


RESEARCH ARTICLE

# Imperial Maps of Xinjiang and Their Readers in Qing China, 1660–1860

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## Abstract

This article explores information management in the Qing government, and the challenges confronted by the Qing authorities, through the prism of imperial maps of Xinjiang. To ensure that newly gathered geographical knowledge of Xinjiang was usable for the emperor and senior officials, technocrats and artisans in the Imperial Household Department collaborated with the Jesuits and border officials to produce maps that materialized it. Because of their utility in military campaigns and everyday governance, these maps were carefully maintained by the Imperial Household Department, which discreetly distributed them to a small coterie of Manchu and Mongol statesmen. Nevertheless, information leakage from the lower echelons of the bureaucracy challenged the department's monopoly and popularized knowledge of Xinjiang among the Han literati.

**Keywords:** imperial maps; Xinjiang; The Qing Dynasty; Imperial Household Department; knowledge

## Introduction

In 1936, the National Palace Museum in Beijing 國立北平故宮博物院 released the catalog of maps that they had taken over from the Qing court. Museum staff discovered over 740 items in the Bureau of Maps (*Yutu fang* 輿圖房) located on the western side of the Forbidden City, between the Xihua Gate (*Xihua men* 西華門) and the Taihe Hall (*Taihe dian* 太和殿).<sup>1</sup> In this article, I use the term “imperial maps” to refer to the maps made by the Bureau of Maps, including those drafted by other actors but reproduced by the bureau. Throughout the Qing dynasty, the majority of imperial maps were in the bureau's storehouses in the Baihu Hall (*Baihu dian* 白虎殿), but some were kept in the imperial palace and villas or granted to high-ranking officials.

With the Qing expansion into Inner Asia in the mid-eighteenth century, and the consolidation of its rule in the following decades, the Qing court generated numerous maps of the Western Regions (*Xiyu* 西域) or Xinjiang. Among the 700-odd imperial maps in the catalog compiled by the Palace Museum, eighteen are regional maps of

<sup>1</sup>See “Zhengli yutu zhi jingguo” 整理輿圖之經過, in *Wenxian tekan* 文獻特刊, edited by Guoli Beiping gugong bowu yuan wenxian guan 國立北平故宮博物院文獻館 (Beijing: Guoli Beiping gugong bowu yuan wenxian guan, 1935); *Qing Neiwufu zaoban chu yutu fang tumu chubian* 清內務府造辦處輿圖房圖目初編 (Beijing: Guoli Beiping gugong bowu yuan wenxian guan, 1936).

the Western Regions or Xinjiang, outnumbering the maps of other provincial units except for Guangdong (thirty) and Zhejiang (nineteen). In addition, different kinds of empire-wide atlases contain sheets on the area. In Chinese histories, “the Western Regions” is a fluid concept, generally referring to the non-Han regions west of the Jiayu Pass 嘉峪關, which is the western end of the Great Wall. In this article, the term refers to the region between the Jiayu Pass and the Pamirs, covering the Hami basin, the Turfan basin, Zungharia, and Altishahr (today’s Tarim basin). After 1759 the entire area came under Qing control and was known as “Xiyu xinjiang” 西域新疆 (New territory in the Western Regions) or “Xinjiang” in official documents.<sup>2</sup> I apply “the Western Regions” to the pre-1759 period and “Xinjiang” to the post-1759 period.

In the past two decades, in light of new understandings of the nature of the Qing dynasty, historians of late imperial China have examined how geography and cartography served the ends of Qing empire building. According to the new scholarship that emerged in the 1990s, the Qing dynasty was a multiethnic empire straddling East and Inner Asia. China Proper was merely one part of it, albeit an important one. The Manchu conquest of China in 1644 was thus not the end of the story. Instead, it inaugurated a series of territorial expansions, including the annexation of Taiwan, Mongolia, Tibet, and Xinjiang. Numerous scholars have paid attention to the “literary conquests” which immediately followed military victories. They argue that geographical knowledge was necessary to govern these non-Han borderlands, but, more importantly, that this knowledge contributed to the ideology that legitimized Qing rule and affirmed the inalienability of these new territories for the Qing realm.<sup>3</sup>

More recent literature has moved away from an earlier emphasis on how geography and cartography ideologically served the ends of the imperial Qing state. The latest scholarship pays more attention to individual actors’ changing attitudes towards non-Han territories as the result of the transmission of geographical knowledge. L.J. Newby and Matthew Mosca place their focuses on the Han literati, analyzing the historical roots of the perception of Greater China. Mario Cams provides a full account of the Jesuit mapmakers and their Qing collaborators, whose eclectic lens was built upon a Chinese framework but absorbed observational and geometrical techniques from Europe.<sup>4</sup>

Most of these studies begin with the cultural elites’ efforts to learn about newly acquired territories and then assess the political impacts of geographical knowledge they produced. In such narratives, a link is missing. Before knowledge asserts influence upon realities, it needs to be disseminated, and the process of dissemination is subject to many forces, replete with uncertainties and contingencies. From the vantage point of

<sup>2</sup>Qi Qingshun 齊清順, “Xiyu, Xinjiang, he Xinjiang sheng” 西域, 新疆與新疆省, *Xibei shidi* 1981.3, 40–43.

<sup>3</sup>See James Millward, “Coming onto the Map: ‘Western Regions’ Geography and Cartographic Nomenclature in the Making of Chinese Empire in Xinjiang,” *Late Imperial China* 20.2 (1999), 61–98; Peter Perdue, “Boundaries, Maps, and Movement: Chinese, Russian, and Mongolian Empires in Early Modern Central Eurasia,” *The International History Review* 20.21(1998), 263–86; Laura Hostetler, *Qing Colonial Enterprise: Ethnography and Cartography in Early Modern China* (Chicago: University of Chicago Press, 2001).

<sup>4</sup>L.J. Newby, “The Chinese Literary Conquest of Xinjiang,” *Modern China* 25.4(1999), 451–74; Matthew W. Mosca, “The Literati Rewriting of China in the Qianlong–Jiaqing Transition,” *Late Imperial China* 32.2 (2011), 89–132; Mario Cams, *Companions in Geography: East–West Collaboration in the Mapping of Qing China (c. 1685–1735)* (Brill: Leiden, 2017).

dissemination, new histories emerge: the competing interests of otherwise-invisible actors such as technocrats, artisans, low-ranking functionaries, publishers, and book-sellers are brought into the spotlight. This raises two critical questions: (1) as the most important producer of geographical knowledge, how did the Qing government manage enormous amounts of information and make it available for policy makers? and (2) How did actors in non-official capacities challenge the Qing government's monopoly over geographical knowledge?

This article addresses these questions by examining the dissemination of imperial maps of Xinjiang from the 1660s to the 1860s, a period that witnessed the burgeoning of Qing geographical knowledge of the frontier region. Technocrats and artisans in the Imperial Household Department (*Neiwu fu* 內務府) collaborated with the Jesuits and border officials to produce maps that embodied this newly acquired knowledge in a form that was useful to the emperor and a handful of senior officials. On the one hand, because of their utility in both military campaigns and day-to-day governance, the Imperial Household Department carefully maintained and updated these maps and endeavored to regulate their circulation until the last years of the dynasty. On the other hand, however, the limited administrative capacity of the imperial state combined with the sweeping wave of commercialization contributed to the dissemination of imperial maps beyond the control of the Imperial Household Department.

In this article, I first chronicle imperially commissioned surveys of the Western Regions or Xinjiang in the eighteenth century. One principal purpose of these surveys was to provide policy makers in Beijing, border officers, resident administrators, and envoys with the latest information. I then examine how technocrats and artisans in the Imperial Household Department materialized the results of these surveys by producing and reproducing maps based on the on-site investigations by the Jesuits and border officers. As the physical media of geographical knowledge, these printed and manuscript maps required careful maintenance, which was also performed by the Imperial Household Department. The final two sections discuss the transmission of imperial maps in intended and unintended ways. The Imperial Household Department was the agency that handled the distribution of imperial maps within the Qing bureaucracy, and it sent copies to a handful of policy makers for reference or to the editorial offices of the state. Despite the Imperial Household Department's constant efforts to keep every single item of its collection under close control, it could not stop secretaries and clerks in the lower echelons of the central government from making copies in private and even selling their copies to individuals or book traders. By the mid-nineteenth century, the once-confidential knowledge had become a commodity on the book market, available to common readers.

### Mapping the new dominion

In the eighteenth century the Jesuits and border officers jointly offered the Qing court an increasingly clear picture of the Western Regions, later known as Xinjiang. The latest information collected by the Jesuits and border officers was accessible to the Qing statesmen mainly in the form of maps. The Kangxi emperor (r. 1661–1722) demonstrated a keen interest in geography. In an edict in 1720 the emperor said:

Since childhood, I have paid much attention to geography. For contemporary and historical toponyms, no matter how remote those places are, I will consult maps and books and look into dialects to ensure that [the terms I get] are correct.

Therefore, I dispatched delegates to Kunlun 崑崙, Xifan 西番, and so forth. They traced the origins of the Yangzi River, the Yellow River, the Heishui River 黑水, the Jinsha River 金沙, the Lanchang River 瀾滄, and other waterways, observed [the origins] with their own eyes, and recorded them on maps.

朕於地理從幼留心，凡古今山川名號，無論邊徼遐荒，必詳考圖籍，廣詢方言，務得其正。故遣使臣至崑崙西番諸處。凡大江，黃河，黑水，金沙，瀾滄諸水發源之地，皆目擊詳求，載入輿圖。<sup>5</sup>

In a reply to Foron (Ch. Folun 佛倫, d. 1701), the governor-general (*zongdu* 總督) of Sichuan and Shaanxi, Kangxi wrote: “I tend to ask every official returning from the western frontier about local landscapes. I peruse maps, too. There is no important site in our borderland that I have not memorialized” (凡遣往西邊官員復命者，朕常詢問地方形勢，亦嘗詳閱輿圖。故於邊疆要地無不記憶)。<sup>6</sup>

In practice, Kangxi relied on maps to make informed decisions. In 1691 the governor-general of Guangdong and Guangxi suggested establishing prefectures (*zhou* 州) and counties (*xian* 縣) in the region inhabited by the Li 黎 people. After reviewing maps, the emperor rejected the proposal because the creation of new administrative units and the construction of city walls would impose onerous burdens on the local populace.<sup>7</sup> Similarly, based on maps, the emperor concluded that the director of the Ministry of Revenue (*Hubu shangshu* 戶部尚書) Zhang Penghe 張鵬翮 (1649–1725) was unfamiliar with the geography of the southeast coast and that his plan of adding navy ships and increasing military supplies was “empty talk of no use.”<sup>8</sup>

Kangxi’s interest in the geography of the Western Regions stemmed from the conflict between the Qing and the Zunghar state that had been escalating since the 1680s. Until 1679 the Qing court had only a cursory knowledge of the Zunghar leader Galdan (1644–1697) and the Western Regions under his rule. Border officials’ memorials revealed that although “intermediaries” (*tongshi* 通事) collected intelligence on the Qing’s behalf, they did not know much about Altishahr and vaguely called it “the wrapped-head Muslims’ territory” (*chantou Huizi zhi di* 纏頭回子之地)。<sup>9</sup> In military campaigns against the Zunghars during 1690–1697, the Qing court gained a clearer picture of the eastern edge of the Western Regions, but the areas west of Turfan remained obscure. In 1693, after reading a letter from Russian envoys, the Kangxi emperor said:

The country (Russia) is rather far from our capital, but reachable via inland routes. It takes eleven to twelve days from the Jiayu Pass to Hami, and twelve to thirteen days from Hami to Turfan, where five tribes reside. Past Turfan, there is Russia’s territory. I hear that the country is vast, spanning more than twenty thousand *li*.<sup>10</sup> In the Han dynasty, Zhang Qian [張騫, 164–113 BCE] was sent on a diplomatic mission to the Western Regions, which was probably in today’s Russia. The Yongle emperor of the Ming dynasty [明永樂, r. 1402–1424] once went out of the Jiayu Pass, and his contemporaries thought that he traveled a very long distance. The

<sup>5</sup>*Shengzu shilu* 聖祖實錄, reprint (Beijing: Zhonghua shuju, 1985), 290.2b–6a.

