

China Recharted: The Zou Family's Cartographic Enterprise and the Making of Chinese
Territoriality in the Late Qing, 1850-1911

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Abstract

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In the age of Google Maps, we sometimes mistakenly assume map literacy, but the ability to read meaning within maps requires long-term exposure and instruction. While scholarship has demonstrated how Qing China (1644-1911) utilized cartographic projects in its territorial expansions of the seventeenth and eighteenth centuries, far less attention has been paid to how new maps in the late 1800s impacted the national consciousness of Qing elites. Analyzing these new maps reveals that the Chinese nation as a spatial concept had appeared in the 1880s, earlier than China's defeat by Japan in 1895, the year commonly seen as marking the beginning of Chinese nationalism by many scholars. In addition, these maps indicate two important realities about the construction of the Chinese nation during this period: 1) that conservatives utilized these maps to conceptualize the Chinese nation, and 2) the influence of capitalist markets upon map production. First, people involved in the creation of these maps were not revolutionaries or reformists but conservative businessmen. Although Chinese conservatives were blamed for the Qing's failure to modernize, they used cartographic products to transmit their views of the Chinese nation to the reading Chinese public. Second, in order to maximize profits, these conservative businessmen produced their products based upon considerations of each map's cost and marketability. Relevant factors included each map's type of paper, size, and quantity, as well as the salaries of draughtsmen and the tastes of the public. Unlike the eighteenth-century atlases made in the Qing court, commercial map production in the late 1800s was influenced by the

interactions between map businessmen and consumers of the Han Chinese reading public. Based on these two realities, this dissertation shows how the commercial and the social factored into map production and, in turn, the conceptualization of the Chinese nation in late Qing China.

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Introduction¹

In the age of Google Maps, we sometimes mistakenly assume map literacy, but the ability to derive meaning from maps requires long-term exposure and instruction. While previous scholars have demonstrated how the Qing Empire (1644-1911) deployed cartography during its territorial expansions of the seventeenth and eighteenth centuries, far less attention has been paid to how, in the late 1800s, new maps impacted the national consciousness of Qing elites.² This research uses the Zou family, a scholarly clan in Hunan with generations of experience in producing geographical knowledge, as a primary example to illustrate the close relationship between the development of cartographic materials and new ideas about the Chinese nation. Zou family members not only contributed their efforts to empire-wide geographic surveys and compiled atlases for the Qing court but also ran the Map Society 輿地學會, a map publishing house.³

Analyzing the construction of the Zou family's maps in the shifting context after the mid-nineteenth century reveals two interrelated points. First, Chinese nationalism did not emerge suddenly after the Qing's defeat to Japan in 1895; rather, it took shape gradually from as early as the mid-1800s. Second, the cartographic works of the Zou family, along with other imperial and non-imperial efforts in the late Qing, were not simply imitations of Western techniques or technical upgrades of traditional maps, but part of a spatial project that redefined how people

¹ In preparing this dissertation, I used AI tool (ChatGPT) solely as a technical aid for identifying grammatical and syntactical errors at the paragraph level. All suggestions were reviewed critically; all revisions were made manually; and no content, translation, or original drafting was generated by AI. This work entirely represents the author's own research and judgment.

² James Millward, "Coming onto the Map: 'Western Regions' Geography and Cartographic Nomenclature in the Making of Chinese Empire in Xinjiang," *Late Imperial China* 20, no. 2 (1999): 61–98; Laura Hostetler, *Qing Colonial Enterprise: Ethnography and Cartography in Early Modern China* (University of Chicago Press, 2001); Mark C Elliott, "The Limits of Tartary: Manchuria in Imperial and National Geographies," *The Journal of Asian Studies* 59, no. 3 (2000): 603–46; Mario Cams, *Companions in Geography: East-West Collaboration in the Mapping of Qing China (c.1685-1735)* (Brill, 2017).

³ While English-language scholarship has paid only limited attention to the Zou family and their mapping enterprise, Chinese historians have long recognized their historical significance, a body of work I will discuss below.

viewed China and its relationship with the world. Crucially, this transformation was not driven by avant-garde intellectuals or prominent revolutionaries, but by middle-status figures, without major imperial degrees or positions in high politics, embodied precisely by this family from central China. While the Zou family lacked imperial degrees and formal political clout, they emerged as the most influential cartographic and publishing family on the eve of China's 1911 Revolution, shaping public spatial consciousness through textbooks and, more critically, through visual materials like maps. Their history reveals a paradox: a "conservative" Han Chinese family helped forge the very spatial representations that "revolutionary" elites and later Chinese governments would uncritically adopt as the natural image of "China." This is a story not of nationalism producing maps, but of cartographical "things", using Bill Brown's term, shaping the nation.⁴

Problematizing Scholarship on the Rise of Chinese Nationalism

While historians in the West have recognized the complex relationship between cartography and nationalism, this perspective remains ambiguous within the field of China studies. From the late 1990s to the early 2000s, scholars began to revise their understanding of China as a nation, adopting more critical approaches to the constructed nature of Chinese national identity. Prasenjit Duara and Q. Edward Wang, for instance, draw on postmodernist frameworks to deconstruct both Enlightenment-style historical narratives and the ostensibly "scientific" methods of researching Chinese history which have served as instruments for legitimizing Chinese nationalism under the guise of objectivity.⁵ In a similar vein, John

⁴ Bill Brown, "Thing Theory," *Critical Inquiry* 28, no. 1 (2001): 1–22. I will return to the "thingness" of maps in detail below.

⁵ Prasenjit Duara, *Rescuing History from the Nation: Questioning Narratives of Modern China* (University of Chicago Press, 1995), pt. 1; Q. Edward Wang, *Inventing China through History: The May Fourth Approach to Historiography* (State University of New York Press, 2001).

Fitzgerald and Henrietta Harrison offer complementary insights: Fitzgerald contends that China's "national awakening" was largely a literary and political invention by elites who sought to define the nation through various genres of writing aimed at influencing the broader populace, while Harrison argues that "China" was invented primarily during the Republican period through a series of collective cultural practices that allowed individuals to imagine themselves as part of a shared, albeit imagined, national community.⁶ While this body of scholarship has revealed how elites formulated and disseminated ideological concepts to "invent" the nation, it has paid far less attention to the role of visual media, especially maps, in shaping national consciousness.⁷

The absence of such materials is equally apparent in Chinese-language scholarship. While a substantial body of research has emerged on the formation of Chinese nationalism, scholars have focused on archaeological as well as textual sources, with scant attention paid to visual or cartographic evidence.⁸ One of the earliest and most influential revisionist narratives is Fei Xiaotong's theory of the "pattern of pluralistic unity of the Chinese nation," which posits that while China has always been ethnically diverse, the potential for national unity existed well

⁶ John Fitzgerald, *Awakening China: Politics, Culture and Class in the Nationalist Revolution* (Stanford Univ. Press, 1999), 346–49; Henrietta Harrison, *China: Inventing the Nation* (Arnold, 2001), pt. 2.

⁷ This is not to suggest that scholarship on modern Chinese history has exclusively focuses on elite. On the contrary, the field has devoted considerable attention to the experiences of ordinary people. For example, David Strand, *Rickshaw Beijing: City People and Politics in the 1920s* (Univ. of California Press, 1989); Bryna Goodman, *The Suicide of Miss Xi: Democracy and Disenchantment in the Chinese Republic* (Harvard University Press, 2021). However, when it comes to the formation of the idea of the Chinese nation and its spatial conception, it is understandable that most scholarly attention has centered on elite thinkers.

⁸ During the Republican period (1911-1949), Chinese scholars were deeply engaged in reexamining the given historical narrative of the Chinese nation. Intellectuals who focused primarily on textual sources, most notably Gu Jiegang 顧頡剛 (1893-1980) and other scholars in the movement of Doubting Antiquity (古史辨) starting from mid-1920s, challenged the classical Confucian historiography. They questioned the authenticity of classical account of early Sage-Kings, arguing that many such narratives had been intentionally distorted over time. Their goal, instead, was to reconstruct a more empirically grounded and critically examined version of Chinese antiquity. More details, see Wang Fan-sen 王汎森, *Gushibian yundong de xingqi: yige sixiangshi de fenxi* 古史辨運動的興起：一個思想史的分析 (Yunchen chubanshe, 1987). Since then, Chinese scholars have continued the project of reinterpreting China's ancient past. The studies discussed below are not intended to be exhaustive (a nearly impossible task), but rather to represent some of the most illustrative examples. Fu Ssu-nian, "Yi Xia Dongxi shuo," in *Fu Ssu-nian quanji* (Hunan jiaoyu chubanshe, 2000), Vol. 3, 181-232. Meng Wentong, *Gushi zhenwei*, in *Meng Wentong wenji* (Bashu shushe, 1987), Vol. 5. Xu Xusheng, *Zhongguo gushi de chuanshuo shidai* (Wenwu chubanshe, 1985), chap. 2.

before the Western imperialist threat of the mid-nineteenth century.⁹ This framework has since become foundational to many PRC-based studies on Chinese nationalism.¹⁰

In contrast, ROC scholars in Taiwan have revised or critiqued Fei's thesis by emphasizing subjective identity and historical memory as decisive factors in nation-formation. In his seminal work, Wang Ming-ke argues that subjective self-identity, rather than objective facts such as common languages, cultures, or living styles, is the ultimate factor that distinguishes the Han from non-Han peoples, especially in the case of Qiang people. In this view, historical memory has been essential for integrating peripheral populations into the imagined national community and for legitimating control over frontier regions. However, historical memory did not arise naturally over time, but it was shaped by the strategic choices different ethnic groups made to maximize their interests in struggle with other groups.¹¹ Around the same time, other ROC scholars began to deconstruct the grand historical narratives crafted by Han elites. For instance, Sung-chiao Shen's research dissects how Chinese nationalistic myths, particularly those surrounding the Yellow Emperor and the genealogy of the Han ethnicity, were invented.¹² Yet, a closer examination of these studies reveals that they, too, rely exclusively on textual sources,

⁹ Fei Xiaotong, *Zhonghua minzu duoyuan yiti geju* (Zhongyang minzu daxue chubanshe, 1999), chap. 1. Fei was a student of Wu Wenzao (1901-1985), a Columbia-trained sociologist who later became one of the founding figures in Chinese anthropology. Fei's approach was deeply informed by Wu's interests in minority ethnicities in southwestern China. While Fei's work might be seen as promoting a Sino-centric narrative of Chinese national identity from outside, his approach was quite different and controversial in Chinese scholarly circle in the 1930s and 40s. For instance, Fu Ssu-nian and Gu Jiegang, the two academic hegemony of that time, were notably not happy with Wu and Fei's perspectives, particularly their assertion that there were more than five ethnic groups in China and their advocacy for a more nuanced understanding of China's southwestern minorities. Huang Ko-wu, "Minzu zhuyi de zai faxian: kangzhan shiqi Zhongguo chaoye dui 'Zhonghua minzu' de taolun," *Jindai shi yanjiu*, no.4 (2016): 16-20.

¹⁰ This framework of "pluralistic unity of Chinese nation" is clearly reflected in the preface of a book about history of China's ethnicities collectively written by research fellows at Institute of Ethnology and Anthropology, Chinese Academy of Social Sciences. Weng Dujian, *Zhongguo minzu guanxi shi gangyao* (Zhongguo shehui kexue chubanshe, 2001), 3-5.

¹¹ Wang Ming-ke, *Huaxia bianyuan: lishi jiyi yu zuqun rentong* (Yunchen chubanshe: 1997), 356-374. See also chapter 12, where Wang analyzes the identity issue of Taiwan.

¹² Shen Sung-Chiao, "Woyi woxue jian xuan yuan- Huangdi shenhua yu Wanqing de guozu jiangou," *Taiwan shehui yanjiu jikan*, no. 28 (December 1, 1997): 1-77. Shen Sung-chiao, "Zhen Da Han zhi tiansheng: minzu yingxiang xipu yu wan Qing de guozu xiangxiang", *Jindaishi yanjiusuo jikan*, no. 33 (2000): 81-158.

much like their Western counterparts. What persists across this literature is a linear historical framework that assumes the primacy of ideas where nationalism is seen as first conceived intellectually by elites, and other forms of expression, such as maps, are treated as secondary, derivative representations of those preexisting ideological constructs, no matter how significant their actual impact may have been.

In recent decades, there has been a growing body of scholarship on mapmaking in modern Chinese history. William Callahan's research examines the *Map of China's National Humiliation* 中華國恥地圖, arguing that these affective cartographic depictions of territorial loss played a key role in shaping popular understandings of what China was. Callahan emphasizes that such representations should not be viewed merely as instruments of political manipulation, but as components of a broader national discourse that transcended ideological and factional divides, employed by both the Nationalists and the Communists to resonate with mass sentiments.¹³ Similarly, Yu-chi Chang's more recent work demonstrates how symbolic representations of China's territory, such as the begonia-shaped national map or metaphors of withering, were far from neutral geographic descriptions. These images powerfully encoded ideas of national humiliation and helped give visual form to an emergent sense of China's geobody and national consciousness during the Republican period.¹⁴ On the other hand, in Chinese-language scholarship, we also find studies that focus on the spatialization of China through narratives of territorial loss.¹⁵ Although there are some differences between English- and

¹³ William A Callahan, "The Cartography of National Humiliation and the Emergence of China's Geobody," *Public Culture* 21, no. 1 (2009): 141–73.

¹⁴ Yu-chi Chang, "Leaves, Silkworms, Yue Fei: Ways of Imagining the Territory in 1930s China," *Twentieth-Century China* 49, no. 2 (2024): 89–110.

¹⁵ Huang Donglan, "Lingtu, jiangyu, guoci: Qingmo Minguo dili jiaokeshu de kongjian biaoxiang," in *Shenti, xinxing, quanli*, edited by Huang Donglan (Zhejiang renmin chubansh, 2005), 77-104. Li Peng, "Qingmo minguo Zhongguo lishi ditu bianhui yu minzu guojia jiangou," *Shilin*, no. 1 (2018): 108-121.

Chinese-language scholarship, particularly over whether there was a distinct evolution from a dynastic view of unbounded imperial domain to a modern conception of bounded sovereign territory, both bodies of literature tend to narrate this history in a teleological form in which nationalist ideas precede and determine cartographic expression. In other words, maps continue to be treated largely as secondary expressions of preexisting nationalistic ideologies. This is why Callahan, for instance, describes these maps as “an integral part of the emergence of nationalist cartography in China.”¹⁶ In this formulation, nationalism is primary, and the maps are its intellectual consequences.

There may be multiple factors contributing to the persistence of this narrative, but one key reason why scholarship on modern Chinese history tends to follow this pattern is the absence of sustained attention to late Qing cartographic history, or even generally, the late Qing history, a period that was formative for both modern Chinese cartography and nationalism. Historians have long studied Qing cartography in the seventeenth and eighteenth centuries, focusing on how European technologies and geographical knowledge introduced by missionaries intersected with the practices of Chinese and inner Asian cartographers.¹⁷ Scholars have drawn productive comparisons between the Qing emperors and their European contemporaries, noting how the Qing actively instrumentalized maps for imperial expansion.¹⁸ These maps have served as rich sources for exploring both the capacities and limits of Qing geographical knowledge concerning its frontiers and outside world.¹⁹

¹⁶ Callahan, “The Cartography of National Humiliation and the Emergence of China’s Geobody,” 160.

¹⁷ Matthew Mosca, *From Frontier Policy to Foreign Policy: The Question of India and the Transformation of Geopolitics in Qing China* (Stanford University Press, 2013), 103–14; Cams, *Companions in Geography*.

¹⁸ Peter C. Perdue, *China Marches West: The Qing Conquest of Central Eurasia* (Belknap Press of Harvard University Press, 2005), 442–61; Hostetler, *Qing Colonial Enterprise: Ethnography and Cartography in Early Modern China*, chaps. 1, 2.

¹⁹ A recent study has examined a privately drawn map of Xinjiang to explore the geographical knowledge of an elite Mongol official, Suning’a (1731-1805), an elite regional figure rather than a high-ranking court official, in the late

However, interest in this topic sharply declines when it comes to the late nineteenth century. One reason is that during the 1800s, the Qing court's interests in making Western-style maps significantly diminished. Although the court remained interested in geography, it largely abandoned the Western cartographic methods it had adopted earlier. By the mid-nineteenth century, amid major internal upheavals and external threats, the imperial government had even less capacity (financially, technically, and bureaucratically), to continue Western-style mapping.²⁰ Yet after 1860s, when the Taiping and other major turbulences subsided, Western maps began to circulate widely among Han elites, who actively studied and reproduced them. As Qing cartography came to resemble its Western counterpart more closely, the period seems to lose its distinctiveness that had previously attracted scholarly interest.

In both English- and Chinese-language scholarship, the limited research on late Qing cartography often frames the period as one in which China simply imitated the West in order to “modernize” its mapmaking.²¹ This view has merit: many mapmakers did seek to learn from European methods and replicate Western-style maps. But this narrative omits a crucial dimension, namely that the appropriation of European cartography occurred concurrently with the emergence of Chinese nationalist thought among Han intellectuals.

While the past two decades has seen major revisions in how historians interpret Qing history of the nineteenth century, this revisionist perspective has yet to significantly influence the study of late Qing cartographical history. Earlier scholarship (Chinese scholarship from the early twentieth century and English scholarship from the 1950s) often characterized the late Qing as a

eighteenth century. Kung Ling-wei, “Suning’a Wanli huijiang tu yu shiba shiji houqi Qingchao de Xinjiang dili zhishi,” *Zhongyang yanjiu yuan lishi yuyan yanjiu suo jikan* 94 (2023): 573-651.

²⁰ See Chapter Three.

²¹ Iwo Amelung, “New Maps for the Modernizing State,” in *Graphics and Text in the Production of Technical Knowledge in China: The Warp and the Weft*, ed. Francesca Bray et al. (Brill, 2007); Richard J. Smith, *Chinese Maps: Images of “All Under Heaven”* (Oxford University Press, 1996), chap. 5.

failed experiment in modernization, in comparison to the perceived success of Meiji Japan.²² However, recent studies have challenged this failure narrative, demonstrating that the late Qing period witnessed a wide array of modernizing developments and institutional innovations, including coal mining, extraterritorial concessions, the maritime custom service, military, telegraphy, police system, and significant shifts in Chinese intellectual lives. Rather than a period of mere decline, the late Qing has increasingly been recognized as a foundational era that laid the groundwork for subsequent transformation in modern China.²³ This dissertation research aligns itself with this revisionist approach, seeking to identify the foundations of modern Chinese mapmaking within the late Qing period.

Nonetheless, there is an understandable yet critical reason why scholarship has been slow to extend these revisions into the field of late Qing cartography: the topic's close entanglement with Chinese nationalism, which has imposed a narrative framework that privileges the primacy of ideas and treats other forms of materials as derivatives. From here, we turn to the second body of literature that informs this dissertation's view, seeking to transcend this idea-centric framework: the complex and evolving relationship between cartography and national consciousness.

²² John King Fairbank, *Trade and Diplomacy on the China Coast: The Opening of Treaty Ports, 1842-1854* (Harvard University Press, 1964), Intro; Mary C. Wright, *The Last Stand of Chinese Conservatism: The T'ung-Chih Restoration, 1862-1874*. (Stanford University Press, 1962), 312; Albert Feuerwerker, *China's Early Industrialization: Sheng Hsuan-Huai (1844-1916) and Mandarin Enterprise* (Harvard University Press, 1958), 242–51.

²³ Hans Van de Ven, *Breaking with the Past: The Maritime Customs Service and the Global Origins of Modernity in China* (Columbia University Press, 2014), chap. 3; Stephen R. Halsey, *Quest for Power: European Imperialism and the Making of Chinese Statecraft* (Harvard University Press, 2015), chaps. 4, 5 and 7; Shellen Xiao Wu, *Empires of Coal: Fueling China's Entry into the Modern World Order, 1860-1920* (Redwood City: Stanford University Press, 2015); Pär Kristoffer Cassel, *Grounds of Judgment: Extraterritoriality and Imperial Power in Nineteenth-Century China and Japan* (Oxford University Press, 2012); Benjamin A. Elman, *On Their Own Terms: Science in China, 1550-1900* (Harvard University Press, 2005), pts. 4 and 5; Jenny Huangfu Day, *Qing Travelers to the Far West: Diplomacy and the Information Order in Late Imperial China* (Cambridge University Press, 2018).

New Scholarly Trend on Cartography, Information, and Materiality

Since the 1980s, scholars of Western histories have increasingly come to recognize the non-neutrality and ideological nature of maps, which had long been regarded as objective, scientific representations of geographical reality through mathematic and projection systems.²⁴ J. B. Harley, in particular, argues that maps are not transparent mirror of the geography but rather iconographical and socio-political artifacts imbued with ideological and political agendas.²⁵ Building on this postmodern, Harleyan approach, scholars have explored the production of maps as socially embedded processes, investigating how power is encoded and expressed in cartographical materials, how maps serve the interests of imperial or colonial authorities, and how their silence and omissions reflect “powerful expression to the ideological agenda of their makers.”²⁶

This critical turn in cartographical studies paralleled broader intellectual developments, especially the shift toward understanding the nation as an imagined, constructed community. Benedict Anderson’s seminal work foregrounded the role of modern print technologies and media in enabling such imagined communities to cohere. Despite the many critiques and revisions of Anderson’s thesis, a central insight remains influential: the nation is a spatial

²⁴ John H. Andrews, “Introduction: Meaning, Knowledge, and Power in the Map Philosophy of J. B. Harley,” in *The New Nature of Maps: Essays in the History of Cartography* (Johns Hopkins University Press, 2001), 5–7.

²⁵ J. B. Harley, *The New Nature of Maps: Essays in the History of Cartography* (Johns Hopkins University Press, 2001), chap. 1.

²⁶ Denis Cosgrove, “Contested Global Visions: One-World, Whole-Earth, and the Apollo Spave Photographs,” *Annals of the Association of American Geographers* 84 (1994): 270–94; Martin W. Lewis and Kären Wigen, *The Myth of Continents: A Critique of Metageography* (University of California Press, 1997); Harley, *The New Nature of Maps: Essays in the History of Cartography*, chaps. 3 and 6; Larry Wolff, “Mapping Eastern Europe: Political Geography and Cultural Geography,” in *Inventing Eastern Europe: The Map of Civilization on the Mind of the Enlightenment* (Stanford University Press, 1994); Ricardo Padrón, “Mapping Plus Ultra: Cartography, Space, and Hispanic Modernity,” *Representations* 79 (2002): 28–60. The quote is from Benjamin Schmidt, “Mapping an Empire: Cartographic and Colonial Rivalry in Seventeenth-Century Dutch and English North America,” *William and Mary Quarterly* 54 (1997): 578.

construct that is represented, and reproduced, through visual and textual forms.²⁷ A particularly powerful example of this visual construction can be found in Thongchai Winichakul's influential study of Siam, which argues that Thai national consciousness did not precede the map; rather, it was because "the modern discourse of mapping was the ultimate conqueror" that the national identity could be imagined through maps.²⁸ This is what Anderson later refers to as the "logoization" of the nation, the reduction of the nation to a reproducible visual icon that underpins collective identity.²⁹ Similarly, in Richard Helgerson's essay, he shows how the Whiggish elites used maps and chorography to spatialize their ideological preferences, promoting parliamentary localism within the visual frame of England's national territory.³⁰ These studies demonstrate that the relationship between mapmaking and space-making, whether imperial or national, is never straightforward.³¹ Rather than maps merely reflecting a preexisting national consciousness, or nationalism producing maps as passive expressions, the two co-constitute each other in complex and historically contingent ways.

However, this approach also encounters significant limitations, particularly in its tendency to assume the omnipotence of ideological authors. Since the 1990s, scholarship has increasingly shown that imperial and colonial centers lacked the capacity to fully determine or control local realities. One crucial reason for this was their dependence on intermediary institutions and persons to manage the operations of empire or colonial rule. As Christopher Bayly has argued, so-called "Orientalist" imaginations were not simply imposed unilaterally by

²⁷ Benedict Anderson, *Imagined Communities: Reflections on the Origin and Spread of Nationalism* (Verso Books, 2006), xiii–xiv.

²⁸ Thongchai Winichakul, *Siam Mapped: A History of the Geo-Body of a Nation* (University of Hawaii Press, 1994), 129.

²⁹ Anderson, *Imagined Communities: Reflections on the Origin and Spread of Nationalism*, 175–78.

³⁰ Richard Helgerson, "The Land Speaks: Cartography, Chorography, and Subversion in Renaissance England," *Representations* 16 (1986): 50–85.

³¹ Ricardo Padrón, *The Spacious Word: Cartography, Literature, and Empire in Early Modern Spain* (University of Chicago Press, 2004), 12.

Western colonial powers, as Edward Said's works have implied, but co-produced through the information networks upon which English colonizers had greatly relied.³² To truly understand how "Orientalist" knowledge was constructed, it is therefore necessary to examine how these networks functioned on the ground.³³ In other words, it is necessary to investigate how information orders operated in practice, and to recognize the central roles of intermediaries in shaping policies and knowledge.

This new trend extends beyond to the making of geographical and cartographical materials, which were also shaped by these middle-level actors. In studies of early modern European maps, a parallel scholarly trend emerged around 2000, in which historians began to shift their attention away from interpreting maps solely through the eyes of imperial rulers. Instead, they focus on the artisans and technicians who physically produced these artifacts in early modern Europe.³⁴ This historiographical turn serves as an organic complement to studies of the scientific revolution, which had traditionally centered on elite scientists. In contrast, this new academic trend emphasizes that artisanal communities were not subordinate implementers of elite science but operated within their own epistemological frameworks. Their work drew not only on mathematics but also on bodily experience and material with the natural world.³⁵ Artisans who crafted artifacts played a crucial role in the making of modern science as the elite scientists. Altogether, these developments point to a more nuanced understanding of knowledge

³² Christopher Bayly, *Empire and Information: Intelligence Gathering and Social Communication in India, 1780-1870* (Cambridge University Press, 1996), 7–9.

³³ Bayly, *Empire and Information*, 20–44. While Bayly makes significant contributions by directing scholarly attentions to information order, his treatment of premodern Mughal period is notably thin. He does not explain why the Mughal was able to manage the vast quantities of information that the British later found impossible to handle and thus were compelled to reform.

³⁴ Pamela H. Smith, *The Body of the Artisan: Art and Experience in the Scientific Revolution* (University of Chicago Press, 2004); Paula Findlen, "Inventing Nature: Commerce, Art, and Science in the Early Modern Cabinet of Curiosities," in *Merchants and Marvels: Commerce and the Representation of Nature in Early Modern Europe*. (Routledge, 2002).

³⁵ Smith, *The Body of the Artisan*, chap. 3.

production that highlights not just the contributions of elite thinkers or theorists at the top but the indispensable roles of intermediary actors who materialized things.

A recent scholarly trend that informs this dissertation goes even further: it reverses the conventional order of priority between ideas and materials, placing materiality at the forefront of historical analysis. Just as Walter Benjamin's evocative description of a collector's possession suggests, the true value of an object often lies not in its intrinsic contents, but in "the fate of his object," "the period, the region, the craftsmanship, the former ownership," that together form the "quintessence" of collecting.³⁶ In many cases, what draws an individual, a group, or even an entire society to a thing is less its abstract meaning than the way it approaches them in material form: how its cover is designed, how its images look, what kind of paper is used, details that invite the consumer to pick it up, touch it, hold it, and buy it. In other words, how its materiality is felt.

Over the past two decades, scholars have increasingly recognized the power of things as material agents rather than merely derivatives of ideas. Dániel Margócsy, for example, shows that, in debating whether physical specimens or engraved atlases could better convey the bodies and internal organs of dead animals, two anatomists deliberated on how best to present their objects using different materials and methods, such as paper versus wet anatomical preparation, as well as different techniques for preserving and preparing specimens versus portraying them with printing technologies. These debates were not only about which medium was more

³⁶ Walter Benjamin, "Unpacking My Library: A Talk About Collecting," in *Illuminations: Essays and Reflections*, ed. Hana Arendt (Schocken Books, 1999), 60. In some sense, Benjamin's emphasis on the importance of "the fate of his object" parallels Timothy Brook's observations of early modern China, where the aesthetics and taste for various objects were closely tied to the "cultural authority of the ancients." Timothy Brook, *Vermeer's Hat: The Seventeenth Century and the Dawn of the Global World* (Bloomsbury Press, 2008), 81.

“scientific”, but also about materiality: the craftsmanship involved, the cost required, and the choices necessary to make their products more marketable and profitable.³⁷

Similarly, in examining how the materiality of maps shapes the way space is viewed and engaged with, Benjamin Schmidt shows that the content of geographical works was deeply conditioned by the books in which topographical information was housed. Just like Margócsy’s study has shown, commerce played a big role in this process. In early modern Amsterdam, editor-printer-booksellers competed with their counterparts across Europe to sell geographical products. They made their atlases more accessible to a pan-Western European audience through a variety of strategies, including lavish visual presentation and high-quality printing formats. These material innovations reshaped the representation of geographical knowledge, making it “agreeable” to different readers. The Dutch mastery of producing such materially appealing maps not only brought substantial profits but also ensured their wide circulations, allowing their ideological messages on maps to be broadly disseminated throughout Europe.³⁸

Another example is Martin Brückner’s research on eighteenth- and nineteenth-century US maps, which shifts the emphasis from ideological readings of maps to their ornamental and material qualities in the 1700s and 1800s US. Brückner highlights how maps, increasingly visible in both public and private spaces, were valued less for their geographical utility than for their visual appeal, becoming decorative commodities akin to pictorial prints. By attending to features such as paper quality, paratext, and mode of display, Brückner foregrounds how the material form of maps shaped their reception and contributed to their popularization.³⁹

³⁷ Dániel Margócsy, *Commercial Visions: Science, Trade, and Visual Culture in the Dutch Golden Age* (The University of Chicago Press, 2014), chaps. 4 and 5.

³⁸ Benjamin Schmidt, *Inventing Exoticism: Geography, Globalism, and Europe’s Early Modern World* (University of Pennsylvania Press, Inc, 2015), chaps. 1 and 4.

³⁹ Martin Brückner, “The Spectacle of Maps in America, 1750-1800,” in *Early American Cartographies*, ed. Martin Brückner (University of North Carolina Press, 2011); Martin Brückner, *The Social Life of Maps in America, 1750-1860* (The University of North Carolina Press, 2017).

Contributions and Chapter Outline

This dissertation benefits from this recent scholarship not only on late Qing Chinese history, but also on how information order shaped geographical knowledge and on the importance of treating maps as material things. It focuses on the period from the 1850s to 1911, a critical moment when the Qing state faced multiple crises while simultaneously attempting to rejuvenate itself by Westernizing many aspects of governance and technologies, including adopting European cartographies. The late Qing cartographical project, however, was not merely about improving techniques or accuracy; it was a spatial project aimed at remaking a multiethnic empire into a more homogeneous geopolitical space. Han revolutionaries such as Sun Yat-sen (1866-1925) and Huang Xing (1874-1916), though committed to overthrowing the Manchu empire and restoring a Han-centered republic, never rejected this spatial conception. In fact, after the Qing collapse in 1911, many revolutionaries shifted from advocating for a republic limited to “China proper” (mostly the Ming territory) to supporting the inclusion of the entire Qing domain in the new public. Just like Joseph Esherick has indicated, they moved fast from the “China proper” position to the “Greater China” principle, the latter being dominant even within the revolutionary elite circle.⁴⁰

Existing scholarship has explained this shift in terms of Western powers’ positions, Han elites’ concerns over foreign encroachment on the Chinese core if frontier territories were lost, and the economic and resource value of those regions.⁴¹ Yet few have asked why the majority of elite Chinese came to regard these non-Han frontier as integral to the “space” they are familiar with in the first place. Spatial consciousness, as Daniel Immerwahr points out, is never a given.

⁴⁰ Joseph Esherick, “How the Qing Became China,” in *Empire to Nation: Historical Perspectives on the Making of the Modern World*, ed. Joseph W. Esherick et al. (Rowman & Littlefield, 2006), 243–48.

⁴¹ Esherick, “How the Qing Became China,” 251.

In late 1941, after the Japanese attack on Pearl Harbor, Franklin D. Roosevelt and his advisors debated whether to mention that Japan had also bombed the Philippines at a time when many Americans regarded the Philippines, and even Hawaii, as “foreign,” because these territories were absent from the familiar “logo map” of the United States.⁴² In the same way, the spatial conception of China was not given either. It did not suddenly emerge in 1911 or even 1895 after the Sino-Japanese War. Rather, its formation can be traced to the 1870s and 1880s, when the Qing court came to see mapping the empire as an urgent task.

In this context, the Zou family from Xinhua, Hunan, offers an ideal case for examining how late Qing mapmaking movement unfolded and how new maps, embodying new spatial conceptions, were crafted and circulated to shape viewers’ geographical understanding of China. Although a few studies in Chinese have examined the Zou family and their mapping enterprise, existing scholarship remains unsatisfactory. Many accounts are largely descriptive, introducing the family and its business in an introductory fashion, listing their achievements chronologically without substantive historical analysis, or focusing predominantly on their Republic-period activities while marginalizing the enterprise’s formative years in the late Qing.⁴³ This is not to suggest that the Zou’s Republican-era work was unimportant; indeed, it coincides with a flourishing of private map publishers and increasing state intervention in map production. However, in such a crowded field, it is difficult to claim that the Zou enterprise still occupied a singular position.⁴⁴ The late Qing, by contrast, was a different context; the Zou’s Map Society

⁴² Daniel Immerwahr, *How to Hide an Empire: A History of the Greater United States* (Farrar, Straus and Giroux, 2019), 6–10.

⁴³ Zhang Ping, “Zou Daijun yu Zhongguo jindai dilixue de mengya,” *Ziran kexue shi yanjiu* 10, no. 1 (1991): 81-90. Zou Huaxiang, “Xinhua Zoushi ditu xue shijia,” *Hunan shehui kexue* 4 (1992): 68-71. Yan Dongkai, “Zou Daijun yu Zhongguo jindai ditu de bianhui he chuban,” *Shaanxi shifan daxue jixu jiaoyu xuebao* 24, no. 1 (2007): 28-32. Chen Zhu, “Qingmo zhi Minguo Yaxin dixue she ditu bianhui yanjiu,” (MA thesis, Fudan University, 2012).

⁴⁴ According to Jin Qingyu 金擎宇, one of the key figures in 1954 consolidation of all the national and private map publishers, there were fifteen map publishers at the time of merger. See Jin Qingyu, “Wo congshi ditu gongzuo de huiyi” 我從事地圖工作的回憶, accessed August 15, 2025, <https://www.93.gov.cn/lshm-sszl/201116.html>

was the only private map producer in China, and its emergence paralleled the rise of geography textbook in the first decade of the twentieth century. Together, these developments laid a critical foundation for shaping the spatial perceptions of both educated Chinese or those without formal schooling, who were nonetheless influenced by such maps through their growing commercial circulation.

In this sense, this dissertation reexamines the Zou family's story in three key respects. First, the family's involvement in cartography began during the suppression of the Taiping Rebellion (1851-1864), the most destructive civil war in Qing history, when they provided mapping services for military campaigns. From the 1860s, they also participated in the Self-Strengthening Movement, applying Western-style cartography to projects commissioned by the Qing court. This dual role makes them an exceptional case for investigating how maps were made for the empire. Second, the Zou family was neither part of the highest elite nor among the most powerful or wealthy gentry. While they were prosperous landlords in their county, none attained the top metropolitan degrees; instead, they served as mid-level officers or private staff. In other words, they occupied the middle ground of the information order, playing no role in high-level decision-making, yet directly engaged in the practical work of producing geographical knowledge. This makes them a great example for observing how maps and spatial knowledge were actually produced on the ground. Third, in the late 1890s, Zou Daijun 鄒代鈞 (1854-1908), a member of the family, founded China's first private map-publishing house. Without steady government funding, Zou and his associates had to sustain the business through commercial viability, making decisions about how to attract investors and buyers, what materials and printing technologies would balance cost and quality, and what style of representation would appeal to

consumers. These commercial considerations shaped not only the material form of maps but also the ways China and the world were visually represented and disseminated among elite audiences.

I argue that anti-revolutionary, Qing-loyalist mapmakers like Zou Daijun, through their deliberations on cost, materials, map content, and format, played a major role in exposing a broad segment of Qing society to new cartographic products. Much of the ideological content embedded in these maps may not have been deliberate, or even recognized by their makers, but it nonetheless exerted a significant influence on how Chinese conceptualized “China” in the final stage of the Qing dynasty. This is a story of spatial consciousness being constructed not through fully intentional design, but shaped by contingencies, a process whose cumulative effect was to shape nationalist thinking in unexpected ways.

This dissertation is organized into five chapters. Chapter One traces the early history of the Zou family: how they accumulated wealth in Xinhua county of Hunan during the eighteenth century; how they became involved in the devastating Taiping civil war; how they developed skills in mapmaking both for military purposes and for Hu Linyi’s 胡林翼 (1812-1861) cartographical project in the 1860s. Hu Linyi, a prominent Qing-loyalist Xiang army governor, and other colleagues introduced them into aspects of Western cartography, though their work at this stage remained grounded in traditional Chinese methods. A more transformative context emerged in the post-Taiping decades of 1870s and 1880s, when the Qing confronted repeated border disputes with foreign powers over its vast but ambiguously defined frontiers. Therefore, Chapter Two examines two disputes in detail: negotiations with Russia over the Xinjiang border from the 1860s to the 1880s, and negotiations with France over the Vietnamese border in the mid-1880s. While multiple frontier negotiations occurred during this period, these two cases left a particularly strong imprint on elite Chinese conceptions of China’s borders and space. The

Xinjiang case, in particular, inspired Han scholars to compile historical studies of this region's border, and it was in this context that Zou Daijun introduced the category of "territorial loss," an idea that became central to the discourse of "national humiliation" in Republican China. Indeed, the well-known *Map of China's National Humiliation* described by Callahan and other scholars was first published by the Zou family's map publishing house in the early 1930s.

Chapter Three turns to another key context for Zou Daijun's work: the *Guangxu Atlas* project, launched in the late 1880s. This ambitious initiative has attracted far less scholarly attention than the Kangxi, Yongzheng, and Qianlong atlas projects of the eighteenth century, likely because it is often dismissed as a mere imitation of Western methods. Yet the *Guangxu Atlas* project was in many ways more ambitious than its predecessors, involving a much broader range of Chinese elites across the empire. Unlike earlier projects, dominated by European missionaries and select Tibetan, Mongolian, Manchu, and Han elites, this late-1800s project was the first imperial mapping effort largely led by Han cartographers, geographers, and surveyors. The chapter examines how the project operated across institutions from Beijing to local offices, and how knowledge and maps were produced in the process, with active participation from Zou Daijun and other family members.

Chapter Four focuses on the founding of Zou Daijun's private map publishing house in the late 1890s, the first of its kind in China, and its operations in the early twentieth century. It explores how Zou drew on accumulated knowledge from the 1870s and 1880s, as well as maps and geographical materials acquired over time, to produce Chinese maps. These maps were not simply ideological expressions but products of careful consideration of costs, materials, target audiences, cooperation with Japanese printers, and marketability. Chapter Five examines how these maps represented Chinese space and the world. Since the Map Society's publishing

program was later supported greatly by private funding from the minister of the newly established Ministry of Education, Daijun inevitably became involved in compiling geography textbooks for the ministry, specifically for Imperial University 京師大學堂. Within this context, his maps secured funding and reached stable readership through the new school system, as they were adopted as accompanying materials for geography textbook. Daijun himself served as compiler-in-chief of geography at the university. Therefore, this final chapter investigates two interrelated questions: first, how Daijun compiled the geography textbook for the Imperial University and second, what messages his maps sought to convey. Through this complex process, the Zou enterprise produced the first Chinese maps to be mass-marketed to a broad readership, both through commercial sales and as part of geography textbook, in China's very late imperial period.

Chapter One: Forging Geographical Expertise- The Zou Family During the Taiping Rebellion

In July 1945, as World War II was nearing its end, a Chinese cartographer named Zou Yongfu 鄒永敷 (?-?) felt relieved as he had finally completed his family's genealogy book. The genealogy was titled *The Record of the Origins of the Zou Family's Geographic Scholarship* 鄒氏地學源流記.¹ In the preface, Zou Yongfu recounts that at the age of fourteen, he had the opportunity to stay in Changsha, the provincial capital of Hunan, and witness how his elder family members worked as cartographers producing maps for the Qing government. It was at that moment, he recalls, when he first recognized his family as a scholarly clan with multiple generations, dating back to the early nineteenth century, specializing in geography and cartography.

Zou Yongfu takes pride in the fact that his family not only participated in cartographic projects for both the Qing and Republican states, but also operated a private map publishing house, the first of its kind in China, since the late 1890s.² In the introduction, he traces the intellectual origins of the family's scholarship to Wu Hushan 吳瑚珊 (1777-1831), a concubine, as the founding woman of this family tradition.³ Although Yongfu's genealogy book documents the Zou family's achievements in detail, the exact catalyst for their enterprise remains largely unknown.

One fascinating aspect of this family is that they did not originate from the centers of Chinese cartography, such as Beijing or the Jiangnan area, but from a remote countryside,

¹ Yang Yinong, *Hunan lidai wenhua shijia, Xinhua Zou shi juan*. Hunan renmin chubanshe, 2012.

² Yang, *Hunan lidai wenhua shijia*, 222.

³ Yang, *Hunan lidai wenhua shijia*, 226.

Xinhua 新化 county in Hunan.⁴ As J. B. Harley points out, mapmaking in the early modern Europe could be quite expensive and require significant technical support.⁵ Indeed, a substantial number of early modern European cartographers emerged from economically and politically prominent cities like Amsterdam, Paris, and London.⁶ A similar phenomenon occurred in pre-modern China.

Since the eighteenth century, the Qing court collaborated with European missionaries and Chinese cartographers to produce new maps, but access to these maps was tightly restricted.⁷ Even high-ranking Han Chinese officials were often denied access to frontier geographic information.⁸ In many cases, these updated maps were reserved exclusively for ruling banner elites. However, by the early nineteenth century, during the Jiaqing reign (1796-1820), these restrictions began to loosen, allowing lower-ranking Han officials to make use of and circulate geographic materials. Notably, some of these figures were either based in Beijing or closely connected to the intellectual centers of the Jiangnan region.⁹ Yet, it was the Zou family, from the relatively remote county in Hunan, who went on to establish one of the first private mapmaking and publishing enterprises in China. This raises an important question: how did a marginal locale

⁴ Regarding how cartographic materials were made in Beijing and transmitted to Europe in the eighteenth century, see Cams, *Companions in Geography*, pt. one and two. About the mapmaking importance of late eighteenth and early nineteenth century China, see Mosca, *From Frontier Policy to Foreign Policy*, chap. 6.

⁵ J. B. Harley, "The Bankruptcy of Thomas Jefferys: An Episode in the Economic History of Eighteenth Century Map-Making," *Imago Mundi* 20, no. 1 (n.d.): 44–48.

⁶ Schmidt, *Inventing Exoticism: Geography, Globalism, and Europe's Early Modern World*, intro. Harley, *The New Nature of Maps: Essays in the History of Cartography*, chap. 4. Cams, *Companions in Geography*, chap. 1.

⁷ Millward, "Coming onto the Map: 'Western Regions' Geography and Cartographic Nomenclature in the Making of Chinese Empire in Xinjiang." Perdue, *China Marches West: The Qing Conquest of Central Eurasia*, 456.

⁸ Matthew Mosca, "The Literati Rewriting of China in the Qianlong-Jiaqing Transition," *Late Imperial China* 32, no. 2 (2011): 89–132.

⁹ Mosca, "The Literati Rewriting of China in the Qianlong-Jiaqing Transition," 113–21.

like Xinhua produce a generation of “modern” Chinese mapmakers by the late nineteenth century?¹⁰

This chapter argues that the rise of the Xiang army during the Taiping rebellion (1851-1864), the codification of wartime geographic knowledge into gazetteers, and, more significantly, Hu Linyi’s ambitious atlas project, *The Map of the Great Qing Unification* 大清一統輿圖, all played critical roles in equipping the Zou family with the cartographic expertise and geographical literacy necessary to succeed in this field. This chapter is organized into five sections. The first provides a brief overview of the early history of the Zou family before they engaged with geography. The second section examines how the Zous became involved in mapmaking during the Taiping civil war. The third section explores their postwar participation in compiling new local gazetteers, particularly in Hunan, an experience that helped them engage with the process of codifying wartime geographic knowledge into official records.

However, while the making of operational maps and gazetteers was crucial, these experiences alone would not have made the Zous cartographers. What truly transformed their expertise was their involvement in large-scale mapmaking using longitude and latitude. This is where Hu Linyi’s atlas project became essential. The fourth section takes a step back to the early 1800s to trace how previously restricted court maps and geographic knowledge, once inaccessible to most Han elites, gradually became available via printing. This shift enabled a limited group of Han officials to become familiar with Western-style cartographic techniques. The fifth and final section discusses why and how Hu Linyi and his subordinates, including members of the Zou family, created and printed the atlas. It also considers the messages the atlas

¹⁰ Here, “modern” does not mean a Europe-centered perspective that makes only European scientific achievements standard. Instead, “modern” here refers to a period when Western cartographic techniques and knowledge had gradually dominated China since the Self-strengthening movement in the 1860s.

conveyed to its readers, and how it fits into broader efforts to represent and consolidate imperial space in the late Qing.

Fostering a Family of Cartographers in a Peripheral County, Xinhua

Hunan province has garnered significant scholarly attention in recent decades, but Xinhua county, where the Zou family originated, remains largely unexplored.¹¹ One reason for the academic interest in Hunan is that the province produced many notable figures in modern Chinese history. For example, powerful Han officials in the late Qing period, such as Zeng Guofan 曾國藩 (1811-1872) and Zuo Zongtang 左宗棠 (1812-1885), as well as influential revolutionaries like Huang Xing 黃興 (1874-1916), Song Jiaoren 宋教仁 (1882-1913), and Mao Zedong 毛澤東 (1893-1976), all hailed from Hunan.

Scholars have primarily focused on economically prosperous regions in Hunan, as many important figures grew up around the basin of Xiang River 湘水, which includes Changsha, the provincial capital, Xiangtan, and other thriving cities. In contrast, areas outside the economic and political centers have received less attention. One reason for this is the complex geography of these regions, which made them less suitable for agricultural cultivation but more conducive to anti-government rebellions. Although these areas might not have played a pivotal role in economic development, their governance and maintenance remained a critical concern for the Qing administration. Xinhua county, the home of the Zou family, was one such place.

¹¹ For example: Philip A. Kuhn, *Rebellion and Its Enemies in Late Imperial China: Militarization and Social Structure, 1796-1864* (Harvard University Press, 2009); Eric Schluessel, *Land of Strangers: The Civilizing Project in Qing Central Asia* (Columbia University Press, 2020); Perdue, *China Marches West: The Qing Conquest of Central Eurasia*. Stephen R. Platt, *Provincial Patriots: The Hunanese and Modern China* (Harvard University Press, 2007); Daniel McMahon, “The Yuelu Academy and Hunan’s Nineteenth-Century Turn Toward Statecraft,” *Late Imperial China* 26, no. 1 (2005): 72–109.

The Zou family hailed from the Luohong 羅洪 village of Xinhua, located in the Zi River 資江 basin of southwestern Hunan. Although the Zi River is the second-largest in the province and has created a considerable amount of cultivatable land, Xinhua did not benefit much from this due to nearby mountains pressing close to the river, restricting available cultivated land per capita. The primary feature of this county is its mountainous terrain, where non-Han communities, predominantly Miao, made up a significant portion of the population before the Song dynasty (960-1279).¹² While these ethnic minorities were subjected to the authority of Chinese dynasties, they retained a degree of autonomy. However, starting from the tenth and eleventh centuries, the Song empire dispatched military forces to the area to enforce direct control. It was during the Song that this locality was given the name Xinhua, meaning “newly civilized.”¹³ As a result, Miao people were forced to move from the lowlands to the highlands, with Han Chinese settlers continuing to flow in from the lower Yangtze area. Yet, the region's geographical complexity slowed the Han settlers' occupation of the greater Xinhua area. Han communities mainly lived in valleys, while the Miao resided in the mountains.¹⁴

Another consequence of the intricate topography was the emergence of rebellious groups and military posts. According to historians, the system of military posts (汛塘) was established during the eighteenth century.¹⁵ This arrangement aimed to contain Miao chieftaincies and roaming bandit groups. In the late eighteenth and early nineteenth centuries, large-scale Miao rebellions spread across parts of Hunan, Sichuan, and Guizhou, costing the court millions of taels

¹² Guan Peijun 關培鈞 et al., comps., *Xinhua xianzhi* 新化縣志 (Xinhua, 1872), Vol.2.

¹³ *Xinhua xianzhi*, Vol.2.

¹⁴ *Xinhua xianzhi*, Vol.2.

¹⁵ The most crucial point was the policy of *gaitu guiliu* (改土歸流) that was implemented during the Yongzheng reign. See Zhou Ni, “Qing dai xiangxi miaojiang yingxun tixi tanyan,” *Lishi dili yanjiu* (2020): 91-103.

to suppress.¹⁶ The region's geography was one of the challenges faced. A mid-nineteenth-century gazetteer of Xinhua notes that various anti-government groups had utilized this region throughout history. One of the recent rebellions of the time was led by the anti-Qing general Yuan Zongdi 袁宗第 (?-1663), who was based in Xinhua and its neighboring regions and resisted the Qing for over a decade. Despite the overwhelming numerical superiority of the imperial forces, it took the Qing fourteen years to eliminate Yuan's guerillas. The defensibility of this area was so formidable that the gazetteer claims, "two or three hundred could stop the attacks of ten thousand soldiers" 二三百人守之，萬人不能過。¹⁷

Thus, Xinhua differed from the prosperous Xiang River basin, which fostered wealthy cities around Dongting lake. The geographic and cultural landscape of Xinhua was more akin to frontier regions, like Guizhou, Yunnan, and eastern Sichuan, characterized by complex geography and diverse ethnicities. These areas were not ideal for agriculture but were rich in forest resources. In fact, it was through the wood business that the Zou family initially accumulated their wealth.

While Zou Yongfu's genealogy does not document the stories of his Zou ancestors prior to the first generation, local gazetteers reveal that the Zou family had lived in Xinhua since at least the late seventeenth century. Biographic entries for the father of Zou Wensu 鄒文蘇 (1769-1831) as well as his grandfather and great-grandfather are found in an eighteenth-century local gazetteer, suggesting the family's influence was significant enough for local literati and officials to include them in a government document. Zou Maoji 鄒懋極, Wensu's great-grandfather, initially established the family's prominence in the county by making a fortune in the wood

¹⁶ Wensheng Wang, *White Lotus Rebels and South China Pirates: Crisis and Reform in the Qing Empire* (Harvard University Press, 2014), 20–21.

¹⁷ *Xinhua xianzhi*, Vol. 2, yudi zhi 2, 10.

trading business with the Qing court, thanks to the renovation project of the Hall of Supreme Harmony 太和殿 around 1682. This project required a specific type of wood, Nan wood 楠木 (Phoebe zhennan), which mainly grew in certain mountain areas of southwestern China, like Sichuan, Guizhou, Yunnan, and Hunan.¹⁸ The court likely chose the Hunan government for the project due to the convenient river transportation for the Nan wood. Xinhua had abundant Nan forests in its mountains.

Leveraging an unexplained connection with the provincial government, Zou Maoji transformed a terminated renovation project into a profitable Nan wood business, leading to lasting local impact and reverence. The source does not explain how Maoji secured the project contract with the provincial government, but it mentions that villagers invested a significant amount of capital in Maoji's Nan wood business. However, the renovation project was somehow terminated, prompting Maoji to trade the Nan wood in Hankou (now part of Wuhan) and earn a considerable fortune. While the gazetteer claims that Maoji attempted to return revenues to his villager shareholders, they were so "kind" that they agreed Maoji should keep the money.¹⁹ This description may have been revised to favor the Zou family's prestige, but Maoji later sponsored the construction of a road connecting Xinhua to neighboring counties. This road was named Kanghou road after Maoji's courtesy name.²⁰ Upon Maoji's death at the age of 83, villagers worshipped him and believed he was the embodiment of the deity, the Lord of Soil and Ground 土地公.²¹

¹⁸ Huang Zaizhong 黃宅中 and Deng Xianhe 鄧顯鶴, *Baoqing fuzhi* (1934), Vol. 139.

¹⁹ *Baoqing fuzhi*, Vol. 139.

²⁰ *Baoqing fuzhi*, Vol. 139.

²¹ *Baoqing fuzhi*, Vol. 139.

After Zou Maoji's fortune accumulation, younger generations of the Zou family were highly gentrified by attaining imperial literary degrees. Maoji's son, Zou Yangmeng 鄒養蒙, held a licentiate candidacy 補弟子員, a purchased degree. Yangmeng was renowned for his filial piety and kindness within the county. The gazetteer biography provides a story in which Yangmeng was said to treat well those who tried to blackmail his land properties.²² Regardless of the story's veracity, it indicates that the Zou family not only continued to thrive with Maoji's original business but also accumulated a significant amount of land in the Luohong village. Yangmeng's two sons, Zou Rui 鄒睿 and Zou Jiang 鄒江, were both students of Imperial College 國子監.²³ By the late eighteenth century, the Zou family had become one of the most important families in Xinhua. They not only invested in infrastructure projects such as pavilions, bridges, and roads, but also served as significant patrons of philanthropy and gazetteer compilation projects. According to the gazetteer, Zou Rui and Zou Jiang had ten male descendants, eight of whom held literary degrees.²⁴ This highlights the high degree of the Zou family's gentrification up to the early nineteenth century. From this perspective, we can better understand the economic advantage and social status the family had been given before their scholarly tradition of geography and cartography began. Thus, it is essential to consider the Zou family's established prominence and resources when examining their contributions to Chinese mapmaking and cartography in the nineteenth century.

Zou Wensu, the third son of Zou Rui, did not have a strong interest in the world beyond Xinhua and focused on studying ancient Confucian rites and materials. His concubine, Wu

²² *Xinhua xianzhi*, Vol. 19.

²³ Zou Rui was an Imperial College student, meaning that he did not hold the licentiate degree and his Imperial College student position was purchased. Zou Jiang was a provincial graduate, meaning that he acquired the formal licentiate degree and was chosen to the Imperial College.

²⁴ *Baoqing fuzhi*, Vol. 137.

Hushan, however, played a significant role in establishing the family's scholarly tradition in geography due to her father, Wu Lanchai. Wu Hushan was not mentioned in official documents until the late 1860s, in the biography of her son, Zou Hanxun 鄒漢勛 (1805-1853).²⁵ In Zou Yongfu's genealogy book, there is a short story about Wu Hushan:

My great-grandmother taught Zou Hanji (Zou Hanxun's older brother) to use dust to reconstruct mountains and rivers in Yugong, Tributary to the King Yu. Sitting in an upper position, she oversaw Hanji's work and let Hushan accompany to guide Hanji's work. That is why Hanji and his brothers knew geography in their early ages and turned out to be all-around Confucian scholars. Among these brothers, Zou Hanxun was the best, and his grandson, Zou Daijun, was especially famous for geographic knowledge. The world knows the Zou family of Xinhua for our expertise in geography, but few know it was started by Wu Hushan.

我太祖妣也，嘗使伯申公聚灰為《禹貢》山川者，自臨上坐視，命太恭人侍之，太恭人從旁指其誤。故伯申公兄弟早歲知輿地，卒成通儒，叔積公為最，曾孫沅帆先生，尤以輿地名。于是世人稱新化鄒氏輿地，而不知實太恭人啟之云。²⁶

This description was consistent with an epitaph of Zou Wensu attached in the late-1860s Xinhua gazetteer, written by a Hunan literatus, Deng Xianhe 鄧顯鶴 (1777-1851).²⁷ However, these nineteenth-century official and semi-official records never emphasized Wu Hushan's role in the Zou family. While early data shows that Hushan was well-educated in geography because of her father, no solid evidence could prove that she played an essential role in cultivating this familial scholarship. One plausible explanation lies in her son, Zou Hanxun.

Zou Hanxun was born in 1805 to Wu Hushan and gained distinction within his family for his contributions during the Taiping rebellion. From a young age, Hanxun exhibited a keen interest in geography, creating a map illustration of the *Zuo Commentary* 左傳 at just fifteen years old. By the time of his death at age 49, Hanxun had authored fourteen works on subjects

²⁵ *Xinhua xianzhi*, Vol. 18.

²⁶ Yang, *Hunan lidai wenhua shijia*, 229.

²⁷ *Baoqing fuzhi*, Vol. 136.

such as geography, history, rites, and philology, making him one of the most accomplished and prolific members of the Zou family.²⁸

Hanxun's expertise in geography was further developed through his involvement in several projects to compile local gazetteers for four areas in Guizhou province and Baoqing prefecture in Hunan. As a researcher and editor for these publications, Hanxun gained invaluable knowledge of the regions' intricate topography, which later proved beneficial during battles against the Taiping forces.²⁹

These gazetteer projects also allowed Hanxun and his younger brother, Zou Hanzhang 鄒漢章 (1816-1861), to access valuable geographic information and learn mapmaking techniques. However, it was the onset of the Taiping rebellion that provided the brothers with the opportunity to apply their theoretical knowledge in a practical military setting.

The Taiping Rebellion and the Making of a Professional Mapmaker Family

Local militarization was significantly influenced by the Taiping rebellion, although it had already begun prior to the civil war.³⁰ Before the nineteenth century, the Qing state enforced a centralization policy, particularly during the Qianlong reign. The Qianlong government limited military command to the eight-banner aristocracy, excluding most Han Chinese elites.³¹ Han political elites were restricted to matters concerning China proper. While local Han elites who held imperial degrees could recruit individuals for defense purposes, these militias were temporary. Typically, local defense tasks were controlled by the Manchu court. However, starting from the Jiaqing reign (1796-1820), this ethnic discrimination began to change. As Scholars have

²⁸ *Xinhua xianzhi*, Vol. 18.

²⁹ *Xinhua Xianzhi*, Vol. 18.

³⁰ Kuhn, *Rebellion and Its Enemies in Late Imperial China*, iii.

³¹ Mark C. Elliott, *The Manchu Way: The Eight Banners and Ethnic Identity in Late Imperial China* (Stanford University Press, 2001), chap. 3.

shown, a power shift between the ruling ethnic group and Han Chinese emerged in the early nineteenth century.³² The Jiaqing emperor elevated Han status in the court for two reasons: first, to check Manchu-Mongol establishments by incorporating Han officials, and second, to address the financial burdens caused by numerous military operations launched by his royal father in the eighteenth century. In this context, the Jiaqing emperor permitted Han elites to assume partial defense responsibilities in local society.³³ As a result, local militarization was already underway in the early nineteenth century, prior to the Taiping rebellion. Later in the late 1840s and early 1850s, the frequency of local tumults in mountainous southwestern and southern China significantly increased. It was in this context that the Zou family became involved with local militarization.

Zou Hanzhang, Hanxun's younger brother, was among the first in the family to join a local militia group. Hanzhang was known for his expertise in mapmaking and military tactics before becoming an officer. After earning the licentiate degree in 1852, Hanzhang did not advance to the prefectural academy, a common choice for those seeking an imperial degree. Instead, Hanzhang joined the private administration of Kuilian, a capable Manchu bureaucrat who had served in Hunan for years. Kuilian quickly recognized the seriousness of the Taiping revolt in the early 1850s when it began in Guangxi province. He organized local militias to defend against potential Taiping attacks in southwestern Hunan. Hanzhang and another Zou family member, Zou Shaoxun, joined Kuilian's militia team.³⁴ Simultaneously, another skilled

³² William T. Rowe, "Introduction: The Significance of the Qianlong-Jiaqing Transition in Qing History," *Late Imperial China* 32, no. 2 (2011): 74–88.

³³ Seunghyun Han, *After the Prosperous Age: State and Elites in Early Nineteenth Century Suzhou* (Harvard University Asia Center, 2016).

³⁴ Zou Shaoxun was known for his exceptional performance in obtaining intelligence when Taiping troops planned their invasion of Hunan in 1852. Although there is no written evidence directly linking Zou Shaoxun's remarkable talent to the maps and geographical knowledge of his family, the connection seems plausible. His family's expertise in cartography and geography could have played a role in enhancing his intelligence-gathering skills during this critical period. Li Hanzhang and Zeng Guoquan, *Hunan Tongzhi* (Hunan, 1885), Vol. 189, *renwu zhi* 30. His date of

commander, Jiang Zhongyuan 江忠源, confronted the early Taiping forces in Guangxi. Jiang followed the Mongol general Saišangga (1798-1875) to pacify the Taiping, but the Qing troops failed to contain the rebels, allowing them to spread into southwestern Hunan. In 1852, Jiang returned to southwestern Hunan and recruited local militias, which later became the predecessor of the Xiang army. Both Hanzhang and Shaoxun joined Jiang's army as officers, providing the Zou family an opportunity to showcase their geographic and mapmaking knowledge.

Local militarization involved more than just recruiting and training peasants to become soldiers; it also required various techniques to transform militias into professional armies. Militia leaders were concerned with disciplining and training non-professional soldiers, accessing weapons, developing tactics, and owning mapmaking teams. In a prominent military guidebook written by Qi Jiguang 戚繼光 (1528-1588), a successful general who transformed peasants into disciplined soldiers during the Ming period, Qi emphasized the importance of maps for military operations. He required every officer to carry maps with “pasted notes” 貼說 at all times.³⁵ These “pasted notes” described topography, tactics, and military plans on maps, using both text and graphics to illustrate military operations. These notes and maps needed to be updated based on different fields and environments.³⁶ Consequently, local militia groups sought experts who could create operation maps for battles. For the newly established Xiang army, initially known as

birth remains unknown, but he was killed in battle during the Taiping's attack on Luzhou in 1858. At that time, the Xiang Army was almost annihilated in this fierce fighting.

³⁵ Qi Jiguang, “Liangbing zaji,” *Liangbing shiji* (Shoushan'ge, 1597), Vol. 3. Kuhn, *Rebellion and Its Enemies in Late Imperial China*, 124–27.

³⁶ In a search for “tieshuo” 貼說 in the Chinese Classic Ancient Books database, 696 results from the Qing period appear. Interestingly, most of these results are from after the Qianlong reign and primarily relate to military campaigns. Although there are a few instances of “tieshuo” written before the Qianlong reign, these mainly concern changes in river courses and land. Since the Qianlong era, it has become common to see “huitu tieshuo” 繪圖貼說 as a means of communication in narratives produced by the Fanglue guan (方略館).

the Chu Militia 楚勇, one of its primary tasks was to have its own cartographers. The Zou brothers happened to possess the necessary expertise, making them valuable assets to the militia.

Fierce conflicts between the Qing and the Taiping heightened the urgency for cartographic expertise. Since Hanzhang was able to draft a map in one night, he gained the attention of Jiang Zhonyuan and other Han militia leaders.³⁷ His elder brother, Hanxun, joined the Xiang army in 1852 and had experience making maps for local gazetteers.³⁸ Hanzhang's brothers, Hanxun and Hanchi 漢池 (1817-1871), both had experience in mapmaking. Hanxun himself later became an officer in Jiang's army, to which he contributed his knowledge of southwestern China's complex geography. Although another brother, Hanchi, did not join the military team, he was skilled in mathematics and able to improve maps with more precise projection calculations. Hanchi was a good friend of Ding Quzhong 丁取忠 (1810-1877), an eminent Hunanese mathematician. Zou Hanchi and Ding Quzhong worked hand-in-hand in the private administration of Hu Linyi, the Hubei governor. One of the most important projects they worked on was the revision of the *Map of the Great Qing Unification*, which will be discussed in detailed in the following sections.³⁹

The immense demand for accurate maps during the Taiping rebellion played a significant role in the process of professionalization. This aspect of professionalization, overlooked in Kuhn's research, was further developed in Jonathan Porter's work. Porter contends that one of the most influential outcomes of local militia formation was the emergence of

³⁷ Luo Ruhuai, "Sichuandao Jianchao Yushi qian Hanlin yuan Bianxiu Lijun zhuan," *Luo Ruhuai ji* (Yuelu shushe, 2013), 392. "先是君假歸時，粵鹵寇事孔棘，朝廷命湖廣總督某駐衡州，相機防禦君於會垣，遇新化鄒漢章談楚粵院塞，漢章故精輿地之學，為一夕作圖數紙。"

³⁸ *Hunan Tongzhi*, Vol. 189, renwu zhi 30.

³⁹ Zhu Kebao 諸可寶, "Zou Hanxun" entry, *Chouren zhuan sanbian* 疇人傳三編 (Nanjin shuyuan, 1886), Vol. 4.

professionalization. He highlights two facets of professionalism during this period.⁴⁰ First, the private administration (幕府) offered an alternative career path to official service beyond the regular bureaucracy. By catering to the needs of militia organizations, Han staff could secure positions regardless of their possession of imperial degrees. Second, this organization focused on specialized knowledge and competence, covering various subjects such as finance, military, political and social matters, and foreign affairs, promoting a type of professionalized personnel that diverged from the cultivated amateur scholars typically associated with traditional Confucianism.

Mapmaking was one of the specialized skills that militia leaders required. In one letter, Zeng Guofan reminisced about his late colleague, Wang Zhen 王鑫 (1825-1857), who used to distribute dozens of maps to his subordinate officers before military conflicts, discussing battlefield topography, potential enemy ambush locations, and counterattack strategies.⁴¹ Zeng Guofan incorporated Wang's map practices into his own militias. Furthermore, communication between these Han militia generals relied not only on textual letters but also on maps with pasted notes.⁴² All these factors demonstrated the considerable demand for maps and the craftsmanship of updating geographical and military information on battlefields during the Taiping rebellion. It was during this time that the Zou family had the opportunity to showcase their capabilities.

The Zous' contributions to operational maps during the nineteenth century are noteworthy, even though a limited number of such maps have survived. During the Qing era,

⁴⁰ Jonathan Porter, *Tsêng Kuo-Fan's Private Bureaucracy*, China Research Monographs, no. 9 (Center for Chinese Studies, University of California, 1972), 123.

⁴¹ Zeng Guofan 曾國藩, "Yu Li Youquan 與李昭慶," *Zeng Guofan quanji* (Yuelu shushe, 2011), Vol. 29, 140. Li Zhaoqing was the youngest brother of Li Hongzhang. "昔王璞山帶兵有名將風，每與賊遇，將接仗之前，一傳各營官齊集與之暢論賊情地勢，袖中出地圖十餘張，每人分給一張，令諸將各抒所見，如何進兵、如何分支、某營埋伏、某營並不接仗，待事畢後，專派追剿。"

⁴² Hu Linyi, "Fangjiao shangfa zhiying tiaogui" 防勦賞罰支應條規, *Hu Linyi ji* (Yuelu shushe, 2008), Vol. 2, 25. "卽須將各處緊要隘口，按羅盤指定方向，詳悉繪圖貼說。飛速專差，寄示送交古州營"

various levels of government maintained their own archival collections, which included tax records, registries, and maps.⁴³ Many of these archival documents were destroyed once they were incorporated into gazetteers or official collections, as each office had limited storage capacity. Some documents were abandoned even if they were not used in compiling official collections. Operational maps, in particular, faced an uncertain fate, as much of the information they contained, such as battalion locations and army movements, was not useful during peacetime. Consequently, these maps were frequently unused and eventually discarded.⁴⁴

However, during the Second Opium War (1856-1860), the British and French forces occupied Guangzhou and seized official archives from the Liangguang governor general office, including 125 maps. Of these, 115 were military operation maps.⁴⁵ Most were created for the Guangdong government to counter the Taiping forces, but two were intended for operations in Changsha, Hunan. One map (figure 1) detailed transportation routes between Changsha and Hengzhou, likely created before the Taiping invasion in autumn 1852. The other map (figure 2), produced around late 1852, documented confrontations between the Taiping and Qing troops. At that time, Zou Hanzhang and Zou Shaoxun had joined Jiang Zhongyuan's army and were likely in the field. Although unsigned, it is highly probable that both Zou Hanzhang and Zou Shaoxun were part of the map drafting team for these two maps.

⁴³ About how the Qing structured its paperwork flow, see Beatrice S. Bartlett, *Monarchs and Ministers: The Grand Council in Mid-Ch'ing China, 1723-1820* (University of California Press, 1991); Madeleine Zelin, *The Magistrate's Tael: Rationalizing Fiscal Reform in Eighteenth-Century Ch'ing China* (University of California Press, 1984).

⁴⁴ Hua Linfu ed., *Yingguo guojia dang'an guan guicang jindai zhongwen yutu* (Shanghai shehui kexue yuan chubanshe, 2011), 14-15.

⁴⁵ Hua Linfu, *Yingguo guojia dang'an guan guicang jindai zhongwen yutu*, 14-15.



Figure 1: "Transportation Map of Eastern Changsha and Hengzhou Prefectures" 長沙、衡州二府東部交通地圖

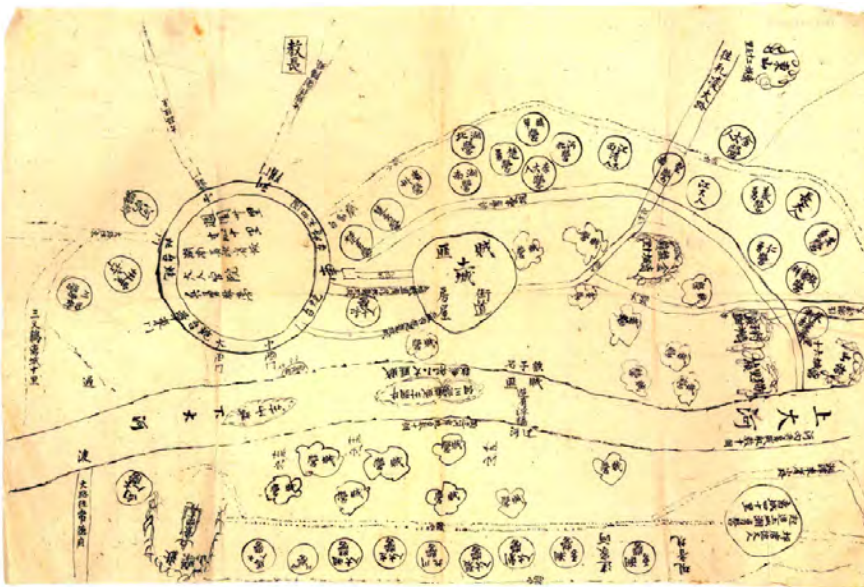


Figure 2: "Operational Map of the Taiping Army's Offensive and Defensive Positions at Changsha" 太平軍長沙攻守形勢圖

The transportation map (figure 1) between Changsha and Hengzhou is a pivotal artifact illustrating the strategic responses of the Qing forces to the Taiping incursions in southern Hunan up until the summer of 1852. As the Taiping forces captured key cities like Chenzhou, Daozhou, and Yongming, the Qing prepared for a potential riverine assault towards northern Hunan by fortifying positions around Hengzhou, a strategic node controlling access northward. Contrary to Qing expectations, the Taiping advanced towards Changsha, the provincial capital, via an alternative land route to the east, circumventing major Qing military concentrations.⁴⁶ Their unexpected arrival at Changsha's gates in September 1852 necessitated a rapid redeployment of Qing forces to defend the city. This operational context birthed the transportation map, detailing critical geographic and strategic data such as city locations, river pathways marked in red, and terrestrial routes, alongside the distribution of various communities within the region.⁴⁷ Notably, it identified villages under the Pujiao system (a local adaptation of the Baojiao system prevalent in Hunan), with "Pu" suffixes denoting village locations, crucial for forestalling Taiping stealth attacks.⁴⁸

Furthermore, this map was enriched with annotations on the proximities between key locales, offering precise measurements of distances along roads and rivers. This addition was vital for Qing military logistics, surpassing the generic and expansive data typically available in local gazetteers. Although the 1816 Jiaqing Hunan gazetteer provided comprehensive administrative details, the immediacy of military needs demanded an expedited, yet thorough, assimilation of local geographic knowledge. The compilation of such a detailed and actionable map within a constrained timeframe, often just a night or two, testifies to the exceptional skills of

⁴⁶ Mao Jiaqi ed., *Taiping tianguo tongshi* (Nanjing daxue chubansh, 1991), Vol. 1, 320-323.

⁴⁷ Hua Linfu, *Yingguo guojia dang'an guan guicang jindai zhongwen yutu*, 218-223.

⁴⁸ Tan Zhongci ed., *Changsa tongshi* (Hunan jiaoyu chubanshe, 2013), 6-7.

Zou Hanzhang and his team. Their ability to synthesize extensive information into a practical and navigable format was indispensable for Qing military strategies during this critical juncture of the civil war.

The creation of the second operation map (figure 2) provides a vivid depiction of the tactical situation during the Changsha battle in September 1852.⁴⁹ As the Taiping forces laid siege to Changsha, the Qing troops, primarily stationed in Hengzhou city to the south, were taken by surprise. Realizing the strategic misdirection, a contingent of fifty thousand Qing soldiers hastily marched northwards to relieve Changsha from the Taiping encirclement. Crafted in mid-November 1852, this map documents the positions following the Qing reinforcements' arrival near Changsha, showcasing the concentrated effort to counter the Taiping siege.⁵⁰

Central to the map is the depiction of the Taiping headquarters, derogatorily referred to as the “earth fort of bandits” 賊匪土城, positioned strategically outside Changsha’s south gate and adjacent to the Xiang river. Surrounding this fortification are nine encampments labeled as “bandit barracks,” indicating the presence of Taiping forces. Additionally, the Taiping established three battalions on Niutouzhou 牛頭州, a sandbar within the Xiang River, marked on the map as hosting “numerous bandit warships,” signifying a significant naval presence. The opposite riverbank featured eight more Taiping barracks, securing their flank against Qing counterattacks. At this juncture, Qing forces had effectively encircled the Taiping, constructing trenches to thwart any escape attempts, while the Taiping dug tunnels in a futile effort to breach Changsha’s defenses forcefully.

