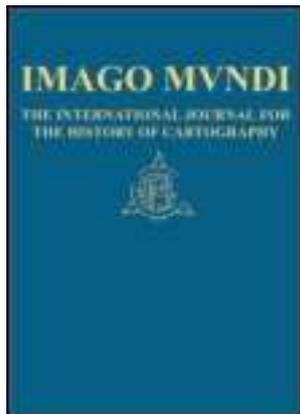


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The China Maps of Jean-Baptiste Bourguignon d'Anville: Origins and Supporting Networks

MARIO CAMS

ABSTRACT: By 1735, Jean-Baptiste Bourguignon d'Anville had produced forty-one maps of the Qing Empire, or China, a process significantly more complex than scholars have hitherto appreciated. A close study of d'Anville's maps and their originals has revealed their relationship with the different versions of a Chinese atlas, the first of which was completed early in 1718, the outcome of nearly a decade of collaborative surveying between officials of the Qing Empire and European missionaries. The precise origins of some of the maps are identified for the first time, and the network behind the remarkable intercontinental exchange of cartographical material that allowed d'Anville to produce his China maps is also discussed, thereby illustrating the central role of the French Jesuits, as well as the connection with St Petersburg.

KEYWORDS: Jean-Baptiste Bourguignon d'Anville, Jean-Baptiste du Halde, Antoine Gaubil, Pierre Jartoux, Joseph-Nicolas Delisle, China, Tartary, Korea, Tibet, Manchuria, Mongolia, Qing Empire, Kangxi emperor, Jesuit missions, Sino-Western relations, geographical surveys, land surveys, Académie des sciences, *Nouvel atlas de la Chine*, *Huangyu quanlan tu*, Jesuit atlas, Kangxi atlas, Manchu.

In 1735, an expensive four-volume work on China was published in Paris, carrying the grand title *Description géographique, historique, chronologique, politique, et physique de l'empire de la Chine et de la Tartarie chinoise*, which is still considered to be one of the most comprehensive accounts on China ever written.¹ The volumes were compiled by the Parisian Jesuit Jean-Baptiste du Halde (1674–1743), who had been given the responsibility of editing and publishing the wealth of information that was reaching the French Jesuits from their China mission. One of the more prominent features of the *Description* is the set of 41 maps of the Chinese provinces, Tartary, Tibet and Korea that it contains.² Most of these maps, du Halde states in the preface, were adaptations of Chinese originals that had been produced at the behest of the emperor of China and with the assistance of European missionaries.³

The adaptations were executed by Jean-Baptiste Bourguignon d'Anville (1697–1782), a young cartographer who also created four entirely new general maps for du Halde. After their publication in du Halde's *Description*, d'Anville's China maps became a subject of debate and contributed a great deal to European geographical knowledge of East Asia. They were frequently republished for well over half a century, sometimes in pirated editions, thus achieving wide circulation, and remained the primary authoritative source of geographical information on the region until well into the nineteenth century.

Little has been known about the provenance of d'Anville's China maps, however, and basic questions regarding their origins have never been answered. In what circumstances were the original Chinese maps produced? How did they reach Europe? Why did it take more than fifteen years

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for the maps to be published in Paris, and to what extent were the published maps based on Chinese originals? From a close study of the maps and of contemporary published and unpublished accounts, both European and Chinese, I have been able to establish the relationship between d'Anville's China maps and different versions of a Chinese atlas.

In exploring the relationship, I start with an examination of the production context of the original Chinese maps and their transmission to Paris, where the publication project was deferred for almost a decade. Next, a detailed analysis of d'Anville's adaptations is provided, in the course of which I identify two original maps for the first time, before discussing the process of composing the general maps, paying special attention to the additional sources that were consulted, as well as to the role of St Petersburg in accessing these sources. Finally, I conclude by elaborating on the reception of these maps in both Europe and China, which polarized into a heated public debate and compelled d'Anville to write several essays refuting some of the criticism of his work.

Underlying my approach, and inherent in the large amount of information that reached Europe as a result of the Jesuits' involvement in the mapping of the Qing Empire during the first half of the eighteenth century, is a reconstruction of the network that supported the unprecedented circulation of cartographical material between Europe and Asia, and vice versa, at the core of which were the French Jesuits. The network was based mainly on Beijing and Paris, but also, to a lesser degree, on St Petersburg. It was this network that ultimately allowed d'Anville to produce his celebrated China maps.

The Chinese Maps and Their Transmission

In the first decades of the eighteenth century, a small number of European missionaries in China were involved in a project to map the vast territories of the Qing Empire (or dynasty).⁴ Most were French Jesuits who had been sent to China as *Mathématiciens du Roi*, a title bestowed upon them by Louis XIV and his Académie royale des sciences.⁵ A stated objective of the French Jesuit mission, besides religious concerns, was the exploration and study of a wide range of scientific aspects relating to China including, importantly, its geography.⁶ Yet, the mapping of the Qing Empire was first and foremost a project of the Qing emperor and his administration, as Peter Perdue and Laura Hostetler have shown.⁷

By examining the composition of the different teams of surveyors, I have established that each of the teams was much larger than scholars had hitherto appreciated. Teams included representatives of the inner palace, the central administration, the Directorate of Astronomy and the Imperial Guard, which acted as an military escort.⁸ This discovery largely supports the findings of Perdue and Hostetler. On the other hand, the two or three European missionaries who were part of each team provided the scientific methodology necessary for the successful completion of the project. By exporting surveying techniques to the Qing Empire, the Jesuits hoped to obtain court protection for their religious mission, while the French Académie with whom they cooperated was anxious to further European knowledge of the Far East. Thus, although the mapping project was controlled by the Qing emperor and his administration, it was strongly linked with Europe from the start. The mapping of the Qing Empire is therefore best seen as the result of the converging of interests of the Qing emperor, the Jesuit order and the French crown.

The conduct of the land surveys, initiated in 1708, has already been discussed in great detail by Cordell Yee and Theodore Foss.⁹ In short, the different teams of surveyors set out to map Manchuria, Mongolia and the fifteen provinces of China, using a limited number of astronomical observations in combination with methods of triangulation. The missionaries were not allowed into Tibet, Korea and eastern Turkistan, however, and the maps of these regions were drawn without European assistance. Progress was slow at first, but surveying accelerated once map making moved away from the remote northern reaches of the empire and into the better documented and more densely populated areas of China proper, where a number of teams surveyed different provinces simultaneously. Here, teams could count on a wealth of previously recorded geographical information and on the assistance of local administrators.¹⁰

When a regional map had been completed, it was either sent directly to the emperor or personally taken back by the mapmakers to the capital, where another team of Qing officials and European missionaries worked on the draft maps and prepared them for printing. In the final stages, the French Jesuit Pierre Jartoux (1669–1720) helped to combine the regional maps in order to produce a large comprehensive map of the empire that would enable the emperor to take in his vast realm at a single glance.

This flurry of map-making activity had lasted for an entire decade. It started with the survey of the Great Wall, commissioned in 1708, and continued until the first version of a printed atlas was presented to the emperor early in 1718. The Qing mapping project was at the time without doubt the largest cartographical endeavour based on exact measurements ever undertaken anywhere in the world; similar projects in France and Russia were not completed until some decades later.¹¹

All the regional maps were eventually combined into an atlas, known in Chinese as *Huangyu quanlan tu* 皇輿全覽圖 [Overview Maps of the Imperial Territories], which in Western scholarship is often referred to as the 'the Jesuit atlas' or the 'Kangxi atlas', after the emperor. It was never available for public sale in China before the twentieth century, even though at least three different versions were produced for consultation in the palace.¹² The first version, printed from woodblocks, together with the overview map, was presented to the emperor in 1718. It contained 28 separate and detailed maps of the Chinese provinces, different parts of Tartary and Tibet, and of Korea. The second, printed from copper plates engraved by the Italian missionary Matteo Ripa (1682–1746) and completed in 1719, consisted of 41 individual sheets that formed one large map and contained newly acquired information on Tibet. A third version, again from woodblocks, was produced in 1721 as a revision of the first one. For this, the three Tibetan maps of 1718 were replaced by seven updated and more detailed maps that also included parts of eastern Turkestan.¹³

Not long after the completion of the first woodblock version, and certainly before 1720, Jartoux managed, perhaps secretly, to send either the entire atlas or a manuscript copy of it to his confreres in Paris. He also sent his personal notes and a transliteration of place-names.¹⁴ Once in France, the maps were entrusted to du Halde, scribe of the French Jesuits and editor of the multi-volume *Lettres édifiantes et curieuses*, in which correspondence from Jesuit missionaries was made available to the European reading public.¹⁵

Nearly a decade passed before du Halde took steps to have the maps published, causing some of the French Jesuits in Paris and China to express impatience with the delay. As early as 1722, the treasurer of the Jesuit missions to China and India in Paris, Louis-François Orry, wrote of his frustration to Beijing missionary Antoine Gaubil (1689–1759).

I have not been able to see [the maps] for myself. They think they must keep everything secret out of fear that

[others] will deprive us of the glory of discovery, so we only communicate through our *lettres édifiantes*. Yet, everyone leaves us be and nobody supports us. This is what one gains from always wanting to play one's own game.¹⁶

But when Gaubil himself wrote about the delay to the head of the French mission in China, he explained that du Halde was explicitly asked not to publish the maps immediately.