<sup>6</sup>*Shengzu shilu*, 162.5b–6a.

<sup>7</sup>*Shengzu shilu*, 155.9a–b.

<sup>8</sup>*Shengzu shilu*, 254.10a–b.

<sup>9</sup>*Shengzu shilu*, 83.21a–b.

<sup>10</sup>1 *li* ≈ 1,899 ft.

place he reached was just about one thousand *li* away from the Jiayu Pass. Historical books say that Huo Qubing [霍去病, 140–117 BCE] went as far as five thousand *li* away from the Jiayu Pass, which, I think, is true. Some stelae are still standing outside the pass, which can be testimonies [to this].

其國距京師甚遠。然從陸路，可直達彼處自嘉峪關。行十一二日，至哈密。自哈密，行十二三日，至吐魯番。吐魯番有五種部落。過吐魯番，即鄂羅斯之境。聞其國遼闊，有二萬餘里。漢時張騫曾出使西域，或即彼處地方。明永樂曾經出塞，彼時以為甚遠。按其所至之地，離此亦不過千餘里。史書所載，霍去病曾出塞五千里。想或有之，今塞外尚有碑記可考。<sup>11</sup>

By 1693 Qing troops had not yet been to the heartland of the Zunghar state and could not know its precise location. Thus the Kangxi emperor assumed that Turfan was bordered on the west by Russia, and he was unaware of the existence of Zungharia and Altishahr west of Turfan, which were under the Zunghars' control.

In the first years of the eighteenth century, the emperor had the Jesuits conduct on-site investigations across the empire and commissioned an empire-wide atlas. In 1711 three missionary cartographers—Pierre Jartoux (1669–1720), Xavier Ehrenbert Fridelli (1673–1743), and Guillaume Fabre-Bonjour (1669–1714)—traveled west to Hami, which was 1300 *li* from the Jiayu Pass.<sup>12</sup> The westernmost site the mapmakers measured was a creek called Ourtou, whose latitude and longitude were 23°W, 43°48'.<sup>13</sup>

Since the missionaries stopped at Hami, their draft did not include regions west of it. The 1717 woodblock edition of the Kangxi Atlas had only one sheet concerning Hami, and the places beyond Hami were left unmapped. Four sheets were added to the 1719 woodblock edition, and one entitled “Map of Tsewang Rabdan” 雜旺阿爾布灘圖 depicted Zungharia and Altishahr, which were under the rule of Tsewang Rabdan (1643–1727), the new Zunghar khan after the death of Galdan in 1697.<sup>14</sup> Although less accurate than other sheets based on on-site investigations, the Tsewang Rabdan map correctly presented the relative positions of places.<sup>15</sup>

If the missionary cartographers reached only the eastern rim of the Western Regions, how was the Tsewang Rabdan map drawn? Their informants were likely to have been Qing envoys. As early as the 1690s, the Qing court had begun to send envoys to Tsewang Rabdan's encampment to forge an alliance against Galdan. The Qing did not stop sending embassies even after Tsewang Rabdan's foray into Hami in 1715. In an essay introducing the geography of the Zunghar state, dated October 1726, the

<sup>11</sup>Shengzu shilu, 160. 19a–b.

<sup>12</sup>In 1715 Zhang Yin 張寅 delivered military provisions from Shaanxi to Barköl. His *Xizheng jilue* 西征紀略 mentions that the traveling distance from Suzhou 肅州 to Hami was 1,380 *li*. See *Xizheng jilue* (unpagged handwritten edition in the National Library of China).

<sup>13</sup>Jean-Baptiste Du Halde, *Description géographique, historique, chronologique, politique, et physique de l'empire de la Chine et de la Tartarie chinoise, enrichie des cartes générales et particulieres de ces pays, de la carte générale et des cartes particulieres du Thibet, & de la Corée; & ornée d'un grand nombre de figures & de vignettes gravées en tailledouce* (Paris: P.G. Le Mercier, 1735), 4:487. In the 1736 edition published in The Hague, the westernmost site is the city of Astane (today's Astana or Sanbao 三堡), whose latitude and longitude were 22°48'20" W, 43°2'35".

<sup>14</sup>Feng Baolin 馮寶琳, “Kangxi Huangyu quanlan tu de cehui kaolue” 康熙皇輿全覽圖的測繪考略, *Gugong bowu yuan yuankan* 1985.1, 24–6; Li Xiacong 李孝聰, “Ji Kangxi Huangyu quanlan tu de cehui jiqi banben” 記康熙皇輿全覽圖的測繪及其版本, *Gugong xueshu jikan* 30.1 (2012), 71–73.

<sup>15</sup>Millward, “Coming onto the Map,” 68.

Jesuit Antoine Gaubil (1689–1759) mentioned that his colleague Jean-François Gerbillon (1654–1707) received a route map drawn by “an aristocrat sent by the Kangxi emperor to Tsewang Rabdan’s territory,” and Dominique Parrenin (1665–1741) translated the map. The Manchu aristocrat not only recorded the stage he covered each day, but also identified the locations of seventeen sites with a compass, which enabled Gaubil to determine their longitudes and latitudes. Comparing the route map Gerbillon received with the map of Inner Asia drawn by Jean-Baptiste Régis (d. 1738), Gaubil concluded that Régis, who was the leading figure of the cartographical project in the Kangxi period, had consulted Gerbillon’s map.<sup>16</sup>

During the Yongzheng reign (1722–1735) policy-makers employed both maps with longitude–latitude coordinates and maps that did not adopt any coordinate or adopted Chinese conventional square-grid coordinates to address issues concerning Hami and Turfan, the two Muslim oases that had just come under Qing authority, as well as the Zunghar state. In 1725 the Qing court had Fridelli and Régis map the vast area between the Qing and the Caspian Sea, and the outcome was incorporated into the Yongzheng Atlas (*Yongzheng shipai tu* 雍正十排圖). In comparison with the Kangxi edition, the scope of the new edition, which extended to the Red Sea, was much broader, though the part regarding the Western Regions was not substantially altered. Gaubil suggested that in terms of latitudes and longitudes, the sheet on the Western Regions in the Yongzheng Atlas and the Tsewang Rabdan map in the Kangxi Atlas shared the same source, that is, Gerbillon’s map.<sup>17</sup> More than an ideological tool to promote imperial might, the Yongzheng Atlas had practical uses. On the extant copies in the Chinese Academy of Social Sciences and the Palace Museum in Beijing are yellow and red slips noting the locations of garrisons and the numbers of stationed officers and soldiers, which indicates that they were consulted by Qing policy-makers.<sup>18</sup>

The last years of the Yongzheng reign witnessed a peaceful interlude in the Qing–Zunghar relationship, and a few maps were drawn for diplomatic purposes. In 1734 the Qing court sent envoys to the encampment in Ili of the new Zunghar khan Galdan Tseren (d. 1745) to negotiate the borderline between the Zunghars and the Khalkha Mongols, who had been Qing subjects since 1690. Before the envoys departed, the Yongzheng emperor ordered the Imperial Workshop to make three copies of “The Small Map of the Borderline in the Altai Region” (*A’ertai jiaojie xiaotu* 阿爾太交界小圖) and to send one to Akdun (Ch. A’kedun 阿克敦, 1685–1756), the vice-director of the

<sup>16</sup>Gaubil, “Du Pays Tse-uvang-raptan,” in *Observations mathématiques, astronomiques, géographiques, chronologiques, et physiques, tirées des anciens livres chinois ou faites nouvellement aux Indes et à la Chine, par les Pères de la Compagnie de Jésus*, edited by Etienne Souciet (Paris: Rollin, 1732), 1:177–78. The excerpt from this account was cited by John F. Baddeley in his influential *Mongolia, China, Being Some Record of the Relations Between Them from the Beginning of the XVIIth Century to the Death of the Tsar Alexei Mikhailovich, A.D. 1602–1676* (London: Macmillan, 1919) and has become known to Chinese scholars. See Jin Yu 靳煜, “Kang Yong Qian sandatu shang de Xiyu: Xiangguan dili zhishi de zhengli yu yanjiu” 康雍乾三大圖上的西域: 相關地理知識的整理與研究 (PhD diss. Fudan University, 2017), 54.

<sup>17</sup>Gaubil, “Mémoire Géographique sur les sources de l’Irtis & de l’Oby, sur le pays des Eleuthes & sur les Contrées qui sont au Nord & à l’Est de la Mèr Caspienne,” in *Observations mathématiques, astronomiques, géographiques, chronologiques, et physiques, tirées des anciens livres chinois ou faites nouvellement aux Indes et à la Chine*, 1:146–47.

