the "Tribute of Yu" and the other from contemporary China, squeezed into it. On the whole, it is a map of the "Tribute of Yu" that is drawn relatively to the scale of Ming-dynasty China, but the Four Seas in the "Tribute of Yu," the once-mythical construct of the boundaries of China as All under Heaven, have now been correlated with—or, rather, replaced by—the names of their counterparts shown on Jesuit Chinese world maps.

"General Map of the Four Seas" by Chen Lunjiong (ca. 1683–ca. 1747)

The "General Map of the Four Seas" (Sihai zongtu 四海總圖, Figure 5.4) by Chen Lunjiong 陳倫炯 (ca. 1683–ca. 1747) appears in Chen's *Records of Things Seen and Heard in the Maritime Countries* (Haiguo wenjian lu 海國聞見錄, preface 1730). The book falls outside Yugong studies proper, but it displays a terminological shift similar to that we have seen above, only on a much larger scale: it describes continents and countries in the Eastern Hemisphere. Although the only seas named on this map are the Zhonghai 中海 (literally, the "Middle Sea," the Mediterranean) and the Binghai 冰海 (Ice Sea), the Four Seas represented here include all the maritime spaces in the hemisphere. In his accompanying text, Chen does name all the seas and oceans shown here. His descriptions of the maritime countries are organized neatly, starting from the Eastern Ocean (Korea and Japan), Southeastern Ocean (Taiwan and Luzon), Southern Ocean (present southeast Asian countries except for the Philippines), Little Western Ocean (countries bordering on the Indian Ocean), and Great Western Ocean together with the Middle Sea (the Mediterranean

⁹⁸ These statements about the rivers and seas are identical to those made by Fang Yizhi in his *Tong ya*, at the end of *juan* 15 (see note 96 above for citations).

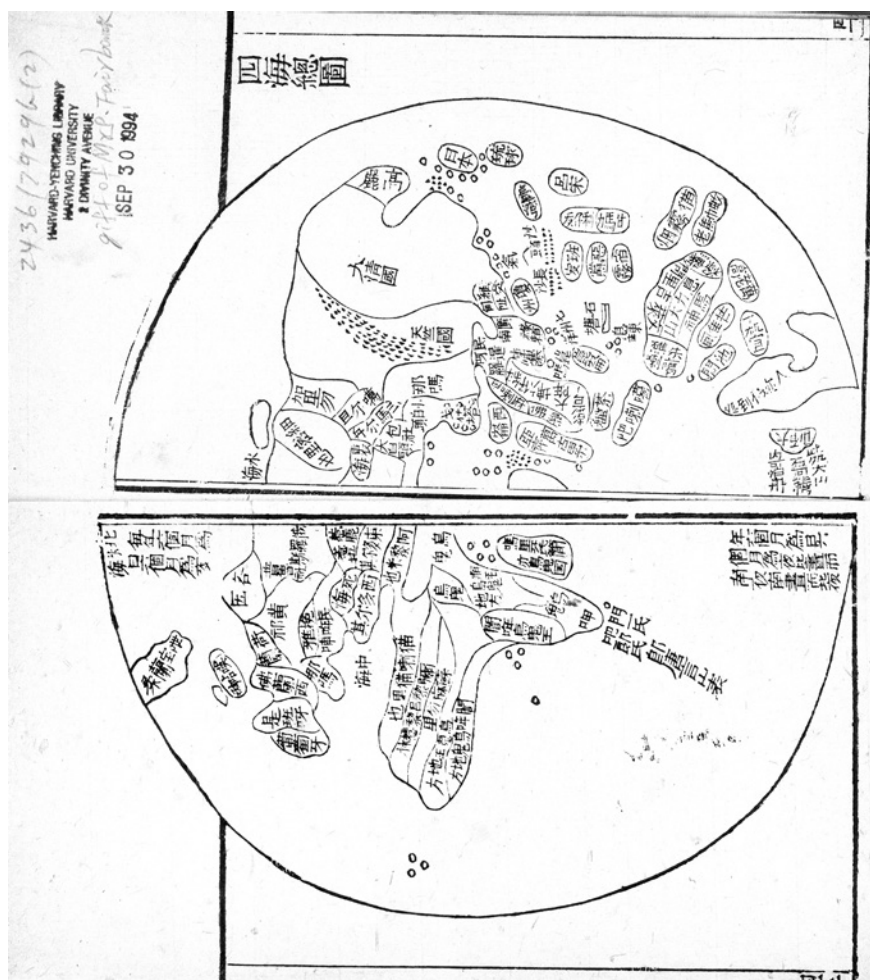


FIGURE 5.4 “General Map of the Four Seas” (Sihai zongtu 四海總圖), by Chen Lunjiong 陳倫炯 (ca. 1683–ca. 1747). Chen Lunjiong, *Haiguo wenjian lu* (海國聞見錄 *Records of Things Seen and Heard in the Maritime Countries*, preface 1730)
COPY HELD AT HARVARD-YENCHING LIBRARY.

world and Europe). The names of the oceans on the whole follow the hydrographic terminology established by Ricci shown in Table 5.1, but incorporate new Chinese maritime conventions of the late Ming and early Qing (especially the Eastern, Southeastern, and Southern Oceans).

Chen Lunjiong’s map and the book itself were drawn from two sources. The first was a foreign map that Chen identifies as the “Complete Map of Foreign Countries along the Seas” (Yanhai waiguo quantu 沿海外國全圖). Chen notes

that this map was given to him personally by the Kangxi Emperor when Chen served as his imperial bodyguard.⁹⁹ Judging from the hemispheric map Chen provides in his book, with rough outlines of the Eurasian continent and Africa, we can infer that the map Kangxi gave him must have been of European origin.¹⁰⁰ The second source consisted of Chen's own maritime experience, his reading of Chinese maritime literature, and the nautical, geographical, and ethnographical data he gathered by interviewing Chinese sailors and foreign merchants during his decades of military service as a commanding officer of Qing troops stationed in Taiwan, Penghu, and coastal Guangdong Province.¹⁰¹ With a "global" outlook and a narrative form that harked back to pre-Jesuit Chinese maritime literature, Chen's was truly a world geography born in the contact zone. His usage of the Four Seas as a generic label for all the seas and oceans on the globe was inherited by later Chinese authors, such as Xu Jiyu 徐繼畲 (1795–1873), who wrote geographical surveys of the maritime world in the post–Opium War era.¹⁰²

99 Author's preface in Chen Lunjiong 陳倫炯, *Haiguo wenjian lu* (海國聞見錄 Records of Things Heard and Seen in the Maritime Countries, preface 1730), copy held at the Harvard-Yenching Library.

100 Matthew W. Mosca observes that Chen Lunjiong's world map resembles a 1694 world map of Nicolas de Fer (1646–1720) that was presented to the Kangxi Emperor and later translated into Chinese and Manchu, citing *Aomen lishi ditu jingxuan* 澳門歷史地圖精選, 26–27, 32–33; see Mosca, *From Frontier Policy to Foreign Policy: The Question of India and the Transformation of Geopolitics in Qing China* (Stanford, Calif.: Stanford University Press, 2013), 335, n. 141. On Chen's maritime expertise and military career, see Chin-Keong Ng, *Trade and Society: The Amoy Network on the China Coast, 1683–1735*, second edition (Singapore: Singapore University Press, 2015), 206–207. For further discussion of Chen's *Haiguo wenjian lu*, see Mosca, *From Frontier Policy to Foreign Policy*, 54–57.

101 Chen Lunjiong was a native of Fujian. His father engaged in maritime trade and came to know the Taiwanese islands very well. He offered his maritime expertise to the Manchu army, which helped it win its critical battles in the conquest of Taiwan in 1682. This earned him high positions in the Manchu army in charge of coastal defense. Chen thus had accumulated much firsthand experience sailing the seas with his father since his early years. Also, according to Nalan Changan 納蘭常安, Chen's most beloved book was *Shuyu zhoubi lu* (殊域周諮錄 Informative Records on Foreign Lands, 1574), written by Yan Congjian 嚴從簡. This was a 24-juan book about the geographies and cultures of countries that had maintained foreign relations with China, with extensive coverage of Southeast Asian maritime states. See the preface by Nalan Changan 納蘭常安, in Chen Lunjiong, *Haiguo wenjian lu*, 6b. For Chen's efforts to collect maritime information from sailors and merchants, see his own preface in his *Haiguo wenjian lu*.

102 See, for example, Xu Jiyu 徐繼畲, *Yinghuan zhilue* (瀛寰志略 Brief Survey of the Maritime World) (Shanghai: Shanghai shudian chubanshe, 2001), 1, 4, 61, 114–115.

Conclusion

Our examination of the discourses among classicists on the meaning of the Four Seas in the “Tribute of Yu” chapter of the *Book of Documents* during the late Ming and early Qing adds a new angle to the argument, made by Benjamin Elman beginning three decades ago and more recently by Zhou Zhenhe, that Chinese geography emerged as a scientific discipline in the late Ming.¹⁰³ Elman has pointed to the rejection of symbolic geography and the turn toward descriptive and historical geography occurring at this time as an indication that Chinese geography emerged as a precise discipline. Zhou Zhenhe has observed two signs of modernization in Chinese geography during the late Ming. One is its assertion of independence from history and conscious adoption of empirical research methods through travels and on-site observation; the other is the breakaway from the All-under-Heaven-centered view of the world and the formation of a true world consciousness. Zhou sees the former as a purely native intellectual development and the latter as the result of Jesuit influences. However, both scholars have written of an “inward turn” in Chinese geographical research following the Ming-Qing transition. Zhou, in particular, has stressed that the two signs of modernization occurring in the late Ming were short-lived, as evidential scholars of the early and mid-Qing once again made the study of historical texts the primary mode of their geographical research and consciously disconnected themselves from the real world both at home and abroad.

Our account here of the discourses of the Four Seas from Li Zhi in the late Ming to Hu Wei at the turn of the eighteenth century corroborates these scholars’ observations on the beginning of a new era in Chinese geographical studies in the late Ming and its diverse local and foreign sources. But it also sheds new light on the *continuity* of Chinese geography both across the premodern and “modern” divide and between the late Ming scholars, such as Wang Shixing 王士性 (1547–1598) and Xu Hongzu 徐弘祖 (better known as Xu Xiake 徐霞客,

103 See Benjamin Elman, “Geographical Research in the Ming-Ch’ing Period,” *Monumenta Serica* 35 (1981–1983): 1–18, and his more recent study, “Ming-Qing Border Defence, the Inward Turn of Chinese Cartography, and Qing Expansion in Central Asia in the Eighteenth Century,” in Diana Lary, ed., *The Chinese State at the Borders*, 29–56 (Vancouver: University of British Columbia Press, 2011); and Zhou Zhenhe 周振鶴, “Wanming dili xue de jindaihua de liangge biao zheng” (晚明地理學的近代化的兩個表徵 Two Signs of Modernization of Geography in the Late Ming), *Jiuzhou* (九州 Nine Provinces), no. 4, *Zhongguo dili xue shi zhuanhao* (中國地理學史專號 Special Issue on the History of Chinese Geography), edited by Tang Xiaofeng 唐曉峰 (Beijing: Shangwu yinshuguan, 2007), 190–202.

1587–1641), and their early Qing successors such as Gu Yanwu and Hu Wei. It demonstrates that, behind the facade of the widely perceived “inward turn” of early Qing evidential scholarship, there was much “global” consciousness that linked these evidential scholars to the contact zone formed around the Jesuits, their Chinese writings, and the broader discourses they generated.

We have shown that the net result of the discourses on the Four Seas in the late Ming and early Qing was the gradual disappearance of the literal interpretation of the term Four Seas as meaning four and only four seas that enclosed the Nine Provinces of Yu on their northern, southern, eastern, and western borders in the manner illustrated in Cheng Dachang’s “Truthful and Verified General Illustration of the Mountains and Rivers in the Nine Provinces” and the anonymous “Map of All under Heaven” from the turn of the seventeenth century (see Figures 3.5 and 3.6). The retreat of the Four Seas as a mythical construct so central to the founding myth of Chinese civilization and imperial institution signified the coming of age of historical geography as a modern discipline with the explicit goal of determining the truth from empirical facts, textual or otherwise. It also enabled the merger of the premodern Chinese maritime empirical knowledge tradition with the new vision of the world introduced by the Jesuits. Thus the eventual emergence of what we call “modern” world geography and cartography in China is not to be seen as a rupture of the local knowledge traditions that had gone before but in every sense as a true *renewal* of such traditions.

Our studies in Chapters 3 and 4 and in the present chapter do find an important place for the Jesuit intervention in this coming-of-age story of Chinese historical and world geography. It is a story that transpired not just in the late Ming but during and after the Ming-Qing transition as well. The transformations documented here certainly had deep roots in Chinese scholars’ own discoveries of the seas and the wider world, both as a result of their maritime explorations prior to the arrival of the Jesuits and as a result of the expanded presence of global trade in East Asian waters during the early modern era. But these transformations were also much facilitated by the Jesuits’ introduction, and the Chinese scholars’ subsequent recontextualization, of the notion of the terraqueous globe, and also by Chinese scholars’ appropriation of Jesuit maritime nomenclature.

In this respect, we can especially credit the webs of words and social relations that connected the evidential scholars, particularly Gu Yanwu and Hu Wei, with other scholars of their time who discussed and embraced Jesuit science more openly. It is true that Gu and Hu’s commentaries on the “Tribute of Yu” make no explicit use of Jesuit world geographical information. Nevertheless, Gu and Hu’s efforts to reinterpret the Square-Earth-and-Four-Seas model of

the world asserted in the ancient Chinese classical texts, their conscious return to the historical literature in Chinese empirical maritime discourses for reliable facts about the seas beyond Chinese borders, and their sense of mission to restore the “lost” science of mathematical cartography in ancient China testify to their awareness of the concurring Jesuit discourses on the terraqueous globe and the Four Seas. Like the theory of the Chinese origin of Western learning proposed by Xiong Mingyu, Mei Wending, and the Kangxi Emperor, and the reinvention of the notion of the globe by Fang Yizhi and Jie Xuan, these currents in the early Qing evidential scholarship on the “Tribute of Yu” can all be seen as unexpected consequences of the labors of the Jesuits.

Taking in a New World

Within a decade of the completion of his book *Boring into the “Tribute of Yu”* (Yugong zhuizhi, preface 1701), Hu Wei’s wish for an empire-wide geographical survey to obtain accurate data for his mapmaking pursuits was answered. The Kangxi Emperor commissioned just such a survey in 1708, except that it would be conducted based on astronomical observations of longitudes and latitudes and not in light of Pei Xiu’s “six principles of cartography,” as Hu had envisioned (see Chapter 5). The survey was entrusted to a team of more than a dozen foreign missionaries, led by the French Jesuits Jean-Baptiste Régis (1663–1738) and Pierre Jartoux (1669–1720) and assisted by a large retinue of Chinese assistants. From 1708 to 1715, the team sometimes split into several groups, traveling to different parts of China to conduct surveys at some 641 locations.¹ Hu Wei did not live to benefit from or respond to the data thus collected, but such data became the basis for the Kangxi (Jesuit) Atlas, more precisely known as the “Map of a Complete View of Imperial Territory” (Huangyu quanlan tu 皇輿全覽圖), which was completed in 1718.² Reflecting

- 1 History of Chinese Geodesy and Cartography Editorial Committee, ed., *Zhongguo cehui shi* (中國測繪史 The History of Chinese Geodesy and Cartography), vol. 2 (Beijing: Cehui chubanshe, 1995), 119, quoted in Guan Zengjian 關增建, “Chuanjiaoshi dui zhongguo jiliang de gongxian” (傳教士對中國計量的貢獻 Missionaries’ Contribution to Chinese Metrology), *Ziran kexueshi yanjiu zengkan: Zhongguo jindai kexue jishu fazhan zonghe yanjiu zhuanji* (自然科學史研究) 增刊: “中國近代科學技術發展綜合研究專輯” Studies in the History of Natural Sciences, Special Issue on the Comprehensive Research in the Development of Modern Chinese Science and Technology (2003): 10. This number of 641 surveyed sites is close to those given in French Jesuit sources cited in Cordell D.K. Yee, “Traditional Chinese Cartography and the Myth of Westernization,” in Harley and Woodward, eds., *The History of Cartography, Volume 2, Book 2*, 185, n. 43. Certain areas such as Tibet and Xinjiang were deemed too dangerous for the surveyors to enter, and supplemental surveys were conducted later in the 1750s and incorporated in the *Qianlong neifu yutu* (乾隆內府輿圖 Terrestrial Atlas of the Inner Prefectures of the Qianlong Period, 1775). See *ibid.*, 186.
- 2 The foreign missionaries involved in the project were mostly Jesuits, including more than ten French Jesuits who were recruited especially for participating in this project. There was also an Augustinian friar, Guillaume Fabre-Bonjour (1669–1714), on the team. For details of this survey and the production of the Kangxi Atlas (“Huangyu quanlan tu” 皇輿全覽圖), see Foss, “Jesuit Cartography: A Western Interpretation of China,” 142–144, and Yee, “Traditional Chinese Cartography,” 180–184. On the various editions of this map, see Walter Fuchs, *Der Jesuiten-Atlas der Kanghsi-Zeit; seine Entstehungsgeschichte nebst Namensindices für die*

cartographic standards established by astronomers at the Royal Academy of Sciences in Paris, the Kangxi Atlas staked out the territorial expanse of the Qing empire exclusively in terms of longitudes, latitudes, and place names. Instead of playing the secondary role of illustrating a more substantial textual narrative, as many maps had done in earlier times in both China and Europe,³ this map, couched in a simple mathematical language, was itself *the* statement. The adoption of this new language presupposed at least an operational acceptance of the notion of the earth as a globe. It signified the end of the era in Chinese geopolitical discourse when the geographical extent of the dominion of the Son of Heaven was envisioned primarily in reference to the literally imagined Four Seas. We find here the rise of an intentional awareness that China *shares* this physical space on earth not just with some minor tributary states but with major rivaling powers of the world.

What compelled the Kangxi Emperor to take on this cartographical project? According to the French Jesuit Jean Baptiste Du Halde (1674–1743), it was his confrère Dominique Parrenin (1665–1759) who memorialized the Kangxi Emperor and recommended such a survey to him in 1698.⁴ But some recent scholars have highlighted the local context for Kangxi's initiative. Cordell Yee has pointed to the empire-wide cadastral survey conducted in 1646, two years after the Manchu conquest of China. It was ordered by Dorgon, regent of the Shunzhi Emperor (r. 1643–1661), to establish a basis for reassessing household tax quotas by the Qing government. In 1684, another systematic geographical survey was conducted within Guangdong Province at the command of the Kangxi court, in response to some officials' complaints about the shortage of

Karten der Mandjuren, Mongolei, Ostturkestan und Tibet, mit Wiedergabe der Jesuiten-Karten in Original Grösse (Peking: Fu-Jen-Universität, 1943); Laura Hostetler, "Contending Cartographic Claims? The Qing Empire in Manchu, Chinese, and European Maps," in James R. Akerman, ed., *The Imperial Map: Cartography and the Mastery of Empire* (Chicago: University of Chicago Press, 2009), 93–132 and 321–326.

3 See Yee, "Traditional Chinese Cartography," 185, and Hostetler, *Qing Colonial Enterprise*, 65.

4 Theodore Foss and Cordell Yee have both discussed Du Halde's story as told in his *Description géographique, historique, chronologique, politique, et physique de l'empire de la Chine* (1735). According to Du Halde, Dominique Parrenin (1665–1759) examined Chinese provincial maps and found many errors in them, so he memorialized Kangxi in 1698 to recommend such a survey. Kangxi decided to send Joachim Bouvet (1656–1730) back to France to recruit more missionaries to come to China to carry out the survey. Joseph Needham credits the French Jesuit Jean François Gerbillion (1654–1707) for instilling the idea in the mind of Kangxi but does not offer any sources for this claim. See Foss, "Jesuit Cartography," 142; Yee, "Traditional Chinese Cartography," 180; Needham and Ling, *Science and Civilisation in China*, Volume 3, 585.

accurate geographical data. The results from that survey led to the production of some 97 new maps of the province. These instances demonstrate that the need for accurate geographical data to meet the demands of central and local bureaucracies had already been recognized by the Manchu court well before Parrenin's memorial, rendering the Kangxi Emperor ready to take advantage of the French Jesuits' expertise in surveying and cartography.⁵

Laura Hostetler has placed the Kangxi Atlas project and its early Qing precursors in line with similar efforts occurring within many other early modern empires at roughly the same period. She has pointed out that it was the Kangxi Emperor who took the initiative to chart his empire by *employing* the talent of the Jesuit surveyors and cartographers, and that he did so for exactly the same reason other ambitious monarchs of his time, notably Louis XIV (1643–1715) of France and Peter the Great of Romanov Russia (r. 1682–1725), sponsored their similar national surveys and mapping projects.⁶ The Qing was at the height of its power and was realizing its dream of colonial expansion, but it did so in direct competition with Tsarist Russia. The Qing's "marches West," and the simultaneous Russian expansion into the East, brought these two empires into direct confrontation. The Qing was also interacting with European empires and mercantile entities, both through the European missionaries at the Qing court and through various forms of maritime exchange.⁷ In this increasingly connected history of empire-building, the Kangxi Emperor appropriated the early modern European mapping techniques as an instrument of territorial claims and made use of them every bit as effectively as his actual and potential international competitors did.⁸

In Kangxi's cartographical project, then, we see the culmination of nearly two centuries of Chinese engagement with two wider early modern worlds:

5 Yee, "Traditional Chinese Cartography," 177–178 and 190. The new maps did not have grids but offered the quantitative geographical data in accompanying texts. For further details on the surveys in Guangdong in 1684–1685, see Arthur Hummel, "Atlases of Kwangtung Province," *Annual Report of the Literature of Congress for the Fiscal Year Ended in June 30, 1938* (Washington, D.C.: United States Government Printing Office, 1939), 229–231, quoted in Yee, "Traditional Chinese Cartography," 190, n. 57.

6 Hostetler, *Qing Colonial Enterprise*, 63–80.

7 For the Qing's westward colonial expansion at this time, see Peter C. Perdue, *China Marches West* (Cambridge, Mass.: Harvard University Press, 2005). The first Sino-Russian treaty, signed in 1689 at Nerchinsk, was to resolve the two empires' conflicting territorial claims in areas at the Qing's northwestern and northeastern frontiers. For further study of this treaty, especially the Jesuits' role in it, see Joseph Sebes, *The Jesuits and the Sino-Russian Treaty of Nerchinsk* (1689): *The Diary of Thomas Pereira, S.J.* (Rome: Institutum Historicum S.I., 1961).

8 Hostetler, *Qing Colonial Enterprise*, 75.

(1) *the intellectual and cultural world*, particularly the kinds of transitional “sciences” that were being daily refashioned in Europe and filtered into China through the Jesuits; and (2) *the social and geopolitical world of trade and exchange, empire-building, and colonial expansion* that was also being reshaped increasingly by Western European powers. Moreover, the Chinese engaged with these two worlds largely “on their own terms,” as Benjamin Elman has aptly put it. In this chapter, we examine how these two kinds of connections came to be entwined, creating a unique Jesuit brand of Renaissance world geography in China and some unique Chinese geographical discourses about the wider world, especially Europe, that bore the special imprints of the circumstances at the contact zone.

In the first section, I locate the arrival of the first Jesuits in Macao under Portuguese patronage against the background of early Chinese encounters with maritime Europeans following the first Portuguese foray into Southeast Asian waters. These early encounters, occurring in diplomatic, military, and maritime trade arenas, had nurtured a series of predominantly hostile myth-histories about these Europeans. Such myth-histories all feature the insidious Folangji 佛郎機, the Chinese name for the first groups of maritime Europeans to arrive and settle in the area, namely, the Portuguese *and* the Spaniards.

The second section highlights the anxieties and concerns experienced by the Jesuits in China as they continued to bear the brunt of the local Chinese communities’ hatred of and suspicions about Europeans, stoked both by the wide circulation of such myth-histories about Folangji and by the maritime Europeans’ continuing aggressive presence both off and beyond Chinese shores. Here I show how such anxieties and concerns acted as a filter in the Jesuits’ representations of the wider world to their Chinese readers, especially with respect to Western Christendom and European colonial enterprises overseas. I also offer another close reading of Ricci’s “Complete Geographical Map of Ten Thousand Countries” (*Kunyu wanguo quantu*) and an analysis of Aleni’s major world geographical text, *Records of Regions beyond the Jurisdiction of the Imperial Geographer* (*Zhifang waiji*), to show how both authors reciprocated Chinese “myth-histories” about the cannibalistic Folangji with their own “counter-myth-histories” about Europe as a civilizing force in the Old and New Worlds.

In the last section, I demonstrate how the Chinese maritime discourses on Folangji in the pre-Jesuit era, combined with the Jesuit representations of the wider early modern world, jointly shaped the outlook of the world geographical syntheses developed by several Chinese scholars in the course of the seventeenth century. Such syntheses between the new and the old images of the

world showcased an immensely expanded intellectual horizon, but they also brought into sharp relief certain glaring errors that persisted as “birthmarks” of a knowledge born in that unique contact zone.

The Story of the Folangji: A Myth-History in the Chinese Discovery of the Wider Early Modern World

Star Trek fans who study the early modern European expansion into East and Southeast Asia will easily recognize the prototype of the strange race of avaricious “Ferengi,” from the planet of Ferenginar, who are featured in the *Deep Space Nine* spinoff of the original television series.⁹ Created to embody the capitalist impulse, logic, and values, unchecked by moral conscience, the Ferengi are said to govern their behavior by some 285 “Rules of Acquisition,” among which are:

#10: Greed is Eternal.

#45: Expand, or die.

#52: Never ask when you can take.

#97: Enough...is never enough.¹⁰

That prototype, known as “Ferenggi” (transliterated with two “g”s) in Malay and as “Folangji” 佛郎機 in Chinese, dwells in the oral tales and written narratives circulating across the South China Sea and the Western Pacific, in a realm that borders on both myth and history.

The Ox Hide Story and Tales of Cannibalism

The Malays told of how the Ferenggi came to their country, a peaceful place, prosperous with trade, where the fortress consisted of palm tree trunks. Bringing with him “*reals* in boxes and boxes, and gold and many lovely cloths,” the captain of Ferenggi came to the king of Melaka, Sultan Ahmad Syah, making a modest request: *We would like to ask for a piece of land, the size of the dried skin of an animal.* The king granted his wish. Then the Ferenggi “come on land, bringing hoes to dig, bricks and lime. And they go to fetch that hide, *made a cord from it, and with it measure out a square.* And

9 I want to thank TJ Hinrichs for introducing me to the strange world of the Ferengi characters in *Star Trek: Deep Space Nine*.

10 “Ferengi Rules of Acquisition,” accessed on 11/8/2013 at: <http://www.sjtrek.com/trek/rules/>.

they made an extremely large building, fortified, and they at the same time make openings for cannon" (emphasis added). Unaware of what the Ferenggi had in store for them, "the people of Melaka watched on with curiosity. But when all preparations were ready, in one midnight, the Ferenggi bombarded the city of Melaka, and all the houses of Melaka were in ruins, as was the fort of palm trees...thus it is that the King Ahmad Syah with all the people flee without knowing where, without having a chance to resist. And the Ferenggi take Melaka."¹¹

A similar tale told of how the Folangji applied the same method to complete their conquest of Luzon. This one was recorded in a Chinese text dated to 1617. There, we are told:

Luzon is located in the Eastern Sea. It originally was a small country but grew to be fairly large. In the third year of the reign of Emperor Yongle [1405], its king sent a minister, Gechalao, to pay tribute to the Emperor and present their local products as tributary gifts. The land is close to the Zhangzhou region [in Fujian Province]; therefore there is frequent maritime traffic between these two places.

Then the Folangji arrived to seek trade with Luzon. They called their home country Ganxila 干條蠟 [Castile] and said that they had come from Daxi [the Great West]. [Upon arrival], the [Folangji] chief told his men in private: "These people can be [easily] dispossessed." Then he brought gold to wish the King of Luzon longevity and *asked for a piece of land the size of an ox hide* [on which] to build a hut.¹² The king granted his permission. *The Folangji took out an ox hide [and] cut it up [into strips] to*

11 This is from an untitled Malay text, a substantial portion of which is translated into English and excerpted in Sanjay Subrahmanyam, *The Portuguese Empire in Asia, 1500–1700: A Political and Economic History* (London and New York: Longman, 1993), 3–6; passages quoted here are taken from 3–4. I have taken the liberty of altering the different references (to Portuguese and Franks) into the Malay term Ferenggi. In this book, Subrahmanyam introduces the Portuguese empire in Asia by means of a full translation of the Malay oral tale about the Portuguese conquest of Melaka. My own approach of introducing the Chinese discourse on maritime Europeans in the sixteenth century through some of the narratives of myth-history it generated was inspired by his example.

12 The original text uses the character *wu* 屋, meaning "a small house." See Zhang Xie 張燮, *Dong xi yang kao* (東西洋考 A Study of the Eastern and Western Oceans, 1617), punctuated and collated by Xie Fang 謝方 and reprinted in *Zhongwai jiaotong shiji congshu* (中外交通史籍叢書 Series of Historical Texts on Sino-Foreign Communications) (Beijing: Zhonghua shuju, 1981), 89.

make a continuous cord. With that they measured out a square of land and claimed it their own. [Seeing this,] the king was disconcerted, but not wanting to rescind his permission to these foreign barbarians from afar, he let them take that land... The Folangji, once claiming the land, constructed a walled city with houses on it. They mounted their cannons on it and armed themselves with swords and shields. Later, they besieged Luzon, killed its king, drove his subjects into the mountains, and took possession of their state.¹³ (emphasis added)

Amid these tales of deceit and conquest, Chinese authors reported an even more fearsome atrocity committed by the Folangji. One of them, Yan Congjian 嚴從簡 (*jinsi* 1555), included an entry on Folangji in his *Informative Records about Distant Lands* (*Shuyu Zhouzi lu* 殊域周諮錄, 1574). It reads:

There is yet another barbarian state called Folangji. It was not in communication with China in previous dynasties. Some say this is the new name for the ancient state Nanboli 喃勃利.¹⁴ In ancient times there was the state of Langxu ghosts 狼徐鬼國, which encompasses two lands, and [residents of both lands] are cannibals. Ancient Javanese ate human flesh. The state of Folangji is located opposite Java, and its people [also] have a penchant for eating little children. But only the ruler of their state had the right to eat them, and his ministers, and others still lower [in rank], did not.

The method of preparation is as follows: [First,] bring a huge pot of water to boil, put the child into an iron cage and place the cage on top of the pot. Steam it to make it sweat. When the sweating stops, remove the child [from the cage] and brush off its skin with an iron brush. The child would be still alive. [Then] kill and gut it, discard its intestines and stomach, steam it [further] and serve.

In the fourteenth year of Zhengde reign [1519], a Folangji chief killed his ruler and sent some thirty people, including Bijiadanmo 必加丹末

13 Zhang Xie, *Dong xi yang kao*, 89.

14 Nanboli 喃勃利 is an ancient name for modern-day Banda-Aceh, a port city on the north-western tip of Sumatra on the rim of the Indian Ocean. Gong Zhen 鞏珍 (fl. 1405–1433) refers to it as Nanboli guo 南淳裡國 in his *Xiyang fanguo zhi* (西洋番國志 Records of Foreign Lands in the Western Ocean), annotated by Xiang Da 向達 (Beijing: Zhonghua shuju, 1961), 21. The term Nanboli corresponds to Lamuri in Javanese historical epic, and Lambri in Malay annals. See Chen Jiarong, Xie Fang, and Lu Junling, *Gudai nanhai diming huishi*, 583.

[Captain], to present tribute [to our court] and request the endowment of a title... When the Folangji ships arrived, they docked at the mouth of Macao. The Administrative Commissioner of Guangdong, Wu Tingju 吳廷舉, memorialized the emperor that he had searched in the *Collected Statutes [of the Ming]* [大明]會典 ([Daming] huidian) but found no precedents of embassies from Folangji, thus he did not allow them to proceed. They backed out to the southern edge of Dongguan and erected houses with fences and guarded them with cannons, which fired loudly like thunder. *They sneaked out and bought ten-year-old children to eat, paying one hundred cash for each child. ...Juvenile delinquents in Guangdong kidnapped children and rushed to sell them [to the Folangji]. During their two to three years of stay there, numerous children were kidnapped...*

Meanwhile, the King of Melaka also brought charges against Folangji for taking his state and murdering his people. Thus imperial censors Qiu Daolong 丘道隆 and He Ao 何鏊 memorialized the throne saying that the Folangji were seditious and aggressive, having driven out the King [of Melaka] and snatched and eaten [our] children. With such brutality and inhumanity they brought disaster to the people in Guangdong. They cannot be allowed to linger any further and must be promptly expelled from the border. The houses they built must be demolished, and all [Chinese] individuals involved in their settlement—builders and merchants and such—must be investigated to determine their crime of traitorous relations with foreigners. Their recommendation was approved by the Emperor...