Some complaints have been voiced here about Father du Halde: first, about how he keeps the maps for so long without having them published. . . . they are wrong, and I say this in plain terms, because in 1720 Father Jartoux wrote [to ask him] not to publish these maps until further notice, owing to several difficulties . . . I saw these letters myself in Paris before my departure, in the room of Father du Halde.¹⁷

If Gaubil's words are to be taken seriously, one of the reasons behind the delay was the fear that, once published, the maps could be taken back to China as gifts by other European powers, thereby undermining the French Jesuits' credibility in the eyes of the Qing court. If this really was the motive behind postponing the publication, it is more than likely that the atlas had been sent to Europe secretly, without the knowledge of the court. Gaubil went on to state that du Halde wrote to the head of the China mission in 1723 asking for permission to have the maps published, either under pressure from his critics or because news had reached him of the death of the emperor in 1722.

Permission to publish was eventually granted by the China missionaries, after which the Chinese atlas was presented to the French king in 1725.¹⁸ Had the publication of the atlas not been deferred, Guillaume Delisle (1675–1726), *Premier Géographe du Roi* and member of the Académie royale des sciences, would have been the obvious choice for editing the Chinese atlas. But Delisle had died in 1726, two years before an agreement was reached between du Halde and d'Anville. Whether Delisle ever saw the maps that were sent from China is unknown.

Adaptations by d'Anville

Introduced to the Versailles court by his influential teachers and notwithstanding his humble background as the son of a tailor, d'Anville was given the title of *Géographe du Roi* at the age of 22.¹⁹ He also received a stipend from the son of the regent, Louis d'Orléans (1702–1752), in recognition of his talent and his service to the crown as geography tutor to the young king, Louis XV.²⁰ Through his royal connections, d'Anville soon found himself

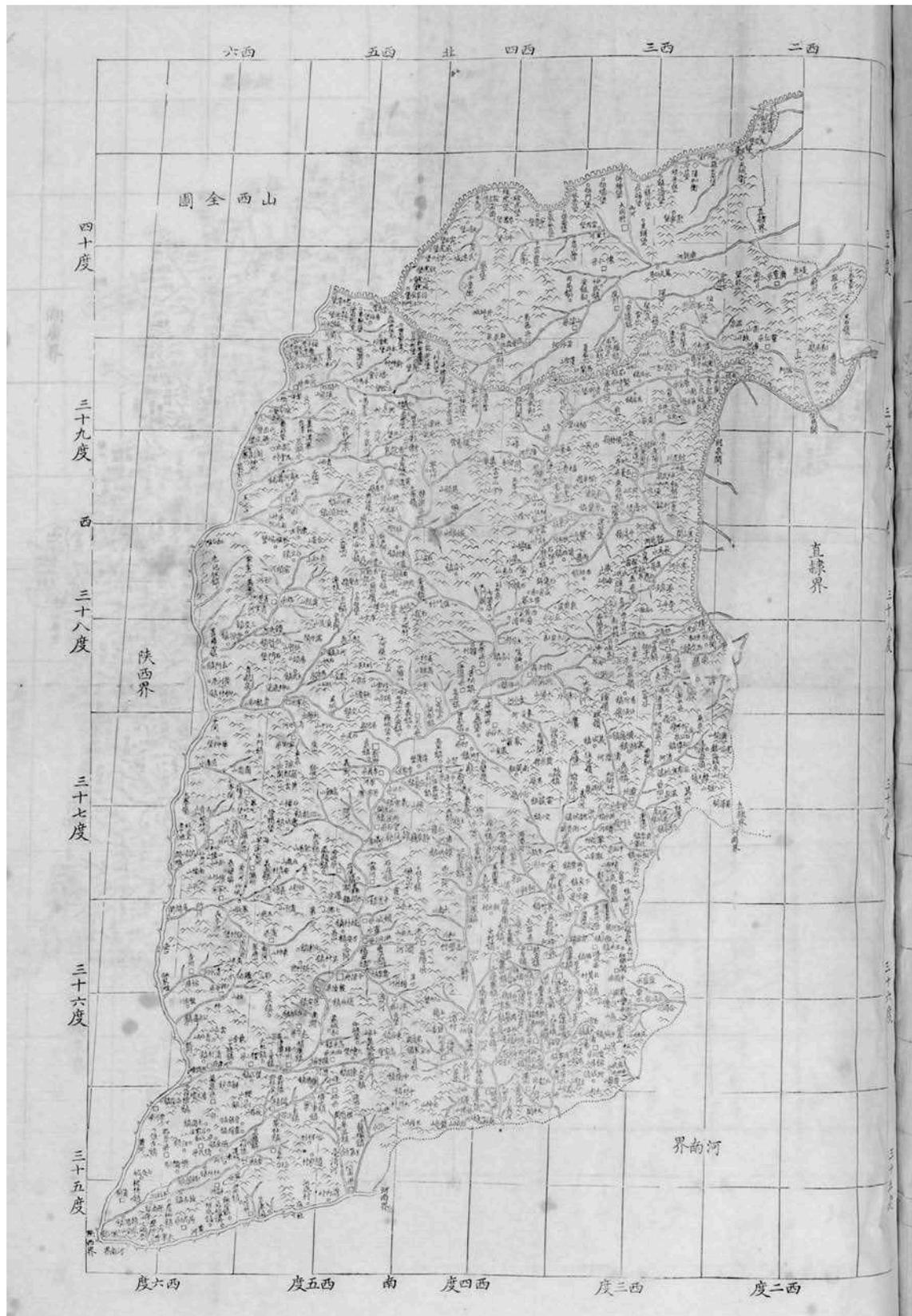


Fig. 1. The map of Shanxi province in the 1721 woodblock version of the Chinese atlas, said to be identical to the Shanxi map in the 1718 woodblock version. Territories beyond the provincial borders were left blank. 35 × 25 cm. Royal Library of Belgium, LP VB 11.283 E (3), fol. 11. (Reproduced with permission of the Royal Library of Belgium, Brussels.)



Fig. 2. The map of Shanxi province as adapted by d'Anville. Not all plotted localities have place-names, presumably because they had not been transliterated by Jartoux. 35 × 25 cm. Taken from du Halde, *Description*, 4 vols. (Paris, Le Mercier, 1735), vol. 1. (Reproduced with permission of Maurits Sabbebibliotheek, University of Leuven, Leuven.)

contracted to produce maps for a number of travel accounts and compilations as an outcome of meeting so many of the Parisian elite who frequented the royal court. One of these was Claude Bertrand Taschereau de Linières (1658–1746), the Jesuit confessor to the king who had presented the Chinese atlas to the crown in 1725.

D’Anville’s repeated expressions of interest in the mapping project, news of which had reached the European public, led de Linières to recommend him to du Halde as editor of the Chinese maps.²¹ The work for du Halde was one of the first of d’Anville’s major assignments and can be seen as an important step in his career that contributed a great deal to his later fame. It was agreed that the cartographer would reduce and redraw the regional maps of the Chinese provinces (15 maps), Tartary (12 maps), Tibet (9 maps), and Korea (1 map), which had been sent from China, and that he would compile four entirely new general maps for du Halde’s books. Later, the maps of 38 Chinese cities (on 7 sheets) and a chart of the travels of Captain Beerings, which was obtained through contacts with St Petersburg, were added to the list of cartographical material to be included in the *Description*.²² D’Anville was contractually obliged not to sell any of his maps for the *Description*, be it individually or in the form of an atlas, unless du Halde explicitly allowed him to do so.

The specifics of the agreement were laid down in three separate documents. The first contract, drawn up between du Halde and d’Anville in 1728, stipulates the cartographer’s duties regarding the maps of China and Tartary and his remuneration in cash, books and maps, and accords to du Halde the right to correct the printer’s proofs. Intellectual rights were dealt with as well: ‘[I, du Halde] will be happy to oblige the said Sir [d’Anville] by referring to his work in the prospectus that I have to give to the public of my books, and in the books themselves’, thus ensuring the cartographer would get full recognition for his work.²³

Following common practice, the cartographer was also responsible for the engravings, which he contracted to the Delahaye workshop, elsewhere described by d’Anville as ‘the most able [engraver] known to me’.²⁴ At the request of du Halde, however, the cartouches were designed by a Mr Humblot who was said to be familiar with techniques of Chinese painting and who also supplied fourteen illustrations of cultural and ethnographical interest for du Halde’s *Description*.²⁵

Within a year of signing the contract, d’Anville had completed the reductions and redrawing of the

maps of the fifteen Chinese provinces.²⁶ These were based entirely on one of the woodblock versions of the Chinese atlas, presumably that of 1718, which had been sent to Paris by Jartoux: both sets of maps match closely, and both leave the territories beyond the provincial borders blank (Figs. 1 and 2).²⁷ The only substantial difference is that on d’Anville’s maps not all plotted localities have a place-name, possibly because not all of them had been transliterated by Jartoux.²⁸

However, d’Anville appears to have had access to other versions of the Chinese atlas as well. Unlike his maps of the Chinese provinces, most of the regional maps of Tartary seem to have been taken from the copperplate version (Figs. 3 and 4). Nearly all the place-names are transliterations from Manchu, a language used in that version only, and eleven of the twelve maps of Tartary match exactly the corresponding 1719 copperplate sheets in terms of geographical coverage.²⁹ The only exception is the map of the region depicting the lower Amur river basin, the effective border between Qing and Russian territories at the time, in which two copperplate sheets were combined, presumably because of the large blank space on one of them.