<sup>18</sup>See Yu Fushun 於福順, “Qing Yongzheng shipai Huangyutu de chubu yanjiu” 清雍正十排《皇輿圖》的初步研究, *Wenwu* 1983.12, 71–73; Feng Baolin, “Ji Jizhong butong banben de Huangyu shipai quantu” 記幾種版本不同的皇輿十排全圖, *Gugong bowu yuan yuankan* 1986.4, 73–78.

embassy.<sup>19</sup> Right after the initial negotiation was concluded, in March 1735, the Yongzheng emperor sent a letter to Tsering (Ch. Celing 策凌, d. 1750), who was his brother-in-law and an experienced Khalkha prince, to consult him on whether the borderline proposed by the Zunghars was acceptable. Two maps were delivered along with the letter, one of which was The Small Map of the Borderline in the Altai Region. Apart from the Small Map, the Imperial Workshop produced at least two other maps of the Altai region in the Yongzheng reign: one drafted by Mukdeng (Ch. Mekedeng 穆克登, d. 1735), who oversaw defense forces in Altai from 1725 to 1732, and the other by A'erna 阿爾那, who was also a border official. Their drafts were sent to the Bureau of Maps in the Imperial Workshop, which edited them and generated copies in various sizes and on various fabrics.<sup>20</sup> Nevertheless, none were sufficiently accurate for the emperor. In the letter to Tsering, Yongzheng wrote that he could not identify Jerge, Sira, and Hülsu from the maps he currently had. He thus asked Tsering to investigate the Altai region carefully and add relevant toponyms to the two maps sent to him.<sup>21</sup>

The first cartographic investigation of the Western Regions was conducted in 1756, during the Qianlong reign (1736–1795). After the death of Galdan Tseren, in 1745, internecine struggles broke out, tearing apart the Zunghar state. Grasping the opportunity, the Qing captured the last Zunghar khan Dawaci and conquered Ili in 1755. In the following year, a cartographic team composed of He Guozong 何國宗 (d. 1766), Nusan (Ch. Nusan 努三, d. 1778), Minggantu (Ch. Ming'antu 明安圖), the two Jesuits Felix da Rocha (1731–1781) and Joseph d'Espinha (1722–1751), two lamas, and a corporal (Ma. *bosoku*, Ch. *lingcui* 領催) departed from Beijing.<sup>22</sup> Liu Tongxun 劉統勳 (1700–1773), the governor-general of Shaanxi and Gansu, joined them to gather sources for the compilation of a comprehensive gazetteer of the Western Regions.<sup>23</sup> By November the cartographers had surveyed the area between Hami and Ili and had returned to Barköl.

The investigation of Altishahr was not launched until 1759. The Zunghar leader Amursana's rebellion in 1755–1757, and the subsequent expedition against the Afaqi khwāja who attempted to reinstitute independent rule in Altishahr, in 1757–1759, made it impossible for Qing mapmakers to cross the Tianshan Range to Altishahr. In 1759, in addition to Minggantu, Felix da Rocha, and Joseph d'Espinha, who participated in the investigation of Zungharia in 1756, two imperial bodyguards Deboo (Ch. Debao 德保) and Ulintai (Ch. Wulintai 烏林泰) were selected to survey Altishahr. The westernmost site they reached was Kashgar, and the southernmost site was Keriya (Ch. Keliya 克里雅), southeast of Khotan.<sup>24</sup> In 1772, a third investigation was undertaken by Felix da Rocha and three imperial bodyguards Deboo and Booning (Ch. Baoning 保寧), and Ambatu (Ch. A'mubatu 阿木巴圖). Instead of entering Xinjiang via the Hexi Corridor (*Hexi zoulang* 河西走廊) as on the previous two occasions, the group followed the northern route in the Mongol Steppe. They surveyed the vast area north of

<sup>19</sup> *Qinggong Neiwu fu zaoban chu dang'an zonghui* 清宮內務府造辦處檔案總匯 (Beijing: Renmin, 2005), 6:466.

<sup>20</sup> *Qinggong Neiwu fu zaoban chu dang'an zonghui*, 5:350–51.

<sup>21</sup> *Junji chu Zhunga'er shizhe dang bianyi* 軍機處準噶爾使者檔編譯, vol. 1 (Beijing: Zhongyang minzu daxue, 2009), 130–33.

<sup>22</sup> *Qingdai Xinjiang Manwen dang'an huibian* 清代新疆滿文檔案匯編, vol. 37 (Guilin: Guangxi shifan daxue, 2012), 217; Jin Yu, "Qing Qianlong nianjian Xiyu cehui zai kaocha" 清乾隆年間西域測繪再考察, *Lishi dili* 歷史地理 30 (2014), 250.

<sup>23</sup> The Grand Secretariat Archives (Neige daku dang 內閣大庫檔) in Academia Sinica, Taipei, 212059-001.

<sup>24</sup> Jin Yu, "Qing Qianlong nianjian Xiyu cehui zai kaocha," 251–56.

Ili, including the Altai and Tarbagatai (Ch. Ta'erbahatai 塔爾巴哈臺) regions. In addition to topographical features, the surveyors recorded information on courier stations, forts, and borderlines.<sup>25</sup>

As early as June 1760, immediately after the second investigation, Prince Zhuang 庄亲王 Yunlu 允祿 (1695–1767) proposed to incorporate the maps of the “newly pacified Ili and the Muslim regions” into the globes, the Kangxi Atlas, and the Yongzheng Atlas in the Qing court. Yunlu reworked the woodblock edition of the Kangxi Atlas, while the copperplate editions of the Kangxi Atlas and the Yongzheng Atlas were handed over to Joseph d’Espinha.<sup>26</sup> In 1761, when Arigūn (Ch. A’li gun 阿里袞, d. 1769) and his colleagues compiled the inventory of maps in the Bureau of Maps, they compared Yunlu and d’Espinha’s revisions with previous maps of the Western Regions:

Barköl, Ili, Yarkand, Kashgar, the Burut’s [territories], and Andijan all have been mapped before. At that time, we interviewed captives and stationed soldiers to learn these places’ topographical features and develop military strategies. Nevertheless, seeing a thing once is better than hearing it one hundred times. ... His majesty had officials go there and survey terrains, routes, and the correlation between terrestrial regions and their celestial counterparts, as well as longitudes and latitudes. In terms of comprehensiveness and accuracy, [the new maps] do distinguish themselves from the old ones.

自巴里坤以至伊犁, 葉爾羌, 喀什喀爾, 布魯特, 安集延, 皆繪有成圖。蓋當時詢之俘虜, 訪諸戍卒。以知其險易近遠, 以資籌策。然百聞不如一見 ... 我皇上特命大臣親往測量方輿道里, 分野度數, 其詳覈較舊圖迥然不侔。<sup>27</sup>

The eighteenth century witnessed the Qing’s march into Inner Asia and the exponential growth of knowledge on Xinjiang: In the 1710s the Qing surveyors for the first time set foot in the oases at the eastern rim of the Western Regions; by the 1760s the imperial gaze had extended to the hinterlands of Zungharia and Altishahr. Maps visualized the enormous amounts of new information on Xinjiang, rendering it accessible to policy makers. Scholars have extensively discussed the surveyors, who offered first-hand sources. But who made these maps as artifacts? Drawing upon the archives of the Imperial Household Department, the next section reveals that technocrats and artisans in the department produced and reproduced numerous maps of Xinjiang in the eighteenth century.

### The imperial household department and map management

The Imperial Household Department was more than an institution that handled the daily affairs of the royal family. The rich archives of the Bureau of Maps show that a large number of anonymous technocrats and artisans in the Imperial Household Department engaged in the production and reproduction of maps on Xinjiang exclusive

<sup>25</sup>The Grand Council Archives (*Junji chu dang* 軍機處檔) in the First Historical Archives, Beijing, 03-185-2509-027. Guo Meilan 郭美蘭, “Qianlong nianjian xibei diqu sanci huitu shimo” 乾隆年間西北地區三次繪圖始末, *Manyu yanjiu* 2013.1, 142–43; Jin Yu, “Qianlong nianjian sanci Xiyu cehui zai fenxi” 乾隆年間三次西域測繪再分析, *Xiyu yanjiu* 2016.1, 28–34.

<sup>26</sup>The Archives of the Imperial Household Department in the First Historical Archives, Beijing, 05-0181-007, 05-0184-043, 05-0184-045, 05-0186-012.

<sup>27</sup>“Luotu huicui bai” 蘿圖薈萃跋, *Wenxian congbian* 1937.2.



for policy makers. The designation “Bureau of Maps” conveys the general purposes of the sub-office in the Imperial Workshop (*Zaoban chu* 造辦處)—to edit, reproduce, preserve, and repair maps. As one of the fifty-six subordinate departments within the Imperial Household Department, the Imperial Workshop appeared first in the late seventeenth century with the appointment of an undetermined number of managers (*guanli dachen* 管理大臣), four supervisors (*jianzao* 監造), and one clerk (*Ma. bithe*, Ch. *bitieshi* 筆帖式). In the following century, as the Imperial Household Department grew, the Imperial Workshop expanded, encompassing dozens of sub-offices and more than thirty bondservant officials. The Bureau of Maps became a sub-office of the Imperial Workshop in 1723.<sup>28</sup> In addition to low-ranking functionaries liaising between the bureau and other agencies, such as errand runners (*Ma. baitangga*, Ch. *baitang'a* 柏唐阿) and storehouse keepers (*kushou* 庫守), the bureau employed a number of artisans to process the maps presented to the emperor. Nevertheless, the records of the Imperial Workshop rarely mention the artisans’ names or their specific activities.

With a few exceptions, the drafts submitted by ministers or artisans in the Bureau of Maps required revisions before the bureau reproduced the maps or preserved them in its storehouses. On February 9, 1730, the Yongzheng emperor had the director (*langzhong* 郎中) of the Imperial Household Department carry his message to the Bureau of Maps: the sites where Qing forces were stationed should be noted on the map that the bureau had just made of the area between Altai and Ili.<sup>29</sup> On April 25, 1731, the Bureau of Maps received the Yongzheng emperor’s order to prepare five to six copies of the map of Ili. Following the emperor’s instructions, the bureau replaced “*huotun*” 活屯, the transliteration of the Manchu word “*hoton*,” with the Chinese term “*cheng*” 城 (city). “*Bila*” 必拉 and “*alin*” 阿林, the transliterations of “*bira*” and “*alin*,” were respectively changed to “*he*” 河 (river) and “*shan*” 山 (mountain).<sup>30</sup> On September 11, 1732, the bureau reproduced A’erna’s map of the Altai region with slight revisions: the distances between places were added and noted in Song typeface (*Songzi* 宋字). The revised map was presented to Yongzheng’s bodyguard Haiwang 海望, who sent it to the grand councilor (*junji dachen* 軍機大臣) Ortai (Ch. *E’ertai* 鄂爾泰) on the emperor’s behalf.<sup>31</sup> On April 4, 1745, the Grand Council showed Qianlong two maps of the territory between Altai and Ili with Manchu and Chinese toponyms and one map of the Altai region in vermilion ink. The bilingual maps were old versions, and thus were sent directly to the storehouses. The Bureau of Maps, the emperor ordered, should add the Ili region to the vermilion-ink map and produce a new map based on it.<sup>32</sup>

The artisans in the Bureau of Maps colored maps on occasion. The Imperial Workshop’s ledger in the eleventh year of the Yongzheng reign showed that on August 12, 1733, the bureau purchased pigments, such as realgar (*xionghuang* 雄黃) and cinnabar (*zhusha* 硃砂), as well as different kinds of ink brushes to color the three rows of the Yongzheng Atlas on the areas “beyond the Great Wall”

<sup>28</sup> *Da Qing huidian shili* 大清會典事例 (1899 edition), 1173.4a–7b.