⁴⁹ Hua Linfu ed., *Yingguo guojia dang'an guan guicang jindai zhongwen yutu*, 128-131.

⁵⁰ Hua Linfu ed., *Yingguo guojia dang'an guan guicang jindai zhongwen yutu*, 34-38.

The map's strategic positioning of Jiang Zhongyuan's barracks, where Zou Hanzhang was likely stationed, underscores the collaborative effort in its creation. Despite the absence of Western cartographic elements like longitude and latitude, the map's detailed portrayal of military deployments required extensive geographic knowledge, including the landscape's natural features and the enemy's encampments. This task necessitated not only cartographic skill but also adept intelligence gathering, as Hanzhang and his team needed accurate information on the enemy's positions. This meticulous intelligence-gathering effort by Hanzhang and Shaoxun is reflected in the local gazetteer, which praises them in their biographies for their espionage capabilities, stating they were "capable of spying on the enemy's situation" 能偵諜賊情.⁵¹

The examination of the two operation maps reveals key competencies in the Zous' cartographic expertise. Firstly, an intimate knowledge of local geography was crucial. While being natives of Hunan provided the Zous with a foundational understanding of the region's topography, the complexity of the geography necessitated reliance on local gazetteers for detailed knowledge of neighboring counties. Their prior involvement in compiling these gazetteers likely endowed them with the essential geographic knowledge needed for mapmaking. Secondly, the skill in intelligence gathering was paramount for the creation of operation maps during this period. These maps were needed to accurately depict enemy positions and incorporate relevant geographical data, enabling military leaders to devise strategic plans accordingly. While direct evidence of Hanxun's intelligence-gathering skills like his brother Hanzhang's is absent, his military role under Jiang Zhongyuan required competencies in mapping. Hanxun joined the militia in 1853 as a military officer for Jiang. By then, Hanxun was already recognized for his

⁵¹ *Hunan Gazetteer* (Guangxu), vol. 189.

geographical knowledge. Although he initially declined Cheng Yucai's 程裔采 (1783-1858) invitation to assist with suppressing the Taiping rebellion in 1850, Hanxun's eventual involvement in 1853 underscored his indispensability in military cartography. Thus, the tumultuous period of civil war transformed the Zous into adept cartographers, equipping them with both a profound understanding of geography and the ability to gather critical intelligence.

Codification of the Wartime Geographic Knowledge into Local Gazetteers

The end of the civil war, marked by the Xiang army's retaking of Nanjing from the Taiping in 1864, signified a turning point for the Qing Empire. Although some Taiping generals continued resistance until 1872, the Qing had largely reclaimed control over China proper following the fall of Nanjing.⁵² The contribution of Western weaponry to quelling the rebellion is well-documented, yet the role of geographical knowledge in enhancing Qing governance post-conflict has received less attention.⁵³ Initially gathered for military objectives, this knowledge was eventually incorporated into local gazetteers, exemplified by the latest Hunan gazetteer.

After the war, various provinces began gazetteer projects, with Hunan leading the way. Led by Li Hanzhang 李瀚章 (1821-1899), a Xiang army veteran and governor of Hunan, a bureau was set up in 1868 to refresh the province's maps and geographic data, culminating in a publication in 1885.⁵⁴ While it is unclear from Li Hanzhang's records whether Li had a keen interest in maps and geography, his subsequent role (1889-1895) in the Liangguang office saw

⁵² The last Taiping general was Li Wencai 李文彩 (?-1872), who continued to resist the Qing authority in mountainous areas of Guizhou until 1872. Mao Jiaqi, *Taiping tianguo tongshi*, vol. 3, 226-227.

⁵³ Regarding how Western guns assisted the Qing to win the civil war, see Halsey, *Quest for Power: European Imperialism and the Making of Chinese Statecraft*, chap. 5; Elman, *On Their Own Terms: Science in China, 1550-1900*, 353-95.

⁵⁴ This project faced a lot of internal conflicts among Hunan's top officials, stretching its completion over ten years. Despite its shortcomings, a standout feature is its collection of ninety maps. He Xiaoji, "Qingdai sanxiu Hunan tongzhi lueshu (shang, zhong, xia)," *Hunan difang zhi tongxun* (1984.4): 32-34, 1984.6: 47-49, 1985.1: 41-43.

the completion of a detailed mapping effort that contributed to the *Guangxu Atlas*, a topic explored in the third chapter. Guangdong, experienced in Western cartography, led the adoption of Western mapping techniques since the early nineteenth century and was the first province to submit its updated maps to the court for the last imperial atlas project.⁵⁵

Despite Li Hanzhang's limited exposure to European cartography, his recognition of Western geographical knowledge's value influenced the structure of the latest Hunan gazetteer. In a significant departure from tradition, the geography chapter was prioritized over "celestial and territorial correspondence" 分野, a minor yet impactful modification signaling a shift in emphasis towards practical geography over traditional Chinese mythical astronomy.⁵⁶ This decision by the Hunan gazetteer bureau to reorganize the gazetteer's structure raises questions about the motivations behind prioritizing geographic information in the post-Taiping era.

The recompilation of the Hunan gazetteer post-Taiping rebellion was driven by two significant factors: the emergence of the Statecraft school (*jingshi*) and the extensive collection of geographical data during the civil war. Yulu 裕祿 (1844-1900), the then Lianghu governor-general, emphasized in the gazetteer's preface the urgent need for an updated Hunan gazetteer due to the province's severe impact by the Taiping rebellion.⁵⁷ Given Hunan's role as the cradle of the Xiang army, which played a crucial part in quelling the rebellion, a comprehensive gazetteer was vital for effective post-war management.

⁵⁵ Mosca, *From Frontier Policy to Foreign Policy*, 201–9.

⁵⁶ About how the early Qing utilized the theory of astronomical geography (*xinye*) to justify its inclusion of Taiwan to the imperial domain, see Li Wenliang, "Qingchu Taiwan fangzhi de fenye shanmai shuxie yu diguo yishi xingtai," in *Bianchui shehui yu guojia jiangou* (Xinbei shi: Daoxiang chubanshe, 2017), 361-391. About the translation of *fenye*, see Joe Dennis, *Writing, Publishing, and Reading Local Gazetteers in Imperial China, 1100-1700* (Boston: Harvard University Asia Center, 2015), 73.

⁵⁷ *Hunan Gazetteer*, 2

The rise of the Statecraft school, which advocated for practical governance knowledge including military strategy, river management, and geography, further underscored the need for updated geographic data. Influential figures such as Wei Yuan 魏源 (1794-1857) and Xu Jiyu 徐繼畲 (1795-1873) introduced foreign geographies in their works, reflecting a growing interest among Han literati in geographical knowledge.⁵⁸ This intellectual trend, alongside the Xiang army's need for precise geographical data, resulted in the creation of significant geographical works, including the seminal text by Ming loyalist Gu Yanwu 顧炎武 (1613-1682), *On the Benefits and Faults of the Tianxia's Local Administration* 天下郡國利病書, and facilitated the systematic gathering of geodata throughout and following the Taiping Rebellion.

The Hunan gazetteer project incorporated members of the Zou family, known for their cartographic expertise. Three Zous—Hanchi, Shikui 斌奎, and Daijun 代鈞—were listed in the editorial board, and Shiyi 世詒 in the drafting team, highlighting their significant contributions. Hanchi, in particular, was recognized for his skills in mathematics and cartography, collaborating with Ding Quzhong to add longitude and latitude to Hu Linyi's map.⁵⁹

Another younger member of the Zou family, Zou Daijun, joined the gazetteer compilation team around the same period. Starting with little experience, Daijun later emerged as the family's most distinguished cartographer, establishing the first private Chinese map publishing house. The exact time he joined the provincial gazetteer team is uncertain, but records show Daijun earned

⁵⁸ Wei Yuan first published his *Haiguo tuzhi* 海國圖志 in 1843, and it was revised and expanded to 100 volumes in 1852. Xu Jiyu published the *Yinghuan zhilue* 瀛寰志略 in 1849, and it likewise had been updated several times after its first appearance.

⁵⁹ Ding Quzhong and Zou Hanchi, *Yudi jingwei du dili biao* 輿地經緯度地理表, in Wang Xiqi ed., *Xiao fang hu zhai yudi congchao* 小方壺齋輿地叢鈔 (Guangwen shuju, 1962), 188-247. Mosca, *From Frontier Policy to Foreign Policy*, 209–22.

his licentiate degree in 1879, suggesting he embarked on the gazetteer project after obtaining his degree.⁶⁰ At that time, he was only assigned editing tasks due to his lack of cartographic experience. This role, however, paved the way for Daijun's opportunity to join an embassy to Europe in 1885, a topic I will explore in the fourth chapter.

Three key reasons fueled the launch of this local cartographic project. The first was the systematic introduction of foreign geography into China from the mid-nineteenth century, particularly through Wei Yuan's *Haiguo tuzhi*, which sparked an interest in world geography and Western cartography among the Han literati.⁶¹ The second reason centers on why these young Hunanese cartographers converged in Baoqing city. Prior to the 1850s, Baoqing had emerged as a printing and cultural hub in early nineteenth-century Hunan, nurturing generations of Han talent, including Wei Yuan, Wei Guangtao 魏光燾 (1837-1916), and Liu Kunyi 劉坤一 (1830-1902).⁶² The city's cultural magnetism also attracted many young literati, including the Zou brothers, Hanxun, Hanzhang, and Hanchi, who contributed to the compilation of the city's gazetteer. This engagement was not unique to Hunan; similar efforts were underway across China, with Zou Hanxun editing county gazetteers in Guizhou later in the decade. In fact, Hanxun and his family members had participated in multiple different gazetteer compilation projects.⁶³ These projects provided networking opportunities, access to official documents, and

⁶⁰ Ming Erchang ed., "Zou Zhengjun zhuan," *Beizhuan jibu*, in *Jindai Zhongguo shilao congkan*, ed. Shen Yunlong (Wenhai chubanshe, 1973), vol. 43, 2409. "德宗五年，湖南督學使者朱適然，□古以槐葉冷淘賦命題，通場無知者，得徵君卷，大奇之，補縣學博士弟子員。"

⁶¹ One of the most avid readers of Wei Yuan's work was Feng Guifen. Despite critiquing the inaccuracies in Wei's treatise, Feng found common ground with Wei on many issues. In his influential work, *Jiaobin lu kangyi*, Feng dedicated a chapter to introduce the techniques of producing maps in Western cartographic standards. About the critique, see Feng Guifen, "Ba haiguo tuzhi," *Xianzhi tang ji* (*Jiaobin lu*, 1876), vol. 12, 19. About the map, see Feng Guifen, "Hui ditu yi," *Jiaobin lu kangyi* (Taipei: Wenhai chubanshe, 1971), 52-57.

⁶² Following the Taiping Rebellion, many individuals from Baoqing prefecture rose to prominence, both intellectually and politically, beyond the three notable figures previously mentioned. Key figures from this region include Jiang Zhongyuan (1812-1854) and Liu Changyou (1818-1887), among others. This trend underscores Baoqing city's ascendancy alongside the rise of Hunan's military might after the mid-nineteenth century.

⁶³ *Hunan lidai wenhua shijia: Xinhua Zoushi juan*, 246-254.

geographic information, fostering an environment that valued geographical knowledge and encouraged the Zous to develop their cartographic skills.

The third catalyst was the Taiping civil war. During that period, Hu Linyi enlisted another member of the Zou family, Zou Shiyi, and Yan Qizhen 晏啟鎮 (?-?) to refine the atlas of Li Zhaoluo 李兆洛 (1769-1841), which will be discussed in the following section.⁶⁴ The primary motivation for this cartographic endeavor was strategic: the Xiang army, especially Hu Linyi's forces, had suffered a significant defeat the Taiping in 1855, largely due to their unfamiliarity with local geography. Recognizing the strategic importance of accurate maps, Hu Linyi integrated this project into his military planning, providing stable funding and shifting the project's focus from intellectual curiosity and civic service to serving explicit military and political objectives during the Taiping rebellion.⁶⁵

The most obvious feature of the latest Hunan gazetteer is its main advancements in Qing cartography. Firstly, the maps produced during the Guangxu period were significantly more precise than those from the early nineteenth century. Comparing the general maps from the early Guangxu reign and the Jiaqing period, substantial improvements can be noticed, particularly in the depiction of rivers and administrative accuracy. Let us shift our focus to the maps below. The Guangxu map (figure 4) featured more sophisticated representations of river curves around Xinhua county and Baoqing prefecture, demonstrating an enhanced precision over the Jiaqing period map (figure 3), where such details were absent.⁶⁶ This precision was crucial for both

⁶⁴ Yan Shusen, "houba," *Huangchao Zhongwai yitong yutu* (Hubei fushu jinghuan lou, 1863). "... (胡林翼) 延新化鄒子翼世詒、上舍晏圭齋啟鎮處士，鉤稽考覈，以成一編。”

⁶⁵ Hu Linyi passed away in 1861 and therefore did not witness the completion of the atlas project. Following Hu's death, Yan Shusen, once Hu's subordinate in the army and then the governor of Henan, resumed the unfinished project. Yan enlisted the help of Li Tingxiao (?-1901) and Wang Shiduo (1802-1889) to finalize and publish the atlas in 1863. Yan Shusen, "houba," *Huangchao Zhongwai yitong yutu*.

⁶⁶ (Guangxu) *Hunan tongzhi*, 1009. Weng Yuanqi and Huang Benji, (Jiaqing) *Hunan tongzhi* (Hunan, 1820), 333.

military and administrative purposes, given the strategic importance of rivers for troop movements during the conflicts of the 1850s and 1860s.

Moreover, the Guangxu map corrected numerous geographic inaccuracies present in the Jiaqing version, such as the misplaced location of Yongsui 永綏 prefecture (the red circle in both maps), a key stronghold. These corrections were grounded in actual geographic surveys and reflect the Qing military's investment in utilizing longitudinal and latitudinal data. Notably, the Guangxu *Hunan gazetteer* became the first of its kind in China to record detailed longitudes and latitudes for every administrative unit, marking a significant milestone in the evolution of Qing cartography.⁶⁷

⁶⁷ While the early nineteenth-century Guangdong gazetteer incorporated longitudinal and latitudinal data to chart its administrative units, it only detailed up to the prefect level, omitting county-level information. In contrast, the Guangxu *Hunan gazetteer* expanded this approach to include both prefect and county levels, making it one of the earliest local gazetteers in China, alongside those of the capital region (*jifu*) and Guangdong, to feature such comprehensive data.



Figure 3: Map of Hunan (Jiaqing Hunan gazetteer)

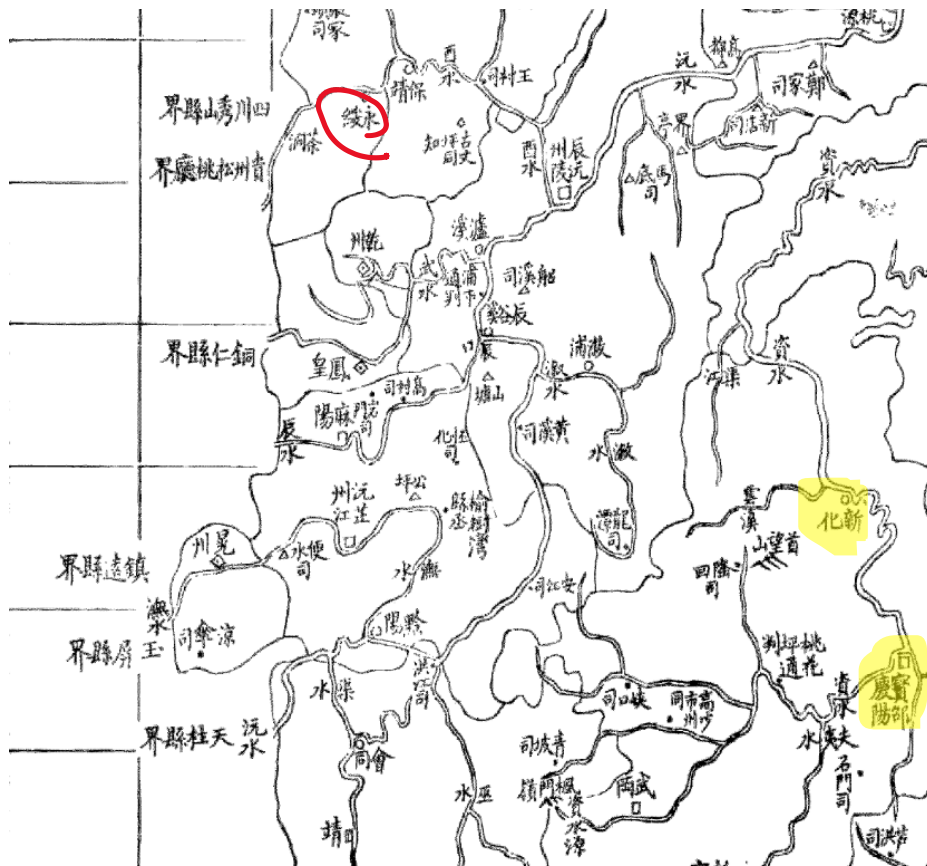


Figure 4: Map of Hunan (Guangxu Hunan gazetteer)

While previously, some gazetteers also documented data of longitude and latitude, their methods diverged from Western/modern techniques. China has a long history of celestial observation and geographic measurement.⁶⁸ Particularly notable was the latter half of the eighteenth century, when latitude (晷度) began to be systematically recorded in some local gazetteers, with the Qianlong Rehe gazetteer being possibly the first to do so. The team compiling the Rehe gazetteer likely had access to imperial court records produced by European missionaries and Chinese geographers during the Qianlong reign.⁶⁹ This represented a significant

⁶⁸ Christopher Cullen, *Astronomy and Mathematics in Ancient China: The Zhou Bi Suan Jing* (Cambridge University Press, 1996), 35–66; Cordell D. K. Yee, “Reinterpreting Traditional Chinese Geographical Maps,” in *The History of Cartography*, ed. J. B. Harley et al., vols. 2, Book 2 (University of Chicago Press, 1987).

⁶⁹ Li Yuandu, *Tianyue shan guan wechao* 天岳山館文鈔 (Yuelu shushe, 2009), vol. 2, 833. “高宗純皇帝，識冠古今，欽定熱河志，刪星野之談天，測斗極之出地，創立晷度一門，洵不刊之定論矣。” About the application of longitude and latitude in Chinese map-making, see Cordell Yee, “Traditional Chinese Cartography and the Myth

advancement: applying confidential imperial geodata to public gazetteers. However, the Rehe gazetteer's team lacked the expertise for conducting longitudinal surveys, which required precise timekeeping.

In the twenty-first century, measuring longitude without established online tools can be simplified to traveling from one location to another with a reliable watch, recording the exact time at the start and noting any time difference upon arrival. A one-hour difference indicates a 15% longitudinal discrepancy between the two places, underscoring the need for precise timekeeping instruments.⁷⁰ In nineteenth-century China, however, reliable and portable clocks were scarce, making lunar eclipses a reference point for geographers. Yet, the brief window for observations and the lack of essential instruments like the quadrant (四分儀) limited these efforts, leading to the exclusion of longitudinal data from most gazetteers, despite the inclusion of latitudinal information.⁷¹

The late nineteenth century witnessed a qualitative shift in the use of longitudinal data in Hunan, largely influenced by the widespread distribution of Wei Yuan's *Haiguo tuzhi* and the growing accessibility of global longitudinal data among the Han literati. Despite *Haiguo tuzhi* not covering detailed geodata within China, interested scholars could find such information in *Table of Geographic Coordinates and Distances* 輿地經緯度里表, a monograph collaboratively penned down by Ding Quzhong and Zou Hanchi under the private wartime administration of Hu

of Westernization,” in *History of Cartography: Cartography in the Traditional East and Southeast Asian Societies*, ed. J. B. Harley and David Woodward, vol. 2 (The University of Chicago Press, 1994).

⁷⁰ Dava Sobel, *Longitude: The True Story of a Lone Genius Who Solved the Greatest Scientific Problem of His Time* (Penguin Books, 1996), 7.

⁷¹ About the importance of quadrant, especially portal or mobile quadrant, for these survey tasks, see Cams, *Companions in Geography*, chaps. 1 and 2.

Liny, which we will discuss in the section four.⁷² This work marked a significant milestone by providing detailed longitudinal data for a wide range of locations, from provincial capitals to prefectures and counties. The initiation of Ding and Zou's project was driven by a clear purpose: to fill the gap in geographic knowledge within China, leveraging their access to and understanding of contemporary geographic data collected in the pacification of Taiping rebellion.

The Guangxu Hunan gazetteer introduced another notable advancement in cartography through more detailed depictions of rivers. Given the complexity of Hunan's terrain consisting of mountains and hills, it is understandable why previous gazetteers focused extensively on mountains, much less on waters.⁷³ In the traditional gazetteer genre, Hunan's water systems were discussed within the sections dedicated to mountains, reflecting the inseparable relationship between these geographical features. Hunan, characterized by its complex water patterns due to the presence of major river systems like the Yangtze and the Pearl, relies heavily on rivers for transportation due to its mountainous landscape.⁷⁴ However, the Guangxu gazetteer marked a departure by allocating separate sections to rivers, distinct from those on mountains.⁷⁵ This raises two pertinent questions: firstly, why were river sections made independent, and secondly, what additional geographic information was included in this late nineteenth-century edition?

⁷² *Yudi Jingwei Du Dili Biao* was published and widely distributed in the late 1800s, becoming a key resource for many Han Chinese literati interested in geography. For instance, Shen Zongzhi 沈宗祉, who wrote one of the earliest geography textbooks in the Shanghai region (Songjiang), cited *Yudi Jingwei Du Dili Biao* in his note. Shen Zongzhi 沈宗祉, *Maodong caotang biji* 柳東草堂筆記 (Shanghai Shizhong shuju, 1910), vol. 6, 7.

⁷³ In 1895, Chen Baozhen, the governor of Hunan, submitted the province's maps for the Huidian Atlas project. In his submission, he explained the delay in providing the maps, citing the complex geography of Hunan and the subsequent challenges it posed to the surveying tasks. Xie Xiaohua, "Guangxu chao gesheng huicheng Huidian yutu shiliao," *Lishi dang'an* (2003): 51.

⁷⁴ Liu Yunpo and Li Bing ed., *Hunan jingji tongshi: jingdai juan* (Hunan renmin chubanshe, 2013), 31-32.

⁷⁵ In the Qianlong and Jiaqing editions, information about rivers and mountains was consolidated into the same chapters, titled "shanchuan" (mountains and rivers). However, the Guangxu edition, while retaining these "shanchuan" chapters, introduced an additional set of chapters dedicated to "shuidao" (waterways), which systematically detailed the four main waterways in the province. See Guangxu *Hunan tongzhi*, vol. 9-12.

Rivers played a critical role in pre-modern period, not least during the Taiping rebellion. Before the 1800s, Zhu Yuanzhang 朱元璋 (1328-1398), the founding Ming emperor, prioritized control over the Yangtze River in his conquest of the Jiangnan area in the late fourteenth century. His decisive victory at the Poyang Lake battle in 1363, which connects the Yangtze with other river basins, underscored the military significance of rivers, a factor often overlooked by modern historians.⁷⁶ Similarly, up to the Taiping Rebellion, rivers served as vital conduits for the rapid mobilization of troops. The Taiping's significant capture of Nanjing in 1853, along with strategic cities along the Yangtze river such as Jiujiang and Anqing, highlights the strategic necessity of controlling rivers.⁷⁷ This historical precedence explained the enhanced focus on rivers in the late 1800s Hunan gazetteer, illustrating their enduring importance in military strategy and geography alike. By making river sections independent and enriching them with detailed geographic data, the gazetteer reflects a deepened understanding of Hunan's hydrography and its critical role in shaping the provincial history and infrastructure.

This enhanced geographical understanding coincided with the expansion of the Taiping conflicts. Starting from late 1852, the Taiping force's strategic focus shifted from a prolonged siege of Changsha to the westward capture of Yiyang 益陽, situated on the banks of the Zi River, which links to lake Dongting and the Yangtze river. This move allowed the Taiping forces access to Hubei's capital, Wuchang, establishing a formidable riverine military presence.⁷⁸ According to the 1855 information, the Taiping initially lacked naval capabilities until their occupation of

⁷⁶ Tonio Andrade, *The Gunpowder Age: China, Military Innovation, and the Rise of the West in World History* (Princeton University Press, 2017), 58–72.

⁷⁷ Since the Taiping seized Wuchang, the capital of Hubei province, they gained control over the Yangtze River waterway. Using their naval forces, they advanced through the Yangtze River Delta. Before capturing Nanjing in 1853, the Taiping first took Jiujiang and Anqing, strategically positioned along the route to Nanjing. For more details on battles and strategies during the early Taiping period, see Mao Jiaqi, *Taiping tianguo tongshi*, 350-353.

⁷⁸ Mao Jiaqi, *Taiping tianguo tongshi*, 343-348.

Yiyang, where they converted civilian ships into battleships with the aid of newly recruited sailors.⁷⁹

Despite early successes, the Taiping's naval advantage waned as the Xiang army rapidly developed its own riverine forces. The Taiping's reliance on non-militarized ships and their lack of geographic informational parity, particularly as the Xiang army began compiling detailed maps and geodata, contributed to their declining strategic position.⁸⁰

Comparing the Xiang river's descriptions in the Jiaqing and Guangxu gazetteers reveals a marked difference in detail. The Jiaqing version, much like its predecessors, heavily borrowed from older gazetteers and geographical essays such as the *Shuijing zhu* (sixth century), *Yuanhe junxian zhi* (ninth century), and *Great Qing Unification* 一統志 (both Ming and Qing), with some content derived from Ming-period county gazetteers.⁸¹ In contrast, the Guangxu Hunan gazetteer significantly expands on the province's river details. Notably, the word count for the Xiang river section in the Guangxu edition is three times that of the Jiaqing gazetteer, a trend also observed in other river sections.⁸² This expanded coverage aligns with the Guangxu edition's approach of dedicating separate chapters to mountains and rivers, illustrating the gazetteer's more exhaustive nature.

The key addition in the Guangxu Hunan gazetteer was detailed itinerary data, marking a significant departure from previous versions by incorporating county-level geographic

⁷⁹ Cui Zhiqing ed., *Taiping tianguo zhanzheng quanshi* (Nanjing daxue chubanshe, 2002), vol. 1, 581.

⁸⁰ There has not been systematic research on how the Xiang army utilized maps for military purposes. However, a late Qing account notes that a keen attention to geography and topography was characteristic of the Xiang army's style. Wang Kaiyun, *Xiangqi lou riji* (Yuelu shushe, 1997), 2113. Zeng Guofan placed great emphasis on creating operational maps while training his troops. *Zeng Guofan quanji*, 7716.

⁸¹ Especially in the geography section, these older texts were frequently referenced. This indicates that a significant portion of the geographical information in the Qianlong and Jiaqing Hunan gazetteers was derived not from in-person surveys, but from textual research of existing sources.

⁸² *Guangxu Hunan tongzhi*, Vol. 9, 1727-1911.

information.⁸³ This expanded coverage extended to the river sections, documenting not only major ports and cities but also smaller village communities previously overlooked. This comprehensive collection of geodata is attributed to the Xiang army's systematic efforts in mapping and data collection for military strategies against the Taiping rebellion.

The military defense section (武備志) in the Guangxu gazetteer marks a significant divergence from its predecessors. Recording military affairs (兵事) has been a longstanding tradition in the genre of gazetteer across the Qianlong, Jiaqing, and Guangxu reigns, each featuring an independent chapter chronicling battles from the era of the Jing King of Zou (544 BC-520 BC) in chronological order. However, the Jiaqing gazetteer concluded its military records in 1704, focusing primarily on the Revolt of the Three Feudatories (1673-1681).⁸⁴ Given the absence of major revolts, barring the Miao turbulences, no significant military activities were documented in Hunan for the subsequent century until the onset of the Taiping rebellion.⁸⁵ Consequently, the Guangxu version introduced an entirely new chapter dedicated to the Taiping rebellion in Hunan, highlighting the emergence of the Xiang army.

This addition was primarily driven by the inclusion of detailed geographic information, a practice not entirely novel but significantly expanded in the Guangxu edition. Previous gazetteers had documented the locations of battalions and troop numbers; the Guangxu gazetteer built upon this foundation to detail the contemporary military landscape. Two main updates were the detailed accounts of the water force and the militia group, both instrumental to the Xiang

⁸³ In volume seven, there are detailed documentations of longitudinal and latitudinal data (晷度) for every county. This comprehensive set of county-level geodata was unprecedented in Hunan local gazetteers until the late 1800s. *Guangxu Hunan tongzhi*, vol. 7, 1488-1500.

⁸⁴ *Jiaqing Hunan tongzhi*, vol. 58-60.

⁸⁵ It remains unclear why Han Chinese authors did not consider the Miao revolts as part of the regular military affairs. Instead, all the gazetteers distinctly categorized the Miao revolts, dedicating separate chapters to them.

army's strategy during the Taiping rebellion. Unlike before, when provincial water forces and militias were secondary, the Xiang army elevated these units to primary military assets. The gazetteer meticulously cataloged the roles and numbers of both military and civilian personnel in the water force, alongside the artillery strength of each battleship.⁸⁶ For the militia groups, the focus was on the distribution of units, noting that every village was documented for its military significance.⁸⁷ In the Changsha prefecture, for example, while there were twelve sub-counties, the Xiang army recruited militias in ten, some of which housed basic militia units or "groups" located in strategic community structures like temples or granary offices.⁸⁸ Through these detailed records and accompanying maps, the gazetteer provides a comprehensive overview of military deployments across Hunan, derived from the Xiang army's data and integrated into the provincial gazetteer in the post-Taiping era.

However, it was not only the production of military operational maps or the codification of wartime geographical knowledge into gazetteers that established the Zou family's capabilities as cartographical specialists. After all, the creation of modern maps demanded a set of specialized skills, such as drawing maps according to systems of longitude and latitude, as well as mastering the technical processes of printing. One of the most significant experiences the Zou family gained during the Taiping period was their involvement in assisting Hu Linyi in compiling an atlas of the empire. To better understand the printing practices involved in the production of this 1860s atlas, however, we must first return to the early decades of the nineteenth century.

⁸⁶ Guangxu *Hunan tongzhi*, vol. 79, 6871-6879.

⁸⁷ Guangxu *Hunan tongzhi*, vol. 79, 6880-6907.

⁸⁸ Guangxu *Hunan tongzhi*, vol. 79, 6887-6888.

Han Elites' Gradual Access to Imperial Maps from the 1700s to early 1800s

In 1826, the Afaqi Khoja revolts erupted in Altishahr, today known as southern Xinjiang, led by Jahangir Khoja (1788-1828).⁸⁹ The Daoguang emperor promptly mobilized his top generals, including Ulungge (?-1831), the governor of Shandong. While Ulungge was seasoned in quelling uprisings, such as pirate insurgencies in Taiwan and Fujian as well as the White Lotus Rebellion in Hubei and Sichuan, he was not familiar with Xinjiang, especially its geography.⁹⁰ In urgent need of maps, he requested the imperial court to provide them. The emperor granted this request, but the court soon realized that no such maps were available, since the woodblocks used to print imperial atlases had been destroyed. Faced with this predicament at a critical moment, Ulungge dispatched his men to search Beijing's bookstores. They discovered that two essential atlases from Kangxi and Qianlong reigns, had just been sold to Wu Jiamao, a Guangdong literatus, and his friend for twenty taels each. To fulfill Ulungge's urgent need for maps, the bookstore owner tried to repurchase them, doubling the offer the next day and increasing it to five times on the second day, which Wu all declined. On the third day, the price was raised to ten times the original, prompting Wu to inquire why. The owner revealed this was requested by the general Ulungge.⁹¹ Wu, upon learning the full context, declared, "This atlas is such a valued treasure, even if you pay me ten times, I won't give in!"⁹²

⁸⁹ Joseph Fletcher, "The Heyday of the Ch'ing Order in Mongolia, Sinkiang and Tibet," in *The Cambridge History of China*, 1st ed., ed. John K. Fairbank (Cambridge University Press, 1978), 361–75. Hodong Kim, *Holy War in China: The Muslim Rebellion and State in Chinese Central Asia, 1864-1877* (Stanford University Press, 2004), 24–27.

⁹⁰ Regarding the pacifications of the White Lotus rebellion and Cai Qian's pirate rebellion, see Wang, *White Lotus Rebels and South China Pirates: Crisis and Reform in the Qing Empire*; Yingcong Dai, *The White Lotus War: Rebellion and Suppression in Late Imperial China* (University of Washington Press, 2019).

⁹¹ Regarding Ulungge's proposal to reform military arrangements after Jahangir's revolt, see James A. Millward, *Beyond the Pass: Economy, Ethnicity, and Empire in Qing Central Asia, 1759-1864*. (Stanford University Press, 1998), 226–27.

⁹² Chen Li, "Ji ditu sanben," *Chen Li ji* (Shanghai guji chubanshe, 2008), vol. 1, 101.

This story highlights two intriguing messages. First, it illustrates a significant decline in the Qing court's interest in Western-style maps by the 1820s. Although it was reported that the woodblocks for eighteenth-century atlases had been destroyed, this was not entirely accurate. According to Foss, the Qing court had produced atlases in two formats: xylographic and copper engraving editions.⁹³ By the mid-nineteenth century, while the woodblocks might have been lost, the copper engraving plates were still preserved at the Palace Museum in Beijing.⁹⁴ However, the real issue by then was the lack of expertise in using these materials. Wang Guowei 王國維 (1877-1927) noted that by the mid-nineteenth century, “no one knew how to use them anymore.” He further recorded that “At that time when copper was extremely valuable, there were proposals from court officials to melt it down to mint coins, but these were halted by those who objected.”⁹⁵

This does not mean that the Qing had ceased all cartographic activities. Projects like the *Yitong zhi* and the *Jiaqing Huidian* atlases continued, but the court had moved away from the resource-intensive practice of creating highly detailed maps with absolute coordinates that had been favored in the previous century.⁹⁶ The second message this story conveys is the growing

⁹³ For an overview of the printing of eighteenth-century Qing atlases, see Theodore N. Foss, “A Western Interpretation of China: Jesuit Cartography,” in *East Meets West: The Jesuits in China, 1582-1773 = Tung Hsi Chiao Liu: Yeh-Su Hui Shih Tsai Chung-Kuo, Hsi Chi 1582 Nien-1773 Nien*, ed. Charles E. Ronan and Bonnie B. C. Oh (Loyola University Press, 1988), 233–36. Foss discusses four distinct editions: the initial 1717 xylographic edition, significant as the first atlas printed yet quickly outdated; the 1719 manuscript hand-drawn edition featuring only Chinese nomenclature; the 1726 edition, produced by Jesuit missionary Matteo Ripa using copper engraving techniques; and the 1721 xylographic edition, notable for its detailed representations of Tibet and the upper Yellow River. The 1721 edition, sent back to France, profoundly influenced European perceptions of the Qing imperial domain. Its significance was further amplified by Li Zhaoluo's 1832 reprint, which will be discussed later.

⁹⁴ Copperplate of Qianlong inner court atlas 乾隆內府輿圖銅板:

<https://www.dpm.org.cn/collection/utensil/231942.html?hl=%E7%9A%87%E8%88%86%E5%85%A8%E8%A7%88%E5%9B%BE>

⁹⁵ Wang Guowei, *Dongshan zaji*, in *Wang Guowei quanji* (Zhejiang jiaoyu chubanshe, 2010), vol. 3, 342.

⁹⁶ See Chapter Three.

interest in these maps among the Han elites during the same period.⁹⁷ Wu Jiamao, a resident of the Guangzhou area with a metropolitan degree but no high official position, demonstrated a profound interest in the geography of this dynasty. His refusal to return the court atlas highlights a burgeoning appreciation for court maps among the Han literati, indicative of a shift in the intellectual engagement with cartography during this era.

Who was behind the documentation of this fascinating story? It was Chen Li (1810-1882), a distinguished scholar from late Qing Guangdong. But what prompted Chen to record this tale? Was it his fascination with court maps, perhaps? The answer may be hidden in Chen's career. Chen Li had served as the professor (xuezhang) in Guangzhou's Xuehai Academy, founded by Ruan Yuan (1764-1849), the Liangguang governor general, in 1821.⁹⁸ Notably, Xuehai Academy was where Liang Qichao (1873-1929) studied during his teens before he turned to Kang Youwei (1858-1927) at age eighteen. Despite leaving the academy, Liang held his education there in high regard and later praised Chen Li as one of his most influential mentors and leading Confucian scholars of their time.⁹⁹

While Chen Li primarily focused on Confucian classics, he also devoted considerable effort to geography, authoring treatises on water courses. In his work on the geography chapter in *Book of Han*, he used maps to correct and elucidate the geographical texts. Although Chen's

⁹⁷ For an in-depth analysis of early nineteenth-century Han Chinese literati's increasing interests and engagements with Qing, consult Philip A. Kuhn, *Origins of the Modern Chinese State* (Stanford University Press, 2002); Mosca, "The Literati Rewriting of China in the Qianlong-Jiaqing Transition."

⁹⁸ Rong Zhaozu, "Xuehai tang kao," *Lingnan xuebao* 3, no.4 (1934): 14, 40-41.

⁹⁹ Liang Qichao, "Sansi zishu," *Liang Qichao quanji* (Zhongguo renmin chubanshe, 2018), vol. 4, 108. In reflecting on the intellectual contributions to Guangdong's scholarship, Liang Qichao identified two pivotal figures from the mid-nineteenth century. One was Chen Li, and the other was Zhu Ciqi, who was also Kang Youwei's mentor. Liang Qichao, "Jindai xuefeng zhi dili de fenbu," *Liang Qichao quanji*, vol. 12, 282. Later in Qian Mu's work, he used a totally independent chapter to introduce Chen's scholarship, significantly elevating Chen's scholarly status. Qian Mu, *Jin sanbai nian xueshu shi*, in *Qian Binsi quanji* (Liangjing chubanshe, 1998), vol. 17, chap. 17. About Chen's techniques of reading (dushu fa), Qian even elevated Chen in the level of Zeng Guofan, Zhang Zhidong, and Liang Qichao. Qian Mu, Xueyue, in *Qian Binsi quanji* (Liangjing chubanshe, 1998), vol. 24, 79-92.

work primarily addressed the traditional “Nine Prefectures (jiuzhou),” it touched on new territories, compared to the Ming dynasty, like Manchuria. Reflecting on the compilation of *Book of Han*, Chen attributed its geographical comprehensiveness to the political stability of the Han era (202 BC-220 AD). He noted that later dynasties did not enjoy the same scope of imperial territory and stability but highlighted that the Qing regained this political environment and territorial completeness. This led him to revere the Kangxi and Qianlong atlases as unparalleled achievements. Chen frequently emphasized that previous scholars lacked access to these eighteenth-century court maps, leading to inaccuracies in their geographic descriptions.¹⁰⁰ For instance, when discussing the map of *Tribute of Yu* 禹貢, he pointed out that although a monograph of Hu Wei 胡渭 (1633-1714) was the most authoritative on the subject, Hu had never seen the Kangxi and Qianlong maps and therefore had to rely on Ming maps, which were less accurate.¹⁰¹ Chen suggested that anyone familiar with the eighteenth-century court atlases would understand the geography of *Yugong* “as well as the back of their hand.”¹⁰²

However, how exactly did Chen access these once rare maps? As shown, with the gradual relaxation of censorship in the early 1800s, a few Han elites not only began to assist the court in compiling and updating frontier geodata but also organized geography societies to facilitate discussions about frontier geography.¹⁰³ The court’s relaxing censorship deteriorated management of these valuable maps, exemplified by Ulungge’s inability to obtain imperial maps. Remarkably, local elites without high office positions, such as Wu Jiaomao and Chen Li, were able to acquire copies of these imperial maps from private bookstores. This trend suggests that parallel to the deteriorating management and waning attention to maps with Western cartographic

¹⁰⁰ *Chen Li ji*, vol. 2, 92.

¹⁰¹ *Chen Li ji*, vol. 5, 379.

¹⁰² *Chen Li ji*, vol. 2, 91.

¹⁰³ Guo Liping, *Jueyu yu juexue: Qingdai zhongye xibei shidi xue yanjiu* (Sanliang shudian, 2007), 104-149.

formats, these maps were commercialized within Han civilian society. Chen himself noted in 1846 that an individual was selling two atlases from the Kangxi and Qianlong periods along with maps from the Jiaqing *Huidian* while he started to work on his first geography treatise in Guangdong.¹⁰⁴ This indicates that maps were available for purchase at that time, even in a region that was far from the imperial center. But the pressing question remains: how were these court maps disseminated to local Han societies, and how were Han individuals able to make and sell copies?

The best approach to understanding the types of imperial maps owned by Chen Li and Wu Jiamao involves examining the specific versions recorded by Chen. Although their original map collections are likely no longer extant, Chen notes that his maps from the Jiaqing *Huidian* were transcription copies. He mentions that these copies came from a colleague at the Xuehai Academy, Qian Yiji 錢儀吉 (1783-1850), a supervisor of the Jiaqing *Huidian* project.¹⁰⁵ However, it appears Chen acquired his atlas from a seller, not directly from Qian.

The transcribed version of the Jiaqing *Huidian* atlas that Chen owned can be indirectly understood by comparing it with a preserved transcription in Japan (figure 5 and 6). This comparison reveals significant differences: the Japanese version includes additional geographical details and annotations about Chosŏn Korea that the original did not, suggesting transcriptions often included modifications or additions to meet specific needs of the transcribers or their audience.

¹⁰⁴ *Chen Li ji*, vol. 1, 100. The Jiaqing *Huidian* was initiated during the Jiaqing reign, but it was not completed until the Daoguang reign.

¹⁰⁵ *Chen Li ji*, vol. 1, 100.



Figure 5: 清會典地圖抄出 (国立国会図書館, number: る二-3)

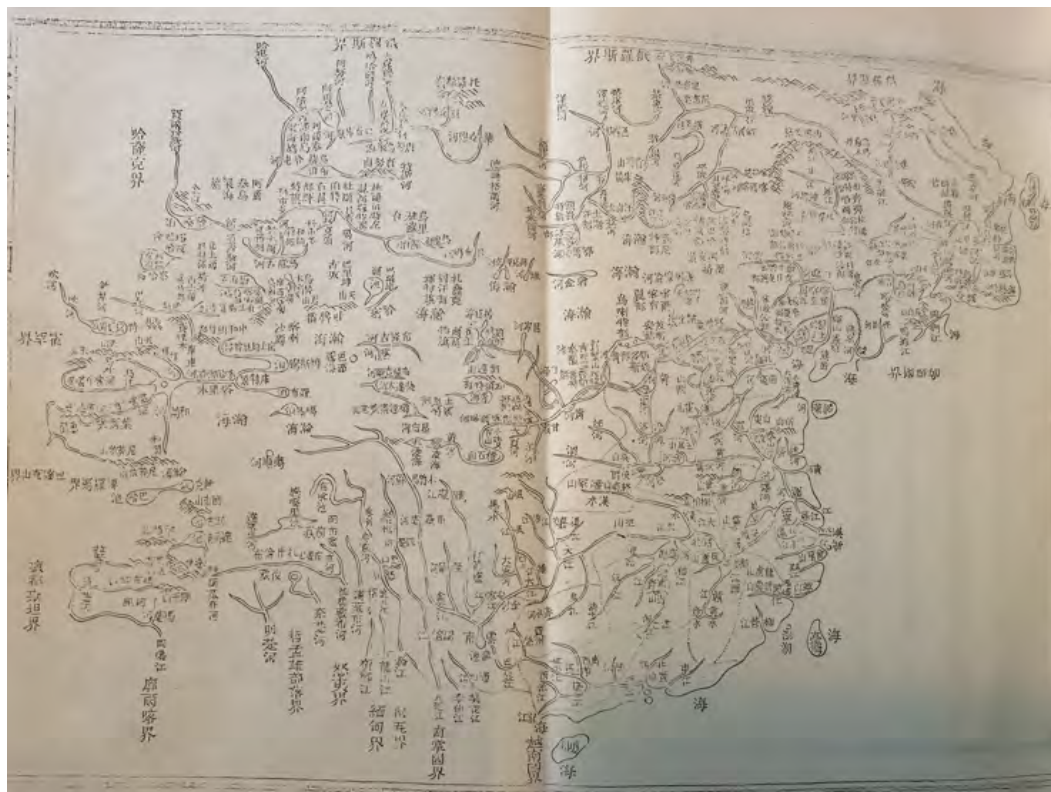


Figure 6: 嘉慶會典圖之輿地全圖

Chen's geographical work, notably his maps for *Tribute of Yu*, prominently feature Korea (figure 7), possibly reflecting the border negotiations with Chosŏn Korea during the 1880s.¹⁰⁶ In his discussion of Mount Changbai (Paektu in Korean), Chen underscores its importance to identity of "China" as well as the Qing. Chen states, "Mount Changbai, the sacred origin of our Great Qing, was within the boundaries of Xuantu County during the Han dynasty and was never considered beyond the frontier," affirming its inclusion within China's borders since the Han period.¹⁰⁷ This discussion aligns with the 1880s border disputes between Qing and Chosŏn Korea when Chen, then in his 70s, illustrates how news of geopolitical tensions reached from the northern frontier to the southern tip of the empire, Guangdong, in such a short period of time.¹⁰⁸ Furthermore, Chen expanded the notion of "Saiwai," literally meaning "beyond the frontier," interpreting it not just as a physical boundary differentiating China from "barbarian" regions but as a delineation of Chinese cultural and political space, implying that Manchuria was considered part of China as early as the Han dynasty.¹⁰⁹ This redefines the frontier as more than just a physical barrier but as a symbol of political and cultural demarcation. The transcription map that Chen owned, based on this analysis, resembled less the original Jiaqing map and more the version preserved in Japan.

¹⁰⁶ *Chen Li ji*, vol. 5, 273-276.

¹⁰⁷ *Chen Li ji*, vol. 1, 53.

¹⁰⁸ Nianshen Song, *Making Borders in Modern East Asia: The Tumen River Demarcation, 1881-1919* (Cambridge University Press, 2018).

¹⁰⁹ This perception, which considered Manchuria a part of "China," emerged during the Qing dynasty but was absent in earlier dynasties. Reviewing works by eminent Han thinkers from the Ming-Qing transition, such as Huang Zongxi (1610-1695) and Gu Yanwu (1613-1682), reveals a clear rejection of this view. These scholars explicitly denied the inclusion of what they termed "barbarian" regions like Manchuria as part of "China." Huang Zongxi, *Liushu*, in *Huang Zongxi quanji* (Zhejiang guji chubanshe, 1993), 11-13. Gu Yanwu, "Jiuzhou," *Rizhi lu* (Anhui daxue chubanshe, 2007), 1201-1206.



Figure 7

This story raises the critical question of how court maps circulated among low-level Han Chinese officials. The loosening of censorship and decentralization of power from the court to local societies since the early 1800s not only allowed Han officials in Beijing to access frontier information but also enabled those in local areas to access court maps stored in local government offices.¹¹⁰ Local literati encountered these maps and began copying them by hand before publishing their versions. A pivotal figure in the dissemination of Qing court maps was Li Zhaoluo.¹¹¹ In 1825, Li first printed the Qianlong atlases. In his preface, Li noted that these atlases had already been transcribed, reduced, and circulated privately. He pointed out, however,

¹¹⁰ For more on the decentralization of power to local societies in the early nineteenth century, see Han, *After the Prosperous Age: State and Elites in Early Nineteenth Century Suzhou*, chap. 1.

¹¹¹ About the brief biography of Li Zhaoluo, see “Yangyi Li xiansheng xingzhuang,” *Yangyi zhai wenji*, in *Qingdai shiwen ji huibian* (Shanghai guji chubanshe, 2010), 1-3.

that while the book-format version was convenient for transport, its small size made the provincial maps difficult to read and use for locating historical geography.¹¹²

Li expressed concerns that while “Maps of Great Qing Unification” 一統圖 existed, they contained many errors and were not suitable for scholars interested in contemporary and historical geography.¹¹³ Li’s own fascination with geography was sparked by his exposure to the Qianlong atlases in the warehouse of the Guangdong governor—atlas that Qianlong emperor had granted to his high local officials. Although Li’s initial attempt to transcribe the atlas was unsuccessful, years later, he encountered a transcribed version completed by his county fellow, Dong Youcheng 董祐誠 (1791-1823).¹¹⁴ This encounter ultimately led Li Zhaoluo to print the atlas, titled by “the transcribed version of inner court maps” 內府輿圖縮摹本 contributing to the circulation of these critical cartographical materials.

How did Dong Youcheng acquire the court atlas? Although he held a graduate degree (*juven*), Dong never attained a metropolitan degree due to his early death at age 31, meaning he never held an official position.¹¹⁵ His brother, Dong Jicheng 董基誠 (1787-1847), however, won a metropolitan degree in 1817 and served in Beijing’s Ministry of Revenue. Dong Youcheng, accompanying him in Beijing, developed a keen interest in geography and mathematics.¹¹⁶ He devoted considerable effort to understanding the historical geography of the *Water Classic* (水經), attempting to locate each place mentioned on contemporary maps.¹¹⁷ Struggling to find a map that accurately represented the Qing’s current territories to correlate with historical

¹¹² Li Zhaoluo, “Neifu yutu suomo ben ba,” *Yangyi zhai wenji*, in *Qingdai shiwen ji huibian*, vol. 493, 105.

¹¹³ Li Zhaoluo, “Neifu yutu suomo ben ba,” 105.

¹¹⁴ Li Zhaoluo, “Huangchao yitong yudi quantu houxu,” 76.

¹¹⁵ About Dong’s biography, see Li Zhaoluo, “Dong Fangli zhuan,” *Dong Fanli yishu* (Chengdu, 1869), vol. 1, 1-2.

¹¹⁶ Zhang Qi, “Xu,” *Dong Fanli yishu*, vol. 1, 1.

¹¹⁷ Li Zhaoluo, “Dong Fangli zhuan,” 1.

geographical placenames, Youcheng somehow obtained the Qianlong atlas either through his brother's connections at court or, similarly to Wu Jiaomao, by purchasing it in a bookstore in the imperial capital.¹¹⁸

Once he obtained the court atlas, Youcheng transcribed them by hand. His background in math and traditional Chinese cartography led him to copy these maps in the traditional Chinese grid system, where each square represented 200 Chinese meters. This version, comprising 41 maps of varying sizes that could not be combined into a single general map of the Qing empire, was later encountered by Li Zhaoluo, Dong's fellow county native from Yanghu 陽湖, Jiangsu.¹¹⁹ Impressed by Dong's meticulous work, Li sought to refine it further. Li later met Shen Qinpei 沈欽裴 (?-?), another Jiangsu mathematician, who possessed a more detailed court map, especially of the northwestern frontier.¹²⁰ It remains unclear how Shen accessed this map, though he too had lived in Beijing, which may have explained his acquirement. Integrating Shen's detailed map, Li printed a new version of the Qing maps in 1832, titled the *Complete Map of the Great Qing Unification* 皇朝一統輿地全圖 (figure 8). This edition included not only a general map of the empire but also detailed provincial maps.

¹¹⁸ Dong Jicheng, "Shuijingzhu tushuo cangao," *Dong Fangli yishu*, vol. 6, 1.

¹¹⁹ Li Zhaoluo, "Huangchao yitong yudi quantu xuli," *Yangyi zhai wenji*, in *Qingdai shiwen ji huibian*, 75.

¹²⁰ Li Zhaoluo, "Huangchao yitong yudi quantu houxu," 76.

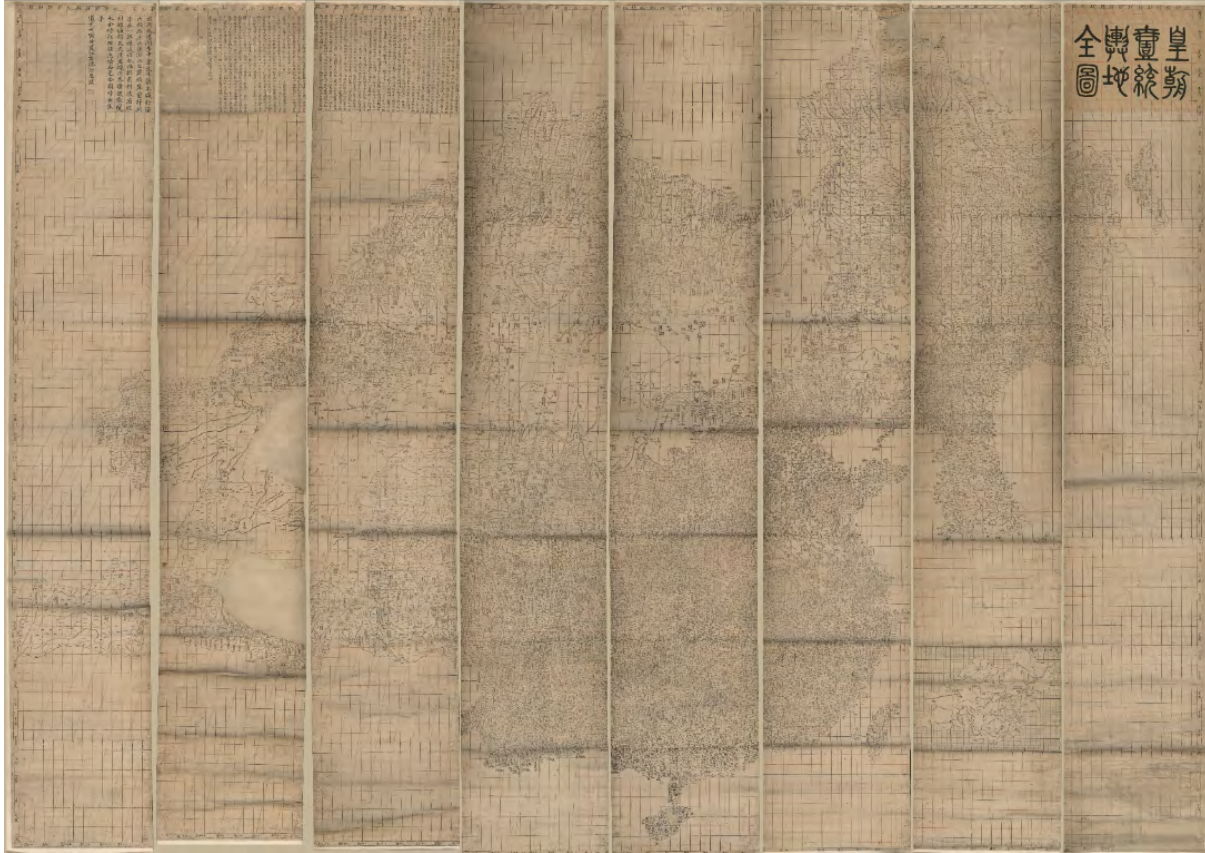


Figure 8: the Complete Map of the Great Qing Unification (*Huangchao yitong yudi quantu*)

The Han literati's fascination with maps and historical geography during the early nineteenth century was partly driven by the evidential study movement (*kaozheng*), which emphasized rigorous empirical research. Prominent Han scholars since the eighteenth century had delved into historical geography, particularly intrigued by geographical classics such as *Water Classic* and *Tribute of Yu*, which attracted significant attention from Han literati.¹²¹ For instance, early Qing scholar Hu Wei 胡渭 (1633-1714) invested considerable effort in deciphering the geography in *Tribute of Yu*, driven by both personal academic interests and his involvement in state-sponsored projects like the *Gazetteer of the Great Qing Unification* 大清一

¹²¹ Benjamin A. Elman, *From Philosophy to Philology: Intellectual and Social Aspects of Change in Late Imperial China*, 1st ed. (Harvard University Asia Center, 1984), chaps. 3, 5.

統志, supervised by Xu Qianxue 徐乾學 (1631-1694). This project not only aligned Hu with the community of historical geographers but also provided him with access to a wealth of geographical information and maps.¹²²

The Qing state's encouragement of geographical compilation played a crucial role, continuing a tradition of geographical interest that had been evident since the late Ming period. By the late sixteenth century, Han elites had begun to compile statecraft treatises, a trend that became more pronounced with the late seventeenth-century Ming loyalists such as Huang Zongxi 黃宗羲 (1610-1695) and Gu Yanwu 顧炎武 (1613-1682). Their works often included discussions on military strategy, underlining the importance of historical geography for understanding the logistics of ancient wars and place names. Among these treatises, Gu Yanwu's *On the Benefits and Faults of the Empire's Local Administration* 天下郡國利病書 and *Records of Regional Geography* 肇域志 stand out as particularly comprehensive. Although some of these Ming loyalist works were deemed sensitive and restricted in the early Qing, they were preserved by their families and local communities.¹²³ Xu Qianxue, who employed Hu Wei for the imperial gazetteer project and was Gu Yanwu's nephew, had access to these sensitive documents possibly through family connection.¹²⁴ This allowed low-ranking Han scholars like Hu to engage with both academic and politically charged aspects of geography.

In this sense, we can observe a clear pattern: for ordinary Han literati to access the latest geographical information and court maps during the eighteenth and early nineteenth centuries,

¹²² Hang Shijun, "Hu Dongqiao xiansheng muzhiming," *Daogutang wenji*, in *Qingdai shiwen ji huibian* (Shanghai guji chubanshe, 2010), vol. 282, 396.

¹²³ Wang Fan-sen, "Dao Xian yijiang sixiang jie de xin xianxiang: jinshu fuchu jiqi yiyi," *Quanli de maoxi guan zuoyong: Qingdai de sixiang xueshu yu xintai* (Lianjing chubanshe, 2013), 610-611.

¹²⁴ Wang Yiming ed., *Kunshan Xu Qianxue nianpu gao*, in *Xinbian Qingren nianpu sanzong chongding gao* (Xueyuan chubanshe, 2011), vol.1, 1-3. It is said that after Gu's death, *Tianxie junguo libing shu* was first preserved by the Xu family. See Huang Kun, "Jiaodian shuoming," *Tianxie junguo libing shu*, in *Gu Yanwu quanji* (Shanghai guji chubanshe, 2011), 25.

they typically had to engage with state projects to some extent. This involvement enabled them to contribute to the scholarship of historical geography within Han scholarly circles.¹²⁵ The gradual leak of geographical information, especially court maps, allowed these materials to circulate into Han society, but this was not the result of any sudden shift. Rather, it was a slow accumulation of changes. For an average Han literatus keen to view imperial maps, access usually required Beijing connections, either through official postings or visits, as the capital's proximity to the court made it the main point of access. By the early nineteenth century, however, this accessibility gradually extended to the Jiangnan region, thanks to the transcription and printing efforts of men like Li Zhaoluo and Dong Youcheng. In this period, the demand for accurate maps grew stronger, particularly for use in evidential research. In this context, the politically charged dimensions of frontier knowledge and maps receded into the background and became more deeply embedded in scholarly practice. Still, Qing court map circulation remained limited until the mid-nineteenth century, when the outbreak of the Taiping civil war and the rise of the Han-led Xiang army dramatically expanded access to Qing cartographic materials, as discussed in the previous sections.

The Xiang Army's Efforts to Print Imperial Maps during the Mid-1800s

The Han elites' initiatives to print court maps became not only prominent but urgently necessary during the Taiping civil war, as accurate maps and geographical knowledge were crucial for military operations. Han elites had begun forming local militias as early as the Jiaqing reign, these forces were initially intended for local security and lacked the capability for cross-

¹²⁵ Elman, *On Their Own Terms: Science in China, 1550-1900*, 194–99. Almost all prominent historical geographers or specialists in Yan'ge geography in the eighteenth century had close ties to ongoing imperial projects during their lifetimes. In addition to the example of Hu Wei mentioned above, Dai Zhen (1724–1777), the influential kaozheng scholars of the Qing, greatly benefited from his participation in editing the *Shuijing zhu* as part of the Siku quanshu compilation project. See Li Kai, *Dai Zhen pingzhuan* (Xinhua shudian, 1992), 270-275.

regional, let alone empire-wide, mobilization.¹²⁶ However, the Taiping rebellion presented an opportunity for these local self-defense armies to broaden their operational scope. Particularly, the Xiang army placed great importance on acquiring accurate maps and employed numerous local mapmakers to draft them. These maps were primarily for military use and did not require extreme precision; they needed to accurately represent directions and passageways for strategic purposes. As militia leaders from Hunan sought to extend military influence beyond their native regions, a more profound understanding of geography became essential, necessitating access to more accurate imperial maps.

The leaders of the Xiang army recognized the crucial role of accurate maps for military operations. Zeng Guofan, when organizing the militia in its early stages, noted the superiority of the Kangxi and Qianlong atlases. Aware that these atlases had been reproduced by Li Zhaoluo and others, Zeng was particularly concerned about inaccuracies in the directional representations in these copies, which could compromise their military utility.¹²⁷ From early on, Zeng had maintained a good interest in court maps. In 1851, following the enthronement of the Xianfeng emperor, Zeng Guofan submitted a memorial criticizing the lack of strategic mapping amid the escalating rebellion threatening to destabilize the Qing empire. He pointed out that local governments had failed to supply maps for strategic planning, and high court officials had not utilized the Kangxi and Qianlong atlases to devise a coherent strategy to suppress the rebels. For Zeng, having precise court maps was crucial for formulating strategies and grasping the military dynamics in the southern regions of the empire.¹²⁸

¹²⁶ Kuhn, *Rebellion and Its Enemies in Late Imperial China*, chaps. 2, 3.

¹²⁷ Zeng Guofan, “Fu Lin Yuan’en,” *Zeng Guofan quanji*, vol. 22, 312-313.

¹²⁸ Zeng Guofan, “Jingchen shengde sanduan yufang liubi shu,” *Zeng Guofan quanji*, vol. 1, 24.

Leadership within the Xiang army, such as founding member Luo Zenan 羅澤南 (1807-1856), actively engaged with court maps. Luo worked on an illustrative project titled “Brief Illustration of the Imperial Maps” 皇輿要覽 and solicited help from Guofan’s brother, Zeng Guoquan 曾國荃 (1824-1890), for acquiring maps, particularly of northern and northwestern frontier regions.¹²⁹ On the other hand, Guofan’s diary entries frequently mention his efforts in transcribing, studying, and discussing maps with his colleagues and aides, highlighting maps’ significance in his military planning. Notably, Li Zhaoluo’s printed maps were a key resource in Zeng’s collection. Zeng Guofan’s mapping chief, Zou Hanzhang, was tasked with reprinting Li’s maps, although it remains unclear what parts these reprints updated. In 1858, Zeng instructed his staff to draw a map of Fujian using Zou Hanzhang’s reprint maps as a reference, indicating their continued importance in his strategic assessments.¹³⁰

The quest for Li Zhaoluo’s maps was not limited to Zeng Guofan; another key man in the Xiang army, Hu Linyi, also sought the best version of Li’s maps with great determination. Ultimately, like Zeng, Hu’s real desire was to access the Qing court atlas, specifically the Kangxi and Qianlong maps, via Li’s transcriptions. However, Hu’s significant interest in these maps did not peak until 1860. That year, one of Hu’s advisors presented his collection of Li’s atlas, noting:

My map set originally comprised sixty-four pages, following Li Zhaoluo’s old format divided into eight volumes, with each volume containing eight pages. Each volume is mounted in a book format for ease of desk reference. Previously, when traveling to Hubei, it was inconvenient to carry them all, so I removed their covers and any blank pages, bringing only fifty pages. This resulted in a variable number of pages per volume. Concerned about potential disarray, I have carefully restored each volume to its original sequence and annotated them for easy transportation and reference. The areas currently engaged in military operations, such as Hubei Province, are primarily found in the sixth volume, while Jiangnan, Jiangxi, and other provinces are also mostly in the sixth volume; Henan Province is in the fifth volume; and Hunan, Guangxi, and other provinces are in the seventh volume. Collectively, these locations span several thousand li and are covered

¹²⁹ Zeng Guoquan, “Zhi Boxiong,” *Zeng Guoquan quanji* (Yuelu shushe, 2008), vol. 5, 43.

¹³⁰ Zeng Guofan, *Zeng Guofan riji* (Hebei renmin chubanshe, 2016), vol. 1, 288.

within the first three pages of these three volumes. Thus, the entirety of this territory can be conveniently spread across three feet on a desk.

竊此圖本系六十四頁，向照李氏舊式分作八本，每本八頁，依仿帖式裝裱，以便案頭觀覽。前因來楚不便攜帶，因去其殼面并每卷空白，止帶來五十頁，故其各卷頁數多少不等。今恐前後錯亂，謹將各卷頁數依原次粘貼注明，以便攜取觀覽。計現在用兵之地，湖北省在第六卷，江南、江西等省亦多在第六卷，河南省在第五卷，湖南、廣西等省在第七卷，合計數千里地俱在此三卷之前三頁內，案頭三尺地即盡布之矣。¹³¹

This letter highlights two crucial aspects of the maps that Hu and his colleagues used. First, Li Zhaoluo's maps were designed in a book format, where each page represented a segment of the whole, and together, all sixty-four pages formed a comprehensive map of the Qing domain.

Indeed, Li's original *Complete Map* was a single map (figure 4), created to address the difficulties in aligning previous court map copies, leading him to produce this unified version.

Despite this, the book format remained popular due to its portability, an essential trait for Qing elites who frequently traveled across the empire, whether as officials or students attending imperial examinations.¹³² Additionally, in a military context, the book format was particularly advantageous as it suited the needs of rapidly moving military camps, ensuring that maps were easily transportable in urgent situations.

The military brings us to a second crucial aspect: these maps were utilized not only for academic but also for military purposes. As seen in the first chapter, the Xiang army had experts like Zou Hanzhang, adept at rapidly synthesizing geographical data for operational use. Although Li's maps might not have been perfectly suited for specific tactical maneuvers, they were invaluable for broader strategic planning and drawing lessons from historical military engagements.

¹³¹ “Zhu Rongshi laihan,” *Hu Linyi weikan wanglai hangao* (Yuelu shushe, 1989), 283.

¹³² It was quite common for Chinese publishers in the late Qing to convert entire map editions into book format. For example, Dong Fanli and Li Zhaoluo's *Huang Qing dili tu* was reformatted as a book in Changsha in 1856. This edition was reprinted in book form again in Guangzhou in 1871. Li Xiaocong, *Ouzhou shoucang bufen gu ditu xulu* (Guoji wenhua chubanshe, 1996), 208-209.

It is crucial to remember that most leaders of the Xiang army, such as Zeng Guofan, Hu Linyi, and Luo Zenan, were not from military backgrounds but were literati. Even at the lower levels in the army, persons like Zou Hanxun and Zou Hanzhang from the Zou family, were academically inclined, either as provincial graduates or students in prefectural schools. This means they primarily received a literary education centered on classic studies. As they transitioned to military roles, their need to familiarize themselves with warfare and geography became paramount. One effective method was to study historical battles using historical maps, a practice that gained prominence with the rise of the Statecraft (*jingshi*) movement in the late Ming period.

Notable figures like Gu Yanwu and Gu Zuyu 顧祖禹 (1631-1692) made significant contributions to integrating geographic study with military history. Gu Zuyu, in particular, authored *Essentials of Historical and Geographical Studies* 讀史方輿紀要, drawing on a family legacy of geographical scholarship from the Ming dynasty. Like Hu Wei, Zuyu seized the opportunity to work on the *Gazetteer of the Great Qing Unification* under Xu Qianxue, accessing a wealth of geographic information and maps from the court.¹³³ This melding of geography with military strategy was not merely academic; it was intertwined with contemporary politics, especially as Confucian literati had engaged with these topics actively during sixteenth and seventeenth centuries.

Even though interest in statecraft-related geography and maps declined in the 1700s due to censorship and the Manchu rulers' concerns about the influence of the Han elites, this interest resurfaced in military contexts by the mid-1800s. This resurgence is highlighted in the same letter as above to Hu Linyi from 1860:

¹³³ Gu Zuyu, *Dushi fanyu jiyao* (Zhonghua shuju, 2005), 1.

Your disciple has an urgent matter to report: the (Li's) map published in 1832 was followed in less than two decades by the rebellion in western Guangxi. I truly fear that this map may have also fallen into rebel hands. Moreover, *Essentials of Historical and Geographical Studies* and *On the Benefits and Faults of the Empire's Local Administration* were both published during the Daoguang era. The rebel's routes in the two invasions of Ningbo closely matched descriptions from *On the Benefits and Faults of the Empire's Local Administration*. I fear that they may have someone capable of reading these texts. It appears that both the maps and the books have been acquired by the rebels. As the saying goes, a sharp tool should not be lent to others. Now, it is too late for regrets.

門生更有稟者，此圖出在道光十二年，乃未逾二紀而遂有粵西之亂，誠恐此圖亦為賊中所有。且《方輿紀要》、《郡國利病》二書亦均在道光中所刊，而此賊于破我寧郡時，兩次來路皆與《郡國利病書》所言暗合，恐其中亦竟有能讀此書者。似此，則地圖及書已為賊所得。所謂利器不可以假人，今已悔之無及矣。¹³⁴

This anecdote highlights the Xiang army's anxiety that late Ming and early Qing geographical monographs and especially Li Zhaoluo's maps had already fallen into Taiping's hands. For the Xiang army leaders, by this time receiving this letter, the Taiping rebellion had been ongoing for over a decade. The army's campaigns were stalling in key cities, the Qing's Jiangnan Battalion 江南大營 was being decimated, and Anglo-French forces were marching toward Beijing.¹³⁵ The empire was indeed in a deep crisis. It was under this immense pressure that Hu Linyi and his colleagues sought to identify the root causes of their military setback, if not a failure. This letter indicates the Xiang army's recognition, once again, of the strategic value of geographical knowledge, in particular maps. In response, Hu Linyi started a project in 1860 to update and reprint the court's official maps.

The key question is: how did Hu Linyi gain access to the maps if the court no longer possessed the original printing blocks used to reproduce the eighteenth-century Qing court atlases? As with Ulungge, Hu turned to privately held copies of court maps. It turned out that Li Xubin 李續賓 (1818–1858), one of the Xiang army's most capable generals, was not only a

¹³⁴ “Zhu Rongshi laihan,” *Hu Linyi weikan wanglai hanga*, 283.

¹³⁵ Cui Zhiqing, *Taiping tianguo zhanzheng quanshi*, vol. 3, chap. 12. Mark Simner, *The Lion and the Dragon: Britain's Opium Wars with China, 1839-1860* (Fonthill Media, 2019), chap. 11.

skilled military leader but also a map enthusiast. From his young age, Li had trained himself in cartography. According to contemporary accounts, he produced over 900 maps, later refining and reorganizing them into a collection of 1,451 pieces, giving him extensive experience and skill in hand-drawn mapping. Zeng Guofan once examined Li's maps and remarked that none of his own private collection could rival those drawn by Li.¹³⁶ In the correspondence of Hu Linyi, we can find multiple letters sent to Li's family requesting specific maps of various regions or provinces, showing that Li truly possessed a substantial collection.¹³⁷ While it remains unclear how Li and his family acquired such an archive, it is likely that many of the maps were purchased from commercial bookstores, much like Wu Jiaomao had done in the early nineteenth century.

Among the maps Hu Linyi borrowed from Li Xubin was the Kangxi atlas.¹³⁸ By 1858, Hu had begun his mapping project, using Li Zhaoluo's map as one of bases and updating it with more recent geographic information. To ensure the accuracy of these updates, Hu's team needed the original Qing court maps for reference, hence Hu borrowed the Kangxi atlas from Li. This project not only marked a turning point in wartime cartographic efforts but also drew a number of Han literati with mapmaking knowledge and interests to Hubei. By the late 1850s, a community of mappers had begun to emerge around Hu Linyi's orbit.

Hu Linyi launched his publishing enterprise, commonly known as the Wuchang Publisher 武昌書局, before initiating his mapmaking project. The publisher did not have a standardized name; some sources refer to it as the Publisher of Hubei Official Books 湖北官書局.¹³⁹ Unlike later commercial publishers designed explicitly to generate profit, the Wuchang Publisher was

¹³⁶ Fu Yaolin, *Li Xubin nianpu*, in *Xiangjun renwu nianpu* (Yuelu shushe, 1987), 105.

¹³⁷ Hu Linyi, *Hu Linyi ji*, vol. 2, 469, 485

¹³⁸ Hu Linyi, *Hu Linyi ji*, vol. 2, 482.

¹³⁹ Fang Zhenyi, "Hubei guanshu ju (Chongwen shuju) kaolue," in *Zhongguo chuban shiliao (jindai bufen)* (Hubei jiaoyu chubanshe, 2011), vol. 1, 483-486. Jiang Ling, "Wang Qing Chongwen shuju xingqi yuanliu kaobian," *Zhongguo chuban shi yanjiu*, no.4 (2019): 56-57.

established under very different conditions. It emerged during the Taiping rebellion, a time when the Taiping regime, hostile to Confucian traditions, systematically destroyed books, temples, and cultural sites in the areas it occupied. Wuchang itself was stormed three times by the Taiping forces, with book collections suffering severe devastation.¹⁴⁰

While the rise of local publishing initiatives during this period might reflect efforts by local elites to recover cultural heritage and rebuild their prestige, Hu Linyi's project had a more targeted objective: to produce military-related publications for the officers of the Xiang army. The first major project was Hu Linyi's annotated edition of military history texts, including the *Zuo zhuan* 左傳 and *Zizhi tongjian* 資治通鑑.¹⁴¹ The chief editor was Wang Shiduo 汪士鐸 (1802-1889), a scholar renowned for his expertise in the *Water Classic*, suggesting a strong knowledge in water-based geography, an expertise greatly appreciated by the Xiang army leaders.¹⁴²

Among the five associate editors was Ding Quzhong, a Hunan native who would go on to play a key role in Hu Linyi's mapmaking efforts.¹⁴³ Like many of his fellow private staffers in the Xiang army, Ding did not hold prominent imperial degrees but had a deep interest in mathematics. While studying at Southern Changsha College (長沙城南書院), he became close friends with Zou Hanxun of the Zou family, who shared his mathematical interests. Ding later authored *Supplementary Notes on Mathematics* 數學拾遺, a work that included important

¹⁴⁰ Cui Zhiqing ed., *Taiping tianguo zhanzhen quanshi*, vol. 1, chap. 9. For the Taiping's destruction of traditional Confucian books in the Jiangnan region, see "Jin yaoshu," in *Jinling guijia xin yuefu*, in *Zhongguo jindai shi ziliao congkan* (Shanghai renmin chubanshe, 2000), vol. 4, 735.