On the other hand, d’Anville’s map of the region surrounding Hami, or Kumul, now a city in north-west China’s Xinjiang province, contains some geographical features that correspond to those shown on the first woodblock version but differ from the copperplate version, although in all other respects d’Anville’s adaptation appears to be an exact copy of the latter.³⁰ Such differences can be explained if it is assumed that d’Anville’s regional maps of Tartary were based on a draft version of the copperplate atlas that had been produced more or less simultaneously with the 1718 woodblock version, as Walter Fuchs has suggested.³¹ Alternatively, it could be that d’Anville was using the overview map of 1718 that Jartoux had helped to produce by combining the regional maps to create a single comprehensive map of the empire. This scenario rests on the unproven assumption that the overview map had reached Paris together with the first woodblock atlas. Other explanations are also possible but fail to explain the discrepancies on the Hami map.³²

D’Anville’s map of Korea appears to be a combination of the woodblock and the copperplate versions: the scope of the map is nearly identical to that in both woodblock versions, while lands beyond the border with Manchuria—shown on the copperplate version only—are also depicted.

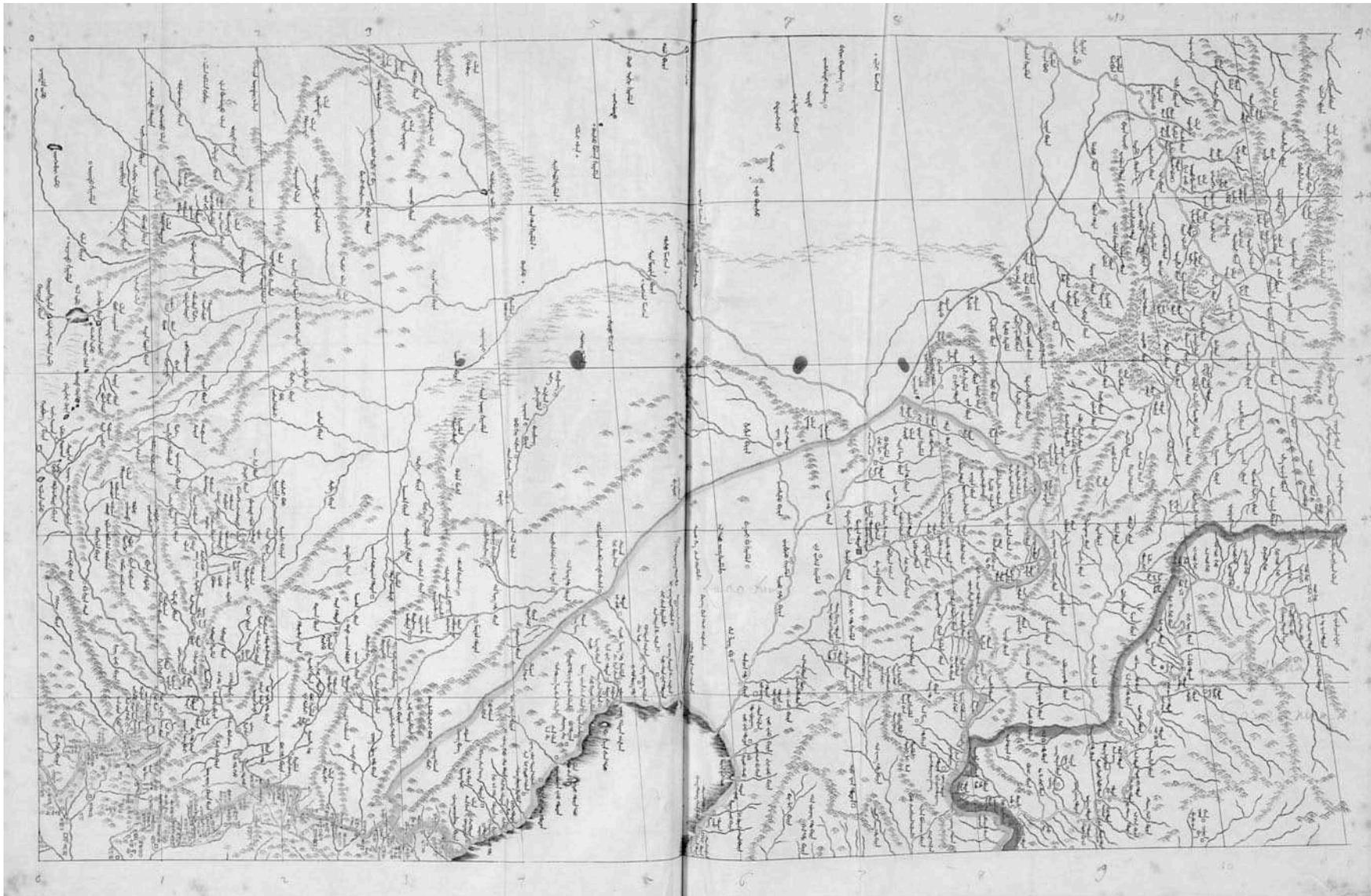


Fig. 3. The region of Shengjing in Tartary (today's Liaoning province) in the 1719 copperplate version of the Chinese atlas. As part of the copperplate atlas, this is one of 41 sheets forming a large overview map of the empire. Place-names north of the great wall are rendered in Manchu, while those south of the Great Wall are in Chinese. 40 × 64 cm. Royal Library of Belgium, LP VB 11.283 E (2), fol. 10. (Reproduced with permission of the Royal Library of Belgium, Brussels.)

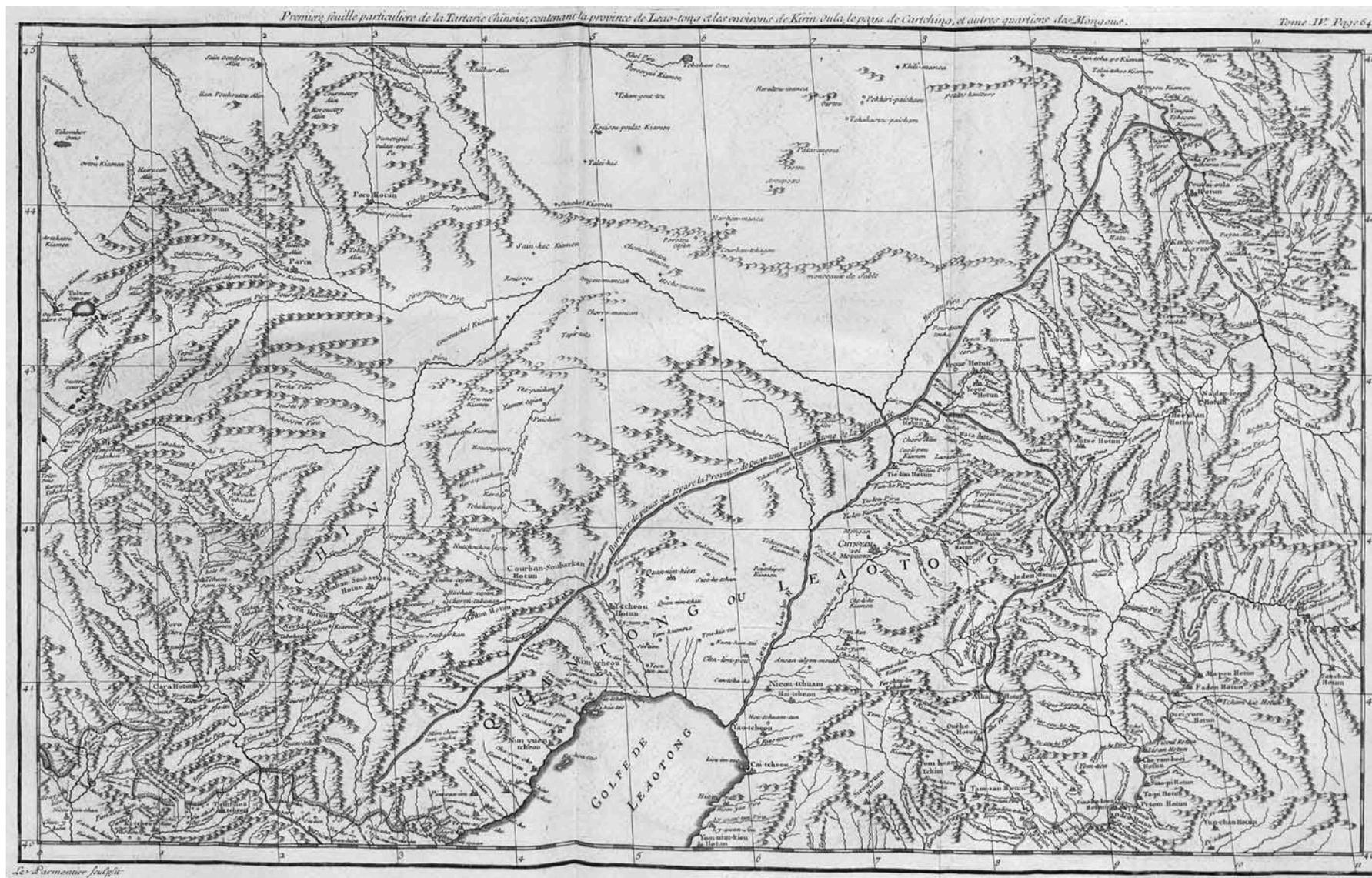


Fig. 4. The region of Shengjing as adapted by d'Anville. Place-names north of the Great Wall are transliterations of Manchu, another indication that the copperplate version was used for d'Anville's maps of Tartary. 29.5 × 48 cm. Taken from du Halde, *Description*, 4 vols. (Paris, Le Mercier, 1735), vol. 4. (Reproduced with permission of Maurits Sabbebibliotheek, University of Leuven, Leuven.)