Note: To even eat something that resembles a human is deemed repulsive by Confucius. How much more atrocious is it to buy a human being to eat? What cruelty! Tigers and wolves would fall short of such bestiality! The reason Folangji was not recorded in the historical texts of the past may be [partly] due to its remoteness, which makes it easily neglected, but it must also be because [our ancients] detested their inhumanity and wished to obliterate them [from history]! I am recording this to serve as a reminder for the future.¹⁵

Indeed, the Ferengi of *Star Trek: Deep Space Nine* pale in comparison to the Ferenggi or Folangji in these narratives, who were not only profit-driven but ready to cheat, rob, kill, and even eat their fellow human beings in order to

15 Yan Congjian 嚴從簡 (*jinshi* 1555), *Shuyu zhouzi lu* (殊域周諮錄 Informative Records about Distant Lands, 1574), collated and punctuated by Yu Sili 余思黎 (Beijing: Zhonghua shuju, 2000), 320–324.

sate their desires. These narratives are some of the Asian sources about the Portuguese conquest of Melaka, the Spanish conquest of Luzon, and the first major episode of Portuguese incursion in Guangdong, southern China, seen from the perspectives of their local victims. We can easily recognize in them variations of certain universal mythical tropes. The ox hide story was a widespread motif of European colonialism that can be traced to classical antiquity, to the founding myth of ancient Carthage by the Phoenician Queen Dido.¹⁶ Versions of this story were found in medieval Europe, early modern East and Southeast Asia,¹⁷ and among the Delaware Indians of North America at the turn of the twentieth century.¹⁸

Likewise, the belief that there are man-eating savages who dwell beyond the borders of the civilized world has been prevalent in many societies throughout history. We encounter these cannibals (or anthropophagi) in the “histories” and “geographies” of classical Greek and Roman antiquity and medieval

16 The Roman poet Virgil (70–19 BCE) told a version of this myth in his epic *Aeneid*, translated by C.D. Lewis, Book 1, lines 307–372 (New York: Doubleday, 1953), 22–23.

17 The same motif found in the above stories of the Portuguese conquest of Melaka and the Spanish conquest of Luzon is duplicated in a story told of the Dutch occupation of Taiwan recorded in the *Taiwan tongzhi* (臺灣通志 Gazetteer of Taiwan). It goes as follows: “A boat of the Dutch Red Hairs was swept into this area by a hurricane. The Dutch liked the land they saw and asked the natives to allow them to temporarily reside there. They were refused. So they told a lie [to the natives]: ‘We will be content with a land the size of an ox hide; we will not mind paying a high price for it’. The natives granted their permission. The Red Hairs then cut up the ox hide into fine strips, with which they made a rope that encircled a block of land the length of several tens of *zhang*. On it they built the city of Taiwan... Later they erected another building opposite their city called Chiqian Castle, and created a market outside the city. Thus merchants of Zhangzhou and Quanzhou went there to trade.” Quoted by the late Qing author Lu Dejia 盧德嘉 in his *Fengshan xian caifang ce* (鳳山縣採訪冊 Records from Visits and Interviews Conducted in Fengshan County, 1894), reprinted edition in *Taiwan wenxian congkan* 臺灣文獻叢刊 (Series of Literature on Taiwan), no. 73 (Taipei: Taiwan Datong shuju, 1984), 30. One *zhang* = 3.33 meters.

18 For a survey and analysis of such accounts involving the ox hide, especially among the Delaware Indians, see Andrew Newman, *On Records: Delaware Indians, Colonists, and the Media of History and Memory* (Lincoln: University of Nebraska Press, 2012), Chap. 2; and Jason Baird Jackson, “The Story of Colonialism, or Rethinking the Ox-Hide Purchase in Native North America and Beyond,” *Journal of American Folklore* 126, no. 499 (2013): 31–54. See also Penny Drayton, “Oxhide Myths,” *At the Edge: Exploring New Interpretations of Past and Place in Archaeology, Folklore and Mythology*, an open source accessed on 11/26/2014 at: <http://www.indigogroup.co.uk/edge/Oxhide1.htm>. This article was originally published in *Mercian Mysteries*, no. 22 (1995).

China.¹⁹ A well-known Chinese text entitled *Records of Foreign Lands* (*Yiyu zhi* 異域志), by Zhou Zhizhong 周致中 of the Yuan dynasty (1279–1368), describes an oceanic people inhabiting the “State in the Vicinity of Buddha” (Jinfo guo 近佛國), located in the Southeastern Sea. It is said that the nature of these people is no different from that of birds and beasts: “When merchant boats arrive in their land, they come in throngs to catch the boaters, hold their bodies with two huge bamboo sticks, and barbeque them to eat. The skulls [of their victims] are then used as containers for food. When their parents pass away, they call their relatives over, beat the drums, and together eat up the body of the deceased. These are not to be regarded as human beings.” The same text includes an entry on the “State of Cannibals” (Danren guo 噉人國), presumably located in the southwestern part of the South Sea, where “the inhabitants customarily eat their firstborn male infant. The custom is called ‘benefiting younger male siblings’. If the infant tasted good, they would present it to the ruler, who would appreciate the gesture as an act of loyalty.”²⁰

However, as anthropologist William Arens pointed out decades ago, despite the wide diffusion of such cannibalistic accounts, which led many modern anthropologists to accept cannibalism as an empirical reality marked out for academic study, there has not been a single satisfactory firsthand account by a trained observer testifying to acts of cannibalism that took place as part of a systematic cultural practice in *any* human society. In other words, “the idea of the cannibalistic nature of others is a myth” with no correlation to reality. Its primary significance for historians lies, rather, in the important cultural messages it conveys about the people who maintained and perpetuated the idea itself.²¹

It is in this sense that the two ox hide stories and one tale of cannibalism just quoted, myth-histories though they may be, serve as powerful historical testimonies to the psychological as well as material devastations that aggressive European newcomers in the South China Sea and the Western Pacific inflicted on indigenous populations they encountered during the course of

19 Herodotus described the Massagetae and Issedones as engaging in ritualized cannibalism, while Ptolemy asserted that the “Bay from Rhapta to cape Prason is very big and not deep, and barbarous cannibals live about it.” See Herodotus, *The Histories*, Book 1, line 217, p. 101 (Massagetae), and Book 4, line 26, at 250 (Issedones); and Ptolemy, Berggren, and Jones, *Ptolemy’s “Geography,”* Book 1, Chap. 17, at 80.

20 Zhou Zhizhong 周致中 (Yuan dynasty), *Yiyu zhi* (異域志 *Records of Foreign Lands*), printed in a combined volume along with another title (Beijing: Zhonghua shuju, 1981), 26 and 57.

21 William Arens, *The Man-Eating Myth: Anthropology and Anthropophagy* (Oxford: Oxford University Press, 1979), 182.

their expansion. Moreover, since the Chinese did not distinguish between the Folangji who were operating in Melaka and Canton in early sixteenth century—namely, the Portuguese—and the Spaniards who conquered Luzon, the threatening shadow cast by Folangji in these three tales is sinister indeed.

This did not bode well for the Jesuits who would arrive on the scene later in the century, for the Jesuits were themselves part of the broader phenomenon of early modern European maritime expansion, and the material needs of their mission were to be met by Portuguese *padroado* (patronage), according to the agreement reached by the Holy See and the kingdoms of Spain and Portugal shortly after Columbus's historic landing in the Bahamas. In 1493–1494, the Pope arbitrated the controversies between Portugal and Spain over possession of new lands they had “discovered” in the Atlantic world. The resulting treaties fixed a demarcation line in the Atlantic Ocean between the two powers. The Treaty of Tordesillas (1494) defined that line as the longitude running through a point 370 leagues (1,185 miles) west of the Cape Verde Islands, and recognized the exclusive rights of Portugal and Spain to explore, colonize, and conduct trade in all new lands discovered or yet to be discovered to the east and the west of this line, respectively. In 1529, shortly after the fleet of Magellan landed on and explored the Philippine islands, the Treaty of Zaragoza was signed fixing the demarcation line in the Pacific. In return for the Holy See's recognition of this division, Portugal and Spain were, in theory, to shoulder the responsibilities of recruiting, training, transporting, and financing Catholic missionaries working in the parts of the world that fell within their respective spheres of influence. The Jesuits bound for the China mission received philosophical and theological training at the Jesuit College of Coimbra and embarked on their voyages from Lisbon. Their operative funds in China derived at least in part from a “royal” pension of the Portuguese king, paid by the bank at Damão in India.²²

To better understand the historical setting of the contact zone as a space of physical and social action for the first Jesuits in China, we delve further into the history behind these myths, focusing on two sets of interweaving developments: (1) the maritime interactions between the first Europeans (both the Portuguese and the Spaniards) and the inhabitants of Melaka, the Philippines,

22 For further discussions on Portuguese *padroado* (patronage), see Donald F. Lach, *Asia in the Making of Europe, Vol. 1: The Century of Discovery* (Chicago and London: The University of Chicago Press, 1965), 230–245; and Claudia von Collani, “2.1.1 Missionaries (General Characteristics),” 286–290 and 294–300, and idem, “2.1.2 The Jesuits,” 309–313, both in Standaert, ed., *Handbook of Christianity in China, Volume 1*. On the sources and the state of finances of the Jesuit China mission, see Noël Golvers, “2.1.1, Section on Finances of the Mission,” in Standaert, ed., *Handbook of Christianity in China, Volume 1*, 290–293.

and the mid- to late-Ming empire; and (2) the Chinese empirical maritime discourses that sought to record and make sense of these interactions from the perspectives of their participants and observers in the Ming. The discourses largely responded to the interactions, but they also influenced the interactions by shaping popular perceptions of the maritime Europeans within the Ming empire.

The History behind the Myths

With the benefit of time and access to sources produced by all sides of the encounters involved, we have learned some important facts about how the Portuguese conquered Melaka and the Spaniards conquered Luzon. Four years after their seizure of Goa on the Indian Malabar coast and the founding of a permanent seat for Portuguese India, the Portuguese sent an expedition to Melaka in 1509, under Diogo Lopes de Sequeira (1465–1530). During that expedition some Portuguese were taken prisoner by the Sultan of Melaka. In the summer of 1511, 14 ships and 1,000–1,200 men, commanded by none other than the Viceroy of India, Afonso de Albuquerque, launched two prolonged rounds of attack on the city before sealing their victory. The resistance from the sultan's army, some 20,000 men and 2,000 guns strong, was considerable.²³ Thus the Portuguese did not start the conquest of Melaka with boxes of *reals* and a lie about an animal hide, nor did they accomplish it through an apparently one-sided battle.

Likewise, the Spanish conquest of Luzon differed from the account of it excerpted above. The archipelago that came to be called the Philippines was a short sail from the southern coast of Fujian Province and had been frequented by Chinese maritime merchants for centuries before 1521, when it was “discovered” by Ferdinand Magellan (ca. 1480–1521) and his fleet, who landed on the island of Cebú. The 1529 Treaty of Taragoza set the dividing line in the Pacific between the Portuguese and Spanish spheres of colonial possession and exploration at around the longitude of 133° east. This line runs across Japan and just 5° east of the Philippines. The technical difficulties of determining exact longitudes at the time enabled Spain to lay claim to the Philippines by sending Ruy Lopez de Villalobos (?–1546) to explore the region in 1543, despite Portuguese protests. The full-scale Spanish colonial campaign in the Philippines began in 1565 under Miguel López de Legazpi, and the conquest of the entire archipelago was completed in 1571. This was part of a race between two maritime

23 For further details of the Portuguese conquest of Melaka, see Bailey Wallys Diffie, *Foundations of the Portuguese Empire, 1415–1580* (Minneapolis: University of Minnesota Press, 1977), 254–259.

European powers in which the native rulers of the archipelago had little role to play. The Spaniards saw no need to ask their permission, or use deceit, in order to gain a foothold on their land. They simply went there with arms to take it.²⁴

The first Portuguese foray into Guangdong Province and the subsequent tale of the cannibals, however, are of central concern to the present discussion. On their first expedition to Melaka, the Portuguese encountered several flat-bottomed Chinese merchant boats. This testifies to the lively maritime presence of the Chinese in the South China Sea and the Western Pacific despite the Sea Ban imposed by the Ming-dynasty founder Zhu Yuanzhang 朱元璋 (r. 1368–1398) in 1371 and officially in effect until 1567.²⁵ Diogo Lopes de Sequeira, who led this expedition, had gone there to accomplish several missions assigned by King Manuel I (r. 1495–1521). One of these was to find answers to the following questions:

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- 24 For further information on the history of the Spanish conquest of the Philippines, see Nicholas P. Cushner, *Spain in the Philippines: From Conquest to Revolution* (Quezon City: Ateneo de Manila University, 1971), and Filipiniana Book Guild Editorial Board, *The Colonization and Conquest of the Philippines by Spain: Some Contemporary Source Documents, 1559–1577* (Manila: Filipiniana Book Guild, 1965).
- 25 The Sea Ban (*haijin* 海禁) made all private maritime traffic across Chinese borders illegal. The only legitimate foreign trade occurred within the framework of tributary missions, through designated ports based on predetermined schedules. For a concise review of how the system of tributary trade operated during the Ming, see Han Qi 韓琦 (of Nankai University, Tianjin), “Manila dafanchuan maoyi dui ming wangchao de yingxiang” (馬尼拉大帆船貿易對明王朝的影響 The Impact of the Manila Galleon Trade on the Ming Dynasty), *Shijie jindai shi yanjiu* (世界近現代史研究 Studies in Modern World History), 10 (2013): 2–3. For a detailed historical study of the foreign trade system, see Li Qingxin 李慶新, *Mingdai haiwai maoyi zhidu* (明代海外貿易制度 The Overseas Trade System of the Ming Dynasty) (Beijing: Shehui kexue wenxian chubanshe, 2007). The Sea Ban included a ban on sharp-bottomed oceangoing vessels, which was why few Chinese ships ventured into the Indian Ocean after the withdrawal of the Zheng He Voyages. After the ban was lifted, Portuguese control of the key ship lanes at Melaka further ensured that Chinese shipping stayed out of the Indian Ocean. Zhang Xie 張燮 (1574–1640), for example, related what he heard from the sailors and traders he interviewed: “Melaka is now in the possession of Folangji 佛郎機. After they destroyed the city [during the conquest], business sales dwindled. Folangji befriended the Chinese and invited them to go there to trade; therefore, many merchant boats went that way. Boats designated for Sumatra, however, must pass by Melaka. Whenever Folangji would see these Chinese [boats passing by rather than] pulling into Melaka, they would accost them on sea to attack them and loot their goods. After several years of such conflicts, few Chinese boats were found to venture beyond Melaka.” See Zhang Xie, *Dong xi yang kao, juan* 4, entry on Maliujia 麻六甲 (Melaka), 70.

You must learn about these “Chijns” [the Chinese merchants]: where are they from? How far have they come? When do they arrive in Melaka or some other place to trade? What goods do they bring? How many of their ships come each year? What is the shape and size of their ships? Do they return in the same year in which they come? Do they have factors or stations in Melaka or some other countries [in the area]? Are they wealthy merchants? *Are they weak men or warriors? Do they have arms or artillery?* What kind of clothing do they wear? *Are they well built?* [Investigate] other such things. Are they Christians or heathens? Is their country a great one? *Do they have more than one king amongst them? Are there Moors or some other people living amongst them who do not observe their laws and religions?* Also, if they are not Christians, then what do they believe in? What do they worship? What kind of customs do they follow? How far does their territory extend, and who are their neighbors?²⁶ (emphasis added)

These questions are a reminder of how little was left of European memories of that part of the world once known as Cathay to Marco Polo: it would take a harrowing three-year journey by the Portuguese Jesuit Bento de Góis (1562–1607) to reach the western frontier of Ming China, from India by way of Central Asia, to confirm that Cathay was indeed the same country as the Great Ming reached by the South China Sea.²⁷ Nevertheless, many questions on this list reveal King Manuel’s readiness to extend Portugal’s successful colonial experiences on the Indian Malabar coast to China.

After securing Melaka, the Portuguese moved to establish trade relations with China. The first Portuguese embassy to the Ming court, under the apothecary-turned-ambassador Tomé Pires (1465?–1524), arrived in Guangzhou in 1517, in the company of eight Portuguese ships. The rest of the story runs parallel in part to the narrative we have seen in Yan Congjian’s work excerpted above: Tomé Pires and his entourage were hosted at the Hall for Cherishing Guests from Afar (Huaiyuan yi 懷遠驛), a hostel designated for the reception

26 Translation based on Jin Guoping’s 金國平 Chinese translation, given in his *Xili dongjian: Zhongpu zaoqi jiechu zhuixi* (西力東漸: 中葡早期接觸追昔 Eastward Expansion of Western Powers: Historical Memories of Early Sino-Portuguese Contacts) (Macao: Macao Foundation, 2000), 124. An English translation of this passage can be found in Donald Ferguson, *Letters from Portuguese Captives in Canton, Written in 1534 and 1536, with an Introduction on Portuguese Intercourses with Chinese in the First Half of the Sixteenth Century* (Bombay: Education Society’s Steam Press, 1902), 1–2.

27 See Matteo Ricci’s account of this event in Ricci and Trigault, *China in the Sixteenth Century*, 499–521.

and accommodation of foreign envoys arriving in Guangzhou. They caused much consternation among the officials in Guangdong who came to receive them because they did not perform the ritual kowtow and had to be trained to do so for three days in the Guanglu temple (Guangluji 光祿寺) in the city.²⁸ The officials in charge could not find the name “Folangji” on the list of tributary states from the *Collection of Statutes of the Ming* (Daming huidian 大明會典), so they decided to keep Tomé Pires and his entourage at the hostel while they awaited instructions from the court as to whether to allow them to proceed north. The embassy was eventually summoned to the court in Beijing and embarked on its journey north in January 1520, arriving in July that year.

While in Beijing, the Portuguese embassy was inadvertently drawn into the political struggle at the Ming court during the transition from the Zhengde Emperor (1491–1521, r. 1505–1521) to his successor, the Jiajing Emperor (1507–1567, r. 1521–1567). Yasan, their interpreter, conspicuously sought association with Jiang Bin 江彬, the much-feared and -hated head of the imperial military secret service who enjoyed the favor of the Zhengde Emperor. It was through Jiang Bin that the embassy secured clearance for an audience with the emperor. After the death of the Zhengde Emperor, however, Yasan was promptly put to death along with Jiang.

Two other developments also worked against the Portuguese mission. The first was that the exiled king of Melaka, a loyal tributary subject of the Ming, sent his own envoys to report on the Portuguese occupation of Melaka and request military assistance from the Ming to drive out these invaders.²⁹ Second,

28 Gu Yingxiang 顧應祥 (1483–1565, *jinshi* 1505), who managed the initial reception of Tomé Pires and his entourage, gave a detailed account of these early days of the Portuguese mission. See his *Jingxu zhai xi yin lu* (靜虛齋惜陰錄 Cherishing Times Past at the Hall of Great Quietude and Vacuity), in *XXSK, zi*, vol. 1122: 511.

29 The news of Portuguese conquest of Melaka in the summer of 1511 either did not reach the Ming court earlier, or if it did, the court decided to take no action. We know that there were Chinese merchants who witnessed the entire conflict, and some of them, not being on good terms with Sultan Ahmad Syah, loaned their flat-bottomed boats to assist the Portuguese landing. Their reports of events in Melaka that summer are included in Huang Zhong's 黃衷 (1474–1553, *jinshi* 1496) *Haiyu* (海語 All about the Sea, preface 1536), *juan shang* (卷上), reprinted in *Zhongguo shixue congshu xubian* (中國史學叢書續編 The Second Collection of Books in Chinese History), combined with three other titles (Taipei: Taiwan xuesheng shuju, 1984), 13. Although this book was published in the early years of the Jiajing reign (1521–1567), Huang Zhong identifies his sources as sailors and maritime merchants in his preface to the book. For a discussion of the contents of these memorials from the ambassadors of the exiled king of Melaka, see Geoff Wade, “Melaka in Ming Dynasty Texts,” *Journal of the Malaysian Branch of the Royal Asiatic Society* 70, no. 1 (1997): 49–50.

a new group of Portuguese under Simão de Andrade arrived on three junks in August 1519, to join the embassy's party that had been left behind in Guangzhou. De Andrade and his men wreaked havoc on the island of Dunmen, where legally arriving foreigners were supposed to trade. They established a fort on the island mounted with cannons, refused to pay taxes on the goods they brought to trade, and treated the officials managing the affairs on Dunmen with contempt—de Andrade even knocked the hat off one such official.³⁰ A Portuguese captain, Diogo Calvo, who was on site at the time, wrote about his fellow countrymen's conduct several years later, stating that "they were not willing to obey the orders of the King of China, and wished to wage war in China, and to kill and plunder the country where much evil was done."³¹

The greatest of these evils was their buying and smuggling of a large number of Chinese children. Although buying and selling children was tolerated inside China, no human traffic was allowed across its borders, on pain of death by hanging, as stipulated in the Ming Code (*Daming lü* 大明律).³² Evidence of Portuguese engagement in an international slave trade has emerged from many different sources. There are reports of the Portuguese kidnapping or buying Chinese children in the *Veritable Records of the Zhengde Reign* (*Zhengde shilu* 正德實錄).³³ Also, as John Wills, Jr., has noted, some of these Chinese children, "sons and daughters of good families, were found several years later by the Portuguese authorities at Diu in western India."³⁴ There is testimony as well in the findings of Richard Wellesley (1760–1842), who said of Simão de Andrade:

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- 30 John E. Wills, Jr., "Maritime Europe and the Ming," in idem, ed., *China and Maritime Europe, 1500–1800: Trade, Settlement, Diplomacy, and Missions* (Cambridge: Cambridge University Press, 2010), 28.
- 31 Cited in Tianze Zhang, *Sino-Portuguese Trade from 1514 to 1644: A Synthesis of Portuguese and Chinese Sources* (Leiden: Brill Archive, 1934), 70.
- 32 *Daming Lü jijie fuli* (大明律集解附例 Collected Explanations of the Ming Code, with Exemplary Cases), also referred to simply as *Daming Lü* (大明律 The Ming Code), *juan* 15, 12b, states: "Ruo jiang renkou junqi chujing ji xiahai zhe, jiao" (若將人口軍器出境及下海者絞 A person who smuggles human beings or military weapons out of the border or overseas should be punished with death by hanging). I consulted the scanned copy of a 1908 reprint of this text held at Waseda University Library, Japan, accessed on 12/15/2013 at: http://www.wul.waseda.ac.jp/kotenseki/html/wao4/wao4_05080/index.html.
- 33 *Zhengde shilu* (正德實錄 Veritable Records of the Zhengde Reign), *juan* 149 (twelfth year—1517) and *juan* 194 (fifteenth year—1520), quoted in Dai Yixuan 戴裔煊, *Mingshi folangji zhuan jianzheng* (明史佛郎機傳箋正 Commentaries on the Record of the Folangji in the History of the Ming) (Beijing: Zhongguo shehui kexue chubanshe, 1984), 7–8.
- 34 Wills, "Maritime Europe and the Ming," 28.

This commander treated the Chinese in the same manner as the Portuguese had for some time treated all the people of Asia. He built a fort, without permission, on the island of Taman [Dunmen], from whence he took opportunities of pillaging and extorting money from all the ships bound from or to the ports of China. *He carried off young girls from the coast, he seized upon the Chinese, and made slaves of them*; he gave himself up to the most licentious acts of piracy, and the most shameful dissoluteness. The sailors and soldiers under his command followed his example.³⁵ (emphasis added)

Officials in Guangdong reported the Portuguese intransigence to the imperial court and recommended the rejection of their embassy. The court subsequently ordered Tomé Pires and his men transported back to Guangzhou for deportation, and demanded that Tomé Pires urge his king to restore Melaka to its rightful ruler. Officials in Guangdong went to Dunmen island to enforce the imperial court's order to expel the Portuguese and demolish their constructions, but encountered fierce resistance. The conflict escalated into war, and the ambassador and his entourage, who had just arrived in Guangzhou, were imprisoned. Tomé Pires died in captivity in 1524.³⁶

35 Add. Ms. 13, 875, fol. 24, "Reports of Embassies to China, presented to the British Museum by the Representatives of the Marquess Wellesley," quoted in Zhang, *Sino-Portuguese Trade from 1514 to 1644*, 70–71. The original of this report has been digitized by Google and is available at: <http://archive.org/stream/commentariesgreozunkngoog/commentariesgreozunkngoog.djvu.txt>.

36 For detailed accounts of this Portuguese embassy, see Wills, "Maritime Europe and the Ming," 26–30; Wan Ming 萬明, *Zhongguo rongru shijie de buli: Ming yu Qing qianqi haiwai zhengce bijiao yanjiu* (中國融入世界的步履: 明與清前期海外政策比較研究 Steps toward Integration into the World: A Comparative Study of Ming and Early Qing Foreign Policy) (Beijing: Shehui kexue wenxian chubanshe, 2000), 181–196; and Li Qingxin, *Mingdai haiwai maoyi zhidu*, 224–228. On the failure of this embassy, Urs Bitterli has made the following observation: "Yet the cultural arrogance of the Chinese should not be blamed for the failure of early trading contacts. The rupture of mutual relations in 1522 was principally the fault of the Portuguese. They had behaved insolently, refused to pay customs duties, and treated the local laws, customs, and religion with disrespect. Presumably the Portuguese expected to succeed by the same tactics that had worked in India and, naturally, on the ill-defended Spice Islands. In the case of China, they not only overestimated the extent of their own power; they also lacked any precise conception of the size of the country and failed to realize that here, in contrast with India, there was no prospect of exploiting local conflicts for their own ends." Urs Bitterli, *Cultures in Conflict: Encounters between European and Non-European Cultures, 1492–1800*, translated by Ritchie Robertson (Stanford, Calif.: Stanford University Press, 1993), 139.

From this summary we can see that in the story of the Folangji quoted above, the author Yan Congjian made several important factual errors. First, he collapsed two groups of Portuguese into one: (a) the ambassador Tomé Pires and his entourage, who arrived in China in 1517 in good faith and who made efforts to build rapport with the Chinese, and (b) the Portuguese traders commanded by Simão de Andrade, who were of uneven moral qualities and who behaved in Dunmen just as they had done elsewhere in “Portuguese Asia.” Second, although the Portuguese did engage in buying and selling Chinese children, they most certainly did not eat them. Third, Yan was, of course, mystified as to where the Folangji came from. The idea that they were from the region around Melaka must have been derived from the understanding, true to an earlier era, that territorial conquest occurred by way of *spreading* into neighboring states. This mistaken geographical hypothesis itself may have rendered the cannibalistic tale more credible to Yan and moved him to record it in his book. Cannibalism readily explained what the Portuguese might have done with the large numbers of Chinese children they bought, and the region around Melaka tallied well with the presumed location of the “State of Cannibals” (Danren guo) that Zhou Zhizhong had described, as we have seen above.

We can only speculate as to how the cannibal tale about the Folangji started, but we have abundant sources testifying to its widespread circulation and tremendous staying power. Yan Congjian, whose story is excerpted above, explicitly identified an earlier work, *Conversations on the Moon Mountain* (Yueshan congtao 月山叢談), by Li Wenfeng 李文鳳 (*jinsi* 1532), as his source. Li may have been exposed to this tale already circulating within the official circle in Guangdong during the two years of his service there (1540–1542) as a secretary to the military commissioner of the province.³⁷ He wrote the book a few years after he left Guangdong. Besides its use by Yan Congjian, Li Wenfeng’s work was also cited by many later authors.³⁸ Its incorporation into the official

37 Li Wenfeng 李文鳳 (*jinsi* 1532) served as an executive officer assisting the Military Commissioner of Guangdong (Guangdong bingbu qianshi 廣東兵部僉事). For further biographical information, see the brief account given by the editors of the Complete Collection of the Four Treasures in the abstract they wrote of Li Wenfeng’s *Yueqiao shu* (越嶠書 Book about the Mountains of Viet, prefaced in 1540), in *SKCM, shi*, vol. 163: 299, and Qin Hongshuang 覃紅雙, “Mingdai yishan Li Wenfeng shengping jiqi zhuzuo kao” (明代宜山李文鳳生平及其著作考 An Inquiry into the Life and Works of Li Wenfeng from Yishan in the Ming Dynasty), *Hechi xueyuan xuebao* (河池學院學報 Journal of Hechi College), no. 3 (2009): 82–86.

38 These include, among others: (1) Cai Ruxian 蔡汝賢 (*jinsi* 1568), in his *Dongyi tuxiang* (東夷圖像 Images of the Eastern Barbarians) and *Dongyi tushuo* 東夷圖說 (Illustrated Account of Eastern Barbarians, 1586), in *SKCM, shi*, vol. 255: 428; (2) Xiong Mingyu 熊明遇

narrative about the Portuguese embassy and the battle of Dunmen in Guo Fei's 郭隸 influential *Gazetteer of Guangdong Province* (Guangdong tongzhi 廣東通志, 1602) in turn ensured its longevity.³⁹ Another version of this cannibal story, with significant differences in detail and language, is found in an essay by Chen Wenfu 陳文輔 written for the dedication of a temple to the memory of Wang Hong 汪鉉 (1466–1536), the commanding officer of the Ming fleet in the battle at Dunmen in 1521. Chen's essay appeared in the 1546 version of the *Gazetteer of Xin'an County* (Xinan xianzhi 新安縣誌), covering the present-day Shenzhen/Hong Kong area. In other words, the two earliest versions of this tale, to my knowledge, date to the late 1540s in Guangdong Province.⁴⁰ There is no mention of Folangji cannibalism either in the official *Veritable Records of the Ming* for those years concerned in the story or in the memoirs of Gu Yingxiang 顧應祥 (1483–1565), the official in Guangdong who coordinated the initial reception of the Portuguese embassy.⁴¹ We can thus tentatively locate the time of origination of this cannibal tale in the two decades after the Dunmen battle, during the period when many more battles were fought between the Chinese and the Portuguese off the Chinese eastern and southeastern coast.

(1579–1649), in his “Daoyi zhuan” (島夷傳 Records of Island Barbarians), in idem, *Luxue lou ji*, in *SKJH, ji*, vol. 185: 177–178; Xiong Renlin 熊人霖 (1604–1667), in his *Diwei* (地緯 Geography of the Earth, 1624), in Xiong Zhixue 熊志學, ed., *Hanyu tong* 函宇通 (Penetrating [the Secrets of] the Universe, editor preface dated 1648), copy held at the United States Library of Congress, 79a–81a; (3) Zhang Xie, in his *Dong xi yang kao* (1617); and (4) Gu Yanwu (1613–1682), in his *Tianxia junguo libing shu*. Right after the quote about Folangji from Li Wenfang, Zhang Xie added a comment that “today those [Chinese] who live in Luzon have not heard of any Folangji eating children there” (Zhang, *Dong xi yang kao*, 249). But such doubts were uncommon.

39 Guo Fei 郭隸, *Guangdong tongzhi* (廣東通志 Gazetteer of Guangdong Province, 1602), *juan* 69, 69a–b; I consulted the digital scan of copy held at Waseda University, Japan. The story told in this text in turn is repeated verbatim or in summary by, among other authors, He Qiaoyuan 何喬遠 (*jinshi* 1586), *Mingshan cang* 名山藏 (Hidden in the Famous Mountain, 1640), *juan* 107, in *XXSK, shi*, vol. 427: 635; and the official “Records of Folangji” in the *Mingshi* (明史 History of the Ming) compiled in the Qing dynasty, reprinted with commentaries in Zhang Weihua 張維華, *Mingshi ouzhou siguo zhuan zhushi* 明史歐洲四國傳注釋 (Commentaries on the Records of Four European Countries in the *History of the Ming*) (Shanghai: Shanghai guji chubanshe, 1982), 1–56, at 6.

40 Chen Wenfu 陳文輔, “Duxian Wang gong yiai ci ji” (都憲汪公遺愛祠記 Thoughts on [Visiting] the Temple in Commemoration of Censor-in-Chief the Esteemed Mr. Wang), in Wang Congxi 王崇熙 et al., comps., *Xin'an xianzhi* (新安縣誌 Gazetteer of Xin'an County, 1546), *juan* 23; the passage relevant to the Dunmen battle and the cannibal tale is quoted full in Li Qingxin, *Mingdai haiwai maoyi zhidu*, 229.