¹⁴¹ Hu Linyi, *Dushi binglue*, in *Hu Linyi ji*, vol.3, 4.

¹⁴² Zeng Guofan, *Zeng Guofan quanji riji* (Shijiazhuang: Hebei renmin chubanshe, 2016), vol. 1, 392. However, Wang's original drafts and maps related to water geography were completely lost during the war. The surviving illustrations of *Shuijing zhu* attributed to Wang were reconstructed by his colleagues, including two members of the Zou family—Zou Hanci 漢池 and Zou Shiyi 世詒. See Wang Shiduo, Chen Qiaoyi edits, *Shuijing zhu tu* (Shandong huabao chubanshe, 2003), 1.

¹⁴³ Zhu Kebao, "Ding Quzhong," *Chouren zhuan sanbian*, vol. 6, 1.

discussions on trigonometric calculations.¹⁴⁴ His fascination with trigonometry eventually led him to apply these methods to one of his other passions: geography.

Ding had admired Li Zhaoluo's maps, but he found it lacking in clarity, particularly for users trying to locate places that were not explicitly marked with latitude and longitude. Ding believed that such maps should be supplemented by a detailed chart listing precise geodata. While a chart of this kind had already been compiled by mathematician Zhang Zuonan 張作楠 (1772-1850), Ding found Zhang's data to be highly inaccurate, due to neglecting projection-related distortions. In collaboration with the Zou family, Ding Quzhong set out to correct existing inaccuracies in geographic data. His method involved applying trigonometric techniques to resolve projection errors. Zou Hanzhang focused on identifying place names and locations in Mongolia and Xinjiang, while Zou Hanci worked closely with Ding, employing trigonometric functions to calculate spatial relationships and derive distances between locations.¹⁴⁵ Through this collaboration, Ding improved the accuracy of longitude and latitude measurements, culminating in the aforementioned publication of *Table of Geographic Coordinates and Distances*. Ding and the Zou brothers produced this work using woodblock printing in 1852.¹⁴⁶ The scale and precision of the geographical knowledge it demonstrated influenced Hu Linyi's decision to recruit Ding into his private administration. There, Ding had the opportunity to consult the Qianlong atlas and work alongside colleagues who were similarly well-versed in geography, including Zou Hanci, his nephew Zou Shiyi, and Yan Qizheng. With their support, Ding was able to expand his chart beyond the Qing empire's borders, incorporating longitudinal and latitudinal data from sources such as Wei Yuan's *Haiguo tuzhi*.¹⁴⁷ Drawing on these

¹⁴⁴ Zou Hanxun, "preface" (xu), *Shuxue shiyi*, in *Baifu tang suanxue congshu* (Gu hehua ci jingshe, 1874), 1.

¹⁴⁵ Ding Quzhong, *Yudi jingwei dili biao*, in *Baifu tang suanxue congshu*, 1.

¹⁴⁶ Ding Quzhong, *Yudi jingwei dili biao*, 4.

¹⁴⁷ Ding Quzhong, *Yudi jingwei dili biao*, 100.

collaborations, Ding revised his chart and republished it in 1861. The updated edition included geospatial data for major cities around the world, along with their distances from Beijing (figure 9).

Figure 9

Indeed, Wei Yuan’s *Haiguo tuzhi* did not contain precise longitudinal and latitudinal data. However, Ding Quzhong and Zou Hanci used the maps appended to Wei’s work in combination with trigonometric calculations to estimate distances and then infer coordinates. This process meant that Ding’s data relied heavily on the accuracy of the maps he consulted. If a map was flawed, the resulting calculations were to be significantly off. In fact, many of Wei Yuan’s maps lacked precision, as they were hand-drawn copies based on Western maps, often without a full consideration of Western cartographic principles. This contributed to the noticeable inaccuracies in Ding’s data on foreign regions.¹⁴⁸ By contrast, Ding’s data concerning the Qing realm was

¹⁴⁸ Xu Kang and Li Yinchun, “Ding Quzhong ‘yudi jingwei duli biao’ Pingxi,” *Chuanshan xuekan*, no.1 (1996): 180-182.

relatively accurate, thanks to access to the eighteenth-century court atlases, though even that source contained certain inaccuracies by modern standards.¹⁴⁹ Nevertheless, it was precisely this body of geographic data that helped make Hu Linyi's maps among the most widely circulated representations of the Qing realm in the late Qing period.

If you open Hu Linyi's atlas, the first volume contains general maps, including one of the Qing territory and two hemispheric maps: one depicting the Eurasian continent, the other the Americas (figure 10). Upon inspection, it is apparent that these hemispheric maps closely resemble those in Wei Yuan's *Haiguo tuzhi*.¹⁵⁰ Hu Linyi's team appropriated Wei's hemisphere maps as a foundational reference. However, turning to the Qing territory maps reveals notable additions not found in either the eighteenth-century court atlases or Li Zhaoluo's maps from the early nineteenth century (figure 11). These additions include, for instance, Chosŏn Korea, consistent with its presence in official court maps. The question of whether Korea was considered part of the Qing territory remains complex. Qing official maps consistently included Korea, and in other sources, such as Qing astronomical records, it was consistently treated on par with directly administered provinces.¹⁵¹ In contrast, Hu Linyi's maps, produced in the 1860s, go further: they incorporate a broader range of tributary states, including Japan, Vietnam, Russia, the Ottoman empire ("Khungghar"), the Ryukyu Kingdom, and others.¹⁵² This expansion suggests that Hu's team likely drew on sources such as *Haiguo tuzhi* and the geographical works of Xu Song 徐松 (1781-1848) and He Qiutao 何秋濤 (1824-1862), likely facilitated by Wang

¹⁴⁹ Ge Jianxiong, *Youyou changshui: Tan Qixiang zhuan*, in *Ge Jianxiong wenji* (Guangdong renmin chubanshe, 2014), vol. 3, 217.

¹⁵⁰ Wei Yuan, *Haiguo tuzhi*, in *Wei Yuan quanji* (Yuelu shushe, 2004), vol. 4, 92-93.

¹⁵¹ Yuanchong Wang, "Provincializing Korea: The Construction of the Chinese Empire in the Borderland and the Rise of the Modern Chinese State," *T'oung Pao* 105, nos. 1-2 (2019): 149-63.

¹⁵² For the complex relationship between "Khungghar" and Ottoman Turkey, see Matthew Mosca, "Empire and the Circulation of Frontier Intelligence: Qing Conceptions of the Ottomans," *Harvard Journal of Asiatic Studies* 70, no. 1 (2010): 147-207.

Shiduo, the chief editor, who should have owned a collection of these materials due to his research on China's water geography.¹⁵³ The growing circulation of global geographical knowledge in the early to mid-nineteenth century made this kind of cartographical compilation possible.

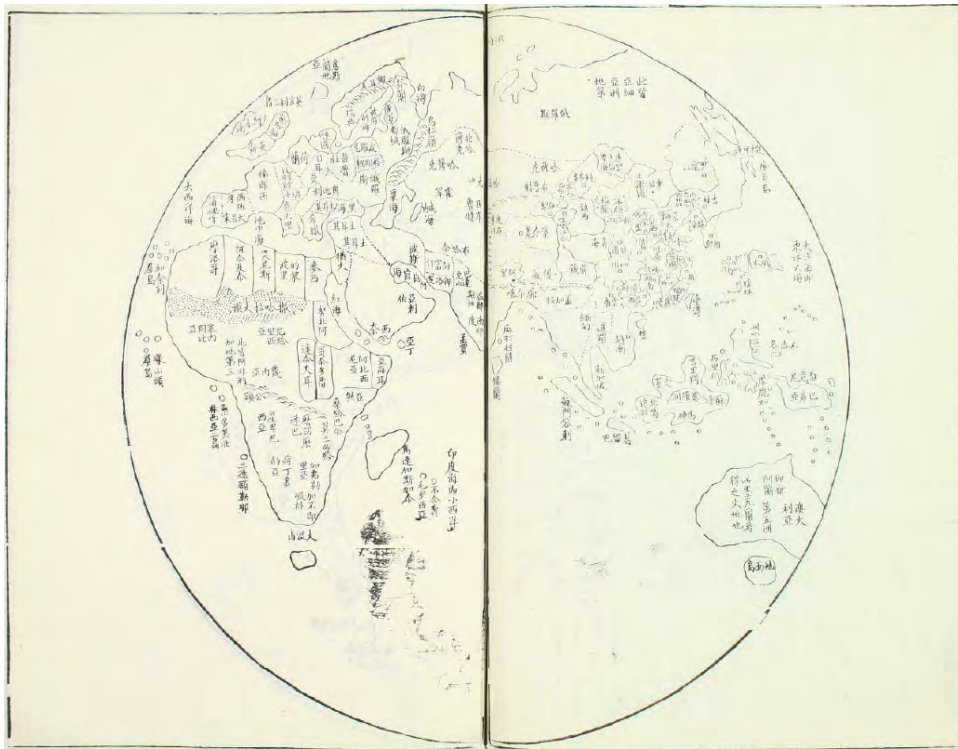


Figure 10

¹⁵³ In fact, after Wang Shiduo lost his drafts on *Shuijing zhu* during the Taiping war, he abandoned efforts to reconstruct the project. One reason was the increasing duties in Hu Linyi's private administration; another was the deterioration of his eyesight. However, his colleagues, Ding Quzhong, Zou Hanci, Zou Shiyi, and Yan Qizhen, played a crucial role in partially reconstructing his lost work. In particular, members of the Zou family and Yan Qizhen redrew the maps based on Wang's original ideas. Wang Shiduo, Chen Qiaoyi edits, *Shuijing zhu tu* (Shandong huabao chubanshe, 2003), 1.

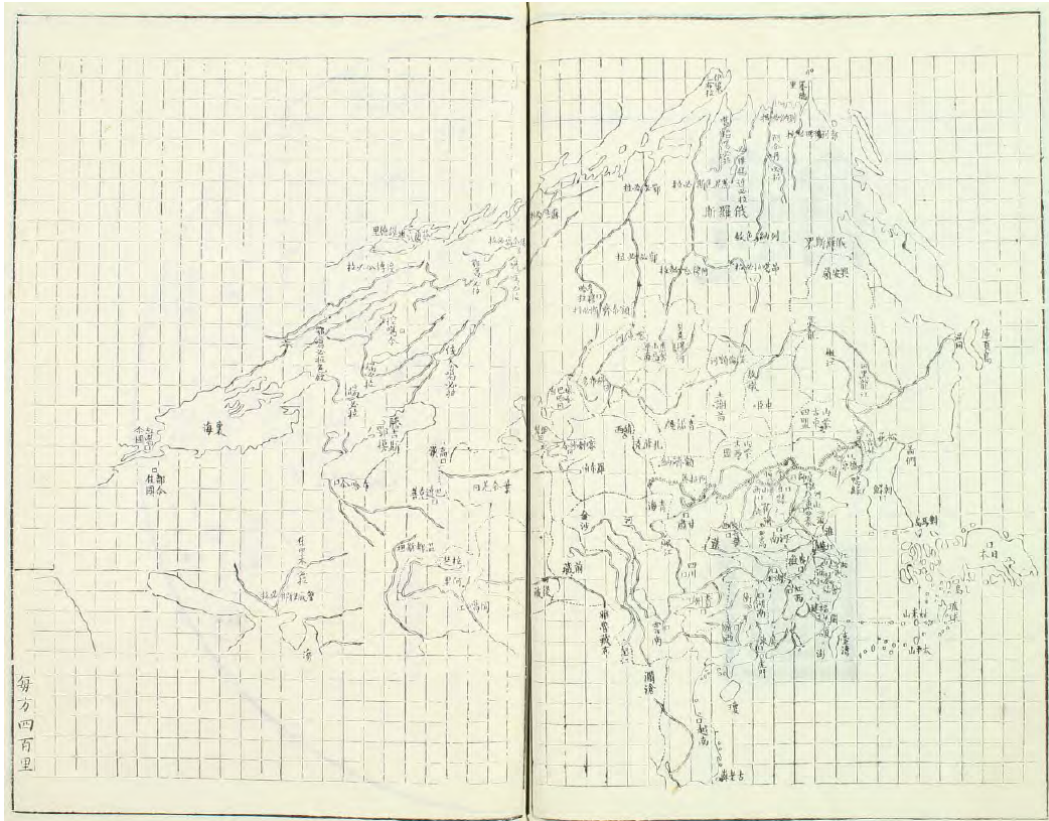


Figure 11

Yet, Hu Linyi's project also points to a more profound question: what was "China"? Should tributary states be considered part of the Qing realm? The final product of Hu's cartographic work seems to answer affirmatively. His atlas deliberately includes territories categorized as tributary states, while omitting European states. Even India, once labeled a tributary in Qing records, became absent.¹⁵⁴ In other words, the scope and definition of "Qing territory" or "Chinese space" were undergoing significant transformation. Hu Linyi's maps reflect this evolving conception, marking a critical moment in the reimagining of imperial geography during the late Qing period. Their wide circulation was made possible by the rise of Han-owned local publishing houses after the Taiping rebellion, whose growing success allowed

¹⁵⁴ Regarding the Qing's claim over India as a tributary state, see Matthew W. Mosca, "An Early Qing Claim of India as a Subject State," *Saksaha: A Journal of Manchu Studies* 18 (2022): 15–28.

this new spatial idea to reach a broader audience. As these maps entered commercial circulation, the redefinition of Qing/Chinese territory began to influence the everyday understanding of geography among ordinary Chinese readers. Hu Linyi's atlas was just the beginning.

Conclusion

In many ways, the Zou family from Xinhua county, Hunan, was a typical ethnically Han gentry lineage. Their early ancestors in the eighteenth century held no significant political office or prestigious imperial degrees. However, through success in the timber trade, particularly in supplying wood for Qing construction projects, they accumulated wealth and gradually established local influence. Beginning with the fourth generation, the family underwent a clear process of gentrification, producing students who earned imperial degrees and participated in local cultural affairs, particularly in the compilation of gazetteers, an activity that drew them into close engagement with regional geography.

Yet what made the Zous "typical" was also what set them apart: despite their local prestige, no member of the family ever attained a metropolitan degree. The provincial degree was the highest distinction the family achieved, placing them squarely among the majority of gentry households who, due to the low pass rates, never advanced into elite bureaucratic ranks. Under ordinary circumstances, they might have remained local literati, respected, active, but confined to the county or provincial level. The outbreak of the Taiping rebellion, however, created an exceptional opportunity. Because of their geographic location in Hunan, the Zous were able to join the Xiang army, where they contributed their expertise in mapmaking and local geography. After the war, they remained involved in gazetteer compilation efforts, particularly in Hunan, helping codify the geographical knowledge the Xiang army had acquired during wartime.

Yet had the story ended there, it is unlikely the Zou family would have gone on to become pioneers of modern and Western-style cartography in late Qing China. The turning point came with their participation in Hu Linyi's ambitious atlas project during the 1860s. While earlier figures like Li Zhaoluo had attempted to reproduce Qing court atlases in the early nineteenth century, they largely remained within the framework of imperial precedent. Hu Linyi's project, by contrast, marked the first major effort by Han elites not only to replicate imperial maps but to revise them, integrating longitudinal and latitudinal data and applying new methods of geographic representation. This experience proved transformative. It exposed the Zou family to advanced techniques in cartographic projection and the logistics of map production. These skills were likely passed down to younger generations, laying the foundation for the family's transformation beyond operational mapmakers and local geography specialists by the late nineteenth century.

Still, the legacy of wartime cartography alone does not explain the Zous' emergence as modern map producers. A new historical thread began to unfold in the latter half of the century: the intensification of border negotiations with foreign powers, especially Russia. In the next chapter, we will examine how this geopolitical context placed maps at the center of elite Qing concerns, transforming them into highly politicized and sensitive instruments of statecraft.

Chapter Two: Maps and the Late Nineteenth-century Border Negotiations

In recent years, the term “inseparable territory” 不可分割的領土 has become increasingly prevalent in discussions about China’s frontiers, including Taiwan, Tibet, Inner Mongolia, and Xinjiang.¹ Historically, the Three Northeastern Provinces 東北三省, or Manchuria, were also a point of contention, particularly in the early twentieth century; however, this dispute subsided after Japan’s defeat in 1945.² Regardless, all these past and present debates over these borderlands point to a persistent question: Was the Qing empire (1644-1911) China? Recent scholarship has recognized the link between the emphasis on Chinese territorial integrity and the national crises and “humiliations” in the Republican era.³ However, the conceptualization of China as a “geo-body” actually predates the twentieth century.

Thongchai Winichakul’s definition of the “geo-body” refers not merely to a nation’s territory but to a symbolic and emotional embodiment of national identity, comprising “pride, loyalty, love, passion, bias, hatred, reason, and unreason.”⁴ This concept serves as a critical tool for understanding the nascent stages of Chinese nationalism and how the idea of a distinctly “Chinese space” emerged and evolved in the late Qing period. Therefore, this chapter aims to elucidate the chronology of how maps became a point of contention in border negotiations and

¹ “Taiwan wenti yu Zhongguo tongyi” 臺灣問題與中國統一 (The political status of Taiwan and unification of China, http://jp.china-embassy.gov.cn/chn/ztnew/twwtnew/www5new/200412/t20041226_9460739.htm), “Xizang heping jiefang yu fanrong fazhan” 西藏和平解放與繁榮發展” (Tibet’s Peaceful Liberation and Prosperous Development, https://www.gov.cn/zhengce/2021-05/21/content_5609821.htm) and “Xinjiang de ruogan lishi wenti” 新疆的若干歷史問題 (A Few Historical Questions About Xinjiang, https://www.gov.cn/zhengce/2019-07/21/content_5412300.htm) last accessed 25th September 2024.

² Regarding the controversy over Manchurian or Northeastern China, see Fu Ssu-nien 傅斯年, *Dongbei shigang* 東北史綱 (Shanghai guji chubanshe, 2012), especially 2-9. Pi-ling Yeh 葉碧苓, “Jiu yiba shibian hou Zhongguo shixue jie dui Riben Manmeng lun zhi bochi yi dongbei shigang diyi juan wei zhongxin zhi tantao” 九一八事變後中國史學界對日本「滿蒙論」之駁斥—以《東北史綱》第一卷為中心之探討, *Guoshi guan xueshu jikan* 國史館學術集刊, no. 11 (2007): 131–35.

³ Yu-chi Chang, “Leaves, Silkworms, Yue Fei: Ways of Imagining the Territory in 1930s China,” *Twentieth-Century China* 49, no. 2 (2024): 89–110; Callahan, “The Cartography of National Humiliation and the Emergence of China’s Geobody.”

⁴ Winichakul, *Siam Mapped: A History of the Geo-Body of a Nation*, 17.

how an “ahistorical” Chinese nation with a distinct political space materialized in parallel to the process.

Although scholars have extensively explored the emergence of “Chinese nationhood” and “Chinese nationalism,” the role of Han elites’ increasing access to and engagement with maps from the late 1800s in shaping these concepts has not been thoroughly examined.⁵ The existing scholarship has suggested that the proliferation of maps correlates with increased contacts and struggles with imperial powers since the mid-nineteenth century.⁶ However, it was frequent border negotiations that primarily compelled Han elites to engage with maps, not just as academic curiosities but as practical tools in diplomacy. As we will see in this chapter, with increased exposure to European maps and border negotiations, Han elites grew skeptical of the legitimacy of these foreign cartographic sources. Particularly during the controversies over the Pamir region with Russia in the early 1890s, the question of the legitimacy of using European maps became a critical issue, leading to a cautious approach towards these cartographical materials.⁷

The problem of map legitimacy parallels the Qing’s grappling with a multitude of crises. War with European powers, the devastating civil war against the Taiping Heavenly Kingdom, and a series of floods and famines left the empire on the brink of collapse by the mid-nineteenth

⁵ The historiography on the rise of Chinese nationalism has been extensively developed through intellectual and political history approaches in both Chinese and English scholarship. The following selection, while not exhaustive, includes some of the most seminal works in the field: Benjamin Schwartz, *In Search of Wealth and Power: Yen Fu and the West* (Harvard University Press, 2022), chap. 3; Levenson Levenson, *Confucian China and Its Modern Fate* (University of California Press, 1958), chap. 3; Esherick, “How the Qing Became China.” Shen Sung-Chiao, “Woyi woxue jian xuanyuan- Huangdi shenhua yu Wanqing de guozu jiangou” 我以我血薦軒轅—黃帝神話與晚清的國族建構, *Taiwan shehui yanjiu jikan* 台灣社會研究季刊, no. 28 (December 1, 1997): 1–77. Shen Sung-chiao, “Zhen Da Han zhi tiansheng: minzu yingxiong xipu yu wan Qing de guozu xiangxiang” 振大漢之天聲—民族英雄系譜與晚清的國族想像, *Jindaishi yanjiusuo jikan* 近代史研究所集刊, no. 33 (2000): 81-158.

⁶ Amelung, “New Maps for the Modernizing State,” 691–92. Smith, *Chinese Maps*, chap. 5.

⁷ Regarding Russian expansion into the Pamir region, see Alexander Morrison, *The Russian Conquest of Central Asia. A Study in Imperial Expansion, 1814–1914* (Cambridge University Press, 2020), chap. 10.

century.⁸ Despite these challenges, the Qing survived through comprehensive reforms and military strategies. However, one persistent issue haunted the empire until its end and even affected subsequent Chinese governments: territorial integrity.⁹

In the complex landscape of late nineteenth-century East Asian geopolitics, the Qing's border negotiations with Russia stand out as a pivotal period, reshaping not only the empire's territorial lines but also its diplomatic approach.¹⁰ These negotiations prompt a critical inquiry: Should the Qing rely on European maps, or should Qing maps serve as the definitive authority for boundary determinations? In the first century of its rule, the Qing's negotiations with Russia greatly utilized cartographic evidence. Notably, during the 1689 negotiation at Nerchinsk, while proactively sending agents to survey the Manchurian frontier, Qing court also referenced Russian maps.¹¹ Jesuit accounts indicate that copies of certain Russian maps of Siberia were kept in Beijing.¹² Even during the early eighteenth-century Treaty of Kiakhta negotiations, conducted far from the actual border in Beijing, maps from both sides were consulted.¹³ This suggests that historically, the Qing were indifferent to the origin of maps used for demarcation. This practice

⁸ William T. Rowe, *China's Last Empire: The Great Qing*, History of Imperial China (Belknap Press of Harvard University Press, 2009), chaps. 6–7.

⁹ Chang, "Leaves, Silkworms, Yue Fei," 2024, 90–93. Shellen Wu, "Geography and the Reshaping of the Modern Chinese Empire," in *Empire and the Social Sciences: Global Histories of Knowledge*, ed. Jeremy Adelman (Bloomsbury Academic, 2019).

¹⁰ Day, *Qing Travelers to the Far West: Diplomacy and the Information Order in Late Imperial China*, 171–77.

¹¹ Regarding the Qing operations of geodata and intelligence collection, see Yoshida Kin'ichi 吉田金一, "Rōdan no 'Kitsurin Kyūkazu' to Neruchinsuku Jōyaku" 郎談の「吉林九河図」とネルチンスク条約, *Tōyō Gakuhō* 東洋学報 62, no. 1-2(1980): 31–70. Kicengge 承志, "Manwen gu ditu yu erwen gu ditu de xiehou" 滿文古地圖與俄文古地圖的邂逅, *Ziran kexue shi yanjiu* 自然科學史研究 41, no.1 (2022): 9-11. Perdue, *China Marches West: The Qing Conquest of Central Eurasia*, 166. About the actual border demarcation in the treaty of Nerchinsk, see Li Narangoa and Robert Cribb, *Historical Atlas of Northeast Asia, 1590-2010: Korea, Manchuria, Mongolia, Eastern Siberia* (Columbia University Press, 2014), 55.

¹² Kicengge 承志, "Nibu chu tiaoyue jiebei tu de huanying" 尼布楚條約界碑圖的幻影, *Manwen dang'an yu qingdai bianjiang he minzu yanjiu* 滿文研究與清代邊疆和民族研究 (Shehui kexue wenxian chubanshe, 2013), 400-405, 447.

¹³ Mark Mancall, *Russia and China: Their Diplomatic Relations to 1728*, Harvard East Asian Series 61 (Harvard University Press, 1971), 249–55. Akira Yanagisawa, "Some Remarks on the 'Addendum to the Treaty of Kiakhta' in 1768," *Memoirs of the Research Department of The Toyo Bunko* 63 (2006): 65–88. About actual border setting in this treaty, see Narangoa and Cribb, *Historical Atlas of Northeast Asia, 1590-2010*, 75.

continued into the nineteenth century. However, as this chapter will demonstrate, it was only during the treaty negotiations of the 1860s to 1890s that the eligibility of maps for use became a contentious issue.

By examining the rise and fall of using European maps, this chapter explores questions about the Qing's strategic shift from traditional territorial concepts to an intensified focus on cartography. It examines the evolving role of cartographic origins in Qing diplomacy, highlighting how the provenance of maps, previously a peripheral concern in diplomatic discussions, became critically important by the late Qing period.¹⁴ It explores the transition from a period where the maker of a map was irrelevant to a time when the origin of cartographic materials assumed central importance in diplomatic negotiations. The escalating significance of cartography extended beyond high politics, permeating bureaucratic circles where hawkish factions leveraged maps as pivotal tools in their debates.¹⁵

This chapter delves into this complex interplay of geopolitics, cartography, and cultural perceptions, shedding light on a transformative era in Chinese diplomatic history. It also touches upon the contentious use of foreign maps by figures like Hong Jun 洪鈞 (1839-1893), a decision that stirred criticism and played a role in the budding sentiments of proto-Chinese nationalism among Qing elites.¹⁶

This chapter is structured into five sections. The first section focuses on the Qing's efforts to maintain its frontiers in Xinjiang during its most challenging times, particularly the early 1860s negotiations with the Russian empire. This part delves into the perspectives of both Qing

¹⁴ Mosca, *From Frontier Policy to Foreign Policy*, 32–37.

¹⁵ Benjamin Schmidt, "Mapping an Empire: Cartographic and Colonial Rivalry in Seventeenth-Century Dutch and English North America," *William and Mary Quarterly* 54 (1997): 549–78.

¹⁶ Ma Mingda 馬明達 and Li Junjie 李俊杰, "Hong Jun shiji shulüe" 洪鈞史跡述略, *Jinan shixue* 暨南史學 8 (Guilin: Guangxi shifan daxue chubanshe, 2013), 356-362.

and Russian negotiators, uncovering the initial struggles over the question of “whether the Qing was China” through accounts from both sides.¹⁷ The second section analyzes the “failed” negotiations by Chonghou 崇厚 (1826-1893) in the Treaty of Livadia and the “successful” negotiations by Zeng Jize 曾紀澤 (1839-1890) in the Treaty of St. Petersburg, arguing that although Zeng’s efforts managed to amend some terms of Chonghou’s treaty, his mission ultimately remained “unfinished” as demarcation responsibilities were transferred to local Xinjiang officials.¹⁸ The third section examines the following on-site border negotiations during the mid-1880s, highlighting how the Qing continued to lose territory due to reliance on Russian maps.

The fourth section reevaluates the concept of “*Zhongguo laojie*” 中國老界 (Chinese old border) related to earlier sections. While this notion has been referenced across different dynasties, it lacked a clear definition until the late 1800s. During the late Qing period, the concept of “China” or “Zhongguo” itself became increasingly contentious, not only with foreign powers but also among political elites. In the fifth section, the focus shifts to how the evolving understanding of “China” transformed maps into arenas of public and political contention. As Qing political elites increasingly accessed maps and frontier news, especially during the controversies over the Pamir region in western Xinjiang with Russia in the 1890s, cartography became a critical element of imperial competition and national identity. This development culminated with Hong Jun’s map incident, which intensified political elites’ focus on mapping.

¹⁷ Esherick, “How the Qing Became China,” 230–33; Mosca, “The Literati Rewriting of China in the Qianlong-Jiaqing Transition,” 124.

¹⁸ About Chonghou’s biography, see Tang Renze, *Jingshi beihuan: Chonghou zhuan* 經世悲歡：崇厚傳. Shanghai shehui kexue yuan, 2009. About Zeng Jize’s diplomatic career in Europe, see Day, *Qing Travelers to the Far West: Diplomacy and the Information Order in Late Imperial China*, chap. 5.

The 1860s Border Negotiation with Russia

The Qing Empire's defeat by Britain in 1842 marked the onset of an era characterized by "unequal treaties."¹⁹ While the British expanded their foothold along China's southeastern coast, Russia sought to capitalize on its military and technological advantages along the Qing's northern frontier. In 1854, a Russian fleet violated the Treaty of Nerchinsk (1689) by entering the Amur River and establishing colonies on its northern bank.²⁰ In the late 1850s, as the Taiping Rebellion destabilized China's southeastern region and Anglo-French forces threatened Beijing, Russia pressured the beleaguered Qing court into negotiating over the Amur River region.²¹ Ultimately, the Qing had no choice but to sign the Treaty of Aigun, ceding territory north of the Amur River. In 1860, with British and French troops advancing into Beijing, Russia coerced China into signing the Convention of Peking, thereby officially annexing the Qing territory east of the Ussuri River.²²

The Convention of Peking stipulated that the Qing and Russia would jointly survey the area from Lake Khanka to the middle of the Tumen River and set up boundary markers (figure 12).²³ Prior to this joint survey, the Qing empire took preparatory steps to compile substantial documentation for the negotiations. Two key tasks were undertaken: first, the compilation of the

¹⁹ John King Fairbank, "The Creation of the Treaty System," in *The Cambridge History of China*, ed. Denis Crispin Twitchett and John King Fairbank (Cambridge University Press, 1978), 261–63. Mao Haijian 茅海建, *Tianchao de bengkuai: Yapian zhanzheng zai yanjiu* 天朝的崩潰：鴉片戰爭再研究 (Beijing: Sanlian shudian, 1995), chap. 7.

²⁰ Joseph Fletcher, "Sino-Russian Relations, 1800–62," in *The Cambridge History of China*, 1st ed., ed. John K. Fairbank (Cambridge University Press, 1978), 337–42.

²¹ For Russian annexationist attitudes towards the Amur region in the early nineteenth century, see Gregory Afinogenov, *Spies and Scholars: Chinese Secrets and Imperial Russia's Quest for World Power* (Harvard University Press, 2020), 239–55. Afinogenov interestingly notes that support for annexation came not from sinologists who had traveled to and studied in Beijing, but rather from geographers who had different perspectives on the region's strategic importance.

²² Fletcher, "Sino-Russian Relations, 1800–62," 343–48.

²³ "Zhong E xuzeng tiaoyue" 中俄續增條約, *Zhong E bianjie tiaoyue ji* 中俄邊界條約集 (Shangwu yinshuguan, 1973), 28.

resident register to document the existing population and strengthen territorial claims.²⁴ Second, the Qing collected maps, bringing both native and foreign ones to the on-site negotiations. Initially, discussions about the convention centered on a Russian map, which Yixin 奕訢 (1833-1898), the Qing councilor and the lead negotiator, was hesitant to sign because it had been drafted solely by Russia.²⁵ To address this, the Qing court equipped its delegates with both the Russian map used in Beijing and a map of Jilin from the Grand Council's archives for the upcoming negotiations. However, according to the second clause of the convention, which will be discussed later, the Qing and Russia also needed to re-demarcate the Xinjiang border. The Manchu court, lacking detailed maps of this region, requested the Ili General to provide a map to address the gap, as Russia did not supply additional maps for this area.²⁶

²⁴ “Qihu yulie juzhu ce 旗戶漁獵居住冊,” *Zhong E biangjie tiaoyue ji*, 35-36. “Chengqi dengzou wei huikan Zhong E fengjie yidi jiling shangtong zhaohui E shi binyu yingkan difang chushi anmin zhe” 成琦等奏為會勘中俄分界已抵吉林商同照會俄使并于應勘地方出示安民摺, *Qingdai Zhong E guangxi dang'an shiliao xuanbian* 清代中俄關係檔案史料選編 (Beijing: Zhonghua shuju, 1979), vol. 3, 1128.

²⁵ “Yixin dengzou jiang Eguo suozhi fenjie ditu chenglan bing geguo heyue yingfou songzhi xingzai jincheng zhe” 奕訢等奏將俄國所製分界地圖呈覽并各國合約應否送至行在進呈摺, *Qingdai Zhong E guangxi dang'an shiliao xuanbian*, vol. 3, 1028.

²⁶ “Yixin zouwei xianyou bianjie ditu fenbie fajiao shiyong huo cunliu beicha qingxing pian” 奕訢奏為現有邊界地圖分別發交使用或存留備查情形片, *Qingdai Zhong E guangxi dang'an shiliao xuanbian*, vol. 3, 1045.



Figure 12: Manchuria (Lake Khanka and Tumen River on the right)

Despite these preparations, the Qing was constrained by multiple challenges. Engaged in a civil war against the Taiping and still recovering from the Anglo-French expedition, they were not in an ideal position for comprehensive preparations. The Qing could neither deploy experts in geographical surveys nor translators for Russian language. According to Ivan Babkov (1827-1905), a military officer in western Siberia who served as one of the negotiators with the Qing during this border discussion, Russian maps became the primary reference due to the shortcomings of the Qing maps.²⁷

However, the Qing delegation later disagreed with using Russian maps, prompting the Russians to draft another map on the same scale as the Qing maps, likely those that Prince Gong had prepared. These newly drafted maps and geographical documents revealed a nuanced picture: the Qing delegation was not merely acquiescent but actively tried to negotiate, despite their limitations.²⁸ Nonetheless, their reliance on foreign maps and limited translation expertise

²⁷ Babukefu 巴布克夫 (Ivan Babkov), translated by Wang Zhixiang 王之相, *Wozai xi xibo liya fuwu de huiyi* 我在西西伯利亞服務的回憶 (Shangwu yinshuguan, 1973), 85-86.

²⁸ Babukefu, *Wozai xi xibo liya fuwu de huiyi*, 87.

underlined a significant vulnerability, a weakness that Russia would later exploit in negotiations over western Xinjiang.

The Qing and Russia finalized the Convention of Peking in late 1860. One of the crucial elements of this agreement was its second clause, which provided a framework for demarcating the border of western Xinjiang. The clause stipulates (figure 2):

The border of western Xinjiang remains yet to be determined. The new boundary should follow the mountain ranges, major rivers, and the garrison locations where Chinese troops are stationed, starting from the terminus of the border stele erected at Chabindabaga in 1728 (the sixth year of the Yongzheng era). From there, the border should extend westward to Lake Zaysan and then move southwest along the Tianshan Mountains to Issyk Kul, eventually reaching the southern border of the Kokand Khanate.

西疆尚在未定之交界，此後應順山嶺、大河之流及現在中國常駐卡倫等處，及一千七百二十八年(即雍正六年)所立沙賓達巴哈之界碑末處起，往西直至齋桑淖爾湖，自此往西南順天山之特穆爾圖淖爾，南至浩罕邊界為界。²⁹

At its core, both parties concurred that the new border should align with natural features, adhering to the parameters set in the 1728 Treaty of Kiakhta.

However, while the treaty outlined general principles for border demarcation, it fell short on specifics. For instance, it did not clarify which mountain ranges should serve as the boundary lines. Moreover, textual discrepancies between the Chinese and Russian versions introduced further ambiguity. For example, while the Chinese text indicates that the new border should extend “westward” to Lake Zaysan, the Russian text specifies “southwestward” (figure 13).³⁰ These discrepancies arose from mistranslations on the Russian side, but they also highlight that the Qing lacked sufficient translation expertise at the time, forcing them to rely solely on Russian translators.³¹

²⁹ “Zhong E xuzeng tiaoyue,” *Zhong E bianjie tiaoyue ji*, 28.

³⁰ Babukefu, *Wozai xi xibo liya fuwu de huiyi*, 227.

³¹ Babukefu, *Wozai xi xibo liya fuwu de huiyi*, 264-267. In fact, the Treaty of Peking had clearly specified that the original treaty text was in Russian language. *Zhong E bianjie tiaoyue ji*, 32.



Figure 13: *Zhonghua gouchi ditu* (Chinese Map of National Humiliation). This map was produced and printed by *Wuchang Yaxin dixue* 武昌亞新地學社 in 1931.

Similarly, the treaty stated that the border should extend to the southern boundary of the Kokand Khanate, but it did not specify the exact terminus along that border.³² This lack of clarity necessitated further negotiations with on-site representatives to finalize the borderline.³³ The third clause also indicated the timing for this survey, which ultimately set the stage for another round of border negotiations before March 1861. Whose maps should be used becomes one of the most controversial issues in this negotiation.

While the Qing court appointed two Manchu officials, Mingyi 明誼 (1792-1868) and Mingxu 明緒 (?-1866), to lead the mission, Russia designated Ivan Babkov as one of their principal negotiators. Before negotiations began, opinions within the Qing ministry were split over the treaty's terms. Mingyi submitted a memorial to the court, contending that the treaty specified only three locations—Chabindabaga, Lake Zaysan, and Issyk-Kul (figure 2)—as

³² Regarding the rise and fall of the Kokand Khanate, see Laura Newby, *The Empire and the Khanate: A Political History of Qing Relations with Khoqand c. 1760-1860* (Brill, 2005).

³³ “Zhong E xuzeng tiaoyue,” *Zhong E bianjie tiaoyue ji*, 28.

reference points for demarcation. This ambiguity, he argued, left ample room for potential Russian encroachment on imperial territory.³⁴ Mingyi advocated for conducting comprehensive surveys concurrently with the negotiations and suggested extending the timeline.³⁵ However, the Zongli Yamen 總理衙門 ultimately rejected the extension request, urging Mingyi to expedite both the negotiations and the survey process.³⁶

While no Qing documents shed light on the reactions of the Qing delegates, Russian accounts indicate that Mingyi and Mingxu were at odds with Beijing. They contended that the Convention of Peking was unworkable because it had been “ratified by those in Beijing who were unfamiliar with the frontier.”³⁷ It appears that the Qing delegates later received partial approval from Beijing. Russian records note that the Qing negotiators presented a new map that demarcated the border in yellow and instructed the Russians to use this map during negotiation.³⁸ Mingyi informed them that discussions could not proceed based on the convention but would instead be guided by “the highest command from Beijing and the attached map.” Mingyi further clarified to Babkov that the garrison line mentioned in the convention was merely an interior line, while an exterior line existed further west. He insisted that this exterior line constituted the actual “western border of Jungaria.”³⁹

One of the maps examined by Qing and Russian representatives was likely the map in figure 14. An annotation on the lower right states: “Investigated the northwestern border of the Great Qing by general Mingyi, along with Russian commissioner and Chuguchak consul

³⁴ *Chouban yiwu shimo, Tongzhi chao* 籌辦夷務始末·同治朝 (Zhonghua shuju, 2008), vol. 1, 133-134.

³⁵ *Chouban yiwu shimo, Tongzhi chao*, vol. 1, 123.

³⁶ *Chouban yiwu shimo, Tongzhi chao*, vol. 1, 135.

³⁷ Babukefu, *Wozai xi xibo liya fuwu de huiyi*, 223.

³⁸ Babukefu, *Wozai xi xibo liya fuwu de huiyi*, 224.

³⁹ Babukefu, *Wozai xi xibo liya fuwu de huiyi*, 224-225. Regarding the seasonal borderlines, these were established to accommodate the seasonal migrations of Kazakh nomads, allowing them to move between designated summer and winter territories. See Benjamin Levey, “Jungar Refugees and the Making of Empire on Qing China’s Kazakh Frontier, 1759-1773” (PhD diss., Harvard University, 2013), 162-209.

Zakharov, and Siberian staff captain Commissioner Babkov” 大清國西北界查定地里將軍明誼等/俄國廓密薩爾塔城領事官雜哈勞/悉畢爾參領廓密薩爾巴布潤福. However, this map was not signed by both delegations, suggesting it was not an official border treaty map but rather a separate map produced by the Zongli Yamen.⁴⁰ As seen in figure 3, a red line extends from Chabindabaga, through the Tianshan mountain range, and all the way to the Pamir range. This red line likely represents the border agreed upon in the convention. However, Mingyi and Mingxu rejected it, arguing that this was merely an interior boundary and that the true, legitimate Qing border lay further west along an exterior line.

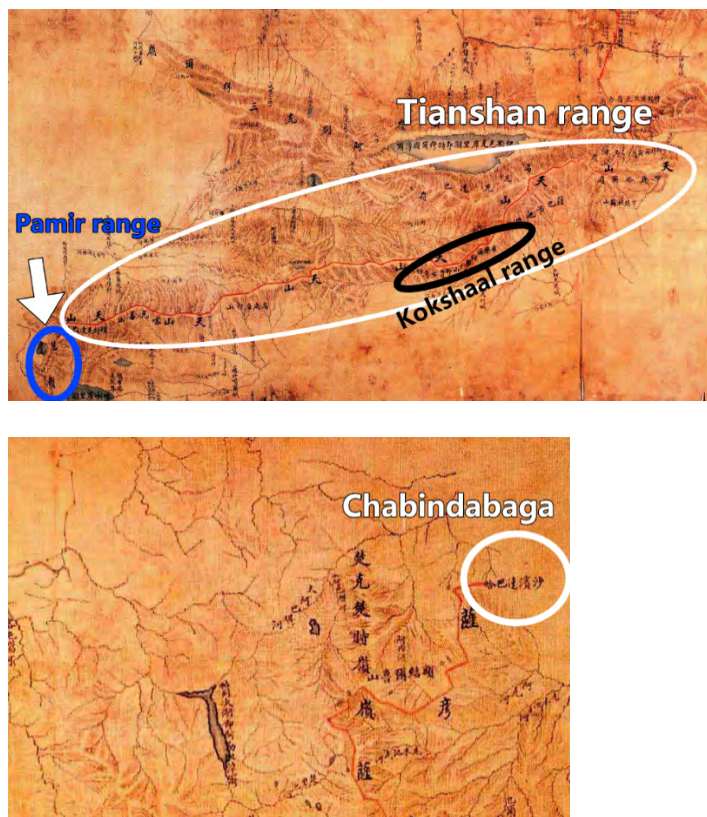


Figure 14: “Da Qingguo xibei jie yu Eluosi guo jiaozhi dili tu” 大清國西北界與俄羅斯交址地里圖 (geographical map of the northwestern border between the Great Qing and Russia). Source: *Shiluo de jiangyu: Qingji xibei bianjie bianqian tiaoyue yutu tezhan* 失落的疆域: 清季西北邊界變遷條約輿圖特展 (Taipei: Guoli Gugong bowuyuan, 2010), 16-17.

⁴⁰ *Shiluo de jiangyu: Qingji xibei bianjie bianqian tiaoyue yutu tezhan* 失落的疆域: 清季西北邊界變遷條約輿圖特展 (Guoli Gugong bowuyuan, 2010), 17.

As could be expected, Babkov and his Russian colleagues rebuffed Mingyi's new statement, insisting that the border must be demarcated according to the convention. Babkov further devalued the Qing map by asserting it was created by "those who had limited knowledge of cartography."⁴¹ To bolster their argument, the Russian delegates pointed out that the Qing court had outsourced map-making tasks to Europeans during the Kangxi and Qianlong eras.⁴² The Russians advocated for using their maps as reference points in the negotiations, claiming that these maps included all the locations and rivers present on the Qing maps.⁴³ Despite this, the divide persisted; Mingyi and Mingxu were firmly convinced that reliance on foreign maps would result in a loss of territory for the empire. This fundamental disagreement led to the suspension of negotiations in 1862.⁴⁴

The suspension in negotiations lasted for two years, until late 1864, and provided Russian representatives with an invaluable opportunity to conduct comprehensive surveys of western Xinjiang. While the Russians had begun mapping efforts in the region as early as the 1830s, focusing on the Kyrgyz and West Siberian plains, they had not previously been able to survey Qing-controlled western Xinjiang. By 1861, the Russians had printed 130 maps covering this area, including a portion of the Qing frontier lands west of Ili and Chuguchak, but anything farther east remained inaccessible. As a result, Russian cartographic data at the time relied on the eighteenth-century *Kangxi Atlas*.⁴⁵

In this sense, the stalled negotiations in Chuguchak between 1862 and 1864 gave the Russians an opportunity to take a closer look at the region. Babkov ordered his team to conduct

⁴¹ Babukefu, *Wozai xi xibo liya fuwu de huiyi*, 227

⁴² Babukefu, *Wozai xi xibo liya fuwu de huiyi*, 228.

⁴³ Babukefu, *Wozai xi xibo liya fuwu de huiyi*, 228-229.

⁴⁴ Babukefu, *Wozai xi xibo liya fuwu de huiyi*, 233

⁴⁵ Babukefu, *Wozai xi xibo liya fuwu de huiyi*, 237-238.

additional surveys. Although the Qing were aware of these activities, they were largely powerless to intervene due to the debilitating effects of the Hui Revolt, which had erupted in 1862, on their governance capabilities. While Mingyi issued threats that Qing reinforcements would soon arrive at the frontier, the Russians understood that the ongoing civil unrest in Gansu and Shaanxi had severely undermined Beijing's ability to project military power in the region.⁴⁶ This situation allowed the Russians the time they needed to refine their maps before negotiations resumed.

In 1864, the Qing court found itself in a precarious negotiating position. Russian troops were amassing near the Qing frontier, and the Hui Rebellion had engulfed northwest of the empire, effectively severing the link between Beijing and Xinjiang. As a result, negotiations were reluctantly resumed after discussions between the Russian ambassador and the Zongli Yamen. Mingyi and his colleagues harbored deep concerns about the potential loss of territory but were left with no choice but to reengage in talks.⁴⁷

The final stage of the negotiation, despite intermittent talks over the course of two years, concluded rather swiftly within a month. Mingyi sent four expert officials to scrutinize the new border treaty and associated maps at the Russian trade station. The Russian representatives had already prepared four detailed border maps, scaled at a 1 to 25 ratio in Russian distance measurements, and featuring names of mountains, rivers, villages, and cities.⁴⁸ After the Qing officials concluded their review, the Russian began drafting the border treaty in Russian and Manchu. Upon completion, Babkov and Mingyi ratified the agreement.⁴⁹ The accelerated pace of the Qing's negotiation efforts was influenced by the growing urgency of the Hui Rebellion,

⁴⁶ Babukefu, *Wozai xi xibo liya fuwu de huiyi*, 229-230.

⁴⁷ Babukefu, *Wozai xi xibo liya fuwu de huiyi*, 270.

⁴⁸ Babukefu, *Wozai xi xibo liya fuwu de huiyi*, 289-290. Regarding the old Russian measurement, see François Cardarelli, *Encyclopaedia of Scientific Units, Weights and Measures: Their SI Equivalences and Origins* (Springer, 2006), 120–24.

⁴⁹ Babukefu, *Wozai xi xibo liya fuwu de huiyi*, 290.

which had spread across northwestern China.⁵⁰ Under these precarious conditions, the border was finalized, but this did little to usher in a lasting peace along the Sino-Russian frontier.⁵¹

In the years that followed, a significant uprising erupted in Xinjiang in 1865, building on the momentum of the earlier Hui Rebellion in Gansu and Shanxi.⁵² By 1866, the dire situation led Mingxu to commit suicide following a rebel attack on his office.⁵³ These rebels were not aligned with the East Turkestani regime, which had garnered support from Great Britain. This foreign involvement alarmed Russia, heightening its concerns about potential British influence in strategically important Xinjiang.⁵⁴ In 1871, seizing an opportunity amid the chaos, Russian troops occupied Ili, justifying their action as a safeguarding of mutual interests for the Qing.⁵⁵ They pledged to return the territory once stability was restored—a promise put to the test when, against all odds, the Qing successfully pacified Xinjiang in 1877 under General Zuo Zongtang.⁵⁶ The Qing government, now empowered, demanded the return of Ili, setting the stage for further diplomatic engagement led by Chonghou in the subsequent year.⁵⁷

Chonghou's Failure and Zeng Jize's "Unfinished" Success

While Chonghou's extensive experience in foreign affairs made him the Qing court's choice for this delicate mission, his lack of experience in border negotiations led to its ultimate

⁵⁰ Wu Wanshan 吳萬善, *Qingdai xibei huimin qi yi yanjiu* 清代西北回民起義研究 (Lanzhou Daxue Chubanshe, 1991), chaps. 4 and 5.

⁵¹ In 1906, the Qing Ministry of Foreign Affairs compiled a catalog of maps specifically for border affairs. Among them was a map that appears to be the one produced in the 1864 treaty, titled "Hanwen Manwen Ewen xibei bian chuci dingjie tu" 漢文滿文俄文西北邊初次定界圖 (first delimitation map of the northwestern border in Chinese, Manchu, and Russian). *Ditu fenbian jianming mulu* 地圖分編簡明目錄 (Waiwubu, 1906), 15.

⁵² Kim, *Holy War in China: The Muslim Rebellion and State in Chinese Central Asia, 1864-1877*, 7.

⁵³ Zuo Zongtang 左宗棠, "Husong gu yuanren Yili jiangjun Changqing Mingxu yihai huiqi pian" 護送故原任伊犁將軍常清明緒遺骸回旗片, *Zuo Zongtang quanji* 左宗棠全集 (Yuelu shushe, 2014), vol.7, 133-134.

⁵⁴ Kim, *Holy War in China: The Muslim Rebellion and State in Chinese Central Asia, 1864-1877*, 116-17.

⁵⁵ Kim, *Holy War in China: The Muslim Rebellion and State in Chinese Central Asia, 1864-1877*, 141-43.

⁵⁶ Immanuel C. Y. Hsü, *The Ili Crisis; a Study of Sino-Russian Diplomacy, 1871-1881* (Clarendon Press, 1965), 32-34.

⁵⁷ Kim, *Holy War in China: The Muslim Rebellion and State in Chinese Central Asia, 1864-1877*, 159-78.

failure. A Manchu noble official, Chonghou was the first Trade Minister, overseeing matters in the newly established treaty port, Tianjin. His diplomatic service included a stint as the plenipotentiary ambassador to France after the Tianjin Massacre of 1870.⁵⁸ His amicable relations with European ambassadors further recommended him for this complex task. For the Qing, the priority was to regain control over Ili and western Xinjiang while maintaining a good relationship with Russia, making Chonghou seem like the perfect candidate.

However, Chonghou's resume masked a crucial shortcoming: he had never been involved in border negotiations before. Guo Songtao 郭嵩燾 (1818-1891), then serving as the minister to France and Britain, noted Chonghou's lack of a detailed plan. When Guo asked about Chonghou's strategy for the upcoming negotiations with Russia, the only answer he received was a vague assertion: "Ili is very important. How can we not get it back" 伊犁重地，豈能不收回? Guo immediately predicted the negotiations would fail.⁵⁹

Guo's prediction proved prescient. Chonghou consented to terms formalized in the Treaty of Livadia, which returned Ili to the Qing but also ceded an extensive area west of Ili to Russia. As shown in figure 15, the original Qing territory west of the Khorgos River and the Tekes River basin lies beyond the red borderline marking the new boundary. When these developments reached the Zongli Yamen, Prince Gong was taken aback. The arrangement effectively neutered Ili's strategic value, as it would be completely encircled by Russian territory.⁶⁰ In a desperate attempt to salvage the situation, the Zongli Yamen immediately urged Chonghou to stall the negotiations. However, Chonghou was unyielding in his response: "The agreement has been

⁵⁸ Arthur W. Hummel, *Eminent Chinese of the Ch'ing Period, 1644-1912. Volume I, A-O* (Global Oriental, 2017), 72–73. Tang Renze, *Jingshi beihuan: Chonghou zhuan*, Ch 8. For first account of the negotiation over Taijin Massacre, see Zhang Deyi 張德彝, *Suishi Faguo ji* 隨使法國記 (Hunan renmin chubanshe, 1982).

⁵⁹ Guo Tingyi 郭廷以, *Guo Songtao nianpu* 郭嵩燾年譜 (Zhongyang yanjiu yuan, 1971), vol. 2, 817.

⁶⁰ Hsü, *The Ili Crisis; a Study of Sino-Russian Diplomacy, 1871-1881*, 55–56.

reached; it is impossible to renegotiate” 約章明定，勢難再議。⁶¹ The outcome of Chonghou’s negotiation not only infuriated hawkish bureaucrats but also cast doubt on the establishment’s wisdom, led by Prince Gong, in selecting him for the mission. A cadre of young officials, including Zhang Zhidong 張之洞 (1837-1909), vociferously called for Chonghou’s execution.⁶² The Qing court promptly acceded to their demands, sending a clear signal to Russia that China was prepared to re-engage in negotiations.⁶³ Zeng Jize was appointed to undertake this critical diplomatic task.

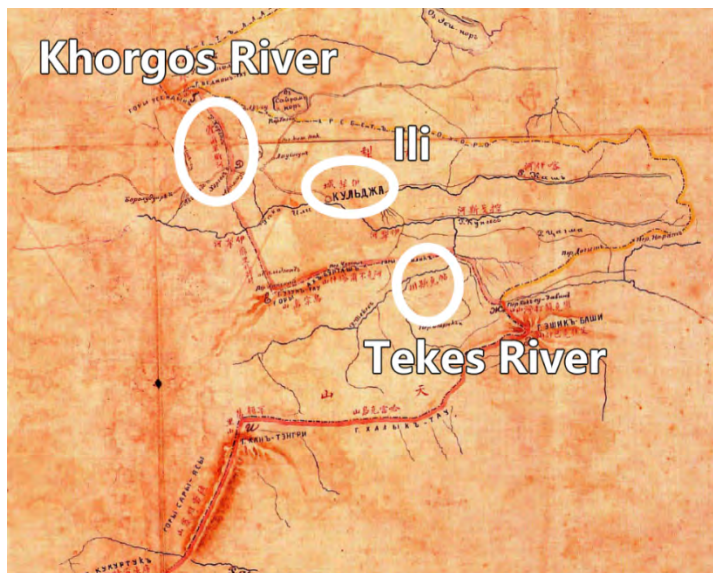


Figure 15: “Xibei bian Zhong E dian'ci dingjie tu” 西北邊中俄第二次定界圖. This is the official border map reflecting the territorial changes established in the Treaty of Livadia. Source: Shiluo de jiangyu: *Qingji xibei bianjie bianqian tiaoyue yutu tezhan*, 21.

The outcome of Zeng Jize’s diplomatic mission saw China reclaim nearly eighty percent of the territory it had lost to Russia in the Treaty of Livadia. While research has been done on

⁶¹ “Zongshu zouzhun shi E Chonghou diancheng yiyu E liyue qianya zhe” 總署奏准使俄崇厚電稱已與俄立約簽押折, *Qingji wajiao shiliao* 清季外交史料 (Hunan shifan daxue chubanshe, 2015), vol. 2, 322.

⁶² “Hanlin yuan shidu xueshi Huang Tifang zou Chonghou zhuanshan wuguo qingyi zui zhe” 翰林院侍讀學士黃體芳奏崇厚專擅誤國請議罪折 *Qingji wajiao shiliao*, vol. 2, 344. “Sijing ju xima Zhang Zhidong zou yaomeng buke qucong yi zaochou yuwu zhe” 司經局洗馬張之洞奏要盟不可曲從宜早籌御侮折, *Qingji wajiao shiliao*, vol. 2, 349-352.

⁶³ “Daqing guo da huangdi zhi Eguo shengming Chonghou suoyi tiaoyue weixun yequan zhiai nanxing guoshu” 大清國大皇帝致俄國聲明崇厚所議條約違訓越權窒礙難行國書, *Qingji wajiao shiliao*, vol. 2, 360.

how the Qing and Zeng Jize leveraged the complex international relations between Russia and European powers, along with Russia's internal unrest, to advance their renegotiation efforts, less attention has been paid to the type of intelligence Zeng gathered during his stay in Russia.⁶⁴ In fact, Zeng had started to collect useful information after he departed for Europe in 1877. Before leaving China, Zeng informed Empress Dowager Cixi 慈禧 (1835-1908) and the young Guangxu Emperor 光緒帝 (r. 1875-1908) that he had begun to understand Europe through reading books and studying maps.⁶⁵ This suggests that even before his appointment as the chief negotiator with Russia in 1880, Zeng had already recognized the importance of maps—a realization that Chonghou had lacked.

However, a crucial decision Zeng faced was which map should serve as the foundational reference for negotiations. Both China and Russia had their maps, reflecting different cartographic traditions and levels of accuracy. Though Prince Gong and the Zongli Yamen had acknowledged the precision of Russian maps, they still insisted on using Qing map in the 1860s negotiation.⁶⁶ Similarly, Chonghou had brought Chinese maps to Russia, but eventually conceded to use Russian maps for demarcation, as per the Treaty of Livadia.⁶⁷

After reviewing the new boundaries laid out on Russian maps as part of the treaty, Zuo Zongtang promptly sent a letter to the Zongli Yamen in late 1879, challenging the map's accuracy and quality. Zuo Zongtang was a strong advocate for adhering to the border agreement that had originally been negotiated by Mingyi in 1864.⁶⁸ Challenging the new borders around Ili,

⁶⁴ Hsü, *The Ili Crisis; a Study of Sino-Russian Diplomacy, 1871-1881*, 187.

⁶⁵ Zeng Jize, *Chushi Yin Fa E guo riji* 出使英法俄國日記 (Yuelu shushe, 1985), 117.

⁶⁶ “Yixin wei wusuli suifen he fenjie xu zooming hou paiyuan qianwang huitong xiangkan shi zhi E shi zhaohui” 奕訢為烏蘇里綏芬河分界須奏明後派員前往會同詳勘事致俄使照會, *Qingdai Zhong E guangxi dang'an shiliao xuanbian*, vol. 3, 1015.

⁶⁷ Hsü, *The Ili Crisis; a Study of Sino-Russian Diplomacy, 1871-1881*, 55.

⁶⁸ Zuo Zongtang, “Gandu Zuo Zongtang zouchen shuohui Ili shiyi ze” 甘督左宗棠奏陳收回伊犁事宜折, *Qingji waijiao shiliao*, vol. 2, 326.

Chuguchak, and Kashgar, he suggested that these did not align with older Chinese maps and their demarcations. He tasked his frontline officers with scrutinizing old maps, which revealed that older boundaries, or “zones,” were more dynamic and would change according to local nomadic movements in different seasons.⁶⁹

However, in a subsequent letter, Zuo revised his initial assessment:

On the 28th day, I received the imperial edict and read the letter that Ambassador Chonghou had sent on the mid-Autumn festival during his stay at Russia. According to the Russian War Ministry’s map, it largely aligns with Chinese maps. The main difference is that the Chinese map provides less detail on nomadic movements compared to the Russian map, which offers more specifics in this regard. However, the Russian map is less detailed when it comes to the locations of cities, and the directional relationship of these cities are not very accurate, inevitably leading to some discrepancies.

奉廿八日尊諭并補遞崇使中秋在俄所寄一信閱，照畫俄國兵部地圖，大致亦與中國地圖相合，惟中國於各部游牧地方從略而彼加詳。彼於游牧加詳，而於各城部位界址從略，即方向亦不甚準，不能無參差也。⁷⁰

While it remains unclear which maps Zuo consulted, his later memorial to the Zongli Yamen shows the revision of his earlier stance, conceding that Russian maps offered greater detail in depicting nomadic areas.

Nonetheless, in the later memorial, Zuo critiqued Russian cartography for its insufficient detail on city locations and inaccurate directional data. Zuo stated:

In reality, the city of Ili is geographically situated to face Aksu from the north to the south. However, Russian maps slightly skew Ili toward the west. Additionally, Russian maps omit the location of Uchturfan. While Kashgar is actually southwest of Uchturfan, Russian maps misleadingly place it to the west, likely because the maps were drawn based on commonly used travel routes and their measured distances. Unlike Chinese cartography, which employs the North and South Poles as reference points—as if viewed from a bird’s-eye perspective—making it easier to capture an accurate layout, the Russians or Westerners are

⁶⁹ Zuo Zongtang, “Shan Zongli geguo shiwu yamen” 上總理各國事務衙門, *Zou Zongtang quanji*, vol. 3, 501. Anne-Sophie Pratte, “Mapping Pasturelands: The Production of Geographical Knowledge in Nineteenth-Century Qing Mongolia,” *Late Imperial China* 43, no. 2 (December 2022): 164–65.

⁷⁰ Zuo Zongtang, “Shan Zongli geguo shiwu yamen,” *Zou Zongtang quanji*, vol. 3, 507.

unfamiliar with the *zhunwang* (earth observation) method. As a result, they occasionally make errors concerning directionality.

按伊犁大城地形與阿克蘇南北相望，俄圖則伊犁稍偏於西，又不繪烏什建城處。喀什噶爾，本在烏什西南，俄圖則混列於西。蓋循人行路徑，測度繪形。不若中學以南北極出地為準，如飛鳥下視，易於得真。又不明地學準望之法，故於方位時有誤會也。⁷¹

In this statement, Zuo critiqued Russian cartography for what he perceived to be inaccuracies and misleading information. He attributed these shortcomings to a presumed lack of understanding on the Russians' part of a specific concept in traditional Chinese cartography: the *zhunwang* (earth observation) method. According to Zuo, it was this lack of familiarity that led the Russians to produce maps with confused directionality.⁷² Zuo's statement highlights not only his faith in Chinese cartographic methods but also his ignorance of European cartography, a viewpoint that soon drew opposition from Zeng Jize.

In an 1880 memorial to the court, Zeng Jize asserted that European maps surpassed their Chinese counterparts in terms of precision. Zeng argued that European trigonometrical survey methods already included aspects of the *zhunwang* method, albeit grounded in a mathematical model, thus making them far more accurate. Zeng went on to critique the *zhunwang* method for its shortcomings: it relied solely on compasses for determining direction and neglected the earth's magnetic fields, leading to inaccuracies in determining absolute north and south directions. Furthermore, the *zhunwang* method failed to consider time differences across various locations. These factors contributed to Zeng's belief that European cartography was significantly more precise than its Chinese counterpart.⁷³

⁷¹ Zuo Zongtang, "Shan Zongli geguo shiwu yamen," *Zuo Zongtang quanji*, vol. 3, 507.

⁷² Xin Deyong 辛德勇, "Zhuanwang shiyi—jiantan Pei Xiu zhitu zhuti zhijian de guanxi yiji suowei Shen Kuo zhitu liuti wenti" 准望釋義—兼談裴秀製圖諸體之間的關係以及所謂沈括製圖六體問題, *Zongxin suoyu: changyang yu xijian yu changjian shu zhijian* 縱心所欲：徜徉於稀見與常見書之間 (Beijing daxue chubanshe, 2011), 164-199.

⁷³ Zeng Jize, "Lundun zhi zongshu zongban" 倫敦致總署總辦, *Zeng Jize ji*, 166-167.

Zeng further discredited Zuo's claims by referencing various maps. These maps included those from Russia, Britain, Germany, Austria, and even Chinese maps drafted in early 1800s. None supported Zuo's assertion regarding the directional relationship between Aksu and Ili. None of the map place Ili closer to west than Aksu. Neither map places Aksu facing Ili from the south to the north.⁷⁴ Instead, they all suggest that Ili is closer to the east than Aksu. Zeng questioned the validity of the map sources Zuo relied on. Underlying this argument was Zeng's stance, in which he advocated for the Qing court to forgo consulting the Qing maps, urging to mainly use Russian maps for negotiations.

Despite their differing views on cartographic accuracy and the reliability of various maps, both Zeng and Zuo were united in their overarching goal of restoring the 1864 border agreement.⁷⁵ Their individual perspectives were ultimately shaped by the collective strategic aims of the Qing court, which sought to revert the Sino-Russian border to its 1864 treaty lines and reclaim the entire region west of Ili.⁷⁶ The ultimate objective was to negotiate an agreement that would permanently settle any future border disputes. To prevent a repeat of the situation where Chonghou unilaterally struck a deal with Russia, the Zongli Yamen issued Zeng Jize with eighteen detailed instructions. These guidelines explicitly stated that "the border demarcation of the Ili border should follow the 1864 deal that General Mingyi had made" 查伊犁分界，應照明誼議定界圖。⁷⁷ Additionally, the Zongli Yamen acknowledged that East Turkestan had also

⁷⁴ Zeng Jize, "Lundun zhi zongshu zongban" 倫敦致總署總辦, *Zeng Jize ji*, 166.

⁷⁵ In the early stage of the border talks, Zeng Jize clearly told the Russian representative that "Regarding the border of Chuguchak and Kashgar, we could only allow them to be demarcated based on the 'old boundary'" 塔爾巴哈台、喀什噶爾交界，只能仍照舊址，如實有小處必須酌改，應由兩國特派大員前往查勘面訂. Zeng Jize, *Jinyao choubi* 金輶籌筆 (Shangwu chubanshe, 1964), 7.

⁷⁶ "Zongshu zou Eguo fenjie tongshang geshi jing shending qianzhu niyi banfa zhe" 總署奏俄國分界通商各事經審訂簽注擬議辦法折, *Qingji waijiao shiliao*, vol. 2, 372-385. This instruction was sent out to Zeng Jize before he arrived at St. Petersburg.

⁷⁷ "Zongshu zou Eguo fenjie tongshang geshi jing shending qianzhu niyi banfa zhe," *Qingji waijiao shiliao*, vol. 2, 374.

entered a border arrangement with Russia during the 1870s. The Zongli Yamen instructed, “When Yakub Beg and the Russians demarcated the territory and held to it, there were still traces of the locations where they set up their posts. Therefore, it should be handled accordingly” 阿古柏與俄人畫地而守之時，其設卡處所尚有行跡可據，自宜按照辦理。⁷⁸ In essence, the Qing court was willing to abide by any previous treaty, whether it was the 1864 agreement or the Eastern Turkestani pact, as long as it nullified the Treaty of Lavidia.

Zeng Jize arrived in St. Petersburg on July 30, 1880, with a deliberate strategy in mind. Not only did he aim to negotiate with Russian delegates, but he also sought to collect valuable maps. On August 29, 1880, Zeng sent a telegram to the Zongli Yamen, informing them that he had purchased a Sino-Russian border map. He noted that although the map was made by the Russians, it featured annotations in Chinese characters at dozens of locations.⁷⁹

One might wonder whether Zeng brought any Chinese maps to these pivotal negotiations. Although Zeng mentioned consulting early-1800s Qing maps in a memorial disputing Zuo Zongtang’s views on European cartography, this was written before his role as the chief negotiator with Russia. Evidence suggests that Zeng likely did not carry many Chinese maps with him to Russia. While there is no definitive proof that he left all Chinese maps behind in London office, a later correspondence in 1881 offers some insight. As France began to exert influence over Tonkin in northern Vietnam, the Qing court consulted Zeng about the Sino-Vietnamese border. Zeng replied that he could not assist because he had not brought any Chinese

⁷⁸ “Zongshu zou Eguo fenjie tongshang geshi jing shending qianzhu niyi banfa zhe,” *Qingji waijiao shiliao*, vol. 2, 374.

⁷⁹ Zeng Jize, *Chushi Yin Fa E guo riji*, 375. It remains unclear whether these Chinese annotations were made by Zeng himself or by other Chinese scholars.

maps with him to Russia, and the Qing embassy in St. Petersburg did not have the relevant maps.⁸⁰

While this correspondence does not definitively prove that Zeng eschewed Chinese maps during his Russian mission, it strongly suggests that he relied primarily on European-acquired maps for the Sino-Russian negotiations. This decision can be attributed to the Qing's lack of sophisticated cartographic resources, but it was also facilitated by the expertise within Zeng's negotiation team, which included three translators and two Europeans capable of interpreting and translating Russian maps.⁸¹ Despite the absence of Chinese cartographic sources, Zeng's team possessed the linguistic and technical skills necessary to effectively utilize European maps in the negotiations.

Although the negotiations in St. Petersburg could be seen as a diplomatic victory for the Qing, this success was less about effective map usage and more about recognizing Russia's vulnerable position following the 1877 Russo-Turkish War. The Qing government was aware that this conflict in the Middle East had garnered support for the Ottoman empire from Britain and France, creating serious tensions between Russia and its powerful European neighbors. As early as 1877, Zuo Zongtang had advised the court, saying, "The reason why British speaks on behalf Andijan is that they are concerned that Russian encroachment into the region (figure 5) would be detrimental to their interests. Russia is in a stalemate with Great Britain over Turkey. We could restore our old territories through a justified military campaign. What grounds could they have for objection? If any unexpected disputes or complication arise, we will stand on principles without bending or compromising" 英人為安集延說者，慮俄之蠶食其地，于英有所不利。

⁸⁰ Zeng Jize, "Bali zaizhi zongshu zongban" 巴黎再致總署總辦, *Zeng Jize ji*, 180.

⁸¹ Li Enhan 李恩涵, *Zeng Jize de waijiao* 曾紀澤的外交 (Zhongyang yanjiu yuan jingdaishi yanjiu suo, 1982), 118.

俄方爭土耳其，與英相持。我收復舊疆，兵以義動，彼將何以難之？設有意外爭辯，枝節橫生，在我仗義執言，亦決無所撓屈。⁸² This view was commonly held among Qing's hawkish faction, a perspective Zeng Jize was aware of but disagreed with. In a memorial, Zeng Jize questioned the wisdom of exploiting Russia's isolation from European powers. Zeng argued that there was no guarantee that Europeans would not side with Russia if the Qing declared war over western Xinjiang; Western powers might seize the opportunity to exploit China despite their own disputes.⁸³ Zeng believed that peaceful negotiation was the Qing's only viable option.

Despite much research framing Zeng's mission to Russia as a victory, he never relied on maps to secure this win. For instance, in the midst of negotiations, Yevgeny K. Buytsov, the Russian ambassador to China, argued that Russia should retain sovereignty over three villages near the Kashgar border:

Zeng: "Regarding the area west of the Tekes River (figure 16), you previously mentioned there were three Russian villages. Have you had a chance to look at a map concerning them?"⁸⁴

Buytsov: "I have seen a map."

Zeng: "Could you please point out the locations of those three villages?"

Buytsov hands over a map, points to three villages west of the Tekes River, and says: "They're just a small corner."

Zeng: "Where is the boundary that General Mingyi agreed upon?"

Buytsov points to the map and says, "It's this green line here."

Zeng: "From what I observe, these areas are not adjacent to the region west of Ili city. I find it difficult to concede them to you."

曾侯曰：帖克斯川西邊，日前據布大人言有三處村莊，請問布大人已看地圖否？

布云：我已看過。

曾侯曰：三村究在何處，可請布大人指出？

布遂出地圖一紙，指出三村在帖克斯川西邊，乃向曾侯云：不過一隅之地。

⁸² Zuo Zongtang, "Zunzhi tongchou quanju zhe" 遵旨統籌全局摺, *Zuo Zongtang quanji*, vol. 6, 649.

⁸³ Zeng Jize, "Jingchen guanjian shux" 敬陳管見疏, *Zeng Jize ji*, 20.

⁸⁴ Regarding the transliteration of the Chinese name for the Tekes River, there is variation among sources. Zeng Jize's meeting minutes and Hong Jun's map refer to it as "Tiekeshi (帖克斯)," while other sources such as Zou Daijun's *Map of the Sino-Russian Border* (figure 16) and writing by Xu Jingcheng adhere to court conventions, using "Tekeshi (特克斯)" river. For further details, see Xu Jingcheng 許景澄, *Xibei bianjie diming yihan kaozheng* 西北邊界地名譯漢攷證, in *Xu Jingcheng ji* 許景澄集 (Zhejiang guji chubanshe, 2015), vol. 5, 1432.

曾侯曰：明界在何處？

布指圖云：及此綠線也。

曾侯曰：我看此地與伊犁西邊不相連數，似乎另讓地方，我實難答應。⁸⁵

This dialogue epitomizes how maps were utilized during the negotiation; only Russian maps were used to advance border talks. Even the border agreed upon by Mingyi in 1864 was referenced through Russian maps. It seems unlikely that Zeng would have gone back to consult Chinese maps. Three days later, Zeng revisited Buytsov and asked, “A few days ago, there was a map that you showed us at the Ministry of Foreign Affairs. Did you draft it yourself or was it purchased from a bookstore?” Buytsov responded, “It was purchased from a bookstore, same as the map your esteemed office has on display.”⁸⁶

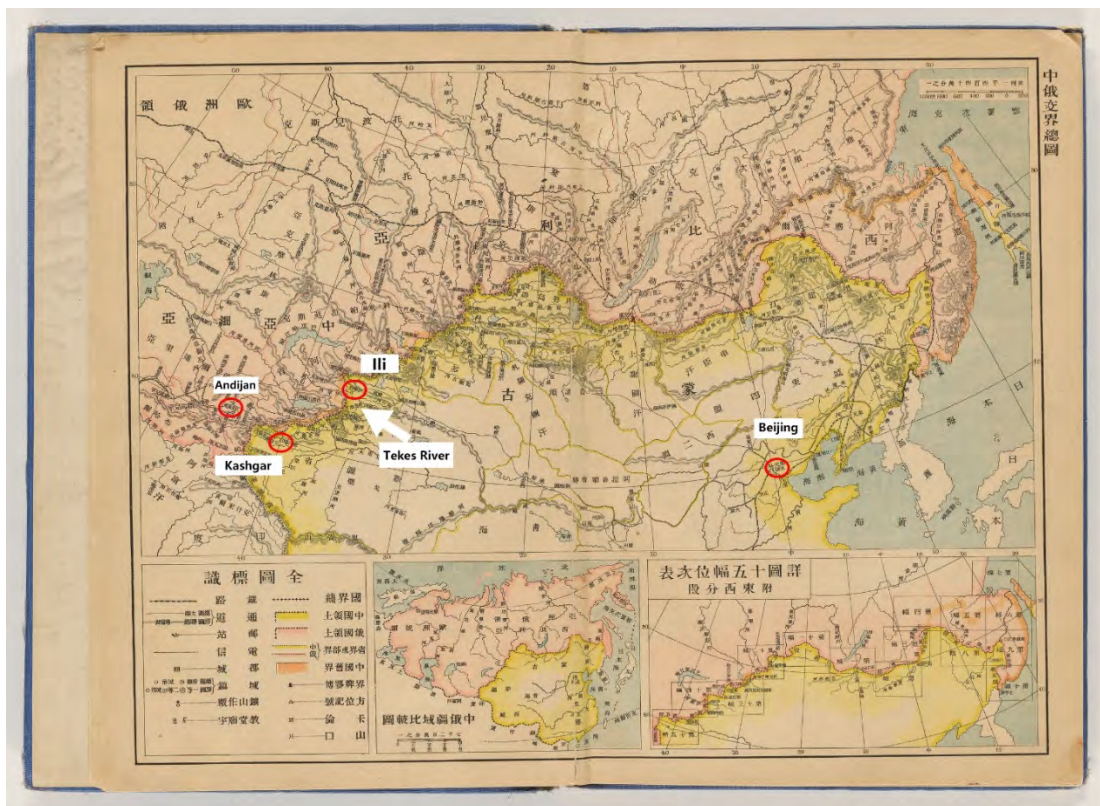


Figure 16: “Zhong E jiaojie zongtu” 中俄交界總圖. Source: Zou Daijun, Zhong E jiaojie xiangtu 中俄交界詳圖. Wuchang: Wuchang yaxin dixue she, 1911.