<sup>29</sup> *Qinggong Neiwu fu zaoban chu dang’an zonghui*, 4:286.

<sup>30</sup> *Yangxin dian zaobanchu shiliao jilan* 養心殿造辦處史料輯覽 (Beijing: Gugong, 2013), 1:300.

<sup>31</sup> *Qinggong Neiwu fu zaoban chu dang’an zonghui*, 5:435.

<sup>32</sup> *Qinggong Neiwu fu zaoban chu dang’an zonghui*, 13:706.

(*kouwai* 口外).<sup>33</sup> In 1756, the Bureau of Maps reprinted the three rows of the Yongzheng Atlas and colored one copy.<sup>34</sup>

The maps of Xinjiang were, to a great extent, living documents maintained and updated by the Bureau of Maps, which managed to keep them abreast of the latest territorial changes and cartographical surveys. In 1760 Prince Zhuang suggested adding Xinjiang, which had not come under Qing authority until 1759, to three kinds of atlases. Prince Zhuang took charge of the revision of the xylographic editions of the Kangxi Atlas, while the Grand Council and the Bureau of Maps collaboratively reworked the copperplate edition of the Kangxi Atlas and the Yongzheng Atlas, the latter of which was characterized by its straight gridlines and thus called “the square-grid map” (*fangge ditu* 方格地圖).<sup>35</sup> In 1766, the Grand Council presented the Qianlong emperor with the map depicting the area between Wuluusu 烏掠蘇 and Ya'er 雅爾, the new seat of the Tarbagatai region. The Bureau of Maps initially attached the map to an existing empire-wide atlas, then submitted a revised edition containing the new sheet.<sup>36</sup> In 1773 the Grand Council accomplished the map of the Torghut and Khoshot Mongols' territories north of Ili based on Booning and Felix da Rocha's on-site investigation in 1772. According to the map, the Bureau of Maps replaced the relevant sheets in the Qianlong Atlas. Twelve copper plates of the Qianlong Atlas, whose grids were 2.5 *cun* in length, were re-engraved.<sup>37</sup>

The Bureau of Maps and the printing office in the Wuying Hall 武英殿 reproduced maps of different sizes and textures to meet the emperor's needs. In September 1732 the Bureau of Maps transcribed A'erna's map of the Altai region upon a type of cardboard called *hepai* 合牌, making it into a foldable booklet with a silk cover.<sup>38</sup> In the same month the bureau made a reduced-size copy of Mukdeng's map of the Altai region, with grids of 2 *cun* in length.<sup>39</sup> The copper etching plates were only applied to print the Kangxi Atlas and the Qianlong Atlas. The Italian priest Matteo Ripa engraved the forty-seven copper plates of the Kangxi Atlas after his print of “The Thirty-Six Vistas of the Imperial Villa at Jehol” (*Rehe sanshiliu jing* 熱河三十六景) pleased the Kangxi emperor.<sup>40</sup> The craftsmen in the Imperial Workshop assisted him with the

<sup>33</sup>The complete list includes including one *liang* realgar (*xionghuang* 雄黃), two *liang* cinnabar (*zhusha* 硃砂), eight *liang* Canton indigo (*Guang dianhua* 廣靛花), two *liang* azurite (*meihua qing* 梅花青), eight *liang* red ochre (*zheshi* 赭石), one *liang* malachite (*shilü* 石綠), one sheet of safflower red (*yanzhi* 胭脂), two *liang* gamboge (*tenghuang* 藤黃), one *hu* Canton glue (*Guang jiao* 廣膠), one *hu* white alum (*baifan* 白礬), six lining brushes (*baimiao bi* 白描筆), eight coloring brushes (*zhuose bi* 著色筆), eight painting brushes (*huabi* 畫筆), one large-size goat-hair brush (*tongtian bi* 通天筆), and three wash layers (*ranse bi* 染色筆). See *Qingong Neiwu fu zaoban chu dang'an zonghui*, 6:187. 1 *liang* ≈ 0.08 lb; 1 *hu* ≈ 1,459 fl. oz.

<sup>34</sup>*Qingong Neiwu fu zaoban chu dang'an zonghui*, 21:650.

<sup>35</sup>The Archives of the Imperial Household Department in the First Historical Archives, Beijing, 05-0186-012.

<sup>36</sup>*Qingong Neiwu fu zaoban chu dang'an zonghui*, 30:446.

<sup>37</sup>*Qingong Neiwu fu zaoban chu dang'an zonghui*, 34:611–12.

<sup>38</sup>*Yangxin dian zaobanchu shiliao jilan*, 1:351; Zhang Ruili 張麗端, “Cong Huoji dang kan Qing Gaozong zhijie kongguan yuzhi qiyong de liangge jizhi” 從活計檔看清高宗直接控管御製器用的兩個機制, *Gugong xueshu jikan* 24.1 (2006), 49.

<sup>39</sup>1 *cun* ≈ 1.26 in. *Qingong Neiwu fu zaoban chu dang'an zonghui*, 4:285.

<sup>40</sup>Fortunato Prandi, trans., *Memoirs of Father Ripa during Thirteen Years' Residence at the Court of Peking in the Service of the Emperor of China: With an Account of the Foundation of the College for the Education of Young Chinese at Naples* (London: J. Murray, 1855), 65–66, 70–71.

engraving of these plates.<sup>41</sup> The 104 plates of the Qianlong Atlas were engraved under the supervision of the Jesuit Michel Benoist (1715–1774) in the 1760s.<sup>42</sup> These plates cost more than five thousand *liang* copper, and 4,600 *liang* silver was paid to artisans.<sup>43</sup> The initial print run of the copperplate edition reached one hundred, and each copy was composed of 103 pages, divided into twenty-four foldable booklets.<sup>44</sup> The printing office in the Wuying Hall specialized in woodblock printing; thus xylographic maps were printed there. In 1760 Yunlu discovered the woodblock and copperplate editions of the Kangxi Atlas and the woodblock edition of the Yongzheng Atlas. He suggested that after revisions, the two xylographic maps should be sent back to the Wuying Hall to be reprinted, and the copperplate edition should be reprinted by the Bureau of Maps.<sup>45</sup> Similarly, in 1771, while the revision of the copperplate edition of the Kangxi Atlas was undertaken by the Bureau of Maps, the woodblock editions of the Kangxi Atlas and the Yongzheng Atlas were reworked in the Wuying Hall.<sup>46</sup>

The collection of the Bureau of Maps was preserved in the Baihu Hall, where manuscript and printed maps were put on wooden shelves with curtains and paper surfaces.<sup>47</sup> Every year the Bureau of Maps aired maps outdoors and brushed the dust off their surfaces. In 1733 the activity used eight *hu* of camphor, three *dao* of paper made of bamboo fiber from Sichuan (*Chuanlian zhi* 川連紙), one *hu* of white flour, and one chicken feather duster.<sup>48</sup> The Imperial Workshop's ledger in the nineteenth year of the Qianlong reign showed that, in 1754, 1,797 maps were aired outdoors.<sup>49</sup> Each map was accompanied by a tiny amount of camphor (*chaonao* 潮腦) to protect it from insects. In 1750 the amount of camphor was reduced to one *qian*, but in the next year, the bureau adjusted the amount back to 1.83 *qian* to ensure that maps, which were “of great importance” and “in varying sizes,” were all in good condition.<sup>50</sup>

In the late Yongzheng or early Qianlong reign, the bureau's map collection was thoroughly investigated, and an inventory entitled “Memorial on Maps under the Heavens” (*Tianxia yutu zongzhe* 天下輿圖總摺) was compiled.<sup>51</sup> In 1761 the Qianlong emperor had Arigūn, Giking (Ch. Jiqing 吉慶), Qiu Yuexiu 裘曰修 (1712–1773), and Wang Jihua 王際華 (1717–1776) categorize the manuscript maps in the Bureau of Maps according to their contents, quality, and condition of preservation, and compile an illustrated catalog.<sup>52</sup> Among the 684 maps, 418 were ranked “superior” (*shangdeng* 上等) and 109 were ranked “inferior” (*cideng* 次等), while the rest were discarded.

<sup>41</sup>Han Qi 韓琦, “Ma Guoxian yu Xifang tongban yinshua de chuanru” 馬國賢與西方銅板印刷的傳入 馬國賢與西方銅板印刷的傳入, *Zhongguo yinshua* 2007.11, 107.

<sup>42</sup>Charles Le Gobien, et al., comp., *Lettres édifiantes et curieuses, écrites des missions étrangères, par quelques missionnaires de la Compagnie de Jésus*, vol. 24 (Paris: J. G. Merigot, 1781), 381–83.

<sup>43</sup>*Qinggong Neiwu fu zaoban chu dang'an zonghui*, 31:62–63.

<sup>44</sup>Weng Lianxi 翁連溪, *Neifu keshu yanjiu* 內府刻書研究 (Beijing: Zijin cheng, 2013), 239–40.

<sup>45</sup>The Archives of the Imperial Household Department in the First Historical Archives, 05-0186-012; *Qinggong Neiwu fu zaoban chu dang'an zonghui*, 26:147.

<sup>46</sup>*Qinggong Neiwu fu zaoban chu dang'an zonghui*, 34:611–12.

<sup>47</sup>*Qinggong Neiwu fu zaoban chu dang'an zonghui*, 17:378.

<sup>48</sup>*Qinggong Neiwu fu zaoban chu dang'an zonghui*, 6:130.

<sup>49</sup>*Qinggong Neiwu fu zaoban chu dang'an zonghui*, 20:623.

<sup>50</sup>*Qinggong Neiwu fu zaoban chu dang'an zonghui*, 18:58.

<sup>51</sup>Qin Guojing 秦國經, “Qingdai yutu de huizhi yu guanli” 清代輿圖的繪製與管理, in *Ming Qing dangan xue* 明清檔案學 (Beijing: Xueyuan, 2005), 716.

<sup>52</sup>All the printed maps were excluded. The officials of the Imperial Household Department examined *Assemblage of Distinguished Maps* in 1763, finding “the illustrated catalog does not include any printed edition” 查圖目所載。凡刻本概不收入。See *Qinggong Neiwu fu zaoban chu dang'an zonghui*, 28:519–20.