41 Gu Yingxiang's entry on the Folangji is found in his *Jingxu zhai xi yin lu*, 511–512.

*Portuguese Settlement in Macao and the Late Ming Ethnographic
Discourses on the “Barbarians of Macao”*

While this cannibalistic myth-history of the Folangji took on a life of its own, being circulated and multiplied, the dynamic of Sino-Portuguese interactions was rapidly altered in the 1550s with the arrival of a new generation of Portuguese traders and colonialists who were more ready to reconcile with Chinese customs and expectations. In 1553, Leonel de Sousa brokered a deal on behalf of his fellow Portuguese that succeeded in securing a foothold for them on Macao: the Portuguese claimed that one of their boats carrying tributary gifts to the emperor had been struck by a coral reef and leaked, causing their gifts to get wet, and that they needed a space on land where they could dry them. The Vice-Commissioner of the maritime defense circuit at the time, Wang Bo 汪柏, took their bribe and allowed them to temporarily reside on Macao and to trade in Guangzhou; and they agreed to pay taxes.⁴² By 1557, their presumed temporary shelter in Macao had metamorphosed into a permanent settlement.

It was also de Sousa who recommended to his fellow countrymen in Macao that they begin their new relationship with the Chinese under a new name, to get away from the much-hated image of Folangji.⁴³ In the meantime, Macao prospered as the center of a hemispheric trading network under the control of

42 See Wills, “Maritime Europe and the Ming,” 36, and Guo Fei, *Guangdong tongzhi*, 72a (digital scan of copy held at Waseda University, Japan). Macao was then known as Haojing 濠境, or Xiangshan Ao 香山澳. The deal obtained by Leonel de Sousa included the privilege of trading once a year in Guangzhou (which was extended to two semi-annual fairs) and a 20 percent tax on all imported goods. See Ronnie Hsia, *A Jesuit in the Forbidden City*, 54. For an assessment of the two different dates (1535 and 1553) that Chinese sources assign to the initial Portuguese landing on Macao and related scholarly debates among modern historians, see Liu Xianbing 劉羨冰, “1553–1849 Aomen lishi shang liangge zhide zhongshi de nianfen” (1553–1849 澳門歷史上兩個值得重視的年份 Two Important Years in the History of Macao from 1553–1849), published at the Macao municipal government website, accessed on 11/20/2013 at: <http://www.library.gov.mo/macreturn/DATA/lig-153/index.htm>.

43 On de Sousa’s proposal that the Portuguese change their name, see Wills, “Maritime Europe and the Ming,” 37. In 1565, a contingent of Portuguese from Macao presented themselves in Guangzhou as envoys from Pulidujia 蒲麗都家 (Portugal) who had come to pay tribute, but the Chinese officials at the Ministry of Rites in charge of their reception duly found them to be lying: they decided that since Pulidujia was not on their list of southern barbarian countries, they must be the same Folangji, faking a new identity. On this 1565 Portuguese mission, see Pang Naiming, *Mingdai zhongguoren de ouzhou guan* (明代中國人的歐洲觀 Ming-Dynasty Chinese Views of Europe) (Tianjin: Tianjin renmin chubanshe, 2006), 95.

the Portuguese, stretching westward to Melaka, Goa, and Lisbon and eastward to Nagasaki in Japan, where the Portuguese continued to serve as the only intermediaries of trade with China until their ejection by the Tokugawa Shogunate in 1639.⁴⁴ By the turn of the seventeenth century, Macao was a bustling international community of more than a hundred thousand residents, according to the estimate of a contemporary Chinese observer.⁴⁵ With the core permanent population consisting of Portuguese, their Chinese servants, and African slaves, and accommodating a large transitory population drawn from various places connected to the Portuguese trading network, the city was a true “microcosm of the people from all over the globe.”⁴⁶

Thus, over the course of the second half of the sixteenth century, a kind of symbiosis evolved within the broader dynamic of a “controlled conflict.”⁴⁷ The Portuguese settlers on Macao depended on supplies from the Chinese locals across the border for their livelihood, while the officials of Guangdong benefited from the taxes collected from Macao and counted on the superior fighting power of the Portuguese—especially their swift-moving “centipede boats” and their cannons—to manage domestic crises or pirate attacks. In the spring of 1565, for example, an army mutinied in the nearby county of Dongguan. The mutineers defeated the troops of Regional Commander Tang of Guangzhou and laid siege to the capital city of the province. At the commander’s request, three hundred Portuguese relief soldiers were sent from Macao, and upon the firing of their first shots, the mutineers scattered.⁴⁸

44 From the 1520s on, Japanese tributary trade with China was stopped. After the 1567 lifting of the “Sea Ban” on all private maritime trade, the Japanese continued to be prohibited from trading in China due to piracy concerns.

45 See Wang Linheng 王臨亨 (1548–1601), *Yue jian bian* (粵劍編 The Sword Obtained from Yue, 1601), *juan* 3, reprinted edition, in a combined volume along with two other titles (Beijing: Zhonghua shuju, 1987), 91–92.

46 Here I have borrowed the words of Timothy Brook, describing the wide international profile of the refugees aboard a ship sailing from Manila to Macao that sank near the shore of Guangdong on February 16, 1625. See Brook, *Vermeer’s Hat: The Seventeenth Century and the Dawn of the Global World* (New York, Berlin, London: Bloomsbury Press, 2008), 95; the full description of the refugees is on 90–95.

47 John Wills, Jr., “Introduction,” in idem, ed., *China and Maritime Europe*, 20. Urs Bitterli has called this mode of interaction between the Chinese and the Europeans a “controlled relationship”; see Bitterli, *Cultures in Conflict*, Chap. 6.

48 For a Chinese account of this event, see Ye Quan 葉權 (1522–1578), “You lingnan ji” (游嶺南紀 Records of Trips to South of the Pass), in idem, *Xianbo bian* (賢博編 Things Seen and Heard through Meeting with Worthies and Erudite People, 1565) (Beijing: Zhonghua shuju, 1987), 44. For Portuguese sources, see Wills, “Maritime Europe and the Ming,” 38.

These generally peaceful and stabilized interactions gave rise to a new mode of discourse among Chinese scholars on this alien community at the southern maritime frontier and on the wider world stretching beyond it. In the winter of 1565, the scholar Ye Quan 葉權 (1522–1578) ventured into Macao and wrote a memoir of his journey there so as to share his discoveries:

The people who reside in those barbarian houses [in Macao] are all from Folangji, a country in the Great Western Ocean (Da Xiyang 大西洋). The [men] have white and fair skin, shaved heads, and thick mustaches and beards. They have tall nose bridges, long and low eyebrows, and greenish blue eyes... The wealthy ones wear a red wool cloth⁴⁹ with a burgundy rimmed collar... They anoint their body with some fragrant balm and carry a dagger around their waist about one foot long... Each of them is followed by four or five black slaves (*heinu* 黑奴), who hold up a red parasol over their master.⁵⁰ The slaves also carry large-handled swords... The women are even whiter and have luxuriant hair flowing down from their heads. They wrap themselves with a piece of cloth or embroidered brocade, wear a pair of gold earrings and don leather shoes. The large piece of cloth or brocade that they put on covers them from the top down, reaching all the way to the ground. Only their faces are shown, along with some ornaments.⁵¹

Here we see that Ye Quan locates the state of Folangji, the homeland of these foreigners in Macao, in the “Great Western Ocean” (Da Xiyang), a term referring to the Indian Ocean at the time. In this he was closer to the truth than most earlier authors writing on this topic.

In this context, we may interject that Gu Yingxiang, during his reception of the Portuguese embassy in Guangzhou, was so intrigued by their initial refusal

49 The original is “紅撒哈喇.” I am following Xie Fang’s 謝方 interpretation. Xie notes that this term was a transliteration of the Malay word *Sakelat*, referring to a wide wool fabric included among the tributary gifts from Melaka, and that it was also known as a product of the region west of China. See Huang Shenzeng 黃省曾, *Xiyang chaogong dianlu* (西洋朝貢典錄校注 A Record and Inventory of Tributary Gifts from the Western Ocean, 1520), collated and annotated by Xie Fang 謝方, reprinted edition in *Zhongwai jiaotong shi ji congkan* (中外交通史籍叢刊 Series of Historical Texts on Sino-Foreign Communications) (Beijing: Zhonghua shuju, 2000), 42.

50 The original text says *zhang zhugai* 張朱蓋 (extending the vermilion canopy). My translation is based on the literal meaning of the text and the image of Heigui 黑鬼 (black African slaves; literally, “black devils”) in Cai Ruxian, *Dongyi tuxiang*, 415.

51 Ye Quan, “You lingnan ji,” 44–45.

to kowtow that he searched historical records about foreign countries and formed an interesting hypothesis about who the Folangji were and where they had come from:

Looking into historical records from previous dynasties, [I] found no such state or polity called Folangji. There is only a state called Fuling 拂林. During the Zhizheng era of Emperor Shizu in the Yuan dynasty [Kublai Khan, r. 1260–1294], there was a Fulang state 拂郎國 which presented an extraordinary horse as a tribute [to the court].⁵² This may be the same state as Folangji. Also, according to the “Records of the Western Region” in the *History of the Tang Dynasty* (Tangshi), during the Kaiyuan era [713–741], Dashi [Arabia] came to present a horse, but [the emissary] refused to kowtow. The official [of the Board of Rites] was about to charge him with [disrespecting the emperor], but Chancellor (*zhongshuling* 中書令) Zhang [intervened on his behalf], saying that this must be due to the difference of customs and that this emissary had come to convey his admiration [for the emperor] and should not be criminalized. Emperor Xuanzong thus pardoned the emissary. Later the same emissary sent a message explaining that in his country people only kowtow to Heaven and not to the king. It was only after the official from the Board of Rites severely chastised him that he did kowtow. Such was the recalcitrance of distant barbarians. Rejecting the tribute [of the Folangji] and expelling them from our country was a sagacious decision on the part of our emperor. Judging from these similar precedents, the Folangji must be a country somewhere in the vicinity of Dashi.⁵³

Here Gu has discovered two important clues. The first is the phonetic resemblance between Folangji and two other names found in previous dynastic

52 These dates Gu Yingxiang gave do not match: the Zhizheng 至正 era was from 1341–1367, which fell under the reign of Emperor Shundi 順帝, but the reign of Emperor Shizu (Kublai Khan) began in 1260 and ended in 1294. Gu must be referring to the former. According to the *Yuanshi* (元史 History of the Yuan Dynasty), in the second year of Shundi's reign, the state of Fulang 拂郎國 brought an extraordinary horse as a tribute. It measured 1 *zhang* 1 *chi* and 3 *cun* in length, and 6 *chi* and 4 *cun* in height, that is, 3.667 meters long and 2.133 meters tall. It was completely black except for the two hind legs. See Song Lian 宋濂, *Yuanshi* (元史 History of the Yuan), *juan* 40, “Shundi benji” (順帝本紀 The Biographical Narrative of Shundi), 17a. I consulted the *Siku quanshu* 四庫全書 (Complete Collection of the Four Treasures) edition on Archive.org. on 12/20/2013 at: <https://archive.org/details/o6o56885.cn>.

53 Gu Yingxiang, *Jingxu zhai xi yin lu*, in *XXSK*, *zi*, vol. 1122: 512.

histories: the Fulin 拂林 and the Fulang state 拂郎國. These terms were derived from Hindu and Arabic, or Persian, references to the “Franks” of Western Europe. The old and new versions of the *History of the Tang Dynasty* (Tangshi 唐史) both carry a record on a state of Fulin on the “West Sea” (here, the Mediterranean); the latter text mentions Fulin’s many marvelous things, including conjurers who make fire burn on their faces, create rivers and lakes with their hands, or produce jewels and jade under their feet with every step, and physicians who can cure eye diseases by opening up their patients’ skulls to remove worms.⁵⁴ The Fulang state that is said to have sent an extraordinary horse to the Mongol court during the Yuan dynasty has been identified as the Roman Catholic Papacy.⁵⁵

Gu Yingxiang’s second clue is the cultural similarity between the Folangji and the Muslims, in that both of them refused to worship human beings. Again, Gu was very close to the truth. His conclusion that Folangji must have come from the vicinity of the Arabian Peninsula (Dashi) was a great insight that unfortunately was not pursued by later scholars. Nor was Ye Quan’s suggestion that the homeland of the Folangji who then lived on Macao was on the Indian Ocean. The majority of Chinese authors continued to repeat Li Wenfeng’s point that Folangji is in the neighborhood of Melaka and Java.

To return to Ye Quan’s memoir: after taking note of the Folangi’s unique physical traits, clothing, and bearing, Ye turns to their religion, language, and customs. Apparently he visited their chapel with an interpreter,⁵⁶ and here is what he saw:

They worship the Buddha with great devotion. Their writing goes sideways, and [when talking] they roll their tongues and utter sounds like bird’s songs. They go to their temple every three to five days, where the barbarian monk discourses on the workings of the Law of Karma,⁵⁷ while

54 The records of the state of Fulin in the old and new *Tangshi* are reprinted in Zhang Xinglang 張星娘, *Zhongxi jiaotong shiliao huibian* (中西交通史料彙編 Collection of Historical Sources on the History of Sino-Western Communications) (Beijing: Zhonghua shuju, 1977), 1: 93–103; the mention of conjurers and physicians is on 100.

55 For a survey of the scholarly debate about the meanings of Fulang 拂郎 and Fulin 拂林, see Zhang Xinglang, *Zhongxi jiaotong shiliao huibian*, 79–85.

56 According to Christina Miu Bing Cheng, the first Jesuit chapel was set up in Macao in 1565, in the spot where the Church of St. Anthony stands today; see Cheng, *Macao: A Cultural Janus* (Hong Kong: Hong Kong University Press, 1999), 77. Since Ye Quan went to Macao in the winter of that same year, this could be the chapel he visited.

57 The original text here says “fanseng wei shuo yinguo” 番僧為說因果 (the foreign monk explains to them the workings of [karmic] retribution).

[they listen] either afoot or sitting, standing upright or reclining. At the end, some of them cry or utter a sigh. The idol they worship is a sculpture of a naked man made from sandalwood. It is hung in the middle [of the hall] and is about 6 to 7 *cun* long. His limbs are stretched out and nailed down. I heard that this is because their ancestor committed sins and thus suffered this. It must be, rather, that their ancestor used his own suffering as a means to transform the foolish and mundane ways of [his people] and to restrain their violent nature.⁵⁸

Here Ye Quan identifies the religion of the Portuguese as a kind of Buddhism, a mistake made by many Chinese observers of the Portuguese in Macao and of the Spaniards in Luzon in the late sixteenth century.⁵⁹ This is similar to Vasco Da Gama's calling the local Hindus he found in a temple of Calicut "Christians."⁶⁰ Ye has left us a rather realistic portrait of the Portuguese church community during a sermon, and his understanding of Christ's crucifixion is also essentially correct. He further comments on the three-dimensional, lifelike quality of the figures in several paintings he found on display in the church, and opines that these were not paintings after all but sculptures, masked perhaps by a sheet of glass.

Ye apparently also stepped inside a Portuguese household. He describes their walls, floors, furniture, kitchenware, food and drink, and table manners. Finally Ye turns to the African slaves in the Portuguese household, referring to them by the local Cantonese term Heigui 黑鬼 (Black Devils). He wrote:

[The Folangji] use Heigui as slaves. These Hegui come from a poor country, and many of them are enslaved by the Folangji. Their appearance is ferocious. Their beards are curly like the fur of *huyang* 胡羊 [barbarian goats], and their skin and flesh are as dark as ink. Their toes, long and large, spread out and look especially fearsome. The seawater is bitter and salty. The Chinese who get drowned in it may die in an instant. But these Heigui can sit at the bottom of this water for a whole day and retrieve lost goods [from the sea] as if picking up something on dry land... Some females were also brought here. They have the same skin color as the men, but they put some red powder on their foreheads, which makes

58 Ye Quan, "You lingnan ji," 45.

59 See, for example, Cai Ruxian, *Dongyi tushuo*, 426 (Luzon) and 428 (Folangji).

60 See Da Gama's account of Calicut in Charles David Ley, ed., *Portuguese Voyages, 1498–1663* (London: J.M. Dent & Sons Ltd; New York: E.P. Dutton & Co., 1947), 27–38.

them appear more hideous. However, they are quite capable of doing business with the Chinese.⁶¹

Ye's narrative about the African slaves slips back and forth between hearsay or myths and observed facts. He repeats some of the widely circulated myths about their extraordinary submarine capabilities. Some other sources from the period claimed that the Heigui could walk on water as though on solid ground or stay underwater for weeks at a time.⁶²

After this discussion, Ye turned his attention to a six- or seven-year-old child whom he had found wailing inside the house he visited. He wrote:

I asked the interpreter: "Is this the barbarian couple's child?" He told me: "No! He was kidnapped from China and sold here. He misses his parents." Most of the barbarian households keep five to six of them. Some even have more than ten [slave] girls in the house. The boys are dressed like this one. The girls gather their hair in the back and bundle it up with a white piece of cloth. They wear a blouse made of Western cotton and wrap a piece of cloth around their waist. They have no underwear and their feet are bare. This is the twelfth [lunar] month of the year, and that is how little they wear. There must be thousands of Chinese who serve as concubines or servants here; all are children of good families. How regretful! How sad!⁶³

Here Ye gives us evidence of the kidnapping and smuggling of Chinese children in a slave trade that continued in the 1560s. His observations of the African and the Chinese slaves in Macao also betray his deep-seated ethnocentrism and double standards. His sympathy with and anguish over the fate of the Chinese slave children contrasts sharply with his apathetic description of the African slaves, whom he noted as having fallen into slavery because of

61 Ye Quan, "You lingnan ji," 46.

62 Wang Linheng 王臨亨 (1548–1601), for example, noted that the Heigui could stay underwater for tens of days ("neng jing xun shu shuizhong" 能經旬宿水中); see Wang Linheng, *Yue jian bian*, *juan* 3, 92. Much of the discussion on the African slaves in the early texts on Folangji was fixated on their skin tone. Some authors argued that it was because they grew up eating uncooked food and that their darkness lightened with a more "civilized" diet of cooked food. Wang refuted this theory. He cites a black slave whom he saw in the prison of Xiangshan county (with jurisdiction over Macao) and said that after several years in the prison on a regular Chinese diet, his skin tone had not lightened (*ibid.*).

63 Ye Quan, "You lingnan ji," 46.

their country's poverty but whose humanity he did not quite understand, and therefore did not respect.⁶⁴

Another interesting indicator of the kind of knowledge that was being produced on the Folangji and the wider maritime world is Cai Ruxian's 蔡汝賢 (*jinshi* 1568) *Images of Eastern Barbarians* (Dongyi tuxiang 東夷圖像) and the accompanying text entitled *Illustrated Accounts of the Eastern Barbarians* (Dongyi tushuo 東夷圖說), both dated to 1586. *Images* is an album containing a set of twenty drawings that may have been commissioned by Cai rather than drawn by Cai himself. The images give the impression that they were based on observations of actual foreigners who might have come from the states and polities they presumably represent. In contrast, the accompanying explanations contained in the separate text, *Illustrated Accounts*, are derived from many different sources, past and present, factual and legendary. Cai's entries on Luzon and Folangji epitomize the hybrid nature of his knowledge. On the one hand, he makes a sophisticated differentiation between the Spaniards in Luzon and the Folangji. He writes that "the customs, dress, food, and marriage [rituals] of Luzon are *more or less the same as* those of Folangji," whereas most other authors of this period simply identify the Spaniards in Luzon as well as the Portuguese as *the* "Folangji." The drawings of the three Folangji men and the man from Luzon also illustrate this subtle distinction, especially in their clothing and bearing (Figures 6.1 and 6.2).

On the other hand, Cai Ruxian makes the glaring mistake of assigning Luzon to the *southwestern* section of the sea (*hai zhi xinan* 海之西南), an area where he also locates Calicut of India and Folangji. This mistake is puzzling, given that Cai had stayed in Guangdong as a provincial Administrative Commissioner for ten years by the time he wrote this book.⁶⁵ Guangdong had lively maritime trade at this time. Since the 1580 Iberian Union under the crown of Spain, Macao had seen frequent arrivals of Spanish boats from the Philippines—indeed, Cai even mentions people coming from Luzon and docking their ships

64 For a historical study and critique of premodern Chinese encounters with black Africans, see Don J. Wyatt, *The Blacks of Premodern China* (Philadelphia: University of Pennsylvania Press, 2009).

65 Cai Ruxian was Vice-Administrative Commissioner of Guangdong from 1576 to 1584, and became the Chief Administrative Commissioner in 1585. See Tang Kaijian 湯開建, "Zhongguo xiancun zuizao de ouzhou ren xingxiang ziliao—Dongyi tuxiang" (中國現存最早的歐洲人形象資料—《東夷圖像》) *The Earliest Extant Chinese Source on the Images of Europeans: Dongyi tuxiang*, *Gugong bowuyuan yuankan* (故宮博物院院刊 *Palace Museum Journal*), no. 1 (2001): 24.



FIGURE 6.1 *Three Folangji men*. Cai Ruxian 蔡汝賢 (jinshi 1568), *Dongyi tuxiang* (東夷圖像 *Illustrations of Eastern Barbarians*, 1586), 415.

COURTESY OF SIKU QUANSHU CUNMU CONGSHU BIANJI CHUBAN GONGZUO WEIYUAN-HUI (四庫全書存目叢書編輯出版工作委員會 COMMITTEE ON THE EDITING AND PUBLICATION OF SKCM), BEIJING.



FIGURE 6.2 A man from Luzon. Cai Ruxian 蔡汝賢 (jinshi 1568), Dongyi tuxiang (東夷圖像 *Illustrations of Eastern Barbarians*, 1586), 413.

COURTESY OF SIKU QUANSHU CUNMU CONGSHU BIANJI CHUBAN GONGZUO WEIYUAN-HUI (四庫全書存目叢書編輯出版工作委員會 COMMITTEE ON THE EDITING AND PUBLICATION OF SKCM), BEIJING.

at Macao to trade.⁶⁶ There are few such mistakes in the book.⁶⁷ It seems that this mistake stemmed from his effort to reconcile the position of Luzon with the location assigned to Folangji in the dominant view expressed in earlier literature (i.e., near Melaka and Java). Furthermore, Cai was unaware of the political disruption in the history of Luzon that had taken place almost two decades earlier.⁶⁸ He writes of the native ruler of Luzon who had sent a tribute mission to the Ming court in the third year of Yongle reign (1405) as though he belonged to the same group of people as the Spaniards whose way of life he describes in his essay on Luzon and whose image he presents in the album as that of a man of Luzon.⁶⁹

In composing his essay on Folangji, Cai Ruxian had to cope with a different challenge, for the homeland of the Folangji was not described in earlier Chinese literature. He met the challenge by following some key clues—namely, Folangji's presumed geographical proximity to Melaka, which it had conquered, and the representatives of Folangji whom the Chinese had encountered during the preceding decades. Based on its presumed affinity with Melaka, Cai picked an account of Melaka given in Huang Zhong's 黃衷 (*jinshi* 1496) *All about the Sea* (Haiyu 海語, preface 1536) as the model on which to base most of his descriptions of the state of Folangji. He cut and pasted material from the account in *All about the Sea* as he saw fit, but made it clear that he was describing Folangji, a *neighboring* state of Melaka.⁷⁰ He wrote that “Folangji is located in the southwest of the sea. Since it has not been in communication with China, it is not clear to what race they belong.”⁷¹ Its [inhabitants] come by the

66 Cai Ruxian, *Dongyi tushuo*, 426.

67 For example, Cai correctly identifies Ryukyu as in the southeastern section of the sea, and Melaka and Sumatra as in the southern section of the sea. See Cai Ruxian, *Dongyi tushuo*, 426 (on Luzon); 419–420 (on Xiyang 西洋, here meaning Calicut 古裡); 421–422 (on Melaka); and 422 (on Sumatra).

68 Our story about the Folangji who used the ox hide scheme to obtain a foothold in Luzon, and subsequently set out to conquer the entire island, was written by Zhang Xie, in his *Dong xi yang kao*, dated to 1617. It seems to have been a myth-history reconstructed in the aftermath of the first Spanish massacre of Chinese residents in Manila in 1603.

69 The man of Luzon shown in the drawing in Cai Ruxian's *Dongyi tuxiang* indeed looks “more or less the same as Folangji.” In his text, Cai also describes him as someone who shaves his head, dresses neatly, wears leather shoes, and carries a sword with him everywhere he goes; all these fit the “persona” of Folangji in Chinese literature from this period (see, for example, Ye Quan's description in the passage quoted earlier in this section).

70 See the entry on Melaka in Huang Zhong, *Haiyu*, 10–13.

71 Cai Ruxian's original says “wei xiang he zhong” 未詳何種 (literally, “not clear what race it is”).

same route as [those of] Melaka, so by following this route [to Melaka] one will find it."⁷²

Cai borrowed Huang's descriptions of Melaka's wealth, products, and social mores to construct his view of the state of Folangji, but he did not use any of Huang's account of Melaka's Islamic daily rituals, dietary laws, and other related information. Instead, like Ye Quan before him, Cai labeled the religion of the Folangji "Buddhism," whereas his subsequent descriptions of their diet and weekly worship make it clear that he is referring to Catholicism, not Buddhism or Islam.

Concerning the broader social and moral order, Huang Zhong's original depiction of Melaka in *All about the Sea* was not cast in very positive terms.⁷³ Cai Ruxian conveniently incorporates it into his narrative of Folangji. Repeating what Huang had written about Melaka, he states that in Folangji,

those who are destitute often take to thievery and highway robbery. When a single stranger comes to visit, [they] kill him and take his goods. If a security officer comes [to enforce order], they kill him, [too,] and the king does not investigate such crimes.⁷⁴

From here Cai smoothly goes on to tell the familiar story of the Folangji's embassy to China and the first Sino-Portuguese battle in Dunmen. He writes that "these barbarians are mostly cruel, deceitful, and profit-driven by nature." He comments on the lethal power of their firearms, which were also known in Chinese as "Folangji." And he tells us that the Chinese had learned how

⁷² Cai Ruxian, *Dongyi tushuo*, 428.

⁷³ This may have reflected the bias of Huang Zhong's sources, namely, Chinese maritime merchants who had been doing business in Melaka. According to Donald Ferguson, when the Portuguese arrived in Melaka in 1511, they found five Chinese junks there in the port. The Chinese merchants on the boats were ready to assist them in their conquest of Melaka. This indicates that although the king of Melaka was a loyal Ming subject, he did not accommodate the Chinese merchants doing business there enough to obtain their loyalty or friendship. Ferguson also observes that when the exiled king wanted to send his envoy to the Ming court to report on the Portuguese conquest and seek military support, his plan was frustrated because the Chinese merchant boats found excuses to delay their voyages back to China. This explains why the Ming did not learn about the conquest until around 1520. See Ferguson, *Letters from Portuguese Captives in Canton*, 2. Huang's text reveals another possible source of tension between the Chinese merchants and the locals in Melaka: he wrote that the latter did not eat pork and were disgusted when they found the Chinese eating it. See Huang Zhong, *Haiyu*, 11.

⁷⁴ Cai Ruxian, *Dongyi tushuo*, 429.

to make firearms by imitation but were only using them for defense purposes. He then lists the various crimes that the Folangji perpetrated at Dunmen, including “kidnapping infants and children and cooking them to eat.”

Cai also relates how the Folangji conquered Melaka in the summer of 1511. Quoting again from Huang Zhong’s *All about the Sea*, he reports that during the battles “most of the people [of Melaka] were slaughtered. Afterward the Folangji left with ships loaded with [looted] cargo.” At the end of the essay, Cai adds that the Folangji are still frequenting China, but since they are not there as part of any tribute missions, the Administrative Commissioner’s Office (referring to Cai’s own office) does not bother with them. “The Sage-King’s way to keep barbarians under control is to keep them at a distance,” he concludes.⁷⁵

In this account of Folangji, Cai Ruxian does not mention Macao at all, in sharp contrast to Ye Quan, who, writing two decades earlier, identified Macao simply as a settlement of the Folangji and their slaves. Macao instead features prominently in Cai’s essay on India (Tianzhu 天竺). This essay introduces an India much transformed by Portuguese influence. There is no mention of Portuguese intrusion and colonial rule in the region, but the essay does capture the transformation of the spiritual landscape of southern India following the Portuguese conquest. Cai identifies the spirituality of India as Buddhism, but the details shown in his image of India and the accompanying text belie this label. The image of India shows a monk with strong Caucasian facial features kneeling before a portrait of a woman holding an infant,⁷⁶ which seems to represent the Holy Mother and Child (Figure 6.3). The text makes it even more evident that Cai is describing a form of “Buddhism” unlike any variety hitherto known in China. He writes:

75 Cai Ruxian, *Dongyi tushuo*, 429.

76 Chu Ping-yi has suggested that this may be an image of a Franciscan or Dominican friar. It is possible that Cai Ruxian or someone else whom he commissioned to draw the pictures saw a friar, instead of a Jesuit, who had come to China from India or the Philippines. Based on the accompanying text on Tianzhu 天竺 (India), it is meant to depict a Catholic Christian priest in India. The rope tied around his waist with knots on either end may be a depiction of a Franciscan cord, but the knots are not shown in the multiple in the manner of the typical friar’s cord. However, Daniello Bartoli, S.J. (1608–1685), *Dell’Historia della compagnia di Giesu l’Asia* (Rome: Stamperia d’Ignatio de’ Lazzeri, 1653), vol. 1, carries an image of Francis Xavier, S.J., on its frontispiece, in which he is shown to have a rope similar to this one tied around his waist. Thus the “monk” depicted here may still be a Jesuit. I wish to thank Hui-hung Chen for providing a copy of this image in Bartoli’s text.



FIGURE 6.3 *A monk from India.* Cai Ruxian 蔡汝賢 (jinshi 1568), *Dongyi tuxiang* (東夷圖像 *Illustrations of Eastern Barbarians*, 1586), 414.

COURTESY OF SIKU QUANSHU CUNMU CONGSHU BIANJI CHUBAN GONGZUO WEIYUAN-HUI (四庫全書存目叢書編輯出版工作委員會 COMMITTEE ON THE EDITING AND PUBLICATION OF SKCM), BEIJING.

Tianzhu 天竺 [India] is ancient Sindu. There are five Sindu states, and they are located in the southwestern section of the sea, very far from China. Many of the people there worship the Buddha and become monks. They do not eat animal products and do not kill any living creatures. *They go to worship once in seven days. They recite the scripture before a meal and recite it again afterward. They say this is to thank Heaven... They put [images of] Tianzhu 天主 [the Lord of Heaven] all over their houses*—on their chairs, beds, and utensils, in order to keep their minds focused.⁷⁷

Although Cai includes some typical Buddhist features, such as vegetarianism, in this passage, the religion he is describing is unmistakably Catholicism, which was being rigorously enforced in Portuguese India. Cai's reference to the object of this worship as Tianzhu 天主 (Lord of Heaven) also indicates that he had already been exposed to the new religion that was making its debut in China: the term was first used in this context only in 1583, as a Chinese name for God improvised by a convert of Michele Ruggieri's. Both Ruggieri and Ricci liked the phrase and adopted it from then on, and it remains the signature concept of Chinese Catholicism.⁷⁸

Indeed, Cai Ruxian must have had exactly these first Jesuits in mind when he spoke of the "monks of India" (Tianzhu seng 天竺僧) who were arriving in Macao.⁷⁹ As many previous scholars have pointed out, Ruggieri, who pioneered

77 Cai Ruxian, *Dongyi tushuo*, 426.

78 D'Elia, *Il mappamondo cinese del p. Matteo Ricci, S.I.*, 12–13, n. 1. Ronnie Hsia tells the story about this convert's improvisation of "Tianzhu" 天主 (Lord of Heaven) as a Chinese name for God in Hsia, *A Jesuit in the Forbidden City*, 81–82. Some of the early Chinese Christians were eager to demonstrate that the concept of Tianzhu, or Lord of Heaven, had already existed in ancient Chinese thought, as Ricci and the other Jesuits insisted. See Liu Ning 劉凝 et al., *Jue si lu* (覺斯錄 Records of Awakening to This Truth), reprinted in *Mingmo qingchu yesuhui sixiang wenxian huibian* 明末清初耶穌會思想文獻彙編 (An Expository Collection of the Christian Philosophical Works from the Late Ming and Early Qing) (Beijing: Beijing daxue zongjiao yanjiusuo, 2000), vol. 3: 407–446. On the preexisting usages of the term Tianzhu in Chinese sources, see my long note 108 in Chapter 2.