⁸⁵ Zeng Jize, *Jinyao choubi*, vol. 3, 15-16.

⁸⁶ Zeng Jize, *Jinyao choubi*, vol. 3, 19.

This exchange reveals two key points: First, Zeng's team already possessed the same map that the Russians used in the negotiation. They had collected so many maps during their time in Europe, and presumably Russia, that Zeng did not even remember owning this specific one. Second, the Russians did not rely on secret, government-exclusive maps; they used publicly available ones, though it is possible the Russians consulted their own confidential maps without sharing them with Zeng. Zeng's team was proficient enough to interpret these maps, which they had purchased themselves. In another meeting focused on the Qing garrison, Zeng stated, "From what I understand, it's feasible to consult the maps and systematically omit sections where Qing garrisons are densely located" 據我看來，儘可查閱地圖，將卡倫稍密之處逐段刪減。 Buytsov sought to defer this discussion, prompting Zeng to reply, "My only request is that you send me a copy of the list of the garrisons" 只請布大人將卡倫單送與我看可也。⁸⁷ In summary, both the maps and the geodata for Qing military stations in western Xinjiang relied on Russian information.

In light of this, it is worth reevaluating whether Zeng Jize's mission can truly be deemed a diplomatic victory. On a macro level, the answer seems to be positive. The Treaty of St. Petersburg allowed the Qing to reclaim a significant portion of its territory. The 1881 treaty stipulated that the Sino-Russian border would be restored to its 1864 agreement, effectively returning large swaths of western Xinjiang to Qing control.

However, a closer examination reveals a more nuanced picture. The 1864 Mingyi's border agreement lacked on-the-ground surveys and specific demarcations. Essentially, several borders necessitated direct verification by frontier officials from both sides to collaboratively

⁸⁷ Zeng Jize, *Jinyao choubi*, vol. 4, 44.

determine the lines.⁸⁸ Therefore, the Treaty of St. Petersburg did not finalize the border; this task was left to frontier officials in the ensuing years.⁸⁹ Given this, it is crucial to explore how these officials negotiated with the Russians on the sites. Were Russian maps employed in these local negotiations in the same way they were during the talk in St. Petersburg?

On-Site Border Negotiations in the early 1880s

In August 1881, China and Russia signed and exchanged a treaty in St. Petersburg. By early 1882, the Zongli Yamen had dispatched three teams to collaborate with Russian officials on a geographical survey of western Xinjiang's border. This border was divided into three sectors: Chuguchak, Ili, and Kashgar. Changshun 長順 (1839-1904) was assigned to Chuguchak, and Shakedulinzhabu 沙克都林扎布 (1842-1897) to Kashgar, while another group was designated for the Ili sector.⁹⁰ Over the course of two years, from 1882 to 1884, both Qing and Russian frontier officials determined new borders.

The core question here revolves around the types of maps used during the negotiations. In fact, a map had already been approved by both the Russian and Qing states as part of the Treaty of St. Petersburg, and the coordinated survey missions were conducted based on that map. While we do not know exactly which map was used, a 1906 border map catalog does not list any maps explicitly attributed to Zeng Jize's negotiation. Instead, it includes two maps specifically linked

⁸⁸ It is worth noting that Mingyi's 1864 treaty was not the last instance of on-site demarcation surveys between the Qing and Russia. Negotiations over the Qing's northern frontier with Russian Siberia continued intermittently, though they primarily concerned the Mongolian frontier. It was not until the Treaty of St. Petersburg that efforts to delineate the Xinjiang border formally began. For further details on these minor border negotiations, see Lu Yiran ed., *Zhongguo jindai bianjie shi* (Renmin Chubanshe, 2013), vol. 2, 347-359. For border maps related to the negotiations of the late 1860s and early 1870s, see *Shiluo de jiangyu: Qingji xibei bianjie bianqian tiaoyue yutu tezhan*, 36-48.

⁸⁹ *Zhong E bianjie tiaoyue ji*, 54.

⁹⁰ *Qing shilu xinjiang ziliao jilu* 清實錄新疆資料輯錄, ed. by Zhou Xuan 周軒 et al. (Xinjiang daxue chubanshe, 2017), vol. 8, 4171, 4176 (entries of 1881/6/16 and 1882/9/14). About more Changshun's sources, see *Jindaishi suo cang Qingdai mingren gaoben chaoben* 近代史所藏清代名人稿本抄本, collection 1, edited by Yu Heping 虞和平, vol. 75-81. Zhengzhou: Daxiang chubanshe, 2011.

to Mingyi's 1864 treaty and Chonghou's 1879 treaty.⁹¹ Given that Zeng's mission aimed to restore the demarcation established in the 1864 treaty, it is likely that his negotiations did not result in a newly created map. Instead, the map approved by the Zongli Yamen in 1881 should have been either similar to or based on Mingyi's map (figure 3), which had been produced by the Russians. In fact, a map preserved in the Taipei Palace Museum closely resembles figure 3, differing only in the addition of a few more place names.⁹² This suggests that both parties used Russian maps for the on-site demarcation. Once they reached a consensus on border delineation, they would then draft and exchange the corresponding maps.⁹³

The Qing representatives, though divided into three teams overseeing different border sectors, can be broadly classified into two types based on their backgrounds. One type was Manchu officials stationed in Xinjiang. Another was Han military leaders who had recently arrived with Zuo Zongtang's army in the 1870s. These Han generals, as I will show, were reluctant to cede any territory. They critically examined the Russian-derived maps, particularly when these maps conflicted with Chinese sources and local nomadic testimonies, challenging the map demarcations approved by the Manchu officials.

Let us examine the actions taken by Manchu delegates and Xiang military leaders when faced with discrepancies between Qing sources and Russian maps. It is important to note that despite their high-ranking positions on the frontier, the Manchus lacked, understandably, detailed knowledge of the local geography. In such instances, one option was to consult local low-ranking functionaries. Yet, Changshun expressed concerns regarding the potential influence of "corrupt" functionaries and local officials. To counter this, they turned to the map made by Russians. This

⁹¹ *Ditu fenbian jianming mulu*, 15.

⁹² "Xibei Zhong E jiaojie tu," *Shiluo de jiangyu: Qingji xibei bianjie bianqian tiaoyue yutu tezhan*, 26-27.

⁹³ "Yili jiangjun Jinshun deng zou Zhong E jiewu chongkan jun shizhe" 伊犁將軍金順等奏中俄界務重勘竣事折, *Qingji waijiao shiliao*, vol. 2, 592.

approach underscores a notable characteristic: while the Zongli Yamen provided map to guide the delegates on-site, there was a discernible preference for Russian maps over indigenous Qing mappings.⁹⁴

However, reliance on foreign maps was not universal among Qing officials. In late 1882, Shakedulinzhabu concluded negotiations and drafted a border treaty for the Kashgar sector, which was then forwarded to Liu Jintang 劉錦棠 (1844–1894), the military commander-in-chief of Xinjiang. In April 1883, Liu submitted a memorial to the throne, highlighting significant issues with the Kashgar border treaty. He argued that the agreement contravened Mingyi's 1864 border treaty, which had defined the top ridge of the Kokshaal Range as the border with Russia 中干之頂為界.⁹⁵ Examining the 1864 treaty map (figure 3), we can clearly see that the red boundary line runs directly across the top of the Kokshaal Range.

But what about the map made for the 1882 treaty? Take a look at Shakedulinzhabu's 1882 map (figure 17)—a Russian-produced map written entirely in Manchu and Russian, with Chinese place names later added in red annotations—the boundary line appears similar to that in the 1864 map. So why did Liu Jintang accuse Shakedulinzhabu of having a different treaty that violated the 1864 agreement and resulted in significant territorial concessions? The issue did not stem from the Kashgar border map that both parties had approved but rather from the on-site survey and the placement of border stele. Some scholarship suggests that Shakedulinzhabu and Russian delegates mistakenly confused two locations both named “Gongguluke” (Koshaal), but this claim is incorrect.⁹⁶ According to Liu, the real issue was that they placed the stele not at the top ridge

⁹⁴ “Yili jiangjun Jinshun deng zou Zhong E jiewu chongkan jun shizhe,” *Qingji waijiao shiliao*, vol. 2, 591.

⁹⁵ “Xinjiang duban Liu Jintang zou Xinjiang nanjie zhi Gonggu luke difan yichen huajie weiding juyue suohuan zhe” 新疆督辦劉錦棠奏新疆南界之貢古魯克地方宜趁劃界未定據約索還折, *Qingji waijiao shiliao*, vol. 2, 602.

⁹⁶ Li Zhiqin edits, *Xiyu shidi sanzhong ziliao jiaozhu* (Xinjiang renmin chubanshe, 2012), 138, 148.

but at the foot of the Kokshaal Range, effectively shifting the Qing's legitimate borderline southward and thereby ceding a portion of the range to Russia. This was not due to the negotiating delegates failing to reach the ridge; according to Shakedulinzhabu's diary, they did successfully climb to the top area, despite the considerable difficulty.⁹⁷ However, they ultimately agreed to place the marker at the mountain foot, which Liu warned posed a serious strategic threat by compromising Qing control over the route to Ili. The Kokshaal Range, he emphasized, was a crucial junction linking Ili in the north with Uchturfan and Aksu in the south. The loss of this territory, he contended, weakened Ili's geo-strategic position and disrupted regional connectivity. To support his claims, Liu referenced Mingyi's 1864 treaty, Zeng Jize's treaty, and Qing official sources, all of which consistently marked the top of Kokshaal Range as the official border, with its southern part belonging to Qing territory.⁹⁸

⁹⁷ Shakedulinzhabu, *Nanjiang kanjie riji tushuo*, in *Xiyu shidi sanzong ziliao jiaozhu*, ed. by Li Zhiqin, 112.

⁹⁸ "Xinjiang duban Liu Jintang zou Xinjiang nanjie zhi Gonggu luke difan yichen huajie weiding juyue suohuan zhe," *Qingji wajiao shiliao*, vol. 2, 602.

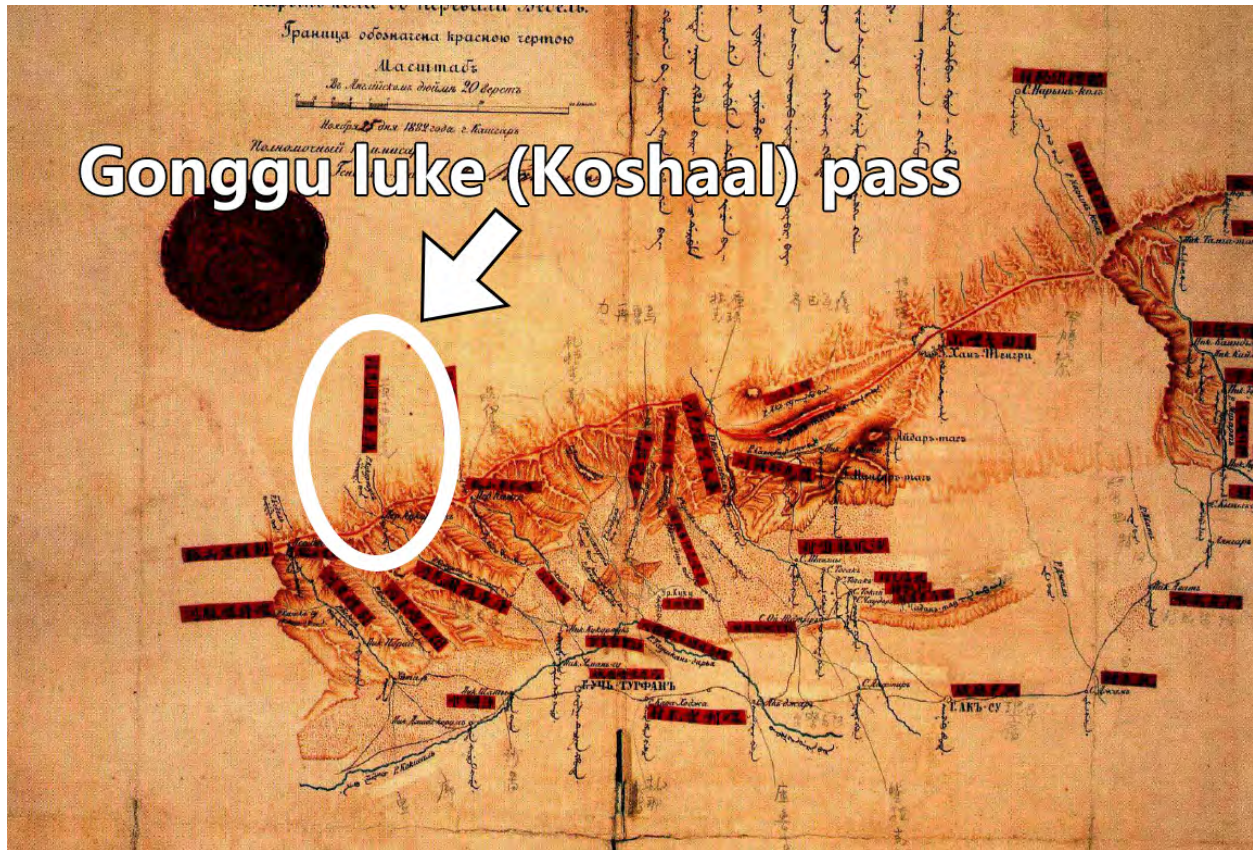


Figure 17: “Kashi ga'er Zhong E dingjie tu” 喀什噶爾中俄定界圖. Source: *Shiluo de jiangyu: Qingji xibei bianjie bianqian tiaoyue yutu tezhan*, 88.

Another controversial point in the Kashgar treaty concerned Irkeshtam (figure 18). Later the same year, Zhang Yao 張曜 (1832-1891), an officer of the Xiang army, submitted a memorial to Beijing highlighting a critical issue with the agreement made by Shakedulinzhabu.⁹⁹ The agreement proposed setting up a border marker at Irkeshtam, a location where Russian influence was increasing.¹⁰⁰ Zhang pointed out that this demarcation deeply distressed the indigenous nomadic communities, as it especially bisected their ancestral grazing lands in Terek Dawan (figure 18), abundant in water and vegetation. He emphasized that the new demarcation would

⁹⁹ About Zhang Yao's life and career, see Zhang Huaigong 張懷恭 and Zhang Ming 張銘, *Qing qinguo gong Zhang Yao nianpu* 清勤果公張曜年譜 (Zhejiang guji chubanshe, 2009).

¹⁰⁰ Morrison, *The Russian Conquest of Central Asia. A Study in Imperial Expansion, 1814–1914*.

sever these native people from their essential means of livelihood.¹⁰¹ Zhang further contended that, in accordance with the treaty negotiated by Zeng Jize, the new border should align with the “territory currently under administration” 現管之地, and he asserted that Irkeshtam was, at the moment, under Qing administration.¹⁰² Consequently, Zhang Yao created an alternative map and submitted it to the imperial court, arguing that the map approved by the Zongli Yamen contained inaccuracies.¹⁰³ The new map featured a revised borderline, which Zhang believed to be more appropriate.

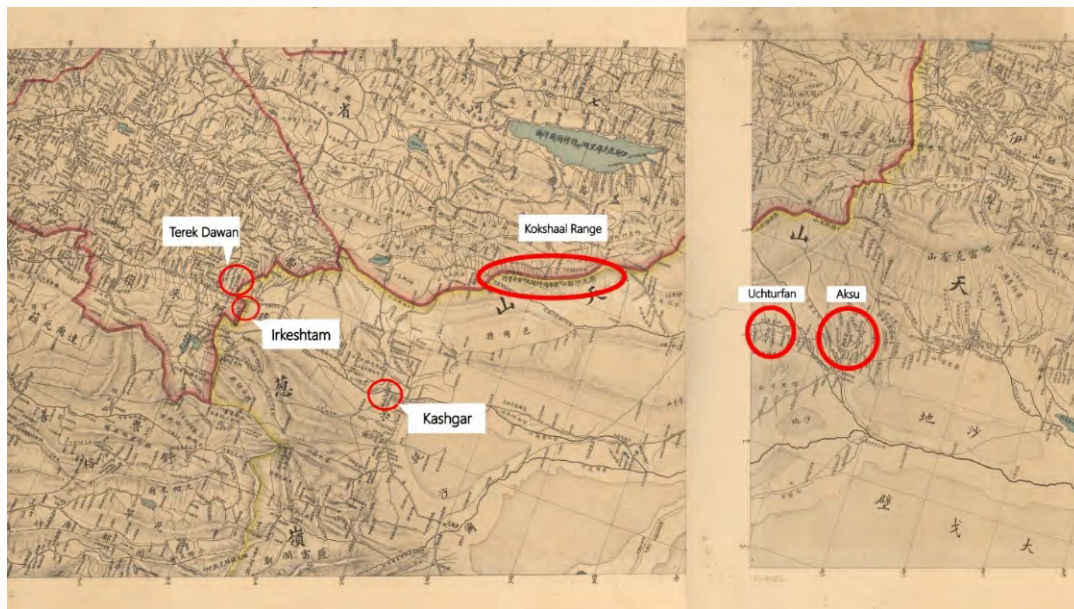


Figure 18: The geography of Altishahr. Source: Hong Jun, *Zhong E jiaojie quantu* (1890).

¹⁰¹ “Hami bangban dachen Changshun zou kanfen Xinjiang nanduan jiewu zhe” 哈密幫辦大臣長順奏勘分新疆南段界務折, *Qingji waijiao shiliao*, Vol.2, 709. The placename “Terek Dawan” is used following Aurel Stein’s (1862-1943) map. For more details, see Stein’s map collection of Xinjiang and Gansu, available on the “Mountains of Central Asia Digital Dataset” website (“Sheet No 05 Terek Dawan”). <https://pahar.in/94-maps-of-chinese-turkistan-and-kansu-by-stein-253-k-scale/>, last accessed February 7th, 2025.

¹⁰² “Hami bangban dachen Changshun zou kanfen Xinjiang nanduan jiewu zhe,” *Qingji waijiao shiliao*, vol. 2, 709.

¹⁰³ “Hami bangban dachen Changshun zou kanfen Xinjiang nanduan jiewu zhe,” *Qingji waijiao shiliao*, vol. 2, 709.

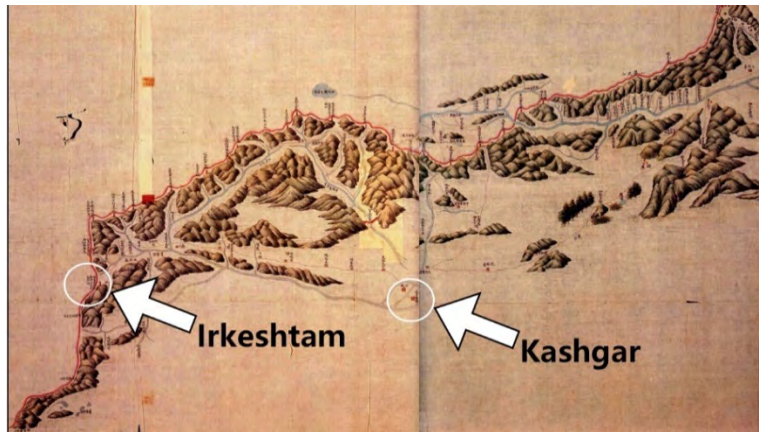


Figure 19: The map of southern section of Kashgar border 新疆喀什噶爾中俄南段交界圖. Source: Shiluo de jiangyu: Qingji xibei bianjie bianqian tiaoyue yutu tezhan, 92-93.

This so-called “territory currently under administration” term originated from one of Zeng Jize’s treaty stipulations. The ninth stipulation reads:

The border areas between Russia’s Ferghana Province and the western side of China’s Kashgar will also be inspected by commissioners appointed by both states. The demarcation will be based on the territory currently under administration by the two states, and border markers will be established accordingly.

俄國所屬之費爾干省與中國喀什噶爾西邊交界地方，亦由兩國特派大員前往查勘，照兩國現管之界勘定，安設界牌。¹⁰⁴

According to Zeng Jize’s testimony, the term “territory currently under administration” was introduced because Zeng sought to revert to the 1864 agreement rather than adhere to

¹⁰⁴ Zhong E bianjie tiaoyue ji, 55.

Chonghou's terms. The 1864 agreement, however, lacked comprehensive demarcation details. Thus, during the negotiations, Zeng proposed reverting to the 1864 agreement's state, suggesting that for indeterminate areas like the region west of Kashgar, the borders should be jointly determined by frontier commissioners from both sides.¹⁰⁵ Initially, Russia was reluctant to accept this proposal but eventually agreed, provided that Qing would cover the costs of Russia's military occupation of Ili city.

This was reflected in a dialogue between Zeng and Buytsov:

Buytsov: "Let's put this aside for now. First, in the ninth clause, we should discuss moving the part about the timing and location of the commissioners' meeting to an earlier part, and shifting the part on the appointment of commissioners to a later part. Following that, we address the Kashgar sector. It should be noted that both nations will appoint commissioners to jointly survey the border areas between Ferghana province and Kashgar."

Zeng: "Will this survey be based on the principle of 'territory currently under administration'?"

Buytsov: "It's not necessary to state that explicitly. We'll simply document it as a determination according to the existing borders of both states. Do you grasp the implication, sir? This inherently means a demarcation based on 'territory currently under administration.'"

Zeng: "I am indifferent to the underlying implication. However, I will concur on the condition that the treaty specifies the Kashgar border is to be delineated through a joint survey by appointed commissioners from both sides."

布云：少刻再說，先說第九條將後段之會晤地方時日，移寫在前，將前段之遣派分界大臣之語移寫在後，下即接寫喀界，可寫費爾干省與喀什噶爾毗連之界，兩國派大員勘分。

曾侯曰：是按照現管之界勘分否？

布云：可不必說，只云照兩國界去定，貴爵能曉此意否？此即按照現管之界勘分之意。

曾侯曰：我不論是何意思，但云喀界由兩國派大員會勘酌定，我就可以答應。¹⁰⁶

The rationale for adopting "territory currently under administration" emerged primarily because both sides lacked precise geographical data of those border sectors. In an earlier conversation,

¹⁰⁵ Zeng Jize, *Jinyao choubi*, vol.3, 4-5.

¹⁰⁶ Zeng Jize, *Jinyao choubi*, vol.3, 20.

when a Russian official hesitated to agree to the 1864 Mingyi agreement and questioned Zeng about the availability of a map of the Kashgar sector, Zeng responded, “I don’t have a Chinese map at hand. The only map available here is one drawn by the military, based on Yakub Beg’s regime. However, this map includes parts of what is now Russian territory, which clearly deviates from the border treaty established by General Mingyi” 曾侯曰：此地無中國地圖，本爵處所存該處地圖乃係該處帶兵官所繪其圖，按照阿古柏之地境，頗有侵占俄國地方、與明將軍界約不合者。¹⁰⁷ Eventually, in the absence of detailed maps of the Kashgar border, both parties agreed to utilize “territory currently under administration” as their guiding principle for demarcation.

Consequently, the crux of the issue lay in the differing interpretations of the term “territory currently under administration.” While Xiang army persons like Liu Jintang and Zhang Yao contended that portions of territory under Qing administration were being ceded to Russia, other frontier officials, such as Changshun and Shakedulinzhabu, aligned with the Russian viewpoint. In a memorial, Changshun asserted that the new border around Kokshaal Range (figure 18) was demarcated accurately.¹⁰⁸ Changshun also defended Shakedulinzhabu’s actions, stating that he correctly delineated the Sino-Russian border in accordance with the map endorsed by the Zongli Yamen.¹⁰⁹ Additionally, Changshun dismissed the strategic significance of Irkeshtam, describing it as merely a location “isolated in a corner” 孤懸一隅.¹¹⁰ The Manchu representative conceded only that the redrawing of borders resulted in the cession of Terek

¹⁰⁷ Zeng Jize, *Jinyao choubi*, vol. 3, 5.

¹⁰⁸ “Yili jiangjun Jinshun deng zou huitong Eshi kanfen Xinjiang nanjie zhe” 伊犁將軍金順等奏會同俄使勘分新疆南界折, *Qingji waijiao shiliao*, vol. 2, 773.

¹⁰⁹ “Zongshu zouzun yi Kashi ga’er xibian qingxing zhe” 總署奏遵議喀什噶爾西邊界務情形折, *Qingji waijiao shiliao*, vol. 3, 927.

¹¹⁰ “Yili jiangjun Jinshun zou chaming nanlu Kashi ga’er xibian jiewu qingxing zhe” 伊犁將軍金順奏查明南路喀什噶爾西邊界務情形折, *Qingji waijiao shiliao*, vol. 3, 870.

Dawan to Russia. However, Changshun downplayed the loss of Terek Dawan, citing its lack of strategic value and the availability of alternative grazing lands for local nomads.

Furthermore, Changshun vehemently disagreed with Zhang Yao's report. He was "completely shocked" 聞之不勝駭異 upon reviewing Zhang's memorial, recalling that Zhang was present during the negotiations, where it was agreed to adhere to the treaty map's red line for border demarcation.¹¹¹ As shown in figure 19, the treaty map delineates the border along Irkeshtam, west of Kashgar, without including Terek Dawan. Given that both sides had already agreed on this borderline, Changshun feared that deviating from this line would lead to further territorial losses for the Qing, since the Russian might then press claims to territories under Qing administration. Changshun further accused Zhang Yao of submitting a map with an alternate border line, differing from the one approved by the Zongli Yamen in the treaty. The Manchu representative charged Zhang Yao with fabricating an erroneous boundary, potentially undermining the Great Qing's international credibility.¹¹²

Changshun underscored that the outcome of this new border negotiation was "a net gain without loss" 有得無失 for the Qing, a view also supported by Jinshun 金順 (?-1886), the Ili General, who held the highest office in these frontier negotiations.¹¹³ Jinshun reported to the Zongli Yamen that, according to the original map by Zeng Jize, the results indeed represented "a net gain without loss." Subsequently, Liu Jintang moderated his assertive position, conceding that Irkeshtam was not a strategically vital frontier location.¹¹⁴ Ultimately, the Zongli Yamen

¹¹¹ "Hami bangban dachen Changshun zou Zhong E nanlu huajie haowu chuancuo zhe" 哈密幫辦大臣長順奏中俄南路劃界毫無舛錯折, *Qingji waijiao shiliao*, vol. 2, 719-720.

¹¹² "Hami bangban dachen Changshun zou Zhong E nanlu huajie haowu chuancuo zhe," *Qingji waijiao shiliao*, vol. 2, 720.

¹¹³ "Hami bangban dachen Changshun zou kanfen Xinjiang nanduan jiewu zhe," *Qingji waijiao shiliao*, vol. 2, 710.

¹¹⁴ "Yili jiangjun Jinshun zou chaming nanlu Kashi ga'er xibian jiewu qingxing zhe," *Qingji waijiao shiliao*, vol. 3, 870.

concluded that, given the installed border signs, initiating a new negotiation would be overly burdensome and risk provoking Russia to demand additional territory from China. Therefore, the Qing court deemed further renegotiation unnecessary.¹¹⁵

In fact, Zeng Jize's early account suggests that the red line demarcated on the approved map was intended to be temporary, pending an actual on-site survey. However, the Russian delegates insisted on the authority of the Russian-derived map, advocating for the establishment of border steles based on this provisional line. From the Qing court's perspective, some territory loss to Russia was seen as an acceptable compromise, primarily aimed at restoring control over Ili and its neighboring areas. Manchu officials viewed this re-demarcation as a benign concession. Conversely, the Han military leadership sought to maximize territorial gains, demonstrating a strong commitment to maintaining "Chinese territory." Although Liu Jintang relented on his original proposal eventually, the sentiment of protecting "old Chinese territory" was further reflected in the Han literati's growing intolerance toward using foreign maps, as they increasingly perceived such reliance as detrimental to "national" interests.

Question of "Chinese old border"

As we have seen in the series of border negotiations with Russia since the 1860s, what counted as the territory of "China" or "the Great Qing" emerged as a complex issue.¹¹⁶ In the 1880s, debate concerned the western Xinjiang border centered on the concept of "territory under current administration." This raised questions about whether Qing territory was defined by the areas where the Qing could exert political and military influence, or by the territories outlined in

¹¹⁵ "Zongshu zouzun yi Kashi ga'er xibian qingxing zhe," *Qingji wajiao shiliao*, vol. 3, 928.

¹¹⁶ The eighteenth-century Qing maps were also complex but in a different way. Cams illustrates how these atlases, such as the one from the Yongzheng era, depicted the Qing's northwestern expansion towards Jungharia by presenting a borderless or "open-ended" northwestern frontier, suggesting an ongoing territorial expansion. Mario Cams, "Reimagining Qing Space: Yongzheng's Eurasian Atlas (1727–29)," *Late Imperial China* 42, no. 1 (2021): 122.

the 1864 treaty, over which the empire had little substantial control. Han political elites like Zeng Jize, Liu Jintang, and Zhang Yao argued that a treaty-defined territory should be recognized as Qing lands. Conversely, Manchu officials such as Changshun, Jinshun, and Shakedulinzhabu contended that territories without strategic importance and substantial Qing control could be relinquished in the course of on-the-ground negotiations. This debate was not unique to the northern frontiers; similar discussions occurred during negotiations with France over the Sino-Vietnamese border, where the concept of “Chinese territory” was similarly contested.¹¹⁷

Zhang Zhidong, the incumbent Liangguang governor general who was one of the important persons behind the negotiations with France, was no longer satisfied with merely defending the territories under direct Qing control.¹¹⁸ He sought to define “China” more broadly, incorporating historical claims from previous dynasties. During these discussions, the significant notion of the “Chinese old border” was further conceptualized.

Before diving into this notion, I should briefly explain my choice of translation. The proper translation of *Zhongguo* has been a subject of contentious debate, particularly regarding whether the Qing should be considered China. This debate centers on the complex identity of the Manchu rulers who presided over the last imperial dynasty of “China.”¹¹⁹ However, recent scholarship beyond Qing and modern Chinese history has also observed a rising sense of *Zhongguo* dating back to the Song dynasty. This concept was not only an ethnic and cultural

¹¹⁷ Robert David Sack, *Human Territoriality: Its Theory and History*, Cambridge Studies in Historical Geography 7 (Cambridge University Press, 1986), 5. Winichakul, *Siam Mapped: A History of the Geo-Body of a Nation*, 16–17.

¹¹⁸ About Zhang’s tenure as the Liangguang governor general (1884-1889), see Wu Jianjie 吳劍杰 edits, *Zhang Zhidong nianpu changbian* 張之洞年譜長編 (Shanghai Jiaotong daxue chubanshe, 2009), 117-243.

¹¹⁹ There is a vast body of scholarship on this topic, so it would be impossible to cite all of it here. For brief overviews of the historiography, see Gang Zhao, “Reinventing China: Imperial Qing Ideology and the Rise of Modern Chinese National Identity in the Early Twentieth Century,” *Modern China* 32, no. 1 (2006): 3–5; Matthew Mosca, “Neither Chinese Nor Outsiders: Yi and Non-Yi in the Qing Imperial Worldview,” *Asia Major* 33, no. 1 (2020): 103–8; Ruth W. Dunnell, ed., *New Qing Imperial History: The Making of Inner Asian Empire at Qing Chengde* (Routledge, 2004), 1–11.

marker differentiating the Song from its powerful northern neighbors but also a political-spatial idea asserting the existence of *Zhongguo* as a distinct space.¹²⁰ While this notion was disrupted by the Mongol conquest in the thirteenth century, it resurged during the Ming period, where *Zhongguo* frequently appeared in contexts involving interactions with the Mongols and later the Manchus.¹²¹ The meaning of *Zhongguo* became even more complex during the Qing period, as Manchu rulers carefully preserved their ethnic identity and cultural practices while deliberately expanding the definition of *Zhongguo* into a multiethnic framework.¹²² While the term may have carried complex meanings for the Manchu ruling elites and Mongol aristocracies before the mid-1800s, those immersed in Han cultural traditions and historical consciousness often understood *Zhongguo* in a spatial sense. Based on these considerations, I choose to translate *Zhongguo laojie* as “Chinese old border,” which encapsulates its politico-spatial connotation.

The term “Chinese old borders” became a contentious point primarily due to the 1885 Treaty of Tianjin between the Qing and French empires. Article three of the treaty specifically dictated the need for both parties to launch negotiations over the borderlines between the Qing empire and the Nguyễn kingdom:

Within an interval of six months from the signature of the present treaty, designated commissioners will go to jointly delineate the frontier between China and Bắc Kỳ (Tonkin). They will place, wherever there is need, boundary markers designed to clearly delineate the line of demarcation. In the case where they can not agree among themselves on the placement of the markers or on the rectifications of detail in the current borderline

¹²⁰ Nicolas Tackett, *The Origins of the Chinese Nation: Song China and the Forging of an East Asian World Order* (Cambridge University Press, 2017), chap. 4.

¹²¹ Kishimoto Mio 岸本美緒, “‘Chūgoku’ no kōtō - Meimatsu no bunshō shoshiki ni miru kokka ishiki no ichimen” 「中国」の擡頭 - 明末の文章書式に見る国家意識の一側面, *Tōhōgaku 東方学* 118 (2009): 1-21. Kishimoto Mio, “‘Zhongguo’ he ‘waiguo’ - Ming Qing liang dai lishi wenxian zhong sheji guojia yu duiwai guanxi de yongyu” 「中國」和「外國」: 明清兩代歷史文獻中涉及國家與對外關係的用語, in *Fu'an de lishi: Dang'an kaojue yu Qing shi yanjiu* 覆案的歷史: 檔案考掘與清史研究, ed. by Chen Xiyuan 陳熙遠 (Zhongyang Yanjiuyuan, 2013), vol. 2, 357-393.

¹²² Elliott, *The Manchu Way: The Eight Banners and Ethnic Identity in Late Imperial China*; Mosca, “Neither Chinese Nor Outsiders: Yi and Non-Yi in the Qing Imperial Worldview”; Zhao, “Reinventing China”; Nicola Di Cosmo, “Qing Colonial Administration in Inner Asia,” *International History Review* 20, no. 2 (1998): 287–309.

of Bắc Kỳ which it may be necessary to make in the common interest of both parties, they will refer it to their respective governments.

自此次訂約畫押之後起，限六個月期內，應由中、法兩國各派官員，親赴中國與北圻交界處所，會同勘定界限。倘或於界限難與辨認之處，即於其地設立標記，以明界限之所在。若因立標處所，或因北圻現在之界，稍有改正，以期兩國公同有益，如彼此意見不合，應各請示於本國。¹²³

While this treaty clause is concise, the interpretations by Qing and French delegates sharply diverged. The phrase “on the rectifications of detail in the current borderline of Bắc Kỳ” became a major point of controversy. The French viewed this statement as conditional, implying that any slight rectifications to the Tonkin borderline would necessitate a referral back to their respective governments for approval. Conversely, the Qing interpretation viewed the clause as a directive, where rectifications outlined in the treaty were to be implemented. Consequently, the debate centered around defining what the “current borderline of Bắc Kỳ” was, with Qing representatives arguing that territorial rectification stipulated in the treaty — i.e. “on the rectifications of detail in the current borderline of Bắc Kỳ”—should be enacted. With this interpretation, the Qing representatives focused on defining the “current borderline of Bắc Kỳ” as stipulated by the treaty.¹²⁴ However, the term itself evolved through the course of communications among Qing officials, eventually mingled with the term “old border.”

Before the Sino-French negotiations began in mid-1885, the term “Chinese old border,” combining “Zhongguo” 中國 (China) and “laojie/jiujie” 老界/舊界 (old border), each had a longstanding presence in the Qing documents.¹²⁵ The term “laojie/jiujie” typically referred to

¹²³ “Zhong Fa Yuenan tiaoyue” 中法越南條約, *Zhongguo jindai shi ziliao congkan: Zhong Fa zhanzheng* 中國近代史資料叢刊: 中法戰爭 (Shanghai renmin chubanshe, 1957), vol. 7, 423

¹²⁴ Caleb Ford, “Negotiating Sovereignty on the Sino-Vietnamese Frontier: Late-Qing Foreign Policy and the Mapping of the Chinese Nation,” (PhD diss., University of California, Berkeley, 2021), 49-55. For more details about how the Qing commission argued for the validity of territorial rectification, see *Faguo dang'an zhong de Qingmo Zhong Fa (Zhong Yue bian jie) huajie shiliao xuanbian* 法國檔案中的清末中法（中越邊界）劃界史料選編 (Shehui kexue wenxian chubanshe, 2016), vol. 2, 665-680.

¹²⁵ I utilized two major databases for this search: *Zhongguo jiben guji ziliao* 中國基本古籍資料庫 (Chinese Classic Ancient Books) and *Hanji dianzi wenxian ziliao* 漢籍電子文獻資料庫 (Scripta Sinica). Both databases

territories historically part of China but no longer under current administration.¹²⁶ The combined term “*Zhongguo laojie*” first emerged in diplomatic discussions, introduced not by the Qing but by French diplomat Arthur Tricou during a 1883 discussion with Li Hongzhang. Tricou proposed that France wanted the Qing to retreat their border by 10 li to align with the range of gunfire, which led to significant disputes. The exact French term Tricou used remains unclear, but Li Hongzhang’s translation referred to it as “*Zhongguo jiujiie*.”¹²⁷ This term was not a major point of contention in their initial communications before the outbreak of war. However, after the armistice in mid-1885, “Chinese old border” became a significant issue during subsequent negotiations.

This contest over how to interpret the “current borderline of Bắc Kỳ” was primarily an internal one between the court and its Han officials rather than between the Qing and the French. In early 1886, recognizing that frontline negotiations had stalled due to conflicting treaty interpretations, the Grand Council sent a critical telegram to Deng Chengxiu 鄧承修 (1841-1892), who was leading the negotiation along the Guangdong border. In the earliest edict, the court specifically used “*yuanjie*” 原界 (original border) to refer to “the current borderline of Bắc

yielded multiple entries for the terms “*Zhongguo*,” “*laojie*,” and “*jiujiie*.” However, when these terms were combined as “*Zhongguo laojie*” or “*Zhongguo jiujiie*,” the results were notably sparse. The Hanji database returned only one entry, from an 1863 memorandum to Russia found in *Chouban yiwu shimo*, concerning the border delineation of Xinjiang. The jiben guji database only recorded usage by Zhang Zhidong. This pattern suggests that the term “Chinese old border” emerged as a diplomatic term in interactions with European powers, particularly in the latter half of the nineteenth century.

¹²⁶ Many entries in the Qing shilu 清實錄 (*Qing Veritable Record*) discuss “*laojie*/*jiujiie*,” primarily in the context of negotiations with neighboring states, though the term’s application varies. For instance, a 1723 memorial from the Yungui Governor General to the throne notes: “The Kaihua Prefecture in Yunnan Province borders Vietnam. There, territories once old territory of the inner land (*neidi jiujiing*) have been lost to Vietnam... When discussing the old borders (*jiujiie*), we should fully reclaim those areas, spanning 240 li” 雲南開化府，與交阯接壤，有內地舊境，失入交阯...若論舊界，應將二百四十里之境，徹底取回。 *Shizong xian huangdi shilu* 世宗憲皇帝實錄, vol. 31, Yongzheng 3rd year, fourth month, twenty-second day (Hanji database).

¹²⁷ Li Hongzhang, “Zhi zongshu shu zhangjie” 致總署述爭界, *Li Hongzhang quanji* 李鴻章全集 (Anhui jiaoyu chubanshe, 2008), vol. 33, 274.

Ky” in the treaty’s clause, indicating its intent to survey the “original border” first.¹²⁸ However, in subsequent telegraphs, Deng changed to use “yuanjie,” “laojie,” and “jiujie,” reflecting the interchangeability of these terms within Qing communications.¹²⁹ From the French perspective, these variations in terminology appeared to be minor manipulations by the Qing side. As a result, the French consistently maintained that adjustments should be confined to the “current borderline” of Tonkin. However, the Qing delegation argued that any rectifications should align with the treaty, effectively correcting the “current borderline” to align with the historically recognized “Chinese old borders.”¹³⁰ For Zhang, the most pressing task was to delineate the extent of Chinese sovereignty as historically defined.

In late 1886, after completing a thorough survey of evidence from both previous dynasties and the Qing era, Zhang Zhidong submitted a detailed report to the Zongli Yamen, proposing a strategy to advocate for the “old border.” In the memorial, Zhang included references to four distinct boundary lines on a map. Zhang’s original map is not accessible, but his memorial details the locations each boundary line encompasses.¹³¹ Our focus here is not to fully dissect Zhang’s descriptions in depth but to highlight his strategic approach to negotiating for expanded borderlands. Zhang noted:

While the first boundary line could not be immediately demarcated and restored, in the second and third boundary lines, we can still retain the Shiwan Dashan mountain and the area of Sanbuyaodi to the northwest. To the southeast, the extents can include Baotanxia and Hehui, extending near to Móng Cǎi and Jiangping. On the coastal side, we can retain

¹²⁸ “Junjichu ji banli kanjie shiyi Deng Chengxiu deng dianzhi” 軍機處寄辦理勘界事宜鄧承脩等電旨, *Zhongguo jindai shi ziliao congkan: Zhong Fa zhanzheng*, vol. 7, 45.

¹²⁹ “Banli kanjie shiyi Deng Chenxiu deng dian” 辦理勘界事宜鄧承脩等電; “Zhili zongdu Li Hongzhang dian” 直隸總督李鴻章電, *Zhongguo jindai shi ziliao congkan: Zhong Fa zhanzheng*, vol. 7, 44, 45, 47.

¹³⁰ *Jindai shi suocang Qingdai minren gaoben chaoben: Zhang Zhidong dang* 近代史所藏清代名人稿本抄本: 張之洞檔 (Daxiang chubanshe, 2013), vol. 26, 676-677.

¹³¹ Upon examining the 1906 catalogue of the border map archive of the Ministry of Foreign Affairs, numerous border maps related to Sino-French negotiations over the Vietnamese border are listed. However, Zhang’s four-line map is absent. This omission is likely due to the fact that Zhang’s map was an informal product of his team and was never officially approved by the court. As a result, it was not preserved in the official archive, rendering it inaccessible to modern historians. *Ditu fenbian jianming mulu*, 36-50.

areas such as Kuaizi Long, Qingmaitou, Fudamen, and Jiutoushan. This preserves strategically important locations from the past, and the boundaries will be clearer. This arrangement aligns with ministerial records from the Yongzheng era as well as tax and educational records from the Qianlong, Daoguang, and Tongzhi eras.

即使第一線地界暫未能遽行劃還，其第二、第三兩線，西北猶收十萬大山、三不要地在內，東南遠則包潭下、河檜，近猶包茫街、江平在內。洋面猶包快子籠、青梅頭、副大門、九頭山在內。尚存舊日水陸險要，界限亦較分明。與雍正年間部案，乾隆、道光、同治以來地方賦稅、學籍各案，亦尚相符。¹³²

While Zhang Zhidong's claim initially extended to territories from the Han, Tang, and Ming dynasties, it ultimately emphasized alignment with Qing administrative realities.¹³³ From Zhang's perspective, the identification of "old Chinese" territories was based not only on historical evidence but also conformed to contemporary Qing reign. Thus, his proposal transcended simple territorial claims; it was a sophisticated strategy designed to maximize Qing interests on the frontier. This strategy focused on securing military strategic points essential for defending against foreign incursions via Vietnam.

Nonetheless, Beijing was quite dissatisfied with the approach taken by Zhang Zhidong. In a critical telegraphic edict, the court condemned the performance of both Zhang and Deng:

However, what (the court) referred to as the "old borders" pertains to the current Sino-Vietnamese boundaries and does not indiscriminately include all territories of Vietnam that were once part of China's lands in history. Zhang Zhidong, due to Deng Chengxiu's statement of inspecting the old borders, extensively researched books, drew maps and made illustrations. He diligently collected everything that could serve as evidence from historical records and old tales. However, the areas indicate in (Zhang's) map largely correspond to Vietnam's current borders. The lands that have not been recognized for over two hundred years, which now fall under French protection, are impossible to be entirely returned to us, as anticipated by the court. Therefore, when Wang Zhichun first arrived, he sought to reassure the Vietnamese people with assurances that territories originally under our empire's jurisdiction would be reclaimed. However, the court has specifically cautioned against such promises to prevent the Vietnamese from submitting to Qing authority, and to avoid any incidents that might cause trouble. The court repeatedly emphasizes the futility of territorial expansion and the potential dangers it poses. In

¹³² Zhang Zhidong, 'Bianren Qinzhou lao jie huitu liezheng qingzhi chibian zhe' 辨認欽州老界繪圖列證請旨飭辦摺, *Zhang Zhidong quanji*, vol. 1, 448-449.

¹³³ Zhang Zhidong, 'Bianren Qinzhou lao jie huitu liezheng qingzhi chibian zhe' 辨認欽州老界繪圖列證請旨飭辦摺, *Zhang Zhidong quanji*, vol. 1, 446-447.

addition to telegraphed instructions, an edict was sent, yet the governor general and his colleagues failed to respond to these directives. The court's deeper intentions are not fully comprehended or respected by them. They remain fixated on their original agenda, leading to unsuccessful negotiations over Jiangping and giving the French an opportunity to dispute the Bạch Long Vĩ section.

然所謂舊界者，指中越現界而言，並非舉歷代越地曾入中國版圖者一概闌入其內，張之洞因鄧承脩有勘老界之說，遂博考載籍，繪圖貼說，凡前史舊聞，一二可作證據者，無不搜集，實亦煞費苦心。但查圖中所指地段，大率越南現界。以二百餘年未經辨認之地，今欲歸法保護後悉數歸還於我，法之狡執不允，朝廷早經逆料。故於王之春初到時，撫慰越民，有本隸版圖之語，特申誥戒，恐因緣內附，別滋事端；並將拓地之無益，後患之宜防，反覆周詳，電旨之外，加以寄諭，乃該督等接奉此旨，並無一字覆奏。朝廷深意，不知細心仰體，仍復膠執成見，以致江平開勘，又復屢議不成，反啟彼族白龍尾一段之狡賴。¹³⁴

This critique of Zhang's plan exposed the court's frustration with the widening gap between its officials' understanding of borders and the court's stance. For Zhang and Deng, the term "old borders" included territories once controlled by all "Chinese" dynasties, such as the Han and Tang as well as the Qing. Yet, the Manchu court argued that "old borders" should only refer to the "current" Qing borders with Vietnam.

Why did the Qing court refer to the "current" borders as "old"? As I have shown, the term used was not "laojie" (old border) but "yuanjie" (original border), referencing the eighteenth-century boundaries.¹³⁵ Due to practical challenges, such as establishing military patrols, Qing troops were often positioned slightly away from these official lines, creating gaps in territorial control.¹³⁶ Over time, Vietnamese authorities extended their influence into these loosely controlled areas, effectively governing regions that, by treaty, should have belonged to the Qing.¹³⁷

¹³⁴ "Junjichu ji banli kanjie shiyi Deng Chengxiu deng dianzhi" 軍機處寄辦理勘界事宜鄧承脩等電旨, *Zhongguo Jindai shi ziliao congkan: Zhong Fa zhanzheng*, vol. 7, 104-105.

¹³⁵ John E. Wills Jr., "Functional, Not Fossilized: Qing Tribute Relations with Đại Việt (Vietnam) and Siam (Thailand), 1700-1820," *T'oung Pao* 98, nos. 4-5 (2012): 457-64.

¹³⁶ Xiao Dehao 蕭德浩 ed., *Zhongyue bianjie lishi ziliao xuanbian* 中越邊界歷史資料選編 (Shehui kexue wenxian chubanshe, 1993), vol. 1, 286-87.

¹³⁷ *Zhongyue bianjie lishi ziliao xuanbian*, 340-54.

As we have seen, the term “yuanjie” gradually shifted to “laojie” in the Qing communications. Beijing did not oppose this change of terminology for some reason, but the intended reference was to borders established during this “current” Qing dynasty. From the court’s perspective, these areas were still part of the “current” Qing’s borders, even though local Qing authorities did not actively administer the areas. This dual perspective led to this confusing term usage of “current” and “old” borders. In other words, the Qing central state recognized two borders: an “original” (or “old”) border that marked the de jure limit of legitimate Qing territory, and a “current” border representing the present de facto limit of Qing administrative control. As they acknowledged, there was inevitably some gap between these two borders, and this is what needed to be addressed in negotiations.

However, Han officials like Zhang Zhidong and Deng Chengxiu saw the use of the term “old border” as an opportunity to reclaim territories considered historically “Chinese,” beyond the Qing’s direct control. Thus, the varying interpretations of “old borders” by the Qing court and its Han officials highlighted not just a political struggle over territorial claims but also a deeper internal conflict over the definition of “Chinese” territory. The court stressed that the term “old border” referred only to the “current” Sino-Vietnamese boundaries established in the eighteenth century, not indiscriminately encompassing all territories of Vietnam historically part of earlier “Chinese” dynasties. The court’s clarification was a direct criticism of Zhang’s approach and territorial understanding. While Zhang explained that his strategy was intended to create a bargaining room in negotiations, he admitted that Deng did not fully implement this plan. Instead, Deng’s negotiations relied more on sources like local Chinese gazetteers and British and French maps, influenced by external pressures from both the French and Beijing.¹³⁸

¹³⁸ *Zhongguo Jindai shi ziliao congkan: Zhong Fa zhanzheng*, vol. 7, 106-107.

In other words, Zhang's approach to invoking historical claims from previous Chinese dynasties was ultimately not adopted by both his fellow Qing negotiator and the court, primarily because it risked significant opposition from French delegates. Initially, the Qing court utilized the concept of "old borders" to refer to territories previously under Qing rule. Zhang, however, extended this definition to include dynasties dominated by Han Chinese, a move that far exceeded the court's original scope. While the Manchu monarchs had sometimes referred to their empire as "China" since the late seventeenth century, their identification with the Han elites' concept of China was tentative, if not outrightly rejected.¹³⁹ This was particularly true before the post-1895 era, when the question of whether the Manchus were Chinese or whether the Qing was a legitimate Chinese dynasty had not yet become an issue.¹⁴⁰ Zhang's response to the court's criticism reveals that his expansive interpretation was more a strategic bargaining tactic than an expression of the burgeoning Chinese nationalism that would later influence intellectual thought following the Sino-Japanese War.¹⁴¹

Zhang Zhidong never revisited the concept of the "Chinese old border" after his tenure in the Lianguang office ended, yet this does not diminish its importance or influence. This concept predated Zhang and became increasingly significant as Han elites, influenced by greater access to maps, began being interested in definition of "what China is." Deng Chengxiu, among the first collaborators with Yang Shoujing 楊守敬 (1839-1915) on historical map projects, was familiar with historical geodata from his young age. Although the precise reasons for initiating their

¹³⁹ Zhao, "Reinventing China," 6–10.

¹⁴⁰ Although not a predominant issue, the question of "whether the Qing is China" had subtly persisted since the early nineteenth century. Mosca, "The Literati Rewriting of China in the Qianlong-Jiaqing Transition."

¹⁴¹ Shen Sung-chiao 沈松橋, "Guoquan yu minquan: wan Qing de 'guomin' lunshu, 1895-1911" 國權與民權：晚清的「國民」論述，1895-1911, *Zhongyang yanjiu yuan lishi yuyan yanjiu suo jikan* 中央研究院歷史語言研究所集刊 73, no. 4 (2002): 690. William A. Callahan, *China: The Pessimist Nation* (Oxford Univ. Press, 2013), 26–27.

collaboration remain unclear, both Deng and Yang began to work on the historical map project around the 1860s and early 1870s in Beijing.¹⁴² This experience was probably very crucial in explain why Deng aligned with Zhang’s approach to using historical evidence and maps to define China. The scholarly attention to China’s historical geography predates these efforts, tracing back to the late seventeenth century with scholars of the *kaozheng* 考證 (evidential study) movement. However, it was not until the border negotiations of the late nineteenth century that the political implications of historical geography became prominent. Figures like Zhang Zhidong and Liu Jintang leveraged this scholarly work for diplomatic purposes, bringing the question of what constitutes “China” to the forefront among Han elite communities. Although Zhang did not further pursue this concept in his later life, likely due to his relocation from frontier provinces, the notion of the “Chinese old border” continued to influence diplomatic negotiations, such as Xue Fucheng’s 薛福成 (1838-1894) discussions in London over the Qing and Burmese border in the early 1890s. Xue also adopted the concept of the “Chinese old border” in his diary, noting his team’s efforts to reconstruct the historical boundary using various sources, including the *Mingshi* 明史 (History of Ming), which extended beyond the Qing dynasty.¹⁴³

By the 1880s and early 1890s, the concept of “China” or “Zhongguo” as a spatial entity was already forming in the minds of Han elites before the humiliating defeat by Japan in 1895. It is not my intention to claim that nationalism had fully formed before 1895, but it is important to recognize that the intellectual elements foundational to Chinese nationalism and national identity did not emerge suddenly with Japan’s victory over the Qing. These elements were already

¹⁴² Yang Shoujing and Deng Chengxiu first met in Beijing in 1862 and both remained in the capital until Yang’s departure in 1875. *linSu laoren nianpu* 鄰蘇老人年譜, *Yang Shoujing ji* 楊守敬集 (Hubei renmin chubanshe, 1988), vol. 1, 10-15.

¹⁴³ Xue Fucheng, *Xue Fucheng riji* 薛福成日記 (Jilin wenshi chubanshe, 2004), vol. 2, 766, 769.

present, simply awaiting a catalyzing incident to integrate them into the broader narrative of Chinese nationhood. The concept of a spatially defined China, fostered through frequent interactions with foreign powers, gradually solidified and eventually sparked intense debates over map legitimacy in the 1890s. This culminated dramatically in the controversy surrounding Hong Jun's map during the border disputes over the Pamir region.

The Sin of Using Foreign Maps: Hong Jun's Map Controversy

During the late 1880s and 1890s, the question of map legitimacy became a pressing issue among Han elites, particularly in light of disputes over the Pamir region.¹⁴⁴ The earlier approach of strategic concessions at the frontier gave way to a more assertive stance by Han elites, emphasizing the preservation of the entirety of Qing territories. This shift is discernible in Han accounts of these negotiations. The late 1880s saw an increased interest among Han elites in understanding and engaging with border demarcation issues. A notable example of this intellectual trend is a work of Qian Xun 錢恂 (1853-1927).¹⁴⁵

Qian Xun, a minor intellectual from Zhejiang, authored the first Chinese monograph, *Zhong E jiaozhu* 中俄勘注 (Annotations on Sino-Russian Borders), which utilized European maps alongside Chinese sources to document changes of the Sino-Russian border. As a staff member, Qian first accompanied Minister Xue Fucheng on a diplomatic mission to Western Europe in 1890, and then subsequently joined Minister Xu Jingcheng 許景澄 (1845-1900) on a trip to Russia in 1891 for negotiations concerning the Pamir region.¹⁴⁶ There, he collaborated with European translator colleagues in collecting and researching European maps. Upon his

¹⁴⁴ Morrison, *The Russian Conquest of Central Asia. A Study in Imperial Expansion, 1814–1914*, 497–99.

¹⁴⁵ There is no systematic Nianpu for Qian Xun. Only one made by Japanese scholars is there. Takagi Rikuo 高木理久夫, "Sen Jun nianpu" 錢恂年譜, *Waseda Daigaku Toshokan Kiyo* 早稲田大学図書館紀要 60 (2013): 108-192.

¹⁴⁶ Takagi Rikuo, "Zen Xun nianpu," 9-10. *Xu wensu gong nianpu* 許文肅公年譜, *Xu Jingcheng ji*, vol. 5, 1543.

return to China in 1893, presumably with a significant collection of European maps, Qian completed his monograph, which was later published in 1895.

In the preface, Qian revealed his longstanding interest in the delineation of the China-Russia border. For years, he lamented the lack of accurate maps, essential for understanding the geography and historical changes of the borderlines. This limitation changed when Qian joined the Qing embassy to Europe, where he gained access to maps detailing the Sino-Russian border. In his first year in western Europe, Qian amassed over thirty maps from various countries. The subsequent year, 1891, marked his dispatch to Russia, where he encountered the newly translated maps by Hong Jun, a predecessor of Xu Jingcheng as minister.¹⁴⁷ Qian lauded Hong's contributions, describing them as "the beginning of the general map of China's border affairs" 是為中國界務總圖之始.¹⁴⁸ This acknowledgment underlined a pivotal shift: previously, China had relied solely on foreign maps and translations for such information. After his visit to Russia, Qian expanded his focus beyond studying Hong's maps. He dedicated himself to acquiring and analyzing the most recent Russian cartographic depictions of their Asian borders. Qian consulted nine up-to-date maps of the Sino-Russian border, developing explanations based on these comprehensive studies. He exercised caution, deliberately avoiding controversial maps. Notably, Qian refrained from citing the map of the Pamir region, which was subject to dispute at that time.¹⁴⁹ The reason Qian refrained from citing the contentious Russian map was due to the significant criticism that Hong Jun's translated map had attracted at home.¹⁵⁰

¹⁴⁷ In 1892, Hong Jun tasked Qian Xun and Karl Kreyer with conducting a direct survey of the Pamir region, leading to Qian's pivotal role in producing the Pamir maps that were later reviewed by the Qing court. Xu Jingcheng, "Zhi Zongli Yamen zongban han" 致總理衙門總辦函, *Xu Jingcheng ji*, vol. 1, 264.

¹⁴⁸ Qian Xun, *Zhong E jiaozhu* 中俄對注 (Guangwen shuju, 1963), 3.

¹⁴⁹ Qian Xun, *Zhong E jiaozhu*, 3-4.

¹⁵⁰ However, Qian was actually very familiar with Pamir geography. Xu Jingcheng, "Zhi Zongli Yamen zongban han," *Xu Jingcheng ji*, vol. 1, 242.

In 1893, Hong Jun's maps, initially heralded as significant achievements, faced severe criticism. Prior to Hong's translated maps, the Qing lacked its own detailed border maps, rendering his translations from Russian sources invaluable. Hong had written an introduction to these maps around May 1891, noting that they were based on the 1885 Russian map.¹⁵¹ This atlas consists of thirty-five sheets, covering territory from the Yeniseysk Governorate in the north to the Sea of Okhotsk and the northern part of Sakhalin Island in the east, extending westward to the Orenburg Governorate. The southern portion includes the entire northern frontier of the Qing empire (figure 20). These maps were initially well-received by the Qing court and high-ranking officials. In August 1891, the Grand Council even requested an additional 100 copies of this work.¹⁵²

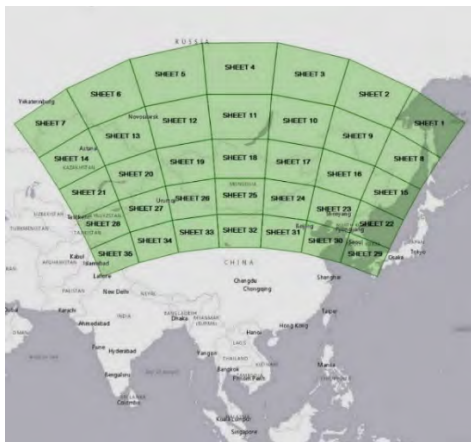


Figure 20: Reference map illustrating the relationship between Hong's translated maps and real-world geography. Credit: <http://www.ditu114.com/ditu/770.html>, last access January 31st 2025

Li Hongzhang, the powerful Qing official, lauded Hong's maps in a letter, describing them as “a true military guidebook for the court, and a secret key to the north” 今得此冊，正足

¹⁵¹ Hong Jun, *Zhong E jiaojie quantu* 中俄交界全圖 (<https://www.loc.gov/item/gm71005082/>), last accessed February 5th, 2025.

¹⁵² Zhongguo diyi lishi dang'an guan 中國第一歷史檔案館, *Qingdai junji chu dianbao dang'an huibian* 清代軍機處電報檔案彙編 (Beijing: Zhongguo renmin chubanshe, 2005), vol. 6, 422.

反而相稽，真中樞之陰符，北庭之秘鑰矣。¹⁵³ Hong's work, therefore, provided much-needed geographical insights into the northern borderlands for these literary elites. Li observed the high demand for Hong's maps, noting that even the initial 100 copies were insufficient. He expressed hope that thousands more could be printed and returned to China, anticipating a strong market demand that would offset Hong's production costs.¹⁵⁴ Nonetheless, during the negotiations over the Pamir region, Hong's maps came under serious scrutiny by Qing officials.

On July 17, 1892, the Shaan-Gan governor general reported to Beijing, stating that “the British and Russians covet the Pamir and Hunza” 英俄覬覦帕米爾、坎巨提 (figure 21), and requested the dispatch of officials to oversee defense measures.¹⁵⁵ Two months later, the Zongli Yamen reported that the name “Pamir” had never appeared in Qing records 帕米爾地名，載籍無徵, except for one source from the Qianlong era. The Zongli Yamen stated that, aside from this single mention, their search through Qing archives and Western maps found no evidence that the Pamir region had ever been part of the Qing's “old border” (舊界) until Liu Jintang established military garrisons there—the first incorporation of the region into the Qing order.¹⁵⁶ Here, the Zongli Yamen's reasoning reflects that a traditional Chinese cartographic epistemology where textual validation took precedence over visual representation. The absence of the specific toponym “Pamir” was interpreted as an absence of territorial jurisdiction. This stands in contrast to Western cartographical epistemology in which the visual representation of a territory on maps was often sufficient to establish a territorial claim.

¹⁵³ “Fu qinchai chushi De E he Aoguo dachen Hong” 復欽差出使德俄和奧國大臣洪, *Li Hongzhang quanji*, Vol. 35, 115.

¹⁵⁴ *Li Hongzhang quanji*, Vol. 35, 115.

¹⁵⁵ “Gandu Yang Changjun zou Yin E jiyu pami'er kanjuti qing paiyuan duban fangwu zhe” 甘督楊昌濬奏英俄覬覦帕米爾坎巨提請派員督辦防務折, *Qingji waijiao shiliao*, Vol.4, 1766.

¹⁵⁶ “Zongshu zou chouban Xinjiang xinan bianwai qingxing zhe” 總署奏籌辦新疆西南邊外情形折, *Qingji waijiao shiliao*, Vol. 4, 1767.



Figure 21: Southern Xinjiang and Pamir region

In 1892, the Russians started to deploy troops to the region. Initially, the Qing government sought to diplomatically persuade Russia to withdraw its forces. However, the situation escalated when the British-controlled Afghan militias advanced to the Suman garrison of the Pamir region, newly established by Liu Jintang, and captured several Kirghiz people.¹⁵⁷ This development transformed the situation into a complex tripartite conflict. The Qing court, keen to avoid a direct confrontation with both Russia and Britain simultaneously, assessed its position cautiously. Minister Xu Jingcheng, stationed in Russia, advised that Qing troop deployment deep into this rugged frontier would be strategically unwise due to the challenging terrain, which could result in logistical difficulties and severed lines of reinforcement.¹⁵⁸

The Zongli Yamen stated that according to the 1883 Kashgar Treaty, although the boundaries of this section were specified in text, the “lines within the treaty were not demarcated” 約內界線，卻未勘定 on maps because “the situation beyond the border was not well-mapped at that time, leaving the underlying details unknown” 當時邊外情形未得善圖，莫

¹⁵⁷ Regarding how Suman garrison was established in 1889, see Wang Shuzhan, *Xinjiang tuzhi* (Shanghai guji chubanshe, 2017), vol. 1, 189.

¹⁵⁸ “Zongshu zou chouban Xinjiang xinan bianwai qingxing zhe,” *Qingji waijiao shiliao*, vol. 4, 1767.

知底蘊。¹⁵⁹ It was only after obtaining Hong Jun’s maps that it was known that from Uzbel (figure 22) to the south, “both the eastern and western sides are part of the Pamir region.” Therefore, the Zongli Yamen believed that the dispute over Pamir originated from Shakedulinzhabu’s lack of clear understanding of Pamir’s geography when setting the treaty’s boundaries.¹⁶⁰ The Zongli Yamen stated that from the principle of the “territories currently under administration,” due to Liu Jintang’s expansion of garrisons beyond the old borders, Pamir should belong to China, but since the treaty was already set, further contestation was deemed pointless. The Zongli Yamen hoped to demarcate the borders with Russia, adding that “according to the China-Russia boundary map’s diagonal line of longitude, extending south from Uzbel (a high-mountain pass located in present-day’s Xinjiang), at least a portion of the Pamirs can be secured, which is an expansion compared to the old borders of the Qianlong and Daoguang eras” 惟照中俄界圖南北經度斜線，自烏孜別里一直往南，尚可得帕米爾之少半，較諸乾隆、道光年間舊界，已稍展拓。¹⁶¹

¹⁵⁹ “Zongshu zou Pami’er jieyu Zhong Yin E sanguo bianjing yinyu Wuzi bieli wangnan huafen pian” 總署奏帕米爾介于中英俄三國邊境應於烏孜別里往南劃分片, *Qingji waijiao shiliao*, vol.4, 1768.

¹⁶⁰ “Zongshu zou Pami’er jieyu Zhong Yin E sanguo bianjing yinyu Wuzi bieli wangnan huafen pian,” *Qingji waijiao shiliao*, vol. 4, 1768.

¹⁶¹ “Zongshu zou Pami’er jieyu Zhong Yin E sanguo bianjing yinyu Wuzi bieli wangnan huafen pian,” *Qingji waijiao shiliao*, vol. 4, 1768.

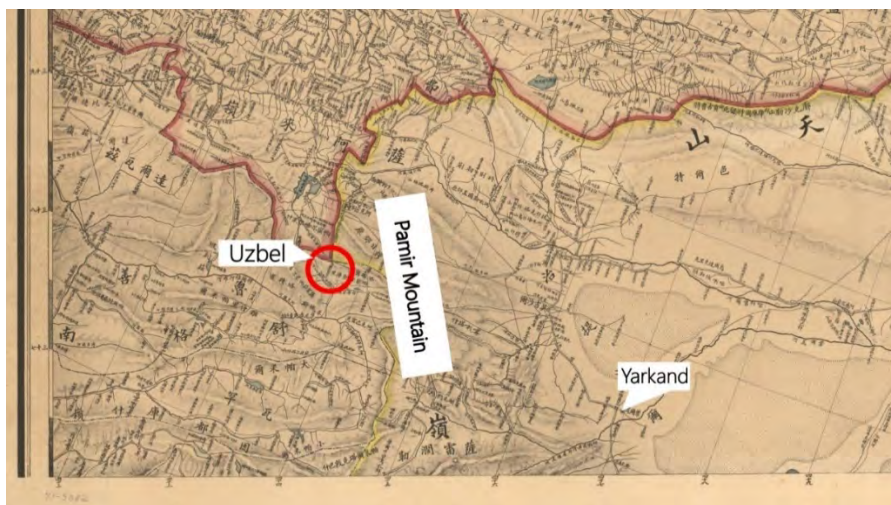


Figure 22: Pamir region. Source: Hong Jun, *Zhong E jiaojie quantu* (1890).

However, the confusion that arose from Shakedulinzhabu's misunderstanding of the region's geography, leading to the agreement of the Kashgar Treaty, eventually extended to Hong Jun's map. Yanmao 延茂 (1843-1900), a Han banner official, vehemently criticized Hong's maps in a memorial to the throne, stating that "the hindrance to the progress of the Xinjiang border issue was due to inaccuracies in Hong Jun's map" 新疆邊事掣肘，實由洪鈞繪圖錯誤。¹⁶²

According to Yanmao, the imperially commissioned stele in 1759 indicated that the Pamir region was under the Qing sovereignty. Furthermore, he pointed out that the eight garrisons established in this area since the late 1870s evidenced China's firm control over these frontier regions. The primary error, Yanmao argued, lay in Hong's incorrect maps, which were translations from Russian sources.¹⁶³ Yanmao further accused Hong of being fully aware of his mistakes and, fearing criticism, he allegedly concealed two maps of the Suman and Pamir regions.¹⁶⁴

¹⁶² "Zongshu zou zuncha Yanmao zoucheng Xinjiang bianishi chezhou youyu Hong Jun huitu cuowu gejie he yu shishi bufu zhe" 總署奏遵查延茂奏稱新疆邊事掣肘由於洪鈞繪圖錯誤各節核與事實不符折, *Qingji waijiao shiliao*, Vol. 4, 1773.

¹⁶³ "Zongshu zou zuncha Yanmao zoucheng Xinjiang bianishi chezhou youyu Hong Jun huitu cuowu gejie he yu shishi bufu zhe," *Qingji waijiao shiliao*, Vol. 4, 1774.

¹⁶⁴ "Zongshu zou zuncha Yanmao zoucheng Xinjiang bianishi chezhou youyu Hong Jun huitu cuowu gejie he yu shishi bufu zhe," *Qingji waijiao shiliao*, Vol. 4, 1774.

The Zongli Yamen stood by its councilor and dismissed Yanmao's accusations. They argued that imperial gazetteers and records never mentioned the Pamir region, let alone acknowledged it as part of Qing territory. They further elucidated the usage of Hong's maps:

Regarding maps of foreign regions, China has always had few detailed maps. The primary reason Hong Jun translated Russian maps into Chinese was to use them as references, not as definitive evidence. Moreover, the original Russian maps encompassed a vast area, extending from the easternmost borders of Russia with Korea and Japan to the westernmost borders adjacent to Britain, France, and others. Thus, these were large-scale maps, not exclusively focused on the Sino-Russian borders. Hong translated only a specific section of these maps, temporarily using them to revise and determine the directional relationship of place names, thereby gaining a general understanding of the geography. Even the maps sent back by Xue Fucheng resembled the original Russian maps in terms of the Sino-Russian geographical layout. Furthermore, we had previously consulted with the Xinjiang governor and conducted thorough investigations of the frontier geography, creating detailed maps for our reference. Hence, we never relied solely on Russian maps. It is unfair to attribute all the responsibility for the border issues to Hong's maps.

查邊外輿地，中國向少詳圖。洪鈞就俄國之圖譯出漢字，原以備考核，非以為證據。且俄圖東起朝鮮、日本，西至英、法各國，篇幅甚巨，並非專為中俄接壤而設，所譯之圖，特其一區，暫以考訂地名方向，略知梗概。即薛福成寄來英圖，其於中俄地形大致亦與俄圖相仿。況臣等前經咨行新疆巡撫，飭查邊外疆域，詳細繪圖，以資考證，並不以俄圖為憑，未可以邊事之棘手，歸咎於此圖也。¹⁶⁵

In essence, the Zongli Yamen was aware of the Qing's lack of precise and comprehensive maps. Hence, Hong's maps were just one of many sources that the Yamen utilized for decision-making.

However, the Zongli Yamen's defense did not proceed smoothly. The criticism from the officials took a heavy toll on Hong Jun's mental health. The following year, in 1893, Hong, once a rising star in the Qing politics, passed away at the age of 54. In a letter to Xu Jingcheng, Li Hongzhang expressed his sorrow:

Hong Jun's sudden passing deeply saddens me. In recent years, he faced considerable criticism over his translation of the map, leading to his melancholy. Your analysis of this affair has been most impartial. I recall letters from Hong Jun stating that the original Russian boundary map had no clear boundary in the section west of Uzbek, resembling a situation as if wide open and undefined, which aligns with the actual situation. As for the boundary line turning east and then south, this is not only depicted in Western maps but

¹⁶⁵ "Zongshu zou zuncha Yanmao zoucheng Xinjiang bianishi chezhou youyu Hong Jun huitu cuowu gejie he yu shishi bufu zhe," *Qingji waijiao shiliao*, Vol. 4, 1774.

also in the old Chinese imperial atlas.¹⁶⁶ However, while the imperial atlas covers the boundary between China and various foreign countries, Hong's new maps specifically detail the Sino-Russian border. The boundary on these maps is clearly delineated and marked, with the borderline indicated by an ink line. Therefore, those discussing this matter cannot be without doubts. Even the Russian map sent from your office, drawn in 1884, is, according to Hong Jun, the blueprint for his new maps. (Your) map specifically depicts the Russian boundary, extending north to 38 degrees 40 minutes latitude and 73 degrees 38 minutes longitude, where it abruptly ends. About two degrees further south, the boundary line reappears, marking the area south of Uzbek. It then follows along the Pamir Range, with no boundary line marked in either black or colored ink. Hong's map indeed leaves room for interpretation, while the imperial atlas leans towards the Russian claims. This ambiguity is why Hong Jun was initially criticized and why he was deeply melancholic and unable to overcome these feelings.

文卿奄逝，深可痛惜。年來以譯圖事被論甚苛，坐此不無郁郁。來示分析各節，最為持平。前得文卿書稱，俄分界圖自烏孜別里以西一段本無界線，如人之哆張其口，所言情形，正相符合。至轉東而南之界線，則何止西洋各圖，即中國內府舊圖，亦正如此。但舊圖是中外之分，而新圖是中、俄之界，今於此處繪畫界限，顯然設色，且有國界之墨線，故論者不能無疑。即如此次寄來俄圖，繪於西歷一千八百八十年，即光緒十年，據文卿跋語，即新圖之藍本。此圖系專畫俄界，其界至北緯三十八度四十分、東經七十三度三十八分訕然而止，向南約二度有奇，界線突然覆起，是烏孜別里以南。偏東循蔥嶺而行，不但無墨點之界線，並無設色之界線。彼圖尚有斟酌，而我圖轉若為之證明，此則後來集矢之由，亦文卿所默悔而無以自解者也。¹⁶⁷

In other words, Li believed that Hong's map had left considerable room for interpreting the borderline, whereas the Qing maps themselves compromised imperial territorial interests.