The catalog *Assemblage of Distinguished Maps* (*Luotu huicui* 蘿圖薈萃) had 461 maps, falling into thirteen thematic categories. In 1795 the emperor commissioned *Continuation of Assemblage of Distinguished Maps* (*Luotu huicui* 蘿圖薈萃續編) to include manuscript maps after 1761.<sup>53</sup> By 1800 there were twelve regional maps of Xinjiang in the Bureau of Maps:

- The map of [the area] from the Gobi desert to Hami and the Jiayu pass
- The maps of Ili, the Muslim regions, and the three regions of Tibet (*Sanzang* 三藏) outside the Jiayu pass
- The map of [the area] from the Jiayu pass to the Muslim regions (*Huibu* 回部), the city of Badakhshan, Mecca (*Tianfang* 天方), and the barbarian territories in the western sea (*xihai rongdi* 西海戎地)
- The map of [the area] from the Jiayu pass to Andijan
- The map of the routes from the Jiayu pass to Yarkand and Kashgar
- The map of Gasi 噶斯, Hami, Ili, and the Muslim regions
- The map of the routes from Hami to Ürümqi
- The map of Uliyasutai and Ürümqi
- The map of Altai, Erdeni zu, and Ili
- The map of the [Qing–Zunghar] border in Altai
- The map of the borderland in Altai
- The map of Altai and Ili<sup>54</sup>

The woodblocks or copper plates of maps were stored in the Bureau of Maps as well. On May 21, 1756, the Qianlong emperor asked how many woodblocks and copper plates of empire-wide atlases were in the Bureau of Maps. The following day the directors of the Imperial Household Department Bai Shixiu 白世秀 and Jin Hui 金輝 (d. 1779) replied that there were thirty-two woodblocks and forty-seven copper plates of the Kangxi atlas, as well as 105 woodblocks of the Yongzheng Atlas in the storehouses. Qianlong noticed cracks on the copper plates and thus instructed the officials in the Imperial Household Department to “carefully preserve [the plates].”<sup>55</sup> On July 22, 1772, Qianlong once again asked about the number of woodblocks and copper plates of empire-wide atlases in the Bureau of Maps. On July 25 the Imperial Household Department reported that the forty-seven copper plates of the Kangxi Atlas had been sent to the palace complex in Mukden in 1767, while the 104 copper plates of the Qianlong Atlas, 119 woodblocks of the 1767 edition of the Yongzheng Atlas and seventy-eight woodblocks of the 1767 edition of the Kangxi Atlas were in Beijing.<sup>56</sup>

<sup>53</sup>The Palace Archives (Gongzhong dang 宮中檔) in the First Historical Archives, 04-01-38-002-0066, 04-01-38-002-0087, 04-01-38-0023-018, 04-01-38-0023-019, 04-01-38-0023-024. Qin Guojing, “Qingdai yutu de huizhi yu guanli,” 718–26.

<sup>54</sup>Qinggui 慶貴, et al., *Guochao gongshi xubian* 國朝宮史續編, vol. 2 (Beijing: Beijing guji, 1994), 100.1014.

<sup>55</sup>*Qingong Neiwu fu zaoban chu dang'an zonghui*, 21:650.

<sup>56</sup>In 1767 Qianlong had the Bureau of Maps make two woodblock maps, whose grids were 1.8 *cun* and 2 *cun* in length. The sizes of the two woodblock maps were identical to the woodblock editions of the Kangxi Atlas and the Yongzheng Atlas. Moreover, Qianlong once ordered the Kangxi Atlas and the Yongzheng Atlas to the Wuying Hall to be delivered to be “used as materials” (*jiao Wuying dian zuo cailiao yong* 交武英殿作材料用). It is reasonable to assume that the two woodblock maps were the revisions of the Kangxi Atlas and the Yongzheng Atlas. Therefore, I call them the 1767 editions to distinguish them

The artisans in the Bureau of Maps applied a variety of methods to restore damage inflicted by bookworms and other causes. Despite the use of camphor, bookworm grubs were not uncommon on maps in the Bureau of Maps. On January 2, 1776, the director of the Imperial Household Department, Side 四德, and the storehouse overseer (*kuzhang* 庫掌), Fuking (Ch. Fuqing 福慶), found that eight sets of empire-wide atlases in the Yuanming Garden 圓明園 were riddled with bookworm damage. In addition to repairing the damage imperial craftsmen replaced the atlases' lining boards made of *hepai* with wooden ones.<sup>57</sup> On July 16, 1788, the Imperial Household Department was informed that the lining boards of four sets of empire-wide atlases in the palace complex in Jehol were "out of shape" and the maps were on their way to Beijing to be repaired. The officials in the Imperial Household Department attributed the distortions to the material the lining boards were made of, that is, new Phoebe zhennan wood (*xin nanmu* 新楠木), and missing tenons on the boards' margins. They thus suggested using old Phoebe zhennan wood (*jiu nanmu* 舊楠木) and installing tenons along the four corners of the new boards. The costs of repairs were paid by the vice director (*yuanwailang* 員外郎) of the Imperial Workshop Sumingga (Ch. Shuming'a 舒明阿), who had overseen the making of the atlases in 1779. Apart from maps, the Bureau of Maps also mended woodblocks.<sup>58</sup> On August 5, 1772, the printing office in the Wuying Hall notified the Bureau of Maps that there were forty-two sheets in the 1767 edition of the Yongzheng Atlas whose longitudes and latitudes were inconsistent with the 1767 edition of the Kangxi Atlas. The Bureau of Maps found that the inconsistencies were caused by the shrinking of woodblocks and restored their original sizes by placing the shrunken woodblocks in water.<sup>59</sup>

Most of the existing literature concentrates on the contents of maps, and few studies have touched on their materiality. This neglect of the material aspect is partially due to the scarcity of sources. In this sense, the archives of the Imperial Workshop in the Imperial Household Department afford us rare insight into how technocrats and artisans from the sector produced and preserved maps as artifacts. The emperor's patronage, along with the assistance of the Jesuits, enabled these technocrats and artisans to employ new printing technologies, such as etching, to produce maps. In order to accommodate the needs of the emperor and senior officials, the Imperial Household Department had to edit and update maps in different ways. Sophisticated technologies, expensive costs, and high maintenance constituted obstacles for the reproduction of imperial maps outside the Qing court, but the following sections will demonstrate that these maps of Xinjiang eventually reached a broader audience.

### Intended audience of imperial maps

Because of their military and administrative utility, imperial maps were characterized by exclusiveness and secrecy; their intended audience was confined to the emperor and a small coterie of his most trusted ministers. To make informed decisions, the emperor had to acquire sufficient geographical knowledge of the territories in question, and maps were his indispensable references. Since only the Han (206 BCE–220 CE), Tang (618–907), and Yuan (1271–1368) dynasties had established footholds in the Western Regions, records available to Qing statesmen about the Inner Asian area were rare. In

from the Kangxi Atlas and the Yongzheng Atlas produced in earlier periods. See *Qing neifu keshu dang'an shiliao huibian* 清內府刻書檔案史料匯編 (Yangzhou: Guanglin shushe, 2007), 1:122, 141.

<sup>57</sup> *Qing neifu keshu dang'an shiliao huibian*, 1:221.

<sup>58</sup> *Qing neifu keshu dang'an shiliao huibian*, 1:368–69.

<sup>59</sup> *Qinggong Neiwu fu zaoban chu dang'an zonghui*, 35:437.

the eighteenth century, an intellectual consensus was reached that treatises on geography (*dili zhi* 地理志) in official histories (*zhengshi* 正史), especially the ones in the *Book of the Former Han* (*Hanshu* 漢書) and the *Book of the Later Han* (*Houhan shu* 後漢書), were the most authoritative sources regarding the Western Regions. Nevertheless, these historical texts could not reflect the contemporary state of the Western Regions. Moreover, constricted by their format and length, the treatises in official histories tended to be sketchy.

Because of the scarcity of up-to-date, reliable textual records, maps played an irreplaceable role in imperial decision-making. They determined, to a great extent, the Qing's military moves toward the Zunghar state, which was based in Zungharia and had colonized Altishahr south of the Tianshan Range. In October 1731, when the Yongzheng emperor was examining maps to prepare for the upcoming campaign against the Zunghars, he noticed that Kua'e'erqisi 夸額爾齊斯, where the Zunghar leader Tseren Dondov resided, was not far from the Qing garrison in Barköl, and that the Zunghar forces could easily traverse the desert between Kua'e'erqisi and Barköl when the sand was frozen in the winter. Although Yongzheng claimed that the defense along the western route was effective enough that "there seems to be nothing to worry about," the finding made him anxious. In the edict to the commanders Yue Zhongqi 岳鐘琪 (1686–1754) and Jalangga (Ch. Chalanga 查郎阿, d. 1747), Yongzheng reminded them that Tseren Dondov was likely to travel via Tuhuluoke 圖呼魯克 and Yanchi 鹽池 to steal the Qing's livestock in Ta'eranaqin 塔爾那沁. The emperor was also concerned that the Zunghars would attack the defense force from one side and raid the courier stations between the Jiayu Pass and Barköl, which could lead to the collapse of the Qing communication network. Although thousands of *li* from the frontline, Yongzheng learned the topography by reading maps, thereby detecting the potential threats that Qing armies might encounter.<sup>60</sup>

In the mid-eighteenth-century campaign that eventually led to the destruction of the Zunghar state, Yongzheng's successor the Qianlong emperor also relied on maps to devise strategies. In 1758 Qianlong received Arigün's memorial stating that the defeated Zunghars had escaped towards the Hu'ertake mountain 呼爾塔克山, which lay southeast of the Aishima mountain 愛什瑪山 and was close to Luobunuo'er 羅布諾爾. By "perusing maps" (*piyue ditu* 批閱地圖), Qianlong discovered that the Aishima mountain and Luobunuo'er were not far from Lukechake 魯克察克, and thus sent an edict to Yarhašan (Ch. Ya'erhashan 雅爾哈善, d. 1759) stationed in Barköl:

If Arigün has captured the rebels, it is fine. In case the rebels escape to somewhere else, or are *en route* to Gasi, I have already transferred troops from Qinghai and Mongolia to intercept them. Moreover, the Hu'ertake mountain is close to Lukechake, and thus should not be far from Barköl. The councilor in Barköl [Yarhašan] should set up watch-posts in faraway places and [have soldiers] closely monitor [those areas]. Once the rebels' track appears, immediately scour [the region] and suppress them. Only when different parties take precautions in the ways [I dictate] will it be difficult for the rebellious mass to hide.

此時阿里袞，若已追及賊人，固善。倘又逃往他處，或向噶斯一路，已調青海蒙古兵丁，豫備堵截。再呼爾塔克山等處，既與魯克察克相近，去巴里坤亦當不遠。巴里坤大臣等，亦應遠設卡座，加意瞭望。如有賊人蹤跡，即行搜勦。似此分途防範，賊眾自難藏匿。<sup>61</sup>

<sup>60</sup>*Shizong shilu* 世宗實錄, reprint (Beijing: Zhonghua shuju, 1985), 110. 8a–9b.

<sup>61</sup>*Gaozong shilu* 高宗實錄, reprint (Beijing: Zhonghua shuju, 1985), 554. 17b–18b.