Moreover, the place-names appear to be transliterations from Manchu, the language used on the 1719 copperplate atlas. This combination, however, was not produced by d'Anville. I have identified the original map he used, a 'Map on Oil Paper of the Kingdom of Korea Given to the Jesuits by the Chinese', copied from the missionaries' map on to Parisian oil paper and now at the Bibliothèque nationale de France (Figs. 5 and 6).³³ Its title refers to the fact that Jean-Baptiste Régis (1663–1738), one of the original mapmakers, was allowed to consult maps and textual descriptions of Korea at the imperial palace in the second half of the 1720s, information from which was then sent to Paris.³⁴ Place-names were not copied, but appear to have been transliterated directly onto the map by Régis. Also included is a small legend of Manchu toponyms.

In 1729, before the adaptations of the maps of Tartary and Korea were fully completed, a second contract was signed between d'Anville and du Halde. It increased the cartographer's remuneration in exchange for making reductions of the regional maps of Tibet and for compiling the *General Map of Tibet*.³⁵ Like the map of Korea, the Tibetan maps do not exactly match the relevant sheets from the copperplate atlas. Although at first sight the maps of Tibet look as if they were cut-and-paste versions, with each regional map made up of two or more sheets, they include areas that were left blank in the copperplate atlas and contain some striking differences of detail. For example, routes across the region are represented as double dotted lines, whereas the regional maps of Tartary show no routes at all. Such discrepancies stem from the fact that Régis had sent an updated scroll map of Tibet to Paris in 1726, and d'Anville had used this for his version of the maps of Tibet.³⁶ This map was copied on the same type of oil paper and divided into three separate parts. It is now preserved at the Bibliothèque nationale de France and, like the map of Korea, includes a legend and some explanatory notes.³⁷

In sum, close analysis of d'Anville's regional maps reveals that different versions of the Chinese maps were used as a basis for d'Anville's renderings (Fig. 7). In a response written several years later to refute some of the criticism that had been voiced about his work, d'Anville explicitly confirmed that his maps were true to the originals that were sent from China:

I am glad to announce, before anything else, that the regional maps of the provinces of China, of parts of Tartary, and even those of Tibet, all drawn to be

included in the *Description de la Chine* by Reverend Father du Halde S.J., are moderate and servile (if I may use this epithet) reductions of maps that were sent from China. It was thought necessary to retain even the style of the original design, so that this large and beautiful work could be communicated or presented to the public with the greatest faithfulness [to the originals].³⁸

Another indication and direct consequence of d'Anville's close adherence to the maps that had been sent from China is that the southernmost tip of Shengjing, China's Liaoning province today, which is shown in all Chinese versions, is not covered by any of d'Anville's regional maps. Instead, the French cartographer opted for the geographical coverage of the copperplate version map for the region of Shengjing (see Fig. 3), while using his copy on oil paper for the map of Korea (see Fig. 5). Given that the coverage of the two maps came from different versions of the Chinese atlas, the southernmost tip of Shengjing was lost between sheets. In spite of this minor lacuna, d'Anville had completed the reduction of all the regional maps commissioned by du Halde by 1733.

The Newly Composed General Maps

Compared with the regional maps, the general maps that d'Anville was commissioned to create *de novo* for du Halde's *Description* contain substantial differences because they were not based exclusively on maps sent from China. Like Guillaume Delisle and other contemporaries, d'Anville was a *géographe de cabinet* or 'armchair geographer': he never left his office to conduct a survey on the ground but relied instead on the descriptions and observations of others for his cartographical information. Nevertheless, he had a good eye for reliable data and made a point of excluding information that he could not confirm from other sources. He never blindly copied earlier maps, a common practice in his day, but scrutinized every text and map he could lay his hands on.

A large share of the additional information that d'Anville needed for the general maps in his *Description* was provided by du Halde. After all, the Jesuit father had accumulated the memoirs of 27 missionaries to China, some of which contained useful geographical and astronomical data. For example, several accounts by Jean-François Gerbillon (1654–1707) of his journeys to Tartary in the service of the emperor were used for the *General Map of Chinese Tartary*.³⁹ In addition, du Halde and his Parisian colleagues corresponded frequently with the French mission in Beijing, and Gaubil's letters in particular testify to a rich



Fig. 5. The map of Korea on oil paper that was used by d'Anville for his adaptation. The map is a combination of different versions of the Chinese atlas and constitutes a copy of a map that the Beijing missionaries originally sent to Paris, where it was copied on to oil paper, perhaps by d'Anville himself. Noted in the margin is a short list of Manchu toponyms (see Fig. 6). 78.5 × 53 cm. BnF, Cartes et Plans, Ge DD 2987 (7325B). (Reproduced with permission of the Bibliothèque nationale de France, Paris.)

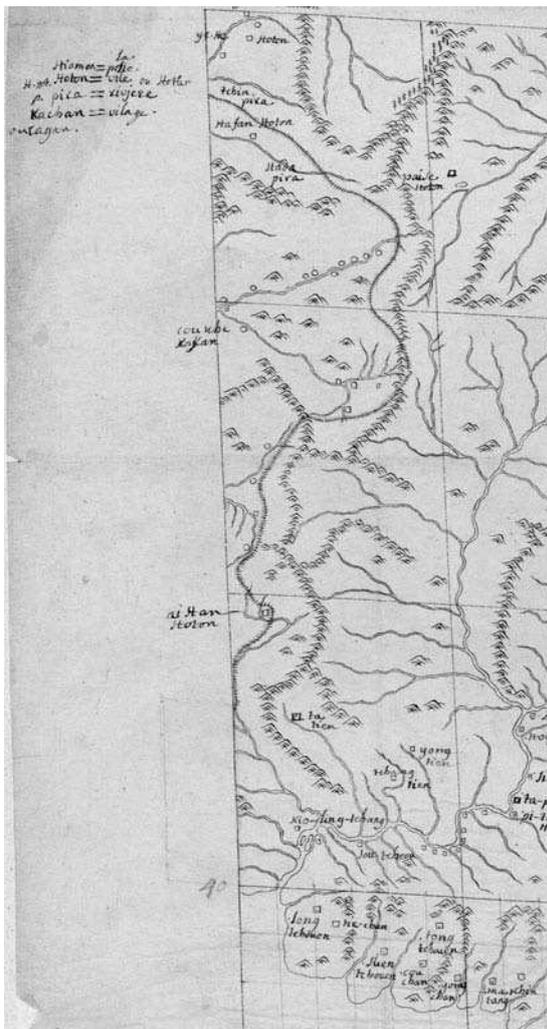


Fig. 6. Detail from the oil-paper map of Korea (see Fig. 5) with the list of Manchu toponyms in the margin. The upper part of the map shows Manchuria, which was not included in the woodblock versions. The lower part portrays the Korean coastline. (Reproduced with permission of the Bibliothèque nationale de France, Paris.)

exchange of ideas and knowledge taking place throughout the 1720s and early 1730s and often dealing with the geography of regions that fell beyond the scope of the Qing surveys.⁴⁰

French Jesuit missionaries abstracted material from the route books and maps that the Qing court allowed them to consult, and they interviewed envoys from distant regions who visited the capital to pay homage to the emperor.⁴¹ From whatever reached Paris, d'Anville was able to distil useful data, most notably concerning the routes that are depicted on the *General Map of China* and the *General Map of Chinese Tartary*. That he first

sketched out these routes separately on smaller pieces of paper and incorporated them on his maps only at a later stage is clearly shown by surviving manuscript drafts of some of them.⁴²

In addition to material supplied by the missionaries in China, d'Anville consulted non-Jesuit sources.⁴³ They included his correspondence with Joseph-Nicolas Delisle (1688–1768), Guillaume Delisle's brother and head of the School of Astronomy in St Petersburg, as well as a manuscript Dutch chart depicting the seas near Japan. Both inspired d'Anville to redraw the islands off the coast of Tartary and to include Japan on the general map of the region.⁴⁴ All the Jesuit and non-Jesuit sources eventually allowed the cartographer to complete the *General Map of China* (1730), the *General Map of Chinese Tartary* (1732), and the *General Map of Tibet* (1733).

In January 1734, a third and last contract was signed between du Halde and d'Anville. It stipulated publication rights and the final date of delivery. The only map that remained to be done, the *Most General Map That Comprises China, Chinese Tartary and Tibet*, was to incorporate all the regions referred to above and to include lands as far west as the Caspian Sea. This map was intended to be the masterpiece of all the maps commissioned by du Halde. Here again, d'Anville made use of information provided by the Beijing missionaries, even though some of the territories lay far beyond the influence of the Qing court. Around 1730, for example, an intercontinental debate had taken place between d'Anville and Gaubil, through the Parisian Jesuits, as to the position of Astrakhan, a city on the western shore of the Caspian Sea.⁴⁵ As a result, Gaubil had also sent to Paris a manuscript map that depicted a Caspian coastline remarkably similar to that on the *Most General Map*.⁴⁶

Gaubil's correspondence was wide ranging. As well as sending copies of maps and partial translations of written descriptions kept at the imperial palace in Beijing, he exchanged cartographical information with both Laurent Lange (1690–1752), the Swedish head of the 1715 Russian embassy to the Qing Empire, and Joseph-Nicolas Delisle in St Petersburg. Du Halde claimed to have disliked the idea of using non-Jesuit sources, but allowed the practice at the request of Gaubil and his colleagues in Beijing.⁴⁷ Since Astrakhan and its surrounding territories were controlled by Muscovy, the missionaries had hinted that additional data should be obtained from St Petersburg.