79 This observation has been made by Tang Kaijian, "Zhongguo xiancun zuizao de ouzhou ren xingxiang ziliao," 27. As mentioned in note 76 above, the priest shown in Cai Ruxian's image of Tianzhu 天竺 in the accompanying *Dongyi tuxiang* may possibly be based on the image of a Franciscan friar. The Franciscans and Dominicans were active in the Philippines, and some of them had gone to Fujian to seek opportunities to open up their own mission field in China. However, the mendicant orders did not come to Macao until 1587. See Christina Cheng, *Macao: A Cultural Janus* (Hong Kong: Hong Kong University Press, 1999), 77.

the Jesuit cultural accommodation policy in China, had settled on the term Xizhu 西竺 as a reference to Europe—literally, a “land west of Zhu 竺 (India),” and the word *seng* 僧 (monk) as a reference to himself (as an equivalent of *padre*). The Jesuits maintained this persona until Ricci’s recognition of the low social prestige of Buddhist monks in Chinese society made him decide to shift into a new role as a scholar from the West (*xishi* 西士 or *xiru* 西儒).⁸⁰ During these early years, the Jesuits often used “Xizhu *seng*” 西竺僧 or even “Tianzhu *seng*” 天竺僧 as their signature in their written communications and published works.⁸¹

80 There have been many studies on this topic; see especially Chan, “Michele Ruggieri, S.J. (1543–1607) and His Chinese Poems”; Li Xinde 李新德, “Cong Xiseng dao xiru: Cong tianzhu shilu kan zaoqi Yesuhui zai hua shenfen de kunjing” (從西僧到西儒—從《天主實錄》看早期耶穌會士在華身份的困境 From Western Monks to Western Scholars: The Dilemmas of Early Jesuit Identity in China as Seen from the *Veritable Record of the Lord of Heaven*), *Shanghai shifan daxue xuebao* (*zhexue shehui kexue ban*) (上海師範大學學報 (哲學社會科學版) Journal of Shanghai Normal University, Philosophical and Social Sciences Edition), no. 1 (2005): 87–92; and Ronnie Po-chia Hsia, “The Jesuit Encounter with Buddhism in Ming China,” in M. Antoni J. Üçerler, ed., *Christianity and Culture: Japan & China in Comparison: 1543–1644* (Roma: Institute Historicum Societatis Iesu, 2009), 19–43.

81 An example of Jesuit reference to Europe as Xizhu 西竺 is Ruggieri’s poem composed during his trip to Zhejiang Province in the winter of 1585 and spring of 1586:

I travel from Europe 西竺 to India 天竺.

A trip of over three years I valiantly began,

Time and again I study the works of the sages and worthies,

And communicate the sacred religion to the laity.

The Chinese reads “僧從西竺來天竺，不憚驅馳三載勞。時把聖賢書讀罷，又將聖教度凡曹。” Cited from Albert Chan, “Michele Ruggieri, S.J. (1543–1607) and His Chinese Poems,” 141 (Chinese text) and 158 (English translation, to which I made modifications). One of the first editions of Ruggieri’s Chinese catechism was entitled *Xinbian xizhuguo tianzhu shilu* (新編西竺國天主實錄 Newly Edited Veritable Record of the Lord of Heaven from the Land of Xizhu, 1584), and is presented as “written by a monk from the state of Tianzhu” (天竺國僧書); it is quoted in Tang Kaijian, “Zhongguo xian-cun zuizao de ouzhou ren xingxiang ziliao.” Ruggieri was sent back to Rome in 1588 to generate support for a diplomatic mission from the Pope to the Ming court (which was never realized), while in Zhaoqing, Ricci and a Chinese scholar composed a communication to the Wanli Emperor in the name of the Pope. The document is entitled “Tianzhu guo jiaohua huang zhi daming huangdi shu” (天竺國教化皇致大明皇帝書 Letter from the Pope of Tianzhu [India] to the Emperor of the Great Ming). See Hsia, “The Jesuit Encounter with Buddhism in Ming China,” 41, citing the Bibliothèque nationale de France, Chinois, 1320 and 9186.

In the following passage at the end of Cai Ruxian's essay on India, we detect echoes of the Jesuit rhetoric about how far they had come and how long it took them to arrive in China:⁸²

[Macao] is a place of trade for all kinds of foreigners. Here barbarian merchants are mixed together, and there is an overabundance of wealth and goods, which inevitably breeds conflict. The barbarians' nature is such that they crave profit; therefore, they are bound to bark at each other. *The monks of India arrived from their country by sailing the seas, and it took them three years to arrive in Macao.* Since these barbarians believe in the monks' doctrine, they follow it in order to keep each other in check. The barbarians observe it closely and do not dare go against it, as they are fearful of divine retribution. Is it not moving to see that the admonitions of a mere monk suffice to discipline the behavior [of such people]?⁸³

Here we see Cai contrasting the "barbarian" merchants of Macao, whose nature it was to crave profit, with these holy monks from India, who had undergone long journeys and even succeeded in transforming these "barbarians" with their doctrine. In this, Cai is articulating an opinion of the early Jesuits, such as Ricci's senior colleague Ruggieri, that was shared by Cai's fellow officials in Guangzhou who were in charge of the maritime trade affairs there. Ruggieri arrived in Macao in 1579 and began to learn Chinese language and culture in preparation for launching a mission in China. He went to the semi-annual trade fairs in Guangzhou with the Portuguese merchants in Macao and was able to charm the Chinese officials he met there with his personality and ability to speak some Chinese. According to Alonso Sánchez, a Spanish Jesuit who visited Ruggieri and other Jesuits in Macao from Manila,

The mandarins did not want them [the Portuguese merchants] to come without a Padre from São Paulo,⁸⁴ because they say that they [the Portuguese] are beasts and wild animals of the fields, with no law or reasoning, and they commit thousands of disturbances when they come by themselves, and that the Padres can control and govern them and keep them in order. They say that these Padres are good people, that they wear long gowns and do not carry weapons like the Portuguese

82 See my discussion of this in the first section of Chapter 2, and also Chapter 2, note 39.

83 Cai Ruxian, *Dongyi tushuo*, 427.

84 São Paulo was a church built by the Jesuits. The construction began in 1582.

merchants, that they are men of peace and reliable and restrain the others.⁸⁵

In his letter from which this excerpt is taken, Sánchez goes on to identify the padre to whom the Chinese officials had shown such favor: he is none other than Ruggieri.

Cai Ruxian's essays examined here, published within three years of the establishment of the first Jesuit mission residence in China, indicate the momentum and extent of the maritime discourses on the wider world among Chinese intellectuals over the course of the sixteenth century. They testify to the liveliness of such discourses and their focus on these newcomers to the maritime world in the South China Sea and the Western Pacific, especially the Folangji. Much knowledge had been gained about these maritime Europeans and the changes to the Old World that they ushered in through their establishment of new maritime trading networks, new colonial states, and a new spiritual landscape arising from their oftentimes forcible spread of Catholicism. But this knowledge they gained was fundamentally flawed: many critical links in the larger picture remained missing. The Chinese did not know, for example, that the Folangji came from an area on earth called Europe, or that the "monks of Tianzhu" and the core constituency of the business community in Macao were connected by geography and history, and that both communities were part of an ongoing European expansion driven by private European merchant groups, the competing ruling elites of their respective states, and the Roman Catholic Church acting in concert with one another.

Cai's essays also allow us glimpses of the peculiar window of opportunity that opened for the Jesuits to start their mission in China during those first years. On the one hand, the Chinese were aware that the Jesuits were somehow materially associated with the "barbarian merchants" in Macao. Fortunately for the Jesuits, the growth of Macao by the 1580s had made the population so diverse that these Portuguese—successors to the Folangji whose shadowy figures continued to haunt the Chinese in the deep recesses of their historical memories—had become increasingly anonymous within the jungle of "barbarians" congregating there, who were now better known collectively to the Chinese by the epithet "Aoyi" 澳夷 (barbarians of Macao).⁸⁶ On the other hand, the Jesuits were perceived as unconnected to these merchants in Macao,

85 Cited in Albert Chan, "Michele Ruggieri, S.J. (1543–1607) and His Chinese Poems," 130–131.

86 In his reference to the inhabitants of Macao, Cai Ruxian used the term *zhuyi* 諸夷 (barbarians of various origins) but not Folangji. For further discussion on the intensified

both in their geographical origin and in their spiritual outlook. They were thought to have come from a different part of the world than the Folangji, from a distant place called “West India,” and were hailed as spiritual masters who kept the wild jungle of Macao under control with their superior religious doctrine. This dichotomy between the holy men from “West India” and the barbarians of Macao drawn by Cai Ruxian and his colleagues in Guangdong opened up a wide social and intellectual space in which the Jesuits were able to pursue their mission in China. However, that space was in part sustained by the ignorance of their Chinese hosts—ignorance both of world geography, especially about the homeland of these maritime Europeans, and of history, particularly the broader forces of European expansion that had brought both the European merchants and the Jesuits to China.

What this meant for the exchange in world geography between the Jesuits and late Ming and early Qing scholars, then, was an inevitable case of “conflict of interest”: although the Chinese continued to engage with these global currents largely from within the confines of their coastlines (and to a lesser extent within the South China Sea and the Western Pacific) and came to rely on the Jesuit missionaries for knowledge about the world beyond, an unreserved transmission of this knowledge to the Chinese—especially knowledge about the history and ongoing processes of this early modern European overseas expansion—would have endangered the very survival of the Jesuits and their mission in China.

The “Folangji Effect”: Jesuit Presentations of Europe and the World as Counter-Myth-Histories

Soon after Ruggieri and Ricci completed the construction of their mission residence in Zhaoqing, Guangdong Province, tensions began to escalate between them and the local townspeople. The favorable treatment the missionaries received from the prefect of Zhaoqing, Wang Pan,⁸⁷ was enough to arouse jealousy among their neighbors, while the missionaries’ frequent contact with the Portuguese community in Macao intensified these neighbors’ suspicion that the missionaries were conspiring to bring the Portuguese merchants inland. Rumors to that effect started to circulate in the neighborhood. Boys began to climb up to the higher floors of the adjacent pagoda and throw rocks down on the roof and into the courtyard of the mission residence. To stop their assault, a servant at the

phenomena of racial diversity and racial mixing in Macao during the late Ming, see Tang Kaijian, “Wanli monian Xiong Mingyu bixia de ouzhou sanguo,” 151.

87 See the discussion of Wang Pan in the first section of Chapter 2 above.

Jesuit residence went out and dragged one of the boys inside to give him a good scolding. Two neighbors who saw this came to plead for mercy on behalf of the boy, and he was let go. The several minutes of “detention” of this boy in the mission house caused Ricci to be brought to the prefectural *yamen* under guard, charged with kidnapping a Chinese boy in order to smuggle him to Macao. A neighbor testified in the *yamen* that the child had been kept in the foreigners’ house for three days, being fed a drug that made him half-conscious.

The case ended well for Ricci because it was none other than Wang Pan, the prefect of Zhaoqing, who presided over the court hearings. Ricci and his men offered their story and produced numerous rocks as evidence, and several neighbors also came forward to speak the truth.⁸⁸ But this was only the first bout Ricci had with the specter of Folangji. It would turn up once and again to haunt him in his later years. In one of those incidents, in Shaozhou, further north in the same province from Zhaoqing, in the summer of 1592, some twenty youths in the neighborhood entered the mission house through the garden in the middle of the night, armed with choppers, torches, and other weapons. During their retreat, the newly arrived Jesuit Francesco de Petris was cut in the head by a chopper, and Ricci got a slice in the hand. Ricci also injured his foot when he climbed out the window to try to get help.⁸⁹ At one of those distraught moments in 1595, Ricci confided in a letter to his superior in Macao, the Portuguese Jesuit Edoardo de Sande, that God had chosen to give him “twelve years of hardship and humiliation.”⁹⁰

In their biographies of Ricci, Jonathan Spence and Ronnie Po-chia Hsia both devote considerable space to examining what might be called the partial martyrdom involved in Ricci’s missionary career in China, which resulted from Chinese suspicions about his possible connections with aggressive foreign powers, especially the Folangji. Spence sums it up this way: “To be in China meant, for Westerners and for Chinese converts alike, to learn to be hated.”⁹¹ Ricci, like his senior colleague Ruggieri, was well aware of the root of their predicament, namely, that while their mission had to depend on Portuguese patronage, their connections with the Portuguese also jeopardized

88 Ricci gave a detailed account of this event in his journals. See Matteo Ricci, *Fonti Ricciane*, vol. 1, NN. 255–261, pp. 201–207, and Ricci and Trigault, *China in the Sixteenth Century*, 160–165.

89 Accounts of these two incidents are based on the stories told in Ronnie Hsia, *A Jesuit in the Forbidden City*, 86–87, and 130–131. Jonathan Spence discusses the second incident and its broader context in his *The Memory Palace of Matteo Ricci* (London: Penguin Books, 1984), 57–58.

90 Spence, *The Memory Palace of Matteo Ricci*, 56.

91 Spence, *The Memory Palace of Matteo Ricci*, 50.

their mission because of the difficult beginnings of the Sino-Portuguese relationship and the lingering specter of Folangji in the Chinese consciousness.⁹² Apparently Ricci had studied the history of these early encounters between the Chinese and the Portuguese, whose Chinese name, Folangji, he correctly noted. In his journals he presented an essentially balanced account of that history:

The Portuguese first arrived off the southern coast of China and the inhabitants there called them Franks, the name given by the Saracens to all Europeans. But the Chinese having no liquid R in their language, and never using two consonant sounds without a vowel sound between, pronounced the word Folangji, as it is still pronounced in the Province of Guangdong. They afterwards gave the same name to our European instruments of war. They were persuaded that these Franks, robust warriors that they were and conquerors of nations, placed no boundaries to their empire save the ultimate confines of the world. They had heard of Melaka and of India, conquered by the Europeans under the pretext of trading. Their suspicions, not wholly void of reason, prevented the entrance of a Portuguese legation as soon as it was suggested.⁹³

Ricci and other Jesuits' ambivalence toward the Portuguese community in Macao, already noted by many previous scholars,⁹⁴ highlights the Chinese

92 As early as January 1584, Ruggieri had noted that he and other Jesuits in China had to be extremely cautious not to invite any associations with the Portuguese or Spanish merchant communities in the minds of the Chinese. See his letter to the Jesuit General Claudio Acquaviva (1543–1615) dated January 25, 1584, in Ricci, *Opere storiche del P. Matteo Ricci, S.I.*, edited by Pietro Tacchi Venturi (Macerata: Premiata Stabilimento Tipografico Avv. Filippo Giorgetti, 1911–1913), 2: 420.

93 Ricci and Trigault, *China in the Sixteenth Century*, 128; translation quoted with slight modification.

94 On the China Jesuits' dependence on Macao, see Golvers, "2.1.1, Section on Finances of the Mission," and Liam Brockey, *Journey to the East: The Jesuit Mission to China, 1579–1724* (Cambridge, Mass.: Harvard University Press, 2007), especially 63–65 and 101. On the relationship between the Jesuits and the Portuguese in Macao seen in the late Ming context, see Timothy Brook, "The Early Jesuits and the Late Ming Border: The Chinese Search for Accommodation," in Wu Xiaoxin, ed., *Encounters and Dialogues: Changing Perspectives on Chinese-Western Exchanges from the Sixteenth to Eighteenth Centuries* (Sankt Augustin: Institut Monumenta Serica, 2005), 19–38, and Kirifuji Kaoru (Tong Tengxun) 桐藤熏, "Mingmo yesuhui chuanjiaoshi yu Folangji: Chianjiaoshi shi qinlue zhe guannian de xingcheng" (明末耶穌會傳教士與佛郎機: 傳教士是侵略者觀念的形成 The Jesuit Missionaries and Folangji in the Late Ming: Formation of the Perception That the

maritime context for the Jesuit world geographical and cartographical endeavors. In Chapter 2, we have seen how Ricci tried to propagate the notion of the globe and an idealized image of Europe in order to “de-center” China enough in the minds of his Chinese audience to make room for the acceptance of Western Christendom as a model civilization. Here we see that his Chinese world map did more than just that. In Ricci’s own words,

There was another [result], and of no less importance. When they saw on the map what an almost unlimited stretch of land and sea lay between Europe and the Kingdom of China, that realization seemed to diminish the fear our presence had occasioned. Why fear a people whom nature had placed so far away from them, and *if this geographic fact of distance were generally known by all the Chinese, the knowledge would serve to remove a great obstruction to the spread of the Gospel throughout the kingdom*. Nothing has impeded our work more than clouds of suspicion.⁹⁵ (emphasis added)

Reading this passage in Ricci’s journals, one gets the impression that an objective presentation of world geographical facts alone would alleviate the Chinese of their anxieties about the Jesuits. But the reality was not quite so simple. Knowledge of the remoteness of Europe would not suffice to assuage the fears of his Chinese audience, and Ricci most likely realized that, for hadn’t the Portuguese conquered India and Melaka and plundered the coast of Southern China *in spite of* the vast geographical distance separating their homeland from Asia? Hadn’t the Spaniards done the same to the Aztec and Inca empires in the Americas, and the Philippine islands in the Pacific, *in spite of* such distances? Therefore, what would work for the Jesuits was a presentation of Europe and of contemporary world affairs that completely disconnected the Folangji’s operations in their Asian theater from their European home bases, eliding their tremendous role in the making of the early modern world. Based on the evidence of Ricci’s world maps and later Jesuits’ world geographical texts, we can say that this seems to have been precisely what the Jesuits tried to do.

Ricci’s Segregation of Folangi from Europe on His Chinese World Map

In one of the first and most thorough studies of Ricci’s world maps yet published, the 1938 *Il mappamondo cinese del p. Matteo Ricci, S.I.* (The Chinese

Missionaries Are Aggressors), translated from the Japanese by Wang Mingwei 王明偉, *Shixue jikan* (史學集刊 Collected Papers in History Studies), no. 3 (2011): 68–74.

95 Ricci and Trigault, *China in the Sixteenth Century*, 167–168.

World Map of Matteo Ricci, S.J.), Jesuit scholar Pasquale M. D'Elia observed something strange in Ricci's rendering of the name of Portugal on his "Complete Geographical Map of Ten Thousand Countries" (Kunyu wanguo quantu): it vacillated between the Chinese appellation, Folangji 佛郎機, and the transliteration of "Portugal," Boerduwaer 波爾杜瓦爾.⁹⁶ However, D'Elia mentioned this only in passing and offered no elaboration or explanation for this exceedingly interesting phenomenon. On this map, the references to Portugal as Folangji appear on two sites, all within the perimeters of the Pacific and Indian Oceans. One is in the legend on Magellan, which is written on the part of the mythical southern continent of "Magellanica" that borders the southeastern corner of the Pacific and is just south of the Strait of Magellan (Figure 6.4). It says:

Mowalani 墨瓦蠟泥 [Magellan] is the name of a native of Folangji. He passed through this strait sixty years ago and arrived at this land. Therefore, gentlemen from Ouluoba 歐羅巴 [Europe] named the strait, the sea, and the land after him.⁹⁷

The other is the legend on the Land of Parrots 鸚哥地 (Yingge di), the area on the same mythical southern continent that is located right below the Cape of Good Hope. The legend is written in the sea south of the Cape of Good Hope (Figure 6.5). It reads:

Folangji merchants used to sail across this sea. They spotted the Land of Parrots but did not dock there [to investigate it].⁹⁸

The name Boerduwaer 波爾杜瓦爾 (Portugal) appears twice on the map, both in and near Europe. One is written over the land of Portugal (Figure 6.6). The other occurs in the legend on Mudao 木島 (literally, the "Islands of Trees"), which is Ricci's translation for Madeira, a Portuguese archipelago approximately 350 miles west of Morocco (Figure 6.7). The legend goes:

96 D'Elia presented this in comparison with some other features of the map he observed and referred to this phenomenon as "cosa piu strana ancora" (something stranger still). See D'Elia, *Il mappamondo cinese del p. Matteo Ricci*, 102.

97 The Chinese reads "墨瓦蠟泥系佛郎機國人姓名。前六十年始過此海峽並至此地。故歐羅巴士以其姓名名峽、名海、名地。" Ricci, "Kunyu wanguo quantu," in idem, *Li Madou zhongwen zhuyi ji*, 204. Here and below, Ricci uses "幾" instead of "機."

98 The Chinese reads "佛郎幾商曾駕船過此海、望見鸚哥地而未就帕。" Ricci, "Kunyu wanguo quantu," in idem, *Li Madou zhongwen zhuyi ji*, 213.

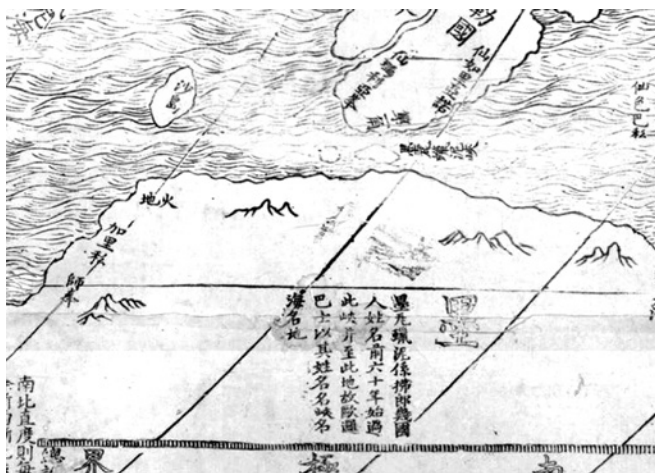


FIGURE 6.4 The legend on Magellan (Mowalani 墨瓦臘泥). Detail of Matteo Ricci's (Li Madou 利瑪竇, 1552–1610) “Complete Geographical Map of Ten Thousand Countries” (*Kunyu wanguo quantu* 坤輿萬國全圖), 1602 (see Figure 2.1).
COURTESY OF THE JAMES FORD BELL TRUST.



FIGURE 6.5 The legend on the Land of Parrots (Yingge di 鸚鵡地). Detail of Matteo Ricci's “Complete Geographical Map of Ten Thousand Countries” (*Kunyu wanguo quantu* 坤輿萬國全圖), 1602 (see Figure 2.1).
COURTESY OF THE JAMES FORD BELL TRUST.



FIGURE 6.6 Section of Western Europe showing Portugal (Boerdurwaer 波爾杜瓦爾). Detail of Matteo Ricci's "Complete Geographical Map of Ten Thousand Countries" (*Kunyu wanguo quantu* 坤輿萬國全圖), 1602 (see Figure 2.1).
COURTESY OF THE JAMES FORD BELL TRUST.

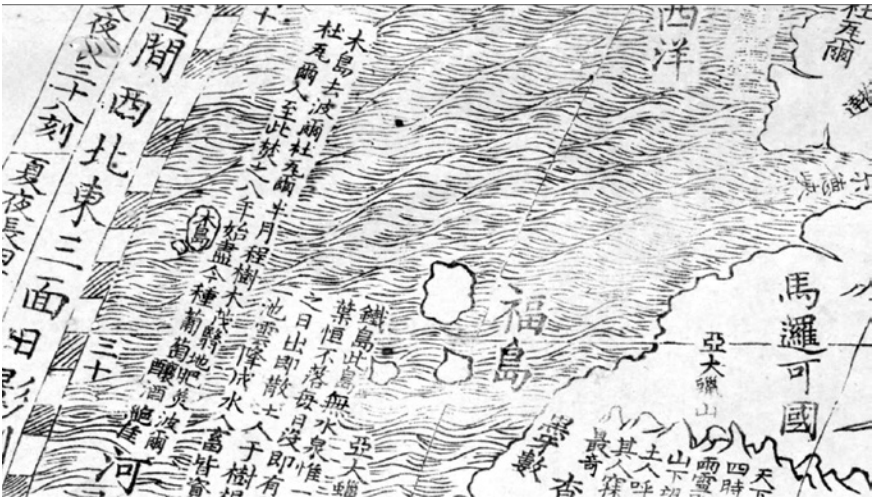


FIGURE 6.7 The Madeira Islands (Mudao 木島, "Islands of Trees"). Detail of Matteo Ricci's "Complete Geographical Map of Ten Thousand Countries" (*Kunyu wanguo quantu* 坤輿萬國全圖), 1602 (see Figure 2.1).
COURTESY OF THE JAMES FORD BELL TRUST.

The Madeira archipelago is half a month's sail away from Boerduwaer. [Here] the trees grow exuberantly, and the land is fertile and scenic. People of Boerduwaer arrived here and burned all the trees, [a job which] took eight years to finish. Now grapevines are planted, and the wine made from the grapes here is absolutely superior.⁹⁹

Without prior knowledge of the European origin of the Folangji—as was the case with Ricci's Chinese audience—readers of Ricci's map would hardly have been able to deduce that the land and people of Folangi belong to Europe, much less that they are to be identified with Portugal, or Boerduwaer 波爾杜瓦爾. The only clue is in the legend on Magellan, quoted above, where the terms Folangji and Ouluoba 歐羅巴 (Europe) appear together (see Figure 6.4). But even here, the wording of the legend makes it entirely conceivable that they are two mutually exclusive categories. This is especially so because of how the concept of Ouluoba, or Europe in general, was used by the Jesuits and their Chinese respondents. As Timothy Brook, Pang Naiming, and others have pointed out, this concept was so fluid that it sometimes referred to a whole continent consisting of many countries and at other times was construed as a single political state.¹⁰⁰ This semantic ambiguity sprang largely from the fact that the Jesuits presented Europe with a view to fashioning a collective identity of Western Christendom vis-à-vis China.¹⁰¹ They did so by applying a variety of labels to it. Where the distinct and superior civilization of Europe was stressed, they frequently used the name Ouluoba. When they accentuated Europe's westerly location and vast distance from China, they often used terms such as Da Xiyang 大西洋 (Great Western Ocean), Xiguo 西國 or Da Xiguo 大西國 (Western State or Great Western State), Xitu 西土 (Western Land), Taixi 泰西 (Great West), Yuanxi 遠西 (Far West), and Jixi 極西 (Extreme West).¹⁰²

Concomitantly, the Jesuits provided little precise information about specific European countries. Ricci's own identity as author in his published works serves to illustrate this tendency. On this world map, for example, he never refers to himself as a citizen of the Papal States or Italy. Instead, where he does identify his geographical origin, he adds the modifier "Ouluoba ren" 歐羅巴人

99 The Chinese reads “木島去波爾杜瓦爾半月程、樹木茂翳、地肥美、波爾杜瓦爾人至此焚之、八年始盡。今種葡萄、釀酒絕佳。” Ricci, “Kunyu wanguo quantu,” in idem, *Li Madou zhongwen zhuyi ji*, 214.

100 Brook, “Europacology?” and Pang Naiming, *Mingdai zhongguoren de ouzhou guan*, 80–88.

101 Brook, “Europacology?” 284.

102 Pang Naiming, *Mingdai zhongguoren de ouzhou guan*, 80–88.

(Man of Europe) in front of his name “Li Madou” 利瑪竇.¹⁰³ Furthermore, the Jesuits themselves often attached the Chinese character *guo* 國 (country, state or polity) to the above-mentioned terms they used for Europe.¹⁰⁴ Thus it is not surprising that Li Zhizao 李之藻, who sponsored the printing of this 1602 edition of Ricci’s world map, wrote a preface for the map in which he refers to Ricci’s European home state as “biguo Ouluoba” 彼國歐羅巴 (literally, “his country, Europe”).¹⁰⁵

Indeed, we can gauge just how a typical Chinese associate of Ricci’s grasped the relationship between Folangji and Europe from the following preface by Wu Zhongming 吳中明 (1556–1617, *jinshi* 1586), originally written for the second edition of Ricci’s map published in 1600 and carried over onto this third edition of 1602.¹⁰⁶ This preface appears in the southeastern corner of the Pacific Ocean near the Strait of Magellan. It explains how Ricci was able to gather all the information to create such a map:

Mountain Recluse Li [Ricci],¹⁰⁷ who came from Ouluoba to China, has published a “Complete Geographical Map of the Mountains and the Seas” that many scholars have undertaken to circulate widely. I asked him about the Map and [was told that] everything on it was based upon old books printed in his country. The fact is that *fellow-citizens of his country*

103 See, for example, Ricci’s signatures at the end of his essay entitled “Lun diqiu bi jiuchongtian zhi xing yuan qie da jihe” (論地球比九重天之星遠且大幾何 On the Sizes and Distances of the Stars on the Nine Heavens Relative to the Earth), and at the end of his “Ba” (跋 Postscript), in Ricci, “Kunyu wanguo quantu,” both in idem, *Li Madou zhongwen zhuyi ji*, 178 and 183.

104 For example, in Ricci’s memorial to the Wanli Emperor he presented himself as “envoy of the tributary state of the Great Western Ocean” (Daxiyang guo peichen 大西洋國陪臣), which had the effect of turning Europe (the “Great Western Ocean”) into a single country. The same can be said of the title of his work on Western mnemonics, *Xiguo jifa* (西國記法, literally, “Mnemonic Methods of the Western State,” published in Nanchang, 1596).

105 Ricci, “Kunyu wanguo quantu,” in idem, *Li Madou zhongwen zhuyi ji*, 179.

106 For a brief biography of Wu Zhongming 吳中明 (1556–1617), see the personal blog of Qian Maowei 錢茂偉, citing *Wanli shisi nian bingmao ke jinshi lüli bianlan* (萬曆十四年丙戌科進士履歷便覽 Biographical Overviews of Jinshi Degree-Holders of Bingmao, the Fourteenth Year of the Reign of the Wanli Emperor), accessed on 12/23/2013 at: http://blog.sina.com.cn/s/blog_4dade78b01018zws.html. According to Ricci, he produced the enlarged, second edition of his world map in 1600 at the request of Wu Zhongming. See D’Elia, “Recent Discoveries and New Studies (1938–1960) on the World Map in Chinese of Father Matteo Ricci, S.J.,” 90.

107 I have chosen to render 山人 (“man of the mountains”) almost literally. The term was used in the late Ming as a reference to scholars and artists who shunned worldly ambitions.

and those of Folangji 其國人及拂郎機國人 love long voyages, and whenever they pass through remote lands, they write down their impressions and pass them along. With the gradual accumulation of such knowledge over many years, the result is that they have been able to acquaint themselves fairly well with the general shape of the earth.¹⁰⁸ (emphasis added)

Seen in hindsight, these “fellow-citizens of his [own] country and those of Folangji” can easily be taken as “the Italians and Portuguese.” Indeed, this is how d’Elia understood it.¹⁰⁹ But neither Ricci in his entire map nor Wu Zhongming in this preface makes any mention of Ricci as coming from Italy. As far as we can tell from the context of the preface, Wu understood that Ricci came from Europe (Ouluoba), which here stands for the name of a *guo* 國 (country or state). The word *guo* 國 was used loosely in the late Ming context, to designate any distinct political, cultural, or ethnic realm of existence; nevertheless, based on the structure of Wu’s phrase “fellow-citizens of his country and those of Folangji,” Ricci’s *guo* of Ouluoba could not have encompassed Folangji.

Thus the effect of Ricci’s usage of Folangji in the Indian Ocean and the Pacific, and of Boerdwae in the Atlantic Ocean and on the continent of Europe, is evident: it segregated the Realpolitik of European colonialism operating in Asia, the consequences of which the Chinese had known and come to associate with Folangji, from the land of Europe, which stood on Ricci’s world map as a model of the Confucian Utopia.¹¹⁰ Could this “strange” inconsistency in Ricci’s rendering of the name of Portugal have come about through his misunderstanding of the Chinese term Folangji? This does not seem likely, judging from Ricci’s account of the Sino-Portuguese relationship and explication of the term Folangji quoted earlier. Rather, what we see here is another indication that in crafting this world map, Ricci’s priority was not to convey all the available world geographical facts to his Chinese readers, badly as they needed those facts to complete their puzzle. Instead, his priority was to manage the image of European Christendom over and against the actual and potential damage done to it by the overseas conduct of European colonizers, explorers, and merchants. The more the Folangji and the colonial apparatus of Portuguese

108 The Chinese reads “利山人自歐羅巴入中國、著《山海輿地全圖》、薦紳多傳之。餘訪其所為圖、皆彼國中鏤有舊本。蓋其國人及拂郎機國人皆好遠遊、時經絕域、則相傳而志之、積漸年久、稍得其形之大全。” Ricci, “Kunyu wanguo quantu,” in idem *Li Madou zhongwen zhuyiji*, 223; translation partially adapted from D’Elia, “Recent Discoveries and New Studies,” 93–94.

109 See D’Elia, “Recent Discoveries and New Studies,” 91.

110 See the discussion of Ricci’s idealized image of Europe at the end of Chapter 2 above.

Asia—and that of the Spaniards in the Philippines—undermined the Jesuit mission of bringing the Gospel to China, the more urgent it became for Ricci and his fellow Jesuits to intellectually ostracize these European agents of war and aggression and exaggerate the cultural achievements of Europe itself. For lack of a better term, we can call this practical but vital constraint on the Jesuit world geographical discourse in China the “Folangji effect.”