Despite strong support from the Zongli Yamen and influential officials, more Han elites grew skeptical of Hong Jun's intentions and his use of maps. They particularly questioned his reliance on foreign maps, suspecting it as a form of collusion with foreigners. Hong's case even

¹⁶⁶ Regarding the "neifu jiutu" 內府舊圖, I believe Li Hongzhang was specifically referring to eighteenth-century atlases, as the maps of the neifu 內府 had been printed and widely circulated since the early 1800s. Based on transcriptions of the Kangxi and Qianlong atlases, Li Zhaoluo produced three versions of the neifu maps. The second version was titled *Neifu yutu suomo ben* 內府輿圖縮摩本 (the transcribed version of inner court maps), but the most famous and widely circulated version was the third, titled *Huangchao yitong yudi quantu* (The Complete Map of the Great Qing Unification). This version not only included comprehensive maps of the Qing Empire but also detailed provincial maps. In the early 1860s, these maps were updated by Hu Linyi and reprinted, which further increased their circulation. Maps of this kind were often referred to as "neifu maps" in private accounts by Han literati. Li Hongzhang undoubtedly possessed these neifu maps, as he frequently mentioned "neifu yutu" (內府輿圖) in his writings and correspondence. *Li Hongzhang quanji*, vol. 34, 459; vol. 35, 453, 462, 463.

¹⁶⁷ *Li Hongzhang quanji*, vol. 35, 559. Ma Mingda and Li Junjie, "Hong Jun shiji shulüe," 363.

impacted the contemporary *Huidian Atlas* project, the last major cartographic endeavor undertaken in late imperial Chinese history.¹⁶⁸ One of the persons involved in the *Huidian Atlas* project reflected: “At the time, the issue of relinquishing the Pamir region was attributed to errors in Hong Jun’s mapping. High-ranking officials, anxious about potential association with this controversy, decided to adhere to the old maps. It was agreed that only *Yitong zhi*, compiled during the Daoguang reign, should be used for verifying accuracy” 適是時帕未兒棄地事以洪鈞繪圖而誤。達官悚懼。遂定議一切依舊圖，但以道光《一統志》略校得失云。¹⁶⁹

We could also sense this growing sentiment of resistance toward using foreign maps in Han popular culture. For example, *Niehai hua* 孽海花 (A Flower in a Sinful Sea), a famous novel during the late Qing period, satirized Hong Jun’s incident. This novel sarcastically depicted how Hong acquired Russian maps through a chance meeting with a Russian painter in Germany.¹⁷⁰ It portrayed Hong as an ambitious official, eager to establish his political reputation through border demarcation and his academic reputation through Mongol history research, by utilizing foreign maps. On the other hand, Hong was depicted as seeking only a superficial understanding and failing to verify geographical facts in this early-1900s popular novel.¹⁷¹ After his death, Hong’s character and his reliance on foreign maps remained negative impressions in Chinese literary circles. Over time, however, the use of foreign maps gradually became extremely unacceptable within the Han elite communities.

¹⁶⁸ The *Huidian Atlas* project was a significant cartographic component of the Guangxu recompilation of the *Huidian* (Collected Institutes of the Great Qing), initiated in 1886. Unlike previous versions of the Qing *Huidian*, the Guangxu project placed significant emphasis on mapmaking, aiming to incorporate European cartographic techniques, particularly the use of longitude and latitude, into Qing imperial maps. See Wang Yifan, “Qingmo dili da cehui: yi Guangxu Huidian yutu wei zhongxin de yanjiu” (PhD diss., Fudan University, 2011).

¹⁶⁹ *Wen Tingshi ji* 文廷式集 (Zhonghua shuju, 2018), 1057.

¹⁷⁰ Zeng Pu 曾樸, *Niehai hua* 孽海花 (Shanxi renmin chubanshe, 1998), 109.

¹⁷¹ Zeng Pu, *Niehai hua*, 110-111.

While Qian Xun harbored sympathy for Hong, he was critical of maps that undermined territorial integrity of China. In discussing the border at Chuguchak in his book, he noted:

In 1864, the old border still included the plains west of the Barlik mountain, and the Kazakh people residing there were under Chinese sovereignty. However, the Treaty of Chuguchak divided these plains, ceding half to Russia. The Russians claimed that the Kazakhs within the mountains should also belong to Russia, leading to a reluctant decision to lend this territory to them. Consequently, no garrison has been established there. Now, the ten-year period for lending this land has expired. Despite repeated requests by the Zongli Yamen for its return, Russia has continuously delayed the process, raising suspicions about their intentions. Recently, a newly published official Russian map has unexpectedly included half of the Barlik mountain within its borders.

同治三年舊界，巴爾魯克山外正西一帶平地尚屬中國，所駐哈薩克人民亦自屬中國。今此約既直剖平地之半，歸入俄國，而俄人謂山內所駐之哈薩克亦應屬俄，不得已為此借地之舉。且至今並未設立邊卡，今十年借期已滿，譯署屢次催辦，俄人久宕不遷，其心叵測。近來，彼中官刊新圖竟將巴爾魯克山嶺一半繪入彼國界線。

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This statement conveys three critical points: First, it underscores the existence of a well-defined “Chinese old border,” emphasizing the extent of territorial loss. Second, it highlights the necessity of scrutinizing foreign maps, which often distorted Chinese territory. Third, while Qian refrained from openly criticizing the on-site negotiations of the 1880s, led by figures like Changshun and Shakedulinzhabu, he implicitly censured them for agreeing to treaties detrimental to China’s territorial integrity.¹⁷³ Beyond the Treaty of Chuguchak, Qian cited additional instances where Manchu frontier negotiators were seemingly deceived by Russians.¹⁷⁴

Although Qian’s critique was indirect, such critical perspectives gained strength in the early twentieth century. For instance, the 1911 *Xinjiang tuzhi* 新疆圖志 (illustrated gazetteer of Xinjiang) disparaged Shakedulinzhabu’s demarcation diary as “worth no discussion” 其書存而不論可矣, for failing to conduct proper surveys.¹⁷⁵ Concurrently, Zou Daijun, a geography

¹⁷² Qian Xun, *Zhong E jiaozhu*, 223.

¹⁷³ Qian Xun, *Zhong E jiaozhu*, 228-229.

¹⁷⁴ Qian Xun, *Zhong E jiaozhu*, 248.

¹⁷⁵ Wang Shuzhan, *Xinjiang tuzhi*, vol. 3, 1697.

lecturer at the Imperial University, taught a course on the Sino-Russian border.¹⁷⁶ Zou's lecture heavily referenced Qian Xun's work but introduced significant innovations. Zou presented a detailed table listing geodata from various border treaties, including a new section titled "huashi zhidi" 劃失之地 (the land lost through demarcation), summarizing territorial losses due to these agreements.¹⁷⁷ This approach, now common in Chinese education, was revolutionary in the late nineteenth and early twentieth centuries. Zou Daijun's nationalistic approach to geography education became a mandatory part of the curriculum in the new school system.

Conclusion

When Thongchai Winichakul discussed the emergence of the Siamese geo-body, he highlighted the irony that Western maps, despite their foreign origin, remained "the authority for all later maps for a long time," even during the "so-called nationalistic period."¹⁷⁸ While Winichakul does not delve into why this was the case for Thailand, the situation in the late Qing was distinctly different as we have seen. During the latter half of the nineteenth century, especially in border negotiations with European powers, reliance on foreign maps began to increase, starting with the 1860s negotiations with Russia. However, Manchu negotiators on-site grew skeptical about the accuracy of these maps. They preferred to compare Qing maps with Russian ones, though compromises were made in the 1864 treaty due to the pressures of ongoing devastating rebellions.

As Qing political power stabilized in the late 1860s and 1870s, powerful Han officials like Zuo Zongtang and Liu Jintang once again started to articulate their skepticism toward

¹⁷⁶ Regarding the process in which Zhang established the Lianghu academy, see William Ayers, *Chang Chih-Tung and Educational Reform in China*, Harvard East Asian Series 54 (Harvard University Press, 1971), 60–62. For details on the establishment of the Imperial University, see Chuang Chi-fa 莊吉發, *Jingshi daxue tang* 京師大學堂 (Taipei: Guo li Taiwan da xue wen xue yuan, 1970), chap. 1.

¹⁷⁷ Zou Daijun 鄒代鈞, edited by Zeng Yin 曾寅, *Zhong E jieji* 中俄界記 (Wuchang Yaxin dixue she, 1911), 9-16.

¹⁷⁸ Winichakul, *Siam Mapped: A History of the Geo-Body of a Nation*, 129.

European maps. It was not until Zeng Jize's negotiations in St. Petersburg that solely using European maps became an acceptable practice in diplomacy. Nevertheless, skepticism about foreign maps never fully waned. By the early 1890s, just before the Sino-Japanese War of 1895, skepticism had intensified. The controversies surrounding the Pamir region culminated in a significant political scandal involving Hong Jun's translation of a Russian map. The question of "who authors the maps" became critical—not merely due to distrust of foreigners, but because of concerns that foreign cartography might misrepresent boundaries, a far more sensitive issue than inaccuracies in natural features.

The concept of "*Zhongguo laojie*" is pivotal for understanding why foreign maps often raised suspicions about Qing boundaries. Benedict Anderson's concept of the "logoization of political space" suggests that maps transform recent political constructs into seemingly timeless, ahistorical entities.¹⁷⁹ History, thus, becomes a tool to contextualize every occurrence within these spaces, morphing the space itself into a lasting symbol.¹⁸⁰ Winichakul discusses this shift from "nonbounded" to "bounded" territories through Western cartographic technologies, noting that despite Siam's non-colonial status, its modern boundaries were shaped by colonial influences, demonstrating Western cartography's role in "conquering" local traditions.¹⁸¹ In the late Qing, a similar dynamic unfolded, though the Qing empire was far from passive in its interactions with the European powers. Even during its decline, the Qing actively sought to assert territorial claims. The notion of "*Zhongguo laojie*" became a strategic tool in these endeavors, employed to justify territorial expansions during a time of waning political and military power. This concept began to assimilate various historical evidence from different Han Chinese

¹⁷⁹ Anderson, *Imagined Communities: Reflections on the Origin and Spread of Nationalism*, xiv.

¹⁸⁰ Anderson, *Imagined Communities: Reflections on the Origin and Spread of Nationalism*, 174–75.

¹⁸¹ Winichakul, *Siam Mapped: A History of the Geo-Body of a Nation*, 74–80, 129.

dynasties. Although Zhang Zhidong's expansive interpretation was eventually curtailed by Beijing, which preferred a narrower definition limited to the Qing period, the equation of the Qing empire with China gradually had become popular, especially since the 1880s.

The concept of China as a continuous spatial entity gradually crystallized in the minds of Han political elites, identifiable through historical border evidence and depicted on maps. However, the relationship between ethnicity and the use of foreign maps was never clear-cut. The argument that claims Han elites preferred Chinese maps while Manchu elites were more flexible in using foreign maps is overly simplistic. As demonstrated in this chapter, some Han officials, such as Zeng Jize, actively promoted the exclusive use of foreign maps, while some Manchu officials, like Mingyi, strongly opposed Russian maps. Ethnicity was never the defining factor in these debates. What truly distinguished was the gradual emergence of a politico-spatial conception of *China/Zhongguo* among Han intellectual circles. Figures like Deng Chengxiu and Liu Jintang demonstrated a strong commitment to preserving the "Chinese old border," reflecting this evolving ideological shift. In contrast, such a territorially rigid stance was less apparent among Manchu officials. This can be observed in Changshun and Shakedulinzhabu's willingness to negotiate territorial demarcations on-site and in the Manchu court's approach to the Vietnamese border dispute, both of which led to territorial concessions. Thus, it was the emergence of China as a historically continuous spatial entity that truly shaped these debates. This concept gained significant traction among Han political elites, whereas Manchu officials were often more inclined toward pragmatic compromises.

This politico-spatial conception of China directly fueled the controversy surrounding Hong Jun's map in the early 1890s, which involved the use of "suspicious" foreign maps to delineate China's territories. This was not merely a political quarrel but a fundamental dispute

over territorial integrity. Map legitimacy became a critical issue; the authorship of a map mattered intensely as it bore on questions of imperial and national boundaries. In this context, the legitimacy of maps was not merely about negotiation but about competing with European powers over territorial claims, underscoring maps as instruments of imperial competition rather than compromise.

In 2016, the State Council of the People's Republic of China officially enacted the Map Management Regulations. This law governs the production, oversight, and publication of maps within PRC's jurisdiction, emphasizing that all mapping activities must adhere to three principal guidelines, with the foremost being "maintaining national sovereignty" 維護國家主權.¹⁸²

Additionally, the law mandates that maps of China's current territory conform to official state-approved maps, while historical maps must be drawn based on corresponding historical records to accurately delineate historical boundaries. This legislation points to a longstanding concern about map legitimacy that has preoccupied Chinese elites since the late 1800s. Maps are not merely tools for navigation or administration; they are potent symbols of China's enduring geobody. Within this context, the contested authorship of maps encapsulates China's competition with foreign powers.

¹⁸² See "Zhonghua renmin gongheguo guowuyuan ling di 664 hao: ditu guanli tiaoli" 中華人民共和國國務院令 第 664 號：地圖管理條例 (No. 664 Order of the State Council of the People's Republic of China: The Regulations on Map Management, http://big5.www.gov.cn/gate/big5/www.gov.cn/gongbao/content/2016/content_2979707.htm) last accessed 25th September 2024.

Chapter Three: The Last Imperial Cartographical Project, the *Guangxu Atlas*

During the first half of the nineteenth century, the Qing state's enthusiasm for creating imperial atlases appeared to wane, particularly as the mid-century approached. The eighteenth century represented a zenith in Qing cartography, with emperors Kangxi, Yongzheng, and Qianlong actively commissioning maps that employed Western cartographical techniques to detail their imperial domain.¹ However, during the Jiaqing reign (1796-1820), while there was still a great interest in updating geographical data, as evidenced by more detailed maps in the Jiaqing *Huidian* (Collected Institutes of the Great Qing), there was a discernible shift away from these Western methods. This change was not due to a lack of interest in map-making per se but seemed to reflect a strategic realignment as the Qing state shifted its focus towards quelling domestic rebellions.² Unfortunately, the fervor for cartographic advancement did not persist into the mid-nineteenth century. The tumultuous period of the 1850s and 1860s, marked by the Taiping, Nian, and Hui rebellions, significantly deterred the Qing's commitment to further developing its cartographical capabilities, halting the progress that had been made in the early years of the century.³

Since the early nineteenth century, Han Chinese elites have recognized the strategic importance of cartography, particularly in its role in suppressing civil disturbances. Military leaders like Hu Linyi (1812-1861) and Zeng Guofan (1811-1872) began to amass maps and geodata from both Beijing and local sources, which fostered the development of cartographic skills. During this period, maps primarily supported military operations, with less focus on

¹ Hostetler, *Qing Colonial Enterprise: Ethnography and Cartography in Early Modern China*, 70–80. Perdue, *China Marches West: The Qing Conquest of Central Eurasia*, 443–57. Cams, *Companions in Geography*.

² Dai, *The White Lotus War: Rebellion and Suppression in Late Imperial China*; Wang, *White Lotus Rebels and South China Pirates: Crisis and Reform in the Qing Empire*.

³ Philip Kuhn, "The Taiping Rebellion," in *The Cambridge History of China. 10: Late Ching, 1800 - 1911: Pt. 1*, ed. John King Fairbank (Cambridge Univ. Press, 1978).

precise longitude, latitude, or comprehensive surveys. High officials showed a growing interest in the empire's geography, consulting imperial atlases from the previous century. Concurrently, Feng Guifen (1809-1874) in his famous treatise calling for comprehensive state reform, *Essays of Protest* (Jiaobinlu kangyi), emphasized the need for more precise maps.⁴ In his essay "On Drawing Maps (hui ditu yi)," Feng outlined the cartographical techniques necessary for creating accurate large-scale maps. For Feng, precise maps were a means to support various reforms, including taxation, flood and drought prevention, water management, and river course modification.⁵ Influential figures like Zeng Guofan and the later Guangxu emperor became avid readers of Feng's essays.⁶ All these reflect a burgeoning interest in cartography that fostered a wave of Han talent in map-making, including notable members of the Zou family: Hanchi, Shiyi, and Shixian.⁷

As the 1870s and 1880s approached, the need for accurate maps became increasingly urgent due to ongoing border negotiations with neighboring territories. As highlighted in the previous chapter, the Qing government faced challenges in incorporating both native and foreign maps starting from the 1860s. This struggle persisted into the 1890s, but by the late 1880s, the Qing state initiated the *Guangxu Atlas* project, an ambitious endeavor to create their own comprehensive maps. This project saw the participation of numerous cartographers, including five members from the later generations of the Zou family, who contributed to mapping the empire. The *Guangxu Atlas* aimed to integrate Western cartographic elements, such as longitude, latitude, and trigonometric surveying, into Chinese map-making practices. Although the final

⁴ Kuhn, *Origins of the Modern Chinese State*, chap. 2.

⁵ Zheng Dahua ed., *Cai xixue yi: Feng Guifen Ma Jianzhong ji* (Liaoning renmin chubanshe, 1994), 24.

⁶ Zhongguo diyi lishi dang'an guan, *Qingting qianyi jiaobinlu kanyi dang'an huibian* (Xianzhuang shuju, 2008), vol. 1, 1-3. Kuhn, *Origins of the Modern Chinese State*, 57.

⁷ See Chapter One.

output did not completely fulfill the project's initial objectives, it played a crucial role in popularizing cartography and geographical knowledge within the Han Chinese literary society. Some who were involved in this project, including Zou Daijun, went on to create their own mapping business in the 1890s.

This chapter, composed of five sections, explores the transformative era of Qing cartography during the *Guangxu Atlas* project, marking a significant shift from traditional methods by incorporating Han experts from various provinces for the first time. This decentralization posed challenges, especially for Han cartographers who grappled with limited access to Western cartographic techniques and faced provincial budget constraints. The first section delves into the motivations behind the late 1800s revision of the *Huidian*, particularly its unique role alongside the *Yitong zhi* (Unified Gazetteer of the Great Qing) within the court's cartographic resources. This revision was propelled by the urgent need for precise maps during border negotiations with European countries, underscoring the era's demand for cartographic accuracy. The second section outlines the institutional framework supporting the *Huidian* project, detailing the roles of officials, institutions, and policies that facilitated the creation of new maps.⁸ The third section discusses the practical difficulties local governments and cartographers encountered in adopting Western standards. The fourth section highlights the mapping experiences in Hubei, particularly through the work of leading cartographer Zou Daijun under the supervision of governor-general Zhang Zhidong, showing how local efforts contributed to the

⁸ Wang Yifan's dissertation, which explores many overlapping topics and sources related to my own research, has uncovered numerous valuable archival materials about the Guangxu Atlas project. However, Wang's study primarily views the efforts to create the Guangxu Atlas as mere improvements to update Qing cartography, aimed at better representing long-established "Chinese territoriality." In contrast, my research investigates these efforts as part of an ongoing process of defining "Chinese territoriality." I argue that Chinese territoriality was not fully realized until the late Qing period. My work treats the late Qing cartographical efforts as the initial attempts to define the Qing empire as a political space marked by European cartographical techniques, thus offering a distinct perspective on the development of national boundaries and identity of China. Wang Yifan, "Qingmo dili da cehui: yi Guangxu Huidian yutu wei zhongxin de yanjiu" (PhD diss., Fudan University, 2011).

modernization of Qing's cartographic practices. Finally, the fifth section analyzes how the *Guangxu Atlas* was presented, introducing a novel perspective on defining Qing territories on maps and linking it ideologically to subsequent maps produced during the Republican period, especially the influential *Chinese Map of National Humiliation* (*Zhonghua guochi ditu*).⁹

Motivations Behind the Guangxu Court's Revision of the *Huidian*

Creating atlases was a well-established practice in Qing history. Throughout the eighteenth century, the Qing state devoted considerable efforts to producing comprehensive maps of the empire. During the reigns of Kangxi, Yongzheng, and Qianlong, numerous atlases were compiled, gathering extensive geodata from both China proper and the empire's frontiers. These projects mobilized a host of Qing and European missionary cartographers to conduct geographical surveys and incorporated Western cartographical elements into their map-making. Each of these atlases was produced by a dedicated bureau and published independently.¹⁰ However, the atlas-making approach in the late 1800s marked a departure from these earlier endeavors. This later atlas was not an independent project; instead, it was part of another compendium project, the *Huidian*.¹¹

The *Huidian* genre, originating from the ancient *Zhouli* (Rites of Zhou) around the second century BC, outlines the duties and administrative procedures for bureaucracy. Initially adapted in the Tang dynasty (618-907), and further refined during the Song (960-1279) and Ming

⁹ Callahan, "The Cartography of National Humiliation and the Emergence of China's Geobody."

¹⁰ Cams, *Companions in Geography*, Ch2. Xue Zhang, "Imperial Maps of Xinjiang and Their Reader in Qing China, 1660-1860," *Journal of Chinese History*, 2019, 8–18. Cams, "Reimagining Qing Space."

¹¹ As we will explore in later content, maps played an essential role in the *Huidian* project. However, as scholars have described, the *Huidian* atlases prior to the late nineteenth century were "less sophisticated." Zhang, "Imperial Maps of Xinjiang and Their Reader in Qing China, 1660-1860," 17.

(1368-1644) periods, the Qing *Huidian* expanded on this tradition.¹² It incorporated distinctive Qing elements, such as multiethnicity and social classes, into its administrative law.¹³

The inclusion of maps in the Qing *Huidian*, a subject not extensively explored by scholars, prompts questions about their intended purpose. Were these maps simply for understanding administrative districts, or did they have a broader role in defining territories, akin to elements in modern constitutional documents? Tracing back to the Ming *Huidian*, first appearing in 1502, it primarily documented administrative roles but included few images or maps.¹⁴ It was during the early Qing period that the *Huidian*'s content became more complex.¹⁵ The Qing period witnessed frequent updates to this compendium, with three occurrences in the eighteenth century and two in the nineteenth century. These updates indicate a shift towards dynamically documenting bureaucracy, imperial rites, and territories, going beyond the simple maintenance of records.¹⁶

Up to the early nineteenth century, the Qing *Huidian* was categorized into three sections: *Statute* (典), *Precedent* (例), and *Illustration* (圖). During the Qianlong reign in the mid-eighteenth century, the *Huidian* began to distinguish between the Statutes, addressing a variety of issues generally, and the Precedents, detailing specific cases based on prior decisions.¹⁷ The Jiaqing court further developed this categorization by introducing a third genre, the *Illustration*.¹⁸ This new category included graphics of altar setups, ritual implements, musical instruments,

¹² Denis Crispin Twitchett, *The Writing of Official History under the T'ang*, Cambridge Studies in Chinese History, Literature, and Institutions (Cambridge University Press, 1992); Chia-fu Sung, "The Official Historiographical Operation of the Song Dynasty," *Journal of Song-Yuan Studies* 45, no. 1 (2015): 202–3.

¹³ Macabe Keliher, "Administrative Law and the Making of the First Da Qing Huidian," *Late Imperial China* 37, no. 1 (2016): 62–63.

¹⁴ *Ming shilu*, "Xiaozong chao," vol. 194 (1502).

¹⁵ Keliher, "Administrative Law and the Making of the First Da Qing Huidian," 77–99.

¹⁶ Yamane Yukio 山根幸夫, "Min Shin no kaiten" 明·清の会典, in *Chūgoku hōseishi: Kihon shiryō no kenkyū* 中国法制史—基本資料の研究, ed. Shiga Shūzō 滋賀秀三 (Tōkyō Daigaku Shuppankai, 1993), 489–490.

¹⁷ *Da Qing Huidian zeli*, vol. 1.

¹⁸ *Qinding Da Qing Huidian (Jiaqing chao)*, vol. 1.

imperial insignia, military equipment, and, notably, maps of the empire. The rise of the *Illustration* genre signified the Qing's recognition of the legal authority of graphical representations, often paired with written descriptions to enhance their explanatory power. Within the *Huidian Illustration* (會典圖), maps played a key role.

While maps were a longstanding feature in the *Huidian*, their presentation underwent significant changes. The Qianlong *Huidian*, for instance, included maps within the war ministry section, encompassing a map of the entire empire along with twenty-three local maps, covering frontier areas such as Shengjing (the capital of Manchuria, today's Shenyang), Tibet, Mongolia, and the Western Region (today's Xinjiang).¹⁹ Originally, these maps were incorporated into the Statutes as supplements to textual descriptions. However, the Jiaqing court, recognizing the limitations of relying solely on text, transitioned these graphics into independent volumes. Concurrently, the Jiaqing administration embarked on the *Yitong zhi* project from 1811, aimed at presenting comprehensive maps of the entire empire and its provinces.²⁰

This development underscores that it would be an oversimplification to suggest the Jiaqing court neglected maps compared to previous reigns. In fact, from the Jiaqing to the Daoguang, both imperial and local maps were continuously compiled and updated. However, there was a notable shift in the cartographical methods employed. During the eighteenth century, Jesuit missionaries collaborated with Qing cartographers in surveying and drafting maps. In contrast, the early nineteenth century saw the exclusion of European personnel from the map-making process due to Jiaqing's anti-Christianity policy.²¹ This led to a discernible shift in the

¹⁹ *Da Qing Huidian* (Qianlong), "the section of War Ministry," vol. 63.

²⁰ *Jiaqing Yitong zhi*, "Memorial to the throne," written by Mujangga (Muzhang a), vol. 1.

²¹ The Jiaqing court, while not entirely expelling European missionaries, imposed numerous restrictions on their activities both in Beijing and throughout the empire. The first notable conflict arose in 1804 with Adeodato di Sant'Agostino, an Italian missionary who had been in Beijing since 1784. He was discovered to have employed a man from Guangdong, Cheng Tianwang, to assist in sending out multiple letters in foreign languages and Chinese.

style of the maps produced during this period, which became more pictorial and lacked the Western cartographic elements characteristic of earlier maps.²² Additionally, starting from the early nineteenth century, the court faced increasing fiscal retrenchment. The strain of managing civil unrests across the empire significantly constrained the empire's fiscal capacity.²³ Although the Daoguang court persisted with imperial book projects like *Yitong zhi*, the financial and political challenges meant that the court had less interest in conducting new geographical surveys or creating Western-style maps, unlike in the eighteenth century.

Despite the lack of Western cartographical elements, the *Yitong Zhi* project significantly involved Han Chinese low-level officials in the geographical writing enterprise. As Mosca has indicated, after Qianlong's death in 1799, the empire witnessed a gradual loosening of censorship regarding frontier geography knowledge.²⁴ This change marked a stark contrast to the late eighteenth century when only elite bureaucrats and bannermen had access to this information. Frontier information gradually became accessible to Chinese readers with little connection to the central state, a scenario unimaginable earlier. Han literati like Gong Zizheng (1792-1841), Xu Song (1781-1848), and He Qiutao (1824-1862) began creating private writings about the

Complicating matters further, the local authorities uncovered a map of the Dengzhou prefecture in Shandong among their findings. This discovery quickly garnered attention from Beijing and marked the beginning of religious tensions under the Jiaqing Emperor. This incident likely contributed to the emperor's growing suspicions regarding the intentions of European missionaries. This incident led to the appearance of two regulations on European missionaries, "Xiyang tang guangli zhangcheng (西洋堂管理章程)" and "Tianzhujiao zhizui zhuankuan (天主教治罪專款)." See Zhongguo diyi lishi dang'anguan, *Qing Zhong qianqi xiyang Tianzhujiao zaihua huodong dang'an shiliao* (Zhonghua shuju, 2003), 830. Yueh-chieh Chao, "Detianci jiao'an shimo," *Shizhe* 9 (2013): 33-51.

²² *Jiaqing Yitong zhi*, "Huangyu quantu," vol. 1. The *Jiaqing Yitong zhi* atlas, unlike the eighteenth-century imperial atlases, does not feature longitude and latitude markers or a grid system. It was created in the traditional Chinese pictorial style, which eschews mathematical projections. The project spanned from the Jiaqing to the Daoguang reigns, taking several decades to complete. Rather than conducting local surveys, the compilation of the *Jiaqing Yitong zhi* was carried out by the Guoshi guan in Beijing, which relied on existing court data to update territorial information not included in the previous *Yitong zhi*.

²³ Susan M. Jones and Philip A. Kuhn, "Dynastic Decline and the Roots of Rebellion," in *The Cambridge History of China*, edited by John K. Fairbank, 107-62.

²⁴ Mosca, "The Literati Rewriting of China in the Qianlong-Jiaqing Transition," 113-18. Seunghyun Han, *After the Prosperous Age: State and Elites in Early Nineteenth Century Suzhou*, Intro.

imperial frontier regions, facilitated by their involvement in imperial gazetteer projects such as the *Yitong Zhi* and *Huidian*.

For instance, Gong Zizheng's engagement with frontier geography started around 1812, influenced by his father's friend Cheng Tongwen (?-1823), who hired Gong to assist in editing the Lifan Yuan section of the *Huidian*, deeply intertwined with frontier geography.²⁵ By the 1820s, Gong had become familiar with a variety of sources produced by the imperial court. In 1821, while working as an editor in the State Historiographer's Office (*guoshi'guan*), Gong submitted a proposal for improving the new *Yitong Zhi*, highlighting errors in the previous edition. Gong's proposal included critical observations about territories that should have been part of the empire but were omitted. Gong utilized various court sources like *Xiyu tuzhi*, *Huangchao wenxian tongkao*, and *Menggu wanggong biao* to demonstrate these oversights, such as the case of Tannu Uriankhai, where he argued that tribal leaders in that region still constantly paid tribute to Beijing at the time.²⁶

The early nineteenth-century *Yitong Zhi* project, therefore, not only incorporated Han literati already interested in frontier geography but also enhanced their familiarity with the subject. This is why Zhang Yuanji (1867-1959), a renowned Republican scholar with extensive knowledge of Chinese books and a background in the late Qing's Zongli Yamen, lauded the Jiaqing *Yitong Zhi*, saying, "In the present day, to study geography, if one seeks an official and credible source that came later, there is no better choice than this book."²⁷ However, while the *Huidian* and *Yitong zhi* projects greatly enhanced the Han literati's grasp of the imperial frontiers, offering insights into imperial geography and maps as we observed in the previous chapter, there

²⁵ Guo Liping, *Jueyu yu juexue*, 117-120.

²⁶ Gong Zizheng, "Shang guoshiguan zongcai tidiao zongzuan shu," *Gong Zizheng quanji* (Shanghai guji chubanshe, 1999), 312-318.

²⁷ *Jiaqing Yitong zhi*, "ba," vol. 29.

was still ambiguity in the early nineteenth century about which maps from these imperial compendia served as the authoritative reference for border delineation.

Beyond the pressing need for maps in diplomatic negotiations discussed in the previous chapter, the Qing court in the 1880s faced an urgent requirement to revise the *Huidian*, reflecting significant organizational changes within the empire, particularly with the establishment of the new institution, the Zongli Yamen. Since the 1860s, the Qing government underwent substantial political reorganization, highlighted by the containment of the Taiping Rebellion in 1864 and major leadership changes following the death of the Xianfeng emperor in 1861. Empress Dowager Cixi (1835-1908) and Prince Gong, Yixin (1833-1898), steered a series of influential reforms, with the establishment of the Zongli Yamen being a pivotal development.²⁸ This office, crucial in diplomatic affairs and border negotiations, underscored the necessity of an updated *Huidian* in this period of relative political stability.²⁹ The need for a new *Huidian* was acknowledged even before the Guangxu reign, but it was only in 1886 that the court initiated the project. Prince Chun, Yixuan (1840-1891), had proposed this recompilation in 1873, which was approved, but progress stalled after the death of the Tongzhi emperor.³⁰

In 1883, Yanxu (1828-1887), a Manchu official, submitted a memorial to the throne, voicing his concerns about the stagnation in updating the *Huidian*. He noted that while previous versions of the *Huidian* were typically completed within a decade, the current project, despite having started ten years prior, was notably behind schedule. There was neither a bureau

²⁸ Mosca, *From Frontier Policy to Foreign Policy*, Ch8; Van de Ven, *Breaking with the Past: The Maritime Customs Service and the Global Origins of Modernity in China*, Intro; Day, *Qing Travelers to the Far West: Diplomacy and the Information Order in Late Imperial China*, Intro. Halsey, *Quest for Power: European Imperialism and the Making of Chinese Statecraft*, Intro.

²⁹ Anne-Sophie Pratte, "Mapping Pasturelands: The Production of Geographical Knowledge in Nineteenth-Century Qing Mongolia," *Late Imperial China* 43, no. 2 (2022): 139–78. Wang Yifan and Zhang Jiajing, "Tongzhi chunian jiangnan dixing cehui yanjiu," *Zhongguo keji shi zazhi* 37, no.2 (2016): 174-188.

³⁰ *Qing shilu*, *Dezong Jin Huangdi shilu*, vol. 231, "Guangxu 12th year, the eighth month."

established to oversee the compilation of this essential compendium, nor had a director or vice director been appointed. Yanxu's alarm was evident in his statement: "Some offices have completed the new regulations while others have not. If we allow each office to procrastinate and do not designate a specific bureau to take responsibility and ensure completion, we are deeply concerned that time will pass without progress, and historiography will be left behind."³¹ Yanxu underscored the critical role of the *Huidian*, likening it to the constitution of the Qing empire, as it was a fundamental compendium that "guides the court's governance and administrative procedures."³² Yanxu's view of the *Huidian* as the empire's constitutional compendium reflects its comprehensive evolution, particularly with the Jiaqing *Huidian*'s introduction of the Illustrations genre. This development, incorporating a wide range of visual elements, signified the Qing government's recognition of the importance of visuals in complementing textual records for legal and administrative purposes.

Establishment of the *Huidian* Illustration Bureau

In 1886, three years after the suspension, the Qing court officially reinitiated the *Huidian* project and established a bureau to manage it. The critical issue at hand was selecting someone to lead this complex mapping endeavor. The court had not engaged in projects using European cartographic techniques for over a century, leading to uncertainty about whether any Beijing officials had the necessary expertise in Western cartography to oversee such a major enterprise. The stark reality was that no official in Beijing possessed sufficient map drafting skills. Despite the founding of new naval academies like the Fujian Naval College (船政學堂) and Tianjin Naval College since the late 1860s, where students received training in mapping for military

³¹ Zhu Shuopeng ed., *Guangxu Donghua lu*, "Guangxu nineth year, the eighth month," (Zhonghua shuju, 1958), 1580.

³² *Guangxu Donghua lu*, "Guangxu nineth year, the eighth month," 1580.

operations, these individuals typically lacked imperial degrees, making them ineligible for court service on the project.³³ The *Huidian* bureau thus decided to consider a proposal from Huang Guojin (1849-1890), an imperial degree holder.³⁴ Nonetheless, the process of selecting leadership for the atlas project proved to be more problematic than anticipated.

Huang Guojin, awarded the metropolitan degree in 1876, was deeply influenced by his family's profound engagement with geography. His father, Huang Pengnian (1824-1890), also a metropolitan degree recipient, had significantly contributed to the geographical scholarship during his service in Luo Bingzhang's administration at the zenith of the Xiang army's conflict with the Taiping rebellion.³⁵ Pengnian was notably active within Beijing's northwestern geography circle, fostering connections with eminent scholars like Feng Guifen (1809-1874) and He Qiutao (1824-1862).³⁶ His pivotal role in promoting Qiutao's work, *Shuofang beicheng* (Complete Records of Northern Frontiers), alongside his duties as the general editor of the new gazetteer, *Jifu tongzhi*, for Li Hongzhang, illustrates the confluence of military and scholarly networking within the Huang family.³⁷

Pengnian's thirteen-year tenure on the *Jifu tongzhi* project is believed to have significantly influenced Guojin, exposing him to the process of creating local gazetteers and maps. One notable innovation was the use of a grid system in the maps of Zhili, enhancing their

³³ Zhongguo diyi lishi dang'an guan, *Guangxu chao zhupi zouzhe* (Beijing: Zhonghua shuju, 1995), vol. 104, 391. This memorial, authored by Yulu, the Shengjing general, requested an extension for their local mapping task. The subsequent section will delve into the responses from local offices and the challenges encountered during the execution of this task.

³⁴ Huang Guojin, "Guoshi xiaoyou benzhuang," Zhu Qiqian edited, *Xunzhen shuwu yigao* (Zijian Zhushi cunsu tang, 1943), i-ii.

³⁵ Zhang Zhidong, "Luchen Huang Pengnian Huang Guojin shishi qin xuanfu shiguan lizhuan zhe," *Zhang Zhidong quanji* (Hebei renmin chubanshe, 1998), vol. 2, 853.

³⁶ Guo Liping, *Jueyu yu juexue*, 279-280.

³⁷ Li Hongzhang, "Preface," *Jifu tongzhi* (Shangwu yinshuguan, 1934), 1.

precision.³⁸ Although these grids were square and did not account for the earth's curvature or projection, they marked a substantial update in geodata. Unlike the Yongzheng edition, which included maps of the imperial capital and sixteen prefectures without any at the county level, the Guangxu edition expanded to feature detailed maps of all counties and subprefectures, indicating extensive geographical surveys had been conducted.³⁹

This era also witnessed a paradigm shift from astronomy to geography within scholarly priorities. Traditionally, local gazetteer composition gave precedence to astronomy, tracing back to the *Zhouli*'s astronomical framework.⁴⁰ However, by the nineteenth century, the demand shifted towards more tangible geographical data for local administration. Reflecting this change, the *Jifu tongzhi* during Guangxu reign repositioned the astronomy section after geography, underscoring the enhanced emphasis on cartography valued by Li Hongzhang and Huang Pengnian.⁴¹ Although direct evidence is lacking, it is plausible that Guojin's exposure to his father's mapping projects significantly influenced his later interest in and knowledge of geography and mapping.⁴²

³⁸ It is often claimed that the *Jifu yudi quantu*, published in 1884, shares the same maps as those in the *Jifu tongzhi*, released in 1881. However, a closer examination of the maps in both collections reveals noticeable differences. The most significant distinction lies in the gridding: while all maps in the *Jifu tongzhi* are gridded, the *Jifu yudi quantu* distinguishes itself by removing the grid from its provincial map, though it retains the gridding for the county-level maps. Li Xiacong, *Meiguo guohui tushu guancang zhongwen gu ditu xulu* (Beijing: Wenwu chubanshe, 2004), 38.

³⁹ In the preface, Huang Pengnian admitted that the format of the Guangxu *Jifu tongzhi* was greatly influenced by the Guangdong *tongzhi*, detailing maps at the county and subprefecture levels. This approach marked a departure from previous gazetteers, which only included maps of provinces, provincial capitals, and directly governed prefectures. Li Hongzhang and Huang Pengnian, *Jifu tongzhi* (Shangwu yinshuguan, 1884), 9.

⁴⁰ For an exploration of how astronomy and geography were employed to consolidate Qing political ideology during the late seventeenth and eighteenth centuries, see Wen-liang Lee, "Qingchu Taiwan fangzhi de fenye shanmei yu diguo yishi xingtai," edited by Huang Yonghao et al., *Bianchui shehui yu guojia jiangou* (Daoxiang chubanshe, 2017), 361-384.

⁴¹ While the Guangxu *Jifu tongzhi* still included astronomy section, yet the relevant content had been greatly reduced. It even says that "We have retained the astronomy section merely because it has a long tradition of being included, merely to provide a broad overview based on historical records." *Jifu tongzhi*, vol. 56, 25.

⁴² In a letter to the general-director of the Huidian bureau, Huang proposed how thought about compiling the Huidian should be. Guojin mentioned that he had guidelines for the Kangxi and Qianlong *Huidian* (but he did not find the Yongzheng and Jiaqing guidelines at that time) in his private collection, signaling the Huang family did invest a significant amount of efforts for completing the task of compiling gazetteers. Most importantly, as Guojin

In 1876, after earning his metropolitan degree, Huang Guojin ascended to prestigious positions within the Beijing bureaucracy, such as the Hanlin Academy and the State Historiographer's Office.⁴³ The reasons for his concentration on capital roles over local appointments remain unclear.⁴⁴ Nonetheless, his tenure in Beijing granted him a profound familiarity with the court's archives, a factor that likely influenced his later role as the general editor at the *Huidian* bureau.

Moreover, Huang's advancement was arguably impacted by his senior, Xu Tong (1819-1900), a figure of considerable stature in the late Qing court. Formerly the Tongzhi emperor's tutor, Xu Tong remained influential under the Empress Dowager Cixi despite falling out of favor with the Guangxu emperor.⁴⁵ Appointed to prominent positions like director of the Hanlin Academy and General Master of the Emperor Study (Shang shufang zong shifu), Xu likely oversaw Huang during his Hanlin Academy service, hence Huang's reference to Xu as his master.⁴⁶ Yet, Xu's stance against Westernization placed him at odds with the pro-Self-Strengthening officials like Li Hongzhang and reformists such as Kang Youwei.⁴⁷

This situation created a notable paradox: the *Huidian* mapping project was spearheaded by officials who neither supported modernization nor had expertise in cartography. Consequently, the selection process for the *Huidian* atlas project prioritized candidates with a metropolitan degree who were skeptical of foreign influences. Yet, political leanings and ideological stances were not the sole factors; practical skills mattered. Officials like Huang

came to the discussion about establishing illustration bureau (huatu chu), he used Jifu tongzhi as one of the examples of newly made maps. Huang Goujin, "Shang Huidian zongcai shu," *Xunzhen shuwu yigao*, 131-133.

⁴³ Huang Guojin, "Guoshi xiaoyou benzhuang," Zhu Qiqian edited, *Xunzhen shuwu yigao*, i.

⁴⁴ Intriguingly, there is no resume data of Huang Guojin in the Qing archive, *Qingdai guanyuan lili quanbian* (Huadong shifan daxue chubanshe, 1997).

⁴⁵ "Xu Tong," *Qingshi gao*, vol. 465.

⁴⁶ "Xu Tong," *Qingshi gao*, vol. 465.

⁴⁷ Fei Xingjian, "Xu Tong," *Jingdai mingren xiaozhuan*, 131.

Guojin, who were well-versed in geography yet cautious about foreign collaboration, were essential. I will detail the roles of other officials involved in the project later. For now, let's explore Huang's vision and approach to the mapping project.

Between 1886 and 1889, Huang wrote to his mentor, Xu Tong, the director-general of the *Huidian* bureau, to decline an additional supervisory role over graphics (*tushang tidiao*) alongside his assistant general editor responsibilities. He argued that with three supervisors already in place, a fourth would be superfluous.⁴⁸ Huang expressed concern about the slow pace of gathering archival sources from various offices, noting, "This year, over seven thousand documents (from various offices) have been submitted to the (*Huidian*) bureau. However, the existing illustrations are still not detailed enough. Redrawing and augmenting these illustrations would take more than ten years to complete. If we wait to finish the entire compendium with illustrations, we might see our hair turn white with age, but we will not see the day when the project is finally concluded."⁴⁹ His apprehension about the progress of the illustration was evident even in these early stages. Guojin believed that if the textual and graphic sections were not worked on simultaneously, the project would face significant delays.

Guojin also identified the lack of dedicated staff for the bureau project as another hindrance. He referred to the compilation of the Ming *Huidian* in the sixteenth century, where officials were required to devote their full attention to the project without holding other positions. This approach, according to Huang, contributed to the comprehensive nature of the Wanli *Huidian*.⁵⁰ Thus, Guojin suggested that not only should he not be burdened with additional

⁴⁸ Huang Guojin, "Shang zongcai Xu yinxuan zuoshi shu," *Xunzhen shuwu yigao*, 129.

⁴⁹ Huang Guojin, "Shang zongcai Xu yinxuan zuoshi shu," *Xunzhen shuwu yigao*, 129.

⁵⁰ Huang Guojin, "Shang zongcai Xu yinxuan zuoshi shu," *Xunzhen shuwu yigao*, 129.

responsibilities, but ideally, all members of the bureau should be relieved from their current roles to focus exclusively on this compilation task.

Subsequently, Huang sent another proposal to Xu Tong, offering strategies to expedite the *Huidian* project. He outlined five key suggestions for the project's leadership. The first three focused on providing the team with access to earlier editions of the *Huidian*, the *Da Qing Tongli*, and sources from the inner court (*neiting*).⁵¹ His fifth suggestion involved the inclusion of tables in the Precedent (*zeli*) to enhance content presentation, particularly for geographical information⁵². Huang proposed adopting the table format used in the *Yitong zhi* and *Huangyu biao* as models for these tables.⁵³

The fourth suggestion, however, warrants further scrutiny. Huang underscored the critical need for a dedicated bureau for illustrations, given the significant administrative, fluvial, and territorial changes since the mid-nineteenth century *Huidian*. With the burden of illustration tasks growing, he pointed out that maps were the most crucial yet challenging aspect. He proposed devising entirely new maps, using those by Li Zhaoluo and Hu Linyi from the early to mid-nineteenth century as foundations. Additionally, Huang advised that provinces with recent maps and gazetteers should submit these to the imperial court. He cited various sources, including his father's *Jifu yutu*, recent maps of Taiwan and Manchuria, and collections from both the Zongli Yamen and the Beiyang office.⁵⁴

⁵¹ Huang Guojin, "Shang Huidian zongcai zongzuan shu," *Xunzhen shuwu yigao*, 130-132.

⁵² Huang Guojin, "Shang zongcai Xu yinxuan zuoshi shu," *Xunzhen shuwu yigao*, 133-134.

⁵³ The *Huangyu biao*, created in 1679 yet officially printed in 1699, was designed to compile tables that document the historical place names of specific localities, spanning from the ancient era of Tang and Yu during the reigns of Yao and Shun, through to the Ming dynasty. This work is a manifestation of the Chinese yange geography tradition. Cao Hongjun, "Kangxi Huangyu biao de bianzuan jiqi zai Suzhou de kanke guocheng kao," *Xin shiji tushuguan* 3 (2007): 53-55.

⁵⁴ Huang Guojin, "Shang zongcai Xu yinxuan zuoshi shu," *Xunzhen shuwu yigao*, 132.

For provinces lacking updated maps and gazetteers, Huang suggested they begin the process of creating new maps and revising geographical information, particularly regarding military stations and passes. A six-month deadline was proposed for these provinces to submit their updated materials – an ambitious and perhaps unrealistic timeline, given the task’s complexity.⁵⁵ This task not only involved reviewing thousands of documents but also conducting extensive on-site surveys. Huang’s limited experience in mapmaking and lack of familiarity with local office operations might have contributed to this impractical timeframe. Nonetheless, understanding Huang's approach to managing the mapmaking project is crucial, as he was the primary architect of the map-drawing instructions that would guide all local offices.

In 1889, the court staffed the newly formed illustration bureau with three general editors who had all obtained the metropolitan degree: Sheng Zengzhi (1850-1922), Tang Jingchong (1844-1914), and Kuai Guangdian (1857-1910). Tang, who received his metropolitan degree in 1871, primarily served at the court and did not take up provincial duties until 1894, when he was tasked with overseeing examinations in Guangdong. The rationale behind Tang’s appointment as a general editor remains ambiguous. Although his court service implies a degree of familiarity with the imperial archive, there are no explicit sources suggesting expertise in geography or cartography.⁵⁶

⁵⁵ Huang Guojin, “Shang zongcai Xu yinxuan zuoshi shu,” *Xunzhen shuwu yigao*, 132.

⁵⁶ The only reference, at least I have found so far, to Tang Jingchong's involvement in the *Huidian* project comes from a response regarding his 1893 promotion to the position of general proofreader (*zongjiao*). In it, Tang states, “Since the commencement of the new *Huidian* compilation, I have served as the chief editor for illustrations for five years. My skills in cartography and drafting are not finely honed, nor is my writing particularly apt. Now, I am additionally entrusted with the role of chief proofreader, a responsibility that compounds the weight upon my shoulders. Acknowledging my limitations, I am committed to redoubling my efforts to study diligently and proofread with utmost care...” “溯自會典開修，臣充圖上總纂，迄今五稔，繪圖則測算未精，纂說復文鮮當，今復命總校閱，責任愈重，如臣譎陋，深懼弗勝，臣唯有加意研求，悉心推勘...” *Jingdia shisuo cang Qingdai minren gaoban*, collection 1, vol. 113, “Tang Jingchong dang 2,” 301-302.

Another general editor was Kuai Guangdian. Kuai was appointed as one of the general editors, but he later resigned from the position while continuing to serve in the *Huidian* bureau.⁵⁷ The specific reasons behind his selection in this project are unclear, but it might be related to his father's long-term service in the Jiangnan area and their connections with prominent literati like Feng Guifeng (1809-1874), known for advocating a new and more accurate method of map drafting.⁵⁸ After obtaining his metropolitan degree in 1882, Kuai stayed predominantly in the capital region. His appointment as an editor was to oversee the illustration component of the project, working in collaboration with Huang Guojin on the mapping guidelines to be disseminated to the provinces and local offices.⁵⁹

Shen Zengzhi, renowned for his knowledge of the geography of Xinjiang and Mongolia in different dynasties, was the third general editor in charge of mapping. In the 1880 metropolitan exam, a thesis question on “the states outside the northwestern frontier” prompted Shen to elaborate on the region's complex ethnicities and historical changes.⁶⁰ Shen's essay subtly argued that records of nations beyond the frontier had existed in previous dynasties. He cited historical documents from the Han to the Yuan dynasties that referenced states such as Russia and Turkey.⁶¹ Moreover, Shen's discussion on the Tujue ethnicities included insights from Western maps, noting a group called ‘Niuti Tujue’ living near the North Pole, characterized by their short stature and hairy legs.⁶² This extensive use of both Chinese and European sources in his essay earned Sheng high praise from Li Ciming (1830-1895), who passed the metropolitan exam the same year. Li commended Shen for his thorough research of histories, careful study of

⁵⁷ Huang Guojin, “Shang zongcai Xu yinxuan zuoshi shu,” *Xunzhen shuwu yigao*, 129.

⁵⁸ Kuai Guangdian, *Jinsu zhai yiji* (Wenhai chubanshe, 1969), 15.

⁵⁹ Kuai Guangdian, *Jinsu zhai yiji*, 39.

⁶⁰ Xu Quansheng, *Sheng Zengzhi nianpu changbian* (Zhonghua shuju, 2007), 35-36.

⁶¹ Shen Zengzhi, “Guangxu gengchen ke huishi diwu cedui,” *Hairi lou wenji* (Guangdong jiaoyu chubanshe, 2019), 233-235.

⁶² Shen Zengzhi, “Guangxu gengchen ke huishi diwu cedui,” 234.

maps, and meticulous verification of location sounds, highlighting Sheng's profound knowledge in these areas.⁶³

The Qing court's approach to staffing the *Huidian* mapping project underscores a marked preference for archival knowledge over cartographic expertise, a decision that reflects a deeper epistemological priority: the valuing of textual authority over technical craft.⁶⁴ Leadership positions were filled by individuals like Sheng Zengzhi, Kuai Guangdian, and Huang Guojin, who, despite their familiarity with imperial geography and nineteenth-century maps by Li Zhaoluo and Hu Linyi, lacked substantial mapping skills. Sheng's knowledge of frontier geography and Kuai's potential exposure to mapping through Feng Guifen suggest some awareness, yet neither displayed concrete expertise in the field. This pattern reveals the court's significant underestimation of the need for specialized cartographic experience in creating new imperial maps. By valuing the ability to navigate the vast imperial archives over actual mapping proficiency, the court inadvertently highlighted its ignorance of the technical complexities involved in cartography and surveying. This choice reveals not only a gap in strategic planning but also a telling insight into the court's attitude towards the task—prioritizing individuals proficient with historical sources over those with professional training in Western cartography. This oversight became evident in the mapping instructions issued to local offices.

(1) The 1889 Guideline

In 1889, after three years of preparatory work, the bureau released the initial “Guideline for Drawing Images and Maps (huatu zhangcheng),” consisting of five guidelines. This was followed in 1890 by a more detailed and comprehensive set of guidelines, designed to provide

⁶³ Xu Quansheng, *Sheng Zengzhi nianpu changbian*, 40.

⁶⁴ This distinction parallels the classic argument regarding the historical separation between the textual/theoretical traditions of the Renaissance and the craft/practical knowledge of the Scientific Revolution. Edgar Zilsel, *The Social Origins of Modern Science*, ed. Diederick Raven (Kluwer, 2003), chap. 1.

in-depth instructions for local offices on map drawing. The introduction of the first guideline highlights the paramount importance of maps, stating:

The Jiaqing *Huidian* is divided into three collections: Statute, Precedent, and Illustration, each complementing the others. Illustration serves to provide clarity in areas where Statute and Precedent are insufficient. The Illustration encompasses rituals, ceremonial vessels, music, measures, weights, clothing, royal escorts, and astronomical equipment, all of which should be faithfully recreated based on original images. Regarding military weapons, updates are necessary to reflect new models. However, for those weapons that are newly developed and lack a standardized form, creating drawings is not feasible. In the case of the geography section, even though changes have been slight, they have become increasingly important due to the evolving situation. Therefore, the geography section requires thorough revision and redrawing to reflect these critical developments.

恭查嘉慶《會典》，分典、例、圖為三，相輔而行。典、例所不備者，每賴圖以著明。圖中禮制、祭器、樂律、樂器、度量、權衡、冠服、輿衛、天文儀器之屬，並應遵照原圖考繪。武備之屬，須酌增新式數事。其日出而無定式者，不能畫圖。惟輿地一門，今昔情形稍異，關係至切，為用尤宏，極應重繪。⁶⁵

Therefore, the Guangxu *Huidian* guideline marked a shift in the government's attitude toward maps. Previously, graphics primarily served to fill the gaps where text was insufficient, with a stronger focus on images, such as imperial implements, rituals, and weapons. During that era, maps did not receive as much emphasis, partly because other imperial projects like the *Yitong zhi* and the eighteenth-century imperial atlases (*neifu yutu*) already existed, covering geographical aspects. However, in the Guangxu *Huidian*, there was a clear prioritization of maps, reflecting their urgent necessity for updates due to evolving circumstances in the late nineteenth century.

The 1889 proposal provided a summary of the role of geography and maps in imperial projects, tracing the origins of imperial map-making efforts back to the Kangxi reign and noting significant advancements during the Qianlong period. This era of expansion into “Huijiang (today's Xinjiang), Qinghai, Zangwei (Ü-Tsang, roughly today's Tibet), and Jinchuan” was characterized by enhanced maps featuring “surveying the sources of rivers, measuring the

⁶⁵ “Zhabei fansi deng chouyi kaiban yutu ju,” *Zhang Zhidong quanji*, vol. 5, 193.

astronomy, and examining the degrees of longitude and latitude.⁶⁶ The European gridded mapping style, introduced during the Kangxi reign, was particularly emphasized. The proposal underlined the substantial updates to maps, which were then expanded upon in the Jiaqing *Huidian* to include more frontier regions. However, the author emphasized that, in contrast to the eighteenth-century imperial atlases, the *Huidian* maps were crafted not in European cartographical methods but in a traditional pictorial style.⁶⁷

The author identified another major shortcoming: despite centuries of accumulating geographical knowledge and creating maps, the *Huidian* maps were primarily focused on macro-level geography, such as provincial capitals, and lacked detailed mappings of local counties.⁶⁸ As highlighted in the first chapter, there was a significant demand for accurate and detailed county-level maps for military operations against the Taiping Rebellion among the Han Chinese militias. However, the available maps at the time were insufficient for these purposes. This led Xiang army leaders like Zeng Guofan and Hu Linyi to commission local Han cartographers, including members of the Zou family, to produce operational maps of counties. Despite having a collection of finely crafted atlases, Beijing was unable to provide more useful maps and geodata to these Xiang army leaders, as such detailed local mapping had not been a priority in the previous century.⁶⁹ This oversight became particularly significant in light of the considerable changes and reorganizations in administrative jurisdictions during the late nineteenth century. Notably, Taiwan and Xinjiang were designated as provinces, and several new counties were established in

⁶⁶ “Zhabei fansi deng chouyi kaiban yutu ju,” *Zhang Zhidong quanji*, vol. 5, 193.

⁶⁷ “Zhabei fansi deng chouyi kaiban yutu ju,” *Zhang Zhidong quanji*, vol. 5, 193.

⁶⁸ “Zhabei fansi deng chouyi kaiban yutu ju,” *Zhang Zhidong quanji*, vol. 5, 193.

⁶⁹ In 1851, the second year of the Taiping Rebellion, Zeng Guofan submitted a complaint to Beijing, highlighting the lack of useful maps for planning military counter-attacks. He remarked, “Despite the existence of the Kangxi and Qianlong atlases in the inner court, I have never heard that key officials have requested the emperor to review them thoroughly (今軍興一載，外間既未呈進地圖，規畫全勢。而內府有康熙輿圖、乾隆輿圖，亦未聞樞臣請出與皇上熟視審計).” Zeng Guofan, “Jingchen shengde sanduan yufang liubi shu,” *Zeng Guofan quanji*.

Manchuria. Additionally, there were changes in river courses and, most importantly, frequent alterations to the borderline.⁷⁰ These evolving geographical and administrative realities underscored the need for updated and detailed mapping. Therefore, the primary goal of the new *Huidian* atlas project was not just to adopt European cartographical standards but also to map the empire's newest and most granular administrative units, as well as delineate the newly established borders.

The 1889 proposal outlined five guidelines for map drawing. The first guideline suggested that general maps of the empire should be drafted with longitude and latitude, while local maps could employ traditional Chinese cartographical methods, specifically the 'niaoli kaifang' approach.⁷¹ This approach was a "rediscovery" by the early Qing scholar, Hu Wei (1633-1714), of Pei Xiu's (224-271) cartographical theory from over a thousand years earlier.⁷² This approach mirrored the understanding of cartography held by Zuo Zongtang, as discussed in the previous chapter. It suggests that the leadership of the *Huidian* bureau may not have completely comprehended the substantial differences between Chinese and European cartographical practices. Their application of longitude and latitude was predominantly influenced by the maps available at the time and the prevailing Chinese cartographical tradition.

According to the proposal, the most accurate maps at their disposal were early nineteenth-century maps published by Li Zhaoluo (1769-1841) and those made by Hu Linyi. These were deemed accurate because they included longitude and latitude and utilized the drawing method of the eighteenth-century atlas. Despite acknowledging some debatable aspects in these maps, the proposal suggested that their directional accuracy was generally reliable.

⁷⁰ "Zhabei fansi deng chouyi kaiban yutu ju," *Zhang Zhidong quanji*, vol. 5, 193.

⁷¹ "Zhabei fansi deng chouyi kaiban yutu ju," *Zhang Zhidong quanji*, vol. 5, 193.

⁷² Hu Wei, *Yugong zhuizhi* (Shanghai guji chubanshe, 2011), 122-123.

Consequently, it was recommended that Li and Hu's maps serve as the base, to be updated through actual surveys.⁷³

The proposal detailed that the first set of general maps should represent the eastern and western hemispheres at a scale of 400 li. The second set should depict the imperial territories at a scale of 100 li, consisting of various map pieces. The third category would include local maps detailing provinces, capitals, and counties. Furthermore, all mapping symbols – such as cities, military stations, mountains, and waters – were to be represented, aligning with the symbols used in Hu Linyi's maps.⁷⁴

The second and third guidelines of the 1889 proposal focused on the contents of local maps and the inclusion of updated illustrations. Specifically, the second guideline outlined that maps at the provincial level should encompass detailed geographical information, including prefectures, local capitals, counties, mountains, rivers, military stations, and passes, among other features. At the county level, the maps were required to include details about local topography and geography such as mountains, ports, and village forts (*cunbao*). The third guideline stipulated the continuation of the old *Huidian* practice of incorporating updated illustrations. These illustrations were to provide information on distances from imperial and provincial capitals and document any changes in river courses.⁷⁵ While these two guidelines were not explicit about certain specifics, like the drafting process for local maps or the responsibility for geographical surveys and drafting, such details were addressed in subsequent guidelines, particularly those concerning borderlines.

⁷³ “Zhabei fansi deng chouyi kaiban yutu ju,” *Zhang Zhidong quanji*, vol. 5, 193.

⁷⁴ “Zhabei fansi deng chouyi kaiban yutu ju,” *Zhang Zhidong quanji*, vol. 5, 194.

⁷⁵ “Zhabei fansi deng chouyi kaiban yutu ju,” *Zhang Zhidong quanji*, vol. 5, 194.

The fourth guideline specifically addressed the “old border (jiujie),” stipulating that it should define the shape of the empire. This aspect, as discussed earlier in this chapter and the previous one, highlights the contentious nature of the “old border” definition. The guideline itself warrants a detailed analysis:

The detailed examination of border territories is necessary. In recent years, there have been instances of establishing treaties demarcating borders with various countries. The original maps depicting **old borders** should not be altered. In repeatedly drawing these borders, it's acceptable to meticulously record in the maps the names of passes, military stations, villages, chieftaincies, and towns, marking them clearly. It is imperative to request the Zongli Yamen to thoroughly inspect the border treaties and maps and dispatch them to the bureau. Concurrently, the bureau should issue directives to the three northeastern provinces, Xinjiang, Guangxi, and Yunnan, to draw detailed maps and submit comprehensive reports to the bureau. Regarding regions like Mongolia, Altishahr, and Tibet, which lack provincial administrative structures, directives should be issued to the northeastern provinces, Xinjiang, Sichuan, and other neighbor provinces. The provincial generals and governors should select individuals proficient in geography and mathematics, along with skilled draftsmen, to survey both **new and old borders** in these regions. Detailed survey reports and drafts should be submitted to the bureau, which will then cross-reference both official and private maps to create a comprehensive one. This map should assist in border management and prevent foreign powers from exploiting any ambiguities. Should the officials dispatched by the provinces conduct inadequate surveys or produce erroneous maps, the responsibility shall lie solely with the respective generals and governors. This matter is of immense importance and should be handled with utmost caution and diligence.

一、疆界宜詳察也。近年以來，有與各國立約分界之案。原圖舊界，不可更動。所有屢次畫界，但可於圖中詳記關口、卡倫、鄂博、噶珊、土司、村鎮地名，連點標明。應請飭下總理各國事務衙門，詳檢定界條約及圖籍送館。一面由館中行文東三省、新疆、廣西、雲南，各繪詳圖，附以詳說報館。至蒙古、回疆、西藏及各邊外無省份可屬之區，應請諭令東三省、新疆、四川及沿邊各省將軍、督撫，擇派明習地理算學數人，攜帶算生畫手，分循新界舊界，履勘采訪，測繪詳記呈館，再由臣館檢官私圖書印證，庶圖成可佐籌邊之用，亦不致貽他族口實。如各省所派之員，采訪不實，繪記舛誤，查出惟該將軍、督撫是問。此事所關尤巨，倍當慎之於幾先爾。⁷⁶

In this context, the instruction clearly delineates Qing territory according to the old *Huidian* maps, establishing a textual foundation for the notion of the “old border.” As previously examined in the chapter on Sino-Russian border negotiations, the concept of the “old border”

⁷⁶ “Zhabei fansi deng chouyi kaiban yutu ju,” *Zhang Zhidong quanji*, vol. 5, 194.

was a point of contention between Han Chinese and Manchu officials. One side argued that any area under the Qing's political influence in the past should be considered part of its territory, while the other side maintained that "the old border" should be defined solely by the treaty signed by General Mingyi in the 1860s. The Xiang army leaders' thought on the "old border" agreed with Zhang Zhidong's proposal, which was seen as even more radical for claiming territories based not only on Qing sources but also on those from previous dynasties.⁷⁷ The *Huidian* bureau, however, did not adopt these radical suggestions from Han officials. Instead, it proposed a more moderate approach, suggesting that the court should reference all *Huidian* sources exclusively in this dynasty to define its territories.

The fifth guideline addressed the qualifications and standards for individuals responsible for drawing in the *Huidian* project. Recognizing the need for specialized skills, the proposal highlighted the importance of employing more experts in map-making: "With the need for more illustrations, the techniques and equipment for drawing general images and drafting maps differ significantly. Therefore, the number of illustrators employed should be appropriately increased."⁷⁸ Drawing from the practices of the Jiaqing *Huidian*, the proposal noted the roles of a general coordinator, a vice general coordinator, and editors specifically for illustration. Additionally, the proposal mentioned that all illustrators were to be examined and hired by the Ministry of Personnel, with the stipulation that any illustrator's work not meeting the standard would lead to a review of their position.⁷⁹

In terms of mapping, the Jiaqing *Huidian* bureau had appointed five specialists for mapping borders and two for creating general maps.⁸⁰ While the 1889 proposal suggested

⁷⁷ For information on the Sino-Russian border negotiations, please refer to Chapter Two.

⁷⁸ "Zhabei fansi deng chouyi kaiban yutu ju," *Zhang Zhidong quanji*, vol. 5, 194.

⁷⁹ "Zhabei fansi deng chouyi kaiban yutu ju," *Zhang Zhidong quanji*, vol. 5, 194.

⁸⁰ "Zhabei fansi deng chouyi kaiban yutu ju," *Zhang Zhidong quanji*, vol. 5, 194.

adhering to the composition of the Jiaqing *Huidian* bureau, it stressed the inadequacy of employing regular illustrators for geographical surveys and plotting maps in a western cartographical style, which required distinct expertise. The proposal suggested recruiting students from the School of Combined Learning (Tongwenguan) who specialized in mathematics for this task and encouraged the assignment of skilled mappers from the provinces to support the project.⁸¹ For example, Zou Daijun was recruited by Zhang Zhidong in Hubei province to work on the *Huidian* map project, indicating significant mobilization of local cartographers for this imperial endeavor.⁸² However, the guideline also specified that the salaries for these local cartographers should continue to be funded by local governments, not the imperial court.⁸³ This indicates that while the Qing court was intent on executing this empire-wide project with European cartographical standards to better represent the imperial domain, the budget was likely constrained, necessitating continued financial support from local administrations.

The 1889 proposal ambitiously set a one-year deadline for local administrations to complete their mapping tasks—a timeline that appears nearly impossible.⁸⁴ Surveying geographical and topographical data at the local level demanded significant investment in personnel with the requisite experience, necessitating time for both training and actual on-site surveys. This tight deadline underscored a misunderstanding of the complexities involved in mapmaking. Yet, it also reflected a sense of urgency from the central government for more accurate and reliable maps, driven by a series of post-1860s border negotiations that often left the Qing court at a disadvantage. The Illustration bureau's aggressive timeline was partly due to

⁸¹ “Zhabei fansi deng chouyi kaiban yutu ju,” *Zhang Zhidong quanji*, vol. 5, 194.

⁸² Wang Yinian 汪詒年 edited, *Wang Rangqing xiansheng zhuanji* 汪穰卿先生傳記 (Beijing: Zhonghua shuju, 2007), 36.

⁸³ “Zhabei fansi deng chouyi kaiban yutu ju,” *Zhang Zhidong quanji*, vol. 5, 194.

⁸⁴ “Zhabei fansi deng chouyi kaiban yutu ju,” *Zhang Zhidong quanji*, vol. 5, 192-193.

concerns that local offices might approach the mapping task half-heartedly. Next year in 1890, the bureau issued more detailed mapmaking instructions to local offices.

(2) The 1890 Guideline

In 1890, building upon the foundational five-point guidelines of 1889, the Illustration bureau issued more comprehensive and detailed ten-point guidelines to all institutes responsible for crafting images. These guidelines addressed two main areas: the depiction of imperial implements, such as ritual utensils, musical instruments, and measurements, and the creation of maps. While adherence and updates to existing practices from earlier *Huidian* editions were sufficient for the former, the latter—map creation—necessitated considerably more effort to meet new requirements.

The first guideline specified reference materials from both imperial and private sources. Imperial gazetteers like the *Yitong zhi*, *Qinding Huangyu xiyu tuzhi*, and the eighteenth-century imperial atlases were to be consulted, alongside works dedicated to river governance and geography, including the *Qinding zhihe fanglie* and *Qinding heyuan jilüe*. Additionally, the mention of Qi Shaonan's (1703-1768) eighteenth-century private geography monograph, *Shuidao tigang*, underscores the comprehensive approach to sourcing.⁸⁵ This inclusion highlights that the demand for accurate and updated maps stemmed not only from the need to delineate borders accurately but also from domestic governance concerns, particularly regarding the shifting courses of rivers. This dual focus underscores the project's ambition to refine the empire's geographical understanding and administrative efficiency. However, when addressing the crucial matter of the most authoritative map sources, the guidelines specifically referred to the mid-nineteenth-century published *Yitong zhi*.⁸⁶

⁸⁵ “Zhabei fansi deng chouyi kaiban yutu ju,” *Zhang Zhidong quanji*, vol. 5, 195.

⁸⁶ “Zhabei fansi deng chouyi kaiban yutu ju,” *Zhang Zhidong quanji*, vol. 5, 195.

The second guideline further mandated regulations concerning the management of imperial archives and staff performance. In the early nineteenth century, officials engaged in significant compilation projects had access to these archives and sometimes even removed them from the court for transcription purposes. This lax management of archival sources, while fostering the growth of Han literati's frontier geography research, also risked the loss or damage of these precious materials. To address this, the new *Huidian* bureau instituted the role of custodial officer (*shouzhang guan*), tasked with ensuring the preservation of imperial materials and their retrieval at the end of each workday.⁸⁷

The third guideline stipulated that all bureau staff should work in rotating shifts from 7 AM to 3 PM.⁸⁸ The custodial official was charged with recording attendance and monitoring daily progress. Staff performance would undergo monthly evaluations by the general coordinator, with a comprehensive review following the completion of any images. Outstanding performers were eligible for rewards, whereas subpar performance or lackluster results could lead to exclusion from the *Huidian* contributions and potential dismissal from the bureau.⁸⁹ This system aimed to safeguard the integrity of the archival materials while promoting diligence and accountability among the staff.

The fourth and fifth guidelines outlined a methodical approach to ensure accuracy and comprehensiveness. Initially, personnel were instructed to meticulously compile geodata on place names and rivers, organizing this information into tables categorized by provinces and frontiers. It was imperative not to overlook the geodata from *Qinding fanglüe* and *Qinding huangchao santong*, which needed to be integrated into the mapping process.⁹⁰ This data

⁸⁷ “Zhabei fansi deng chouyi kaiban yutu ju,” *Zhang Zhidong quanji*, vol. 5, 195.

⁸⁸ “Zhabei fansi deng chouyi kaiban yutu ju,” *Zhang Zhidong quanji*, vol. 5, 195.

⁸⁹ “Zhabei fansi deng chouyi kaiban yutu ju,” *Zhang Zhidong quanji*, vol. 5, 195-196.

⁹⁰ “Zhabei fansi deng chouyi kaiban yutu ju,” *Zhang Zhidong quanji*, vol. 5, 196.

required validation by local leading officials to ensure its accuracy before incorporation into the maps, detailing precise directions and distances. For placenames that could not be comprehensively listed on maps, an additional book was to be created to document these names, ensuring no detail was omitted.⁹¹ All personnel were required to meticulously record their sources, whether from official or private maps, with explicit references to volumes and pages, upholding the integrity of the data by forbidding the fabrication of information.

The sixth guideline dictated the sequence in which maps were to be produced, prioritizing county and prefecture-level maps first. This was followed by maps of local capitals and direct-administered subprefectures, then provincial-level maps.⁹² This hierarchical approach emphasized the importance of detailed geographical information at the most granular administrative levels, a feature lacking in previous *Huidian* editions. Finally, all local maps were to undergo review by the general editor before the creation of a comprehensive imperial dominion map.

The seventh guideline articulated a distinct approach in selecting staff for the Guangxu *Huidian* bureau, diverging from the Qianlong period's emphasis on recruiting individuals with metropolitan degrees and a deep knowledge of Confucian classics and book compilation.⁹³ While not outright dismissing these traditional qualifications (to avoid directly contravening imperial precedents), the guideline highlighted a need to “seek talent beyond established practices.”⁹⁴ According to this guideline, the bureau sought to evaluate candidates through rigorous examinations rather than rely on their existing fame. Men who joined the bureau based on their renown were initially tasked with data organization and assistant compilation roles. Their ability

⁹¹ “Zhabei fansi deng chouyi kaiban yutu ju,” *Zhang Zhidong quanji*, vol. 5, 196.

⁹² “Zhabei fansi deng chouyi kaiban yutu ju,” *Zhang Zhidong quanji*, vol. 5, 196.

⁹³ “Zhabei fansi deng chouyi kaiban yutu ju,” *Zhang Zhidong quanji*, vol. 5, 197.

⁹⁴ “Zhabei fansi deng chouyi kaiban yutu ju,” *Zhang Zhidong quanji*, vol. 5, 197.

to transition to illustration work depended on their demonstrated competence. Conversely, staff initially hired for illustration tasks but found lacking in this specific skill, yet still capable in editorial capacities, were redirected to book editing roles.⁹⁵ This strategic approach underscores a significant evolution in the bureau's recruitment and assignment practices. By prioritizing practical abilities, especially in illustration and mapmaking, the Guangxu *Huidian* bureau set a precedent for valuing demonstrated skill over historical academic achievement. This shift indicates the bureau's increased prioritization of image creation, particularly maps, ensuring that only those genuinely proficient in their tasks were retained.

Following this foundational setup, the ninth guideline delineated the specific talent sought for the Guangxu *Huidian* project. It outlined that staff could be selected from officials at the court, students from educational and military institutions like the Tongwenguan, Nanyang, and Beiyang Naval Academies, and even beyond the formal imperial structures.⁹⁶ This broadened the pool to include individuals with provincial degrees, graduates from the imperial college, official candidates, and lower-level officials in Beijing, who were encouraged to register with the Ministry of Personnel. They would face a rigorous examination, led by Huang Guojin, that covered a wide range of subjects including surveying, border mapping, musical instruments, and ritual institutions.⁹⁷ Despite the diverse subject matter, mapmaking was emphasized due to the project's extensive need for updated and additional images.