Joseph-Nicolas Delisle had already provided d'Anville with Russian information on the

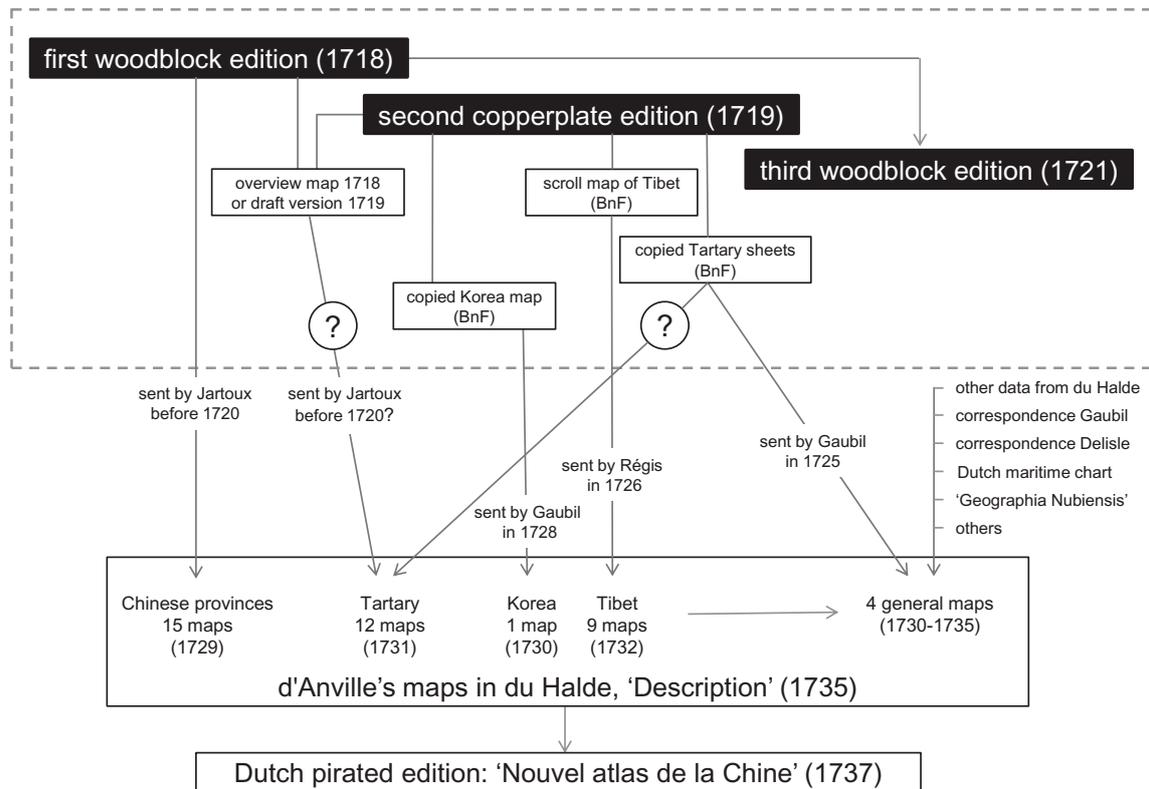


Fig. 7. A genealogy of all Chinese and European maps discussed in this article. Different sets of d'Anville's adaptations were derived from different versions of the Chinese atlas, all sent to Paris at different times. For the general maps, a much wider array of sources was used.

coastlines of eastern Siberia and had somehow managed to send a copy of the Beerings chart to Paris. This flow of cartographical information from St Petersburg to Paris suggests that, directly or indirectly, d'Anville obtained even more information from Delisle, such as the manuscript map by Gaubil mentioned above, as well as the description of Bukhara (in present-day Uzbekistan) by Philipp Johann von Strahlenberg (1677–1747), a Swedish officer who had been captured by the Russians and sent to the city of Tobolsk, where he collected information on much of Central and Inner Asia.⁴⁸ Given Delisle's difficult situation as a Frenchman working for the Russian state, however, we do not know with certainty whether this could have been the case. Nevertheless, with St Petersburg directly linked to Beijing and Paris through the exchange of cartographical material, the input of Delisle was of paramount importance in the production of d'Anville's general maps.

Even so, D'Anville was not content to rely exclusively on others for compiling his general maps.

From his study or, at least, the Paris libraries, he used his talents to scrutinize the available literature for himself. In the Bibliothèque nationale de France is a small sketch of the region of Zaysan, in present day Kazakhstan, to take just one example.⁴⁹ The map is clearly based on information taken from the *Geographia nubiensis*, a Latin translation of an Arabic book on geography published in Paris more than one hundred years earlier.⁵⁰ In the event, this bit of information was not included on d'Anville's China maps, but du Halde did mention the book's usefulness in determining the longitude of Astrakhan.⁵¹

With all maps finally completed, engraved and delivered by 1 May 1734, du Halde was able to publish his work at great cost in 1735.⁵² In the years that followed, the *Description* quickly became the most renowned work on China available to the European readership. On the other hand, with roughly 15 years between the arrival in Paris of the first set of original Chinese maps and their appearance in the *Description*, concerns over the

delay in publishing these maps, which had been smouldering beneath the surface, were soon replaced by criticism of d'Anville's work.

Reception in Europe and China

For two years after the publication of du Halde's *Description*, his confreres in Beijing waited impatiently for the four large volumes to arrive. In their eyes, the books would help their mission secure more support by showing the public how the French missionaries had worked to improve European knowledge of China. When the four volumes finally reached China in the first half of 1737, they were scrutinized by the Beijing missionaries, because word had reached them of the criticism that was being voiced in Europe about the lack of justification for some of the data included in d'Anville's maps.⁵³ In France, for example, there had been arguments about how many *li* 里 were in one degree of latitude.⁵⁴ More importantly, there was a good deal of commotion over the depiction of coastlines on the *General Map of Chinese Tartary*. On the map, d'Anville had decided to deviate from the depiction on the Chinese maps, preferring data that

had reached him from St Petersburg, which he judged to be superior.⁵⁵ In China, Joseph-Anne-Marie de Moyriac de Mailla (1669–1748), one of the original missionary-mapmakers, took the lead in criticizing the work of both du Halde and d'Anville. His main complaints concerned the spelling of place-names and the newly created general maps.⁵⁶

The heated discussions in Europe ended only after d'Anville had published a number of justifications refuting much of the criticism.⁵⁷ The adverse reaction seems to have had little effect on the work's general popularity, however, for in 1736, hardly a year after the *Description* had appeared in Paris, a pirated edition was printed in the Netherlands. The Dutch version lacked the maps, since the publisher had no access to the copper plates, which were kept in Paris.⁵⁸ Instead, the maps were copied from du Halde's book, slightly edited and re-engraved in The Hague, and published in 1737 as a separate atlas with the title *Nouvel atlas de la Chine, de la Tartarie chinoise et du Thibet*.⁵⁹ All the China maps were included, with the exception of the 38 maps of Chinese cities. The

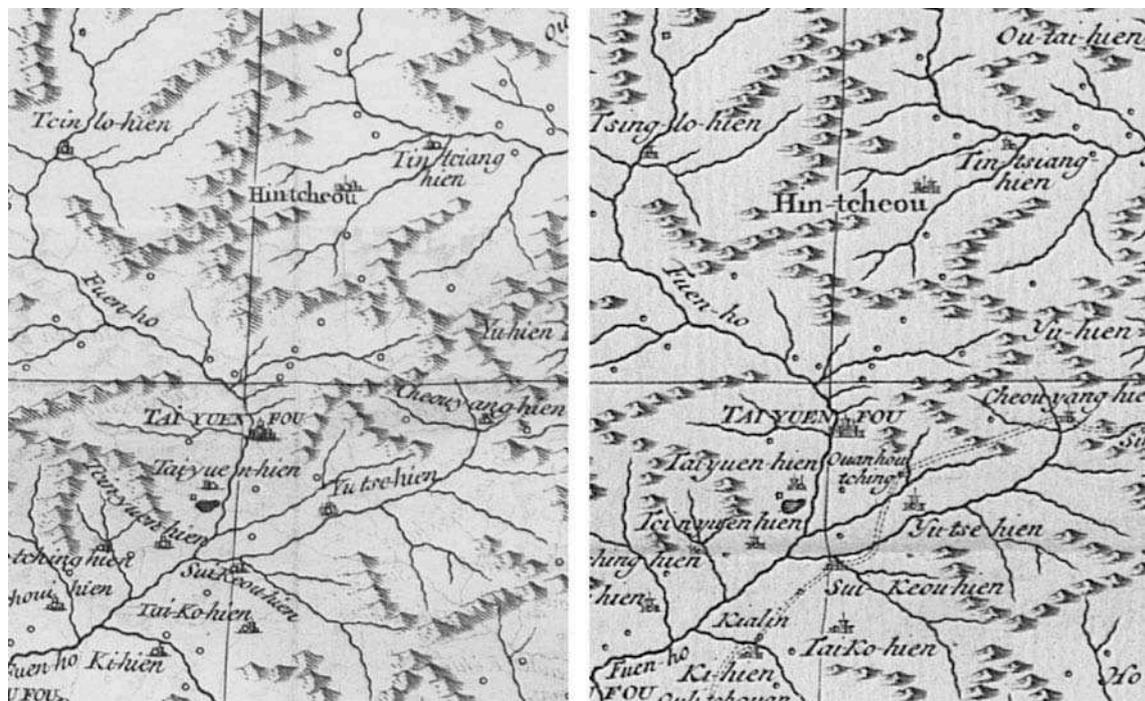


Fig. 8. Left: detail from the Shanxi map as adapted by d'Anville (Fig. 2). Taken from du Halde, *Description*, 4 vols. (Paris, Le Mercier, 1735), vol. 1. Right: the same area on the copy included in the 1737 pirated atlas published in The Hague. Mountain and settlement signs differ in style and a route across the province, indicated by double pecked lines, has been added. Taken from *Nouvel atlas de la Chine, de la Tartarie chinoise et du Thibet* (The Hague, Henri Scheurleer, 1737). (Reproduced with permission of Maurits Sabbebibliotheek, University of Leuven, Leuven.)