Yarhašan replied that his subordinates failed to locate the rebels. If they went further to Shaya'er 沙雅爾, they might encounter the Zunghar main force from Kuqa. Qianlong consulted maps again, learning that Jaohüi's (Ch. Zhaohui 兆惠, d. 1764) forces, which were chasing the Zunghars at the borderland between Zungaria and Altishahr, were in close proximity to Shaya'er. The emperor thus decided to have Jaohüi lead reinforcements to Yarhašan's encampment.<sup>62</sup>

Similarly, in suppressing the Jahāngīr rebellion in the 1820s, the Daoguang emperor (r. 1820–1850) consulted maps and local officials' reports to plan the Qing forces' routes. Since the late seventeenth century, Altishahr had been under the control of the Afaqi khwāja clan. The Zunghar conquerors initially relied on the Afaqi khwājas to govern the oases south of the Tianshan Range, but during the rule of Galdan Tseren, the Afaqi khwājas were kept imprisoned in Ili. Burhān ad-Dīn (d. 1759) and Khoja Jihān (d. 1759) were released by the Qing armies in 1755 and fled to Badakhshan after their revolt failed. Although the majority of Burhān ād-Dīn and Khoja Jihān's families were sent to Beijing, Burhān ad-Dīn's son Sarimsaq escaped and ended up in Bukhara. In 1820 Sarimsaq's son Jahāngīr (1788–1828) entered Altishahr from the Kokand khanate for the first time, and he caused a series of disturbances in the following decade. In 1826, in the wake of Jahāngīr's invasion of Western Altishahr, Daoguang referred to maps, showing the commanders a shortcut to Kashgar. Unlike the route from Barquk to Kasghar, which was known to the Muslim populace, this route from the Bashiyahama mountain 巴什雅哈瑪山 southwest of Ush to the Ba'erchang mountain 巴爾昌山 in Kashgar was shorter in distance, and, more importantly, lesser known, which made it a better choice for Qing armies to make a foray into Kashgar occupied by Jahāngīr.<sup>63</sup>

In 1827, to expedite military transport and transmission of official correspondence, Daoguang instructed the general of Ili 伊犁將軍, Deingga (Ch. Deying'a 德英阿), to secretly investigate the alternative routes linking Ili in Zungaria to Kashgar in Altishahr. The route via the Muzart Pass, known as the Glacier Ridge Road (*Bingling dao* 冰嶺道), was the artery connecting the two. Nevertheless, due to the harsh natural environment along the road, delays and accidents were not uncommon. According to Deingga's report, neither the route from Ili to the meadow in Kashgar nor the route that lay southwest of Ili and led to Ush could replace the Glacier Ridge Road. Both routes traversed the Kyrgyz territory, making courier stations difficult to build along them.<sup>64</sup>

In addition to being consulted as references, maps were widely displayed in imperial palaces and villas within and outside Beijing as furnishings. In 1762, per their survey of the map collection in the Bureau of Maps, Arigūn and Wang Jihua compiled the illustrated catalog *Assemblage of Distinguished Maps*, containing 418 "superior maps" (*shangdeng yutu* 上等輿圖) in thirteen thematic categories. The Qianlong emperor ordered that the original copy of the catalog be displayed in the Qianqing palace 乾清宮, where imperial audiences were held, while the two replicas were sent to the Maoqin Hall 懋勤殿 and the Imperial Workshop for preservation.<sup>65</sup> The Furnishing Archives (*Chenshe dang* 陳設檔) in 1806 show that *Assemblage of Distinguished Maps* and its sequel compiled in 1795 could be found in the Yangxin Palace

<sup>62</sup>*Gaozong shilu*, 566. 1b–2b.

<sup>63</sup>*Xuanzong shilu* 宣宗實錄, reprint (Beijing: Zhonghua shuju, 1985), 103. 2a–3a.

<sup>64</sup>The Grand Council Archives in the Palace Museum in Taipei, 058475, 058594.

<sup>65</sup>*Qinggong Neiwu fu zaoban chu dang'an zonghui*, 27:241–42.

(*Yangxin dian* 養心殿), where the emperor resided.<sup>66</sup> In 1763 the Qianlong emperor had the Bureau of Maps duplicate a national atlas newly edited by the Grand Council and displayed the updated version at the Feiyun Pavilion 飛雲軒 within the Yuanming Palace. By 1771 at least eight sets of national maps were in the Yuanming Garden.<sup>67</sup> In the 1780s four sets of national atlases were installed underneath the Deyue tower 得月樓 within the imperial villa in Jehol.<sup>68</sup>

The emperor opened his map collection to his confidants, such as provincial governors and the Grand Councilors, although they might not have full access. In a memorial dated to 1717, the provincial governor Nian Gengyao 年羹堯 (1679–1726) expressed his gratitude to Kangxi, stating that the map of Sichuan rendered him “fully aware of the topographical features [of the province]” (*xiaoran yu xingshi xianyi* 曉然於形勢險易). At that time, the entire Kangxi Atlas had been completed, but the emperor only bestowed on Nian the sheets concerning his jurisdiction.<sup>69</sup> In 1728 Yongzheng granted at least eight territorial officials the latest revision of the Kangxi Atlas, that is, the Yongzheng Atlas. His father Kangxi, Yongzheng stressed, had devoted decades of effort to the cartographical project, and the atlas was “an unprecedented treasure” that the ministers should cherish.<sup>70</sup>

As the top advisory body in the central government, the Grand Council usually received imperial maps for reference. In September 1732 the Bureau of Maps sent the Grand Councilor Ortai “the fourth, fifth, and sixth rows [of the Yongzheng Atlas] pertaining to the area from Altai to Ili.”<sup>71</sup> The Yongzheng Atlas comprises ten rows (*pai* 排) from north to south, and the western half of the fourth, fifth, and sixth rows depicts the area between the Altai Range and Ili.<sup>72</sup> In the previous year, the Qing experienced severe setbacks to its Zunghar campaign: Furdan (Ch. Fu’erdan 傅爾丹, d. 1752) lost 80 percent of his army before hastily retreating to Khobdo, and Yue Zhongqi failed to hold Ürümqi for long.<sup>73</sup> On September 21, after Ortai consecutively submitted memorials to criticize the commander Xibao’s 錫保 (1688–1742) passive-defense policy, the emperor granted him three rows of the Yongzheng Atlas for reference.<sup>74</sup>

In the middle of Burhan ād-Dīn and Khoja Jihān’s rebellion, Qianlong granted maps to the commanders Jaohū and Fude 富德 (d. 1776), who were separately leading forces to conquer Kashgar and Yarkand, to facilitate their cooperation. Fude enclosed the map

<sup>66</sup>Wang Zilin 王子林, *Mingqing huanggong chenshe* 明清皇宮陳設 (Beijing: Zijincheng, 2011), 85–86.

<sup>67</sup>*Qinggong Neiwu fu zaoban chu dang’an zonghui*, 28:518.

<sup>68</sup>*Qing neifu keshu dang’an shiliao huibian*, 1:368–69.

<sup>69</sup>The Palace Archives in the First Historical Archives, 04-01-30-0147-005.

<sup>70</sup>There were eight extant memorials sent by ministers to thank the Yongzheng emperor for the atlas. They are the governor-generals of Henan (Tian Wenjing 田文鏡), Zhejiang (Li Wei 李衛), Hubei and Hunan (Maizhu 邁柱), Yunnan (Ortai 鄂爾泰), Jiangnan (Fan Shiyi 范時繹), and Fujian (Gao Qizhuo 高其倬); the governor of Sichuan, Hiyande (Ch. Xiande 憲德), and the regional commander (*zongbing* 總兵) of the An’xi garrison in Shaanxi, Pan Zhishan 潘之善. The Palace Archives in the Palace Museum in Taipei, 402007070, 402007661, 402010490, 402006131, 402018229, 402013381, 402013111, 402009227.

<sup>71</sup>*Qinggong Neiwu fu zaoban chu dang’an zonghui*, 5:435.

<sup>72</sup>For the layout of the Yongzheng atlas, see its reprinted edition in *Qingting sanda shice quantu ji* 清廷三大實測全圖集 (Beijing: Waiwen, 2007).

<sup>73</sup>Peter Perdue, *China Marches West: The Qing Conquest of Central Eurasia* (Cambridge, MA: The Belknap Press of Harvard University Press, 2005), 254–55.

<sup>74</sup>*Yongzheng chao Manwen zhupi zouzhe quanyi* 雍正朝滿文硃批奏摺全譯, vol. 2 (Hefei: Huangshan shushe, 1998), 2140.



of the route from the Ying'eqipans mountain 英額奇盤山 to Badakhshan in his memorial, while Jaohū's map depicted the route between Badakhshan to Tibet. On July 5, 1759, Qianlong had imperial cartographers redraw the two maps and use slips to indicate the locations where forces should be garrisoned. Only thirteen days later, Jaohūi and Fude received the new maps.<sup>75</sup>

Numerous illustrative maps of the Western Regions or Xinjiang can be found in the three imperially commissioned compilations *Illustrated Gazetteers of the Western Regions* (*Xiyu tuzhi* 西域圖志), the three editions of *Comprehensive Gazetteer of the Great Qing* (*Da Qing yitongzhi* 大清一統志), and the 1818 edition of *Collected Statutes of the Great Qing* (*Da Qing huidian* 大清會典). The section "Illustrated Study" (*Tukao* 圖考) in *Illustrated Gazetteer* consists of maps of the Qing empire, Xinjiang, the southern and northern marches of An'xi 安西, the southern and northern marches of the Tianshan Range, mountains, waterways, the Qing's tributaries (*fanshu* 藩屬) neighboring Xinjiang, and the historical maps of the Western Regions from the Western Han (206 BCE–6 CE) to the Ming (1368–1644).<sup>76</sup> The 1744 edition of *Comprehensive Gazetteer* includes only one map regarding Hami, while the 1790 edition contains maps of Xinjiang, Ili, Tarbagatai and Ku'erkalawusu 庫爾喀喇烏蘇, Hami and Pizhan 關展, Kuqa and Halasha'er 哈喇沙爾, Aksu, and Sailamu 賽喇木, Ush and Kashgar, Yarkand, and Khotan. The 1842 edition reflects the territory in 1820, including maps of Xinjiang, Ili, Ku'erkalawusu, Ürümqi, Barköl, Hami, Turfan, Halasha'er, Kuqa, Aksu, Ush, Kashgar, Yarkand, Khotan, and the territories of various non-Han tribes.<sup>77</sup> *Collected Statutes* is a corpus of administrative rules and regulations. Unlike the previous three editions, the 1818 edition is accompanied by *Illustrations of Collected Statutes* (*Huidian tu* 會典圖), which contains maps of the An'xi Prefecture 安西州, the Dihua Prefecture 迪化州, and Ili.<sup>78</sup>

The compilers of these compendiums might have consulted imperial maps, but the illustrative maps they produced are greatly reduced and less sophisticated. *Illustrated Gazetteer of the Western Regions* was compiled by He Guozong and Liu Tongxun, both of whom had participated in the cartographic investigation of the Ili region in 1756. The section "Degrees of Sundial" (*Guidu* 晷度) lists the latitudes and longitudes of important forts and cities, which are in accordance with those in the Qianlong Atlas. The compilers of *Collected Statutes of the Great Qing* also referred to imperial maps. In the 1840s the Guangdong geographer Chen Li 陳澧 (1810–1882) purchased the Kangxi Atlas and the Qianlong Atlas from the descendant of a low-ranking functionary, who had once worked in the Office of Collected Statutes (*Huidian guan* 會典館).<sup>79</sup> However, strikingly different from the Kangxi Atlas and its recensions in the Yongzheng-Qianlong reign, none of these illustrative maps adopt gridlines to indicate latitudes and longitudes, only depicting the relative positions of places.