Inheriting over 1,600 images from its predecessor and incorporating an additional 1,400 new ones, the Guangxu project planned to create a total of approximately 20,000 images. This ambitious target necessitated a significant drafting workforce, meticulously divided into specific

⁹⁵ “Zhabei fansi deng chouyi kaiban yutu ju,” *Zhang Zhidong quanji*, vol. 5, 197.

⁹⁶ “Zhabei fansi deng chouyi kaiban yutu ju,” *Zhang Zhidong quanji*, vol. 5, 197.

⁹⁷ Huang Guojin, “Guoshi xiaoyou benzhuang,” ii.

tasks: 30 staff members each were designated for transcribing surveys and border mappings, respectively. Additionally, the project required four metropolitan clerks (*gongshi*) for overarching source management, four clerks focused on border mapping, six on surveying, and ten for annotations on illustrations, totaling 24 personnel.⁹⁸ This marked a considerable increase from the Jiaqing edition, which had employed only seven metropolitan clerks, five for border mapping and two for general mapping.⁹⁹

The final guideline addressed expenditure considerations, asserting that the project's increased costs were justified by its substantial contributions towards enhancing the empire's understanding of geography, territories, and institutional frameworks, thus ensuring that the investments would yield valuable returns.¹⁰⁰ This guideline addressed the austerity measures introduced since the mid-nineteenth century during the Xianfeng reign, which had reduced meal allowances for court bureau staff. Previously, bureau tasks were considered part-time assignments for lower-level personnel, who consequently were not provided with meals. Leaders of the project, despite potentially dedicating more time, were limited to only six meals per month.¹⁰¹ The guideline proposed amending this practice, suggesting increased meal provisions for all personnel engaged daily in the project, conditional on budget allowances. Additionally, it recommended offering incentives for exemplary performance. Funding, as specified, would come from the Ministry of Revenue, allocating 300 taels monthly for the book component and

⁹⁸ “Zhabei fansi deng chouyi kaiban yutu ju,” *Zhang Zhidong quanji*, vol. 5, 197. About clerks (*gongshi*) in the Qing context, see Elisabeth Kaske, “Metropolitan Clerks and Venality in Qing China: The Great 1830 Forgery Case,” *T'oung Pao* 98, nos. 1–3 (2012): 238.

⁹⁹ “Zhabei fansi deng chouyi kaiban yutu ju,” *Zhang Zhidong quanji*, vol. 5, 197.

¹⁰⁰ “Zhabei fansi deng chouyi kaiban yutu ju,” *Zhang Zhidong quanji*, vol. 5, 198.

¹⁰¹ “Zhabei fansi deng chouyi kaiban yutu ju,” *Zhang Zhidong quanji*, vol. 5, 197.

200 taels for illustrations, with extra provisions for purchasing equipment, paper, books, and hiring artisans.¹⁰²

The 1890 Guideline reflected a significant revision in the project's timeline, acknowledging the impracticality of the previous year's ambitious one-year completion goal. Instead, it extended the timeline to eight years for the entire project's completion.¹⁰³ In June 1890, the bureau disseminated the guideline to a wide array of official institutions, encompassing not only the Zongli Yamen, military divisions, and imperial colleges but also governor offices across the provinces. Notably, the distribution extended beyond local government entities to include specialized positions such as the governor general of Grain Transport (*caoyun*) and River Management (*hedao*) and the Military Commander of the Yangtze River Navy (*changjiang shuishi tidu*), underscoring the comprehensive approach to gathering geodata.¹⁰⁴

A mere three days after issuing the guideline, the bureau made an additional appeal to key administrative offices, including the governors of Fujian and Taiwan, the governor-general of Liangjiang and Zhili, the Guangzhou General and the Zongli Yamen, requesting the provision of more cartographers. This call highlighted the insufficiency of the initial assignment of just four students from the Tongwenguan and underscored an increased emphasis on cartography.¹⁰⁵ By urging a collaborative effort from top-tier offices down to local levels, the bureau signaled an unprecedented commitment to enhancing cartographical accuracy and detail in the new map compilation.

¹⁰² “Zhabei fansi deng chouyi kaiban yutu ju,” *Zhang Zhidong quanji*, vol. 5, 197-198. This statement can also be seen in the Grand Secretariat Archives (*neige daku*) (Hubu (Ministry of Revenue), ‘Hubu wei yihui shi,’ *Neige daku* database, Fifth month, Guangxu 16th year. Therefore, the 1890 proposal was actually constituted by suggestions from different ministries.

¹⁰³ “Zhabei fansi deng chouyi kaiban yutu ju,” *Zhang Zhidong quanji*, vol. 5, 198.

¹⁰⁴ According to an archival source from the Grand Secretariat (*neige*), this guideline was distributed to various institutions in Beijing, the provinces, and the frontier regions. “Huidian guan xingyi dang,” *Qingdai guben neige liubu dang’an xubian* (Beijing: Quanguo tushuguan wenxian suowei fuzhi zhongxin, 2005), 471-472.

¹⁰⁵ “Huidian guan xingyi dang,” *Qingdai guben neige liubu dang’an xubian*, 473-474.

Provincial Challenges in the *Huidian* Mapping Project

Although the guidelines for the mapping project were comprehensive and seemed logical to officials in Beijing, they posed significant challenges for local implementers who found the tasks daunting and complex. This section will explore how the Guangxu *Huidian* atlas project diverged from the early eighteenth-century Qing cartographical efforts, which were centralized by the court.¹⁰⁶ In contrast, the project of the late 1800s delegated mapping responsibilities to local provincial officials and elites, gradually acquainting local elites with the task of mapping the empire.

Beyond the mapping guidelines discussed earlier, each local office also received forms detailing the necessary data that needed to be compiled. While I have not seen the physical forms, documentation indicates that these forms, applicable only at the county level, required the collection of seven types of data: historical geography (*yan'ge*), territories, celestial degrees, mountains, waters, town cities, and bureaucrats (*zhiguan*).¹⁰⁷ Although this may seem feasible, completing these data categories within a one-year timeframe proved nearly impossible. For instance, Zhejiang, the leading province in mapping, requested an extension from Beijing, explaining:

According to detailed accounts from Liu Shutang [1830-1903], the Provincial Administration Commissioner overseeing the map bureau, and Zong Yuanhan [?-1897], the Expectant Appointee of Intendant, maps created by local offices and provincial governments merely sketched out their layouts and roughly positioned mountains and rivers. Accurately determining directions, estimating distances by sight, and detailing the mileage of water and land routes have already been challenging. Implementing the “square grid mapping” method and applying longitude and latitude with precision would be

¹⁰⁶ While the significant contributions of Jesuit missionaries to the mapping of the empire in the early eighteenth century are well-documented, Mario Cams highlights the indispensable role played by native Qing officials. Without their support, the mapping efforts would have faced considerable challenges. Cams emphasizes the logistical support from Chinese provinces as crucial to the success of these endeavors. Moreover, he points out that the Kangxi emperor's active involvement was pivotal, positioning the capital as the central hub of this cartographical mission. Cams, *Companions in Geography*, 99–144.

¹⁰⁷ “Zhejiang xunfu wei cehui yutu gaocheng jiaoshou shi” (Guangxu reign 19th year, eighth month twenty-fifth day), Taiwan Zhongyang yanjiu yuan Ming Qing neige daku dang'an, registration number: 137625.

unmanageable without individuals who have dedicated attention to geography and are well-versed in both Chinese and Western mathematics.

茲據布政使劉樹堂督辦輿圖局、候補道宗源瀚會詳稱，查向來地方衙門與省府縣志書，繪圖不過粗其規模，略布山川，欲求方位，合手準望，水陸詳其道里，已不易得，如果計里開方，按切天度經緯，尤非平日留心輿地、諳悉中西算法之人不能措手。¹⁰⁸

This complaint highlights two major difficulties encountered at the local level. First, the task was not merely about conducting new geographical surveys; rather, it involved synthesizing many existing maps and geodata previously created for gazetteer documentation. The challenge was integrating these traditionally more pictorial maps with Western cartographic methods, which demanded a significant adaptation. Second, while the Zhejiang administration could document directions and distances of routes and waters, they lacked the capacity for having precise longitude and latitude calculations due to a shortage of adequately trained personnel skilled in both mathematics and geography.

This challenge was not unique to one region; it was a common issue across numerous provincial governments. Hunan, one of the first local governments to begin mapping efforts after the Taiping Rebellion, highlighted the problem clearly: “Given that geography is a specialized field requiring proficiency in mathematical techniques, it has been challenging to find suitable personnel promptly. Attempts to recruit have only delayed the process. We plan to issue a further directive to all subordinate regions: if they can independently recruit individuals knowledgeable in surveying and mapping, they are to carry out the task according to the established guidelines at their discretion. Otherwise, the provincial government will appoint surveyors to conduct the mapping in order to expedite the completion of this mission.”¹⁰⁹ Similar expert shortages were

¹⁰⁸ “Zhejiang xunfu wei cehui yutu gaocheng jiaoshou shi” (Guangxu reign 19th year, eighth month twenty-fifth day), Taiwan Zhongyang yanjiu yuan Ming Qing neige daku dang’an, registration number: 137625.

¹⁰⁹ “Libu wei zhizhao Hunansheng yutu zhanxian yinian you” (Guangxu reign 17th year, sixth month), Taiwan Zhongyang yanjiu yuan Ming Qing neige daku dang’an, registration number: 137719.

also evident in other provinces such as Hubei, Guangxi, and Jiangxi, which, despite having considerable experience in mapping after 1860s, struggled to survey geodata for Western-style cartographic maps.¹¹⁰

At the same time, frontier regions faced more complex technical challenges, stemming from the use of Manchu and Mongolian languages in their documentation. The General's office in Uliyasutai, Mongolia, complained that the table format was too narrow to accommodate place names in Manchu and Mongolian. The general argued that these languages could not be compactly written in the table like Chinese characters. Moreover, the lack of experienced cartographers was a more severe problem in the context of Mongolia. The general noted the vastness of the region and the scarcity of mapping experts, leaving them reliant on local Mongolian drafters.¹¹¹ This situation highlights the issue noted by Anne-Sophie Pratte, though it leaves unanswered the question of why the *Huidian* map of Mongolia employed the traditional Mongolian "24-directions system" instead of the grid and scale method applied in China proper.¹¹² This oversight points to the recurring problem: a critical shortage of mapping expertise.

The scarcity of trained geographical surveyors was not unique to Mongolia; it was also a significant issue in other frontiers, such as Heilongjiang. In late December 1890, Yiketanga (1834-1899), the Heilongjiang general, communicated to Beijing the region's lack of surveyors and requested an additional three to four months to complete the mapping tasks.¹¹³ However,

¹¹⁰ "Pi yutu ju xiang chouyi kaiban shiyi," *Zhang Zhidong quanji*, vol. 7, 113. "Jiangxi xunfu wei cehui Jiangxi yutu shi" (Guangxu seventeenth year, eleventh month thirtieth day), Taiwan Zhongyang yanjiu yuan Ming Qing neige daku dang'an, registration number: 138567.

¹¹¹ "Wuli yasu tai canzan dachen wei ziqing zhanxian shi" (Guangxu reign sixteenth year, tenth month twenty-eighth day), Taiwan Zhongyang yanjiu yuan Ming Qing neige daku dang'an, registration number: 227577.

¹¹² Anne-Sophie Pratte, "Mapping the Steppe. The Politics of Cartography in Qing Mongolia, 1780-1911" (PhD diss., Harvard University, 2021), 266.

¹¹³ "Heilongjiang jiangjun weiqing zhanxian huitu shi" (Guangxu reign sixteenth year, eleventh month twentieth day), Taiwan Zhongyang yanjiu yuan Ming Qing neige daku dang'an, registration number: 137593.

unlike the situation in Uliastai, Yiketanga was determined to meet the deadline. By the following month, his team had completed all surveys and submitted all required materials, including one provincial map and nine maps of local jurisdictions.¹¹⁴

Despite appearing comprehensive, the materials from Heilongjiang were problematic. In 1894, the bureau rejected Heilongjiang's submission and dispatched experts to remap the entire jurisdiction.¹¹⁵ This outcome was particularly intriguing given that the Qing had begun surveying the Heilongjiang region in the 1880s. Cao Tingjie (1850-1926), a key figure in geographical research over Manchuria, had been conducting surveys in the area since the early 1880s. Appointed by the Jilin general, Xiyuan (1843-1894), Cao's report included investigations into ethnic groups, local customs, routes, trade, and so on. In addition, Cao produced eight maps of local jurisdictions.¹¹⁶ His findings were later published in treatises on Manchurian geography based on his service there from 1883 to 1887.

Presumably, the Heilongjiang office utilized Cao's studies to quickly assemble their materials for submission to Beijing. However, the rejection of these materials suggests that even Cao's detailed work did not meet the bureau's standards. The primary issue likely was not the data but the maps themselves. In 1895, Tu Ji (1856-1921), previously involved in Zhang Zhidong's mapping project in Guangdong,¹¹⁷ was appointed as the general editor of the Heilongjiang map bureau by the then Heilongjiang general, Yanmao (1843-1900).¹¹⁸ This appointment highlights a recurring scenario: the bureau in Beijing often had to rely on local administrations for expertise rather than deploying specialists from the capital.

¹¹⁴ "Heilongjiang jiangjun weiqing jiesong yutu shi" (Guangxu reign sixteenth year, twelfth month thirteenth day), Taiwan Zhongyang yanjiu yuan Ming Qing neige daku dang'an, registration number: 137595.

¹¹⁵ "Libu wei Heilongjiang qiansong huidian tuce chengshi buhe you" (Guangxu reign nineteenth year, tenth month sixteenth day), Taiwan Zhongyang yanjiu yuan Ming Qing neige daku dang'an, registration number: 137714.

¹¹⁶ *Cao tingjie ji* (Zhonghua shuju, 1985), 140.

¹¹⁷ Miao Quansun, *Yifeng tang youpeng shuzha* (Shanghai guji chubanshe, 1980), vol. 1, 485-486.

¹¹⁸ Miao Quansun, *Yifeng tang youpeng zhashu*, 494.

Financial constraints posed a significant challenge for local administrations. Beyond the salaries of surveyors and cartographers, which were already a burden on local budgets, these administrations faced additional costs. These included fees incurred during survey trips and the purchase of necessary survey equipment. In a memorial from Ma Piyao (?-1895), the Guangxi governor, it was revealed that the establishment of three mapping bureaus to comply with the *Huidian* request was particularly costly. Ma elaborated:

Since the establishment of the bureaus, the Guangxi government has incurred numerous expenses, including salaries for mapping commissioners, stipends for staff, wages for apprentices, meals within the bureau, costs for paper and miscellaneous items, and expenses for surveying equipment such as horses and boats, as well as purchases of drawing instruments and books. A conservative estimate indicates that completing this task would require at least twenty to thirty thousand taels of silver. However, due to insufficient funds in the provincial treasury, we have had no choice but to cover costs temporarily through the bureaus. Given that this task is critical and should not be conducted hastily, it is imperative that the bureaus handle it, necessitating these expenses. The reality that the Guangxi government lacks sufficient funds is undeniable. We propose that the esteemed Ministry of Revenue allow for reimbursement of these expenses upon completion of the project. We are committed to ensuring that bureau staff manage expenditures judiciously and complete the work promptly, without unnecessary delays or wastage.

查自設局以來，如委員薪水、幕友脩金、學徒薪資、局內火食、紙張雜費、以其及測勘伏馬船隻，並購買繪畫儀器、書籍種種需費用項繁多，酌量籌計，恐非二三萬金，不克臧事，現因司庫無款可籌暫行由局設法挪墊，伏思此係奉部咨辦要件，既未便草率遷就，即不得不設局辦理，而局費實係用所必需，粵省無項可支，亦係實在情形。擬請咨明大部，准俟事竣，覆實報銷，本司道等自當督率局員搏節支用，趕緊妥辦，斷不敢任聽延誤，稍涉虛糜。¹¹⁹

The problem extended beyond Guangxi. For instance, Changshun (1839-1904), the incumbent Jilin general, reported that the region had only one surveying device, making it impossible to conduct surveys across multiple zones simultaneously. This equipment shortage meant that meeting the project deadline was unfeasible.¹²⁰ Even when provinces eventually acquired the

¹¹⁹ “Guangxi xunfu weihui xiangqing zishi” (Guangxu seventeenth year, eleventh month thirtieth day), Taiwan Zhongyang yanjiu yuan Ming Qing neige daku dang’an, registration number: 138626.

¹²⁰ “Jilin jiangjun wei cehui ditu zhanxiang shi” (Guangxu sixteenth year, tenth month twentieth day), Taiwan Zhongyang yanjiu yuan Ming Qing neige daku dang’an, registration number: 137784.

necessary equipment, they bore the costs rather than the court. Consequently, provinces were forced to devise financial strategies to manage these expenses.

Some provinces, Jiangsu, could handle this finance without problem. Jiangsu province had helped the bureau purchase a significant collection of essential books for the *Huidian* project. According to the archives of the Grand Secretariat (*neige*), a list categorized under the *Huidian* project included a total of 119 books.¹²¹ Not all were directly related to mapping; the collection featured a wide array of subjects including chemistry, engineering, navigation, military technology, and mathematics, alongside a considerable number of books on mapping, military surveys, and cartography.¹²² In a report from Huang Pengnian, who was the father of Huang Guojin and served as the Jiangsu administration commissioner at the time, it is noted that he had sourced these books from Shanghai. Both government-produced materials and privately created sources were sent to the *Huidian* bureau for reference.¹²³

While many provinces struggled with additional financial burdens, Hunan and Hubei were notably affected. Zhang Zhidong, the highest official in both provinces, acknowledged that while provincial resources were generally adequate, the county-level resources were lacking, necessitating alternative solutions to these financial challenges.¹²⁴ Zhang stated:

In recent years, various tasks such as suppressing bandits, clamping down on churches, and mapping have all been essential directives from the imperial edict, yet they are exceedingly costly. Additional expenditures have also arisen, tied closely to crucial local interests across the province and demanding immediate action. The (reconstruction) agency, lacking designated funds, has had no choice but to reallocate resources on an emergency basis. However, as the debts accumulate day by day, it becomes increasingly difficult to resolve this financial burden.¹²⁵

¹²¹ Fang Susheng, *Qing Neige kuzhu jiu'dang jikan* (Guoli Beiping Gugong bowuyuan, 1935), vol. 4, 123-128.

¹²² *Neige jiuku dang jikan*, vol. 4, 124.

¹²³ Jiangsu xunfu wei zhizhao jiesong shuji shumu you" (Guangxu reign sixteenth year, ninth month nineteenth day), Taiwan Zhongyang yanjiu yuan Ming Qing neige daku dang'an, registration number: 165437.

¹²⁴ *Zhang Zhidong quanji*, vol. 2, 511.

¹²⁵ *Zhang Zhidong quanji*, vol. 5, 313-314.

In the context of Hubei and Hunan, all mapping costs and other expenses were under the expenditure of the reconstruction agency (Shanhou ju), highlighting a serious shortage of local finance in the early 1890s.¹²⁶ This situation was not unique but was shared by other provinces, including Guangxi, Henan, and Yunnan, all of which faced similar financial challenges.¹²⁷ However, who was actually helping Zhang Zhidong to build and run the mapping task bureau? It was one of our protagonists, Zou Daijun.

How Did Zou Daijun Map Hubei?

In early 1891, Zhang Zhidong appointed Liu Hanzao as supervisor and Cai Xiyong (1850-1896) as general director (*zongban*). This arrangement was typical: the supervisor position was held by a holder of the metropolitan degree, such as Liu Hanzao. However, holders of the metropolitan degree usually lacked knowledge in Western-style cartography, prompting Zhang to appoint Cai to manage this task.

Cai Xiyong was pivotal in assisting Zhang Zhidong's modernization projects. In a report to Beijing, Zhang detailed how Cai had managed multiple projects, including factories for iron, cloth, and guns, bureaus for silver coin, silk spinning, silk reeling, as well as the newly established academy of Self-strengthening and publisher for foreign books. As a graduate of the School of Western Languages and Science (*tongwenguan*), Cai brought extensive experience in translation and had previously collaborated with Zhang Zhidong during his tenure as Liangguang governor general. Zhang relied heavily on Cai, particularly his proficiency in Western affairs as well as mathematics. Despite Cai's extensive knowledge and understanding of foreign affairs, the

¹²⁶ Eric Schluessel argues that Shanhou represents more than just the "physical reconstruction of the landscape" after the civil war; it also signifies a type of reconstruction of "the meritorious act of recreating society according to Neo-Confucian ideals." Schluessel, *Land of Strangers: The Civilizing Project in Qing Central Asia*, 40.

¹²⁷ "Zi huidian guan Guangxi xunfu wei ziming fenshe huitu ju xufei qingsi shijun baoxiao you" (Guangxu reign seventeenth year, eleventh month thirtieth day), Taiwan Zhongyang yanjiu yuan Ming Qing neige daku dang'an, registration number: 138626. Xie Xiaohua, "Guangxu chao gesheng huicheng huidian yutu shiliao," 52, 58.

scope of those projects was too vast for one person to manage alone. Consequently, Zhang needed a trustworthy individual with the appropriate expertise for the mapping task. Zou Daijun was selected for this critical role.

In 1891, Zhang Zhidong memorialized Beijing, requesting an extension and officially informing the court that Zou Daijun would serve as the compiler-in-chief for the mapping task for Hubei. He cited a shortage of mapping specialists and insufficient surveying equipment in the provinces, unsurprisingly, as the primary reasons for this appointment.¹²⁸ Zhang emphasized the plan of hiring experienced cartographers to train more students in mapping and surveying techniques. He calculated that the project would require at least thirty-two surveyors, divided into four groups of eight personnel each, with an additional three experts plus Zou Daijun stationed in the bureau to oversee the editing of map drafts.¹²⁹ Each group would survey one county, allowing for simultaneous surveys of four counties. Zhang estimated that the entire project would take three years to complete, with two years dedicated to surveying and one year to drafting maps.¹³⁰ This approach, actually planned out by Daijun, meant that the final product would be a composite of separate county-level maps, making the role of compile-in-chief even more crucial. The guidelines he penned for the new mapping task will be discussed later.

However, one might wonder: Why was Zou Daijun chosen for this significant role? Did he have experience in Western-style cartography?

The short answer is no, Zou Daijun had no experience in Western-style mapmaking. However, the primary reason for Zhang Zhidong's selection of Daijun was due to his learning of western cartography and collection of European-language maps during his travel to Europe from

¹²⁸ *Zhang Zhidong quanji*, vol. 2, 511.

¹²⁹ *Zhang Zhidong quanji*, vol. 2, 511-512.

¹³⁰ *Zhang Zhidong quanji*, vol. 2, 511-512.

1885 to 1889. As discussed in the first chapter, members of the Zou lineage had developed their mapping skills during the Taiping rebellion era and continued to gain geographical knowledge in the post-Taiping period. Despite their efforts, the family did not achieve empire-wide fame or wealth, though they were certainly not impoverished in their home county. Daijun's trip to Europe was funded by the Qing government, not his family. In 1885, Daijun joined the envoy of the newly appointed ambassador to Britain and France, Liu Ruifen (1827-1892), a veteran of the Xiang army.¹³¹ Zou family's connection to the Xiang army was crucial, as Daijun's participation was recommended by another Xiang army veteran and powerful official, Zeng Guoquan (1824-1890), who was serving as the Liangjiang governor general at the time.¹³² While Daijun had experience in local geography and traditional-style maps through the compilation of local gazetteers since the early 1880s, he had never engaged with Western geographical and cartographical learning until his travels to Europe.¹³³

While Daijun did not detail all his observations and learnings during the trip, he did leave a travelogue documenting his voyage. In one section, he mentioned that the ship passed through Vietnam, prompting him to reflect on the variation of Vietnam's name in Chinese sources and its historical association with China. He noted the Vietnamese name on Western maps and consulted Western accounts about contemporary Vietnamese relations with the West.¹³⁴ In his final reflections, Daijun stated that although the old historical and geographical records of Vietnam were quite clear, the new accounts and maps written in Western languages posed a challenge for native Chinese readers. His strategy was to translate the new French maps and integrate the old

¹³¹ Qian Shifu, *Qingdai zhiguan nianbiao* (Beijing: Zhonghua shuju, 1990), 3034-3036.

¹³² Zou Daijun, *Xizheng jicheng*, in *Xiao fanghu zhai yudi congchao zhengbian* (Zhuyitang, 1897), 1.

¹³³ Regarding Daijun's experiences of mapmaking and geographical studies, see Chapter One.

¹³⁴ Zou Daijun, *Xizheng jicheng*, 9-11.

place names from the Nguyễn Vietnam, reflecting his efforts to collect Western maps during his trip.¹³⁵

One source also suggests that during his stay in London, Daijun devoted his leisure time to researching geography.¹³⁶ One of his significant contributions was the creation of the “Chinese meter (*zhongguo yudi chi*).” Daijun believed that the inaccuracy of Chinese mapping was due to the imprecise geographical ruler. He argued that Western cartography, specifically the French meter system, was more accurate because it was based on one ten-millionth of the earth’s meridian circumference. Daijun observed that the precise surface measurement allowed for accurate geographical mapping in the West. In contrast, Chinese mapping standards, which required each geographical square on a map to represent 200 li, were not based on precise measurements of the earth, leading to unavoidable distortions.¹³⁷

While in London, Daijun began working on creating the Chinese meter to be used for geographical measurement and cartographical production in China. According to his calculations, the new Chinese meter would be 0.308642 meters.¹³⁸ This innovative creation was bold, and when Daijun started his private mapping business in the late 1890s, his insistence on using the Chinese meter posed significant challenges, which will be discussed in the next chapter.

Besides that, Daijun paid special attention to mapping equipment. In his travelogue, he recorded how European sailors used devices such as the sextant (*jixian yi*), compass, and solarium (*rigui*) to determine the ship’s position during navigation. Daijun was amazed that all

¹³⁵ Zou Daijun, *Xizheng jicheng*, 12.

¹³⁶ Zou Yongxiu, “Zou Zhengjun zhuan,” in *Beizhuan jibu*, vol. 43, Chouren 2.

¹³⁷ Zou Yongxiu, “Zou Zhengjun zhuan,” in *Beizhuan jibu*, vol. 43, Chouren 2.

¹³⁸ Zou Yongxiu, “Zou Zhengjun zhuan,” in *Beizhuan jibu*, vol. 43, Chouren 2. For more detailed calculation of Daijun’s Chinese meter system, see Wen Haoran, “Xinhua Zou shi dixue yu Wuchang yaxin dixue she,” in *Hubei Wenshi ziliao* (Hubei renmin chubanshe, 1981), vol. 3, 173.

this geodata could be derived using just a few instruments and mathematical calculations. He was particularly fascinated by the process European sailors used to calculate latitude, documenting the method in detail.¹³⁹ This was likely the first time he personally witnessed the application of trigonometric surveys.¹⁴⁰ It is highly probable that Daijun purchased these tools and bring them back to China, though there is no direct evidence of this. Nonetheless, this exposure to mapping materials was crucial for his future career. During the peak period when all provinces and frontier regions were grappling with new mapping tasks, Daijun penned a comprehensive proposal to the *Huidian* bureau on how to conduct geographical surveys and mapping effectively.

After Daijun returned to China in 1889, he began working on the proposal that caught the attention of Zhang Zhidong. Initially, it was uncertain if Daijun would remain in Hubei in early 1891. Presumably, Zhang hired Daijun as a staff member in his private administration (*mufu*). Zhang aimed to establish a new-style academy in Hubei, enlisting a number of young Han literati, including Daijun and Wang Kangnian, one of Daijun's best friends and future collaborators.¹⁴¹

However, Daijun was uncertain about staying with Zhang because he had another offer from the newly appointed Fujian-Taiwan governor, Shao Youlian (1840-1901).¹⁴² It is unclear

¹³⁹ Zou Daijun, *Xizheng jicheng*, 31.

¹⁴⁰ Zou Daijun, *Xizheng jicheng*, 32.

¹⁴¹ Wang Yinian edits, *Wang Ranqing xiansheng zhuanji* (Zhonghua shuju, 2007), 36. Other than Wang, Zou's colleagues included Qian Xun (1853-1927), whose monograph on the Sino-Russian border we discussed in the previous chapter, and Yang Shuojing (1839-1915), whose atlas of Chinese historical territories was the most influential mapping reference until Tang Qixiang (1911-1992) produced the *Zhongguo lishi ditu ji* in 1982. Additionally, Zou worked with Miao Quansun (1844-1919) and Chen Sanli (1853-1937).

¹⁴² Starting in 1887, the Fujian governor's office was relocated to Taiwan and renamed the Fujian-Taiwan governor. From that point on, the duties of the original Fujian governor were concurrently managed by the Minzhe Governor-General. Leonard H. D. Gordon, *Confrontation over Taiwan: Nineteenth-Century China and the Powers*, 1st pbk. ed (Lexington Books, 2009), 164–66. Hsu Hsueh-chi, "Fujian Taiwan jiansheng de yanjiu- you jiansheng dao fenzhi," *Guoli zhengzhi daxue lishi xuebao* 3 (1985): 193-242.

what position Shao offered Daijun, but it was likely related to the *Huidian* mapping project, given that Shao established the Taiwan provincial gazetteer bureau during his tenure. In a letter to Wang Kangnian, Daijun expressed a preference to avoid working across the Taiwan Strait unless Shao provided a compelling position. If the job offers were similar, Daijun preferred to stay in Hubei, where he was already working.¹⁴³ It was likely around this time that Daijun started drafting his proposal to the *Huidian* bureau about the mapping task. It remains uncertain if this proposal was ever sent to Beijing or reviewed by the *Huidian* project leadership. However, it undoubtedly brought Daijun's views to Zhang Zhidong's attention, leading to Zhang appointing Daijun as the compiler-in-chief for mapping Hubei. Consequently, Daijun chose to remain in Hubei rather than go to Taiwan. This decision indeed marked a turning point in his career and life.

Compared to the earlier proposals from the *Huidian* leadership, Daijun's proposal was notably more technical and aligned with Zhang Zhidong's philosophy of "Chinese learning for the essence, Western learning for the application."¹⁴⁴ Daijun argued that while Pei Xiu's Six Principles of Cartography comprehensively addressed the essentials of mapmaking, Western cartography distinguished itself through sophisticated application of these principles. He highlighted two critical aspects for the contemporaneous mapmaking project: celestial measurement (*ce tiandu*) and surface measurement (*ce dimian*).¹⁴⁵

¹⁴³ Wang Kangnian *shiyou shuzha* (Shanghai guji chubanshe, 1986), 2631.

¹⁴⁴ Zhang's principle of "Chinese learning for the essence, Western learning for the application," officially articulated in his 1898 Exhortation to Learning (*Quanxue pian*), coincided with the peak of Kang Youwei and Liang Qichao's reformist movement. Existing scholarship often views this principle as a strategy to reconcile anti-Western sentiments with the need for modernization. Zhang aimed to distinguish his approach from both conservative and reformist perspectives, especially in the aftermath of the Sino-Japanese War of 1895. While this principle was formally introduced later, scholars agree that Zhang's inclination towards cultural conservatism had roots in his earlier years. Xue Huayuan, *Wanqing zhongti xiyong sixiang lun* (Daoxiang chubanshe, 2001), 163-203. Daniel H. Bays, *China Enters the Twentieth Century: Chang Chih-Tung and the Issues of a New Age, 1895-1909*, Michigan Studies on China (University of Michigan Press, 1978), 44-48.

¹⁴⁵ Zou Daijun, "Shang Huidian guan yan cehui ditu shu," John Fryer ed., *Gezhi huibian*, cehui qi 15, vol. 10, 15.

In the section on celestial measurement, Daijun elaborated on Western techniques for calculating meridians, longitude, and latitude, drawing on his experiences during his travels in Britain and France. The full technical details of his proposal can be found in the appendix. Importantly, Daijun emphasized that despite the technical specifics, the fundamental principles of cartography are consistent across both Chinese and European traditions. For instance, he cited the historical Chinese text, the *Artificer's Record* (Kaogongji), when explaining meridian calculations, highlighting the enduring relevance of these principles.¹⁴⁶

When addressing surface measurement, Daijun focused on the trigonometrical survey's ability to capture the complexity of physical geography. He noted the existence of three main geodesic methods from Britain, Germany, and France, praising the French approach for its precision and clarity. Yet, he reiterated that similar methodologies were present in ancient Chinese texts such as the *Arithmetical Classic* (Zhoubi suanjing) and the *Nine Chapters on the Mathematical Art* (Jiuzhang suanshu).¹⁴⁷

Daijun's emphasis on the common origins of Chinese and European scientific principles, especially in a period of increased contact with European scholarship, was likely influenced by his need to demonstrate his erudition in traditional Chinese knowledge. This was particularly important as, lacking an imperial degree, he needed to establish his credibility among Han imperial degree holders and senior officials like Zhang Zhidong. This approach in his proposal not only illustrated his technical acumen but also positioned him as a bridge between traditional Chinese techniques and modern Western methods, aligning well with late Qing intellectual currents and the practical needs of his time.

¹⁴⁶ Zou Daijun, "Shang Huidian guan yan cehui ditu shu," 15-16.

¹⁴⁷ Zou Daijun, "Shang Huidian guan yan cehui ditu shu," 16-17.

After Daijun assumed his leadership position, he released a set of specific mapping guidelines to the Hubei map bureau. These guidelines were markedly different from those issued by the *Huidian* bureau in Beijing, which were more general. Daijun's guidelines were detailed and practical. The first guideline emphasized the importance of accuracy and detail in mapmaking but acknowledged the constraints of deadlines and limited expertise. Therefore, Daijun prioritized the identification of critical geographical features such as main routes, major waterways, river origins, and the underlying structures of mountain ranges.¹⁴⁸ He suggested that less detail was preferable to inaccuracies and recommended annotating data sourced from old gazetteers.

In the second guideline, Daijun outlined the process for measuring celestial degrees. While technical details are not discussed here, the key point was that these measurements required personnel skilled in mathematical calculations and familiar with Western surveying devices.¹⁴⁹ This highlighted the complexity of the skillsets needed, which were more advanced than those anticipated in Beijing. This complexity was also reflected in the third and fourth guidelines, which delved into surveying techniques for straight-line distances (*niaodao*) and actual pathways (*renxin dao*).¹⁵⁰ Daijun emphasized the necessity of triangulation and basic arithmetic skills, along with the use of devices such as the azimuth compass (*cexiang yi*) and surveyor's wheel (*jili lun*). Therefore, all these complexities and difficulties point to the crucial need for the right experts for this mission, which leads to the fifth guideline: personnel.

Daijun was in search of individuals proficient in both mapping and mathematics, recognizing that such experts were rare. To address this shortfall, he initiated a three-month crash

¹⁴⁸ Zou Daijun, "Xinxu Huidian Hubei cehui yuditu zhangcheng," *Gezhi huibian*, cehui qi 15, vol. 10, 17.

¹⁴⁹ Zou Daijun, "Xinxu Huidian Hubei cehui yuditu zhangcheng," 17.

¹⁵⁰ Zou Daijun, "Xinxu Huidian Hubei cehui yuditu zhangcheng," 17-18.

course to train 20 students in cartography and surveying techniques. Once trained, these students, along with 12 experienced surveyors, making a total of 32 personnel, would be deployed. These professionals were to be divided into four groups, each tasked with surveying one county. Within each county, the groups would further subdivide into four sub-groups to handle specific tasks.¹⁵¹

The first subgroup, composed of a single senior surveyor, would focus on determining longitude and latitude. The second subgroup, consisting of one senior and one student, would manage tasks in county capitals, establishing key measurement points, and using surveyor's wheels for surface triangulation surveys. The third and fourth subgroups, each made up of four students, would also perform surface triangulation surveys.¹⁵²

Daijun planned for each county map to be completed within one month. With 68 counties in Hubei, the entire surveying operation was expected to take at least two years. An additional year was designated for map production, leading Daijun to request a minimum of three years to fully complete the project.¹⁵³

The sixth guideline revisited an essential aspect of the operation—the devices. Daijun, familiarized with Western cartography and advanced surveying equipment during his European travels, acknowledged the practicality of using Western devices, which, though commonplace today, was a novel idea in China at the time. The resistance was not simply due to prevalent Sino-centric cultural views but also because acquiring these Western instruments was costly. Daijun argued for the use of traditional Chinese instruments, asserting their effectiveness due to the shared foundational principles of Chinese and European cartography. Yet, he also proposed adopting Western tools, citing the difficulty of fully grasping the nuances of ancient Chinese

¹⁵¹ Zou Daijun, “Xinxu Huidian Hubei cehui yuditu zhangcheng,” 18.

¹⁵² Zou Daijun, “Xinxu Huidian Hubei cehui yuditu zhangcheng,” 18.

¹⁵³ Zou Daijun, “Xinxu Huidian Hubei cehui yuditu zhangcheng,” 18.

instruments. He pointed out the need for Western instruments, specifically the theodolite (*jingwei yi*) for detailed celestial and terrestrial measurements and recommended purchasing advanced tools like a chronometer (*shidu biao*) for timing celestial movements, and an azimuth compass (*cexiang yi*) along with a *duolin yi*¹⁵⁴ for surface measurements, although he noted the high costs associated with such European devices.¹⁵⁵

The final two guidelines addressed the methods of drawing maps and creating illustrations. Daijun emphasized that while the initial scale for map drafts should be larger to allow surveyors to incorporate extensive detail, these would need to be adjusted to meet the *Huidian* bureau's standards before submission. Specifically, while the bureau's scale requests were 1:50 for general provincial maps and 1:10 for county maps, the drafts were to be scaled at 1:1 to capture comprehensive data. Daijun also suggested that both the adjusted maps and the original larger-scale versions be sent to the *Huidian* bureau.¹⁵⁶

For illustrations, Daijun clarified that the original imperial guidelines from the *Huidian* bureau were vague about which Chinese geographical classics to consult. He provided specific references for various aspects: Ban Gu's *Book of Han* (*Hanshu*) for the history of place names, borders, and towns; the *Water Classic* (*Shuijing*), annotated by Huang Zongxi and Qi Zhaonan, for water features; and works by Dai Zhen and others for mountains.¹⁵⁷ He stressed the importance of incorporating all necessary data as required by the court, ensuring that the maps and illustrations were both detailed and historically grounded.

¹⁵⁴ It's unclear what 'duolin yi' (奪林儀) exactly refers to in the European context. The only thing I know is that it is used for surface measurement, especially for mountains. It is possible that the 'duolin yi' might be an alidade or clinometer, but I have no proof for that.

¹⁵⁵ Zou Daijun, "Xinxu Huidian Hubei cehui yuditu zhangcheng," 18.

¹⁵⁶ Zou Daijun, "Xinxu Huidian Hubei cehui yuditu zhangcheng," 19.

¹⁵⁷ Zou Daijun, "Xinxu Huidian Hubei cehui yuditu zhangcheng," 19.

The firsthand accounts of these on-site surveys are rare, but Zou Daijun's letter provides a vivid glimpse into their harsh realities:

This work is exceptionally arduous, with meager pay, nearly beyond human endurance. I've seen the surveyors braving turbulent waves, traversing through brambles and thorns, indifferent to the wind, frost, rain, and snow. Even acquiring basic sustenance like coarse rice requires traveling ten li or beyond. Often they return to their lodgings at dusk and don't manage a meal until midnight. They sleep in dilapidated temples or shrines, exposed to the elements and haunted by the howls of wind and ghosts. Fortuitously, their numerous attendants afford them some respite. I have witnessed this alongside them, and it deeply grieves my heart. Yet, it seems that the esteemed sir lavishes rewards on those of hollow reputation while treating these hardworking individuals as mere laborers. In such conditions, how could anyone not be discouraged?¹⁵⁸

This description highlights the severe challenges faced by surveyors. In Hubei, a core province of the Qing empire, the difficulties are already immense, which underscores the greater challenges in economically peripheral frontier regions. The Jilin general, Changshun, emphasized the need for additional time, noting the extreme winter conditions: "In the depths of winter, the north wind is harshly cold, all waters freeze over, and snow piles up several feet deep, blanketing the land and obscuring the shapes of mountains and rivers in white. Moreover, the telescope lenses fog up and frost over, making them difficult to use. This issue stems from the local climate of the frontier regions, which is unlike anything experienced in the inner provinces."¹⁵⁹

The challenges of the mapping tasks were substantial, and the local plans to address them were robust. Daijun's detailed proposals were just part of a broader effort across various provinces. For instance, Guangdong, a province with extensive cartographic experience, developed a comprehensive plan. Li Hanzhang, the governor general of Liangguang, indicated that they would need at least six months to train surveyors and five to six years to complete the

¹⁵⁸ *Wang Kangnian shiyou shuzha*, 2631-2632.

¹⁵⁹ "Jilin jiangjun wei cehui ditu zhanxian shi" (Guangxu reign 16th year, tenth month twentieth day) Taiwan Zhongyang yanjiu yuan Ming Qing neige daku dang'an, registration number: 137784.

mapping—a timeline extending beyond Daijun’s projection.¹⁶⁰ In Guangxi, three mapping bureaus were established, and it took three years to complete their tasks.¹⁶¹ Thus, each province adapted its approach based on its specific surveying experience, geographical complexity, and other local factors. These varied responses highlighted that the scope of the mapping challenges was much greater than initially anticipated by the capital authorities. The *Huidian* bureau, recognizing the enormity of the task, frequently requested additional mapping personnel and advanced equipment from the provinces.¹⁶² However, due to limited financial resources, the court struggled even to pay the stipends of these personnel later on.¹⁶³ Consequently, the bulk of the work had to be managed locally, placing a financial strain on provincial budgets. This shift marked a significant departure from the eighteenth century when Beijing dominated cartographic expertise. By the late nineteenth century, the provinces had become new centers of mapping authority, fundamentally altering the traditional power dynamics in cartographical knowledge and expertise.

How Does the Final *Huidian* Maps Look Like?

After fourteen years of effort, the *Guangxu Atlas* was completed in 1899 and submitted to the court for the Empress Dowager and the Emperor’s review, soon receiving imperial approval. Although it was anticipated that the maps would take the longest to complete among the subprojects, it was unexpected that, after considerable challenges, the final products adhered to the boundaries established in the early nineteenth-century Jiaqing *Huidian* due to the influence of the Hong Jun’s map incident (Chapter Two). The *Guangxu Atlas* emphasized that even minor

¹⁶⁰ “Liangguang zongdu wei ziming shi” (Guangxu reign 18th year, sixth month fourth day), Taiwan Zhongyang yanjiu yuan Ming Qing neige daku dang’an, registration number: 138627.

¹⁶¹ “Guangxi xunfu weihui xiangqing zishi” (Guangxu seventeenth year, eleventh month thirtieth day), Taiwan Zhongyang yanjiu yuan Ming Qing neige daku dang’an, registration number: 138626.

¹⁶² “Huidian guan xingyi dang,” *Guojia tushuguan cang Qingdai guben neige liubu dang’an xubian* (Xinhua shudian, 2005), vol. 2, 492-493.

¹⁶³ “Huidian guan xingyi dang,” *Guojia tushuguan cang Qingdai guben neige liubu dang’an xubian*, 549-550.

inaccuracies in depicting borders could result in significant territorial discrepancies given the empire's vastness.¹⁶⁴ Consequently, meticulous annotations were made for every border marker, such as guard posts, cairns (kalun or ebo), and local tusi chieftaincies.¹⁶⁵ For disputed borders, the new *Huidian* adopted a cautious approach: "Prefer absence to error, do not mark borders with dotted lines but adhere to the original borders from the Jiaqing *Huidian*, clearly annotating each to uphold traditional practices and ensure prudence."¹⁶⁶

In 1899, despite the cession of parts of western Xinjiang and northern Heilongjiang to the Russian Empire, and Taiwan to Empire of Japan, the *Huidian* atlas still depicted these regions as part of Qing territory. The atlas included "General Map of Taiwan Province (figure 22)," covering three prefectures and one directly-administered county (zhili zhou).¹⁶⁷ This representation reflected the Qing government's efforts to integrate all parts of Taiwan following the 1874 Mudan Incident, which led to the "kaishan fufan" policy (opening the mountains and civilizing the barbarians).¹⁶⁸ Although Taiwan had never been a totally independent province separate from Fujian (it was reorganized into the Fujian-Taiwan province in 1888, akin to the creation of the Gansu-Xinjiang province in 1884), the *Huidian* atlas started to mark Taiwan and Fujian as separate provinces. This change did not occur while the Qing controlled Taiwan, but rather after they lost control of the island to Japan.

¹⁶⁴ *Guangxu chao Huidian guan xinxiu Da Qing huangyu quantu* (Shangwu yinshuguan, 1909), please visit https://artsandculture.google.com/asset/大清皇輿全圖-私人藏家借展/VQHXXH5Bqpx_Vw?hl=zh-tw

¹⁶⁵ Regarding ebo, see Yi Wang, *Transforming Inner Mongolia: Commerce, Migration, and Colonization on the Qing Frontier* (Rowman & Littlefield, 2021), 78. Regarding tusi chieftaincy, see John E. Herman, "The Cant of Conquest: Tusi Offices and China's Political Incorporation of the Southwest Frontier," in *Empire at the Margins: Culture, Ethnicity, and Frontier in Early Modern China*, ed. Pamela Kyle Crossley et al. (University of California Press, 2006).

¹⁶⁶ *Qinding Da Qing Huidian tu* (Beijing, 1899), zouzhe, 13.

¹⁶⁷ *Qinding Da Qing Huidian tu*, vol. 188.

¹⁶⁸ For more details on the establishment of Taiwan as a province, see Hsu Hsueh-chi, "Fujian Taiwan jiansheng de yanjiu- you jiansheng dao fenzhi," *Guoli zhengzhi daxue lishi xuebao* 3 (1985): 193-242. For the civilizing mission, see Lin Wen-kai, "Wan Qing Taiwan kaishan fufan shiye xintan: jianlun shijiu Taiwan shi de yanxiu yu zhuanxing," *Hanxue yanjiu* 32, no.2 (2014): 139-174. For how Qing officials discussed the provincialization of Taiwan, refer to Lane J. Harris, *The Peking Gazette: A Reader in Nineteenth-Century Chinese History* (BRILL, 2018), chap. 21.

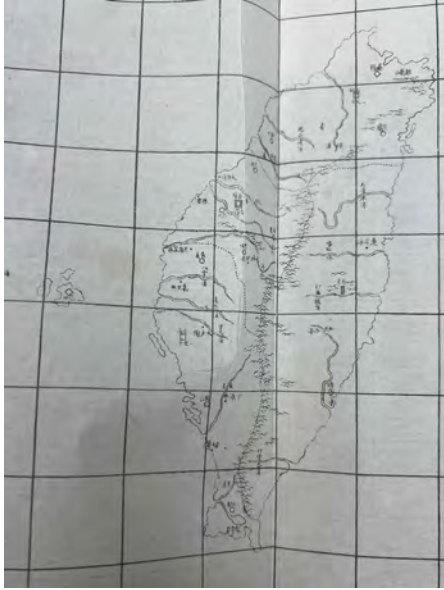


Figure 22: *The General Map of Taiwan in Guangxu Atlas*

The same situation occurred to the map of Xinjiang. As discussed in the second chapter, although Zeng Jize's negotiations with the Russians returned a significant portion of western Xinjiang to the empire, some territories still claimed by the Qing were ceded. One notable area was Temurtu (特穆爾圖泊), known today as Issyk-Kul Lake in Kyrgyzstan, which was officially ceded to Russia in 1864 during General Minyi's negotiations with Russian delegates. However, examining the provided map of Xinjiang (figure 23), you can see that Ili, which Russia agreed to return to the empire under the Treaty of St. Petersburg, is marked with a yellow circle. In contrast, Issyk-Kul Lake, which is highlighted with a red circle, continues to be depicted as part of Qing territory.¹⁶⁹

¹⁶⁹ *Qinding Da Qing Huidian tu*, vol. 217.



Figure 23: Maps of Xinjiang in *Guangxu Atlas*

The same scenario also can be noticed in maps of northern Heilongjiang, where territories extending from today's Daxing'anling in the PRC to the Stanovoy Range in Russia were ceded to the Russian empire by the 1858 Treaty of Aigun and reaffirmed by the 1860 Convention of Peking. Despite these concessions, these areas remained marked as Qing territory in the late-nineteenth-century atlas.¹⁷⁰ As shown in Figure 24, the Stanovoy Range (red circle) and the whole lands had officially been under Russia's control for more than three decades. This adherence to earlier imperial maps was largely influenced by the controversy surrounding Hong Jun's map in the Pamir region, reflecting a sentiment in the Han Chinese bureaucratic community that viewed any territorial loss as a humiliation.¹⁷¹ Consequently, the *Guangxu Atlas* continued to depict these regions according to the boundaries of early nineteenth-century imperial maps.

¹⁷⁰ *Qinding Da Qing Huidian tu*, vol. 153.

¹⁷¹ Chapter Two.

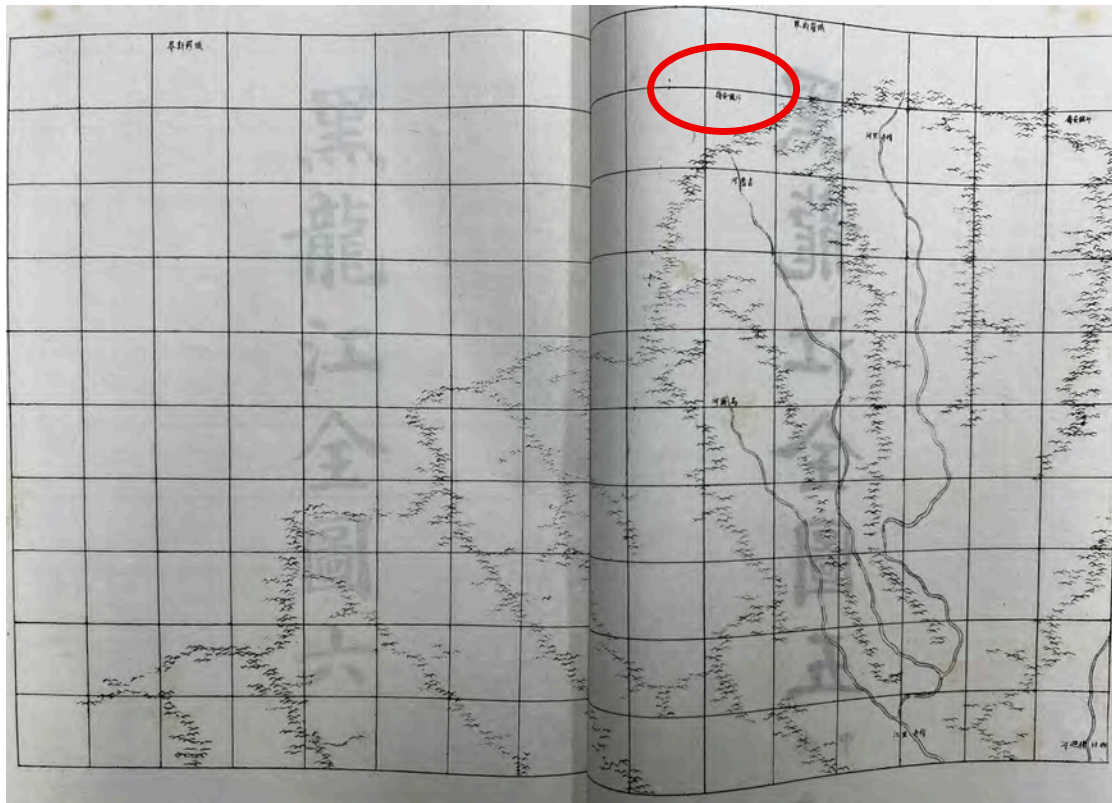


Figure 24: Map of Heilongjiang in *Guangxu Atlas*

Unlike the eighteenth-century imperial atlases, the *Guangxu Atlas* ceased to incorporate tributary states into its maps. In the eighteenth-century atlases, Korea was depicted as though it was part of Qing territory, complete with detailed geography and significant Korean cities. This inclusion, which did not extend to all tributary states (for instance, Vietnam was omitted) may not have been thoroughly considered.¹⁷² By the late nineteenth century, such detailed geographical information was conspicuously absent in the newly created map. As illustrated in the map of figure 25, the Korean Peninsula is merely labeled as “Chaoxian,” i.e. Chosŏn, with no additional geographical data. This omission was not due to a lack of Korean maps at the *Huidian* bureau, which possessed at least two types of Korean maps: one from the *Da Qing yitong zhi* and

¹⁷² You can view both the parts of Korea and Vietnam on the Kangxi Atlas by visiting the Qing Maps website: <https://qingmaps.org/maps/kangxi-1721>

another produced by Japan's navy.¹⁷³ Therefore, these changes indicate a clear conceptual shift in what was considered Qing territory during this period, with Western Xinjiang, northern Heilongjiang, and Taiwan regarded as imperial territories, despite having been ceded to foreign powers, while Korea was not.



Figure 25: *The Guangxu General Map of the Empire (Guangxu chao Huidian guan xinxiu Da Qing huangyu quantu)*

However, there was a clear commonality between the eighteenth-century maps and the late nineteenth-century ones: the prime meridian started from Beijing. This was a practice starting from the early Qing period because, in the late Ming world map created by Matteo Ricci (1552-1610) and Li Zhizao (1571-1630), the prime meridian passed through Cape Verde (Figure 26), following European cartographic conventions of the time, as evident in Abraham Ortelius' world map of 1570 (figure 27). It was from the *Kangxi Atlas* onwards that Beijing was established as the prime meridian (figure 28). This conscious change not only presented the Qing

¹⁷³ *Neige jiuku dang jikan*, vol. 4, 129, 147.

capital as the center of the world but also symbolized the emperor's presence on maps. This practice, initiated in the eighteenth century, continued into late Qing cartography and even influenced maps in later Republican period.

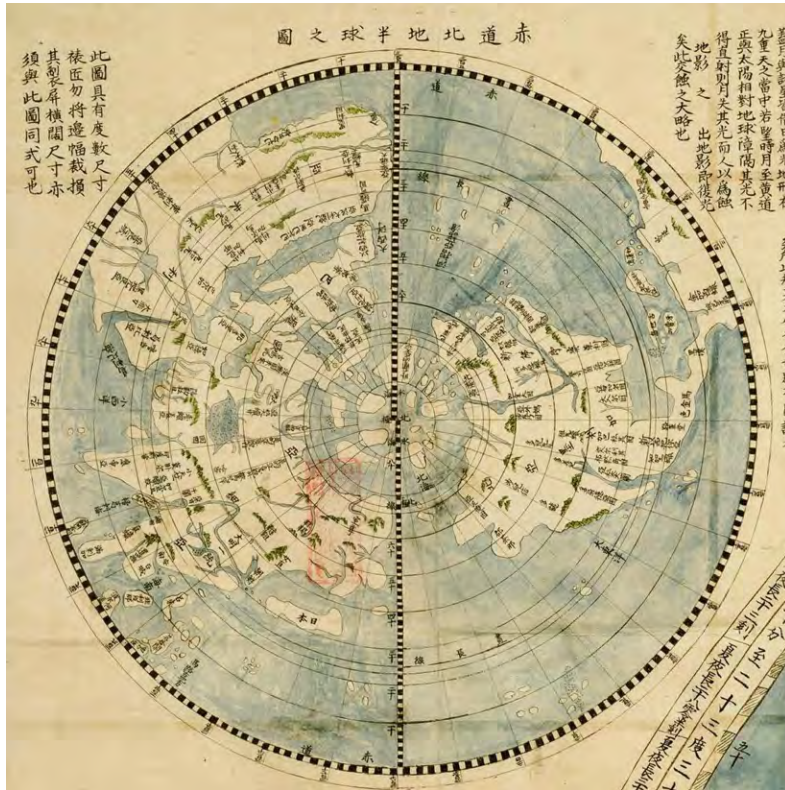


Figure 26: A Map of the Myriad Countries of the World (*Kunyu wanguo quantu*)



Figure 27: Ortelius' Theatrum Orbis Terrarum (1570)

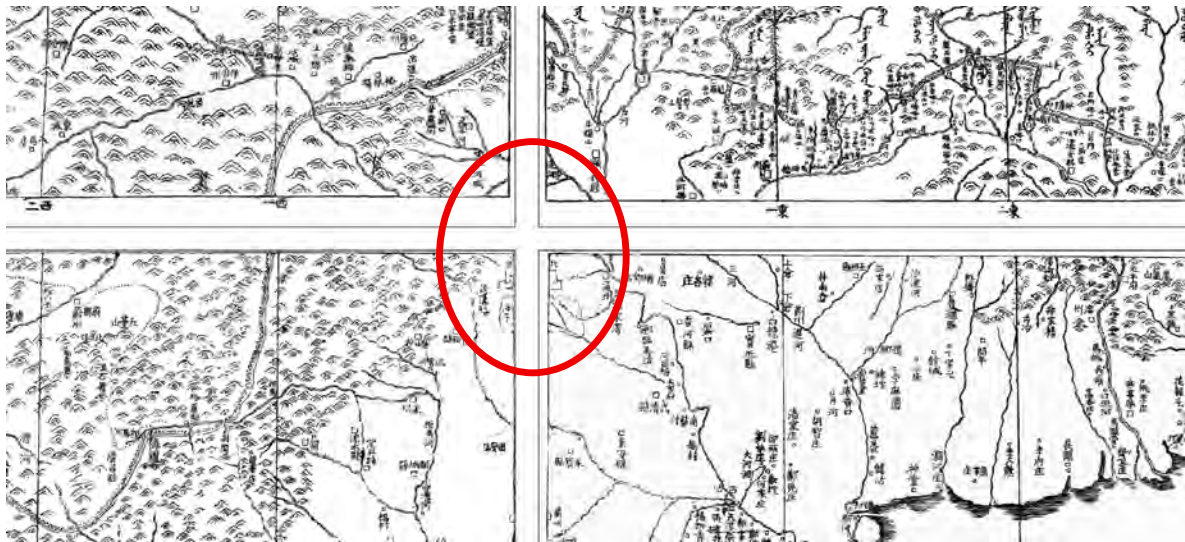


Figure 28: Kangxi Atlas (1719), Beijing in red circle

For example, in the *Complete Territory of the Republic of China* (Zhonghua minguo quantu) made in 1926, far after the Qing's collapse, the prime meridian still passed through Beijing (figure 29). However, this was not a universally accepted perspective. Another map of the complete territory of the Republic of China, printed by *Shenbao*, adopted the Greenwich

meridian as determined by the 1884 International Meridian Conference, placing Beijing at 116.4074° E, as we do today.¹⁷⁴ Therefore, these settings of the prime meridian reflected a cartographical competition of ideologies, a debate not resolved before 1949.

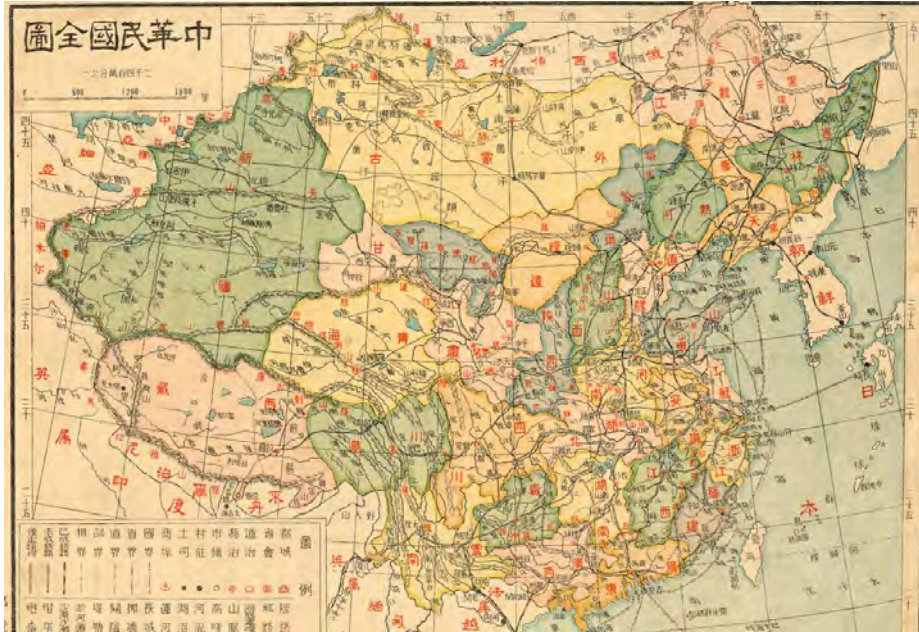


Figure 29: "Complete Territory of the Republic of China" (*Zhonghua minguo quantu*)

In a more politically charged map, the *Chinese Map of National Humiliation* (*Zhonghua guochi ditu*), printed in 1931, which listed all territorial losses of China on its sides (see figure 30), there were two different coordinate systems: one based on the Greenwich meridian and the other on the Beijing meridian (see figure 31).¹⁷⁵ In this map, we see the number 150° east longitude in red. Slightly to its right is the Chinese word “zhong,” meaning center, in black ink, representing the early Qing period meridian practice. However, in this context, the prime meridian no longer symbolized the emperor’s presence but rather served as a national symbol of China. The map was created and printed by the Asia-Renewal Map Publishing House (Yaxin

¹⁷⁴ Ding Wenjiang, *Zhonghua minguo xin ditu* (Shenbaoguan, 1934).

¹⁷⁵ *Zhonghua guochi ditu*. Wuchang yaxin dixue she, 1931. About this map of “national humiliation,” see Callahan, “The Cartography of National Humiliation and the Emergence of China’s Geobody.”

dixue she), founded not by anyone else but one of our protagonists, Zou Daijun, in the late 1890s.



Figure 30: The list of treaties of national humiliation



Figure 31: two meridian systems

Conclusion

Even though the *Guangxu Atlas* set an essential tone for how Chinese maps were created in the post-imperial period, its historical significance was not immediately apparent upon completion. During the height of the 1898 Reform Movement (Wuxu Reform), the Guangxu emperor ordered the mass printing of Feng Guifen's (1809-1874) *Essays of Protest* and distributed it to officials in the capital, requesting their feedback. Later that year, more than 500 officials provided feedback on Feng's proposed reforms.¹⁷⁶ Regarding the mapping reforms, generally, officials would agree on its importance. Some believed that the *Guangxu Atlas* had already fulfilled Feng's vision for better maps, but others had more conservative attitudes.

Officials who had positive attitude toward the mapping reform, such as Liu Yueyun, an editor at the *Huidian* map bureau, argued that the *Huidian* maps had already accomplished what Feng proposed. Liu's only contention was that these maps should not be accessible beyond the court.¹⁷⁷ In contrast, his colleague Huang Shaoji questioned the effectiveness of the *Guangxu Atlas*. While Huang agreed on the importance of accurate maps, he advised delaying the reform due to the varying accuracy of provincial maps and the lack of skilled cartographers. He believed that effective new academies were necessary for the reform to succeed.¹⁷⁸ Another colleague, Wen Tingshi, commented that Feng did not fully understand trigonometrical surveys, making his methods suitable only for small-scale local maps, not large-scale ones. Wen echoed Huang's concerns about the insufficient number of skilled personnel in the provinces capable of conducting geodetic surveys.¹⁷⁹

¹⁷⁶ Kuhn, *Origins of the Modern Chinese State*, 58–73.

¹⁷⁷ *Qingting qianyi jiaobinlu kanyi dang'an huibian*, vol. 10, 4145.

¹⁷⁸ *Qingting qianyi jiaobinlu kanyi dang'an huibian*, vol. 3, 1335.

¹⁷⁹ *Wen Tingshi ji*, vol. 3, 1057.

Therefore, when the *Guangxu Atlas* was completed, its historical meaning was still not fully recognized. A significant number of participants in the project considered it a failure. This sentiment is reflected in Shen Zengzhi's sarcastic comment: "If the chief editor is careless and we are sloppy, then it indeed conforms to the old practices of the official publications."¹⁸⁰

However, this atlas, despite its numerous shortcomings, had profound political and cultural implications. Anne-Sophie Pratte notes that in the Mongolian region, while the Qing court continued to rely on native Mongols for local maps, the last imperial mapping project's standardization efforts were gradually replacing "existing symbols, languages, and perspectives from locally produced Mongolian maps."¹⁸¹ This shift indicates an increasing influence of Han Chinese in the realm of mapping. It is evident that, similar to Mongolia, other imperial regions also increasingly depended on Han Chinese experts for cartographic tasks. As we have seen in the case of Heilongjiang, Tu Ji took the lead in mapping efforts. In Hubei, a Han-dominated province, Zou Daijun assembled a substantial team of surveyors and mapmakers, despite limited time and resources, to accomplish the tasks. This shift marked a new era in Qing history where Han elites mastered the most advanced mapping techniques and experiences. Consequently, the information order, particularly in geography, once dominated by the Manchu court, gradually transitioned to the Han elite communities.¹⁸² Although many of these elites, including Zou Daijun, lacked imperial degrees and official positions, they started to be integrated into the orbits of influential local officials, such as Zhang Zhidong. These elites learned new knowledge and techniques from the West, which were not part of the traditional imperial exam and Confucian

¹⁸⁰ *Wen Tingshi ji*, vol. 3, 1057.

¹⁸¹ Anne-Sophie Pratte, "Mapping the Steppe. The Politics of Cartography in Qing Mongolia, 1780-1911," *Études Mongoles et Sibériennes, Centrasiatiques et Tibétaines*, no. 53 (December 2022): 282.

¹⁸² About information order, see Bayly, *Empire and Information*, 6–9.

curriculum.¹⁸³ In the following chapter, we will explore how Zou Daijun, based on his mapping experiences, established the first Chinese map publisher owned by a private Han Chinese, Asia-Renewal Publishing House (Yaxin dixue she). This venture into private map publishing ultimately triggered significant shifts in how to represent Chinese nationhood on maps.

¹⁸³ Benjamin A. Elman, *Civil Examinations and Meritocracy in Late Imperial China* (Harvard University Press, 2013), 303–9. Peter Gue Zarrow, *Educating China: Knowledge, Society, and Textbooks in a Modernizing World, 1902-1937* (Cambridge University Press, 2015), 11–26.

Chapter Four: Zou Daijun's Society and Maps

In his seminal work, Albert Feuerwerker analyzed the career of Sheng Xuanhuai 盛宣懷 (1844-1916), arguably the most powerful businessman of late Qing China, and concluded that China's entry into the modern world ended in failure. According to Feuerwerker, this failure stemmed from five principal impediments: "foreign competition, governmental weakness, inadequate capital, technical backwardness, and deficient motivation."¹ All five ultimately pointed, in his view, to a fatal structural flaw: the old Confucian institutional order, especially the system of "official supervision and commercial management" 官督商辦, could no longer sustain the Qing's capitalist development.² Feuerwerker's interpretation represents a classic "failure narrative," in which the late Qing reforms were destined to collapse under the weight of their traditional institutions, and revolution emerged as the inevitable outcome, politically and economically.³ Feuerwerker's model might remain valuable when assessing Sheng Xuanhuai's state-dependent enterprises, which were deeply tied to officials like Li Hongzhang and heavily involved in infrastructure projects (sectors that, even today, tend to resist full privatization). Yet, whether his model can represent the totality of Chinese enterprises at the time is debatable. Recent scholarship on late Qing business history has shown that, since the 1870s, the corporation was "an important new organizational form"⁴ that had spread into diverse fields, particularly publishing, where increasing privatization and the establishment of shareholder board system gave managers greater autonomy than those operating under the more state-entangled arrangements exemplified by Sheng's enterprises.

¹ Feuerwerker, *China's Early Industrialization: Sheng Hsuan-Huai (1844-1916) and Mandarin Enterprise*, 245.

² Feuerwerker, *China's Early Industrialization: Sheng Hsuan-Huai (1844-1916) and Mandarin Enterprise*, 248.

³ For more recent reflections on the "failure" narrative in the field of the late Qing and Republican period, see Halsey, *Quest for Power: European Imperialism and the Making of Chinese Statecraft*, 12–13. Peter Zarrow, "The Place of the 'Republic of China' in Modern Chinese History," *Twentieth-Century China* 50, no. 3 (2025): 195–99.

⁴ Christopher A. Reed, *Gutenberg in Shanghai: Chinese Print Capitalism, 1876-1937* (UBC Press, 2014), 201.

This chapter turns to one such example: Zou Daijun's Map Society 輿地學會. Unlike Sheng's profit-driven enterprises that were constantly pulled between state, managerial, and shareholder interests, Zou's publishing venture aligned closely with the state's cultural and educational agenda. As the Qing government expanded its bureaucratic apparatus in the late 1890s, established Western-style schools, and abolished imperial examination system in 1905, demands for new textbooks surged, providing both institutional support and opportunity for private publishers. In this sense, Zou's enterprise reveals a trajectory distinct from Feuerwerker's narrative of institutional failure and revolutionary inevitability. Rather than signaling the breakdown of the Confucian order, it shows how reformist intellectual-entrepreneurs could establish and operate new businesses within the evolving Qing institutional framework, allowing them to participate semi-autonomously in new forms of knowledge production. By moving beyond the failure narrative, this chapter interprets Daijun's map-publishing enterprise as a foundational effort in constructing China's modern geobody, a spatial project that has profoundly shaped how Chinese space has been imagined ever since.

However, this spatial imagination was never a purely idealistic outcome; it was profoundly shaped by technologies as well as financial and market considerations involved in resolving practical production cost. Accordingly, this chapter examines how Zou Daijun launched his map-publishing enterprise in the late 1890s, the technical and financial challenges he encountered along the way, how he eventually overcame them. The chapter is organized into three sections. The first section traces the foundational years of Daijun's Map Society. The second outlines the technical and financial difficulties he faced as a private mapmaker. The third explores how Daijun navigated between lithographic and copperplate printing, ultimately determining not only how his maps were made but also how they looked. In reconstructing these

difficulties, technical, financial, and political alike, this chapter resolves how Daijun managed to overcome them and to push his cartographic and printing enterprise forward.

Zou Daijun and his Founding of the Map Publishing House

As discussed on the *Guangxu Atlas* project, one of the major differences between this late Qing initiative and earlier eighteenth-century cartographical projects was the unprecedented involvement of Han literati. Every province and frontier region were assigned both mapping responsibilities and the task of gathering diverse geospatial data to complete standardized, court-approved templates. This level of participation by Han elites was unparalleled in Qing history and granted them access to geographic knowledge and cartographic practices that their eighteenth-century predecessors had little opportunity to engage with. As we have seen, Zou Daijun was one of the key beneficiaries of this experience. It was through his involvement in this late-1800s mapping project in Hubei that he began to develop the expertise and confidence that eventually led him to establish his own private mapping enterprise.

After the mapping project in Hubei was completed in 1895, Zou Daijun was confronted with the pressing question of his long-term career path. After he was released from his post as a mapping editor, Zhang Zhidong soon offered him a new job: contributing to a compilation of translated works from Western sources titled *Essential Compendium of Foreign Affairs* 洋務輯要. From 1895 to 1897, Zou was tasked with compiling the part on “territory” 疆域.⁵ However, Zou was increasingly dissatisfied with his professional situation. While he had no better job offers at the time, he was frustrated both by the direction of his career and by Zhang Zhidong’s

⁵ Around early 1895, Zou Daijun noted that he had been assigned to write the section on territory for the compendium project, and that it would be based on his earlier translated work, *Sketch of Translated Western Maps* 西圖略譯, which is no longer extant. By March 1896, Daijun mentioned that he had submitted fifty-eight volumes of the territorial section to Zhang Zhidong. In the letter to Wang Kangnian, he listed several of the sources he had borrowed from Wang to complete the work, including Xu Song’s *Xiyu shuidao ji* 西域水道記, Songyun’s *Xinjiang zhilie* 新疆識略, among others. Wang Kangnian, *Wang Kangnian shiyou shuzha*, vol. 3, 2635, 2637, 2643-2644.

urgency in pushing the compendium project forward. According to Zou, Zhang expected him and his colleagues to complete their works within just six months.⁶ Yet the project had actually begun as early as 1889, when Zhang appointed Wang Tao 王韜 (1828-1897) as general editor.⁷ Wang had played a significant role in Chinese journalism in the late Qing and was selected by Zhang for his experience in Hong Kong and Shanghai with Westerners.⁸ However, the project did not unfold as Zhang had envisioned. His collaboration with Wang Tao eventually broke down, prompting him to relocate the project back to Hubei, where he enlisted the help of private staff members such as Zou Daijun and Wang Kangnian 汪康年 (1860-1911).⁹ Zhang's eagerness to see the project completed led to compromises in quality, and ultimately, the Compendium was never formally published.¹⁰

Not long after, in late 1895, Zou Daijun chose to leave Wuchang and began working for a newly established mineral agency in Hunan under Governor Chen Baozhen 陳寶箴 (1831-1900).¹¹ Yet it was during this transitional period, between preparing to leave Zhang Zhidong's service and taking up his new position in Hunan, that Zou began to seriously reflect on how he

⁶ Wang Kangnian *shiyou shuzha*, vol. 3, 2637.

⁷ Wang Tao, *Taoyuan cidu xinbian* (Shanghai guji chubanshe, 2020), vol. 2, 594.

⁸ Paul A. Cohen, *Between Tradition and Modernity: Wang T'ao and Reform in Late Ching China* (Harvard University Asia Center, 1988), chap. 3.

⁹ Wang stated in a letter likely around 1893 that he would soon complete the *Yanwu* compendium, expressing particular pride in the section on territory, which he believed was strong enough to be published independently. However, according to Chen Qing'nian 陳慶年 (1862–1929), who was appointed general editor of the Translated Book Bureau 譯書局 under Zhang Zhidong in 1896, one of his first assignments was to largely revise the compendium. Wang Tao, *Taoyuan cidu xinbian*, vol. 2, 559. Chen Qing'nian, *Chen Qing'nian wenji* (Hainan chuban gongsi, 1996), 5. Miao Quansun, *Yifeng tang youpeng shuzha*, vol. 2, 959.