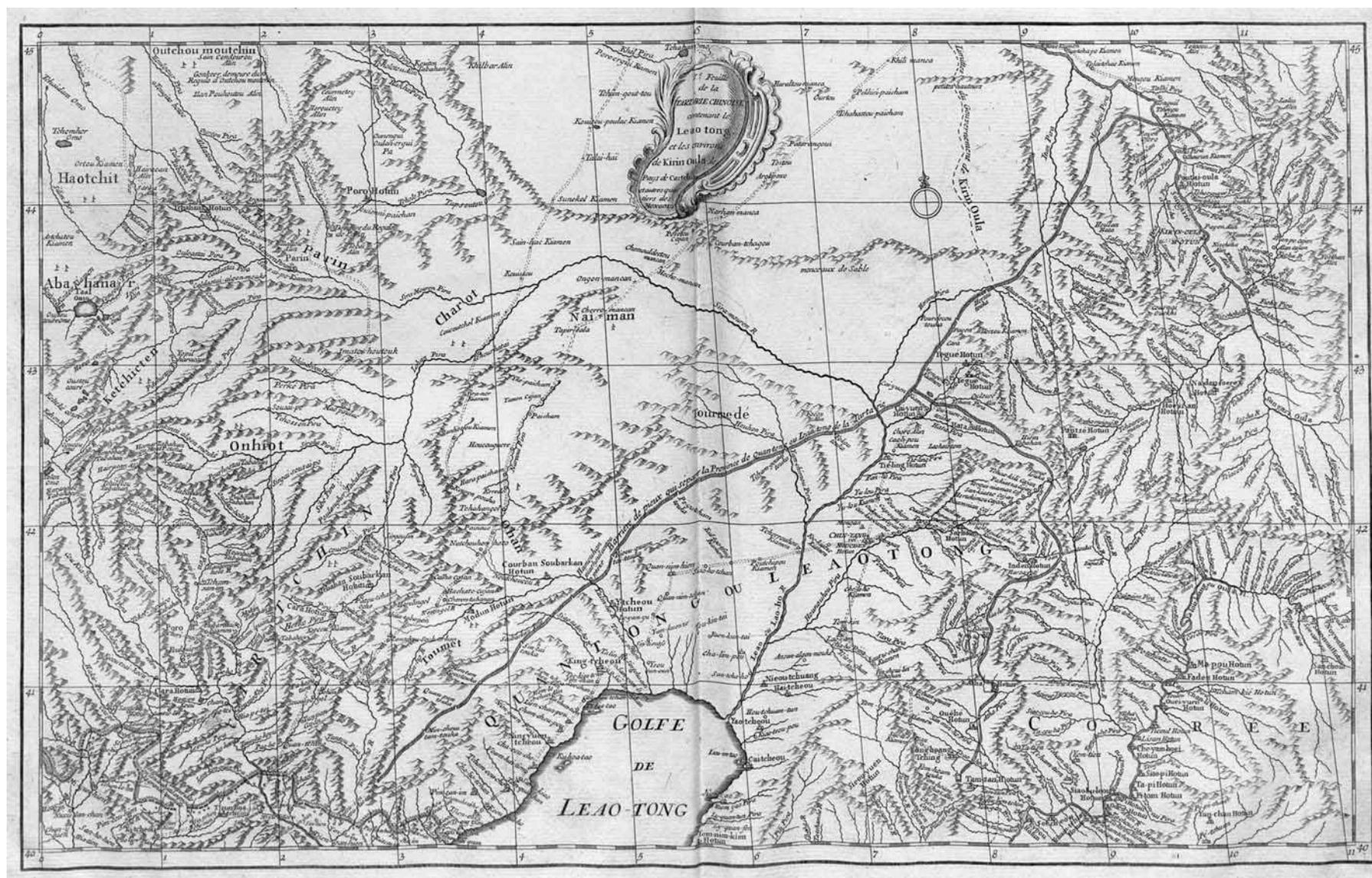


Fig. 9. The region of Shengjing in the 1737 pirated atlas that was published in The Hague. Dimensions are identical but when compared with d'Anville's rendition (Fig. 4), we see that different routes and a cartouche were added. Taken from *Nouvel atlas de la Chine, de la Tartarie chinoise et du Thibet* (The Hague, Henri Scheurleer, 1737). (Reproduced with permission of Maurits Sabbibliotheek, University of Leuven, Leuven.)

description of Bukhara by Strahlenberg, used by d'Anville for the *Most General Map*, was added to the atlas as if to justify the new edition, since du Halde had included little information about this region in the *Description*.

At first sight, the maps that comprise the pirated atlas appear to be exact copies of the originals, but closer scrutiny reveals several important differences. The prints and paper are of slightly inferior quality, and the place and mountain signs are stylistically different (Fig. 8). More importantly, routes and other information found only on some of d'Anville's general maps were added to the regional and provincial maps, and all the maps of both Tartary and Tibet were given separate cartouches, which the originals lacked (Fig. 9; compare with Fig. 4).

When d'Anville saw the Dutch edition of his maps, he was appalled, not only by the fact that they had been pirated and published separately from the *Description*, but also by the differences in quality.

Almost all of these maps are not only terribly inferior to the original ones in terms of execution, but also very badly engraved in all respects. . . . The mountains on the Dutch map are in very bad taste: they are little hills, detached and randomly scattered, without being joined together in order to express the natural; the typeface is puny and of equally bad taste. . . . We even find some rivers that are not depicted on the original map as they are on the Dutch copy, and if we would take pains to scrutinize it and submit all copies to a careful examination, there is no doubt that we would find many more mistakes of this sort.⁶⁰

Notwithstanding d'Anville's personal objections with regard to the *Nouvel atlas de la Chine*, the pirated editions of du Halde's work and d'Anville's maps were more popular among contemporary readers than the original Paris edition, presumably because of their more reasonable price. Another factor in the popularity of the Dutch atlas was its larger format, which made it easier to consult than the folded maps in the *Description*. The success of the Dutch atlas led to its republication in Amsterdam almost fifty years later, using the same pirated engravings.⁶¹

In Paris, too, it was decided to reprint d'Anville's maps, and a separate atlas was published in France for the first time in 1785.⁶² The original plates were used, including the 38 city maps that the Dutch had omitted, as well as the fourteen illustrations of cultural and ethnographical interest from the *Description*. As for du Halde's texts, besides the French-language pirate edition mentioned above,

many translations appeared throughout Europe, although only one of them included a substantial part of the cartographic material. The translation published by Edward Cave in London (1738–1741) included maps that had been reworked and somewhat improved by John Green, an alias for Bradock Mead.⁶³

Jean-Baptiste Bourguignon d'Anville's China maps were the outcome of a remarkable exchange of cartographical material across two continents and through an extensive network of people in Beijing, Paris and St Petersburg, with the French Jesuits at the centre. While these maps were for the most part based on the different versions of a Chinese atlas, itself produced with the assistance of European missionaries, d'Anville certainly made a substantial contribution to European geographical knowledge of continental East Asia, in particular through his newly compiled general maps. Once published, d'Anville's China maps reverberated throughout the network, igniting yet another round of intercontinental exchange as the validity of some of their features came into question. The wide circulation and multiplication of editions of both du Halde's monumental work as a whole and d'Anville's maps in particular ensured that the French cartographer's maps remained the authoritative geographical work on East Asia until well into the nineteenth century. The influence of d'Anville's China maps on mapmakers was overtaken only by the expansion of first-hand knowledge about the region through European colonialism and changes in cartographical technology.

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NOTES AND REFERENCES

1. Jean-Baptiste du Halde, *Description géographique, historique, chronologique, politique, et physique de l'empire de la Chine et de la Tartarie chinoise*, 4 vols. (Paris, Le Mercier, 1735).
2. The name Tartary referred at the time to almost the whole area lying between the Chinese provinces and Muscovy, most of which was inhabited by nomadic peoples. It equates approximately to modern northeastern China (or Manchuria), Mongolia, eastern Turkestan and parts of Siberia.
3. Du Halde, *Description* (see note 1), 1: xxvii–xxxv, xlvij–xlvij.
4. The emperors of the 'Great Qing' ruled China from c.1644 until 1911. Their empire included lands that stretched far beyond the borders of the territory that was traditionally controlled by the Chinese state. The rulers of the Qing were the previously nomadic Manchus, who had invaded China from the north, causing the Chinese Ming dynasty (1368–1644) to fall.