In this connection, we do know for a fact that Ricci and his closest Chinese collaborators “ostracized” the Spaniards in the Philippines from Western Christendom shortly after learning that they had killed almost the entire Chinese population of Manila in the fall of 1603, in a massacre in which more than 20,000 Chinese perished.¹¹¹ Afraid that this might cause a violent backlash against the Jesuits and the convert community in China, Ricci discussed the matter with the court official Xu Guangqi 徐光啟 (1562–1633, a convert and member of Ricci’s inner circle), who came up with an ingenious and ingenuous solution: he began to spread the word everywhere in the capital that the

111 This incident was triggered by the arrival of three Chinese officials in Luzon sent by the Wanli Emperor. The emperor, whose imperial coffers had been much depleted by the Ming military intervention on the Korean peninsula to assist the Chosŏn dynasty in repelling a Japanese invasion, responded to a false report about a mountain of gold there, where gold was said to grow on trees, by sending these officials there to investigate. The Ming court and the officials it sent to Manila acted in total disregard of the Spaniards’ self-acclaimed sovereignty over the archipelago. The Spaniards considered this not only an affront but also a threat from the Ming, since they were far outnumbered by the ethnic Chinese residents in Manila. They planned out the massacre to prevent an attack on them by the Chinese from both the inside and outside. After the departure of the Chinese officials, the Catholic Church joined hands with the colonial regime, which rounded up and massacred almost the entire Chinese population in Manila. More than 20,000 Chinese perished. Such large-scale massacres occurred again in 1639 and 1662. For an account of Chinese relations with the Spaniards in Manila during the Ming, see Wills, “Maritime Europe and the Ming,” 51–61. For further studies of the massacre of 1603, see José Eugenio Borao, “The Massacre of 1603: Chinese Perception of the Spanish in the Philippines,” *Itinerario* 22, no. 1 (1998): 22–40; and Zhang Bincun 張彬村, “Meizhou bai yin yu fu nu zhen jie: 1603 nian manila datusha de qianyin yu houguo” (美洲白銀與婦女貞潔: 1603年馬尼拉大屠殺的前因與後果 American Silver and Female Chastity: Causes and Consequences of the Manila Massacre in 1603), in Zhu Delan 朱德蘭, ed., *Zhongguo haiyang fazhanshi lunwen ji* (中國海洋發展史論文集 Collection of Papers on the History of Chinese Maritime Development) (Taipei: Academia Sinica, Zhongshan ren wen shehui kexue yanjiu zuo, 2002), 3: 295–326. On the role of the Catholic Church in the massacre, see Xianqing Zhang, “Trade, Literati and Mission: The Catholic Social Network in Late Ming: Southern Fujian,” in M. Antoni J. Üçerler, ed., *Christianity and Culture: Japan and China in Comparison: 1543–1644* (Roma: Institute Historicum Societatis Iesu, 2009), 186–187.

Spaniards were not followers of the same sacred religion as the Jesuits, for their god was called Dios, whereas the God preached by the Jesuits is known as Deus.¹¹² Urgent circumstances in the China mission thus forced Ricci to allow for such a narrow definition of his religion, one that obfuscated rather than illuminated the truth. There is no reason he could not have done the same in the legends included on his Chinese world maps.

*Giulio Aleni (1582–1649), Ferdinand Verbiest (1623–1688),
and the Anti-Christian Movements in China*

Later Jesuits in China who ventured into world geography followed Ricci's example in presenting an image of the world that featured China and Western Christendom as its twin centers. Their works brought into focus a European civilization that rivaled, if not surpassed, China in its material and cultural accomplishments and its transformative influences on the uncivilized world. Two sets of Chinese works formed the core of this Jesuit world geographical discourse in the post-Ricci era. One set consists of the missionaries' Chinese world maps and geographical treatises. The other consists of writings about Europe created with the express intent of introducing European geography, culture, and customs to the Chinese audience. The most influential Jesuit authors in these areas were Giulio Aleni and Ferdinand Verbiest. Aleni was the author of a Chinese world map entitled "Complete Map of Ten Thousand Countries" (Wanguo quantu 萬國全圖, 1623); the world geographical treatise *Records of Lands beyond the Jurisdiction of the Imperial Geographer* (Zhifang waiji), already discussed in Chapter 5; a treatise introducing the curriculum of European universities, *An Overview of Western Learning* (Xixue fan 西學凡, 1623),¹¹³ and a brief, general introduction to Western Europe entitled *Questions and Answers about the West* (Xifang dawen 西方答問, 1637/1642).¹¹⁴ Verbiest created a large world map entitled "Complete Map of the World" (Kunyu quantu 坤輿全圖, 1674) and wrote a treatise on world geography and natural history, *Illustrated Account of World Geography* (Kunyu tushuo 坤輿圖說, 1674), an abbreviated version of which also appeared two years later under the title *A Brief Account of the Inquiries into World Geography* (Kunyu gezhi lueshuo

112 In a letter written in 1605 to Father Ludovico Maselli, S.J., Ricci wrote about the Manila massacre. He told Maselli: "On this matter I only discussed with Paul [i.e., Xu Guangqi]. He gave us a lot of help by telling people that our religion and that of the Spaniards are not the same one. They called their God Dios, while we call ours in Portuguese [*sic*] Deus." See Ricci, *Lettere*, 378–379.

113 Aleni, *Xixue fan* (西學凡 *An Overview of Western Learning*, 1623), in *TXCH*, vol. 1: 9–59.

114 For a translation and study of this text, along with a reprint of the full Chinese originals, see John L. Mish, "Creating an Image of Europe for China: Aleni's *Hsi-Fang Ta-Wen* 西方答問. Introduction, Translation, and Notes," *Monumenta Serica* 23 (1964): 1–87.

坤輿格致略說).¹¹⁵ The world geographical contents of *Illustrated Account of World Geography* was developed on the basis of Aleni's *Records of Lands beyond the Jurisdiction of the Imperial Geographer*. In addition, Verbiest wrote a treatise entitled *Summary Records of the West Presented for Imperial Review* (Yulan xifang yaoji 御覽西方要紀, 1669) together with Lodovico Buglio (Li Leisi 利類斯, 1606–1682) and Gabriel de Magalhães (An Wensi 安文思, 1610–1677),¹¹⁶ which is an expanded version of Aleni's *Questions and Answers about the West*.

It is important to note that, although Aleni's and Verbiest's works were written in direct response to Chinese interest in these subjects,¹¹⁷ they were also closely aligned to the Jesuits' urgent practical agenda at the moment of their production. These texts were written during, or right after, the three most severe anti-Christian movements in the late Ming and early Qing: (1) Aleni's

115 For studies of Verbiest's works in this area, see Walravens, "Father Verbiest's Chinese World Map (1674)"; Minsun Chen, "Ferdinand Verbiest and the Geographical Works by Jesuits in Chinese"; Tongyang Lin (Lin Dongyang), "Ferdinand Verbiest's Contribution to Chinese Geography and Cartography," in Witek, ed., *Ferdinand Verbiest*, 135–164; and Lai Yu-chih (Lai Yuzhi), "Zhishi, xiangxiang yu jiaoliu." Besides Aleni and Verbiest, two other Jesuits also produced world maps in Chinese: Francesco Sambiasi was the author of "Complete Map of the World" (Kunyu quantu 坤輿全圖, ca. 1639); and Adam Schall created a world map of twelve sheets with no title, which is included in his "Explanation of the Armillary Sphere" (Huntian yi shuo 渾天儀說, preface 1636). For further studies of Sambiasi's map, see Ann Heirman, "An Introduction to the World Map of Francesco Sambiasi (1582–1649)," *Annali dell'Istituto Universitario Orientale di Napoli* 60–61 (2000–2001): 365–373; and Ann Heirman, Paolo de Troia, and Jan Parmentier, "Francesco Sambiasi, a Missing Link in European Map Making in China?" *Imago Mundi* 61, no. 1 (2009): 29–46. See also Foss, "Jesuit Cartography"; and Hui-Hung Chen, "The Human Body as a Universe."

116 I consulted Borg. Cinese 350 (11), the copy held at the Vatican Library of Ferdinand Verbiest, Lodovico Buglio, and Gabriel de Magalhães, *Yulan xifang yaoji* (御覽西方要紀 *Summary Records of the West Presented for Imperial Review*, 1669).

117 Aleni's *Records of Lands beyond the Jurisdiction of the Imperial Geographer* was the completed and augmented version of a world geographical text commissioned by the Ming court and drafted by two Jesuits, Diego de Pantoja and Sabbathin de Ursis, in the early 1610s. Aleni completed the project with the assistance of Yang Tingyun in Hangzhou. Similarly, Verbiest's collaborated treatise, *Summary Records of the West Presented for Imperial Review*, which was based on Aleni's *Summary Records of the West Presented for Imperial Review*, states at the beginning that it was written after the Kangxi Emperor inquired about the land, customs, and habits of Western countries. The text was meant to serve as systematic answers to such questions. For details about the context of the production of Aleni's *Records of Lands beyond the Jurisdiction of the Imperial Geographer*, see my discussion in the first section of Chapter 5. For the context of the production of Verbiest's text, see Verbiest, Buglio, and Magalhães, *Yulan xifang yaoji*, 1a.

Records of Lands beyond the Jurisdiction of the Imperial Geographer was composed in 1623, immediately after the passing of the storm of the Nanjing Affair (also known as Nanjing Persecution, 1616–1623). (2) His *Questions and Answers about the West* (1637/1642) was written in the midst of an anti-Christian movement occurring in Zhejiang and Fujian in the 1630s and early 1640s, which was much aggravated by the public outrage at another Spanish massacre of some 23,000 Chinese residents in Manila in 1639. Aleni had been active in both provinces, especially Fujian, where he had been stationed since 1625, and some of the anti-Christian polemics published during this movement singled him out as their express target. He was even arrested in 1637, though his Chinese associates soon negotiated for his release.¹¹⁸ (3) Finally, the several works on European culture and world geography (co)authored by Verbiest came after the eventual triumph of the surviving Jesuits (including himself) who had been involved in the Calendar Case of 1664–1665, through the Kangxi Emperor's overturn of his regents' verdict in the winter of 1668–1669.¹¹⁹

The chief opponents of the Jesuits in these anti-Christian movements consistently highlighted the Jesuits' connection to Folangji and cited it as a major reason that the padres' presence and activities in China posed a security threat to the empire. Shen Que 沈樞, the Vice-Minister of Rites in the southern capital of the Ming, who launched the Nanjing Affair, submitted three memorials to the Wanli Emperor in the fifth, eighth, and twelfth months of 1616, in which he brought a series of accusations against the Jesuits that focused on demonstrating the ulterior design of their mission in China. Just as many of Shen's arguments were echoed in the polemic literature published during the second and third anti-Christian movements,¹²⁰ so Aleni's responses to these arguments in his

118 For Aleni's activities in Fujian during this period, see L. Carrington Goodrich, "Aleni, Giulio," in Goodrich and Chaoying Fang, eds., *Dictionary of Ming Biography, 1368–1644* (New York: Columbia University Press, 1976), vol. 1: 4. For an example of anti-Christian polemics targeting Aleni, see Su Jiyu 蘇及禹, "Xiedu shiju" (邪毒實據 Verified Proofs of Heterodox Poisons), in Xu Changzhi 徐昌治, ed., *Shengchao poxie ji* (聖朝破邪集 Collected Essays Exposing Heterodoxy, 1639), *juan* 3, reprinted in Xia Guiqi, ed., *Jidu jiao yu zhongguo wenhua congkan zhi yi*, 178–182. These anti-Christian polemics are the subject of Jacques Gernet, *China and the Christian Impact: A Conflict of Cultures*, translated by Janet Lloyd (Cambridge: Cambridge University Press, 1985). Xianqing Zhang has discussed the role of maritime merchant networks connecting Fujian and Luzon in this movement in his "Trade, Literati and Mission," 186–191.

119 For further details on the Calendar Case, see Chapter 4 above.

120 For examples of how later polemic writers reproduced Shen Que's 沈樞 arguments, see Su Jiyu, "Xiedu shiju," in Xu Changzhi, ed., *Shengchao poxie ji*; and Yang Guangxian, *Budeyi fu er zhong* 89.

Records of Lands beyond the Jurisdiction of the Imperial Geographer also served as a model for his own later *Questions and Answers about the West*, and these two works by Aleni in turn constituted the respective cores of Verbiest's *Illustrated Account of World Geography* and his co-authored treatise *Summary Records of the West Presented for Imperial Review*. Due to space constraints, we examine closely here only the case of the Nanjing Affair and its effect on the thematic outlook of Aleni's *Records of Lands beyond the Jurisdiction of the Imperial Geographer*.

In his first memorial to the emperor, Shen Que charged the Jesuits with daring to call their own country Da Xiyang 大西洋 (the Great Western Ocean) in defiance of Daming 大明 (the Great Ming), and of spreading their heterodox doctrine in the name of none other than Tianzhu 天主 (the Lord of Heaven). He also alluded to the possibility that the missionaries were spying for their home state. He asked: "Since they claim that their homeland is 80,000 *li* from China, how is it that they have funds continuously come to them? Who has been transmitting the funds?"¹²¹ By the ninth month of 1616, the two Jesuits at the Nanjing mission residence, Alfonso Vagnoni (then known as Wang Fengsu 王豐肅 in Chinese) and Álvaro Semedo (Zeng Dezhao 曾德照, 1585–1658), their two Chinese Jesuit coadjutants, and twenty-three local Christians had been imprisoned and interrogated.¹²² Records from the interrogations showed that the missionaries had been asked how they acquired their funds, and that Vagnoni had said that they received funds from their homeland, Xiyangguo 西洋國 (literally, "Western Ocean State"), once a year, which were brought to Macao by their boats going there to trade.¹²³

In his third memorial to the emperor, Shen reported yet another new finding about the missionaries' home state, the so-called Great Western Ocean:

Lately I inquired in detail of the people in coastal Fujian who knew their native place, and they said that they really are Folangji. The original name of Wang Fengsu 王豐肅 [Alfonso] is Balilangdang 巴里狼當 [Vagnoni]. In former years he and his colleagues pretended that they were Catholics preaching their religion, but instead they deceived the King of Luzon, took away his land, and changed its name to the "Great Western Ocean." So, after all, they are a shrewd barbarian state just next door to Fujian and

121 Shen Que 沈樞, "Cai yuanyi shu" (參遠夷疏 Memorial against the Distant Barbarians, fifth month of 1616), in Xu Changzhi, ed., *Shengchao poxie ji*, juan 1, 62.

122 Brockey, *Journey to the East*, 68.

123 "Huishen Wang Fengsu deng fan yi an" (會審王豐肅等犯一案 Records of Interrogation of Wang Fengsu [Alfonso Vagnoni] and Other Criminals), in Xu Changzhi, ed., *Shengchao poxie ji*, juan 1, 75.

Guangdong. How can it be 80,000 *li* away? Although your subject could not take what he heard from these people for a certain fact, [our present situation] is like having [enemies'] arms hidden near us beneath the grasses; there is no telling what harm they intend to bring us.¹²⁴

Here Shen Que presented to the emperor his tentative conclusion concerning who the Jesuits were: agents of the same Folangji who had recently dispossessed the native king of Luzon and renamed his country the "Great Western Ocean." Thus their current base of operation was not really 80,000 *li* but only days away by boat. The Wanli Emperor now recognized the seriousness of the situation and responded to Shen's memorials with an edict to expel the missionaries from China.¹²⁵

124 Shen Que, "Cai yuanyi sanshu" (參遠夷三疏 Third Memorial against the Distant Barbarians, twelfth month of 1616), in Xu Changzhi, ed., *Shengchao poxie ji*, juan 1, 66–67.

125 This edict mostly affected the missionaries working in the northern and southern capitals but was not very successful in the provinces. This is because many Jesuit missionaries, including Aleni, were sheltered by their Chinese associates who were powerful officials. For Aleni's life during this time of hiding, see Goodrich, "Aleni, Giulio," in Goodrich and Fang, eds., *Dictionary of Ming Biography*, vol. 1: 3. For an account of the Nanjing Affair and assessment of its consequences for the Jesuit mission, see Brockey, *Journey to the East*, 66–73. There are a large number of secondary studies on this incident. Some representative works include Zhang Weihua 張維華, "Nanjing Jiaoran shimo" (南京教案始末 The Beginning and End of the Nanjing Case of the Anti-Christian Movement), *Qida yuekan* (齊大月刊 Qida Monthly) 1, nos. 2–3 (1930): 93–106; Douglas Lancashire, "Anti-Christian Polemics in Seventeenth-Century China," *Church History* 38, no. 2 (1969): 218–241; Edward Thomas Kelly, "The Anti-Christian Persecution of 1616–1617 in Nanking," Ph.D. dissertation, Columbia University, 1971; Erik Zürcher, "The First Anti-Christian Movement in China (Nanking, 1616–1621)," in P.W. Pestman, ed., *Acta Orientalia Neerlandica* (Leiden: Leiden University, 1971), 188–195; Wan Ming 萬明, "Nanjing jiaoran xintan" (南京教案新探 New Inquiries into the Nanjing Case of Anti-Christian Movement), in Wang Chunyu 王春瑜, ed., *Mingshi luncong* (明史論叢 Symposium on Ming History), 141–155 (Beijing: Zhongguo shehui kexue chubanshe, 1997); Adrian Dudink, "Nangong Shudu (1620), Poxieji (1640), and Western Reports on the Nanking Persecution (1616–1617)," *Monumenta Serica* 48 (2000): 133–265, and idem, "Opposition to Western Science and the Nanjing Persecution," in Catherine Jami et al., eds., *Statecraft and Intellectual Renewal in Late Ming China: The Cross-Cultural Synthesis of Xu Guangqi (1562–1633)* (Leiden: Brill, 2001), 191–223; Zou Zhenhuan 鄒振環, "Mingmo Nanjing jiao'an zai zhongguo jiao'an shi yanjiu zhong de 'Fanshi' yiyi—Yi Nanjing jiao'an de fanjiao yu 'poxie' moshi wei zhongxin" (明末南京教案在中國教案史研究中的"範式"意義—以南京教案的反教與"破邪"模式為中心 The Nanjing Case of Anti-Christian Movement in the Late Ming as a Paradigm for the Study of the History of Chinese Anti-Christian Movements, with a Focus on the Models of Resisting Christianity and "Destroying Heterodoxy" Emerging in the Nanjing Case), *Xueshu yuekan* (學術月刊 Academic Monthly), no. 5 (2008): 122–131; and Kirifuji Kaoru, "Mingmo yesuhui chuanjiaoshi yu Folangji." For the broader background of this

The suppression of the Jesuits in the winter of 1616–1617 resulting from the perception of them as a potential threat was soon undone by the far more immediate, actual threat from the Jurchens of the Later Jin state (the predecessor of the Manchu state). The Jurchens began their aggressive expansion in 1618, causing frequent conflicts at the Ming border in the northeast. In 1619, Ming troops were defeated by the Jurchens in a decisive battle at Sarhū, near modern-day Fushun. The Ming military infrastructure at the northeastern frontier appeared to be in a shambles.

In 1621, in a startlingly ironic move, Ricci's friend Xu Guangqi, then the highest-placed Chinese Christian at the Ming court, proposed a sweeping military reform to the newly inaugurated Tianqi 天啟 Emperor (r. 1621–1627). His proposal included, among other things, the employment of the Jesuits now exiled to Macao, along with a few experienced Portuguese artillerymen, to serve as military advisers to the Ming army. This was, at least in part, Xu's attempt to create a legitimate reason to bring the Jesuits back to China. The return of the Jesuits to Beijing from Macao in the company of four Portuguese artillerymen and four cannons validated the material connection that Shen Que and other enemies of the Jesuits had been trying to establish between the missionaries and the Folangi, a connection that the Jesuits had been at pains to hide. The Ming dynasty's final struggles against the Manchus during the reign of the Chongzhen Emperor (1628–1644) drew the Jesuits ever deeper into the world of Realpolitik, where their ties to the Folangji and to the latter's chief instruments of power and terror—the Portuguese firearms also termed “Folangi”—became further entrenched in the Chinese consciousness, rendering the padres more vulnerable than before to attacks by their opponents.¹²⁶

Aleni's Whitewashing in His 1623 *Records of Lands beyond the Jurisdiction of the Imperial Geographer*

Given these complex new developments tying the Jesuits to Folangji, Ricci's earlier strategy of “disowning” the Folangji by omitting them from his

anti-Christian movement and a more comprehensive list of secondary studies up to the late 1990s, see Standaert, ed., *Handbook of Christianity in China, Volume 1*, 503–533.

126 On Xu Guangqi's proposal to bring back the Jesuits and its implication for the Jesuit mission, see Kirifuji Kaoru, “Mingmo yesuhui chuanjiaoshi yu Folangji,” 72–73. On later episodes of Jesuit and Portuguese involvement in the Chinese defense against the Manchus, see Huang Yilong, “Ouzhou chenchuan yu mingmo chuanhua de xiyang dapao” (歐洲沉船與明末傳華的西洋大炮 European Shipwreck and the Western Cannon That Was Transmitted to Late Ming China), *BIHP* 75, no. 3 (2004): 573–634, and Dong Shaoxin 董少新 and Huang Yilong 黃一農, “Chongzhen jian zhaomu pubing xinkao” (崇禎年間招募葡兵新考 New Investigation into the Recruitment of Portuguese Soldiers during the Chongzhen Era), *Lishi yanjiu* (歷史研究 Historical Research), no. 5 (2009): 65–86.

presentation of Europe was no longer feasible or desirable. Instead, Aleni attempted to integrate the militant features of Folangji into his narrative of Western Christendom. In his 1623 *Records of Lands beyond the Jurisdiction of the Imperial Geographer*, he devotes a full *juan* to the continent of Europe. His account begins with a long general introduction to Europe along the lines Ricci had set out in his 1602 Chinese world map. Aleni emphasizes not only the richness and variety of its native products, both from the land and through craftsmanship, but more importantly, its religious orthodoxy and unity, sophisticated system of education, high morality based on its inhabitants' reverence for God and love of their fellow human beings, and hence its comprehensive charity and medical care that leave no one in want, equitable and low rate of taxation, and just legal system that protects the weak from possible abuses of power. At the end, he turns to its military strength, which completes the picture of a Europe that is strong and self-sufficient as well as culturally sophisticated. Aleni wrote:

Although within the territorial bounds [of Europe] there is no warfare, there have been foreign countries following heterodox teachings that were looking to flex their muscles and infringe on our territory, such as those of the Tartars and Turks, who could not be tamed through moral persuasion. Therefore, in Europe, besides a standing army, there are also hereditary nobles who combine wisdom with courage and form voluntary military associations among themselves, each association consisting of several thousand men. One of these men is sufficient to resist ten enemy soldiers. All of them dedicate their lives to safeguarding their country and protecting their people.¹²⁷

Unlike Ricci, who had followed the Chinese custom by referring to Folangji as a *guo* 國 (state, country) but left it without a true geographical location on his world map, Aleni dissolved such a *guo* altogether by tracing the historical origin of the term Folangji to the Christian-Muslim conflict during the era of the Crusades.¹²⁸ The story he offered appears in his account of France, which he rendered as Fulangcha 拂郎察 in Chinese. It goes:

127 Aleni and Xie Fang, *Zhifang waiji jiaoshi*, 73.

128 As seen in his journals, Ricci recognized Folangji as the Chinese equivalent of Portugal. Aleni did not have a separate entry on Portugal and only covered it in passing as one of many possessions of Spain. He used the same Chinese transliteration Ricci had used to render Portugal as Boerduwaer 波爾杜瓦爾 (Aleni and Xie Fang, *Zhifang waiji jiaoshi*, 78). Folangji was not discussed in relation to either Spain or Portugal.

In medieval times there was a sage-king [in Fulangcha] named Louis. He detested the Muslims' occupation of the Land of Judea. Thus he raised an army for an expedition against them and manufactured cannons. Since his country resides within Europe, the Muslims began to call *all Westerners* Folangji, and the cannons they made were also called the same.¹²⁹ (emphasis added)

Here Aleni restores the original meaning of the term Folangji prior to the Portuguese and Spanish entry into the Western Pacific—namely, its meaning as the “Franks,” a broad reference to all Western Europeans. This passage is the only place in the book where Aleni mentions the term Folangji.¹³⁰ Lest the term bring up terrifying associations in the minds of his Chinese readers, Aleni puts it into the historical context of Europeans' valiant efforts to *defend* their Holy Land against Muslim aggression.

The rest of the story about France serves to further anchor the Folangji, within the broader image of the Europeans as a pious and peace-loving people. Aleni mentions the special favor that the Lord of Heaven had bestowed on the kings of France—an ability to heal scrofula by a simple laying of their hands on the patients so afflicted. He then describes France as a country where “the land is extremely fertile, the material resources plentiful, and the inhabitants peaceful and content. By nature these people are modest and generous. They observe all kinds of etiquette, admire literature, and love learning.” In short, whatever the Chinese had come to think of the Folangji in their historical memories had come about through profound misunderstanding.¹³¹

129 Aleni and Xie Fang, *Zhifang waiji jiaoshi*, 82.

130 The same is true for Verbiest's *Kunyu tushuo* (Illustrated Account of World Geography), where the identical passage appears on 755.

131 Aleni and Xie Fang, *Zhifang waiji jiaoshi*, 82–83. In this effort to put Folangji in the best possible light, Aleni was following the lead of Diego Pantoja and Sabbathin de Ursis. During the Nanjing Affair, Pantoja and de Ursis submitted a memorial to the Wanli Emperor in which they addressed Shen Que's allegation that the Jesuits were spies for the barbarians in Macao. In their defense, they not only emphasized that the missionaries and the merchants in Macao were two entirely different kinds of people—“feng ma niu buxiangji” 風馬牛不相及 (as different as horses and cattle which do not mate with each other)—but also reminded the emperor that during the Jiajing reign (1522–1566) those merchants who first settled in Macao to trade had been commended by officials in Guangdong for their help in the fighting against piracy. See Pantoja and de Ursis, “Zoushu” (奏疏 Memorial), in Standaert et al., eds., *Xujiahui cangshulou ming qing jian yesuhui wenxian*, vol. 1: 94–95. Elsewhere in the same memorial, they state that in the past hundred years merchants from many European countries had come to the Indian Ocean to trade. Not a few of them arrived in Guangdong to attend its annual trade fairs. “These

Other than Europe, the rest of the world beyond Chinese borders, especially Africa and the Americas, appears in Aleni's *Records of Lands beyond the Jurisdiction of the Imperial Geographer* primarily in two connected roles: (1) as the realm of utter wilderness and savagery, as already seen on Ricci's world map,¹³² and (2) as the field where Europeans, especially the Catholic missionaries, projected their civilizing influences. Indeed, Columbus's landing on the Bahamas is presented as the consequence of his devotion to civilizing savage peoples:

Originally the Europeans only knew about the three continents of Asia, Europe, and Africa, three parts out of ten on the earth's surface. The remaining seven parts were thought to be just seas. About one hundred years ago, there was a minister (Dachen 大臣) in the Western country by the name of Columbus (Gelong 閣龍). He was an adept in the investigation of the principle of things and also taught and practiced navigation techniques. *He often thought to himself: "The Lord of Heaven originally created Heaven and Earth for the sake of humanity. People have been saying that the sea is larger than the land. This does not seem to accord well with the Lord's love for human beings. There must be more land beyond the three continents."* Furthermore, he was worried that these countries beyond the seas, having been disconnected from the fame and teachings (shengjiao 聲教) [of the civilized world], must have been sunken in their evil customs. [He] must venture far [into the sea] to search for them and travel widely in their land to instruct and transform them (guangxing huahui 廣行化晦). Thus had the Lord of Heaven quietly instilled such a resolve in him. One day, while sailing in the West Sea, he smelled something and suddenly realized: "This is not the smell of seawater but of soil and land. There must be people and countries to the west of this place." He informed various kings [in Europe] of this discovery, who then supplied him with ships, grains, equipment, and money. They also provided him with army generals and

people never deceived anyone or defaulted on any payment they owe for even a single thread or a single grain" (ibid., 86). For their glorification of European society as a whole, see Chapter 2 above, and note 111 in that chapter.

132 This is conveyed not only through stories in the text but also in the titles of some sections, such as "Xibei zhu manfang" (西北諸蠻方 Various Savage Peoples in the Northwest), in Aleni's coverage of the northwestern part of North America (Aleni and Xie Fang, *Zhifang waiji jiaoshi*, 137–138). The only exception to this model of representation is the Inca empire, where Aleni affirms the remarkable efficiency of its bureaucracy functioning entirely through oral commands, and praises the eloquence of its excellent debaters (ibid., 122–124).

soldiers to guard the fleet against pirates and with treasures for use in trade. Columbus led his fleet out into the sea. They sailed for months at a stretch and found nothing. The path was perilous, and diseases began to break out. His crew members were complaining and wanting to return. With firm resolve, Columbus urged them to keep going forward. Suddenly, one day, someone in the crow's nest of the ship shouted: "Land!" Everyone gathered to thank the Lord of Heaven. They pressed on farther ahead and indeed arrived at that land.¹³³ (emphasis added)

In this providential storytelling, the mundane purpose of Columbus's adventure and the historic drama surrounding the naming of this new land the "West Indies," so essential to the historical truth about this significant event of 1492, are entirely omitted. The "discovery" of the Americas appears to have nothing to do with European desires to gain direct access to the East Indies, the major source of spices, or with the political race among the rulers of Spain, Portugal, and the Italian states. Rather, for his deep learning in natural philosophy, mastery of nautical skills, and profound love for his fellow human beings, Columbus is said to have been chosen by God for this mission to bring civilization and His saving grace to the people of this great "missing" continent.¹³⁴

Nor is there any hint of the bloody wars of colonial conquest that came on the heels of the European "discoveries" of the American continents. Instead we are told that, soon after Columbus landed in the Bahamas, Yamolige 亞墨利哥 (Amerigo Vespucci, 1454–1512) sailed on a southwesterly course in the West Sea and arrived at an entire continent stretching south of the equator. It was named after him, as America. Then, several years later, another explorer, Geerdesi 哥爾得斯 (Hernán Cortés, 1485–1547), was provided with ships by the king and sent to the northwest to conduct a search. There he found another land north of the equator, which is North America. Aleni gives the following account of the first moments when the natives of Central America encountered Cortés and his men:

133 Aleni and Xie Fang, *Zhifang waiji jiaoshi*, 119–120.

134 Aleni did not entirely invent this narrative; he merely selected this sort of narrative out of many different sources set down by Columbus himself and by some of the early chroniclers of his voyages. These chroniclers had created a version of such a narrative *after* the event—that Columbus had known of the existence of such a new land from Greco-Roman sources, and that he undertook the voyages in order to lend himself as an instrument to God's plan for universal redemption. For further discussion of this providential account by Columbus and his chroniclers, see Moretti, "The Other World and the 'Antipodes,'" 275–282.

Since horses had not been found in this land, the natives did not recognize what they were. When [Cortés and his crew] came down from their ships and mounted their horses, the natives who saw them were greatly alarmed. They thought that these men and their horses were conjoined, and could not decide whether these were beasts or humans. They told [what they had seen to] their local officials, who in turn informed their king. The king sent his men to inspect. They, too, failed to recognize these [visitors] as human beings. They brought only two kinds of things to the reception as offerings. One was food, such as chickens and pigs; they thought that if these were humans, let them enjoy this. The other was fragrant flowers and bird feathers; if these were gods from heaven, they would enjoy this. [Their visitors] tasted the food. That is when they realized that these were human beings. *From then on there has been no stopping of traffic between them. There was a large state in the land that exchanged presents with Europe (Ouluoba 歐羅巴) and established relations with it.* Kings in the West also dispatched leading members of their church there to persuade the natives to do good. In the course of several decades, the evil customs that the natives had inherited were slowly reformed.¹³⁵ (emphasis added)

This is Aleni's version of Hernán Cortés's invasion of Central America in 1519 and his conquest of the Aztec empire by 1521. In it there is no clue to the nature of Cortés's exploits, or the kind of "traffic" or "relationship" that the native peoples and their "large state" (the Aztec empire) were brought into with Europe. Instead, there seems to be every reason to celebrate the arrival of the Europeans, who presumably established peaceful and harmonious communication with this formerly isolated continent and transformed the Native Americans' evil and barbarous customs.¹³⁶

135 Aleni and Xie Fang, *Zhifang waiji jiaoshi*, 120–121.

136 Aleni's representation of these events is remarkably different from those given in major European world geographical sources at this time. Ortelius, for example, in his note on New Spain, had this to say about Hernán Cortés: "This Province was about the year 1518 forcibly subdued to the Spanish government, under the command and conduct of Fernando Cortez, who, with the slaughter of his own people, but far greater of the inhabitants fighting for their liberty, conquered the same." Ortelius, *Theatrum orbis terrarum Abrahami Orтели Antuerp*, Text #7, "New Spain" (I have modernized the spelling of some of the words). Some Catholic missionaries who wrote for a European audience also registered their criticisms of the colonial regimes' treatment of natives in the Americas. The best-known example is Bartolomé de las Casas (1484–1566), who vehemently denounced the cruelty of the Spanish colonial policies in the Americas; see his *An Account of the First*

What we have in Aleni's account of European intercourse with the rest of the world in the early modern era, then, is the exact opposite of the Folangji story told in Chinese and Southeast Asian sources. In other words, Aleni simply invented one myth-history to counteract another. The Chinese readers who depended on his text for information about the wider world beyond China were meant to remain ignorant of the most devastating fact in the early modern world—namely, the aggressive colonial expansion around the globe by Western Europeans, especially the Spaniards and the Portuguese. In places closer to China, where such myth-history would unravel too easily, one finds in its place a total silence. As Bernard Hung-kay Luk has observed in his study of Aleni's *Records of Lands beyond the Jurisdiction of the Imperial Geographer*, "the notice on Luzon, where the Spaniards had massacred the Chinese community barely 20 years before Aleni wrote, does not mention European conquest and proselytizing, but is taken up entirely with a description of a mighty eagle."¹³⁷

To say that Ricci, Aleni, and other Jesuits calibrated their representations of Renaissance world geography to China to best suit their circumstances and their missionary agenda is not to denigrate their tremendous efforts at conveying some of the finest European attainments in this area to their Chinese readers; it is simply to acknowledge the proverbial truth that ideas are spread from one culture to another by real people in real time. Far from being "ideal translators" whose only goal was to faithfully deliver a package of ideas from one linguistic and cultural medium to another, agents of cultural transmission such as the Jesuits often had to improvise. They followed

Voyages and Discoveries Made by the Spaniards in America Containing the Most Exact Relation Hitherto Publish'd, of Their Unparallel'd Cruelties on the Indians, in the Destruction of above Forty Millions of People (London: Printed by J. Darby for D. Brown, 1699). José de Acosta (1540–1600), a Jesuit who worked in the mission fields of Peru and Mexico, was also willing to acknowledge that it was greed that drove the Europeans to "discover" and conquer the Americas, even though he had to accept this darker side of the European Renaissance as an instrument of God: "it is a circumstance worthy of much consideration that the wisdom of our Eternal Lord has enriched the most remote parts of the world, inhabited by the most uncivilized people, and has placed there the greatest number of mines that ever existed, in order to invite men to seek out and possess those lands and coincidentally to communicate their religion and the worship of the true God to men who do not know it." De Acosta, *Natural and Moral History of the Indies*, edited by Jane E. Mangan, with an introduction and commentary by Walter Mignolo, and translated by Frances López-Morillas (Durham, N.C.: Duke University Press, 2002), Book IV, Chap. 2, 164.