¹⁰ The extant print of the compendium I located is held at the Shanghai Library, titled "洋務輯要初編不分卷." The work is still attributed to Wang Tao as its author, suggesting that this edition was likely compiled under Wang's editorship around 1893, rather than the later version revised in Hubei under Chen Qing'nian.

¹¹ Wu, *Empires of Coal: Fueling China's Entry into the Modern World Order, 1860-1920*, 146–47. Wu mistakenly refers to Chen Baozhen as "Chen Baojiang." For more comprehensive research on mining development in late Qing Hunan, see Lin Rongqin, *Qingdai Hunan de kuanye: fenbu, bianqian, difan shehui* (Shangwu yinshuguan, 2014), chap. 7.

might make a more lasting and meaningful contribution through the production of improved maps in China.¹²

Why did Zou Daijun want to establish his own map publishing house in the first place? After all, by the final decade of the nineteenth century, maps were already being widely circulated in China. As discussed in previous chapters, two primary forces were driving the production and dissemination of maps at the time. The first was the rise of government-affiliated book publishers, such as Hu Linyi's Wuchang Publisher, which later became the Chongwen Publisher 崇文書局. This phenomenon was especially common in Han-dominated provinces, where publishing ventures run by provincial administrations operated with the tacit approval of the court. These publishers frequently printed maps alongside other textual productions.

The second factor came from the growing newspaper industry. Many emerging newspapers regularly featured maps, especially those with Christian missionary backgrounds. These publications often sought to attract readership by introducing scientific and global knowledge, thereby serving their evangelical purposes. For instance, *Yiwen bao* 益聞報 ran a series introducing foreign countries accompanied by maps, aiming to familiarize Chinese readers with world geopolitics and history.¹³ Another example is *Huatu xinbao* 畫圖新報, founded by American Presbyterian missionary John Farnham (1829-1917), which once published a map of the Great Qing (大清國地圖) revised from Li Zhaoluo's version.¹⁴ Even more commercially

¹² *Wang Kangnian shiyou shuzha*, vol. 3, 2640.

¹³ For example, *Yiwen lu* 益聞錄, issue 117, 1881. On the Chinese Christian editor of this journal, Li Wenyu (1840-1911), see Joachim Kurtz, "Messenger of the Sacred Heart: Li Wenyu (1840-1911) and the Jesuit Periodical Press in Late Qing Shanghai," in *From Woodblocks to the Internet: Chinese Publishing and Print Culture in Transition, circa 1800 to 2008*, ed. Cynthia Joanne Brokaw and Christopher A. Reed (Brill, 2010), 92-95.

¹⁴ "Da Qing guo ditu 大清國地圖," *Huatu Xinbao* 2, no.1 (1881).

driven newspapers like *Shenbao*, from its founding in 1875, regularly ran advertisements selling privately produced maps or soliciting new cartographic materials.¹⁵

In this sense, by the late nineteenth century, maps had become far more accessible to Chinese readers. So why did Zou Daijun still feel the need to establish a publisher dedicated solely to map production? After all, operating a publishing house focused exclusively on maps meant narrowing its revenue streams. Without the income from newspapers or book sales, such a venture would depend mostly on map sales, something that readers could obtain from other sources. Zou's motivation likely stemmed from two main factors. The more immediate one was his experience producing maps in Hubei and compiling border-related materials for Zhang Zhidong's *Essential Compendium of Foreign Affairs*. Frustrated by the short six-month deadline he was given to complete the section on "territory," Daijun later remarked, "If granted more time, I could surely write it well, though it would likely become a private work (and I would certainly include maps)."¹⁶ In other words, it was during this compendium project that Daijun began to recognize the potential of combining his hands-on mapping experience with textual analysis of Qing territorial changes and border affairs.

This realization tied into a broader and more long-term context: the growing frequency and urgency of border negotiations with foreign powers. These geopolitical tensions required precise, up-to-date maps, but by this point, it was not just political elites paying attention. Since the late 1870s, with the rise of journalism in China, more and more local elites had begun closely following foreign conflicts.¹⁷ For this expanding audience, reading newspaper reports about

¹⁵ A search through the *Shenbao* database using the keyword "map" 地圖 reveals that advertisements for map sales appeared consistently from as early as 1875.

¹⁶ *Wang Kangnian shiyou shuzha*, vol. 3, 2638.

¹⁷ The Sino-French War of 1884–85 marked a major turning point in Chinese newspaper readership. During the conflict, newspapers consistently covered war developments, with *Shenbao* emerging as the most prestigious among them. Not only did textual reporting become more widespread, but visual coverages also gained popularity, most

battles in obscure or marginal frontier regions required reliable and detailed reference maps.¹⁸

The ad hoc, often large-scale maps included in commercial or missionary newspapers could no longer meet such demands.

Another important context for the establishment of Zou Daijun's map publishing venture was the rise of "study society" 學會, across China. Following the Qing's defeat in the Sino-Japanese War of 1895, there was a surge in the formation of such societies, particularly between 1895 and 1898. Han-dominated provinces, especially Hunan and Hubei, were among the most active in organizing these groups.¹⁹ The stated purpose of most study societies was not to engage in political critique, but rather to strengthen the state through the promotion of practical knowledge. Many were dedicated to introducing translated works from the West and creating forums for like-minded individuals to gather, exchange ideas, and deepen their understanding of science, technology, and reform. In most cases, these societies published semi-commercial, semi-official newspapers or journals to broaden their reach as well as to generate revenue to support their activities. In addition to publishing, many societies engaged in a kind of public share offering.²⁰ While this was far from a modern IPO, it functioned more like a salon-based membership model: individuals who contributed financially became members or subscribers, helping to sustain the organization's operations. Within this environment, many of Zou Daijun's friends and associates in Hunan and Hubei were actively involved in launching such societies.

notably through the launch of *Dianshizhai Pictorial* 點石齋畫報, created by *Shenbao* that used illustrations to depict wars and social events. Huang Xiexun 黃協燝 (1851-1924), who served as general editor of *Shenbao*, later recalled that in the aftermath of the Sino-French War, *Shenbao*'s sales flourished and a surge of advertisers sought to place their ads in the paper. Huang Xiexun, "Benbao zuichu shidai zhi jingguo" 本報最初時代之經過, *Zuijin zhi wushi nian* 最近之五十年 (Shenbao guan, 1923), vol. 3, 26.

¹⁸ Starting in mid-1883, when the Qing began clashing with the French over Vietnam, *Shenbao* began selling maps of Vietnam. "Yuenan ditu chushou" 越南地圖出售, *Shenbao*, July 14, 1883.

¹⁹ Liang Qichao, *Wuxu zhengbian ji* 戊戌政變記, in *Liang Qichao quanji*, vol. 1, 563.

²⁰ Wang Er'ming 王爾敏, *Wang Qing Zhengzhi sixiang shilun* 晚清政治思想史論 (Guangxi shifan daxue chubanshe, 2007), 11-12.

Inspired by this trend and drawn from his exposure to Western cartographic institutions during his time in Europe, Zou began planning a study society centered on maps and geographic knowledge.²¹

In late 1896, Zou Daijun published his first fundraising prospectus in the inaugural issue of *Shiwubao* 時務報, the earliest reform-oriented newspaper circulated across the Qing empire. The founder and general manager of *Shiwubao* was Wang Kangnian, one of Zou's closest friends, and its first editor-in-chief was none other than Liang Qichao, the leading young reformer of the 1898 Hundred Days' Reform. Beyond Liang, many other reform-minded Han intellectuals participated in the operation of the newspaper, which had a distinctly progressive agenda.²² Among its reform goals was the transformation of how Chinese people understood geography, making the improvement of maps a matter of great urgency. In his prospectus, Zou explicitly criticized the poor quality of the world maps then circulating in China. He noted that although many of these maps were translated or copied from Western sources, they contained numerous errors, including those recently produced in China. Zou argued that such inaccuracies were understandable, as those maps were designed to generate profit, not to provide accurate geographic knowledge.²³ His goal, by contrast, was to establish a study society specifically dedicated to producing high-quality maps, not for profit, but for the benefit of empire-wide reform and learning.

Zou emphasized that his vision was made possible by his travels in Europe, where he had deliberately collected a wide range of world maps. However, he observed that European world maps tended to depict Europe in great detail while offering only sketchy renderings of other parts

²¹ Wang Kangnian *shiyu shuzha*, vol. 3, 2639.

²² Wang Yinian, *Wang Rangqing xiansheng zhuanji*, 36-63.

²³ Zou Daijun, "Yiyin xiwen ditu zhaogu zhangcheng" 譯印西文地圖招股章程, *Shiwubao*, August 9, 1896, vol. 1, 61.

of the world. This realization led him to gather individual maps focused on specific countries and regions. His collection included two Russian maps of Central Asia and Siberia; British maps of India, Burma, Siam, North America, and South Africa; French maps of Vietnam; and German maps of the Malay Archipelago and Africa. In addition, Zou brought with him experience in mapmaking from his work on the *Guangxu Atlas* project, and had compiled a significant collection of the latest provincial and regional maps from within the Qing empire. Building on these resources, he proposed to translate the foreign maps into Chinese and reprint them in a consistent Chinese format. According to the prospectus, the proposed Map Study Society planned to publish a total of 600 maps—160 covering China, and the remaining focused on foreign regions.²⁴

The prospectus clearly outlined the major costs associated with the project. First, the maps would be printed on high-quality paper that was used by Western publishers, thicker and more suitable for lithographic printing, which would significantly increase production costs, several times higher than those of standard book printing. Second, the team would revise all translated placenames and include accompanying illustrations listing variant names from different sources for each location, along with distance from the imperial capital and longitudinal and latitudinal coordinates, just like Ding Quzhong had done earlier. Third, the project proposed a complete reorganization of map elements: mountains, rivers, railroads, and seaports would be rendered with standardized indicators, including sea depth markers, city symbols, and more, all explained in a separate reference sheet of symbols. The combined costs of editing, materials, equipment, and office rental were estimated at 31,100 silver dollars over two years.²⁵

²⁴ Zou Daijun, “Yiyin xiwen ditu zhaogu zhangcheng,” 61-64.

²⁵ Zou Daijun, “Yiyin xiwen ditu zhaogu zhangcheng,” 64-65.

To cover initial startup expenses, the prospectus announced a public fundraising campaign consisting of 400 shares, each priced at 50 silver dollars, with the goal of raising 20,000 silver dollars in the first round to launch the map publishing enterprise. Early subscribers who contributed during the first issue were promised a full set of maps once printing was completed. For the second round of fundraising, shares would be priced at 56 silver dollars, and contributors would receive maps every other print cycle. Each print run was projected to produce 1,000 copies: a portion would be distributed to shareholders, while the remainder would be sold on the open market. General maps were to be priced at 81 silver dollars, and regional maps at 13.5 silver dollars. The prospectus emphasized that all revenue would be used to purchase books and maps, with the aim of promoting geographic knowledge and improving access to maps within China.²⁶ In other words, Daijun's study society was established not for profit, but for the advancement of geographic knowledge.

What was 50 silver dollars like in 1890s China? Was it expensive? Could ordinary people who were just interested in maps afford it? Scholarship in economic history offers useful insight into this question. One silver dollar, whether from a foreign country (番銀/洋銀) or issued by the Qing government, roughly equaled 0.7 tael of silver (銀兩).²⁷ According to accounts from Li Ciming 李慈銘 (1830–1894), a mid-level official in Beijing during the 1880s and 90s, his annual salary was around 1,733 silver dollars, meaning his average monthly income was about 144 dollars.²⁸ At first glance, 50 silver dollars might not seem like a large sum, at least for a mid-level official. But for comparison: leasing a large house in Beijing in the 1880s cost about 103 silver

²⁶ Zou Daijun, “Yiyin xiwen ditu zhaogu zhangcheng,” 65.

²⁷ Shao Yi, *Guoqu de qian zhi duoshao qian: xidu shijiu shiji Beijing ren, Bali ren, Lundun rende jingji shenghuo* (Shanghai renmin chubanshe, 2010), 3.

²⁸ Zhang Dechang, *Qingji yige jingguan de shenghou* (Xianggang zhongwen daxue, 1970), 228.

dollars per year.²⁹ Many mid-level capital officials were regularly short on money because of extravagant living expenses, big residences, household servants, banquets, and entertainment often consumed most of their income. Some sources even suggest that many of them regularly relied on pawnshops.³⁰ In fact, 50 silver dollars could cover the annual expenses of a five-person household or pay for half a year's rent on a large residence in Beijing.³¹ In this sense, the cost of one share in the Map Study Society was by no means small; rather, it was a significant investment.

What about the map prices that Zou Daijun set in his prospectus? Were they also out of reach for ordinary people? The answer leans toward yes. A laborer living in Beijing during the late Qing period earned about 0.12 silver dollars per day on average basis, which translates to an average annual income of roughly 43.8 silver dollars.³² Based on that, a general map priced at 81 silver dollars would cost nearly two years' worth of wages, while a regional map priced at 13.5 silver dollars would amount to nearly one-third of that worker's yearly income. In this sense, clearly, the maps produced by the Map Study Society were not intended for ordinary people, but rather for individuals with substantial economic base, such as officials or merchants/landlords. However, even not all officials could comfortably afford these maps. For instance, a highly educated man who had just earned the prestigious metropolitan degree and was appointed to the Hanlin Academy (a coveted entry-level post in the central bureaucracy) would have received a

²⁹ Zhang Dechang, *Qingji yige jingguan de shenghou*, 53. An interesting comparison can be found in William A. P. Martin's memoir, in which he recalls an occasion when William Seward (1801-1872), former Secretary of State under Abraham Lincoln, traveled to China and sought to meet the influential Manchu minister Wenxiang (1818-1876) in Beijing. Wenxiang declined to receive Seward in his rented residence, considering it too modest. According to Martin, Wenxiang, who had served as Grand Councilor for decades, rented his dwelling in the capital for 54 silver dollars per year, which "could not be very splendid." William A. P. Martin, *A Cycle of Cathay: or, China, South and North* (Edinburgh: O. Anderson and Ferrier, 1896), 361.

³⁰ Zhang Dechang, *Qingji yige jingguan de shenghou*, 53-57.

³¹ Shao Yi, *Guoqu de qian zhi duoshao qian*, 38.

³² Zhang Dechang, *Qingji yige jingguan de shenghou*, 265-268.

salary of around 100 silver dollars per year, assuming no additional assignments or stipends.³³ For him, purchasing a general map at 81 silver dollars would be a significant expense, requiring serious consideration. A regional map, costing about 13.5 silver dollars, might be more affordable, roughly ten percents of his annual income, but still a luxury rather than a casual purchase. Hence, the intended buyers of these maps should be wealthy merchants and high-rank officials, not common readers, nor lower-ranking officials without family wealth or outside income.³⁴

However, the immediate question surrounding this business model was whether shareholder investments and retail map sales could realistically cover the high costs of production. As shown by Western experiences with privately produced maps since the eighteenth century, one of the greatest challenges for independent mapmaking ventures was the risk of sudden cash shortages. A well-known example is the British map publisher Thomas Jefferys (1719-1771). Jefferys, who held the title of Geographer to King George III, operated a private firm that produced maps and charts for both the British government and individual customers. During the eighteenth century, such privately run map publishing houses were quite common across Europe due to high demand: governments needed maps for infrastructure and military planning, while the general public showed increasing interest in travel and geographic knowledge. Jefferys' company successfully published a range of popular foreign atlases, especially of North America during the Revolutionary War, as well as domestic British maps. However, when Jefferys undertook a series of county-level surveys, which required extensive fieldwork, firsthand cartographic labor, and specialized instruments, his company quickly ran

³³ Zhang Dechang, *Qingji yige jingguan de shenghou*, 80-81.

³⁴ Regarding the salary of a governor in the late Qing period, see the case study of Wu Dacheng 吳大澂 (1835–1902) in Bai Qianshen, *Wan Qing guanyuan shoucang huodong yanjiu* (Guangxi shifan daxue chubanshe, 2019), 183-209.

into serious financial difficulties. The costs of conducting on-the-ground investigations, including payments to surveyors and the purchase of measuring devices, ultimately drove the business into bankruptcy. As Harley notes, without consistent government backing, most eighteenth-century European mapmakers were forced to rely on plagiarizing existing maps. The financial burden of carrying out original surveys was simply too high. For those with ambitions to conduct mapping without official sponsorship, bankruptcy was often inevitable.³⁵

Could Zou Daijun's business model, combining share investments and map sales, sustain his private map enterprise? The short answer would be no, unsurprisingly, though the reasons differ from those faced by his European counterparts. While Zou's business did not require actual surveying, it nonetheless struggled with persistent financial difficulties. The next section will discuss the technical and practical challenges that the Map Study Society encountered, ones that kept Daijun constantly seeking external patronage from influential officials, even as he remained determined to preserve the enterprise's independence from direct political control.

Technical and Organizational Challenges of the Map Society

As you can imagine, the public offering did not secure all the funds at once. Instead, contributions came in gradually and from multiple locations, mainly Beijing, Tianjin, Shanghai, Wuchang, and Changsha. Besides Wang Kangnian, Wu Qiao 吳樵 (1866-1897) was another important man helping Zou Daijun raise money outside Hunan and Hubei. Wu Qiao, the son of Wu Dexiao 吳德瀟, an imperial degree holder active in the reform movement and the introduction of Western knowledge, had close ties to China's emerging newspaper industry after 1895.³⁶ Wu Qiao was instrumental in founding newspapers like *Shiwubao* alongside Wang

³⁵ Harley, "The Bankruptcy of Thomas Jefferys: An Episode in the Economic History of Eighteenth Century Map-Making."

³⁶ Ren-yuan Li, *Wang Qing de xinshi chuanbo meiti yu zhishi fenzi* (Xinbei shi: Daoxiang chubanshe, 2013), 120-124.

Kangnian and others. Because of his frequent travels to Beijing, Tianjin, and Shanghai, Wu Qiao was well positioned to promote Zou Daijun's map share offering and collect investments.

From a letter Wu Qiao wrote to Wang Kangnian, we know that at the very early stage of Daijun's offering, public interest was quite high. Wu complained that Daijun had not sent him enough share certificates: so many people in Tianjin and Shanghai wanted to invest in the map society that he was "pained he could not meet the demand" 苦不能應. Wu urgently requested Daijun to send a hundred more tickets and additional prospectuses to Beijing to satisfy the surge of requests.³⁷

At that moment, Daijun's map society attracted so much attention that even the Strengthen Study Society 強學會, a representative reformist organization led by persons like Kang Youwei and Liang Qichao, sought to incorporate it. However, Zou Daijun strongly resisted being merged, likely because he felt the Strengthen Study Society was too close to the government.³⁸ Although their correspondence does not elaborate in detail, it is clear that Zou, along with his close friends Wang Kangnian and Chen Sanli, believed that real reform could not succeed without a degree of "opposing imperial commands" 抗旨.³⁹ They were not advocating for overthrowing the Qing, but they recognized that the central government might not genuinely appreciate reforms, thus requiring a stance of measured resistance.

Despite Daijun's hesitation about formal political affiliations, several powerful officials showed strong interest in investing early on. For example, Wu Qiao mentioned that when Mao Qingfan 毛慶蕃 (1846-1924), then a rising mid-level official in Beijing recognized for his talents

³⁷ *Wang Kangnian shiyou shuzha*, vol. 1, 459.

³⁸ *Wang Kangnian shiyou shuzha*, vol. 3, 2642.

³⁹ *Wang Kangnian shiyou shuzha*, vol. 3, 2650.

by powerful seniors, read Zou's map prospectus, he was so impressed that he wanted to organize a major fundraising effort on Daijun's behalf.⁴⁰

While it remains uncertain whether Mao actually contributed to the fundraising efforts, what is clear is that Daijun's business encountered financial difficulties early on, and the task of editing maps created considerable challenges. His first major printing project focused on maps of northern Asia, particularly Siberia and Central Asia, aligning with his political concerns about Russian encroachments on the Qing empire's northern frontiers.⁴¹ This undertaking required significant translation work. As discussed earlier with regard to Hong Jun's translated maps from Russian sources, placename translation presented a major obstacle, since many Russian and broader European geographic names had not yet been standardized in Chinese at the time.

Thus, Daijun needed to hire personnel both to translate and to edit the placenames, and crucially, to work toward standardizing their usage. By 1897, he had already hired ten employees to assist with the northern Asia map project, although he also acknowledged that his mapping enterprise was struggling financially. While it is unclear exactly what tasks these employees performed, it is reasonable to assume that translation and name editing constituted a significant portion of their work. One notable figure among his collaborators was Zou Shike 鄒世可, a family member who had previously assisted his father, Zou Hanzhang, in Hu Linyi's atlas project during the 1860s.⁴² Zou Shike worked in Daijun's society as an editor for translations, yet when the Siberia and Central Asia map was released, many errors remained yet were fortunately pointed out by members of the map society.⁴³

⁴⁰ *Wang Kangnian shiyou shuzha*, vol. 1, 459.

⁴¹ *Wang Kangnian shiyou shuzha*, vol. 3, 2635.

⁴² Very little is known about Zou Shike's life aside from a brief biography found in the family genealogy. Zou Yongfu, *Zoushi dixue yuanliu ji*, in *Hunan lidai wenhua shijia, Xinhua Zoushi juan*, 256-257.

⁴³ Zou Yongfu, *Zoushi dixue yuanliu ji*, 257. *Wang Kangnian shiyou shuzha*, vol. 3, 2754.

Beyond translation, the issue of standardizing geographical names posed another major challenge. Tu Ji 屠寄 (1856-1921), who had been responsible for mapping Heilongjiang during the *Guangxu Atlas* project and who had worked under Zhang Zhidong in Hubei, was a friend of both Wang Kangnian and Daijun.⁴⁴ Given Tu's expertise in Manchurian geography, Daijun naturally sought his feedback. Tu provided many corrections, some of which directly concerned problems of name standardization. For instance, Tu noted that Daijun's map did not mark the "Suoyue'erji" mountain 索岳爾濟山, while Daijun replied that it was simply another name for "Guojueluo" mountain 郭覺羅山 of the Greater Khingan Range 大興安嶺.⁴⁵ Such examples illustrate how many frontier place names at the time lacked standardization, forcing Daijun to expend considerable resources on geographical research and editorial work.

In addition, the most technically demanding aspect of the project, that is map printing, posed serious obstacles for Daijun, who lacked prior experience in this regard. By the late nineteenth century, as journalism and print capitalism flourished in China, lithography and copperplate printing had become increasingly common for mass production. These technologies were especially critical for mapmaking, as map, unlike text, could not be easily copied by hand, even though handwritten manuscripts had long been widespread in China even until twentieth

⁴⁴ For Tu Ji's survey and cartographic work on Heilongjiang in the 1890s, see his survey diary: Tu Ji, *Heilongjiang yicheng rilu jiaozhu*. Shanghai renmin chubanshe, 2022.

⁴⁵ *Wang Kangnian shiyou shuzha*, vol. 3, 2786.

century.⁴⁶ Woodblock printing, in use since the ninth century, had long dominated map production until the advent of copperplate etching and lithography.⁴⁷

Although the Qing government had adopted copperplate printing for imperial atlases in the eighteenth century, with Jesuit assistance, this technology remained largely confined to court circles. Han elites such as Li Zhaoluo and Hu Linyi continued to rely on woodblock printing for their cartographic works well into the nineteenth century. In contrast, European map publishers had adopted copperplate printing widely by the late sixteenth century, and by the early nineteenth century, lithography, offering superior durability and efficiency, had supplanted it.⁴⁸ These newer technologies gradually entered the Qing world through treaty ports, and by the late nineteenth century, many Chinese printers had adopted them, especially for newspapers and commercial books.⁴⁹ For Daijun, however, the choice between lithography and copperplate printing was less straightforward. While both technologies were increasingly available, it was unclear which would best suit his specific needs: not just fine detail and durability in map reproduction but, more importantly, cost and portability.

First of all, although lithographic printing was undeniably cheaper, it posed a major problem for Daijun: quality. Initially, Daijun and Kangnian had partnered with the Zhili Official Book Publisher 直隸官書局, using their lithographic press to print the maps.⁵⁰ But Daijun was

⁴⁶ One of the most devoted map-drawing enthusiasts in early twentieth-century China was Sun Yat-sen (1866-1925), a leading figure in the revolutionary movement. In a memorial article, Sun's lifelong security officer, Ma Xiang 馬湘 (1889-1973), who had accompanied him since their time in the U.S. beginning in 1909, recalled that Sun was deeply passionate about drawing maps, frequently purchasing cartographic equipment and foreign-language books to aid in his vision of building a "modernized" China. Ma Xiang, "Gensui Sun Zhongshan xiansheng shiyunian de huiyi," *Sun Zhongshan shengping shiye zuiyi lu* (Renmin chubanshe, 1986), 121.

⁴⁷ Cordell D. K. Yee, "Reinterpreting Traditional Chinese Geographical Maps," 54; Diana Lange and Oliver Hahn, *Colours on East Asian Maps: Their Use and Materiality in China, Japan and Korea between the Mid-17th and Early 20th Century*, Brill Research Perspectives in Map History (Brill, 2023), 32-33.

⁴⁸ Arthur H. Robinson, "Mapmaking and Map Printing: The Evolution of a Working Relationship," in *Five Centuries of Map Printing*, ed. David Woodward (Univ. of Chicago Press, 1975), 8.

⁴⁹ Reed, *Gutenberg in Shanghai*, chap. 2.

⁵⁰ *Wang Kangnian shiyou shuzha*, vol. 3, 2643.

far from satisfied with the results, remarking that the lithographic maps “look good at a glance but fall short upon closer inspection, as the ‘filling-in’ 填繪 has failed to preserve the original details.”⁵¹ The so-called “filling-in” referred to a common issue in which fine details or thin lines were often lost in the printing process, requiring workers to manually reinforce these lines to approximate the original.

Ever since lithographic printing was applied to map production in the early nineteenth century, Europeans had recognized that lithographic products were generally less refined than copperplate maps. A core part of this issue was technological. As Alois Senefelder (1771-1834), the inventor of lithography, once remarked:

one of the most essential imperfections of Lithography, that the beauty and quantity of the impressions, in a great measure, depend on the skill and assiduity of the printer... Till the voluntary action of the human hand is no longer necessary and till the impression can be produced wholly by good machinery, I shall not believe that the art of Lithography has approached its highest perfection.⁵²

In theory, Senefelder believed lithography could produce perfect results, but in practice, the printer’s skill significantly affected the final product. In his view, only the development of superior machinery could eliminate this human variability. However, even after the advent of more advanced presses in the mid-nineteenth century, this problem was not fully resolved. Copperplate maps continued to be regarded as superior in quality, particularly by government and military agencies across Europe, which continue to use copperplate for its precision and fine lines. It was well known that while copperplate delivered higher-quality results, lithographic maps offered advantages of “cheapness, speed, and ease of production.”⁵³ The same challenges appeared in late Qing China’s early efforts at mass map production. When Daijun first reviewed

⁵¹ *Wang Kangnian shiyou shuzha*, vol. 3, 2643.

⁵² The Quote from Walter W. Ristow, “Lithography and Maps, 1796-1850,” in *Five Centuries of Map Printing*, ed. David Woodward (University of Chicago Press, 1975), 79.

⁵³ Ristow, “Lithography and Maps, 1796-1850,” 100.

the lithographic samples of his maps, he felt the process had compromised the integrity of the originals, blurring delicate details.

Even so, Daijun did not want abandoning lithography altogether at the moment. Instead, he advised against relying on post-printing “filling-in,” arguing that it only distorted the maps further. His alternative suggestion was for draughtsmen to draw slightly thicker lines from the outset, ensuring better preservation of detail without the need for later filling-in.⁵⁴

However, the scarcity of skilled technicians capable of executing high-quality lithographic printing soon emerged as a problem. Lu Jing 盧靖 (1856-1948), an eminent figure in the development of modern Chinese education and libraries in the north, had worked in the capital region and was deeply involved in publishing.⁵⁵ He was very interested in Daijun’s map venture and offered insights based on his own experience.⁵⁶ In a letter to Wang Kangnian, Lu remarked that while lithography was fast and could produce impressive results, skilled technicians proficient in the craft were extremely scarce in northern China. He noted that one of his friends had attempted to print a textual collection of *Statecraft Essays* 經世文編 using lithography but was forced to abandon the effort because the lithographic workers frequently stopped their work. Moreover, likely due to the shortage of professional lithographic workers, their wages were high, and to justify the cost, a print run of at least ten thousand copies was necessary; otherwise, the venture was not economically feasible.⁵⁷ This advice likely weighed on Wang and Zou’s deliberations about whether to pursue lithography or switch to copperplate printing. Given the combined challenges of unreliable labor, high costs, and the persistent problem of compromised detail, Daijun ultimately pivoted to copperplate printing.

⁵⁴ *Wang Kangnian shiyou shuzha*, vol. 3, 2643.

⁵⁵ For Lu’s work, see his recently published anthology: Lu Jing, *Lu Muzai ji* (Tianjin: Tianjin guji chubanshe, 2021).

⁵⁶ *Wang Kangnian shiyou shuzha*, vol. 3, 2984.

⁵⁷ *Wang Kangnian shiyou shuzha*, vol. 3, 2984.

Despite the superior quality of copperplate printing for cartographic products, a critical question for Daijun was whether there were any professional map printers in China capable of handling this technique. While Jesuit missionaries had introduced to China in the early eighteenth century, its use was limited to the court in Beijing. This technology gradually faded away in the empire as the Jesuits lost their influences in the early nineteenth century. In the late nineteenth century, copperplate printing was reintroduced to the empire along with the establishment of treaty ports. Han elites in the southeastern part of the imperial domain were exposed to this technology this time. Daijun also intended to apply this technology to his business, but printing maps was even more complicated and difficult compared to book printing, since it required a different specialized set of skills.

Fortunately, through Wang Kangnian's network, Daijun was introduced to an experienced map printer named Wang Zhaohong 王肇鎡. While little biographical information survives about Zhaohong, we do know that, similar to Daijun, he had served as a member of a Qing embassy delegation to Japan. Wang first traveled to Japan in 1885 and stayed for two years. Upon returning to China, he published a short treatise on copperplate techniques titled *Note on Copperplate Printing* 銅刻小記, making him likely the earliest Han Chinese literatus to introduce this specific method of copperplate printing to China.⁵⁸

In the preface to that treatise, Wang Zhaohong explained that he began learning copperplate techniques in Japan while working on an illustrated map collection, *A Gazetteer of Strategic Coastal Points in Japan* 日本沿海險要圖志. This project forced him to confront the technical challenges of map reproduction. It was at this point that he encountered copperplate

⁵⁸ Yu-chih Lai, "Mediating Tradition: Japanese Copperplate Printing and Art Reproduction in 1880s Shanghai," in *Japanese Art – Transcultural Perspectives*, ed. Melanie Trede et al. (BRILL, 2024), 306.

etching and intaglio printing, a method that originated in Italy in the early nineteenth century, gained popularity in Europe, and was first introduced to Japan before being brought to China by Zhaohong in the late 1880s.⁵⁹ Daijun was clearly impressed by the quality this printing method could produce. In his public offering proposal, Daijun emphasized that one of the defining features of his maps would be the systematic use of icons to represent various geographical features, something largely absent from traditional Chinese cartographic conventions. This commitment to visual clarity and symbolic precision is precisely why Daijun placed such importance on high-quality printing.

Copperplate or Lithography?

As discussed earlier, traditional Chinese map conventions prominently featured symbols for mountains, rivers, cities or garrisons, and roads. These elements formed the core visual language of most maps. However, the ways they were represented were generally quite simple. By the late nineteenth century, many of these conventional symbols were no longer sufficient for conveying the level of geographic detail required. Take the figure 32 for example, drawn from Hu Linyi's widely circulated maps. This specific image represents a part of Jiangsu province, where you can see major canal cities like Yangzhou and Zhenjiang in black circles. These cities are marked with the □ symbol. Roads are represented by single lines, rivers by meandering lines, and mountains by a repeated mountain icon, some of which labeled with Chinese placenames, others left blank. In the mid-nineteenth century and earlier, such symbols were likely adequate for readers: they could quickly grasp what the symbols represented and extract the necessary geographic information.

⁵⁹ Wang Zhaohong, "Tongke xiaoji" 銅刻小記, in *Zhongguo jindai chuban shiliao chubian* 中國近代出版史料初編, ed. Zhang Jinglu (Qunlian chubanshe, 1953), 298.



Figure 32: *The Complete Atlas of the Unified Empire* 皇朝中外一統輿圖, vol.3 (Wuchang, 1863).

However, by the late nineteenth century, this system began to fall short. New developments required new forms of visual representation. One major change was the rise of railroad construction, which began in earnest in the 1890s.⁶⁰ A simple line no longer sufficed to distinguish different types of roads. Additional symbols were needed to represent railways specifically. Moreover, as military transport logistics became increasingly urgent, road conditions also became crucial: were they narrow rocky paths or wide flat routes suitable for moving troops and supplies? Such distinctions mattered.

Similarly, the depiction of mountains became a concern. As the figure 32 shows, the traditional mountain symbol was quite simplistic, presenting a side-view perspective. But in reality, readers were viewing maps from above. Han political elites also pointed out that side-view representations lacked depth and prevented maps from conveying the footprint, volume,

⁶⁰ Li Guoqi, *Zhongguo zaoqi de tielu jingying* (Zhongyang yanjiu yuan jindaishi yanjiusuo, 1975), chap. 3.

and structure of mountain systems, such as the arrangement of ridges, peaks, and bases.⁶¹ Daijun was keen to address these limitations, and Wang Zhaohong happened to be one of the first Han Chinese to introduce more sophisticated methods for representing geographical features.

Around 1891, while still serving in the Chinese embassy to Japan, Wang Zhaohong translated a Japanese treatise on map symbols, originally published in 1878. His Chinese version, titled *A Glimpse into Map Symbols* 圖形一斑, was likely the first Chinese-language work to systematically present a variety of cartographic symbols.⁶² The treatise introduces seventy-eight map icons, demonstrating to readers how to depict these symbols accurately. For instance, as seen in figure 33, Zhaohong illustrates several methods for representing railroads: (a) double-track railways, (b) railways running through lowlands or highlands, and (c) railways passing through industrial zones or tunnels.⁶³ The treatise also outlines various types of roads, distinguishing between three levels of urban and rural roads, which could be critical information for an increasingly mobile age, especially for military logistics and commercial transport.⁶⁴

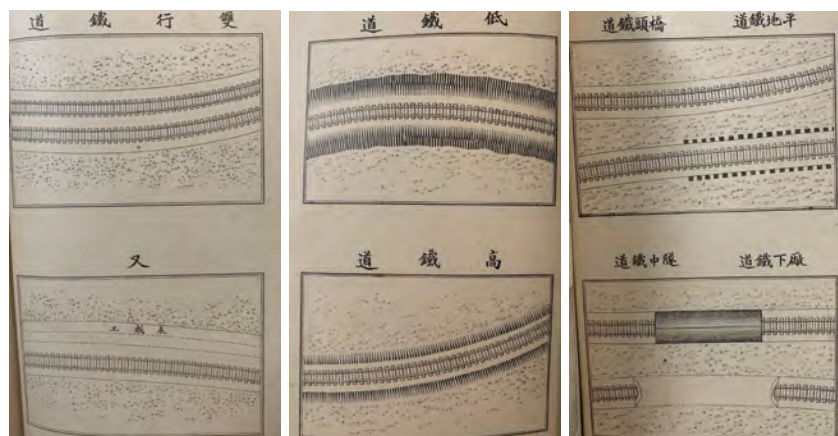


Figure 33: Icon for Railroad (a), (b), (c)

⁶¹ Xu Jingcheng, *Xu Jingcheng ji*, vol. 2, 471.

⁶² Wang Baoping, "Mingzhi qianqi Zhongguo ren huizhi de Riben ditu: yi Riben huanhai xianyao tuzhi wei zhongxin," in *Zhong Ri lishi de guiji*, ed. Wang Yong (Shanghai: Shanghai cishu chubanshe, 2010), 314.

⁶³ Wang Zhaohong, *Tuxing yiban* (Tokyo, 1891), 2-3.

⁶⁴ Wang, *Tuxing yiban*, 1.

In addition to transportation infrastructure, the treatise offers sophisticated representations of geographical features, particularly mountains. Figure 34 presents different types of mountains, including volcanoes (e), sand hills (f), and snow-covered peaks (g). The basic mountain form (d) notably avoids the traditional side-profile style seen in Hu Linyi's maps, opting instead for a top-down perspective. Zhaohong goes further by showing how symbols can communicate additional information, such as mountains prone to landslides (h), mountains that have partially collapsed, or those rich in lime deposits (i).⁶⁵



Figure 34: (d), (e), (f), (g), (h), (i)

⁶⁵ Wang, *Tuxing yiban*, 14-18.

In the preface, Wang Zhaohong emphasized that key map elements, such as mountains, rivers, bridges, roads, villages, cities, and farmland, were essential components of any map. However, he argued that if these symbols lacked standardization and visual coherence, they failed to convey accurate geographic information. To address this, Wang advocated the application of geometric projection (寫影之法). He stressed that this approach was not merely a stylistic technique, but a method grounded in geometry in order to align with the fundamental purpose of mapmaking: to depict geography with the highest degree of accuracy.⁶⁶

Wang's motivation for developing a more systematic visual language stemmed from his own cartographic project on Japan's coastal regions. During that process, he realized that traditional Chinese mapping conventions, particularly their overly simplistic symbolic systems, were inadequate for representing the physical world with precision. It was this limitation that inspired Wang to translate the book as a guide for future Chinese cartographers.⁶⁷ Presumably after discussing new mapping methods with Zhaohong, Daijun was impressed by his approach and shared his ambition for more detailed and technically sophisticated maps. This is why Daijun was so committed to working with Wang Zhaohong and adopting the more costly copperplate printing method to produce maps with high-quality detail. Zhaohong was probably one of the most experienced cartographers of the time in China, with actual hands-on experience in copperplate map printing.

Wang Zhaohong published *A Note on Copper Printing* around 1889. In the preface, he explained that he initially hired Japanese copperplate craftsmen to help print general maps for his project on Japan's coastal regions. However, when it came to more regional maps, ones that

⁶⁶ Wang, *Tuxing yiban*, i.

⁶⁷ Wang, *Tuxing yiban*, i-ii.

could potentially involve defense-sensitive information, it became inconvenient to rely on Japanese technicians. As a result, Wang began learning copperplate printing techniques himself.⁶⁸ He emphasized the superior precision of copperplate printing, writing: “Even if the line is as fine as a cow’s hair, it is rendered with clarity.”⁶⁹ In other words, his motivation for mastering this technique arose directly from the practical demands of his mapping project. According to his later recollection, at the height of tensions between China and Japan in the 1890s, a Japanese newspaper identified him as one of the most threatening Chinese specifically because he had published maps of Japan’s coastline.⁷⁰ This anecdote underscores a critical point: not only were the maps themselves viewed as sensitive, but the printing method used to produce them was also seen by Japanese elites as knowledge that should not fall into the hands of their rivals. While Zhaohong’s recollection may have served to promote himself, perhaps in the hopes of impressing Wang Kangnian, it clearly captured Daijun’s attention. This method, after all, could reproduce intricate details on maps that lithographic printing was unable to capture. The only drawback was that it required more steps and equipment than lithography, which made it significantly more expensive.

Zhaohong’s guidebook outlined a fairly standard procedure for copperplate intaglio printing.⁷¹ For the first step, craftsmen would begin by grinding the red copper plate with hard charcoal. For the second step, they would gently heat the plate and smear it with wax, ensuring the wax adhered to the surface. After letting the plate cool so the wax could harden and bind firmly, they proceeded to the third stage: fixing a tracing paper onto the plate using small nails

⁶⁸ Wang Zhaohong, “Tongke xiaoji,” 198.

⁶⁹ Wang Zhaohong, “Tongke xiaoji,” 198.

⁷⁰ *Wang Kangnian shiyou shuzha*, vol. 1, 173.

⁷¹ Coolie Verner, “Copperplate Printing,” in *Five Centuries of Map Printing*, ed. David Woodward (Univ. of Chicago Press, 1975).

(see figure 35) at the four corners. With a burin (figure 36) and a magnifier (figure 37), the craftsman would begin engraving directly through the tracing paper. For straight lines, curves, or circles, additional tools (figures 38 to 40) were required to execute precise forms.⁷²

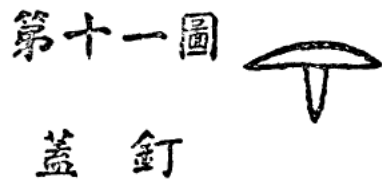


Figure 35

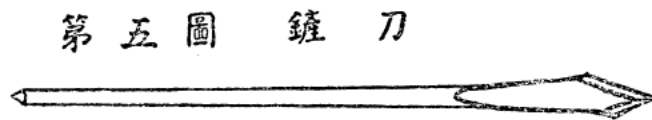


Figure 36

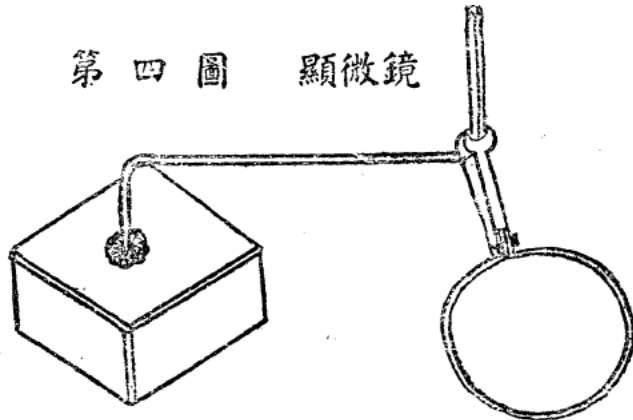


Figure 37

⁷² Wang Zhaohong, "Tongke xiaoji," 304.

第三圖 三邊版

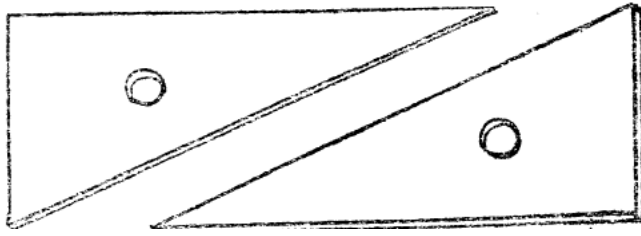


Figure 38

第七圖 活股規

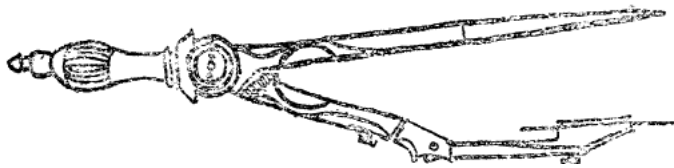


Figure 39

第十三圖 曲線規

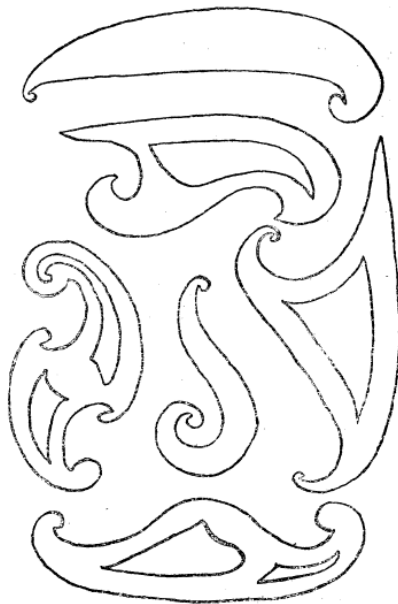


Figure 40

Once the engraving was complete, the craftsman proceeded to the fourth step. A special powder was applied into the grooves of the tracing paper, which was then pressed onto the wax-

covered copperplate. Gentle heat was used to melt the wax, allowing the powder to transfer and adhere to the plate's surface. After the wax hardened again, the fifth step began: using a burin and magnifying glass, the worker carefully incised lines into the plate, following the transferred design. Specialized tools were used to incise different elements of the map. This step required exceptional precision and skill. Although incising on a wax-coated plate was somewhat easier than carving into a woodblock, it still demanded great effort, dexterity, and caution. Once the wax incising was complete, the sixth step involved placing the plate into a mordant bath. The acid etched the exposed metal, deepening the grooves. After the corrosion reached the desired depth, the plate was rinsed with cold water and vinegar to stop the reaction, then gently heated to remove the remaining wax. At this point, the copperplate was ready for printing.⁷³

The seventh step was the printing itself. The paper, slightly smaller than the copperplate, had to be dampened before being placed on the press. Ink paste was carefully smeared across the surface and into the grooves of the plate, with any excess wiped clean. The moistened paper was then laid over the plate, covered with a blanket, and pressed using the machine.⁷⁴ Unfortunately, I have not found any surviving illustrations showing how Chinese or Japanese printers in the late nineteenth century operated this kind of press in a workshop setting. However, the machinery and procedure were likely quite similar to that shown in figure 41, which comes from the late eighteenth-century French *Encyclopédie*.⁷⁵ In that illustration, one man on the left uses both hands and one leg to forcefully pull down the press lever, indicating how much pressure was needed to transfer the ink from plate to paper. In addition, two workers appear on the right: one inking the plate and another, on the far right, cleaning the surface. This image highlights a crucial

⁷³ Wang Zhaohong, "Tongke xiaoji," 305-306.

⁷⁴ Wang Zhaohong, "Tongke xiaoji," 306.

⁷⁵ Denis Diderot et al., *Recueil de planches, sur les sciences, les arts libéraux, et les arts mécaniques, avec leur explication*, vol. 7 (Paris: Chez Briasson, 1762), plate 1.

aspect of copperplate printing: it was a collaborative process. It would have been nearly impossible to complete the operation alone. The work required a team, each person specializing in one of the seven steps, and a workshop equipped with machinery, copperplate, tools, and skilled labor. As such, copperplate printing was highly resource-intensive and demanded significant capital investment.



Figure 41

As you can probably imagine from the seven steps outlined above, the rookie entrepreneur Zou Daijun might have been able to work through the first six steps with Wang Zhaohong alone. However, the most financially demanding step was the final one: the actual printing. Although I have not found price data so far, it is reasonable to assume that this step posed a significant financial burden.⁷⁶ Given this, it would have been impractical for Daijun to operate his own workshop at that moment. First, he lacked a team skilled in copperplate printing

⁷⁶ In a letter to Wang Kangnian, Daijun explicitly noted that he could no longer afford to use Western paper for printing maps, explaining that “switching to copperplate engraving this time cost more than lithography. If we also use Western paper, the expense will be even greater. *Wang Kangnian shiyou shuzha*, vol. 3, 2712.

techniques; second, it remained uncertain whether the map business would prove sustainable. It made more sense to wait until the first batch of maps was printed before committing to copperplate printing in the long term or switching to lithography, and before deciding whether to invest in his own printing equipment. Therefore, with all these factors in mind, Daijun ultimately chose to trust Wang Zhaohong to complete the first batch of maps in Japan.

In late 1896, Daijun authorized Wu Qiao to sign a contract with Wang Zhaohong in Hubei to print the first batch of maps, 94 sheets at a rate of 26 silver dollars per sheet, totaling 2,444 silver dollars.⁷⁷ The first atlas produced was “Map of the Northern Section of Asia” 亞洲北段圖. At the time, Daijun faced two major challenges. The first came in the form of criticism from Wang Zhaohong, who had practical experience in cartographic production. From Daijun’s perspective, the decision to publish this region of the map was logical: in the late 1890s, the Qing state’s most urgent geopolitical issue was its contested border with Russia. As noted in Chapter Two, Daijun himself had been working on a treatise concerning the Sino-Russian border, and many Qing elites were eager to have a more accurate map of this region. However, the map in question was not drafted by Daijun himself; rather, it was based on European sources he had collected while abroad. As a result, the map encompassed not only Siberia, Central Asia, and Outer and Inner Mongolia, but also Xinjiang, the Qing empire’s inner provinces, Korea, and Japan. For Daijun, the inclusion of these additional areas made sense, as they bordered the northern frontier. But Zhaohong criticized the map for containing numerous errors and omitting many key placenames, particularly in the latter regions.⁷⁸ This criticism was, in fact, rooted in technical limitations: Daijun’s team lacked the capacity to draft entire original maps and had no

⁷⁷ *Wang Kangnian shiyou shuzha*, vol. 3, 2705.

⁷⁸ *Wang Kangnian shiyou shuzha*, vol. 3, 2736.

choice but to rely on foreign sources. Beyond content, Zhaohong also took issue with the stylistic execution of the map. As discussed earlier, Zhaohong had published China's first guidebook on map symbol design and was meticulous about cartographic visual conventions. He faulted Daijun for failing to differentiate riverbanks, flow direction, or hydrographic features through varied linework. Daijun, for his part, acknowledged the issue but defended his choice, explaining that his team had used lines of uniform thickness because producing varied lineweights would require significant labor. He viewed this not as a question of right or wrong, but as a practical decision rooted in production constraints rather than inattention to cartographic quality.⁷⁹

The second major challenge Daijun faced, arguably the more structurally significant one, was that his Map Society lacked skilled specialists capable of operating advanced printing technologies. In other words, if he wished to continue producing maps, Daijun would have to rely on Japanese or other foreign studios for technical support. From today's perspective, this dependency might appear politically problematic. After all, given the intensifying imperial rivalries at that time, one might expect Daijun to reject such collaborations out of nationalist concern, especially since Qing political elites were becoming increasingly wary of allowing foreign powers to survey or reproduce maps of Qing territory. Entrusting Japan, which had become the Qing's major imperial rival at the time, with the production of sensitive cartographic materials would indeed have been politically questionable. However, Daijun's eventual move away from Japanese collaboration was not driven by nationalism, but by pragmatic business concerns. That is to say, working with foreign technicians was just too expensive.

While overseeing the production of his first map batch in Japan, Daijun had been already considering how to train Chinese students in printing techniques to reduce future dependence on

⁷⁹ *Wang Kangnian shiyou shuzha*, vol. 3, 2736.

foreign labor. In 1898, as he prepared two new map series, “Planar World Map” 大地平方圖 and a general map of China, the rookie entrepreneur expressed interest in sending students to study printing, specifying, “whether copperplate or gum printing, I must send students to learn.”⁸⁰ The only remaining issue was cost. At the time, Daijun was evidently under financial pressure. In the same letter, he inquired about lithographic printing machine, noting that it was relatively inexpensive, just seventy to eighty silver dollars per unit, and appeared well-suited to map production. He asked how many such machines would be necessary to carry out printing in-house, suggesting he was seriously weighing a shift away from copperplate due to its high cost.⁸¹

In a subsequent letter, Daijun calculated that hiring Japanese craftsmen directly to come to China would cost about one hundred silver dollars per month, plus additional living stipends—amounting to roughly ten thousand dollars per year. This was comparable to the cost of outsourcing production to Wang Zhaohong, but with a key difference: if Japanese craftsmen were brought to China, they would be working full-time without rest, as every day incurred expense. In contrast, outsourcing to Zhaohong in Japan allowed for more flexibility and less intensive scheduling. Moreover, if Daijun hired Japanese workers directly, he would prioritize map production over training Chinese apprentices due to cost considerations. As a result, Daijun ultimately decided to continue working with Wang Zhaohong, who would coordinate printing through Japanese studios in Japan. At the same time, Daijun planned to send one or two Chinese students to train under Zhaohong in Hubei, where Japanese technicians were also assisting, and to send another two students to Japan to study printing techniques. He estimated that with one or

⁸⁰ *Wang Kangnian shiyou shuzha*, vol. 3, 2759.

⁸¹ *Wang Kangnian shiyou shuzha*, vol. 3, 2759.

two years of study, and at a lower cost, they could acquire the necessary skills to localize map production in the future.⁸²

However, likely due to financial constraints, Daijun ultimately abandoned the idea of sending students to Japan and instead sought to train map-printing apprentices locally in Hubei. His initial plan was to hire a Japanese printing technician to come to Hubei and teach his students on-site. With help from Oka Kōshichirō 岡幸七郎 (1868-1927), the chair of *Hanbao* 漢報, a newspaper originally founded by British but taken over by Japanese interests in 1896, Daijun was introduced to a Japanese copperplate printing specialist, Konzo Yūtarō 今藏熊太郎 (?-?), who was said to be a former surveyor for the Japanese government.⁸³ Daijun required Konzo to provide a detailed list of materials required for printing maps in China, including mordant acids, wax, copperplates, and specialized printing equipment.⁸⁴

At first, everything appeared to be proceeding smoothly. But soon after Konzo arrived in Hubei in early 1900, things quickly unraveled. He claimed to have fallen seriously ill and requested to return to Japan for medical treatment.⁸⁵ His sudden departure was a devastating blow to the Map Society's operations and finances. Not only had Daijun invested heavily in bringing him to China, but the core goal of having a Japanese expert train his apprentices while overseeing map production was now impossible to realize.

By this point, Daijun had already made significant personal and financial commitments to the map enterprise. Since late 1898, he had resigned from his position at the Hunan mining bureau and relocated the entire Map Society to Hubei.⁸⁶ Though he had long appreciated Hunan

⁸² *Wang Kangnian shiyou shuzha*, vol. 3, 2761.

⁸³ *Wang Kangnian shiyou shuzha*, vol. 3, 2780.

⁸⁴ *Wang Kangnian shiyou shuzha*, vol. 3, 2790.

⁸⁵ *Wang Kangnian shiyou shuzha*, vol. 3, 2796.

⁸⁶ *Wang Kangnian shiyou shuzha*, vol. 3, 2769.

governor Chen Baozhen, Daijun had been considering leaving his post to focus on mapmaking full-time. Wang Kangnian, however, repeatedly discouraged him, likely fearing that the venture alone would not be financially sustainable.⁸⁷

This time, Daijun secured a teaching position at Zhang Zhidong's newly established Lianghu Academy, where he was appointed as a geography lecturer.⁸⁸ Although he did not particularly care for Zhang's working style, the position offered him a stable source of income. More importantly, his map business was already beginning to show signs of financial strain. As a result, Daijun had started to seek patronage from powerful officials, and in Hunan and Hubei, no one wielded more influence than Zhang Zhidong. Renowned for his ability to mobilize funding for modernization projects, Zhang represented a key potential source of financial support for Daijun's map business.

In late 1899, Daijun began actively seeking financial support from powerful officials. Just as Kang Youwei and Liang Qichao had previously expressed interest in incorporating his map enterprise into their Strengthen Study Society, Zhang Zhidong also showed enthusiasm for investing in Daijun's enterprise early on. Back in 1897, Zhang had offered an investment of 4,000 silver dollars, which Daijun declined at the time. But by 1899, under mounting financial pressure, Daijun could no longer ignore Zhang's support, yet only to find that Zhang had reduced his offer to just 800 silver dollars.⁸⁹ Daijun attempted to negotiate a better deal, threatening to seek backing from other influential officials, such as Tao Mo 陶模 (1835-1902), the Shan-Gan governor general, or Liu Kunyi 劉坤一 (1830-1902), the Liangjiang governor general. While the exact sum Daijun ultimately received from Zhang is unclear, it appears that Zhang's eventual

⁸⁷ *Wang Kangnian shiyou shuzha*, vol. 3, 2733.

⁸⁸ About the establishment of the Lianghu Academy and Zhang Zhidong, see Ayers, *Chang Chih-Tung and Educational Reform in China*, chaps. 5, 6.

⁸⁹ *Wang Kangnian shiyou shuzha*, vol. 3, 2786.

support was substantial. He also promised to help sell Daijun's maps, a task not limited to him alone. Other prominent officials, such as Liu and Tao, likewise helped distribute Daijun's work.⁹⁰

This situation highlights a key problem: Daijun's maps did not sell as well as hoped. Despite the promotional help of Kangnian's newspaper network, circulation remained limited. In addition to distribution challenges, pricing was a significant barrier. Few men could afford Daijun's maps, meaning the target audience was effectively limited to elite circles. Those who had both the money means and the intellectual interest to purchase his map products were typically politically connected, making high-ranking officials not just potential sponsors but also the most effective points of sale.

However, even with powerful officials willing to invest in his enterprise and assist with distribution, the deeper and long-term challenge remained unresolved. Around 1900, the officials assisting in the promotion of Daijun's maps may have done their best, yet total sales likely did not exceed 200 copies.⁹¹ Meanwhile, Daijun faced mounting expenses on all sides. With cash flow tightening and sales channels limited, the challenge continued: how could Daijun break through this commercial impasse? The solution was not necessarily more investments or elite endorsements, but rather a more fundamental change: lower production costs and higher sales volume. That may sound like a straightforward strategy, but the real challenge was how to make it in practice. Despite his many frustrations with Zhang Zhidong, Daijun ultimately found a way forward through his work under Zhang, specifically, in the realm of education.

In 1900, when the Boxer Uprising erupted and the international allied forces marched on Beijing, Empress Dowager Cixi and the Emperor Guangxu fled to the interior. At the same time,

⁹⁰ *Wang Kangnian shiyou shuzha*, vol. 3, 2790.

⁹¹ *Wang Kangnian shiyou shuzha*, vol. 3, 2790, 2799, 2806, 2811, 2812. I have combined all the figures mentioned in the correspondence between Daijun and Kangnian, arriving at an estimate of around 200 copies sold. While the actual number may have been higher, overall sales appear to have been modest.

Russian troops occupied Manchuria, an incursion that sparked strong anti-Russian sentiment among young Han students, including those at Lianghu Academy where Daijun served as a teacher. In such politically charged moment, Daijun offered the first geography course in Hubei focused specifically on the Qing-Russian border, using Chinese-produced maps as instructional material. This teaching experience helped cement his reputation as a geographic authority. The following year, in 1901, he was appointed to a position at the newly founded Imperial Peking University 京師大學堂, where he became one of China's first professors of geography.⁹² More importantly, because he had already produced and published maps of Siberia and Central Asia, Daijun was able to use those materials directly in his lectures on the Qing's territorial losses to Russia.⁹³ In this context, maps became not only instructional tools but powerful political instruments, central to new-style geography education that emerged in early twentieth-century China.

We will continue to examine the kinds of maps used in the newly emerging geography textbooks in China in the next section, but first we need to consider the immediate challenge Daijun faced. His teaching experience, first as a geography lecturer in Hubei and later at the Imperial Peking University, clearly influenced how his maps came to be adopted as official instructional materials. His maps were eventually published under the title “Imperial Peking University Approved, Comprehensive Maps of Chinese and Foreign Geography” 大學堂審定中外輿地全圖, which significantly boosted their circulation.⁹⁴ In addition, several of his other

⁹² Zou Yongfu, *Zoushi dixue yuanliu ji*, 277. During his tenure at the Imperial Peking University, Zou Daijun authored one of the earliest geography textbooks for university-level education, titled *Imperial Peking University Textbook for National Geography* 京師大學堂本國地理志講義. Zou Daijun, *Jingshi daxue tang ji Jingshi daxue tang jiangyi er*, in *Wan Qing sibu congkan* (Wenting ge tushu, 2011), vol. 5, Book 35.

⁹³ Zou Daijun, Zeng Yin ed., *Zhong E jieji*, 1.

⁹⁴ *Daxue tang shending Zhongwai yudi quantu* (Yudi xuehui, 1903).

maps were also adopted as official teaching materials in various schools.⁹⁵ However, with the increase in map production came the challenge of cost. As we have seen, copperplate printing produced high-quality, detailed results, yet it was also more expensive. This raised the inevitable question: should Daijun continue insisting on copperplate printing, or consider returning to lithography? To better understand this dilemma, we must once again turn to the technical side, specifically, how lithographic printing was carried out.

How does lithographic printing work, and why is it more cost-effective for mass production? As discussed earlier, European craftsmen long recognized that lithographic printing sacrificed some image quality compared to copperplate printing, but this was due to inherent technical limitations. Unlike copperplate printing, lithography is a planographic (flat-surface) process: it does not involve carving grooves or raising surfaces on a plate. Instead, it relies on a fundamental chemical principle: grease and water repel each other.⁹⁶

The lithographic printing process involves at least six key steps. First, the surface of a limestone slab is thoroughly cleaned and polished to make it as flat as possible. Once the stone is dry, the second step begins: the artisan draws directly onto the surface using a greasy crayon or ink, typically composed of wax, soap, and pigment. In the third step, the stone is etched with acid, which chemically fixes the greasy image to the surface while modifying the untreated areas to absorb water. The fourth step involves applying a gum-water solution, which ensures that the blank (non-image) areas will repel ink while the image areas retain their grease-attracting

⁹⁵ For example, the Imperial Peking University published a reference booklist to guide newly established schools on recommended teaching materials. In the section on national and foreign geography, it listed several maps, including two produced by Zou Daijun's Map Society: "Planar World Map" and "Map of Asia," the latter likely referring to the "Map of the Northern Section of Asia." See Jingshi daxue tang, *Zanding ge xuetang yingyong shumu* (Jingshi daxue tang, 1903), 11.

⁹⁶ For a study of the history of lithography in late Qing and Republican China, see Xin Xie and May Bo Ching, "Pictures and Music from Stone: The Indigenization of Lithography in Modern China, 1876–1945," *Journal of Modern Chinese History* 12, no. 2 (2018): 180–202.

properties. In the fifth step, ink is rolled across the stone. Ink adheres only to the greasy drawing and is repelled by the damp blank areas. Finally, in the sixth step, a sheet of paper is pressed firmly onto the stone to transfer the image.⁹⁷

According to a recollection from a Wuhan native, Zou Daijun's map enterprise began on a modest scale: "It was small in scale, with a workshop of just over 100 square meters (about 1,076 ft²) and two hand-operated quarter-sheet lithographic presses. It also consistently struggled with a lack of funding."⁹⁸ While no other visual or textual records survive to help us reconstruct the early days of Daijun's workshop, we can perhaps draw some insight from a well-known late Qing painting depicting the operations of *Shenbao*, Shanghai's most influential newspaper, which used lithographic presses for its print production. In figure 42, multiple hand-operated lithographic presses are visible, each requiring at least four workers to operate the rollers that press the stone plate onto paper.⁹⁹ Additional workers are shown cleaning, drawing on, and applying acid to the stones. Given *Shenbao*'s substantial financial resources, these machines were likely full-sheet presses used for large-scale newspaper production. In contrast, Daijun's workshop was limited to quarter-sheet presses. To produce a complete map, it is likely that each was printed in four or more separate segments and then assembled manually into a single sheet, an additional labor-intensive step. Nevertheless, given the significantly lower cost of lithography, compromises, including some loss of detail, were deemed acceptable.

⁹⁷ Ristow, "Lithography and Maps, 1796-1850," 78–80.

⁹⁸ Wang Zhaohuai, "Yaxin dixue she mingcheng de youlai," *Wuhan Wenshi ziliao* (Wuhan shi wenshi ziliao weiyuan hui, 1953), vol. 53, 101.

⁹⁹ Wu Youru, *Shenjiang shengjing tu* (Shenbaoguan, 1884), vol. 1, 60.

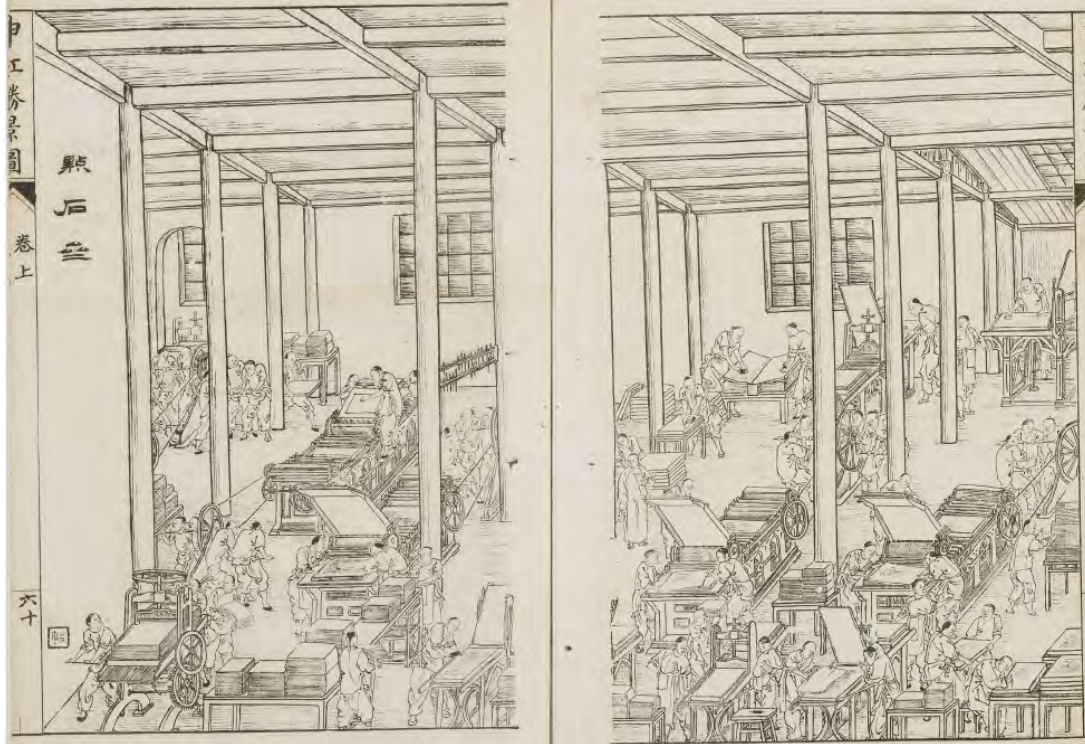


Figure 43: Shenjiang shengjing tu 申江勝景圖

However, a new issue arose along with the adoption of lithography: color. The world maps produced by Daijun's society appeared in two main versions, one in full color and the other in black and white. In figure 44, Asia is rendered in yellow, Africa in light green, Europe and North America in pink, and Australia and South America in orange. By contrast, figure 45, though bearing the same title, is entirely monochrome. It is likely that figure 44 belonged to an

earlier batch produced with copperplate printing, while figure 45 was later printed via lithography for use in schools.



Figure 44



Figure 45

Based on the same design, the two versions, though not originally intended as such, ended up serving different audiences: the colored edition could be purchased by individual consumers on the market, while the black-and-white version circulated in new-style educational institutions. Surviving maps published by the Map Society before Daijun's death in 1908 confirm that both versions remained in print. Daijun continued to insist on using maps as a medium for conveying geographic knowledge, but his society also met the growing demand for more affordable, black-and-white maps in the education system. In other words, copperplate and lithographic printing ran in parallel within Daijun's production model, rather than either one or other.

Conclusion

Throughout this chapter, we have seen how Zou Daijun, together with family members and close associates, worked tirelessly to make private map production possible in late nineteenth- and early twentieth-century China. Despite the Zou family's accumulated experience with cartography and Western-style maps along the way, the endeavor was far from easy. Native Chinese cartographers faced three primary obstacles: first, a lack of map printing techniques and equipment; second, a shortage of trained cartographers and editors; and third, the persistent challenge of financial support. While Daijun made great efforts to overcome the first two, by learning from technical experts, purchasing imported equipment, and training his own staff, the issue of funding remained unavoidable. Though he tried to distance his enterprise from political figures and reformist circles, Daijun ultimately had to turn to the patronage of powerful officials, in particular Zhang Zhidong, to sustain his business.

Even with such support, Daijun struggled with limited sales and distribution. The market for commercial maps was still relatively small, and reaching potential buyers across the empire

proved challenging. Yet, it was the rise of new-style education that ultimately opened a sustainable channel for circulation. By printing maps for use in geography textbooks, Daijun was able to reach young students across the empire's expanding school system. To meet the demands of mass production, Daijun had no choice but to turn to lithography for lower costs. However, the Map Society remained committed to quality: for non-school sales, Daijun continued to produce finely colored copperplate-printed editions, resulting in the coexistence of two versions, one black-and-white, functional, and inexpensive; the other colorful, detailed, and artistically refined. This dual-track strategy raises an important question: how did these technical choices, driven by commercial deliberation, eventually influence the visual form of maps? In turn, how did those forms shape the way geography was perceived in the final years of the Qing dynasty?

Chapter Five: Building Chinese Space

When Joseph Esherick discusses “How the Qing became China,” he argues that the transition from an imperial to a national state was largely determined by “the international environment.” According to him, Western powers sought to maximize their interests in the Qing Empire but, given their competing agendas, found non-intervention in China’s internal struggles to be the most advantageous policy. Esherick’s argument convincingly explains why the Qing’s vast and multiethnic territories were not dismantled following its collapse in 1911 by emphasizing external factors. After all, the West’s preference to preserve its privileges in China at the cost of requiring the new Republic to inherit not only Qing sovereignty but also all existing treaties and debts.¹ What Esherick does not fully address, however, is how actors within the empire contributed to this historical outcome. His explanation therefore does not fully resolve what he calls the “Atatürk counterfactual”: why did “the leaders of the Chinese nation that emerged from the Qing not make the same choice as the leaders of the Turkish nation that emerged from the Ottoman Empire?”²

As scholars of the Ottoman Empire have shown, while facing intense European pressure and an evolving international environment, Ottoman intellectuals underwent profound ideological transformations from the early nineteenth century through World War I. They successively experimented with Ottomanism,³ which sought to integrate the empire’s diverse populations into a universal Ottoman citizenry; Pan-Islamism, which attempted to restore political legitimacy through religion; and, the Young Turk movement, which envisioned a mono-

¹ Esherick, “How the Qing Became China,” 251–52.

² Esherick, “How the Qing Became China,” 243.

³ Hasan Kayalı, *Arabs and Young Turks: Ottomanism, Arabism, and Islamism in the Ottoman Empire, 1908-1918* (California university press, 1997), chap. 1.

national Turkish state.⁴ Each ideology reflected an internal struggle to redefine legitimacy and identity within a declining empire.

Emphasizing these internal ideological movements is not to downplay the significance of the external international environment that Esherick highlights, but rather to complement it. Later, Matthew Mosca's work makes an important effort to fill this missing dimension by tracing the circulation of geographical knowledge from the Qing court to Han elite society in the early nineteenth century, enabled by loosened censorship. Mosca calls this dynamic "the conjunction between sovereignty and knowledge," through which Han elites, especially those interested in the imperial northwest or Inner Asian territories, became increasingly be exposed to the knowledge of the Qing's territorial expansion.⁵ Yet Mosca's solution to Esherick's Ataturk counterfactual raises a further question: how did this new geographical knowledge extend beyond a small circle of elite scholars to a broader Han readership? Esherick and other scholars hint at one essential vehicle, the geography textbook.⁶

While Peter Zarrow's research on early twentieth-century Chinese textbooks provides an excellent analysis of how textbooks were intended to shape modern Chinese citizenship, his work focuses on a different dimension from scholarship that examines how spatial thinking contributed to Chinese understandings of the nation. In particular, Zarrow's scope is largely centered on the Republican period, when the Nationalist government's modernization and nationalist agenda of the 1930s profoundly influenced educational reform. Although Zarrow touches upon the late Qing period, his discussion of geography textbooks primarily centers on Tu

⁴ Karen Barkey, "Changing Modalities of Empire: A Comparative Study of Ottoman and Habsburg Decline," in *Empire to Nation: Historical Perspectives on the Making of the Modern World*, ed. Joseph W. Esherick et al. (Rowman & Littlefield publishers, 2006), 191–92.

⁵ Mosca, "The Literati Rewriting of China in the Qianlong-Jiaqing Transition," 91.

⁶ Esherick, "How the Qing Became China," 251.

Ji's version privately issued by the Commercial Press 商務印書館.⁷ This choice is understandable. The late Qing Ministry of Education was widely criticized for inefficiency, poor quality, and bureaucratic inertia in compiling textbooks, while the Commercial Press had become the most influential and far-reaching publisher at that moment.⁸ Tu Ji's geography textbook was thus probably more circulated than those produced through official channels, such as those compiled at the Imperial University 京師大學堂, predecessor of today's Peking University, where Zou Daijun worked on the state-sponsored geography textbook. However, Tu Ji had previously served at the Imperial University, where he was responsible for compiling history textbooks.⁹ His tenure there should have had a significance on the way he later designed his geography textbook in 1905.

At the same time, his colleague, and the main figure in our discussion, Zou Daijun was compiling the official geography textbook. Examining how Daijun designed the text alongside the maps by his publishing house allows us to see more concretely how this “conjuncture between sovereignty and knowledge” took shape in practice in the last decade of China's last imperial dynasty through pedagogical media intended for public education. Through this circulation of geographical knowledge, maintaining the integrity of frontier regions became an urgent concern, far more so than for the Young Turk nationalists, who could envision sacrificing the Ottoman peripheries. In the late Qing case, frontier territories had widely been conceived as inseparable parts of China, not only by officials but also by local elites. Even though some

⁷ Zarrow, *Educating China*, 221–32. In addition to Tu Ji's geography textbook, Zarrow also discusses other works, such as Liu Shipai's. However, it is doubtful how widely Liu's version circulated or representative it was before 1911, given his explicitly radical stance.

⁸ Reed, *Gutenberg in Shanghai*, 211–12, 228.

⁹ Tu Ji was the chief compiler of the history textbook for the Imperial University, see Tu Ji, *Jingshi daxue tang shixue ke jiangyi* 京師大學堂史學科講義, in *Jingshi daxue tang lishi jiangyi hekan*, ed. by Liu Kaijun (Shanghai guji chubanshe, 2018), 1-56.

revolutionary voices did advocate a “little China”¹⁰ confined to former Ming territory, the majority of local elites in the final decade of the Qing never accepted such a restricted territorial vision.

This final chapter is divided into two sections. The first examines the geography textbook Daijun compiled, exploring how it was designed to educate young students not only through textual knowledge but also through the accompanying visual maps. I trace the Japanese influence embedded in the text and finally analyze the spatial messages/geographical ideology that the textbook sought to convey to its young Chinese readers. The second section turns to Daijun’s maps and how they represented Chinese space, focusing on two key themes: the notion of China proper and the idea of the “old border,” the latter of which we have discussed in Chapter 2. Through these two cases, we can observe how the intellectual legacy of the late Qing and even earlier, the late Ming, continue to shape the spatial conception regarding China.