With the invention of the palace memorial (*zouzhe* 奏摺), the Qing reformed the communication systems that it inherited from the Ming and managed a more

<sup>75</sup>Gaozong shilu, 588. 17b–18b.

<sup>76</sup>Qinding Huangyu Xiyu tuzhi 欽定皇輿西域圖志 (1798 edition, reprinted in the Guangxu period).

<sup>77</sup>Qinding Daqing yitongzhi 欽定大清一統志 (1744 edition); Qinding Daqing yitongzhi (1790 edition), in *Jingyin Wenyuan ge Siku quanshu* 景印文淵閣四庫全書 vol. 483 (Taipei: Shangwu, 1986); Qinding Da Qing yitongzhi (1842 edition), in *Xuxiu siku quanshu* 續修四庫全書 vol. 624 (Shanghai: Shanghai guji, 2002).

<sup>78</sup>Qinding Daqing huidian tu 欽定大清會典圖 (1818 edition), in *Jindai Zhongguo shiliao congan sanbian* 近代中國史料叢刊三編, vol. 71 (Taipei: Wenhai, 1992).

<sup>79</sup>Chen Li, *Dongshu ji* 東塾集 (1892 edition), 2.32b–33a.

than doubled population and territory. Historians have thoroughly examined how, as a new communication medium, palace memorials centralized power and enhanced the Qing government's administrative capability.<sup>80</sup> The dissemination of imperial maps in the top echelon of the Qing bureaucracy shows that maps could convey confidential information as effectively as palace memorials, which, to a great extent, explains the Imperial Household Department's strict policy on the distribution of its map collection.

### Unexpected circulation of imperial maps

Because of the sensitive information that imperial maps contained, the Imperial Household Department endeavored to keep them under close control until the last years of the dynasty. Nevertheless, leaks occurred. The Imperial Household Department's failure to regulate the circulation of imperial maps, especially in the nineteenth century, betrays the Qing's lack of techniques and resources for intervening in the lower echelons of bureaucracy. Historians of China conventionally approach the extent of state power from the perspective of its absence in local administrative units beneath the county level, while information leaks from secretaries and clerks suggest the inherent limits of state power even in the central government.<sup>81</sup>

In the preface to *Outline of Mountains and Rivers in Yunnan (Diannan shanshui gangmu 滇南山水綱目)*, Zhao Yuanzuo 趙元祚 mentioned that, in about 1718, the magistrate of the Lunan Department 路南州 Jiang Yunkai 蔣元楷 showed him the Kangxi Atlas:

Now his majesty had an empire-wide map drawn. He sent commissioners to travel across the country. They laid out grids according to the degrees generated through the Western mathematics. They carried out measurement and used their stride lengths to calculate distances. In terms of precision, their method is unprecedented. Jiang Yunkai, a native of Shuntian 順天 came to administer the Lunan Department and invited me to his office. When we were talking about mountains and rivers, he showed me the maps of the fifteen provinces and foreign countries he brought [to Yunnan]. [They] were newly drawn by the Westerners.

今天子繪廣輿圖，遣使四出。以西洋算法按度布格，丈量踏繪。其法之精，從古未有。適析津蔣怡軒來守路南，延余至署。因談山水，出其所攜西洋新繪十五省圖並外國諸圖。<sup>82</sup>

Failing to pass the metropolitan examination (*huishi* 會試), Jiang Yunkai entered officialdom only as a provincial degree-holder (*juren* 舉人). As a low-ranking bureaucrat,

<sup>80</sup>For the Qing communication systems and palace memorials, see Silas H.L. Wu, *Communication and Imperial Control in China: Evolution of the Palace Memorial System, 1693–1735* (Cambridge, MA: Harvard University Press, 1970); Beatrice S. Bartlett, *Monarchs and Ministers: The Grand Council in Mid-Ch'ing China, 1723–1820* (Berkeley: University of California Press, 1991); Mark C. Elliott, "The Manchu-Language Archives of the Qing Dynasty and the Origins of the Palace Memorial System," *Late Imperial China* 22.1 (2001), 1–70.

<sup>81</sup>For the Qing government's tenuous control and dependence on middlemen at subcounty levels, see Philip A. Kuhn, *Origins of the Modern Chinese State* (Stanford: Stanford University Press, 2002), 94–100; T'ung-tsu Ch'ü, *Local Government in China under the Ch'ing* (Cambridge, MA: Harvard University Press, 1962), 168–92; Bradley W. Reed, *Talons and Teeth: County Clerks and Runners in the Qing Dynasty* (Stanford: Stanford University Press, 2000).

<sup>82</sup>Zhao Yuanzuo, preface to *Diannan shanshui gangmu* (1913 edition).

where did he obtain the Kangxi Atlas? One possibility is that he had once worked as a clerk in the central government, which offered him access to imperial maps. Many central-government agencies, such as the Grand Council, recruited provincial degree-holders as low-ranked secretaries (*zhongshu* 中書) and unranked clerks (*gongshi* 供事), whose primary duty was to transcribe and deliver documents.<sup>83</sup>

Although in the lower echelons of administration, these secretaries and clerks had access to a variety of sources, including imperial maps in the Imperial Household Department. Some of them even made private copies and circulated them among officials and scholars. In the 1810s Gong Zizhen 龔自珍 (1792–1841) served as the clerk of the imperial printing office in the Wuying Hall 武英殿. When assisting Cheng Tongwen 程同文 (d. 1826) in editing *Collected Statutes of the Great Qing* in 1812, Gong Zizhen referred to the Qianlong Atlas. In a poem in memory of Cheng Tongwen, Gong wrote: “[We] collated the curve-grid atlas that contained more than a hundred pages. An official compilation like this does not exist in the past and present” (手校斜方百葉圖, 官書似此古今無).<sup>84</sup> Xu Song 徐松 (1781–1848), who assumed the position of secretary in the Grand Secretariat (*Neige* 內閣) in the 1820s, even privately duplicated the Qianlong Atlas and generously shared it with fellow scholars. Xu’s friend Zhang Mu 張穆 (1805–1849) mentioned: “Xu Song has an imperial map with thirteen rows. I have transcribed it, but I cannot identify its creation time” (徐星伯太守藏有內府十三排圖。穆手摹之。而不能定爲何時所續). According to a Mongol aristocrat’s territory in the atlas, Zhang speculated that it was drawn no later than the first year of the Yongzheng reign (1723), when the aristocrat was stripped of his title.<sup>85</sup> Nevertheless, the national atlas in the Yongzheng reign had only ten rows, and the national atlas with thirteen rows did not appear until the Qianlong period.<sup>86</sup> Shen Yao, another friend of Xu, made it explicit: “[I] saw the Qianlong Atlas with thirteen rows [*Qianlong shisan pai yutu* 乾隆十三排輿圖] that the master [Xu Song] preserved. I came to realize that Samarkand lay to the northwest of Kokand and was the Hezhong Prefecture 河中府 established by Yelü Dashi [耶律大石]” (嗣見先生所藏乾隆十三排輿圖。知撒馬兒罕在霍罕西北。即大石河中府也).<sup>87</sup>

During 1847–1848, when Chen Li was in Guangdong, working on *Illustrated Explanation of Waterways in the “Treatise of Geography” Section in Book of the Former Han* (*Hanshu dili zhi shuidao tushuo* 漢書地理志水道圖說), a person came to peddle the Kangxi Atlas, the Qianlong Atlas, and the illustrative maps in the 1818 edition of *Illustrations of Collected Statutes*. He claimed that these maps were all passed down from his father, who used to be an unranked clerk in the Office of Collected

<sup>83</sup>From the early Yongzheng reign, special examinations were held to recruit low-ranking secretaries. In 1758 these recruitment examinations were stopped and the central government began to choose secretaries from among failed metropolitan examination candidates. Although secretaries’ or clerks’ specific assignments varied from individual to individual, their overall duty was to transcribe documents. An imperial edict in 1761 emphasized that low-ranking secretaries should be energetic young men adept in the small-style regular script (*xiaokai* 小楷). See Wang Zhengong 王正功, *Zhongshu diangu huiji* 中書典故彙紀 (1916 edition), 1.44a; *Da Qinghui dian shili* 大清會典事例 (1818 edition), 44.14a–17b.

<sup>84</sup>Gong Zizhen, *Gong Zizhen quanji* 龔自珍全集 (Shanghai: Shanghai guji, 1999), 514.

<sup>85</sup>Zhang Mu, *Menggu youmu ji* 蒙古遊牧記 (1867 edition), 12.23a–b.

<sup>86</sup>In 1728 Yongzheng granted at least eight provincial governors the latest revision of the Kangxi Atlas, that is, the Yongzheng Atlas, which only had ten rows. See the Palace Archives (*Gongzhong dang* 宮中檔) in the Palace Museum in Taipei, 402007070, 402007661, 402010490, 402006131, 402018229, 402013381, 402013111, and 402009227.

<sup>87</sup>Shen Yao, *Luofan lou wenji*, 6.1a–b.

Statutes. Chen recognized on the maps the signature of Qian Yiji 錢儀吉 (1783–1850), who was the supervisor of the Office of Collected Statutes, which attested that they were from the central government.