137 Luk, "A Study of Aleni's *Chih-fang Wai-chi*," 69.

their instincts and employed whatever resources they could find to produce something that met their own agendas and circumstances of the moment—and they did so even when they were consciously performing a task of linguistic translation. As a result of such improvisation, the packages of ideas they transmitted were necessarily the products of the fluid dynamic of the contact zone, exhibiting contradictions and inconsistencies and containing information that might later be found to be only half-true, or even entirely made up.

Integrating the New with the Old

The same “filtering effect” that we see in the Jesuit representations of the world can also be observed in how these representations were taken up by their Chinese readers. Like the crayfish-shaped ewers described in Chapter 1, which were exported from southern China in the sixteenth century and found their way into many disparate milieux and uses, these Jesuit ideas were owned, tweaked, and “domesticated” by their new hosts. The result was an organic integration of this “New World” into the Old, following a logic and driven by a momentum over which their original Jesuit authors had no control. Due to space constraints, I cannot begin to capture the full richness of our sources or document the multitude of individual responses to the Jesuit works in this area. What I can do is (a) offer a sample of scholars who engaged the Jesuit world geographical corpus at different levels of abstraction and with varying degrees of endorsement, and (b) map out certain notable patterns emerging among such responses in the course of the seventeenth century and immediately beyond.

In many ways, the processes of integration we see here ran parallel to what we have shown in Chapters 4 and 5 about the other sites of knowledge production at this contact zone—namely, the cosmological discourses on the shape of the earth and the new Yugong scholarship on the Four Seas. Some novel features of Jesuit world geography, such as the five continents (*wu dazhou* 五大州)¹³⁸ and the immensity of the human habitat on earth, were recognized

138 In modern Chinese, the character used for “continent” is 洲, but the character Ricci used was 州; see Ricci “Kunyu wanguo quantu,” in idem, *Li Madou zhongwen zhuyi ji*, 174. Most sources from the late Ming and early Qing followed his usage, and some authors used the two characters interchangeably. See, for example, Xu Yingqiu 徐應秋 (?–1621, *jìnshi* 1616), *Yuzhitang tanhui* (玉芝堂談薈 Collected Conversations at Yuzhi Hall), photolithographically reproduced edition in *SKQS, zi*, vol. 883: 521.

as simultaneously strange and familiar. Those who were ready to accept such ideas found them already presaged by Zou Yan (ca. 350–270 BCE) and other ancient Chinese sources. This association was partly facilitated by Ricci's borrowing of the term *dazhou* (great continent) in Zou Yan's theory of the Nine Great Continents (Da Jiuzhou 大九州) to designate the concept of "continent" in European world geography.

*Guo Zizhang's (1543–1618) Perception of Ricci as a
"Loyal Follower of Zou Yan"*

The positive reception of Ricci's world maps was accompanied by a surge of serious scholarly interest in Zou Yan's cosmography. We see an example of this in Guo Zizhang 郭子章 (1543–1618, *jinshi* 1571), who took the initiative to print out a reduced, booklet version of the second edition of Ricci's world map entitled "Complete Map of Mountains and Seas" (Shanghai yudi quantu 山海輿地全圖, 1600). Guo wrote a preface to that booklet in which he pinpointed the similarities between Ricci's map and Zou Yan's theory. In the preface, he recalled his personal encounter with Zou Yan's theory after first being exposed to the view of the world set forth in the Confucian classic, the *Rites of Zhou* (Zhouli). He wrote:

I read in the *Rites of Zhou* that the Imperial Geographer's Office is in charge of the maps of the empire. It distinguishes the inhabitants and resources of the friendly states beyond Zhou boundaries, of the administrative towns and districts [within the Zhou], and of [the Non-Chinese people]—the four Yi, the eight Man, the hundred Yue, the nine Lo, the five Rong, and the six Di. Then it distinguishes the various [feudal] states within the Nine Provinces to obtain their common participation in the affairs and benefits of the empire. In this way, [according to the *Rites of Zhou*,] the land of the entire world was accounted for.¹³⁹

But then Guo had read about a much wider world in another text, *Comprehensive Description of the Features of the Earth according to the Map of the Yellow River* (Hetu Kuodixiang 河圖括地象). It asserts that "the territorial extent of the Nine Provinces and of the Four Seas governed by Yu of the Xia dynasty had a width of 28,000 *li* from east to west and a length of 26,000 *li* from north to south; however, the expanse of the whole space between the farthest eight

139 Guo Zizhang 郭子章, "Shanghai yudi quantu xu," in idem, *Binyisheng qian cao* (蟬衣生黔草 Manuscripts from Qian [Guizhou Province]), Written by "The Scholar in a Cloak of Moss", *juan* 11, 35b, in *SKCM, ji*, vol. 155: 356.

points (*baji* 八極) measures 233,000 *li* from the east to the west and 231,500 *li* from the north to the south.” Guo notes that the depiction of the world in the *Classic of Mountains and Seas* (Shanhaijing) is also similar in this respect. Modern scholars have come to see both the *Comprehensive Description* and the *Classic of Mountains and Seas* as works of relatively late origin inspired by Zou Yan’s ideas, but Guo, following the traditional chronology given for these works, took them as works from high antiquity and thus as the sources of Zou Yan’s theory. Both texts, along with Zou Yan’s ideas, had been branded by the Han-dynasty Grand Historian Sima Qian as extravagant and as inconsonant with the teachings of the classics (*hongda bujing* 閎大不經), and some other influential scholars, such as Huan Kuan 桓寬 (first century BCE) and Wang Chong 王充 (27–97 CE), had also made Zou Yan an object of ridicule in their works. Now Guo exclaimed: “Who would have thought that four thousand years later, Mr. Li from the Great Western State [i.e., Matteo Ricci] would come to China to present the Complete Map of Mountains and Seas? *He is indeed a loyal follower of Zou Yan!*” (emphasis added).¹⁴⁰

As the contemporary scholar Han Qi of the Chinese Academy of Sciences has already pointed out, here Guo provides us with perhaps the earliest expression in the late Ming and early Qing of the theory of the Chinese origin of Western learning.¹⁴¹ Just as the Chinese cosmologists would later “discover” the origins of the Jesuit notion of the globe in *The Gnomon of Zhou* (Zhoubi) and other classical Chinese texts, so Guo Zizhang here recognized a profound similarity between Ricci’s and Zou Yan’s views of the earth. In both cases, however, we can see that the classical Chinese texts in question had to be, and indeed were, reinterpreted to reveal such alleged resonances between the new and the old, the foreign and the local. Commenting on Ricci’s map, Guo wrote:

Ricci’s map asserts that Heaven has two poles, and so does Earth; Heaven has 360 degrees, and Earth does, too. Hence there is a celestial and a terrestrial globe, and [both have] longitudes and latitudes. Earth has a circumference of 90,000 *li* east to west and north to south, and a diameter of 28,600 *li*. There are living beings dwelling on its top, bottom, and the four sides. The whole space is circular and thus has no inherent distinction between up and down. *This is something that has never been heard of before in the millennia of Chinese history. And yet it secretly dovetails with*

140 The two direct quotes in this passage are cited from Guo Zizhang, “Shanhai yudi quantu xu,” in idem, *Binyisheng qian cao*, *juan* 11, 35b–36a, in *SKCM, ji*, vol. 155: 356–357.

141 Han Qi, “Mingqing zhiji lishi qiuye lun zhi yuan yu liu,” 304.

what is said in the “Comprehensive Description of the Features of the Earth according to the Map of the Yellow River” (Hetu Kuodixiang 河圖括地象) and “Classic of Mountains and Seas” (Shanhaijing 山海經). Isn’t that a sure proof that Master Zou [got it right]?¹⁴² (emphasis added)

As already mentioned in Chapters 2 and 5, in his theory of the Nine Great Continents, Zou Yan had imagined the earth to be large but most certainly flat, and bounded by the cosmic ocean, or Great Rim Sea (Daying Hai 大瀛海), that extends all the way to the arches of the sky. Furthermore, Zou had postulated nine great continents instead of five, each consisting of nine (smaller) continents that were each surrounded by a small sea. But for Guo Zizhang, none of these details peculiar to Zou Yan’s theory appears to have been essential.¹⁴³ Zou Yan was now distinguished first and foremost for his vision of an immense, de-centered terrestrial space, so Guo found him to be a kindred spirit to Ricci. Thus in Guo’s example, we find that Zou Yan’s theory was both revived and remade in the aftermath of Chinese encounters with Jesuit world geography.

For many other scholars, exposure to this alternative worldview, and the various demonstrations the Jesuits brought to bear on it, was stimulation enough to venture outside the boxy shape of the dominant Tianxia-Sihai model found in the Confucian classics, such as the “Tribute of Yu” chapter of the *Book of Documents* and the “Imperial Geographer” (Zhifang 職方) chapter of the *Book of Rites*, and reimagine the world. These thinkers occupied a wide epistemological middle ground between complete conviction in and outright rejection of the essential elements of Jesuit world geography.

142 Guo Zizhang, “Shanhai yudi quantu xu,” in idem, *Binyisheng qian cao*, juan 11, 36b, in *SKCM*, ji, vol. 155: 357. A similar observation is made by Wu Zhongming 吳中明 in his preface to Ricci’s map; see Ricci, “Kunyu wanguo quantu,” in idem, *Li Madou zhongwen zhuyi ji*, 223.

143 Of course, not everyone who associated the Jesuit worldview with Zou Yan’s theory discounted such differences in detail. Ruan Taiyuan 阮泰元, for example, in his preface to the fourth edition of Ricci’s map published in 1603, emphasized the superiority of Ricci’s map over previous Chinese imaginings of the wider world, on account of its precision and sophistication. He wrote: “In the present printing, the panels are still larger and the legends still more complete. Compared with the fables related in the (*Classic of*) the *Mountains and Seas* 山海, or in the (*Description of*?) the *World* 寰宇, or in the *Ten Islands (of the Four Seas)* 十洲, this Map gives the impression that (one had been listening to) nocturnal talk in a dark room, and then suddenly faces the bright light radiated by the sun.” Translation quoted from D’Elia, “Recent Discoveries and New Studies,” 144.

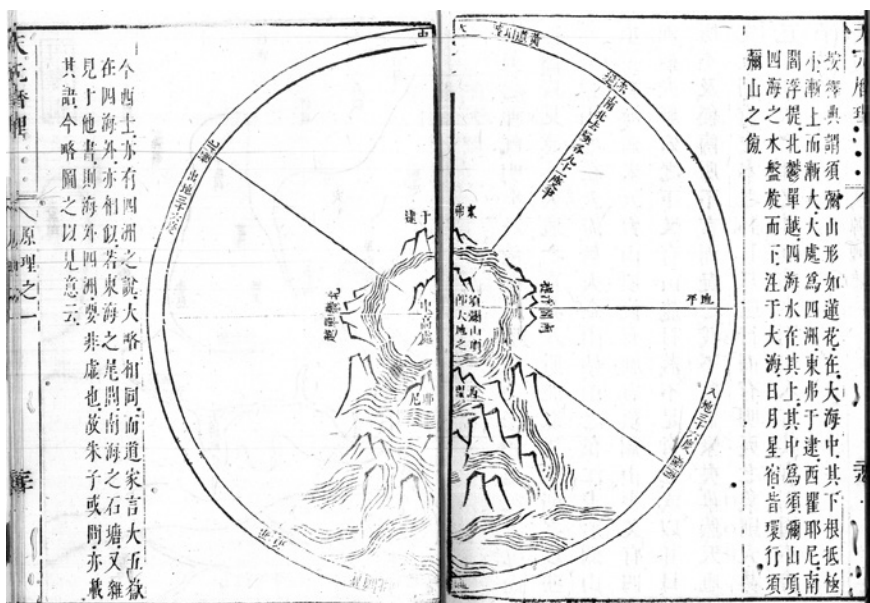


FIGURE 6.8 "Image [of the Earth] within the Spherical Heaven," by Xu Fa 徐發 (fl. 1668–1681). In Xu Fa, *Tianyuan lili quanshu* (天元曆理全書 *Comprehensive Discourse on the Origins of the Heavens and the Principles of the Calendar*, preface 1682).

PHOTO COURTESY OF SHANGHAI LIBRARY. THIS ILLUSTRATION IS ORIENTED WITH THE EAST SIDE UP AND SHOWS FOUR CONTINENTS SURROUNDING A CENTRAL CONTINENT FORMED BY MOUNT SUMERU.

Xu Fa's (fl. 1668–1681) Correlation of the Jesuit Five Continents with Their Buddhist Counterparts

Some scholars, such as Xu Fa 徐發 (fl. 1668–1681), introduced at the end of Chapter 5, ascribed to those elements of Jesuit world geography a strong probability. In his *Comprehensive Discourse on the Origins of the Heavens and the Principles of Calendar* (*Tianyuan lili quanshu*, preface 1682), Xu expressed confidence that, despite the fact that the forms of Heaven and Earth are not something for human beings to behold in their entirety, they can be arrived at through reasoning.¹⁴⁴ He found the congruence between the Jesuit view of the five continents and that of the Buddhists and Daoists more than a matter of coincidence. He drew an image of the cosmos that integrates the Buddhist view of the earth with the cosmological theory of a spherical heaven (Figure 6.8). In the caption written on the left and right sides of the image he explained:

144 Xu Fa, *Tianyuan lili quanshu*, juan 1, 29a, in *XXSK*, vol. 1032: 355.

Buddhist scriptures say that Mount Sumeru is like a lotus blossom [floating on] the great sea. It has a root that is very thin at the bottom and gradually becomes larger as it emerges on the top [of the water]. The largest part of this root [spreads out to the sides] to form the four continents: Fuyudai 弗於逮 [Pūrvavideha] on the east, Quyen 瞿耶尼 [Aparagodānīya] on the west, Yanfuti 閼浮提 [Jambudvīpa] on the south, and Yudanyue 鬱單越 [Uttarakuru] on the north. Now Western scholars also have a theory of four continents, which sounds more or less the same. What the Daoists say about the Five Great Peaks (Da Wuyue 大五嶽) beyond the Four Seas also sounds similar... Thus the existence of four continents beyond the Four Seas must not be false.¹⁴⁵

Here Xu Fa has correlated the continent of Asia in Jesuit world geography with Mount Sumeru at the center of the Buddhist model of the earth, and the other four continents with their Buddhist counterparts. Since the details of these two sets of continents differ so greatly, we must conclude that Xu was only committed to the total number of five continents that was agreed on by all these theories, and not to the specific narratives about them offered by either theory.

Xu Yingqiu's (?–1621) New Reading of the “Four Barbarians”

Xu Yingqiu 徐應秋 (?–1621, *jinshi* 1616) is another scholar who found new relevance in the alternative cosmographical traditions in Chinese thought as a result of his encounter with Jesuit world geography. In his *Collected Conversations at the Hall of Yuzhi* (Yuzhitang tanhui 玉芝堂談薈), he devoted a long section, “The Outer Limits of the Four Wildernesses” (Sihuang suojie 四荒所屆), to examining the extravagant claims about the size of the terrestrial realm made in such sources.¹⁴⁶ In addition to reviewing the *Comprehensive Description of the Features of the Earth according to the Map of the Yellow River* that Guo Zizhang refers to in the excerpt quoted above, Xu Yingqiu reviewed (1) the *Preface to the Spring and Autumn [Annals]*, [Chapter on] the

145 Xu Fa, *Tianyuan lili quanshu*, juan 1, 29b–30a, in *XXSK*, *zi*, vol. 1032: 355. Xu's fuller exposition of this Buddhist cosmography is on 4b–5a, at pp. 342–343. Some scholars have argued that the idea of the earth as a globe is already present in Buddhist cosmology, but others point out that this may be an overinterpretation—textual evidence in Buddhist scriptures only supports the image of the earth as a flat disk, with Mount Sumeru rising in the center. For related secondary literature, see Chu Ping-yi, “Kua wenhua zhishi chuanbo de geanyanjiu,” 599–560, n. 26 and illustration no. 3 on 660.

146 Xu Yingqiu, *Yuzhitang tanhui*, in *SKQS*, *zi*, vol. 883: 518–522.

Heaven-Mandated Calendars (Chunqiu liming xu 春秋曆命敘),¹⁴⁷ an apocryphal text dated to the Han dynasty (206 BCE–220 CE), which identifies the area enclosed by the Four Seas as 900,000 *li* from east to west and 810,000 *li* from north to south; (2) *Master Huai* (Huainanzi 淮南子), which sets both the distance between the eastern and the western pole and that between the northern and the southern pole at 233,500 *li* plus 75 paces; (3) the Buddhist model of the world mentioned above; and (4) Zou Yan's theory of the Nine Great Continents.

Only then did Xu Yingqiu turn to expounding the Jesuit idea of five continents. His delineation of the five continents closely followed that of Ricci, but he made an important addition to Ricci's outline of Asia. He wrote:

Yaxiya 亞細亞 [*Asia*] is where China, Siyi 四夷 [*the Four Barbarians*], India, and the Muslim States all reside. It stretches south to Sumatra, Luzon, and other islands and north to Nova Zembla and the North Sea, east to the Japanese Islands and the Sea of the Great Ming, and west to the Danube River, Lake Maeotis, the Black Sea, the Western Red Sea, and the Little Western Ocean.¹⁴⁸ (emphasis added)

Here Xu Yingqiu introduces a rather novel usage of the term Siyi 四夷 (or 四裔, the Barbarians of the Four Quarters). This term was generally taken as a comprehensive reference to all non-Chinese peoples residing within and beyond the borders of China. As such, it represents the Other, the Yi 夷 (Barbarian) that forms the balance of the Self, or Hua 華 (the Chinese).

A vivid reminder of this standard usage in the late Ming is the "General Diagram of Barbarians of the Four Quarters" (Siyi zongtu 四夷總圖) that often appeared at the beginning of a narrative on foreign peoples (Figure 6.9). This diagram shows a central loop that encompasses the two metropolitan areas around the northern and southern capitals and the thirteen provinces of the Ming empire. The northern and western sections of the loop run across a series of strategic forts and border towns. Beyond this loop are marked the names of barbarian states or polities in square text boxes, which are aligned along the four

147 The "Chunqiu liming xu" 春秋曆命敘, also known as "Chunqiu mingli xu" 春秋命曆序, is an apocryphal text dated to the Han dynasty. It presents a chronology of human history (or rather Chinese history) that begins with the establishment of the Nine Provinces by Renhuang 人皇 (the August Ruler of Humanity) and measurement of the boundaries of the Four Seas. For further background about this text, see Zhong Zhaopeng 鐘肇鵬, *Chenwei lunlue* (讖緯論略 A Brief Account of the Prognostic Texts and Apocrypha) (Shenyang: Liaoning jiaoyu chubanshe, 1991), 59–60.

148 Xu Yingqiu, *Yuzhitang tanhui*, in *Jingyin wenyuange qinding siku quanshu*, vol. 883: 521.

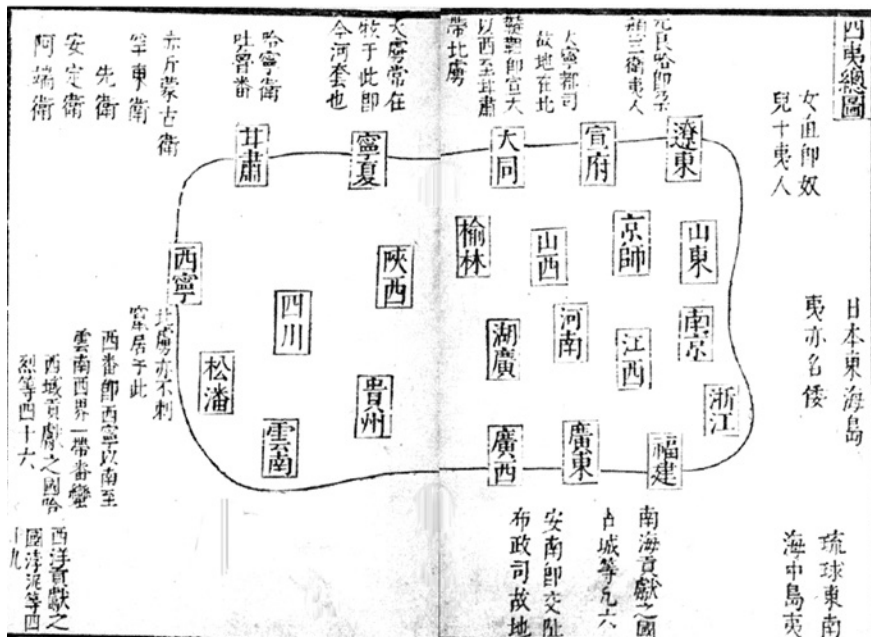


FIGURE 6.9 “General Diagram of Barbarians in the Four Quarters” (*Si yi zongtu* 四夷總圖), by Zhang Tianfu 張天復 (–1578). In Zhang Tianfu, *Guang Huangyu kao* (廣皇輿考 Examining the Extended Imperial Territory, 1626), juan 18; digital scan of copy held at Harvard-Yenching Library, available online, accessed on 12/30/2013 at: <http://pds.lib.harvard.edu/pds/view/23425098>, sequences 813–814.

sides of the central loop. Since there are too many countries to the west and south of China to be named, only their total numbers are indicated. Thus the bottom two boxes located farthest left (west) say, “[There are] 46 tributary states in the Western Region, such as Halie 哈列” (upper box) and “[There are] 49 tributary states from the Western Ocean, such as Beini 悖尼” (lower box), while the text box at the bottom center says “There are six tributary states in the South Sea, such as Zhancheng 占城 [Champa].”¹⁴⁹ Although these text boxes emphasize that these are “tributary states” (*gongxian zhiguo* 貢獻之國), the diagram does

149 Zhang Tianfu 張天復 (–1578), *Guang Huangyu kao* (廣皇輿考 Examining the Extended Imperial Territory, 1626) at the start of juan 18; digital scan of copy held at Harvard-Yenching Library, available online, accessed on 12/30/2013 at: <http://pds.lib.harvard.edu/pds/view/23425098>, sequences 813–814. The same diagram also appears in (1) Mao Yuanyi 茅元儀 (1594–1640), “*Si yi zongtu*” (四夷總圖 General Diagram of the Four Barbarians), in idem, *Wubei zhi* (武備志 Records of Armaments and Military Provisions), juan 223, in *SKJH, zi*, vol. 26: 495, and (2) Zhu Shaoben 朱紹本 and Wu Xueyan 吳學儼, *Ditu zongyao* (地圖綜要 Essential Compilation of Geographical Maps, 1645), in *SKJH, shi*, vol. 18: 742.

includes some of the states that had hostile relations with China around this time, such as Japan in the east and the Xiongnu in the north. In other words, the diagram presents the whole world in the form of a neat dichotomy between the Hua (Chinese) at the center and the Yi (Barbarians) on the outlying regions.¹⁵⁰

Nevertheless, in Xu Yingqiu's paraphrase of Ricci's description of the continent of Asia quoted above, he has reduced this familiar "old world," dichotomized into the Hua and the Yi, into only a part of the *Asian* world. It is important to point out that Xu did not yet clearly endorse Ricci's theory over the other alternative visions of the world already available in Chinese thought; rather, it was his recognition of the immensity of the world, underscored by all these alternative ideas he surveyed, that inspired his new usage of the term Siyi. However, in the course of the seventeenth century, more and more scholars came to embrace this new usage of Siyi out of their professed belief in the Jesuit notion of the globe.¹⁵¹

The Syntheses of Lu Ciyun (fl. 1662), and Xiong Renlin (1604–1666)

Besides the "big ideas" about the size of the world and the number of continents, the new information about the outer world introduced by the Jesuits—hitherto unknown foreign lands, human and subhuman races, natural landscapes, and strange products—also began to filter into Chinese writings on world geography. The earliest known work to systematically incorporate Jesuit data is *Gleanings of the Terrestrial Landscape* (Fangyu shenglu 方輿勝略, 1610), compiled by Cheng Baier 程百二 (1573–1619) and others, which includes a chart

150 On the meaning of Siyi and the geopolitical discourse on the distinction between Hua and Yi, see Ge Zhaoguang 葛兆光, "Tianxia, Zhongguo yu Siyi: Zuowei sixiangshi wenxian de gudai zhongguo de shijie ditu" ("天下," "中國" 與 "四夷": 作為思想史文獻的古代中國的世界地圖 All Under Heaven, China, and the Siyi: Ancient Chinese World Map as Sources of Intellectual History), *Xueshu jilin* (學術集林 Collected Works of Scholarly Research) 16 (1999): 44–71; Peter Bol, "Middle-Period Discourse on the Zhong Guo: The Central Country," *Hanxue Yanjiu*, 2009, accessed on 10/1/2013 at: <http://nrs.harvard.edu/urn-3:HUL.InstRepos:3629313>; and Zhao Yongchun 趙永春, "Guanyu zhongguo gudai huayi guanxi yanbian guilü de lixing sikao: Huayi guanxi de lishi dingwei, yanbian guiji yu wenhua xuanze" (關於中國古代華夷關係演變規律的理性思考: 華夷關係的歷史定位, 演變軌跡與文化選擇 A Rational Reflection on the Evolution of the Relationship between the Hua and the Yi in Ancient China: The Historical Formation, Trajectory of Evolution, and Cultural Choice of the Hua Yi Relationship), *Xuexi yu tansuo* (學習與探索 Study and Exploration), no. 1 (2012): 148–156.

151 An example is Li Guangdi 李光地 (1642–1718, *jinshi* 1670), who said: "今之九州及四夷之地皆亞細亞國土也" (As for the Nine Provinces and the Barbarians of the Four Quarters, they are all countries located within Asia). See Li Guangdi, *Rongcun ji* (榕村集 Collections of Essays by Rongcun), *juan* 5, 13a, manuscript copy of *Siku quanshu* 四庫全書 (Complete Collection of the Four Treasures) edition, Archive.org version, accessed on 12/3/2013 at <https://archive.org/details/o6049969.cn>.

presumably published by Ricci as part of the second edition (1600) of his world map. The chart is entitled “List of Longitudes and Latitudes of All Countries Shown in the ‘Sino-European Map’” (Shanghai yudi quantu geguo jingwei du fenlue 山海輿地全圖各國經緯度分略). It not only lists the longitudes and latitudes but also highlights some of the remarkable things Ricci wrote about those countries in his legends.¹⁵² However, the information on this chart is entirely separate and set in juxtaposition to the available Chinese world geographical data, which treats the standard list of “barbarian states,” arranged according to their locations relative to China.

Two later authors attempted to integrate the Jesuit material into their world geographical texts at a more substantive level. Lu Ciyun 陸次雲 (fl. 1662) compiled two separate texts that draw on Jesuit material in world geography: (1) *Translated Accounts of Things within the Eight Corners of the World* (Bahong yishi 八紘譯史, preface 1683), which covers foreign countries or polities the existence of which Lu deemed adequately proven; and (2) *Accounts of the Wilderness within the Eight Corners of the World* (Bahong huangshi 八紘荒史, n.d.), which pertains more to subjects in cosmography, in the tradition of the *Classic of Mountains and Seas*. *Accounts of the Wilderness* groups together various strange human or subhuman races that Lu considered to be not necessarily real but plausible, and thus worthy of recording. Among such creatures we find those of the “Ouluoba xi xiaoren guo” (歐羅巴西小人國 Realm of the Pygmies in Western Europe), which is presented along with many other kinds of pygmies recorded in previous Chinese literature. The entry was derived from Aleni’s *Records of Lands beyond the Jurisdiction of the Imperial Geographer*, which was in turn based on the legend on Ricci’s 1602 world map discussed in Chapter 2.¹⁵³

152 Cheng Baier 程百二 et al., comps., *Fangyu shengluo* (方輿勝略 Gleanings of the Terrestrial Landscape, 1610), in *SKJH, shi*, vol. 21: 371–385. Many of the legends cited here did not appear in the extant, third edition (1602) of Ricci’s world map, and it is likely that they were not in the original, second edition of Ricci’s map either. However, they were found in later sources such as Aleni’s *Records of Regions beyond the Jurisdiction of the Imperial Geographer* (1623) and Verbiest’s *Illustrated Account of the Geography of the World* (1674). Even though, as already mentioned, Aleni’s legends derive from the notes written by Pantoja and de Ursis, these notes could not have been available for inclusion in Cheng Baier’s *Fangyu shengluo* in 1610. I have yet to investigate at what point these newer legends became incorporated into Cheng’s text.

153 Lu Ciyun 陸次雲 (fl. 1662), *Bahong yishi*; *Bahong huangshi* 八紘譯史; 八紘荒史 (Translated Accounts of Things within the Eight Corners of the World [preface 1683]; Accounts of the Wilderness within the Eight Corners of the World [n.d.]) (Taipei: Guangwen shuju, 1969), 7. Aleni’s description of the pygmies appears in his entry on “Xibei hai zhudao” (西北海諸島 Various Islands in the Northwest); see Aleni and Xie Fang, *Zhifang waiji jiaoshi*, 104.

But it was *Translated Accounts of Things within the Eight Corners of the World* that most fully reflected the new knowledge that Lu Ciyun had gleaned from his Jesuit sources, especially Aleni's *Records of Lands*. Lu's *Translated Accounts* consists of four chapters, dealing with foreign countries or polities to the east, west, south, and north of China, respectively. On the whole, Lu followed the organization scheme of previous Chinese world geographical texts, captured in the above-mentioned "General Diagram of the Barbarians in the Four Quarters" (see Figure 6.9), and added some of the new lands and peoples described by Aleni. There is, however, one important revision he made to this organization scheme: instead of labeling the foreign peoples treated in each chapter "barbarians," using terms such as Dongyi 東夷 (Eastern Barbarians), Nanman 南蠻 (Southern Barbarians), and so forth, Lu used the term *bu* 部 (division) as headings for these chapters—Dongbu (Division of the East), Nanbu (Division of the South), and so on.