Maps on Geography Textbooks

In his influential *Book of Great Unity* 大同書, Kang Youwei envisioned a utopian world without governments or class struggle, without racial distinctions or property-based prejudice, and crucially, without national boundaries. In this ideal future, people would live in unity, free from divisions and social hierarchies. But Kang’s vision went further: not only would nations cease to exist, so too would placenames. To him, placenames encouraged parochialism, fostering local attachments that inevitably produced distinctions and divisions. In this future world, the only place name humans would retain was “Earth” itself, the universal ground upon which all stood. But if national and local names were eliminated, how would people identify where they were or where they came from? Kang proposed the use of geographic coordinates. He wrote:

¹⁰ Mosca, “The Literati Rewriting of China in the Qianlong-Jiaqing Transition,” 122–24.

The governing principle of the Great Unity recognizes neither nations nor races, nor places as strategic or difficult. Thus, in territories governed by separate jurisdictions, boundaries are not defined by topography, but by degrees of longitude and latitude. Each degree has its own boundary, marked by inscribed stones or trees. A person born within a given degree is identified as belonging to that degree.

大同之治體，無國種，無險要，故分治之域，不以地勢為界而但以度為界。每度之疆，樹石刻字以表之。人生其中，即為其度之人。¹¹

For Kang, degrees of longitude and latitude represented scientific, objective facts that were measurable by mathematical methods and free from social construction. Mathematics was, to him, part of nature itself: impersonal, rational, and universally valid. This vision of geography was starkly abstract and mathematical, contrasting sharply with the visually rich and symbolic maps common in early modern Europe.

As Benjamin Schmidt has shown, Dutch commercial maps of the Renaissance were filled with decorative icons and illustrations, designed to make exotic regions appear enticing to European consumers.¹² In contrast, early commercial cartography in late Qing China pursued the opposite approach: maps were stripped of artistic flourishes and focused instead on scientific precision, especially accurate markings of latitude and longitude. In this way, Zou Daijun's cartographic work and Kang Youwei's utopian vision were aligned within the same intellectual framework: a world defined by grids and numbers, not symbols or images.

Kang and his reformist allies were understandably engaged in map collecting. As discussed earlier, during his involvement with the Strengthening Study Society, Kang and his followers sought to incorporate Zou Daijun's Map Society, a move that was far from surprising. Many reformers saw maps and Western cartography as essential tools for understanding the world and reshaping China's future.

¹¹ Kang Youwei, *Datong shu*, in *Kang Youwei quanji* (Renmin chubanshe, 2007), vol. 7, 165. Fan-sen Wang, "The Modern Chinese 'Utopian Impulse' and the Datongshu," *Oriens Extremus* 58 (2021): 74.

¹² Schmidt, *Inventing Exoticism: Geography, Globalism, and Europe's Early Modern World*, Intro.

By the 1880s and 1890s, map commercialization in China had become a prominent phenomenon. One of Kang's most famous disciples, Tang Sitong (1865-1898), established the Jinling Society of Geographical Survey 金陵測量學社 in Nanjing, with support from Yang Renshan (1837-1911), who had traveled to Europe with Zeng Jize in 1880 and brought back various surveying instruments.¹³

Another enthusiastic map collector was Liang Qichao. In an 1896 essay on reform, Liang argued that China urgently needed more scholarly societies to promote national renewal. He listed sixteen concrete actions these societies should take, one of which was to “display carefully selected maps of China and foreign countries in the society hall for members to browse.”¹⁴ Liang's reverence for maps was intense. As he later recalled, when the Strengthening Society was banned in Beijing in 1898, his greatest regret was losing a world map he had spent months trying to acquire. After failing to find one in Beijing, he asked a friend to procure it in Shanghai. Once obtained, the map was proudly hung in the society's hall, and Liang described how people would visit just to view it, an experience that brought him genuine joy.¹⁵

From then on, Liang became a devoted map collector. In a later piece on how China could absorb Western learning, he criticized existing Chinese atlases, such as Hu Linyi's and the *Guangxu Atlas*, for their numerous errors, insisting that Chinese scholars had no choice but to consult translated Western maps. While Liang collected as many maps as he could, he ultimately praised Zou Daijun's cartographic enterprise as “a truly immortal feat of greatness.”¹⁶ Liang even invested in Daijun's business, hoping to obtain his maps.¹⁷ However, the 1898 coup forced both

¹³ *Tan Sitong quanji* (Zhejiang guji chubanshe, 2018), vol. 2, 687. Shen Pengling, “Yang Renshan nianpu,” in *Yang Renshan quanji* (Huangshan shushe, 2000), 595-596.

¹⁴ Liang Qichao, *Bianfa tongyi*, in *Liang Qichao quanji*, vol. 1, 52.

¹⁵ Liang Qichao, “Li Beijing daxue huanying hui yanshuo ci,” in *Liang Qichao quanji*, vol. 15, 51.

¹⁶ Liang Qichao, *Xixue shumu biao*, in *Liang Qichao quanji*, vol. 1, 170.

¹⁷ Liang Qichao, “Zhi Wang Yinian shu,” in *Liang Qichao quanji*, vol. 19, 435.

Liang and Kang into exile, preventing them from returning to the Qing Empire. Nevertheless, Liang continued to follow developments in Chinese cartography. While in Japan, he obtained one of Daijun's works: "Imperial University Approved, Comprehensive Maps of Chinese and Foreign Geography."¹⁸ This atlas was produced as part of the geography curriculum for China's first university, where Daijun served as both compiler-in-chief of the geography textbook and lecturer in the subject.

The Imperial University was founded in late 1898, but it had little immediate impact at the time. The Qing court was unsure how to establish such a Western-style institution, and the Boxer event soon created major political turmoil in Beijing in 1900. It was not until 1902, when Zhang Baixi 張百熙 (1847-1907) became the Director of Educational Affairs (管學大臣) and assumed oversight over the university, that the new college system of education began to take real shape.¹⁹ Under Zhang's leadership, a four-tiered system of education was established; county school at the base, followed by prefecture schools, provincial schools, and, at the top, the Imperial University.²⁰ Yet this system faced a serious shortage of qualified teachers. With new schools being created across the empire, the Imperial University was expected not only to train new-style officials but also to foster teachers for these urgently needed positions. Recognized in 1902, the university's most pressing task therefore included recruited professors and students, as well as writing and compiling textbooks, and geography textbooks posed a particular challenge.

Unlike subjects like Chinese literature and history, which had long been established as independent fields, geography also had a long tradition but was subsumed under the category of history; its emergence as a separate subject was therefore a new phenomenon in the Chinese

¹⁸ Liang Qichao, "Zhuguo da hanghai jia Zheng He zhuan," in *Liang Qichao quangji*, vol. 5, 138.

¹⁹ Chuang Chi-fa, *Jingshi daxuetang*, 28-30.

²⁰ Chuang, *Jingshi daxuetang*, 35.

knowledge system.²¹ As Zarrow has noted, the 1900s saw a growing recognition of the “importance of maps and illustrations” for teaching geography.²² What Zhang Baixi sought, then, was not only someone capable of teaching national and world geography, but also someone who could introduce these unfamiliar concepts quickly and effectively. In this regard, no one in the empire at the time better positioned to take on the task than Zou Daijun.

It was not the case that Zou Daijun had become so famous that the court wanted to hire him outright for a new position in the capital. While he was well-known within reformist circle in the south, his lack of imperial degrees and official office meant that he was unlikely to have been a familiar figure among the Beijing elites. Instead, the reason he came to Zhang Baixi’s attention was because he sought Zhang’s private financial support. At that time, the Map Society was facing severe financial difficulties, and Daijun was forced to pawn the core of his enterprise, the copperplates for maps, to the publishing arm of the Jiangnan arsenal in Shanghai in exchange for thousands of silver coins to relieve cashflow pressures.²³ In the first half of 1900, Daijun attracted new investors and mobilized colleagues and friends to raise funds in different places. It was probably during this period that he not only secured private funding from Zhang Baixi but also a more promising market. In one of his letters, Daijun did not state this explicitly but wrote only that his maps had “secured a market” (銷路有著落).²⁴ While this phrase might have

²¹ While Benjamin Elman argues that the study of geography in China had “emerged as a precise discipline during the Ming-Ch’ing transition period,” it remains debatable what exactly is meant by “a precise discipline.” If it simply refers to the increasing attentions paid to geography by late imperial, as Elman’s article indeed demonstrates, then this interpretation holds true. However, if that implies that geography had already developed into an independent subject, distinct from history within the traditional Chinese classification of knowledge (sibu), the claim becomes less tenable. It was not until the late nineteenth century that geography gradually emerged as an independent field of study. Benjamin A. Elman, “Geographical Research in the Ming-Ch’ing Period,” *Monumenta Serica* 35, no. 1 (1981): 17–18. Zou Zhenhuan, *Wan Qing dilixue zai Zhongguo: yi 1815 zhi 1911 nian Xifang dilixue yizhu de chuanbo yu yingxiang wei Zhongxin* (Shanghai guji chubanshe, 2000), 336-343.

²² Zarrow, *Educating China*, 219.

²³ *Wang Kangnian shiyong shuzha*, vol. 3, 2805-2806.

²⁴ *Wang Kangnian shiyong shuzha*, vol. 3, 2812-2813.

referred to other buyers elsewhere, in context it suggests that he had connected with Baixi, who promised to help distribute his maps. Three months later, Daijun travelled to Beijing to meet Zhang in person, perhaps after weighing whether closer ties to the government were worth the risk.

Daijun's caution is noteworthy. He never wished to sever ties with official patronage, but he always wanted to maintain a degree of independence from government interference in his business. This hesitation might explain the three-month delay before deciding to meet Zhang. When he did go to Beijing, he wrote to Wang Kangnian asking him to meet in Shanghai for discussion. We do not know what exactly they discussed, but one month later Daijun informed Kangnian that he had accepted Baixi's offer to serve as compiler-in-chief of geography and overseer of student affairs (輿地總纂兼考校學務), and that Zhang had promised him 6,000 silver coins to support his business.²⁵ This was the largest single investment Daijun received apart from the promised support of Zhang Zhidong, though it is uncertain whether Zhang Zhidong ever actually delivered the full 12,000 silver coins, since Daijun was still complaining about Zhidong's cancellation before leaving for Beijing.²⁶ It is therefore likely that Zhang Baixi's investment was the most substantial.

After this, Daijun entered Beijing's official circles, taking up his post as professor of geography at the Imperial University. From that moment on, his correspondence with Wang Kangnian ceased. Perhaps the two had fallen out over Daijun's decision to accept government patronage, or perhaps Daijun, now serving in an official position, felt it inappropriate to discuss

²⁵ *Wang Kangnian shiyou shuzha*, vol. 3, 2814-2815.

²⁶ *Wang Kangnian shiyou shuzha*, vol. 3, 2808.

such matters openly in writing. Whatever the case, this marks the point at which we lose sight of his private reflections on his business and considerations.

Although we lose sight of Daijun's private experiences at this point, we can still learn much from his works, most notably his role in writing geography textbook for the Imperial University. As compiler-in-chief of geography, one of Daijun's primary responsibility was to prepare this textbook. The Imperial University's geographical textbook was divided into two parts: the first offered a general introduction to geography and a survey of Asia, while the second specifically focused on China. It was accompanied by an atlas Map Society, printed in black-and-white lithography, containing seventy maps. In theory, these maps were meant to be consulted alongside lecture or study, serving as visual aids to reinforce the material. This practice marked a departure from the traditional Chinese geography study (*yan'ge*), where scholars were expected to master the historical evolution of placenames and administrative divisions; maps were optional rather than essential tools, though many works would attach maps.²⁷ By contrast, Daijun's pedagogy maps were central to the study of geography.

The first part of the textbook included three categories of general descriptions: mathematical, physical (*ziran*), and political geography.²⁸ "Mathematical geography" did not focus on mathematics per se, but rather introduced basic cosmological and physical concepts: the earth's relationship to other planets in the solar system, the theory of spherical earth, the earth's motions, directions, climatic zones, and longitude and latitude.²⁹ In the section on longitude and latitude, it explains to students that while Beijing was taken as the prime meridian in Chinese maps, most other countries used Greenwich in London. Yet the textbook also presented a

²⁷ Mosca, *From Frontier Policy to Foreign Policy*, 26.

²⁸ Zou Daijun, *Jingshi daxue tang Zhongguo dili jiangyi*, in *Wan Qing sibu congkan* (Wenting'ge tushu, 2011), 5th series, vol. 34, 3-4.

²⁹ Zou Daijun, *Jingshi daxue tang Zhongguo dili jiangyi*, 4-14.

historically inaccurate account of the international prime meridian. It claimed that in 1884 the United States convened a conference in Washington, D.C., in an attempt to persuade other countries to adopt Washington as the prime meridian, but that the proposal was rejected because other countries argued that the change would cost 40 trillion pounds to revise all existing maps.³⁰ In fact, the 1884 International Meridian Conference recommended Greenwich as the prime meridian, and although France opposed the decision, it did not prevent its adoption.³¹ This problematic description may have reflected an attempt to rationalize why the Qing did not adopt the Greenwich meridian, by emphasizing the supposedly prohibitive costs of replacing Beijing meridian with Greenwich.

The following chapter on physical geography, the textbook introduced a wide range of topics, including continents, bodies of water, air pressure, clouds, natural phenomena such as fog, rain, and wind, as well as human race and mines.³² In effect, it attempts to encompass all elements of geographical space. This framework was heavily shaped by Western notions, which it presented as natural and self-evident. In particular, the divisions of races and continents were adopted from the West through Japanese translations.³³ In Daijun's textbook, the world has divided into three main continents: the eastern continent (Eurasia), the western continent

³⁰ Zou Daijun, *Jingshi daxue tang Zhongguo dili jiangyi*, 14.

³¹ Charles W. J. Withers, *Zero Degrees: Geographies of the Prime Meridian* (Harvard University Press, 2017), 242.

³² Zou Daijun, *Jingshi daxue tang Zhongguo dili jiangyi*, 14-42.

³³ Liang Qichao observed the remarkable popularity of Japanese translated works in 1902 and 1903, writing that "every time there is a new book in Japan, several translators in China get to work. The influx of new ideas is as vigorous as fire spreading through dry grass" 日本每一新書出，譯者動數家。新思想之輸入，如火如荼矣。Liang Qichao, *Qingdai xueshu gailun*, in *Liang Qichao quanji*, vol. 10, 287. On the other hand, a Qing loyalist scholar, Liu Shengmu (1876-1959), offered a rather different reflection on the circulation of racial thought in the late Qing. He argued that such ideas were not merely imported from Japan but had deep roots in late Ming intellectual currents. Some of the works banned under Manchu rule, Liu suggested, might have been transmitted to Japan, where they later reentered China as part of the wave of Meiji translations. In his view, this explained why so many Japanese writings resonated so strongly in China: the intellectual soil for such ideas had already existed but had long been suppressed for political reasons. Liu Shengmu, "Ming Wan Zhu Songshi zhi," in *Changchun zhai suibi xubi sanbi sibi wubi* (Zhonghua shuju, 1998), vol. 1, 350.

(America), and the southern continent (Australia). The eastern continent was further subdivided into Asia, Europe, and Africa, while the western continent was divided into North and South America.³⁴ This notion of continental division echoed earlier works such as Wei Yuan and Xu Jiyu's mid-nineteenth-century world geographies, with one key difference: whereas those earlier treatises treated Australia as part of Asia, Daijun's textbook identified it as a separate continental unit, likely reflecting newer international trends in geography from the mid-nineteenth century onward.³⁵

The section on race followed a similar pattern. As Peter Zarrow has pointed out, late Qing intellectual discourse increasingly emphasized racial categories, especially in revolutionary pamphlets.³⁶ Yet, Daijun's textbook refrained from deploying race in a radical or polemical way. It did not use racial distinctions to spotlight difference between Han and Manchu and other Inner Asian groups. Instead, it presented race in a relatively neutral and descriptive tone, framing it as part of an objective body of natural knowledge to be imparted to student readers.³⁷

Certainly, these explanations of continents and race were not authored by Daijun alone; they should be understood as reflecting the collective efforts of the Imperial University's faculty and officials. Nevertheless, as the compiler-in-chief, Daijun's influence was understandably substantial, raising the question of what sources shaped his thinking on these subjects. Existing scholarship has shown that many avant-garde late Qing intellectuals were deeply influenced by Western theories, such as Social Darwinism, liberalism, socialism, and others, which informed

³⁴ Zou Daijun, *Jingshi daxue tang Zhongguo dili jiangyi*, 15-16.

³⁵ Lewis and Wigen, *The Myth of Continents*, 31.

³⁶ Peter Zarrow, "Liang Qichao and the Conceptualization of 'Race' in Late Qing China," *Zhongyang Yanjiu Yuan Jindaishi Yanjiu Suo Jikan*, no. 52 (2006): 132-34.

³⁷ Zou Daijun, *Jingshi daxue tang Zhongguo dili jiangyi*, 39-40. Here, I am not suggesting that Daijun's description of races was neutral or objective; rather, he did not emphasize the distinction between Han and Manchu as his revolutionary counterpart did.

their radical reflections on China's crises and possible futures.³⁸ However, comparatively fewer studies have examined those on the other side of the intellectual spectrum, especially those minor conservative reformers.³⁹ Daijun's political stance unquestionably aligned with the Reformists, who sought modernization while preserving Qing sovereignty as well as imperial framework and avoiding chaos followed by political revolution. Naturally, such persons tended to be receptive to foreign ideas and theories, provided that these could contribute to strengthen China.

What, then, were Daijun's intellectual models in making a geography textbook? In the latter half of the nineteenth century, a wide range of geography textbooks circulated in Chinese-language contexts throughout the empire, including translations of European and American works. Yet the texts that most profoundly influenced how Chinese elites conceived of writing geography textbooks came from Japan. Around 1900, Daijun specifically sought to purchase two Japanese works translated into Chinese. One was by Tsuji Takeo 辻武雄 (1868-1931), the author of several geography monographs, among them *Geography of Three Countries in East Asia* (東亞三国地誌). The second was a title Daijun listed as "Yudi jianyi" 輿地講義, published by the Jinsuzai 金粟齋, which likely refers to *Geography Textbook* 地理學講義, compiled by Shiga Shigetaka 志賀重昂 (1863-1927).⁴⁰

These two Japanese works became foundational models for Daijun as he structured the geography textbook for the Imperial University. Understandably, this textbook compilation

³⁸ James Reeve Pusey, *China and Charles Darwin* (Harvard University Asia Center, 1983); Rebecca E. Karl, *Staging the World: Chinese Nationalism at the Turn of the Twentieth Century* (Duke University Press, 2002).

³⁹ To be sure, the ideas of major late Qing reformers such as Kang Youwei, Liang Qichao, and Tan Sitong, have been extensively studied. Yet the leaders of the 1898 Reform who have attracted the most scholarly attention were, after the coup, largely unable to act within the empire. By contrast, many important reformist figures who remained active within the empire, whether as entrepreneurs, educators or officials, have received less attentions. Scholars in recent decades, particularly in China, have begun to reexamine figures such as Zhang Jian (1853-1926) and others, but still many Han elites who stayed in the Qing realm and continued to contribute to reformist projects remained understudied.

⁴⁰ *Wang Kangnian shiyou shuzha*, vol. 3, 2808.

project was not something Daijun had long planned, and therefore much of its organization was borrowed directly from these two Japanese sources. Especially, the first section on general geography followed Shiga's framework, which divided the field into physical (*shizen* 自然) and human (*jinji* 人事) geography. Shiga further subdivided physical geography into four categories: mathematical, topographical, climatic, and biological.⁴¹ Daijun, however, modified this structure: he treated mathematic geography as an independent category and extracted political geography from human geography to form another major division. Apart from these structural adjustments, the first part of Daijun's textbook largely followed Shiga's organization, differing mainly in the hierarchy of categories. In content, Daijun appeared to have borrowed extensively from Shiga, though he likely updated certain statistical data.

When discussing geography of Asia, Daijun's textbook also borrowed an image from Shiga's version to illustrate the general terrain of the Asian continent, as shown in Figure 46 and 47.⁴² The four border in this diagram were conceptual: the upper straight line represented the Arctic Ocean, the right the Pacific Ocean, and the lower the India Ocean. Both textbooks notably left the boundary between Asian and Europe (ろに/乙丁) unexplained, which is understandable, as the division has long been unclear and subject to debate. Within this conceptual border of Asia, the diagram delineated the continent's principal mountain ranges and rivers. In Shiga's original diagram, the name China (*shina*), India, and Siberia were included, perhaps as coordinate markers, but in Daijun's version (Figure 2), these labels were removed, leaving only the mountains and rivers. Moreover, while Shiga's map did not indicate the Pamir Plateau, showing only three mountain ranges (which the content text identifies in detail, such as ぼ

⁴¹ Shiga Shigetaka, *Chirigaku kōgi* (Bunbudō, 1901), 9.

⁴² This diagram can also be seen in Tu Ji's textbook. Tu Ji, *Zhongguo dilixue jiaokeshu* (Shanghai Shangwu yinshuguan, 1907), 22.

referring to the Kunlun Ranges in the east and Hindu Kush in the west), Daijun's version added the Pamir Plateau at the center, surrounded by six mountain ranges. Daijun might have consulted other contemporaneous geography sources that led him to emphasize the centrality of the Pamir. Given the historical context discussed in Chapter Two, particularly the series of heated controversies surrounding Pamir region in the early 1890s and the downfall of Hong Jun, whose translated maps were reportedly used in the border negotiation, it is unsurprising that Pamirs had become widely known and that the compilation of this textbook, only a decade later, would give special attention to this area. Indeed, in the final chapter of Daijun's *A Treatise on Sino-Russian Border* (中俄界記), the Pamir region is explicitly mentioned: "Russian's desire is insatiable. Later they extend their reach to Pamir, a dispute that remains unsettled even today. It seems to me that Pamir was originally another name for the vast plain atop the Congling mountains" 俄人之欲無厭，後又及於帕米爾，至今尚未議妥。竊以帕米爾本蔥嶺顛大平原之稱。⁴³ It is therefore understandable that Daijun chose to highlight Pamir region in the textbook for political

⁴³ Zou Daijun, *Zhong E jieji*, 209.

reason. Aside from this, the configuration of major rivers remained identical in both versions, as shown in both Figure 1 and 2.

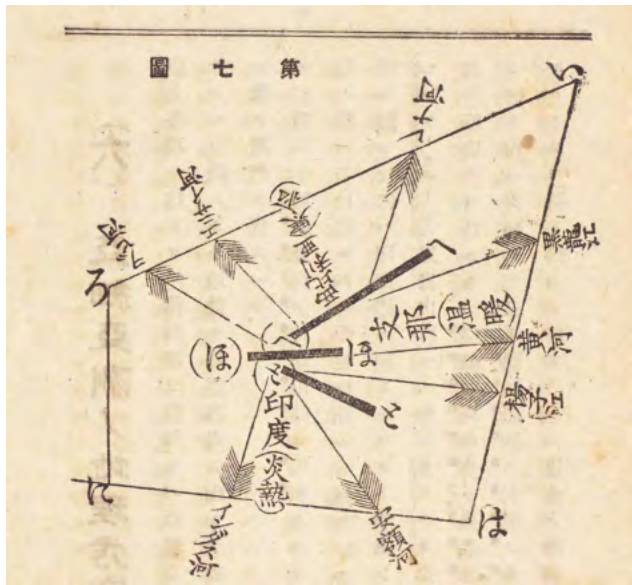


Figure 46

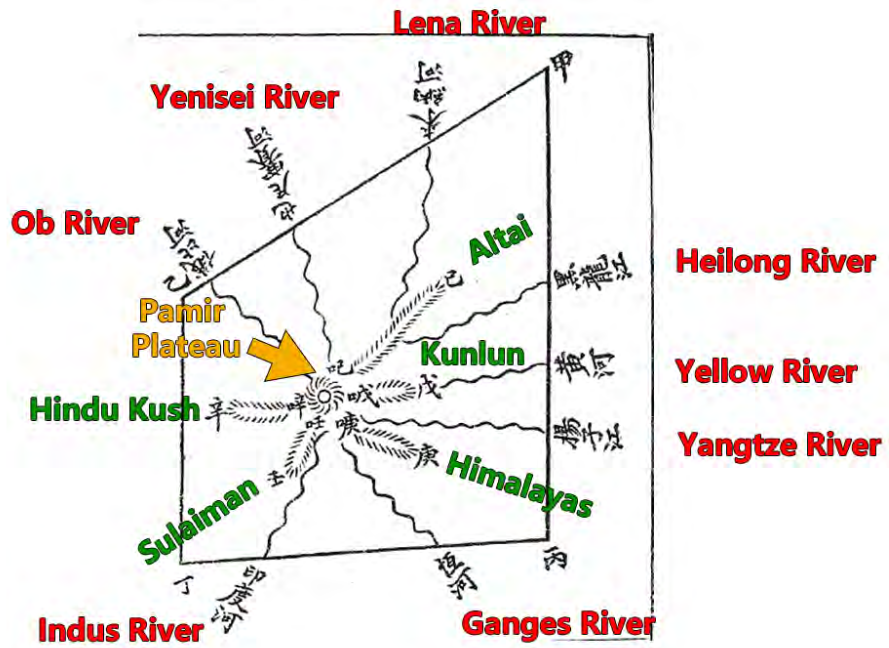


Figure 47

However, Daijun did not simply copy and paste from Japanese geography textbooks; his version shows deliberate editing, particularly in the use of placenames such as Turkestan. In both

Tsuji and Shiga's textbooks, the term Turkestan never appeared as a regional label. Instead, they used the modern Chinese-Kanji transcription for Turkey, Tu'erqi 土耳其. In Shiga's text, Turkey was further divided into an "eastern" (Asian) and "western" (European) part, but when it came to Central Asia, no equivalent term for Turkestan was used.⁴⁴ By contrast, Daijun's textbook explicitly introduced the term Turkestan when discussing geographical terrain in the regions of Altishahr and Qinghai, referring to them collectively as the Eastern Turkestan Plateau 東突厥斯單高原.⁴⁵ Notably, the Chinese rendering of "-stan" 斯單 differs from the standardized modern form (斯坦), suggesting that the concept was still in an early stage of transmission into the Chinese-speaking world and had not yet been linguistically standardized. While Turkestan has a long and complex history in European geography, it was only in the latter half of the nineteenth century, especially after the Russian conquest of Central Asian states in the late 1860s, that the term became a stable geographical concept. From that period onward, Turkestan appeared frequently on European maps.⁴⁶ By the late nineteenth century, the concept entered the Chinese-language world, with multiple competing translations (土耳其, 土耳其斯坦, 突厥斯坦/單). Daijun's adoption of Turkestan clearly reflects this contemporary European influence. For example, the *Encyclopædia Britannica* (1902) used Turkestan as a regional label with names such as "Chinese Turkestan," referring to southern Xinjiang or Altishahr (Figure 48).⁴⁷ Daijun's

⁴⁴ Shiga Shigetaka, *Chirigaku kōgi*, appendix.

⁴⁵ Zou Daijun, *Jingshi daxue tang Zhongguo dili jiangyi*, 74.

⁴⁶ Daniel Brower, *Turkestan and the Fate of the Russian Empire* (Routledge, 2012), chap. 2.

⁴⁷ <https://digital.nls.uk/encyclopaedia-britannica/archive/193819055#?c=0&m=0&s=0&cv=186&xywh=-1279%2C-102%2C5821%2C3362>

identification of Altishahr as “Eastern Turkestan” thus aligned closely with these Western conventions.



Figure 48

Yet, when Daijun turned to the geography of China/Qing Empire, he reverted to traditional Chinese nomenclature. In other words, while his use of “Eastern Turkestan” reveals the imprint of European geographical knowledge, his depiction of China proper’s geography remained grounded in the traditional *yan’ge* system. While this practice had great practical importance for premodern Chinese statecraft, it was fundamentally different from the modern discipline of geography that emerged in eighteenth- and nineteenth-century Europe, which was no longer about name changes or administrative history but about understanding the internal mechanisms and dynamic structure of the earth itself.⁴⁸

This anatomical approach characterized the first volume of this textbook that drew extensively from Japanese and European sources. By contrast, the second volume devoted to

⁴⁸ Immanuel Kant, “Physical Geography,” in *Natural Science*, ed. Eric Watkins (Cambridge University Press, 2012).

China's geography retreated to the *yan'ge* tradition. It consisted of thirty-five chapters: the first on borders, chapter two through five on physical terrain, especially rivers, lakes and mountain ranges; and chapters six through thirty-five on the coastline. Strikingly, the majority of this volume, roughly 85 percent, was devoted to coastal geography, tracing shoreline from Yalu River in Shengjing (Liaoning) to Qinzhou in Guangdong.⁴⁹ This focus reflected a post-Opium-War perspective that prioritized the coast over the interior.

This volume appeared to have been unfinished as the final chapter ends midway along the Qing coastline, around southern Zhejiang.⁵⁰ Its prose was descriptive and *yan'ge*-oriented, frequently citing historical placenames found in older or Western maps and texts. Consistent with traditional Chinese geographical writing, this volume's descriptions emphasize on distances and directions from one point to another, rather than analytical explanation of natural or spatial patterns and processes.

However, while these textual descriptions were crucial for students' study of geography, the maps accompanying these textbooks exposed them to the visuality of China and the world more directly, and far more vividly. It was no coincidence that many anti-Manchu revolutionaries in the early twentieth century were fascinated by geography and cartography. Maps, with their visual immediacy, conveyed spatial messages much more efficiently than words alone. An representative example is Chen Tianhua 陳天華 (1875-1905), arguably one of the most influential pamphleteers of his time.⁵¹ Chen graduated from the school founded by the Zou family in Xinhua and was likely exposed to much of the geographical knowledge and many of the maps produced by Daijun's Map Society before leaving for Japan (his pamphlet *A Sudden*

⁴⁹ Zou Daijun, *Jinshi daxue tang benguo dili zhi*, in *Wan Qing sibu congkan* (Wenting'ge tushu, 2011), 5th series, vol. 35, 438.

⁵⁰ Zou Daijun, *Jinshi daxue tang benguo dili zhi*, 498.

⁵¹ Feng Ziyou, *Geming yishi* (Jinchen chubanshe, 2014), vol. 1, 237-238.

Look Back 猛回頭, discussed in the next section, makes this evident).⁵² Daijun possibly taught Chen directly, as Chen belonged to the school's first cohort.

Another prominent student who later became a major revolutionary was Huang Xing. Huang was a leading revolutionary in 1911, but before that he had studied under Daijun at the Lianghu Academy after Daijun accepted a teaching post there in late 1898.⁵³ Huang later studied in Japan but had already developed a deep interest in geography from Daijun's classes, particularly focused on China's territorial losses to Russia. After returning to China, Huang became a geography teacher at the newly founded Mingde Academy 明德學堂 in Changsha.⁵⁴ Multiple sources attest to Huang's passion for teaching geography: he often used maps in class, brought a large globe to demonstrate spatial relationships, and even inscribed personal dedications on students' maps, which they treasured.⁵⁵ During this period, Huang also distributed revolutionary pamphlets among not only students but also soldiers.⁵⁶ While the overall circulation of such materials in China was still limited at the time, their impact in Hunan and Hubei was significant. These two provinces would later emerge as the epicenter of the 1911 Revolution.

Although this revolutionary momentum was far from what Daijun had intended, it is clear that the geographic notion of "China proper," implicit in his maps, profoundly shaped how

⁵² Chen's study in Japan was sponsored by the Zou family's school, Xinhua Middle School of Practical Learning 新化實業中學堂. Wang Jianqing, "Chen Tianhua," *Chen Tianhua ji* (Hunan renmin chubanshe, 2008), 265-270.

⁵³ Mao Zhuqing, *Huang Xing nianpu changbian* (Beijing: Zhonghua shuju, 1991), 30-31.

⁵⁴ Mao Zhuqing, *Huang Xing nianpu changbian*, 50. The founder of Mingde Academy, Hu Yuantan 胡元倓 (1872-1940), had first met Huang Xing while studying in Japan. Upon returning to China, Hu invited Huang to be the dean of academic affairs and teacher at Mingde. It was there that Huang, together with a group of faculty members and students from the academy, founded the influential Hunan revolutionary organization, China Arise Society 華興會. See Huang Yi'ou, "Huang Xing yu Mingde xuetang," *Hunan Xinhai gemin shiliao* (Hunan renmin chubanshe, 2011), vol. 1, 10-12.

⁵⁵ Yan Youfu, "Huiyi zai Mingde xuetang zhijiao shi de Huang Keqiang xiansheng," *Yi Huang Xing* (Yuelu shushe chubanshe, 1997), 196.

⁵⁶ Liu Kuiyi, "Huang Xing Zhuan," *Yi Huang Xing*, 21.

Chinese elites conceptualized China as a spatial entity. To fully understand this influence, we must now turn to examine how these maps were designed and how they sought to communicate their spatial ideas to readers.

What Does the Maps Say?

The atlas that Liang Qichao collected in Japan, “Imperial University Approved, Comprehensive Maps of Chinese and Foreign Geographies,” was first printed by the Map Society in 1903. Measuring approximately 13.3 by 9.8 inches, it was a standard book size, convenient for students to carry to school or study at home. The atlas aimed to provide students with a comprehensive set of maps, covering not only all provinces and regions of the Qing Empire but also other continents, including Europe, North and South America, Africa, and Asia. Due to limitations in access to cartographic sources and global geographical knowledge, the level of detail varied considerably between regions. For instance, the Qing Empire’s Southeast Asian neighbors, Burma, Vietnam, and Siam, were all represented together on a single map.⁵⁷ By contrast, major European powers such as Great Britain, Germany, Italy, and even Greece were each given their own dedicated maps.⁵⁸ An exception was France, which was depicted in great detail, including its rivers, mountains, and railways, but also included Switzerland, likely considered of lesser importance by the Map Society and therefore appended to the French map.⁵⁹ Despite these disparities, Zou Daijun and his team appeared to have made a sincere effort to present a globally inclusive and detailed vision of the world. The atlas not only included Oceania but also featured two maps dedicated to the Pacific Islands.

⁵⁷ *Daxue tang shending zhongdeng keben yudi quantu*, “Annan Xianluo Miandian.”

⁵⁸ *Daxue tang shending zhongdeng keben yudi quantu*, “Yinjili,” “Deyizhi,” “Yidali,” and “Xila.”

⁵⁹ *Daxue tang shending zhongdeng keben yudi quantu*, “Falanxi Ruishi.”

What does this map tell us about the world at the time? Let us take a look at the “Planar World Map” in figure 49. As one might notice, this map differs significantly from the typical world maps produced in China today, which usually place China at the center. Instead, the “Planar World Map” follows the European cartographic convention, positioning Europe at the center, with China on the right and the Americas on the left. However, a closer look reveals a subtle but important deviation: the longitudinal system used on the map is different. Beijing (located at today’s 116.4074° E) is marked with the character “zhong” 中 (center) and serves as the prime meridian. This was not an innovation specific to this map. As discussed in Chapter Three, the same practice was employed by the editors of the *Guangxu Atlas*.

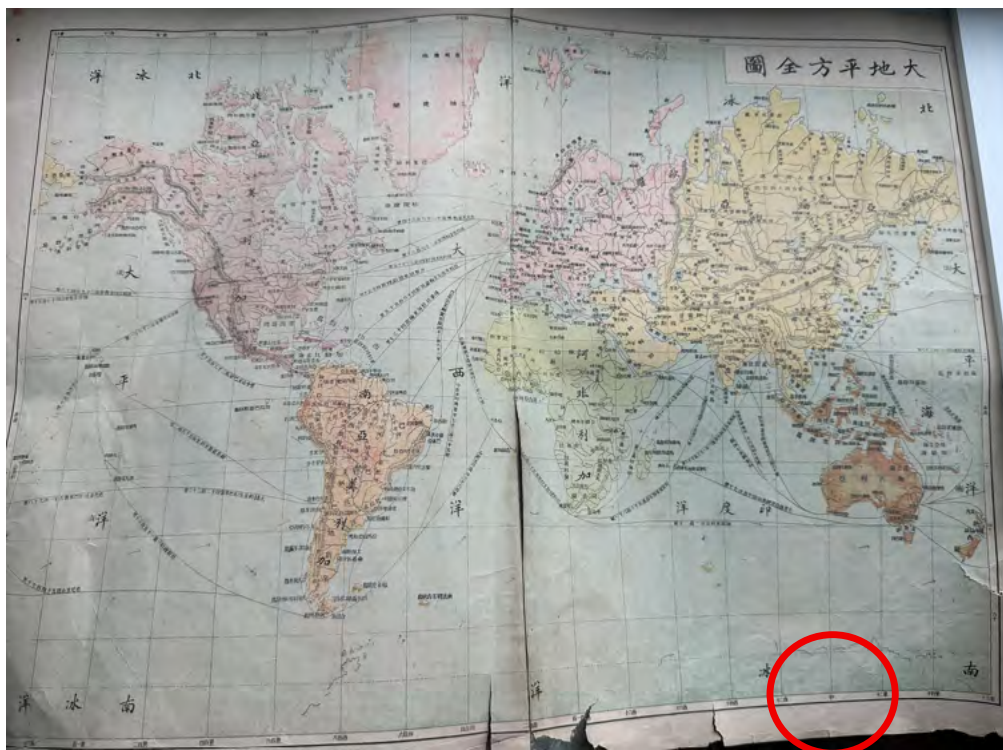


Figure 49: “Planar World Map,” with the character “zhong” (center) shown in the red circle.

What makes this map particularly idiosyncratic is its lack of clearly defined borders and the unusually high density of place names. Let us turn to figure 50, which depicts East Asia. This map features five primary elements: Chinese characters identifying regions or countries, icons

for mountains and rivers, dotted lines indicating boundaries, and solid lines marking maritime navigation routes. One immediately notices that the dotted boundary lines are quite subtle and visually understated. Unlike modern mapping practices, where borders are typically continuous and prominently displayed, the boundary lines in this map are frequently interrupted where they meet rivers or mountains. However, upon closer inspection, these lines were not truly omitted but rather obscured beneath the icons for natural features. This layering technique, visible in both black-and-white and color version (figure 51), results in a visual ambiguity about territorial demarcation.



Figure 50

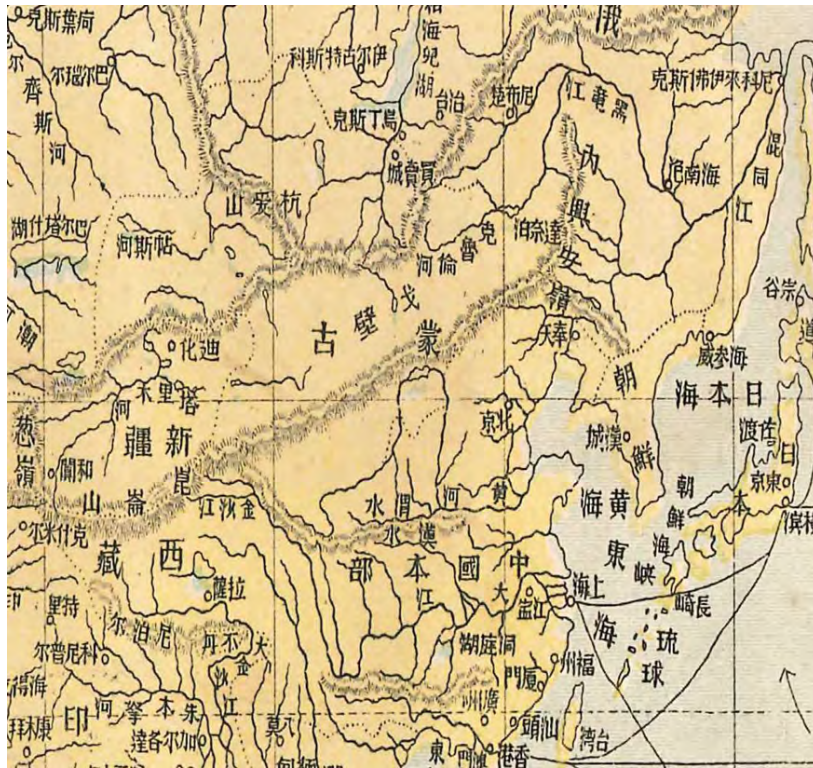


Figure 51

In the colored version of the map, another notable feature is the misalignment of color, especially in the depiction of Oceania, where the orange ink appears offset (Figure 52). This color misregistration likely resulted from the technical constraints of the printing process. The map was produced using at least two separate plates: one for the black line work and another for the color layer. After printing the black-and-white base, the paper was re-registered for color printing. It was during this second registration that the alignment likely faltered, causing the noticeable offset of the orange color.



Figure 52

Despite the absence of clearly marked boundary lines, the map reinforces regional differentiation through the use of Chinese characters. As shown in figure 50, all neighboring regions are labeled with distinct Chinese names: Chosŏn (Korea), Annam (Vietnam), Burma, Siam, India, and even Turkestan (土耳其斯坦) to refer broadly to Central Asian territories (except Afghanistan) beyond Xinjiang. As discussed in the previous section, this geographical concept of Turkestan was equally introduced through contemporaneous European geographical sources. In the geography textbook, however, the term appears only in reference to a physical region, like the Plateau of East Turkestan, and was never used as an administrative designation. The same distinction applies here: East Turkestan was not an administrative name for southern Xinjiang. Nevertheless, the presence of Turkestan on his map vividly demonstrates influence of European geography in representing the region adjacent to Xinjiang. This connection becomes even clear when compared with the map of Russian Asia in the 1902 *Encyclopædia Britannica*

(Figure 53). The border of Turkestan in red circle corresponds closely to those in Daijun’s map, encompassing what was Russian Turkestan, including the five Central Asian “Stans.”⁶⁰



Figure 53

Beyond the question of Turkestan, however, what is most striking about this world map is the absence of a label for the “Great Qing” itself. Instead, the Qing domain is subdivided into four major regions: Tibet, Xinjiang, Mongolia, and China proper (中國本部).⁶¹ This is a

⁶⁰ Svatopluk Souček, ed., *A History of Inner Asia* (Cambridge University Press, 2000), 223.

⁶¹ For discussion of the concept of “China proper” and its relationship with Japan in late 1800s and early 1900s, see Huang Ko-wu, “Cihui, Zhazheng yu dongya de guozu bianjie: ‘Zhongguo banbu’ gainian de qi yuan yu bianqian,” *Sixiang shi* 10 (2021): 47-96. Chen Po, “Mingzhi shidai de Zhongguo banbu gainian,” *Xueshu yuekan* 48, no. 7 (2016): 157-173. For a more comprehensive study of the complex relationship between the notion of China proper and the Chinese empire, and its historical evolution, see Chen Po, “‘Zhongguo banbu’ gainian de qi yuan yu jiangou: 1550 niandai zhi 1795 nian,” *Xueshu yuekan* 49, no. 4 (2017): 145-166.

particularly intriguing editorial choice. As seen in figure 51, a dotted boundary line separates China proper from Mongolia and Xinjiang. Yet, curiously, part of Manchuria, specifically the region around Fengtian (modern-day Shenyang), is included within the scope of China proper. This area corresponds roughly to today's Liaoning Province, but the map excludes the other two provinces, that are modern-day Jilin and Heilongjiang, from this categorization.⁶²

Figure 54 presents a GIS overlay in which I have georeferenced the boundaries from the “Planar World Map” onto a modern digital map. Because of projection differences, the southern part of the boundary appears greatly distorted. The purpose of this schematic visualization, however, is not geographical precision but to illustrate how the “Planar World Map” divided the Qing Empire into three regions: China proper (black line), Xinjiang (yellow), and an extensive northern zone including Mongolia and Manchuria (green). Interestingly, China proper includes not only the Shenyang region but also Tibet. The reason for Daijun's inclusion of Tibet in China proper is unclear, but he evidently conceived of Xinjiang a space distinct from China proper. Whether this separation was based on cultural, ethnic or political reasoning remains uncertain. What is clear, however, is that Daijun regarded the vast areas of Mongolia and Manchuria, except Fengtian (Shenyang) region, as spatially different from China proper. He also did not

⁶² Another intriguing issue is how the Rehe region is represented. In Figure 51, Rehe is included within the bounds of “China proper.” However, the historical and administrative reality of Rehe was far more complex. During the Qing period, the region was governed by the Rehe Commander-in-Chief (都統), who oversaw both Inner Mongolian leagues and directly administered Chinese prefectures. The Commander-in-Chief reported to the Zhili governor general, indicating a hybrid administrative structure, half Mongolian nomadic governance, half direct Qing administration. In the Republican period, Rehe was formally established as a province, and over time, many considered it part of Manchuria or the broader “Four Northeastern Provinces” 東北四省 due to its ethnic makeup and geographical proximity. Despite these ambiguities, Zou Daijun's map includes Rehe squarely within “China proper.”

attempt to distinguish Mongolia from Jilin and Heilongjiang, treating them as a single zone beyond China proper.



Figure 54

Including the Fengtian region within China was not, however, an innovation. In the late Ming *Enlarged Atlas* 廣輿圖 (figure 55), recompiled by Luo Hongxian 羅洪先 (1504-1564), the Fengtian region was represented as Ming territory. Even after the Manchu consolidated control over China after the mid-seventeenth century, Han literati continued to view the Fengtian region, despite its status as one of the Great Qing's two imperial capitals, as historically belonging to the Ming realm. Early Qing commentators such as Gu Yanwu and Gu Zuyu frequently referred to the strategic importance of the great Fengtian area, i.e. Liaodong, often citing Ming precedents to support their arguments.⁶³ Although censorship targeted these figures, especially Gu Yanwu, this

⁶³ For example, in Gu Yanwu's *Zhaoyuzhi*, there is one chapter specifically on the Liaodong region. Gu Zuyu's famous work also includes Liaodong when discussing Shandong, placing it as one of the sections in that chapter. Gu Yanwu, "Liaodong du zihui shisi," *Zhaoyu zhi*, in *Gu Yanwu quanji* (Shanghai guji chubanshe, 2011), vol. 6, 1316-1338. Gu Zuyu, "Liaodong xi dushi," in *Dushi fanyu jiyao*, 1748-1773.

spatial conception continued to circulate among Han elites.⁶⁴ Even popular literature preserved this cultural memory. In the late eighteenth-century Jiangnan novel *Yesou puyan* 野叟曝言 (Humble Words of a Rustic Elder), for example, the protagonist repeatedly travelled to Liaodong to survey the frontier geography and maintain military's ethos, even though the text never explicitly identifies the enemy (the Manchu) in that region.⁶⁵ Thus, despite the high Qing censorship and literary persecution, the spatial conception of Liaodong/Fengtian as a historically Ming frontier never fully disappeared from Han cultural consciousness.



Figure 55

Another important piece of evidence comes from the famous *Complete Map of All Under Heaven as Unified by the Qing Great State for Ten Thousand Years* 大清萬年一統天下全圖, produced around the early 1800s. Although Timothy Brook has described this map as a commercial success at the time, the actual extent of its circulations remains uncertain and

⁶⁴ During the height of literary persecution, two of Gu Yanwu's monographs were placed on the list of banned books. See Lei Mengchen, *Qingdai gesheng jinshu huikao* (Shumu wenxian chubanshe, 1989), 113-114. In 1778, a Jiangsu gentry was discovered secretly preserving Gu Yanwu's anthology, although the emperor later judged that such possession of banned book did not warrant imprisonment. Guo Chengkang and Lin Tiejun, *Qingchao wenzi yu* (Qunzhong chubanshe, 1990), 356. Wang Fan-sen, "Qingdai ruzhe de quan shentang: Guoshi rulin zhuan yu Daoguang nianjian Guici ji de chengli," *Zhongyan yanjiuyuan lishi yuyan yanjiu suo jikan* 79 (2008): 75.

⁶⁵ Xia Jingqu, *Yesou puyan* (Zhonghua shuju, 2004), vol. 2, chap. 35.

requires further evidence to substantiate.⁶⁶ It is plausible that the map circulated in southeastern coastal provinces, but given the limited capacity of woodblock printing for large-scale reproduction, its distribution was likely modest.⁶⁷ It seems probable that this *Complete Map* was owned by a very small number of Han elites on the coast. As Figure 56 shows, while this map indeed updated the high Qing's territorial expansion, its emphasis remained on the former Ming domains, including the Liaodong region. In Figure 57, I overlaid the northeastern border of the *Complete Map* onto the previous GIS map. Despite the map's schematic and pictorial style, its northeastern borderline (red line) can be roughly georeferenced to the corresponding area on the

⁶⁶ Timothy Brook, "China's World Map Transformed," in *Unit One: Mapping the Empire and the Mandate*, accessed October 2025, <https://storymaps.arcgis.com/stories/6f6d6266df3b4ddeb54a4241c8dc74e5>

⁶⁷ For example, Joseph McDermott notes that in premodern China, the number of copies produced through woodblock printing "might range between none at all and the 30,000 or so," which he "suspect(s) was often the maximum run for a woodblock's clear impressions." He also observes that although woodblock printing expanded significantly after the sixteenth century, the manuscript copying increased in parallel because of "the low cost of scribal labor relative to the cost of woodblock carving." Joseph Peter McDermott, *A Social History of the Chinese Book: Books and Literati Culture in Late Imperial China*, Understanding China (Hong Kong University Press, 2006), 44, 73. McDermott's conclusion finds supports in other sources. For instance, Mao Chunxiang (1898-1973), an eminent librarian, remarks that during the Ming and Qing periods, scholars often values handwritten copy over printing, since "printing requires much labor and more expense" 傳刻則費工多，化錢亦多. Mao Chunxiang, *Gushu banben changtan* (Zhonghua shuju, 1962), 81.

modern digital map. Though with significant distortions, the northeastern border aligned closely with Daijun's conception of China proper, which also encompassed the Shenyang region.



Figure 56



Figure 57

That is to say, the concept of “China proper,” grounded in the territorial imagination of the former Ming domain, had long existed but was only later highlighted and popularized. Since the late 1800s, this old territorial conception became increasingly widespread, thanks to the circulation of maps produced through late Qing cartographical developments. By the late 1890s, this idea of “China proper” referred ever more specifically to the “inner” eighteen provinces of the Qing Empire.⁶⁸ This spatial notion began to appear frequently in newly emerging newspapers, such as the *Shiwubao*, edited by Wang Kangnian, as well as in contemporary maps.⁶⁹

However, this spatial conception of “China proper” was never well defined. In fact, two competing versions circulated at the time, differing primarily over whether to include the Shenyang region. The first was the version adopted by Han revolutionaries who promoted expulsion of frontier “barbarians,” particularly the Manchus. A representative example is Sun Yat-sen’s *Map of China’s Current Situation* 支那現勢地圖.⁷⁰ As shown in the Figure 58, Sun’s map incorporates most of the Shengjing province (the Fengtian region). However, in the accompanying table at the bottom of the map (Figure 59), titled “Area and Population of Each Province” 各省面積與人口, Sun listed only the eighteen provinces and excluded Shengjing and other two northeastern provinces entirely. In contrast, these three provinces appear in the following table, “Provincial Capitals” 省城, indicating that Sun fully realized their provincial status but did not think they were same as the eighteen provinces, most likely in terms of culture. This definition, which restricts “China proper” to the former Ming territory, was even more pronounced in other revolutionary publications.

⁶⁸ Chen Po, “‘Zhongguo banbu’ gainian de qiyuan yu jiango,” 162-164.

⁶⁹ Huang Ko-wu, “Cihui, Zhanzheng yu dongya de guozu bianjie,” *Sixiang shi* 10 (2010): 69.

⁷⁰ Huang Ko-wu, “Cihui, Zhanzheng yu dongya de guozu bianjie,” 54-57.



Figure 58

省名	面積及人口	
	面積 (平方里)	人口
直隸省	三〇〇,〇〇〇	二〇,九三七,〇〇〇
山東省	一四五,〇〇〇	三八,二四七,九〇〇
山西省	一七一,〇〇〇	一三,〇〇〇,〇〇〇
河南省	一七六,〇〇〇	三五,三一六,八二五
江蘇省	一〇〇,〇〇〇	一三,九八〇,三三五
安徽省	一四二,〇〇〇	二五,六七二,三一四
江西省	一八〇,〇〇〇	二六,五三二,一五五
浙江省	九五,〇〇〇	一五,八〇六,九一二
福建省	一〇〇,〇〇〇	二二,八七六,五四〇
湖北省	一八五,〇〇〇	三五,二八〇,六八五
湖南省	二一六,〇〇〇	二二,一六九,六七三
四川省	一五五,〇〇〇	一五,八四五,〇八二
廣西省	二五九,〇〇〇	六,八七二,四八九〇
廣東省	二〇〇,〇〇〇	三一,八六五,二五一
廣西省	一七四,〇〇〇	五,一四二,三三〇
雲南省	三〇〇,〇〇〇	七,六五〇,二八二
計	三,九七〇,〇〇〇	四〇七,七三七,三〇五
○省城	總督巡撫將軍大臣等所在地	
順天府	京師即北京	山西省 太原府
盛京省	奉天府	甘肅省 蘭州府
直隸省	保定府	陝西省 西安府
江蘇省	江甯府	新疆省 迪化府
安徽省	安慶府	四川省 成都府
江西省	南昌府	廣東省 廣州府
浙江省	杭州府	廣西省 桂林府
福建省	福州府	雲南省 雲南府
湖北省	武昌府	貴州省 貴州府
湖南省	長沙府	黑龍省 齊齊哈爾
河南省	開封府	吉林省 吉林府
山東省	濟南府	西藏 布達拉城
察哈爾(將軍駐劄張家口內外蒙古、阿拉善、額濟納、喀爾喀三音諾顏部、喀爾喀扎薩克、唐努烏梁海等游牧地者左右翼中三旗三節制スル)		

Figure 59

For instance, Chen Tianhua's 陳天華 (1875-1905) widely circulated anti-Manchu pamphlet, *A Sudden Look Back* 猛回頭, draws a clear distinction between “China proper” and the so-called “outer regions.” While Chen did not include a map, the opening chapter starts with

geography, explicitly describing China as a space distinct from Manchuria, “to the northeast of China proper,” where “the Three Eastern Provinces were once the Jin state during the Song dynasty.”⁷¹ In Chen’s geographical conception, China proper and Manchuria were dichotomized, and Manchuria (including the Fengtian region) was consistently treated as external. This revolutionary view stands in contrast to the understanding held by many Han elites, as we have shown, who had regarded Fengtian as a part of the Ming territory, and therefore “Chinese.”

Was this revolutionary redefinition of space a deliberate attempt to exclude Fengtian? In Chen Tianhua’s case, there is reason to believe so. His omission may have been a conscious choice made to fit the revolutionary narrative. Before studying in Japan, Chen received his early education in his hometown of Xinhua, Hunan, at an elementary academy founded by the Zou family, where he was among the first students. Zou Daijun may have some time teaching geography there.⁷² Unlike Chen’s revolutionary perspective, Zou’s geographical conception included Fengtian region, as we have seen in Figure 51, within China proper.

However, this is the only map that registered such a clear geographical differentiation within the Qing domain. In 1903, under the patronage of Zhang Baixi, the Map Society published the *Imperial Atlas of the Provinces* 皇朝分省圖, which went through four editions before Daijun’s death in 1908. In the final fourth version, Daijun proudly noted that this was the most refined version, remarking that “by this round, the editing is more sophisticated, and characters and mountain lines appear more distinct than in the first three editions.”⁷³ In this edition, Daijun added a map of geographical terrain this time, but had remained the same structure with one general map of China while retaining the overall structure of the atlas: one

⁷¹ Chen Tianhua, *Meng huitou*, in *Chen Tianhua ji*, 19.

⁷² “Preface,” *Chen Tianhua ji*, 1. Yang Yinong, *Hunan lidai wenhua shijia*, 156.

⁷³ Zou Daijun, *Huangchao fensheng tu* (Yaxin dixue she, 1908).

general map of China, twenty-two provincial maps, and two regional maps covering Mongolia and the combined region of Qinghai and Tibet. The general map distinctly divides the empire according to administrative jurisdictions, rather than the tripartite model of China proper, Mongolia-Manchuria and Xinjiang, seen in his world map. This general map thus reflected a more sophisticated understanding of administrative geography, particularly in its division of Mongolia into nine jurisdictions.

In other words, this edition of maps differed not only from his earlier works but also from earlier late Qing cartographical conventions in its principle of representation. Rather than depicting the empire, in particular contested frontier areas, according to historical or idealized claims, Daijun drew its boundaries based on the administrative reality, that is, territory under the government's actual control. This approach marked a departure from the *Guangxu Atlas*, which, as discussed in Chapter Three, continued to show Jiaqing-era borderlines extending far north of the Amur river, despite those territories having been ceded to Russia in the mid-nineteenth century. By contrast, Daijun's early twentieth-century maps excluded these regions from the empire. He applied the same logic to other sensitive frontier zones: Taiwan; the Pamir region, where the Qing clashed with Russia and Great Britain in the early 1890s; the Vietnamese border areas adjoining Guangdong, Guangxi, and Yunnan, contested with France in the mid-1880s (Chapter 2); and the Yunnan-Myanmar frontier, subject to negotiations throughout the 1890s.⁷⁴ In all these areas, Daijun's maps reflect the principle of "territory under administration," that is only including areas under actual Qing control.

However, there is one notable exception where the legacy of Qing border negotiations remains visible: the territories lost in Xinjiang during the boundary demarcation of the early

⁷⁴ Eric Vanden Bussche, "Contested Realms: Colonial Rivalry, Border Demarcation, and State-Building in Southwest China, 1885–1960" (PhD diss., Stanford University, 2014), chap. 1.

1880s, conducted under the terms of the Treaty of St. Petersburg. As shown in figure 60, certain border areas outside of Ili and Suiding are marked with the label “old border” 老界. In reality, the region west of the Khorgos River was ceded to Russia and now lies within modern-day Kazakhstan. This territorial loss was formalized in the 1882 Treaty of Ili, negotiated by Changshun.⁷⁵ Another area similarly marked as “old border” is the region between Lake Zaysan 齋桑淖爾 and the Irtysh river 勒濟爾河 (Figure 61), which had been ceded to Russia as early as 1869 and was reaffirmed in boundary negotiations in 1883.⁷⁶

Why did Daijun’s map specifically highlight these two lost territories, while omitting many others? The precise reason remains unclear. However, one plausible explanation is that both of these regions were formally ceded during the gradually publicized boundary surveys of the early 1880s, conducted under the Treaty of St. Petersburg negotiated by Zeng Jize. The later incident involving Hong Jun in the early 1890s further heightened awareness among Qing elites, prompting them to pay particularly close attention to these demarcations. These particular territorial losses had become symbolic among the Chinese literati, especially as the rise of the press made the events surrounding the treaty widely known. The two regions thus came to represent a broader narrative of cartographic vulnerability, serving as a symbol of how Qing officials, with no adequate geographical knowledge and cartographic literacy, were outmaneuvered by foreigners.

⁷⁵ *Shiluo de jiangyu: Qingji xibei bianjie bianqian tiaoyue yutu tezhan*, 62-63.

⁷⁶ *Shiluo de jiangyu*, 47-48. The “勒濟爾河” on the map should be today’s “額爾濟斯河” in Chinese, that is the so-called “喀喇額爾濟斯河” in Treaty of Khovd and Chuguchak 科塔界約.



Figure 60



Figure 61

This cartographic practice later influenced Wang Shunan 王樹枏 (1852-1936) in his *Illustrated Gazetteer of Xinjiang* 新疆圖志. Wang recalled that during his tenure as Provincial Administration Commissioner 布政使 of Xinjiang-Gansu province, he initiated the compilation of the gazetteer in 1907 and completed it four years later, in 1911.⁷⁷ The work included 58 maps, encompassing both general and regional representations of Xinjiang.⁷⁸ These maps were gridded using a system of longitude and latitude, but, like Zou Daijun's maps and those in the *Guangxu Atlas*, they placed Beijing at the longitudinal center.

What is particularly striking is that Wang's maps also included the label "old border" 舊界, echoing the practice found in figures 60 and 61. For instance, in figure 62, which depicts the Ili region, two types of green lines appear: a sawtooth-shaped green line, representing electric wires, and a solid green line, marking the national boundary. These icons are clearly explained in the map legend. However, what is not explained in the legend is a dashed line located to the west of the solid green border, labeled simply as "old boundary" 舊界. A similar feature appears in figure 63, which maps the Chuguchak area, where the top right corner contains a dashed line labeled "old Sino-Russian border" 中俄老界.

⁷⁷ Wang Shunan, *Taolu laoren suinian lu, nanwu shuwen* (Beijing: Zhonghua shuju, 2007), 63.

⁷⁸ Wang Shunan, *Xinjiang tuzhi, ditu*. Shanghai guji chubanshe, 2015.



Figure 62



Figure 63

As discussed in previous chapters, many Qing frontier regions struggled to produce the maps requested by the *Huidian* bureau in the 1890s. Yet the compilation of this illustrated gazetteer, starting in 1907, was completed in just four years, combining extensive written

documentation with detailed maps of Xinjiang. The *Guangxu Atlas* project undoubtedly provided a significant foundation, offering cartographic templates and geographic data for this early twentieth-century gazetteer team. However, it is also likely that the Xinjiang team consulted Zou Daijun's atlas. By this point, Daijun's maps had become standard references for geography education throughout the empire and would likely have been accessible even to officials stationed in far-flung regions like Xinjiang. In this way, the concept of the "old border" gained a more standardized and effective visual representation, allowing Qing elites, across its vast and contested peripheries, to spatialize the loss of territory and the boundaries of the "Great Qing" geobody in the final decade of imperial rule.

What, then, did Daijun's maps seek to convey to their audience? To answer this, we might return to Kang Youwei's vision of geography in the stage of Great Unity, in which he advocated for identifying places through longitude and latitude rather than through placenames or national labels. Kang's geographical imagination was abstract, mathematical, and universalizing, and this sensibility echoes in Daijun's cartographic work. Although Daijun's maps include placenames and conventional icons, they are visually restrained, even austere. There are no decorative flourishes, allegorical figures, or dramatic scenes that characterized many European and American maps from earlier periods.⁷⁹ Instead, Daijun's commercial maps emerging in late nineteenth- and early twentieth-century China focused on scientific coordinates and plain textual markers to denote locations, nations, and boundaries.

In this sense, Daijun's maps may appear "boring" since their visual rhetoric is one of neutrality and objectivity, relying on mathematical precision and standardized symbols rather than emotional appeal. Yet this very restraint was meaningful. As we have seen, Liang Qichao

⁷⁹ Schmidt, *Inventing Exoticism: Geography, Globalism, and Europe's Early Modern World*. Brückner, "The Spectacle of Maps in America, 1750-1800."

once expressed joy when visitors came to the society hall simply to look at the maps. For Liang, as for Daijun, the significance of the map lay not in its ornamentation, but in its scientific clarity and its ability to spatialize “China” through numbers and coordinates, to assert that there existed a real, measurable geobody historically called “China,” and that this body was now being dissected and diminished by foreign powers. Thus, Daijun’s maps were not dramatic in the early Renaissance European sense, but they were dramatic in a different register: a “scientific” and “mathematical” one. Their soberness became a vehicle for delivering a quiet but powerful message of territorial loss and “national humiliation.”⁸⁰ The gridlines and coordinates served not only to locate places but to mark absences, ruptures, and the erosion of imperial space. What appeared to be neutral cartography was, in fact, a subtle form of political affect.

Conclusion

Even though Zou Daijun’s maps became more accessible through their inclusion in geography textbooks, their circulation was still quite limited. It is likely that only relatively prosperous areas had the resources to expose students to these materials. When Mao Zedong (1893-1976), a native of Hunan, recalled his youth, he noted that in 1912, while studying in Changsha, he frequently visited the Hunan Provincial Library, where he encountered “for the first time” a world map and studied it with great interest.⁸¹ This anecdote suggests that, even at that point, map circulation remained highly uneven. Major coastal or political centers might have had ample access to maps, but more remote regions had far fewer resources.

While its circulation should not be overstated, it likewise should not be underestimated, as these maps circulated on an unprecedented scale in imperial China. This growth was driven

⁸⁰ Callahan, “The Cartography of National Humiliation and the Emergence of China’s Geobody”; Chang, “Leaves, Silkworms, Yue Fei,” 2024.

⁸¹ Edgard Snow, *Mao Zedong koushu zhuan*, trans. Zhai Xiangjun (Shanghai: Fudan daxue chubanshe, 2003), 58.

not only by their expanding presence in the commercial market but also by the rise of modern textbooks. As scholars have noted, the proliferation new-style schools during the late Qing created enormous demand for textbooks, which in turn provided economic foundation for many emerging publishing houses. In this way, geography textbook and accompanying map were disseminated out to wider young audience in new-style schools. Geography textbooks and their accompanying maps thus reached an increasingly broad audience of young students across the new educational system.

As this chapter has shown, Daijun's geography textbook combined two different traditions. For the general part of geography, he drew extensively on Japanese and European sources; for the volume on China, however, he relied on the *yan'ge* tradition of tracing historical evolution of placenames, administrative changes, and spatial representation through distance and directions. Understandably, Daijun was far more familiar with the *yan'ge* mode of geographical writing, and the second volume can be considered largely his work. The volume's emphasis on coastal geography is especially revealing. It only detailed shoreline regions but also offshore islands in considerable depth, reflecting a late Qing intellectual turn toward the coast. At the same time, the interior geography, once central to traditional late imperial Chinese *yan'ge*, gradually faded into marginality in the first decade of the twentieth century.

While the textual content reflected Daijun's intellectual orientation, the accompanying maps offered readers a more direct and spatial conception of the imperial realm. These maps varied slightly because their base maps came from different foreign sources, resulting in differing portrayals of certain spaces. For instance, the "Planar World Map" distinguished "China proper" from the northern frontier of Mongolia, Manchuria, and Xinjiang, whereas other maps did not use the "China proper" category. This inconsistency likely stemmed not from Daijun's

editorial choice but from the limited availability of source maps he could access for reprint at the moment. In this sense, the cartographical representation of space in Daijun's work was shaped by both intentional and contingent factors. His deliberate marking, especially regarding the "old border" in Xinjiang, reflected his sustained scholarly engagement with that topic. Yet much of his visual form of his maps was determined by practical contingencies: what materials were available and which maps could be printed at a given time.

Paradoxically, it was precisely through these contingently produced maps that the circulation of geographical knowledge accelerated. Through both commercial publishing and, more critically, the newly established school system, their dissemination helped popularize the conjunction between knowledge and sovereignty among Chinese readers. By the eve of 1911, this shared spatial conception of China (proper) as a bounded entity vis-à-vis its frontier regions had become a common intellectual foundation for both revolutionary and pro-Qing conservative elites alike.

Conclusion

Before Zou Daijun passed away in 1908, he might have feel regretful as he witnessed the revolutionary tide rising around him. What likely pained him most was seeing his own young relatives became deeply involved in anti-Manchu revolutionary activities in central China. Among them were family members who had once worked closely with him in the Map Society but devoted themselves to overthrowing the Qing government, his cousin, Zou Daifan 鄒代藩 (1861-1922) and his nephew, Zou Yongcheng 鄒永成 (1882-1955). Zou Daifan would later serve as a representative of Hunan in the Committee of Provincial Governors 各省都督府代表聯合會, while Zou Yongcheng became one of the leaders who “restored” 光復 the Zou family’s home county of Xinhua during the 1911 Revolution. Zou Yongcheng’s revolutionary involvement left deep scars within Daijun’s own family. In 1911, desperate to raise funds for revolutionary activities in Hunan, Zou Yongcheng orchestrated a kidnapping of Daijun’s youngest son, then only eight years old, in order to extort money from Daijun’s widow. In the end, she paid 800 silver dollars to secure her son’s release, but the incident created a lasting rift between the two branches of the family. In his memoir, Yongcheng recalled that his widow aunt was living comfortably in Wuchang at the time, possessing not only property but also gold.¹ Her wealth after Daijun’s death likely stemmed from the sale of the Map Society to the Ministry of Education. As one of the society’s principal members, Yongcheng himself had supported the sale, preferring to liquidate the enterprise rather than shoulder its management while pursuing revolutionary works.

Yet, this was probably not the only reason the family remained financially secure. Daijun’s publishing business had prospered after securing contract to supply maps for geography

¹ Zou Yongcheng, “Zou Yongcheng huiyi lu,” *Jindai shi ziliao*, no. 3 (1956): 98-99.

textbooks, and his retail sale also expanded significantly in the years before his death. In his memoir, Yongcheng recounted another revealing episode. Needing funds, he learned that his cousin planned to sue the Nanyang publishing house 南洋印書局 for pirating their uncle's maps. This venture was reportedly "making very decent profits." To turn the situation to his advantage, Yongcheng approached the owner privately, offering to tell his cousin that he had been the one printing the maps, in exchange for a secret payment of one thousand dollars. The owner happily agreed, and Yongcheng too happily used the money for revolution.² This episode illustrated that by the late 1910s, map publishing had become a profitable business. Even a thousand-dollar bribe could be justified as the cost of keeping a pirate operation running.

Why did Zou Daijun's younger relatives and, more broadly, the younger generation of Han elites become radicalized? Established scholarship tends to follow a linear historical narrative in which Chinese nationalism emerged primarily after the humiliating defeat to Japan in 1895. This framework attributes the rise of revolutionary sentiment to a sudden "awakening" of a previously dormant populace. Such an interpretation may help explain the fervor of a few radical thinkers and activists, but it fails to account for the complex spectrum of attitudes that characterized the transitional period between empire and republic around 1911. Many Han elites, like Zou Daijun, remained uncertain about the revolutionary project. They may not have been loyal defenders of the Manchu regime, yet they believed that a stable and centralized government was essential for the empire's development. These figures initiated enterprises and reforms from within the imperial system and left tangible impacts, but their stories have often been overshadowed in scholarship that privileges those expelled from the empire or active in treaty ports and foreign concessions. This is not to diminish the significance of those exiled reformers

² Zou Yongcheng, "Zou Yongcheng huiyi lu," 97.

and revolutionaries, especially those who ran influential newspapers such as the pro-revolutionary *People's Newspaper* 民報 and the reformist *New People's Newspaper* 新民叢報, whose cultural influence was undeniable. However, since these publications were banned within the empire, their impact was indirect: their ideas circulated back to China through processes of adaptation, translation, and reinterpretation. Understanding these adaptations, and how domestic readers received them, demands closer attention.

By contrast, reform-minded intellectuals who remained within the empire, such as Zou Daijun, could operate more openly, circulating their works without serious obstruction, particularly in the final decade of the Qing dynasty. They could publish maps and even compile geography textbooks for institutions like the Imperial University. Existing scholarship has focused primarily on history textbooks and their role in shaping nationalist narratives, yet it has largely overlooked the perhaps more enduring influence of geography education. The introduction of Western world geography profoundly reshaped how Chinese elites conceptualized both “China” and the wider world.

However, Zou Daijun's enterprise did not arise out of nowhere. In the late Qing context, mapping was not only about territorial knowledge but also about authorship: who possessed the authority to define and represent imperial space. This issue grew increasingly urgent amid border disputes and diplomatic negotiations. European maps came to be viewed with deep suspicion by Han officials, particularly after the Hong Jun map controversy in the Pamir region in the early 1890s. This distrust was amplified through popular writings, which circulated the idea that foreign maps were politically unreliable. It was precisely in this moment of crisis when the authority to represent China's territory was contested that Zou Daijun found his opportunity to

establish a private map publishing enterprise, answering both a political demand and a cultural need for domestically produced cartography.

Even though Zou Daijun's enterprise arose from a growing demand for Chinese-produced maps, he could not have launched or sustained his publishing business without relying on foreign materials. The enterprise required not only Western cartographic and printing technologies but also detailed local maps and information from across the empire. In this respect, the *Guangxu Atlas* project of the late 1880s to 1890s provided an essential foundation. The project familiarized many Han officials and geographers with modern mapping techniques and local surveys. Although the atlas itself was far from perfect (its quality and precision drew frequent criticism), it nonetheless inspired Han elites to pursue more accurate mapmaking. Through this process, geographical knowledge that had once circulated only within the imperial bureaucracy gradually diffused among Han literati. The controversies surrounding the Pamir region also produced an important compromise: in response to strong opposition to further territorial loss, the Qing government effectively fixed the empire's borders according to the early nineteenth-century standard. At the time, this may have seemed merely a bureaucratic expedient, but in the long run it carried significant cultural consequences. The notion of an "Chinese old border" entered the intellectual world of Han elites as they gained increasing access to these official maps. The idea of "China" as a distinct territorial entity thus emerged from the circulation of cartographic materials that were gradually becoming available in the marketplace.

This was the foundational context for Daijun's map-publishing business. Yet foundations alone did not guarantee success. As this dissertation has shown, Daijun faced constant challenges, technical, financial, and editorial, in trying to establish his enterprise. Through repeated struggles in fundraising, production, and design, he eventually managed not only to

sustain but to profit from his work. The spatial knowledge he synthesized, from late Ming geographical traditions, European cartographic sources, and Qing administrative geography, was consolidated in the maps accompanying the geography textbooks that could be purchased in bookstores and used in schools. Through these materials, the conception of China as a distinct spatial entity became normalized in education and popular knowledge. This shared spatial imagination, one that viewed “China proper” as separate from culturally different frontier regions such as Manchuria (except Fengtian, today’s Liaoning), Mongolia, Xinjiang, and Tibet, formed a common intellectual foundation for both revolutionaries and conservatives. Even those who opposed the revolution were not unfamiliar with this cartographic conception of China.

At the same time, although Han elites came to envision a clearly bounded “Han-centered China,” they did not believe that the new nation should retreat into a “small China.” The frontier regions of the Great Qing were also seen as integral parts of their territory. The fear of national partition, widespread since the late 1890s, reinforced their determination to preserve the empire’s frontiers so that foreign powers would not encroach upon China proper. This anxiety was inseparable from a sense of pride in the territorial expansion achieved under the Qing. To maintain every corner of the empire was, in their eyes, to safeguard the bodily integrity of the new China. Ultimately, these geopolitical sentiments were all rooted in the circulation of maps, which made the vision of China as a spatial whole both imaginable and real.

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