5. On the scientific ambitions of the French Jesuit mission in China and its relationship with the Académie, see Isabelle Landry-Deron, 'Les mathématiciens envoyés en Chine par Louis XIV en 1685', *Archives for the History of the Exact Sciences* 55 (2001): 423–63; and Florence C. Hsia, *Sojourners in a Strange Land: Jesuits & Their Scientific Missions in Late Imperial China* (Chicago, University of Chicago Press, 2009), 111–28.

6. The French Jesuits were not alone in the mapping project: in addition to Jesuits from Germany and Portugal, respectively Ehrenbert Xavier Fridelli (1673–1743) and João Francisco Cardoso (1677–1723), another active contributor was the French Augustinian Guillaume Fabre-Bonjour (1669–1714). When the first French Jesuit missionaries left Europe in 1685, the Académie gave them a list of questions as a guideline for their studies, nearly half of which related to the geography of areas both within and surrounding the Qing Empire. See Virgile Pinot, *Documents inédits relatifs à la connaissance de la Chine en France de 1685 à 1740* (Paris, Geuthner, 1932), 7–9.

7. Peter C. Perdue, 'Boundaries, maps, and movement: Chinese, Russian, and Mongolian empires in early modern central Eurasia', *International History Review* 20:2 (1998): 263–86 at 275; Laura Hostetler, *Qing Colonial Enterprise: Ethnography and Cartography in Early Modern China* (Chicago, University of Chicago Press, 2001).

8. I derived my lists of team members from the published Manchu- and Chinese-language palace memorials: see Mario Cams, 'The early Qing geographical surveys (1708–1716) as a case of collaboration between the Jesuits and the Kangxi court', *Sino-Western Cultural Relations Journal* 34 (2012): 1–20. The article also discusses the personal patronage of the emperor.

9. Cordell D. K. Yee, 'Traditional Chinese cartography and the myth of Westernization', in *The History of Cartography*, vol. 2, bk. 2, *The Cartography in the Traditional East and Southeast Asian Societies*, ed. J. B. Harley and David Woodward (Chicago, University of Chicago Press, 1994), 170–202; Theodore Foss, 'Jesuit cartography: a Western interpretation of China', *Review of Culture* 21:4 (1994): 133–56. An earlier version of Foss's article can be found in *East Meets West: The Jesuits in China 1582–1773*, ed. Charles E. Ronan and Bonnie B. C. Oh (Chicago, Loyola University Press, 1988), 209–51.

10. Cams, 'The early Qing geographical surveys' (see note 8).

11. As pointed out by Hostetler, the national survey of France was completed only in 1744, while the first Russian survey was finished one year later. See Hostetler, *Qing Colonial Enterprise* (see note 7), 73.

12. In subsequent decades and under different emperors, two further revisions of the atlas were produced at court. See Wang Qianjin 汪前进 and Liu Ruofang 刘若芳, *Qingting sanda shice quantuqi 清廷三大實測全圖集*, 3 vols. (Beijing, Waiwen chubanshe, 2007), vols. 2–3. Reduced maps based on data from the surveys were later included in a number of Chinese works containing geographical descriptions of (parts of) the empire, such as the *Tushu jicheng* 圖書集成. See Walter Fuchs, *Der Jesuiten-atlas der Kanghsi-zeit*, 2 vols. (Beijing, Fu-jen University, 1943), 1: 48–56, 60.

13. For a review of these three versions, see Fuchs, *Der Jesuiten-atlas* (see note 12), 1: 16, 60.

14. Antoine Gaubil, *Correspondance de Pékin 1722–1759*, ed. Renée Simon (Genève, Librairie Droz, 1970), 216.

15. One account describing an episode of the mapping project in detail was written by Joseph-Anne-Marie de Moyriac de Mailla. He discussed the map-making activities on the island of Taiwan. The account is found in

Jean-Baptiste du Halde et al., *Lettres édifiantes et curieuses écrites des missions étrangères par quelques Missionnaires de la Compagnie de Jesus*, 34 vols. (Paris, Le Clerc, 1702–1776), 14: 1–85.

16. '... je n'ai pas pu les voir moi-même, on croit qu'il faut tout retenir serré de peur qu'on ne nous enlève la gloire de l'invention, ainsi que nous ne communiquerons rien que par nos lettres édifiantes. Cependant, tout le monde nous laisse et personne ne nous soutient. Voilà ce qu'on gagne à vouloir toujours faire bande à part'. Quoted from a letter of 21 December 1722 now in Paris at the Bibliothèque de l'Observatoire, B 1/10/7. The letter was also addressed to Jean-Baptiste Jacques (1688–1728), who reached China together with Gaubil.

17. '... on a fait ici quelques plaintes du P. du Halde 1° de ce qu'il garde si longtemps les cartes sans les faire paraître; ... on a certainement tort, et je l'ai dit nettement, car en 1720 le P. Jartoux écrivit positivement de ne pas publier les cartes jusqu'à nouvel ordre à cause de plusieurs difficultés ... je vis moy-même les lettres à Paris, avant de partir, dans la chambre du P. du Halde'. Gaubil, *Correspondance de Pékin* (see note 14), 216. The delay is partly covered in Isabelle Landry-Deron, *La preuve par la Chine* (Paris, Éditions EHESS, 2002), 120–21.

18. Gaubil, *Correspondance de Pékin* (see note 14), 216–17, 302.

19. Archives Nationales (Paris), *Maison du roi*, O¹ 63, fol. 157.

20. Joseph-Bon Dacier, 'Éloge de d'Anville', in Louis Charles Joseph de Manne, *Notice des ouvrages de M. D'Anville* (Paris, Demanne, 1802), 3–44. Du Halde later became the Jesuit confessor to Louis d'Orléans, perhaps by the agency of d'Anville.

21. Jean-Baptiste Bourguignon d'Anville, *Mémoire de M. D'Anville, Premier Géographe du Roi, Des Académies Royales des Belles-Lettres, & des Sciences. Sur la Chine* (Beijing, 1776), 8.

22. For the city maps, see Marcel Destombes, 'Les originaux chinois des plans de ville publiés par J. B. Du Halde, s.j. en 1735', in *Actes du colloque international de sinologie* (Chantilly, 1976), 85–97. D'Anville corresponded with Joseph-Nicolas Delisle about the discoveries of Beerings, but the chart itself appears to have been sent to du Halde by the king of Poland. See Jean-Baptiste Bourguignon d'Anville, *Lettre de M. d'Anville, géographe ordinaire du roi, au R. P. Castel, jésuite. Au sujet des Pays de Kamtchatka et de Jejo. Et réponse du R. P. Castel* (Paris, 1737), 9. A copy of the chart, on oil paper and divided into four sheets, is kept at the Bibliothèque nationale de France (hereafter BnF), Cartes et Plans, Ge DD 2987(7403,1–4). The publication of the chart in the *Description* possibly contributed to the removal of J. N. Delisle as the head of the School of Astronomy and his subsequent return to France. Note that another Delisle brother, Louis Delisle de la Croyère (1687–1741), also served in Russia and was a fellow explorer of Beerings.

23. '[Moi, P. du Halde] me ferai un plaisir d'obliger ledit Sieur en faisant mention de son travail, dans le plan que je dois donner au public de mon ouvrage, et dans l'ouvrage même ...'. All the contracts between du Halde and d'Anville cited in this essay are published in Henri Cordier, 'Du Halde et d'Anville (cartes de Chine)', *Recueil de mémoires orientaux: textes et traductions publiés par les professeurs de l'école spéciale des langues orientales vivantes à l'occasion du XVI^e congrès international des orientalistes réunis à Alger* (Paris, Leroux, 1905), 391–400. The originals are preserved in Paris at the Bibliothèque de l'Institut [de France], MS 5401, 245–47.

24. '... l'attention que j'ai eue de ne confier la gravûre de mes Cartes qu'au plus habile qui me fût connu'. D'Anville, *Mémoire ... sur la Chine* (see note 21), 46. For an analysis of the impact of production contexts on the work of d'Anville, see Lucile Haguët, 'J.-B. d'Anville as armchair mapmaker: the impact of production contexts on his work', *Imago Mundi* 63:1 (2010): 88–101.

25. For his designs, Mr. Humblot consulted Chinese paintings provided by du Halde. The paintings had been given to du Halde by a certain du Velaer, who had spent some time on the island of Hainan as a director of the Compagnie des Indes. See du Halde, *Description* (see note 1), 1: xlix.

26. Cordier, 'Du Halde et d'Anville' (see note 23), 394. See also de Manne, *Notice des ouvrages de M. D'Anville* (note 20), 81–83.

27. I compared d'Anville's adaptations in du Halde's *Description* with the 1721 Chinese woodblock maps in Brussels at the Royal Library of Belgium, LP VB 11.283 E (1–4). D'Anville's draft maps of the Chinese provinces are preserved at BnF, Cartes et plans, Ge D 10569–10583.