Also, an examination of the individual countries covered in this book indicates that Lu Ciyun applied two different standards in grouping these countries: (1) the country's relative *geographical location vis-à-vis China*, which he applied to the countries of Europe and Africa, such as Spain (Yixibaniya 以西把尼亞), France (Fulangcha 拂郎察), Flanders (Falandesi 法蘭得斯), Egypt (Eriduo 厄日多), and Mozambique (Manamodaba 馬拿莫大巴); or (2) the *locations of the ports of entry* used by the envoys exchanged between China and the countries concerned, which Lu adopted for nearly all the countries recorded in Chinese sources. Thus, in accordance with the second of these two standards, Medina (Modena 默德那) in Arabia and Malindi off the East African coast (Malin 麻林)—places visited by Zheng He's fleet by way of the South China Sea and the Indian Ocean—both fall under Lu's Division of the South, whereas Fulin 拂霖, whose envoys were said to have arrived at the northwestern frontier of China during the Tang dynasty, falls under his Division of the West. According to the first standard (i.e., their locations relative to China), all three of these places would have fallen under the Division of the West.¹⁵⁴

Interestingly, Lu seems to have applied the second standard (i.e., locations of the ports of entry) to the lands of North and South America, for he grouped them all under the Division of the North instead of the Division of the East.¹⁵⁵ This could not have been a mistake due to his misunderstanding of their

154 Lu Ciyun, *Bahong yishi*, on Fulin, 29; on Medina, 60, and Malindi, 64–65. I am aware that there are exceptions to this general pattern. The entry on Holland is grouped under the Division of the West, although it specifies that the diplomats coming to the Manchu court in 1644 arrived by way of Fujian. Lu Ciyun, *Bahong yishi*, 15.

155 Lu Ciyun, *Bahong yishi*, 86–91.

locations vis-à-vis China, since he was working with Aleni's text, which had a full world map at the beginning of the book and maps of the specific continent concerned at the beginning of each chapter. Rather, Lu must have considered the Pacific Ocean to be too immense and too deep to offer any regular direct passage between China and the Americas, whereas South America is connected with North America by a thin isthmus, and the northern tip of North America lies in proximity to the northeastern edge of the Asian continent.

Another author who attempted a synthesis of Jesuit and Chinese world geography is Xiong Renlin 熊人霖 (1604–1666), son of Xiong Mingyu and a member of the Fang School (discussed in Chapter 4). Xiong had been interested in geography since childhood. When Aleni's *Records of Lands beyond the Jurisdiction of the Imperial Geographer* was published in 1623, he studied it eagerly and completed the bulk of his own *Geography of the Earth* (Diwei 地緯) the following year, although it was not published until 1638.¹⁵⁶ Perhaps due to his father's personal friendship with several Jesuits, Xiong Renlin was well disposed toward both the Jesuits and Western learning. He was an advocate of the idea that the earth is a globe and thus that it does not have a physical center on its surface.¹⁵⁷ Unlike Lu Ciyun, he abandoned the scheme of the "General Diagram of the Barbarians in the Four Quarters" altogether and adopted the Jesuit system of presentation based on the sequence of the continents, starting with Asia, then Europe, Africa, and the Americas.

However, Xiong Renlin changed the Chinese rendering for Asia from Yaxiya 亞細亞—first adopted by Ricci and the established usage in later Jesuit literature—to Dazhanna 大瞻納. In the late Ming, Chinese scholars and officials who were hostile to the Jesuits (such as the anti-Christian memorialist Shen Que, mentioned earlier in this chapter) denounced their world geography partly because of the "wrong" names the Jesuits used for Europe and Asia: besides referring to their European homeland as the "Great Western Ocean" or "Great West," which sounded arrogant or even seditious to their opponents, the Jesuits also used Yaxiya 亞細亞 to translate "Asia," the continent where China is

156 Xiong Renlin, "Author's Preface," in idem, *Diwei*. I consulted the copy held at the Library of Congress.

157 Xiong Renlin devoted a section entitled "Xingfang zonglun" (形方總論 General Discussion on the "Squareness" of the Shape [of the Earth]) to enunciating the cosmological features of the earth, in which he made it clear that the earth is a globe. He followed the Jesuits by interpreting the "squareness of the earth" taught in ancient Chinese classics as a reference to the "Dao of the Earth" rather than to its physical shape. See Xiong Renlin, *Diwei*, 7a–9b.

supposed to be located. To their opponents, this sounded like a plain insult, because *ya* 亞 means “second to” or “inferior” and *xi* 細 means “small” or “thin.”¹⁵⁸

Xiong Renlin attributed this renaming of Asia as Dazhanna 大瞻納 to his father, Xiong Mingyu.¹⁵⁹ Apparently, Xiong Renlin and his father Mingyu agreed with the Jesuits’ opponents on the impropriety of the translation of “Asia” as Yaxiya. A most likely source for the new name they coined, Dazhanna, is a statement in Aleni’s general remarks on Asia, where he wrote that until a hundred years earlier there had been no communication between China and the Great Western Ocean, which are separated by a distance of nearly 90,000 *li*; however, “there have been stories circulating overseas about [China], in which it is referred to respectfully as ‘Dazhina’ 大知納 [Great Sina].”¹⁶⁰ Here Aleni introduced one of the early names by which China was known overseas, Sina 知納 (or 支那 in its modern rendering). The Xiongs’ choice of Dazhanna 大瞻納, phonetically so close to Aleni’s rendering of Dazhina (“Great Sina”), may very well have been derived from the latter.¹⁶¹ If indeed this is the case, it would be a clear indication that the Xiongs sought to reaffirm China’s dignity

158 Chen Zushou 陳組綏, for example, could not accept the fact that the Jesuits “regarded China as Yaxiya” (yi zhongguo wei yaxiya 以中國為亞細亞). See his preface, “Huangming zhifang ditu huowen” (皇明職方地圖或問 Questions about Geographical Maps of the Ming Imperial Domain), 5a, in Chen Zushou, *Huang Ming zhi fang di tu biao* (皇明職方地圖表 Geographical Maps of the Ming Imperial Domain, 1636), reprinted in vol. 13 of *Xuanlantang congshu sanji* (玄覽堂叢書三集 The Third Book Series from the Xuanglan Hall), compiled by Zheng Zhengduo 鄭振鐸 (Nanjing: Nanjing tushuguan, 1955).

159 Xiong Renlin, *Diwei*, 11a. The senior Xiong may have suggested this new name during their private communications, but there is no evidence that Xiong Mingyu himself used it in his own writings.

160 Aleni and Xie Fang, *Zhifang waiji jiaoshi*, 32. In his annotations on this passage, Xie Fang suggests that Aleni’s term Dazhina (“Great Sina”) may have derived from Indian sources, where China was sometimes referred to respectfully as Maha Cina, and that the Jesuits may have learned of this usage during their transit by way of Goa, India. Aleni and Xie Fang, *Zhifang waiji jiaoshi*, 33.

161 Ma Qiong has pointed out that the Xiongs’ choice to name the continent of Asia Dazhanna 大瞻納 may have been inspired by Aleni’s rendering of “Great Sina” as Dazhina 大知納. Ma also suggests another possible source for Dazhanna, namely, the Chinese term for the southern continent in Buddhist cosmography, Jambudvīpa, i.e., Nan zhanbu zhou 南瞻部洲, which does have the character *zhan* 瞻 in it rather than Aleni’s *zhi* 知. I personally believe that the new name must have been derived from a fusion of both terms, and that Aleni’s term was probably the more essential one. See Ma Qiong 馬瓊, “Xiong Renlin diwei yanjiu” (熊人霖地緯研究 A Study of Xiong Renlin’s *Diwei*), Ph.D. dissertation, Zhejiang University, China, 2008, 98.

as the largest country on the largest continent on the earth by abandoning the Jesuit translation of Asia as Yaxiya and renaming Asia after China.

Despite the different organizational frameworks they adopted for incorporating Aleni's world geographical data, Lu Cuyin and Xiong Renlin shared some common features in the way they made use of Aleni's *Records of Lands beyond the Jurisdiction of the Imperial Geographer*. First of all, both authors for the most part chose to disregard or discount the religious content of Aleni's text. Lu even stated clearly that he did so with conscious intent. In the prefatory note to his *Translated Accounts of Things within the Eight Corners of the World*, he wrote of Aleni thus:

This remarkable man from the Western Region traveled across many foreign countries and distant lands. In this respect even [Tai] Zhang [太]章 and [Shu] Hai [豎]亥 could not match him.¹⁶² His book *History of Lands beyond the Jurisdiction of the Imperial Geographer* (Zhifang waishi 職方外史) contains things that we have never heard before. However, since he expounds on his [religious] doctrine at every turn and has lavished tedious discourses concerning such matters upon the book, I have left them out and only taken [the remaining] one third of the material.¹⁶³

This approach suited the general plan of Lu's book, which is concise and reads like an inventory of country names followed by brief descriptions. Where more information is available, he created subheadings under each country to cover its language (*yiyu* 譯語, where he typically provides the transliterations of the local words for "Heaven," "Earth," "sun" and "moon"), natural landscape (*shanchuan* 山川), and local products (*wuchan* 物產).

If Lu Ciyun's choice to avoid the religious subject matter in Aleni's text was dictated by the brevity of his own book, this was apparently not Xiong Renlin's motive for his own adaptations, for his *Geography of the Earth* is a hefty tome of 332 pages in classical Chinese, with many essays that run to seven or eight pages. An example is Xiong's entry on Judea. Aleni's was an essay of some 1,266 Chinese characters covering the Christian version of early human history, the history of the Jewish people, the story of Jesus, the spread of Christianity to Europe and Africa and the civilizing effect it had had on those parts of the world, and the basic doctrines and rituals of the Christian faith. At the end of

162 On these two legendary fast walkers, see Chapter 4, note 61.

163 Lu Ciyun, *Bahong yishi*, 3–4. Note that Lu's reference to the title of Aleni's text is not fully accurate: he substituted *shi* 史 (history) for *ji* 紀 (record).

the essay Aleni also included a brief account of Damascus, noting its landscape and a unique local medicinal product said to be able to cure all diseases.¹⁶⁴ Out of all this information, Xiong crafted his own entry on Judea, touching on its geographical location, its unbroken historical record stretching back for six thousand years, the fertility of its land, the prosperity of its people, its temple dedicated to the “Sovereign on High” (Shangdi zhi dian 上帝之殿), and the presence of many prophets. Finally he copied Aleni’s *entire* story about Damascus—yet all this was done in just 131 characters.¹⁶⁵

Other similar adaptations Xiong made can be seen in his entries on Europe and some individual European countries (such as France and Italy) and on the Americas. In his general remarks on the Americas, for example, he mentions neither that Columbus had acted out of a good Christian’s concern for the well-being of fellow human beings on the “missing” continent by venturing out to sea to search for it, nor that European missionaries sent to Central America after Hernán Cortés’s “discovery” of the northern continent were able to induce the natives to reform their evil customs. On the latter Xiong mentions only that European “instructors” (*jiaoguan*) were sent to Central America to engage in debate and discussions with the natives (*xiangyu lunjiang xishuo* 相與論講習說).¹⁶⁶

Also interesting is the fact that, at the end of his entry on Medina, Xiong adds a note, printed in a smaller font, that “the Westerners [Jesuits] told me that Muslims are profit-driven, and, once they see where there is a nice piece of land, they would flock to the place [and take it], which is how they spread their religion. [They also said] that their ancient scriptures were similar to those revered in Europe, but Muhammad prided himself on his own intelligence and changed the ancient teachings.” Whereas Aleni had consistently downgraded Islam in his entries on the Muslim world and presented Catholicism as the only orthodox religion that was prevailing in both the New and the Old Worlds, Xiong nevertheless observes at the end of this note that Islam was itself also spreading far and wide, and thus had already become a strong rival to the teachings of Christ.¹⁶⁷

The other common pattern shared by Lu Ciyun and Xiong Renlin concerns the difficulty they both experienced in creating a truly integrated account of

164 Aleni and Xie Fang, *Zhifang waiji jiaoshi*, 52–55.

165 Xiong Renlin, *Diwei*, 51a–b. In comparison, Xiong’s entry on the “Red-Haired Barbarians” (Hongmao fan 紅毛番) stands at 888 characters (*ibid.*, 134a–137b).

166 Xiong Renlin, *Diwei*, 154a–157a; the cited fragment appears in 156b. Aleni’s original entry on European continent is in Aleni, *Zhifang waiji*, in *TXCH*, vol. 3: 1437–1442.

167 Xiong Renlin, *Diwei*, 42b.

world geography based on available Jesuit and Chinese sources. This is apparent in the numerous inconsistencies in, and overlapping of, entries on the same world regions or peoples. We have already pointed out the inconsistency in how Lu grouped foreign lands known in Chinese sources and those countries of Afro-Eurasia described by Aleni. The result is that Lu's text has separate entries on Medina, Arabia (Tianfang 天方), Hormuz, and Zufar in the Division of the South (based on Chinese sources), and an entry on the Ottoman empire (Duerge 度爾格) in the Division of the West. The latter is based on Aleni's entry of the same title and includes some specifics on Arabia (Alabiya 亞刺比亞). Similarly, Xiong has separate entries on Medina, Arabia, and the Ottoman empire, albeit all presented as part of Asia.

For both authors, the problem is most pronounced in their entries covering Europe. Lu has separate entries on Holland (Helan 荷蘭) and Flanders (Falandesi 法蘭得斯) under the Division of the West, and on the Red-Haired Barbarians (Hongmao Gui 紅毛鬼) under the Division of the South. The entry on Flanders is based on Aleni's,¹⁶⁸ whereas the entries on Holland and the Red-Haired Barbarians are based on Chinese sources. On Holland, Lu states correctly that it is located in the northwestern corner of Europe and has customs similar to other European countries. He also notes the Dutch's soft silver and sharp knives,¹⁶⁹ and the fact that they sent a mission to the Qing court in 1644; this entry is apparently based on records stemming from that Dutch mission.

The term Hongmao Gui (Red-Haired Barbarians, or Red-Haired Ghosts), in contrast, referred to members of the Dutch East India Company who had first appeared on the southern shores of China at the turn of the seventeenth century. The Dutch had pioneered a southern Indian Ocean route to reach the South China Sea so as to bypass the Portuguese control of the Indian Ocean trade route, which extended from the East African coast all the way to Macao. After their first failed attempts to obtain trading privileges and an outpost in China similar to Macao through negotiation, they resorted to terror tactics to get what they wanted. The Chinese referred to them as Hongmao 紅毛 (Red Hairs) or Hong Yi 紅夷 (Red Barbarians, or Red-Haired Ghosts); the last name conveyed the fear the Dutch elicited among the people of coastal China. Lu's entry on the Red-Haired Barbarians describes them as pirates more ferocious and lethal than any others, due to their ability to detect approaching ships from afar with their telescopes (*qianli jing* 千里鏡) and arrive quickly at their targets in their fast boats.

¹⁶⁸ Aleni, *Zhifang waiji*, in *TXCH*, vol. 3: 1397–1398.

¹⁶⁹ "When they go to market to purchase things, they cut off pieces of silver on the spot with their knives as payment." Lu Ciyun, *Bahong yishi*, 15.

The arrival of the Dutch in the South China Sea brought a slice of the fierce religious, political, and commercial wars ongoing between Catholic and Protestant Europe before the very eyes of the Chinese active on the southern coast. Lest the myth of Western Christendom as a unified Confucian Utopia be punctured, Ricci and his junior Jesuit colleagues did not inform their Chinese associates that these so-called Hongmao were not unsystematic pirates but members of an organized European entity, the Dutch East India Company. Instead, what they emphasized was the united front between the European settlers of Macao and Chinese maritime officials and soldiers in their common struggle against these powerful thieves on the high seas. Xiong Renlin's father, Xiong Mingyu (profiled in Chapter 4), who had formed personal friendships with Diego de Pantoja, Manuel Dias, Jr., and Francesco Sambiasi, received no help from them in his intellectual struggle to sort out who the Folangji and Hongmao were and where they had come from. His essays on Luzon, Folangji, and "Hongmao fan" (紅毛番 Red-Haired Barbarians) give ample indication of the difficulty of that struggle.¹⁷⁰

Xiong Renlin copied these essays by his father with little change into his own work, *Geography of the Earth*. The resulting entry on Folangji—which is presented among the countries of Asia, preceded by Champa and followed by Calicut—basically repeats the entire story told by Yan Congjian in his 1574 *Informative Records about Distant Lands* (excerpted above in the first section of this chapter).¹⁷¹ Folangji is identified there as a country in the vicinity of Melaka and Java. In contrast, in the entry on the Red-Haired Barbarians, there are two more mentions of the country of Folangji: one places it next to Luzon, as the true buyer of the large volume of Chinese goods brought to Luzon from Fujian Province each year; the other puts Folangji in Europe, as the neighbor to the Red-Haired Barbarians. Unlike Lu Ciyun, the Xions correctly identify these "Red Hairs" as people from Holland, a country "located in the West Sea, the size of Folangji and Gansila 幹絲蠟 [Castile, Spain], and [these three countries] do not rule over each other, and their customs, tastes, and food preferences are similar to each other."¹⁷² Here they also note that "Holland is beyond Folangji" and that its people "pass by Folangji on their way to Luzon, a trip which takes them over a year."¹⁷³ Thus, in this entry, Folangji is variously associ-

170 On Xiong Mingyu's relationship with these missionaries, see the third section of Chapter 4 above. On his essays on "Folangji" and "Hongmao fan," see Chapter 4, notes 59 and 63.

171 Xiong Renlin, *Diwei*, 79a–81a.

172 Xiong Renlin, *Diwei*, 134a. At the time, Portugal was still ruled by the crown of Spain, but in theory it remained an independent political body.

173 Xiong Renlin, *Diwei*, 135a.

ated with Spain (as the ruler of Luzon and buyer of Chinese goods) and with Portugal, a country next to Spain and south of Holland. Neither of the Xiongs, however, attempted to sort out the discrepancies within this entry, or between this entry and the one on Folangji mentioned above.

Interestingly, Xiong Renlin's *Geography of the Earth* contains an entry on Folangcha (France), based on Aleni's account, that includes only 75 Chinese characters out of Aleni's total of 397. Xiong mentions Folangcha's famous King Louis, who had made an expedition against the Muslims, and the fire-arms known as Fulangji 弗郎機 named after him. In this narrative, Xiong takes Fulangji to be the personal name of King Louis, and perhaps not coincidentally, he replaces the character Fo 佛 in Aleni's original for Folangji (i.e., 佛郎機) with Fu 弗. Thus Xiong entirely missed Aleni's point that Folangji was the medieval Muslims' general reference to all Western Europeans. It was now the personal name of a French king who had lived in medieval times.

To gain greater clarity on the questions about Folangji and pin it down to a precise location on the world map became an obsession that would consume many Chinese scholars in future generations who studied world geography, including such late Qing thinkers as Wei Yuan 魏源 (1794–1857). With a greater conviction than the Xiongs that Folangji must be somewhere in Europe, they revisited Aleni's account of Europe, or the identical ones in Verbiest's *Illustrated Account of World Geography*. "Aha!" Nearly all of them found the clue right there, in Aleni's (or Verbiest's) entry on France. But unfortunately, they, too, all missed Aleni's point—that Folangji was once a name given by Muslims in medieval times for all the "Franks" (i.e., Western Europeans). The French, who did not arrive in the South China Sea until 1660,¹⁷⁴ thus became the bearers of all the historical and fictional sins committed by the Folangji in much of the official and private Chinese literature well into the mid-nineteenth century.¹⁷⁵

174 See Zhang Xinglang, *Zhongxi jiaotong shiliao huibian*, vol. 1: 345.

175 See, for example, Dong Gao 董誥 (1740–1818), *Huangqing zhigong tu* (皇清職貢圖 Qing Imperial Illustrations of Tributaries, 1761), copy held at Waseda University; accessed on 11/9/13 at http://www.wul.waseda.ac.jp/kotenseki/html/nii6/nii6_02242/index.html, at *juan* 1, 49a–b (essay accompanying the illustration of French man and woman); Zhang Tingyu 張廷玉 et al., comps., *Huangchao wenxian tongkao* (皇朝文獻通考 A Comprehensive Review of Imperial Literature, commissioned by the Qianlong Emperor in 1747), *juan* 298, 34b–36a, *Siku quanshu* (四庫全書 Complete Collection of the Four Treasures) edition, digital scan of copy accessed on 11/20/2013 at: <https://archive.org/details/o6051593.cn>; and also Wei Yuan 魏源 (1794–1857), *Haiguo tuzhi* (海國圖志 Illustrated Gazetteer of Maritime Countries), *juan* 41, 8b–19a, digital scan of copy held at

Conclusion

In 1751, the grandson of Kangxi, the Qianlong Emperor (r. 1735–1795), issued an edict to the governors and governors-general near the empire's borders. In it he states that “my dynasty has united the vast expanses. Of all the inner and outer barbarians belonging under its jurisdiction, there are none that have not sincerely turned toward us and been transformed.”¹⁷⁶ He requests that these officials gather examples from the various non-Chinese groups residing under their jurisdiction—the Miao, Yao, Li, and Zhuang, and the outer barbarians with whom they conduct official business at the border; make illustrations of these people, capturing the likenesses of their distinct clothing, caps, appearance, and bearing; and send them to the Grand Council for his review. He states that such a compilation will serve as a visual testimony to the diverse peoples of the world who are drawn to his empire because of its grandeur.¹⁷⁷ The result of this project was the *Qing Imperial Illustrations of Tributaries* (*Huangqing zhigong tu* 皇清職貢圖, 1761). When it was published, the text was preceded by a poem composed by the Qianlong Emperor, followed by several poems written by his ministers to celebrate the occasion.

A spirit of cosmopolitanism animates these poems. This spirit is captured in the term *gongqiu* 共球 (literally, “sharing the globe”), which appears in several of these poems, including the Qianlong Emperor's.¹⁷⁸ The term *gongqiu* had entered Chinese discourse on foreign relations around the turn of the seventeenth century, and by the Kangxi reign had found its way into the Manchu court's ritual music.¹⁷⁹ If its origins remain murky, by the reigns of Kangxi,

Waseda University, Japan, accessed on 11/20/2013 at http://archive.wul.waseda.ac.jp/kosho/ru01/ru01_03176/ru01_03176_0011/ru01_03176_0011.pdf. Wei Yuan identified his source as Aleni. See also other mid- to late-Qing sources enumerated in Zhang Weihua 張維華, *Mingshi ouzhou siguo zhuan zhushi* (明史歐洲四國傳注釋 Commentaries on the Records of Four European Countries in the *History of the Ming*) (Shanghai: Shanghai guji chubanshe, 1982), 1.

176 Dong Gao, *Huangqing zhigong tu*, juan 1, 1a, “Yuzhi” (諭旨 Imperial Edict). Translation cited from Hostetler, *Qing Colonial Enterprise*, 46.

177 The Chinese reads “Yi zhao wanghui zhi sheng” 以昭王會之盛. Dong Gao, *Huangqing zhigong tu*, juan 1.

178 Dong Gao, *Huangqing zhigong tu*, juan 1 (Qianlong's poem, 1a; ministers' poems, 2a, 6b, and 10a).

179 The earliest usage of this term I have found is in Xiong Mingyu's introduction to his *Daoyi zhuan* (島夷傳 Records on Island Barbarians). I wish to thank Chu Ping-yi for conducting a digital search in the Siku database on my behalf, the results of which confirmed my initial findings. I plan to conduct a fuller investigation of these sources in a future project.

Yongzhen, and Qianlong, its usage unmistakably communicated the awareness that China shared this space on the globe with other nations in the world.

This gives credence to the larger picture emerging from our studies here—namely, that the Chinese vision of the physical dimension of the world was much enlarged as a result of intellectual exchange with the Jesuits and the Chinese engagement with the larger early modern world, especially with the maritime Europeans. However, the details of this emerging world consciousness, especially with respect to the vigorously expanding European continent, remained fluid and blurred. The *Qing Imperial Illustrations of Tributaries* presents a survey of the foreign peoples who had come to pay tribute to the Qing court. It supplies each of these people with illustrations, showing one male and one female in their typical costumes, accompanied by a brief narrative. The table of contents for the first volume of this survey lists not only such long-standing neighboring tributary peoples as the Koreans, Vietnamese, and Burmese, but also the following European “tributary peoples”:

Country of the Great Western Ocean, Male/Female (Da Xiyang guo yiren/yifu 大西洋國夷人/夷婦)

Country of the Great Western Ocean, Province of Croatia,¹⁸⁰ Male/Female (Da Xiyang guo heleweijiya shen yiren/yifu 大西洋國合勒未祭亞省夷人/夷婦)

The Great Western Ocean, Country of Hungary, Male/Female (Da Xiyang wengjialiya guo yiren/yifu 大西洋翁加里亞國夷人/夷婦)

The Great Western Ocean, Country of Poland, Male/Female (Da Xiyang guo boluoniya guo yiren/yifu 大西洋波羅尼亞國夷人/夷婦)

Country of the Great Western Ocean, Male/Female Black Slaves (Da Xiyang guo heigui nu/nufu 大西洋國黑鬼奴/奴婦)

Country of the Great Western Ocean, Monks/Nuns (Da Xiyang guo yiseng/nüni 大西洋國夷僧/女尼)

Country of England, Male/Female (Yingjili guo yiren/yifu 英吉利國夷人/夷婦)

Country of France, Male/Female (Falanxi guo yiren/yifu 法蘭西國夷人/夷婦)

Country of Sweden, Male /Female (Rui guo yiren/yifu 瑞國夷人/夷婦)

Country of Holland, Male/Female (Helan guo yiren/yifu 荷蘭國夷人/夷婦)

Country of Russia, Male /Female (Eluosi guo yiren/yifu 俄羅斯國夷人/夷婦)

180 Croatia was referred to as 厄勒祭亞 by Ricci and Aleni, and as 厄肋齊亞 on Verbiest's world map.

The short essay accompanying the images of the French male and female says:

Falanxi 法蘭西 is also called Fulangxi 弗郎西. It is the same country known as Folangji 佛郎機 during the Ming dynasty. It had not been in communication with China since antiquity. During the reign of the Zhengde Emperor [1506–1521], [its ruler] sent an embassy [to the Ming court] to request the title of a tributary subject. After being denied the request, [members of the mission] forced their way into Macao of Xiangshan county. The people of Falanxi were tough and aggressive and possessed strong firearms. They conquered Luzon and Melaka and divided the Moluccas with the Red Hairs (Hongmao 紅毛). They were the ones who reaped all the profits there were to be made from the trade occurring on the seas off Fujian and Guangdong provinces. They originally believed in Buddhism, and later converted to Catholicism. Those among them who resided in and ruled Luzon recently are contending with the English branch of the Red Hairs for control of the area. Falanxi seems to be the weaker party in the rivalry. The men wear a white kerchief on their heads and a black wool hat over it. They also take off their hats as a way to show respect. Their clothing is roughly similar to that worn by men from the Great and Small Western Oceans and Luzon. The women also dress themselves quite similarly to those from the Netherlands and other such countries.¹⁸¹

This entry, especially in its last five lines, is much informed by knowledge gained in the real world from Chinese maritime encounters with the French people. On the whole, however, it reads more like a mosaic haphazardly put together. It remains evidence of the dangers and risks of the contact zone, a casualty of the otherwise fruitful convergence of the Sino-Jesuit intellectual exchange on world geography and the Chinese people's hands-on experience of the wider early modern world both on and beyond their maritime frontier.

¹⁸¹ Dong Gao, *Huangqing zhigong tu*, juan 1, 49a–b.

Conclusion: Jesuit Science and the Shape of Chinese Early Modernity

Matteo Ricci was astute to recognize that “the Chinese possess the ingenuous trait of preferring that which comes from without to that which they possess themselves, once they realize the superiority of the *foreign product*” (emphasis added).¹ And just as Ricci wished, over the course of the seventeenth century some key elements of Jesuit science—namely, their presentations of the late Renaissance European conception of the physical earth and knowledge of world geography—did indeed become viewed by the Chinese as “superior” foreign products worthy of import for domestic consumption.

Exactly where did these ideas end up? As shown in earlier chapters, the New World discoveries, in the sense we have defined them from the outset (see Chapter 1), came to play an important role in the dynastic politics of the late Ming and early Qing. In the early Qing the Manchu rulers, especially the Kangxi Emperor, recognized the value of this body of Western learning as strategic cultural capital. Through their privileged access to and control of the best Jesuit minds in mathematics and the sciences, the Manchu emperors diligently acquired such knowledge in their attempt to fashion themselves into sage-rulers of a new era who not only surpassed their conceited Han Chinese subjects thanks to this additional intellectual edge but could demonstrate their mastery of the latest international conventions in cartography and other sciences to their global competitors. We have also seen how the new ideas about the terraqueous globe, the seas, and the oceans and continents—and the facts and myths about the wider early modern world propagated by the Jesuits—made their presence felt in many ongoing Chinese discourses. We delved especially into how these ideas were taken up within the realm of cosmology, in the speculations about the structures and movements of Heaven and Earth among members of the Fang School such as Xiong Mingyu, Fang Yizhi, and Jie Xuan; in the discourses among the classicists who enunciated the “true meaning” of the term Four Seas in the ancient Confucian text entitled the “Tribute of Yu”; and in the works of such geographers as Lu Ciyun and Xiong Renlin, who tried to patch together a credible image of the whole world out of both Jesuit and Chinese sources.

¹ See the first epigraph to Chapter 1 above. Ricci and Trigault, *China in the Sixteenth Century*, 22–23.

But even beyond these political and intellectual realms, elements of this new worldview ventured into the cultural marketplace of the late Ming and early Qing, where they were earmarked for popular consumption. There are many examples of this popular and commercial turn of Jesuit science in China. During the seventeenth century, for instance, a genre of apocryphal texts known as the White Ape Classics (*Baiyuan jing* 白猿經) surfaced. Often attributed to various famous military strategists in Chinese history, these texts offered aeromantic advice on how to forecast the weather and predict human affairs by reading various signs in the sky. One of these texts, the *White Ape Illustrations of Winds and Rain* (*Baiyuan fengyu tu* 白猿風雨圖), attributed to Liu Ji 劉基 (1311–1375) of the early Ming, carries two illustrations explaining how the imposition of the full disk of the moon between the sun and the earth causes solar eclipse (Figure 7.1). Both these illustrations and their accompanying captions are derived from Manuel Dias's *Brief Answers to Questions Concerning the*

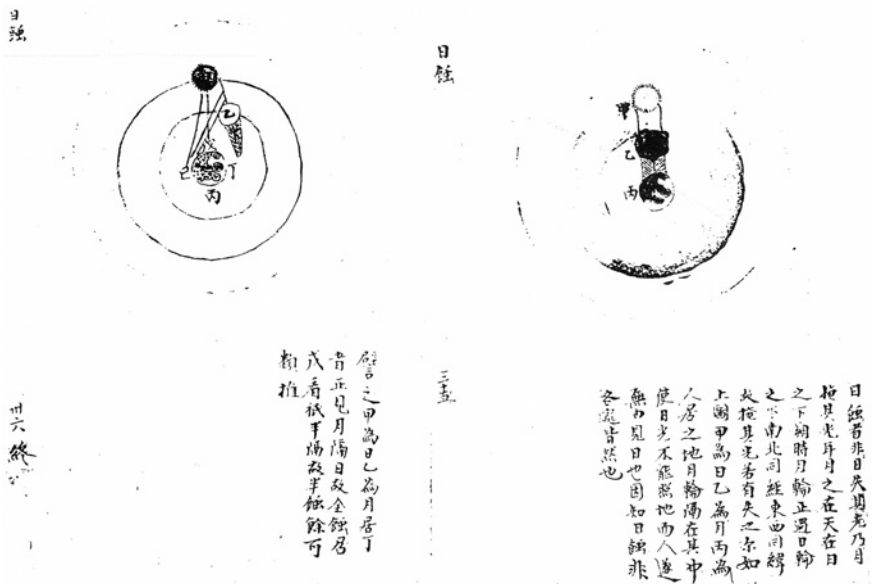


FIGURE 7.1 *Illustrations of the cause of solar eclipse. In the anonymous aeromantic text Baiyuan fengyu tu (白猿風雨圖 White Ape Illustrations of Winds and Rain), first half of the seventeenth century, traditionally attributed to Liu Ji 劉基 (1311–1375). Manuscript copy reprinted in SKCM, zi, vol. 60: 791*

COURTESY OF SIKU QUANSHU CUNMU CONGSHU BIANJI CHUBAN GONGZUO WEIYUANHUI (四庫全書存目叢書編輯出版工作委員會 COMMITTEE ON THE EDITING AND PUBLICATION OF SKCM), BEIJING.

Heavens (Tianwen lue, 1615).² The earth itself, of course, is shown as the terraqueous globe typically depicted in Jesuit astronomical texts.