Another possibility is that Jiang acquired access to the imperial maps from the emperor's top aides or the compilers of imperial compendiums. Around 1818 Dong Youcheng 董祐誠 traveled to Beijing to live with his brother. In the capital, Dong saw the Qianlong Atlas via Qian Yiji, who was overseeing the revision of *Collected Statutes of the Great Qing*.<sup>88</sup> In 1820 Dong's friend Li Zhaoluo 李兆洛 (1769–1841) was invited by the governor of Guangdong Kang Shaoyong 康紹鏞 (1770–1834) to Guangzhou. In the vault of the provincial government, Li saw the Qianlong Atlas bestowed on Kang's predecessor decades earlier.<sup>89</sup>

Overall, until the early nineteenth century, imperial maps were rarely circulated beyond a small coterie of top-ranking officials and those who built close interpersonal relations with them. In 1832 Li Zhaoluo stated: "Very few copies of the Kangxi Atlas and the Qianlong Atlas are spread outside [the court]" (皇朝康熙乾隆兩朝內府輿圖, 外間流布絕少)<sup>90</sup> After the 1830s the atlases appeared on the market, becoming available to common readers, who neither had a distinguished official career nor forged connections with influential figures. Chen Li, for instance, bought them from the son of a low-ranking functionary. Chen's friends Wu Jiamao 吳家懋 (b. 1791) and Pan Zhengchen 潘正琛 (1786–1847) separately purchased the Qianlong Atlas and the Kangxi Atlas with twenty *liang* silver in Liuli chang 琉璃廠, the major retail center for books and antiques in Beijing.<sup>91</sup>

Li Zhaoluo greatly contributed to the commodification of the Qianlong Atlas by publishing "The Atlas of the Unified Realm of Our August Dynasty" (*Huangchao yitong yudi quantu* 皇朝一統輿地全圖), which was based on Dong Youcheng's copy of the Qianlong Atlas, in 1732. Dong's draft carefully imitated the Qianlong Atlas but made minor revisions to reflect the changes in administrative boundaries and waterways until 1822. In the following decade, Li Zhaoluo's atlas "had been disseminated across the country," enjoying enormous popularity. In 1842, due to the burgeoning demand and the erosion of original woodblocks, Li's disciple Liu Yan 六嚴 issued a revised edition, of slightly smaller size, in which administrative boundaries and longitudes were printed in red ink.<sup>92</sup> In 1856 Hu Xiyan republished the map in booklet form, under the title *Atlas of the August Qing* (*Huangqing dili tu* 皇清地理圖).<sup>93</sup> In 1871 Yu Shouyi 俞守義 reprinted Hua's edition in Guangdong.

Until the last years of the dynasty, the Qing court endeavored to maintain a monopoly on information and aimed to seize control of maps, which contained enormous information of potential military utility. The Imperial Household Department was cautious even when dealing with requests from other central-government agencies for the Kangxi and Qianlong Atlases. In 1890 it rejected the internal application of the Office of Collected Statutes to borrow the two atlases again, for the reason that both of them

<sup>88</sup>Chen Li, *Dongshu ji*, 2.32b–33a.

<sup>89</sup>Li Zhaoluo, *Yangyi zhai wenji* 養一齋文集 (1913 edition), 19.5a–b; Jiang Tong 蔣彤, *Wujin Li xian-sheng nianpu* 武進李先生年譜 (1913 edition), 2.2a–b.

<sup>90</sup>Li Zhaoluo, *Yangyi zhai wenji*, 19.4a–b.

<sup>91</sup>Chen Li, *Dongshu ji*, 2.32b–33a.

<sup>92</sup>Cheng Ting'en 陳廷恩, postscript to *Huangchao yitong yudi quantu* 皇朝一統輿地全圖 (1842 edition).

<sup>93</sup>Hu Xiyan, postscript to *Huangqing dili tu* (1865 edition).

belonged to “the imperial collection” (*danei shoucang* 大內收藏), and the department could not authorize their distribution without the monarch’s permission. Although the office had been granted access to these maps in previous reigns, the Imperial Household Department suggested that it had to memorialize the incumbent ruler to renew it.<sup>94</sup>

However, even in its heyday, the Qing government was prone to rampant information leaks; the government rarely enforced stern policies to crack down on the problem and even acquiesced to the unauthorized transmission of imperial maps. In the mid-eighteenth century, clerks’ sale of palace memorials and other confidential documents of the central government was an open secret and establishment business. The superintendents of courier posts (*titang* 提塘), whose duty was to collect intelligence for provincial governors, purchased information illegally from clerks in the Grand Council and sent the so-called “grapevine gazettes” (*pianbao* 偏報) to their home provinces. In 1748 the Qianlong emperor publicly denounced the governor-general of Zhili and the governors of Anhui, Zhejiang, and Jiangsu, who received the transcriptions of classified Grand Council documents from their courier posts in Beijing. Wei Dingguo 魏定國 (1678–1755), the provincial governor of Anhui, confessed that the acquisition of grapevine gazettes from the courier post in the capital was an age-old custom that he took for granted.<sup>95</sup>

The Qianlong emperor attempted to curb the collusion between secretaries and clerks in the central government and courier posts working for territorial administrators, but he was unsuccessful in the long term. As the superintendent of a courier post, Yu Zhao 俞焯 regularly obtained copies of palace memorials by paying clerks in the Grand Council. In his confession, Yu stated that it was difficult to access confidential documents in the Grand Council after a main seller known as Huang Laoba 黃老八 was dismissed, but it was not impossible. Although after the dismissal of Huang everyone became discreet and even avoided mentioning the forbidden practice, Yu discovered a more hidden channel. Information leaks were not the top concern of the Qing court, who treated the three parties involved in these cases with exceptional leniency. Huang Laoba was removed from his post and forced back to his hometown, and Yu Zhao was stripped of the martial *jinshi* 武進士 degree. The provincial governors received Qianlong’s written warnings, but no other punishment was exercised.<sup>96</sup>

In the 1820s the unauthorized duplicates of imperial maps had transformed once confidential information into commodities available to affluent consumers. The central government was fully aware of the illegal practice and acquiesced to it. In 1826 Ulungga (Ch. Wulonga 武隆阿), who was appointed the imperial commissioner to suppress the Muslim rebellion in Xinjiang, asked for the Qianlong Atlas for reference.<sup>97</sup> The Daoguang emperor approved his request, but the Imperial Household Department was unable to locate a spare copy and the copperplates of the atlas were said to be destroyed. Ulungga thus turned to the booksellers in Liuli chang. The bookseller who sold the Qianlong Atlas to Chen’s friend Wu Jiamao, tried to buy back the map. However, Wu turned him down, even after the bookseller informed Wu of

<sup>94</sup>The Grand Secretariat Archives in Academia Sinica, Taipei, 138120.

<sup>95</sup>The Palace Archives in the First Historical Archives, 04-01-01-0130-057, 04-01-01-0130-058, 04-01-12-0049-001, 04-01-12-0049-001.

<sup>96</sup>The Palace Archives in the First Historical Archives, 04-01-01-0138-012.

<sup>97</sup>For the Ulungga’s appointment, see the Grand Council Archives in the Palace Museum in Taipei, 061716.

Ulungga's situation and ten-folded the offer.<sup>98</sup> On this occasion, the three parties, Wu Jiamao, the bookseller, and Ulungga, all accepted that the copy of the Qianlong atlas was a commodity that had monetary value and could be transferred, at least, semi-publicly. Its suspicious and potentially illegitimate origin did not prevent Ulungga, an imperial commissioner, from purchasing the atlas, nor worried the bookseller and Wu that they would be persecuted for their possession of it.

The Imperial Household Department's failed attempt to regulate the circulation of imperial maps, particularly during the nineteenth century, demonstrates the Qing's lack of techniques and resources to intervene in the lower echelons of the bureaucracy. Historians of China usually approach the extent of state power from the perspective of its absence in local administrative units lower than the county level, while information leaks from secretaries and clerks suggest the inherent limits of state power even in the central government. T'ung-tsu Ch'u's classical study of local governance in late imperial China has convincingly revealed the necessity of county magistrates' recruiting clerks and runners. As the static political apparatus could not address an expanding society, resident bureaucrats had to depend on extra-bureaucratic personnel to perform their basic duties, such as collecting taxes and handling lawsuits. Similarly, the administrators in the central government had to hire degree-holders to take up informal positions. The lack of effective control at sub-official levels and the emergence of a dynamic market in books made information leakage widespread in Qing China.

## Conclusion

Several scholars have identified the popularization of geographical knowledge of non-Han territories in the nineteenth century and associated it with the formation of a new notion of China, which included not only China Proper but also non-Han borderlands. They argue that improved access to the enormous body of knowledge, which was once exclusive for the Manchu and Mongol statesmen, reshaped Han literati's perceptions of what constituted China and laid the foundation for the Chinese geo-body building in the twentieth century.<sup>99</sup> How did the significant knowledge transfer take place, and what does the process of knowledge dissemination tell us?

The Imperial Household Department played a pivotal role in the process. More than an institution that handled the affairs of the royal family, the Imperial Household Department coordinated the circulation of geographical information in the top echelon of the Qing government. The archives of the department show that its technocrats and artisans worked with the Jesuits and border officers to produce maps that embodied the latest knowledge of Xinjiang. They managed these maps as the emperor's private property, and discreetly distributed privileged information within a small coterie of Manchu and Mongol statesmen. In this sense, the Imperial Household Department facilitated knowledge circulation, enhancing the Qing policy makers' capacity to monitor and control subjects and lands. Since the mid-fifteenth century, European powers had used maps to exert control over domestic territories and overseas colonies.<sup>100</sup> In a similar

<sup>98</sup>Chen Li, *Dongshu ji* (1892 edition), 2.32a–33b.

<sup>99</sup>Millward, "Coming onto the Map," 89–91; Mosca, "The Literati Rewriting of China," 121–25.

<sup>100</sup>For the importance of cartography in colonial enterprises in the early modern times, see James R. Akerman, ed., *The Imperial Map: Cartography and the Mastery of Empire* (Chicago: University of Chicago Press, 2009); David Buisseret, "Spanish Colonial Cartography, 1450–1700," in *The History of Cartography, Volume 3: Cartography in the European Renaissance*, edited by David Woodward (Chicago: University of Chicago Press, 2007), 1143–71; Valerie Kivelson, *Cartographies of Tsardom: The Land and*

fashion, Qing policy makers depended on maps to translate lands, rivers and lakes, sedentary and mobile peoples, and so forth into an administratively more efficient form. On the other hand, the Imperial Household Department attempted to curb the distribution of maps to perpetuate Manchu and Mongol elites' intellectual monopoly over Inner Asian territories. The Han literati, who were excluded from Inner Asian affairs, had no access to the map collection in the Imperial Household Department.

The popularization of the geographical knowledge of Inner Asia among Han literati, in essence, resulted from the serious disparity between the capabilities of the imperial state and the size and complexity of the society it governed. This was reflected in the rampant information leakage within the Qing administration. At the lowest rung of the central government, a considerable number of functionaries, mainly secretaries and clerks, were hired to deal with overloads of records and archives generated by everyday administration and imperial literary projections. When drafting, copying, and filing documents, these functionaries gained access to all kinds of materials, and imperial maps were among them. Meanwhile, a significant expansion in the book market in Beijing and other cities enabled them to easily sell their copies of imperial maps to individuals and book traders. Although seeming to enjoy a better reputation than their counterparts in local governments, secretaries and clerks were usually accused of improper or even illicit conduct, and information leakage was one of the most common causes. Philp Kuhn has observed the weak presence of the imperial state at subcounty levels, and he attributed the phenomenon to the disproportion between a modest bureaucracy and the subjects that outgrew it.<sup>101</sup> The leaks from functionaries in the central government indicate that the disparity affected not only local governance but also the center of power.

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*Its Meanings in Seventeenth-Century* (Ithaca: Cornell University Press, 2006); Matthew H. Edney, *Mapping an Empire: The Geographical Construction of British India, 1765–1843* (Chicago: University of Chicago Press, 1997).

<sup>101</sup>Kuhn, *Origins of the Modern Chinese State*, 21–22.