A similar text, *Martial Duke Zhuge's White Ape Classic: An Illustrated Account of How to Interpret the Winds and Rain* (Zhuge wuhou baiyuan jing fengyu zhan tushuo 諸葛武侯白猿經風雨占圖說), attributed to the famous strategist Zhuge Liang 諸葛亮 (181–234) of the Three Kingdoms period, contains an illustration of the formation of winds, clouds, thunder, lightning, and rain (Figure 7.2). Entitled “Illustration of the Descent of the Fire of the Sun and the Ascent of *Yang Qi*” (Ri huo xiajiang yangqi shangsheng tu 日火下降陽氣上升圖), this is a permutation of an image, bearing exactly the same title, drawn by Jie Xuan. Jie had made his drawing to demonstrate the mechanisms whereby these meteorological phenomena were produced based on his reading of Alfonso Vagnoni's *Investigation into the Phenomena of the Atmosphere* (Kongji gezhi 空際格致, 1633). Vagnoni's explanations presupposed the Aristotelian image of the sublunar world, especially concerning the structure and properties of the spheres of Earth, Water, and Air.³ Thus we can see that, by the mid-seventeenth century, some diviners—one of the most ancient and popular professions in China—had taken note of the explanatory powers of the Jesuit

2 Anonymous, *Baiyuan fengyu tu* (白猿風雨圖 White Ape Illustrations of Winds and Rain), an early seventeenth-century text attributed to Liu Ji 劉基 (1311–1375). Manuscript copy reprinted in *SKCM, zi*, vol. 60: 791; Dias, *Tianwen lue*, in *TXCH*, vol. 5: 2655–2657. For further information on Liu Ji and the works published in his name, including *Baiyuan fengyu tu*, see Pan Mengbu 潘猛補, “Liuji zhuzuo kao” (劉基著作考 A Study of the Works by Liu Ji), in He Xiangrong 何向榮, ed., *Liu Ji yu Liu Ji wenhua yanjiu* (劉基與劉基文化研究 Studies on Liu Ji and Liu Ji Culture) (Beijing: Renmin chubanshe, 2008). I accessed an online version of this article on 1/3/2014 at: http://www.liujichina.com/News_Blank.asp?ID=960.

3 A discussion of this image in the aeromantic text *Zhuge wuhou baiyuanjing fengyu zhan tushuo* (諸葛武侯白猿經風雨占圖說 Martial Duke Zhuge's White Ape Classic: An Illustrated Account of How to Interpret the Winds and Rain), held in the Shanghai municipal library, can be found in Zhongkeyuan Dixueshi Zu (中科院地學史組 Chinese Academy of Sciences, Section in the History of the Earth Sciences), ed., *Zhongguo gudai dilixueshi* (中國古代地理學史 History of Ancient Chinese Geography) (Beijing: Kexue chubanshe, 1984), 119. For Jie Xuan's image of the same title, see his *Xuanji yishu*, *juan mo*, 15b–16a, in *SKCM, zi*, vol. 55: 490; and a similar image under a different title, “Ri huo xiajiang shangsheng zhu xiang tu” (日火下降上升諸象圖 Illustration of the Descent and Ascent of the Fire of the Sun and Various Other Phenomena) in You Yi 游藝, *Tianjing huowen houji* (天經或問後集 Second Collection of Inquiries into the Heavens), in *SKCM, zi*, vol. 55: 374. For Alfonso Vagnoni's explanations of these phenomena, see his *Kongji gezhi*, reprinted in *TDWXS B*, vol. 2: 896–901, 926–930, and 963–977.



FIGURE 7.2 "Illustration of the Descent of the Fire of the Sun and the Ascent of the Yang Qi" (*Ri huo xiajiang yangqi shangsheng tu* 日火下降陽氣上升圖), first half of the seventeenth century. In the aeromantic text Zhuge wuhou baiyuanjing fengyu zhan tushuo (諸葛武侯白猿經風雨占圖說 *Martial Duke Zhuge's White Ape Classic: An Illustrated Account of How to Interpret the Winds and Rain*), attributed to Zhuge Liang 諸葛亮 (181–234), 2a-b. COURTESY OF SHANGHAI LIBRARY.

notion of the globe and the theory of the Four Elements and decided to make use of them to improve their craft.

We also know that some of these New World discoveries filtered into works sold in the popular art markets. The Suzhou printer Wang Junfu 王君甫 (fl. mid- to late seventeenth century) supplies us with two such examples. One is a world map he printed, entitled "The Complete Map of the Nine Border Towns of the Great Ming and of the Human Presence and Travel Routes of the Ten Thousand Countries" (*Daming jiubian wanguo renji lucheng quantu* 大明九邊萬國人跡路程全圖, 1663; Figure 7.3). This map is one of a series of hybrid



FIGURE 7.3 “The Complete Map of the Nine Border Towns of the Great Ming and of the Human Presence and Travel Routes of the Ten Thousand Countries” (*Daming jiubian wanguo renji lucheng quantu* 大明九邊萬國人迹路程全圖), 1663, by Wang Junfu 王君甫 (fl. mid- to late seventeenth century). Imitated copy by Umemura Yahaku 梅村彌白 at the turn of the eighteenth century (exact date unknown). Original dimensions 122 × 123 cm PHOTO COURTESY OF SPECIAL COLLECTIONS, WASEDA UNIVERSITY LIBRARY.

world maps that first emerged at the end of the sixteenth century and enjoyed much popularity for over two hundred years.⁴ Its immediate predecessor was

4 The first of these hybrid maps, entitled “Qiankun wanguo quantu gujin renwu shiji” (乾坤萬國全圖古今人物事蹟 A Comprehensive Map of Heaven and Earth and the Myriad Countries, and Ancient and Modern Persons and Artifacts), was engraved in 1593 by Liang Zhou 梁輅, an educational official in Wuxi. The Jesuit source for Liang was the 1584 edition of Ricci’s world map, which is now lost. For further discussion of Liang Zhou’s map and the broader genre in which it is situated, see Richard Smith, “Mapping China’s World,” chap 2 in

“A Complete Map of the Nine Border Towns, Allotted Fields, Human Presence, and Travel Routes of All under Heaven” (Tianxia jiubian fenyue renji lucheng quantu 天下九邊分野人跡路程全圖), crafted by Cao Junyi 曹君義 and printed in Nanjing in 1644. Cao’s map combines the detailed and relatively accurate representation of China in Luo Hongxian’s “Maps of Extended Territory” (Guangyu tu) with some of the images of foreign lands depicted on Aleni’s “Complete Map of the World” (Kunyu quantu, 1623).⁵ For the parts he borrowed from Aleni’s map, Cao even showed token respect for the Jesuit cartographical convention of depicting the longitudes and latitudes, which promptly end at the border of China. On the whole, Cao’s map communicates the same image of the world as does the “Map of Advantageous Terrain, Chinese and Foreign, Past and Present” (Huayi gujin tianxia xingsheng zhi tu; see Figure 2.3), the major representative of the symbolic, cultural cartographic genre, as discussed in Chapter 2. Cao’s map places China right in the center, taking up an area larger than all the other countries put together. Foreign countries are depicted without consideration for their precise coordinates. Europe is pushed into the northwestern corner, and the land of China extends southward beyond the southern tip of Africa. A far greater distortion is seen in its representation of the Americas: North and South America are thrown into the northeastern and southeastern corners of the map without any connection in between.

Cao Junji’s map carried over—in fact, surpassed—the representation of the world of wilderness in the “Map of Advantageous Terrain” (see Figure 2.3), through an almost exhaustive incorporation of the mythical lands depicted in early Chinese cosmography in the tradition of the *Classic of Mountains and Seas*, now augmented with new ones culled from Aleni’s map. In the oceans at the southern and southeastern sections of the map, we find the names of strange creatures with “golden teeth,” “conjoined bodies,” “three heads,” and “perforated chests,” as well as the lands of pygmies, women, and hairy people. More places and people, such as the “Land of the Immortals” (Busi guo 不死國) and people with eyes in the rear (*hou yan* 後眼), are listed among the various

idem, *Mapping China and Managing the World*; Elman, *On Their Own Terms*, 128–129; and Huang Shijian and Gong Yingyan, *Li Madou shijie ditu yanjiu*, 26–28. Smith points out that this type of hybrid map became a dominant Chinese visual representation of the world until the mid-nineteenth century, although the mythical lands from the *Shanhaijing* would eventually disappear from such maps. See Smith, “Mapping China’s World,” 84–88.

5 The most important clue to the Jesuit sources used by Cao Junji and Wang Junfu’s maps is the rendering of the African kingdom of Monomotapa. Ricci rendered it as 馬拿莫大巴, whereas Aleni adopted this name in his narrative on this kingdom but rendered it as 莫納木大彼亞 in his “Wanguo quantu” (Aleni, *Zhifang waiji*, in TXCH, vol. 3: 1413). Both Cao and Wang used 莫納木大彼亞.

large and small tributary states of China in the prefatory essay printed on the top of the map, entitled “Explanation of the Complete Map of Ten Thousand Countries” (Wanguo daquan tushuo 萬國大全圖說). Such lands blended harmoniously with the Land of the Giants of Pantagolia (Changren guo 長人國) and the Land of the Dwarves in northwestern Europe (Ai guo 矮國),⁶ adopted from Aleni’s map, which in turn were derived from Ricci’s map.⁷

Wang Junfu’s map (see Figure 7.3) retains all these features of Cao’s map except for the meridians. The cartographical features of Wang’s and Cao’s maps have already been studied by earlier scholars. What is of particular interest here is, rather, the popular and non-academic quality of Wang’s production. First of all, the introductory essay located at the top of Wang’s map, copied from Cao’s, carries a conclusion that reads like a sales pitch. It says that all these foreign lands are

shown where they belong. The North and South Poles, and the East and West Oceans, are all encompassed by the Four Seas. The distances of travel [from these lands to China] are based on what is recorded in the *Records of the Unified Realm* (Yitong zhi 一統志) and the *Classic of Mountains and Seas*. Those who wish to know All under Heaven and the Four Quarters of the earth do not have to step outside their homes: all is presented before their eyes. They will find out [all there is to know] from here.⁸

Second, Wang did not bother to check the original copy of Aleni’s text to correct the numerous mistakes that Cao had made, both in his visual presentations of foreign lands and in the names he gave to those lands. For example, Cao included only one of the three main British islands shown on Aleni’s

6 The original in Aleni’s map is “Airen guo” 矮人國, but in his narrative entry on the same subject, Aleni renders it as “Xiaoren guo” 小人國. See Aleni, *Zhifang waiji*, in TXCH, vol. 3: 1353 and 1412.

7 For further discussion of Cao Junyi’s map, see Smith, *Mapping China and Managing the World*, 67–69.

8 Wang Junfu, “Daming jiubian wanguo renji lucheng quantu” (大明九邊萬國人跡路程全圖 The Complete Map of the Nine Border Towns of the Great Ming and of the Human Presence and Travel Routes of the Ten Thousand Countries, 1663). I have compared a copy of Wang Junfu’s original held at Soongsil University, Seoul, South Korea, and the imitation copy made by Umemura Yahaku 梅村彌白 at the turn of the eighteenth century (exact date unknown), currently held at the Special Collections of Waseda University (shown in Figure 7.3). All directly or indirectly cited texts from this map are identical on these two copies of Wang’s map.

map—England—and he had the Chinese transliteration of “England” used by Aleni printed wrong, as Pueliya 譜厄利亞 instead of Aneliya 諳厄利亞. It is easy to mistake 諳 (*an*) for 譜 (*pu*), but the result is a word with a very different pronunciation. Wang repeated both of Cao’s mistakes in his own map. In addition, he introduced some errors of his own, including one at the end of the introductory essay quoted above⁹ and another in the text box on Japan. The latter would have been easily detected if the map had been proofread at all: where it says that the Japanese tributary missions arrive in China via the port of Ningbo 寧波, Wang’s text printed an extra character 波, so that the city of Ningbo appears as Ningbobo 寧波波.

The lack of close proofreading indicates that this map was made in haste, as a cheap piece of merchandise. Given what we know of the Manchu censorship of cultural products at this time (nearly twenty years after the founding of the Qing and well after the Suzhou area fell under Manchu control), it is difficult to fathom what motivated Wang to produce a world map showing the Ming empire at its center and the Manchus, still referred to as Jurchens (Nüzhi 女直), as a minor tribal group ruling a small area to the northeast of the Great Wall—a map with none other than “the Great Ming” inscribed in its title. There must have been a substantial profit to be made from the sales of such prints to offset the political risk involved.

The other example from Wang Junfu is a further indication of the commercial drive behind his engagement with Jesuit images of the wider world—namely, his multicolored print entitled “Ten Thousand Countries Coming to Court” (Wanguo laichao tu 萬國來朝圖; Figure 7.4). In theme this print connects smoothly with his world map, though it is in the form of another genre, that of “New Year prints” (*nianhua* 年畫), a tradition of folk art known not for its creative qualities but for its function in generating a festive mood. As Kobayashi Hiromitsu has pointed out, the banning of vernacular literature by the Qing court in 1652, in the name of safeguarding morality, caused many printers throughout the country to lose their jobs. But printers of Suzhou fared relatively well during this crisis because they shifted very quickly into new lines of production, and especially into single-sheet pictures.¹⁰

Wang’s world map and this color print both belonged to this new trend. This color print (see Figure 7.4) draws on the tradition of “images of tributary

9 Here Wang Junfu used the character 祥 (propitious) instead of 詳 (to know in detail). The mistake makes the sentence grammatically problematic.

10 Hiromitsu Kobayashi 小林宏光, “Seeking Ideal Happiness: Urban Life and Culture Viewed through Eighteenth-Century Suzhou Prints,” in Clarissa von Spee, ed., *The Printed Image in China from the 8th to the 21st Centuries* (London: The British Museum Press, 2010), 36.



FIGURE 7.4 "Ten Thousand Countries Coming to Court" (Wanguo laichao tu 萬國來朝圖), mid-to late seventeenth century, by Wang Junfu 王君甫 (fl. mid- to late seventeenth century). Multicolored "New Year print" (nianhua 年畫)

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bearers" (*zhigong tu* 職貢圖) by court artists going back to the Five Dynasties, if not earlier. This tradition became a favorite theme of Qing court paintings, in which artists attempted to provide realistic portrayals of the grandeur of imperial receptions of foreign envoys.¹¹ But what we have here in Wang's color print is the popular version designed to decorate ordinary households as part of their New Year celebrations. It depicts various foreign tribute-bearers arriving at the front gate of the imperial palace, Zhengyangmen 正陽門. Images of clouds give a propitious and heavenly air to the location; two elephants, themselves tributary gifts to the court, guard the entrance with their trunks intertwined; and dashes of red throughout the painting enhance the festive atmosphere. Many of the foreign lands depicted on Wang's map, whether real or imagined, are represented here: the countries of the pygmies (Xiaoren guo 小人國) and of the people with perforated chests (Chuanxin guo 穿心國), Japan (Ribei 日本), India (Tianzhu guo 天竺), and the Country of Muslims (Huihui guo 回回國). The Country of Red Barbarians (Hongyi guo 紅夷國), indicated on the left margin of Wang's map (see Figure 7.3), is replaced here by Holland (Helan 荷蘭). At the front right corner, we find the Giants of Pantagolia (Changren guo 長人國), first introduced to China by Ricci and later taken over by Aleni—the same mythical creatures of the New World that had mesmerized many Renaissance European readers. Just to the right of the center point, we also see the characters for "Western Ocean" (Xiyang 西洋), a term probably referring to Europe at the time of this production. It is represented by a lady carrying an infant. According to Kobayashi, this may have been a local interpretation of the Virgin and Child in Christian iconography.

The painting must have been quick to produce—many components of it, such as the people of perforated chests, were assembled from available fragments contained in texts such as Wang Qi and Wang Siyi's *Assembled Illustrations of the Three Realms* (Sancai tuhui), the popular encyclopedia that featured many images of strange lands and peoples.¹² Wang Zhenghua has pointed out that only about two thousand Suzhou block-printed images (including Wang Junfu's) from the early to mid-Qing are extant, most of which are preserved in overseas collections, with Japan holding the largest number. This must be due to the fact that the Chinese themselves saw such

11 For a study of the court paintings on this theme, see Lai Yu-chih (Lai Yuzhi) 賴毓芝, "Tuxiang diguo: Qianlong chao Zhigong tu de zhizuo yu didu chengxian" (圖像帝國: 乾隆朝《職貢圖》的製作與帝都呈現 Picturing Empire: Illustrations of "Official Tribute" at the Qianlong Court and the Making of the Imperial Capital), *Bulletin of the Institute of Modern History, Academia Sinica*, no. 75 (2012): 1–76.

12 Kobayashi, "Seeking Ideal Happiness," 37–38.

prints as cheap commodities, available in large quantities, rather than as prized collectibles; they were made for one-time consumption, and pulled off the wall once the celebrations were over.¹³

The fact that elements of Jesuit representations of the New World were cycled into these Chinese divination manuals and ephemeral products available in popular art markets over the course of the seventeenth century demonstrates the depth of the Chinese encounter with Jesuit science and the extent to which that science became localized. It also raises broader questions about the patterns of assimilation of Jesuit science in China and the net result that assimilation had for the subsequent trajectory of Chinese intellectual history.

The stories presented above and in the preceding chapters capture some of the first steps in the broader process of what may be called the “global integration of space and time” that was taking place among the major civilizations of all the inhabited continents on earth, which were brought into direct contact during the Age of Discovery. As previous scholars have shown in the case of early modern Europe, encounters with the American continent and its native peoples (whose very existence had never been expected) and the discoveries of alternatives to the biblical account of human history (such as those found in Chinese historical records) pitted a host of inconvenient facts against a set of creeds and traditions that had hitherto been held to be supreme by scholars and laypersons alike.¹⁴ Eventually these facts did take their appropriate places within those revered traditions. Many Renaissance scholars discovered that the New World was not really new after all, for it had been presaged by Plato, Plutarch, and Seneca, among other classical authors.¹⁵ Likewise, as Edwin J. Van Kley has pointed out, by the mid-eighteenth century a historian in Europe “might question or reject parts of ancient Chinese history and chronology; he might doubt the virtues and wonders of Chinese civilization described by the Jesuits; but it had become exceedingly difficult for him to ignore Chinese history.”¹⁶

The same can be said of Chinese encounters with the new world picture presented by the Jesuits. The Square-Earth-and-Four-Seas model had provided

13 Wang Zhenghua 王正華, “Chengshi yu shijue shangpin: Qingdai chu zhong qi Suzhou banhua de shangye mianxiang” (城市與視覺商品:清代初中期蘇州版畫的商業面向 City and Visual Merchandise: The Commercial Orientation of Early and Mid-Qing Woodcut Pictures), manuscript of article in preparation for publication, 6–7. I wish to thank Chu Ping-yi for providing me with this article and Wang Zhenghua for allowing me to cite it.

14 See my brief review of this scholarship in Chapter 1.

15 See, for example, Abraham Ortelius's descriptive text accompanying his map of the New World (map #5), in Ortelius, *Theatrum orbis terrarum Abrahami Ortelii Antuerp*, no page number.

16 Van Kley, “Europe's ‘Discovery’ of China,” 385.

a dominant framework for scholarly conceptualizations about the world and for the organization of daily experiences of space in premodern China. Like its European counterparts, it appeared at first sight to be inflexible and absolute. But it did not take long for established creeds and traditions to reveal their complexities, even within the Confucian textual tradition itself, and to lend support to some alternative visions of the world. We have especially noted the traditions of practical knowledge about the outside world, referred to throughout this book as “empirical maritime discourses,” which embodied great advances in world geographical knowledge gained firsthand by Chinese sailors, merchants, diplomats, military personnel, and others despite the dominant geopolitical representations of the world. Also, there had always been other kinds of totalizing constructs about the terrestrial realm and the cosmos itself in Chinese thought, albeit of marginal influence. This complexity held for Chinese texts in astronomy, mathematics, and cartography, among other realms of knowledge. When the dominant view of the world was challenged by freshly introduced data, and as the credibility of that new information became increasingly difficult to dismiss over the course of the seventeenth century, it was this inherent richness and diversity of Chinese thought that provided Chinese scholars with the resources they needed to comprehend, evaluate, and reconcile those anomalous data.

The emergence of the theory of the Chinese origin of Western learning, itself an unintended consequence of Ricci and later Jesuits’ missionary strategy of accommodation to the culture in which they had settled, masked some truly startling innovations and substantial advances by Chinese intellectuals during this century of prolonged encounter with Jesuit science. In cosmology, scholars such as Jie Xuan ventured highly ingenious and sophisticated theories about the formation of the earth and celestial bodies, and the movement of those bodies, that bore conceptual connections to Jesuit science but that nevertheless had deep roots in Confucian Qi-based cosmology and were fundamentally at odds with Christian creationism.

In cartography, although the divide between the cultural-symbolic and the mathematical genre persisted, adherents of both genres moved to take account of the wider world presented by the Jesuits. Cultural-symbolic maps seem to have continued to dominate the mapmaking trade, judging from the fact that they make up the majority of extant Chinese world maps from the seventeenth to the nineteenth centuries. However, many of these maps belonged to the same hybrid type as did Wang Junfu’s, which raises the question as to whether the numeric dominance of the cultural-symbolic genre in the art market reflects (1) the state of cartographical knowledge or preferences among cartography specialists during this period, or, instead (2) how differently the two

cartographical genres were connected to the popular art market. It is important to note that Hu Wei (discussed in Chapter 5) was not alone in his conscious effort to revive Pei Xiu's six principles of cartography; his contemporary Huang Zongxi had done that in 1673, in his map of the Qing empire which served as the basis of the "Complete Map of the Great Qing, A Unified Realm for Ten Thousand Years" (Daqing wannian yitong dili quantu 大清萬年一統地理全圖, 1767), eventually completed by his grandson Huang Qianren 黃千人 (1694–1771).

In our comparison of Hu Wei and Jie Xuan's criticisms of the state of Chinese cartography at the time, we have seen the great compatibility between Hu's focus on reviving the learning of an idealized past and Jie's proactively taking possession of the new tools made available by the Jesuits. The confluence between these new emphases on mathematical precision in cartography, coming from these two different directions, did bear fruit. If the Kangxi Atlas was a fine map of the Western cartographical genre made in China but not by a Chinese, the same cannot be said either of Zhuang Tingfu's 莊廷敷 "The Great Qing Dynasty World Map of Tribute-Bearing Countries with Spherical Coordinates, Past and Present" (Da Qing tongshu zhigong wanguo jingwei diqiu shi fangyu gujin tu 大清統屬職貢萬國經緯地球式方輿古今圖, 1794)¹⁷ or of Ye Zipei's 葉子佩 "Complete Map of the Lands of Ten Thousand Countries" (Wanguo dadi quantu 萬國大地全圖, 1845).¹⁸ Ye Zipei, especially, not only mastered Western cartographical techniques of rendering spherical surface on a two-dimensional space but also contested and critiqued technical aspects of Verbiest's map. Both Zhuang and Ye followed the example of the Kangxi Atlas in adopting the meridian that runs through Beijing as the prime meridian.¹⁹

17 A corrupted copy of Zhuang Tingfu's map is held at the Library of Congress, item ID: gm71005053. See the discussion on this map in Smith, *Mapping China and Managing the World*, 77.

18 Ye Zipei 葉子佩, "Wanguo dadi quantu" (萬國大地全圖 Complete Map of the Lands of Ten Thousand Countries, 1845), is reprinted and studied in Li Shengwu 李勝武, *Qingdai guoren huike de shijie ditu—wanguo dadi quantu* 清代國人繪刻的世界地圖 — 萬國大地全圖 (A World Map Created by an Author of the Qing Dynasty — "Complete Map of the Lands of Ten Thousand Countries"), (Beijing: Zhongguo dabaike quanshu chubanshe, 2002). On the place of Ye's map in post-Jesuit Chinese cartography, see also Li Jixiang (Lee Chi-Hsiang), "Yutu shi yu jieshou shi zhong de haiguo yu dadi."

19 Christine Vertente notes that Verbiest created the first map of the world in Chinese that sets the zero meridian as the one running through Beijing. See Vertente, "Nan Huai-Jen's Map of the World," in Edward J. Malatesta, S.J. and Yves Raguin, S.J., eds., *Succès et échecs de la rencontre Chine et Occident du XVIe au XXe Siècle* (San Francisco: The Ricci Institute for Chinese-Western Cultural History, and Taipei-Paris: Ricci Institute, Institut Ricci, 1993), 262.

In world geography, we see that at the initial stage the Jesuit introduction of the earth's multiple continents and civilizations stimulated a strong revival of alternative cosmographies such as those of Zou Yan, the Buddhists, and the Daoists. This eventually gave way to efforts to synthesize the massive amounts of world geographical data already at hand in the Middle Kingdom—acquired over centuries of Chinese maritime expeditions and other forms of active engagement with the outside world—with the new information funneled in through the works of the Jesuits. Such syntheses as those developed by Lu Ciyun and Xiong Renlin were riddled with problems, especially with respect to European states and their colonial possessions in Asia, as we have seen in the *Problematik of the Folangji* (discussed in Chapter 6). They sprang in large part from the inevitable conflict of interest between the Chinese, who wanted to figure out who the Folangji actually were, and their Jesuit informants, who wished to conceal this for very understandable reasons. On the whole, however, these Chinese scholars' vision of the world was much broader than that of their predecessors even a century before, precisely because of this exchange with the Jesuits. Despite their dependence on Jesuit sources for knowledge of world affairs beyond the Chinese maritime frontier and the Western Pacific, however, seventeenth-century Chinese scholars did not automatically accept everything that the Jesuits wrote in their world geographical books. Here again, these scholars continued to assert their confidence in their own judgments and priorities.

What, then, was the net result of this Jesuit intervention in early modern China? Previous scholars have debated the trajectory of Chinese intellectual history during the late Ming and early Qing. John Henderson has brought to light the significant rupture in Chinese thought during this period, a development that emerged entirely within the Chinese context but that was intensified by Jesuit influences, so much so that it is possible to speak of a "decline of Chinese cosmology." This decline, furthermore, ended in a collapse of confidence in the possibility of acquiring definite knowledge about the cosmos and human destiny.²⁰ Richard Smith, in contrast, holds that neither traditional correlative cosmology, such as that applied in divination practices, nor the Chinese view of their place in the world, such as that embodied in their world maps and their protocols for conducting foreign affairs, showed any significant rupture. Instead, he maintains, we see a variation on the one and the same theme

20 John Henderson, *Development and Decline of Chinese Cosmology* (New York: Columbia University Press, 1984), and idem, "Chinese Cosmographical Thought: The High Intellectual Tradition," in Harley and Woodward, eds., *The History of Cartography, Volume 2, Book 2*, 203–227.

before and after the “early modern” divide.²¹ Benjamin Elman has affirmed the significant “rupture” of Chinese thought during the late Ming and early Qing. But he argues that this is a modern turn in which the Chinese scholars fashioned a science on their own terms, and that they were well on their way to success until their enterprise became a casualty of the Qing navy’s defeat in the Sino-Japanese War, and then was blamed for the debacle and jettisoned in favor of a new mode of modernization via Westernization.²²

From the limited angle of the Chinese “discoveries” of a new world in the seventeenth century, the present volume has presented further evidence to each of these positions: rupture, continuity, and modernity. The greatest sign of rupture was the gradual displacement, among Yugong scholars and cosmologists alike, of the square model of the earth by that of the terraqueous globe, and the attendant metaphorical rather than literal interpretation of the term Four Seas. And yet, the rhetoric of the Chinese origin of Western learning did work to bring about a great wave of creativity and important breakthroughs in each of the fields surveyed above, precisely by prompting various attempts to integrate the new, Jesuit-mediated Western learning into the old, preexisting Chinese knowledge base, now reinterpreted and reconstituted in light of this new knowledge.

In other words, this rupture in substance was presented under the cover of cultural revival. The reconstituted and reinvented body of Chinese learning is also modern in its global outlook. This global outlook is primarily physical rather than psychological or ideological. As we have seen, especially toward the end of Chapter 6 and in the two visual representations of the world provided by Wang Junfu (see Figures 7.3 and 7.4), knowledge of the other continents and civilizations, including those of Western Christendom, did not immediately translate into the formation of a truly cosmopolitan, all-embracing, de-centered view of the world. (Indeed, we have yet to see such a global consciousness anywhere in the world even today.) Rather, the same Sinocentric self-positioning and hierarchical view of human civilization, with the polity and civilization of the Chinese empire at its apex, simply extended itself beyond the premodern Sinitic world onto the rest of the globe. But even in that reassertion of its own dignity, priorities, and superiority, China mirrored the rest of the early modern world. Sanjay Subrahmanyam, speaking of the result of this early modern encounter among the world’s major civilizations,

21 Richard Smith, *Fathoming the Cosmos and Ordering the World: The Yijing (I-Ching, or Classic of Changes) and Its Evolution in China* (Charlottesville: University of Virginia Press, 2008), and idem, *Mapping China and Managing the World*.

22 Elman, *On Their Own Terms*.

has aptly pointed out that “it is of obvious interest to examine how notions of universalism and humanism emerge in various vocabularies, and yet how these terms do not in fact unite the early modern world, but instead lead to new or intensified forms of hierarchy, domination and separation.”²³

In her introduction to her edited volume *Western Visions of the Far East in a Transpacific Age, 1522–1657*, Christina H. Lee summarizes the state of European knowledge of China during the early modern era, noting that the “images of the Far East were multifarious, incongruous, and changing. At the same time, a more realistic Asia began to emerge as traveling and non-traveling Europeans became interested in understanding the earth through empirical information.”²⁴ A similar point can be made about China’s view of Europe and the world as a whole. China participated in the early modern world within the sphere of Realpolitik, through the empire-building efforts of the Ming and Qing state and through the multifold interactions between its people and foreigners, especially the maritime Europeans. It also engaged in a conversation with early modern Europe in the realm of thought, through the mediation of the Jesuits. For various reasons (explored in Chapter 6), the Chinese image of the wider world during the early modern era, and especially of Europe, remained inconsistent and blurred. But as its connections with the rest of the world deepened, the various myths and counter-myths produced in this Chinese literature on world geography, by both Jesuit and Chinese authors, slowly gave way to empirically based knowledge.

Where does all this leave the Jesuits and their mission? The fact that many of the Chinese scholars who took an active interest in Jesuit works engaged with these materials largely on their own terms meant that the missionaries did not manage to dissipate the chief obstacle to their mission, namely, Sinocentrism. Indeed, the assimilation of Jesuit science did not generate a full respect for European culture or for the religion that the Jesuits had come to preach. On the contrary, a new discourse on the centrality of China emerged in the midst of this otherwise rather productive early modern cross-cultural exchange, and the heroes of this new discourse were often the very same champions who mastered Western science and interpreted it to a broader Chinese readership. Thus I would like to conclude with the following Q & A on China and its place in the New World:

23 Sanjay Subrahmanyam. “Connected Histories: Notes towards a Reconfiguration of Early Modern Eurasia,” *Modern Asian Studies* 31, no. 3 (1997): 739.

24 Christina H. Lee, *Western Visions of the Far East in a Transpacific Age, 1522–1657: Transculturalisms, 1400–1700* (Aldershot: Ashgate, 2012), 3.

Question: It seems that the sphericity of the earth is no longer in doubt. But would it have no differentiation between the front and the back as well?

Answer: The place where Chinese sages were produced is the front of the earth. How can we say that? The teaching about the Five Human Relationships originated from Heaven. Since the time of the Yellow Emperor, Yao, and Shun, there have been ups and downs, but everyone knows about this teaching nonetheless. As for Buddhism and the Catholicism of the West, although their talk about the principles of the “mind and nature” is very sophisticated and very grand, they are remiss when it comes to the observation of the important hierarchical order between the Ruler and the Minister and between Father and Son. This is the first sign. In terms of languages, ours is the only one that has the proper sequence (*shun* 順). The language of the Buddhist scriptures says everything in reverse. When they say “arriving at the other shore,” they would always say “the other shore arriving.” Although European language differs from those of the Five Sindu [states of India], they reverse their speech just as do the Japanese wine-sellers, who write on their store signs saying “Wines sell.” ...Those beyond the Northern Passes and the southern border all write their words backwards. This is another sign. *Earlier I heard the Western scholars say that they traveled tens of thousands of li to arrive in China and, on their way, passed through numerous countries. [They found that] some of these countries have territories larger than that of China, but none surpasses [China] in its clothing, caps, culture, and material accomplishments. This is another sign.* Thus we know that the earth is spherical and China is located on its front side. That is why it gave rise to sagely rulers who established standards on behalf of Heaven and founded teachings to be handed down for all future generations. For the same reason, in a human body, the spirits of the entire body converge on the face, and the essences of the Five Zang organs all flow into the five orifices. This all happens in accord with the principle of things.²⁵ (emphasis added)

The statements italicized above, made by the Jesuits (a version of which we have seen reported by Xu Guangqi in Chapter 2),²⁶ were intended to let their

25 Mei Wending, “Lun di shi yuanti er you beimian” (論地實圓體而有背面 That the Earth Is in Fact Round but Has a Front and a Back), in his *Lixue yiywen bu* 曆學疑問補, 16a–17a, in idem, *Lisuan quanshu*, in *SKQS, zi*, vol. 794: 63.

26 See Chapter 2, note 121.

Chinese respondents know that the Catholic Fathers had encountered no civilization worthy of the name in the vast space they had traveled *between Europe and China*. That point has become something quite different here. The author of this Q & A was none other than the great Chinese mathematician and interpreter of Jesuit science, Mei Wending.

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