28. The 1718 atlas that was sent to Paris is no longer extant, but according to Fuchs, the 1718 maps covering the Chinese provinces are identical to those in the 1721 revised version. See Fuchs, *Der Jesuiten-atlas* (note 12), 1: 15–16. Note that several sheets of a 1721 woodblock version of the atlas are kept at BnF, Cartes et Plans, GE CC-4461 (11RES). It has Russian titles added in red ink on the back of most maps, indicating that it was not acquired from du Halde and the Parisian Jesuits in the 1720s, but much later through a Russian contact. It seems negotiations on the transfer of maps from Russia to France did in fact take place in the early 1750s, after which d'Anville became a member of the St Petersburg Academy of Sciences. See Georges Dulac, 'Science et politique: les réseaux du dr. António Ribeiro Sanches (1699–1783)', *Éditions de l'E.H.E.S.S.* 43:2 (2002): 265. The maps are framed with blue silk and are mentioned but incorrectly identified in Henri Cordier, *Bibliotheca sinica*, 2 vols. (Taipei, Ch'eng Wen, 1966), 1: 184.

29. For the copperplate engravings of the second version of the atlas, Manchu was used for toponyms to the north and west of the Great Wall, whereas Chinese was used for places south of the Great Wall.

30. An example of the differences is the twin lakes depicted just south of 41° N on the *Fourth Detailed Map of Tartary*. D'Anville's detailed maps of Tibet also include a map of the region of Hami (*First Detailed Map of Tibet*), where the lakes are marked just south of 43° N, according to the updated copperplate maps and those in the second woodblock version. For the comparison, I used the maps in du Halde's *Description* and in the facsimile of the Chinese copperplate maps published by Wang and Liu, *Qingting sanda shice quantuji* (see note 12), vol. 1. D'Anville's draft maps of Tartary are preserved at BnF, Cartes et plans, Ge D 10584.

31. Fuchs, *Der Jesuiten-atlas* (see note 12), 1: 27.

32. Other possibilities include the original copperplate sheets of Tartary now in the BnF, likely to have been sent to Paris by Gaubil only in the second half of the 1720s. See BnF, Cartes et Plans, Ge DD 2987 (7296B–7307B). See also Gaubil, *Correspondance de Pékin* (see note 14), 187, 205–6, 302. For yet another possibility, albeit unlikely, see Ad Dudink, *Chinese Books and Documents (pre-1900) in the Royal Library of Belgium at Brussels* (Brussels, Archives et Bibliothèques de Belgique, 2006), 91–92.

33. BnF, Cartes et Plans, Ge DD 2987 (7325B): 'Carte huilée du royaume de Corée fournie aux jésuites par les chinois'. The map consists of two pieces of paper that were glued together. Gaubil, *Correspondance de Pékin* (see note 14), 205. I am indebted to the BnF's Département des Cartes et Plans for help in determining the provenance of the oil paper.

34. In exchange for copying maps, European missionaries provided the court with cartographical information from Europe. Gaubil, *Correspondance de Pékin* (see note 14), 187.

35. Some Tibetan maps also cover areas that are now considered part of eastern Turkestan or Xinjiang.

36. Gaubil, *Correspondance de Pékin* (see note 14), 187; and d'Anville, *Mémoire ... sur la Chine* (see note 21), 14–17.

37. BnF, Cartes et plans, Ge DD 2987 (7348B) and Ge DD 2987 (7349B–7350B). As described by d'Anville, routes across the region are depicted in red. See d'Anville, *Mémoire ... sur la Chine* (note 21), 17. Parts of the scroll map appear to be missing.

38. 'Je suis bien aisé qu'on soit prévenu avant toute chose que les Cartes particulieres des provinces de la Chine, les parties de la Tartarie, celles du Tibet même, selon que le tout a été dessiné pour entrer dans la Description de la Chine donnée par le R.P. Du Halde Jésuite, sont une réduction modérée et servile (si je puis employer cette épithete) des Cartes qui ont été envoyées de la Chine. On a cru devoir conserver le goût même du dessein original, pour que ce grand et bel ouvrage fut communiqué ou remis au Public avec plus de fidélité'. Jean-Baptiste Bourguignon d'Anville, 'Discussion de quelques circonstances géographiques de la carte générale de la Tartarie chinoise, dressée par le Sr d'Anville, et comprise dans la Description de la Chine de R. P. Du Halde', Archives départementales de l'Orne, SHAO 252J224; images of the document were published on 10 January 2012 by Lucile Haguët on the *projet d'Anville's* website: <http://danville.hypotheses.org/1271>. Elsewhere, d'Anville mentions that the detailed maps of Tartary and Tibet were 'copied without applying any changes': d'Anville, *Mémoire ... sur la Chine* (see note 21), 17. Although the statement is true to a certain extent, d'Anville's claims of faithfulness to the originals are exaggerations. For example, he adjusted the depiction of some of the mountain ranges.

39. D'Anville's reliance on Gerbillon is referred to by d'Anville himself as well as by du Halde: d'Anville, *Mémoire ... sur la Chine* (see note 21), 18–19; and du Halde, *Description* (see note 1), 1: xxvii; 4: 87–422.

40. Gaubil, *Correspondance de Pékin* (see note 14). Some of Gaubil's Parisian confreres, such as Etienne Soucier (1671–1744), were also actively involved in this intercontinental exchange.

41. Gaubil, *Correspondance de Pékin* (see note 14), 117, 120, 187, 205, 207, 217. Gaubil copied more sheets of Tartary from the copperplate atlas in the latter half of the 1720s. Copies of copperplate sheets of Tartary that could have originated from Gaubil are conserved at BnF, Cartes et Plans, Ge DD 2987 (7296B–7307B). In addition, d'Anville appears to have made copies of the geographical features on the copperplate sheets for his own use, on which he added routes across the region, possibly in preparation of *The General Map of Chinese Tartary*. See BnF, Cartes et plans, Ge DD 2987 (7308B–7319B).

42. BnF, Cartes et plans, Ge D 10589–10590. These depict routes from the imperial capital into Mongolia.

43. He referred to these in several of his justificatory texts, both published and unpublished. Examples are d'Anville, *Mémoire ... sur la Chine* (see note 21), 6–12; and d'Anville, *Lettre de M. d'Anville* (see note 22), 11.

44. The Dutch chart, which depicts the journey of the *Castricom* around 1643 in the waters surrounding the northernmost islands of Japan, is BnF, Cartes et plans, Ge DD 2987 (7431, 1–2). D'Anville's draft, based on the chart, is BnF, Cartes et plans, Ge D 10592. Drafts of all of d'Anville's general maps are BnF, Cartes et plans, Ge D 10585–10588.

45. Gaubil, *Correspondance de Pékin* (see note 14), 258, 278–79. See also du Halde, *Description* (note 1), 4: 465–68.

46. Christophe Comentale, 'Une carte inédite du père Gaubil, s.j.: Chine et Tartarie', *Actes du IVe colloque internationale de sinologie* (Chantilly, 1983), 126–33. This map is now BnF, Cartes et plans, Ge D 12845. Some place-names are written in yellow ink and seem to be later additions. They could have been written by d'Anville, since the proof copies of the General Map of Tibet (BnF, Cartes et plans, Ge D 10852) have similar additions. D'Anville's additions were clearly not used, however, for toponyms on the *Most General Map*.

47. D'Anville, *Mémoire ... sur la Chine* (see note 21), 15; and du Halde, *Description* (see note 1), 1: xlviii.

48. An implicit reference is made to Strahlenberg's work in du Halde, *Description* (see note 1), 4: 465. See also Michael Knüppel, 'Eine unbekannt gebliebene Schrift Philipp Johann von Strahlenbergs', *Acta Orientalia* (2008): 187–209. A full account of his exploration of Central Asia, including cartographic material, was later published in Stockholm: Philipp Johann von Strahlenberg, *Das Nord- und Ostliche Theil von Europa und Asia* (Stockholm, 1730). Perdue has elaborated on Strahlenberg's contribution to cartography. See Perdue, 'Boundaries, maps, and movement' (note 7), 281–82.

49. BnF, Cartes et Plans, Ge D 10591. The map is kept with other maps of China.

50. Gabriele Sionita and Joannes Hesronita, *Geographia nubiensis: id est accuratissima totius orbis in septem climata divisi descriptio, continens praesertim exactam vniuersae Asiae, & Africae, rerumq[ue] in ijs hactenus incognitarum explicatiorem* (Paris, Hieronymi Blagaert, 1619), 213–14.

51. Du Halde, *Description* (see note 1), 4: 465–68.

52. Landry-Deron, *La preuve par la Chine* (see note 17), 37 n.1.

53. Gaubil, *Correspondance de Pékin* (see note 14), 458, 470–71.

54. Landry-Deron, *La preuve par la Chine* (see note 17), 147.

55. For d'Anville's response to criticism of the coastlines of Tartary, see d'Anville, *Lettre de M. d'Anville* (note 22).

56. D'Anville, *Mémoire ... sur la Chine* (see note 21), 18–30.

57. D'Anville, *Mémoire ... sur la Chine* (see note 21); d'Anville, *Lettre de M. d'Anville* (see note 22); J.-B. d'Anville, 'Réponse de M. d'Anville', *Mémoires pour l'Histoire des Sciences et des Beaux-Arts* (April 1738), 768–73; and J.-B. d'Anville, 'Mémoire sur le Li, mesure itinéraire des Chinois', *Mémoires de l'Académie des Inscriptions et Belles-Lettres* 28 (1761), 487–502.

58. Jean-Baptiste du Halde, *Description géographique, historique, chronologique, politique, et physique de l'empire de la Chine et de la Tartarie chinoise*, 4 vols. (The Hague, Henri Scheurleer, 1736).

59. *Nouvel atlas de la Chine, de la Tartarie chinoise et du Thibet* (The Hague, Henri Scheurleer, 1737).

60. '... presque toutes ces Cartes non-seulement fort au-dessous des Cartes originales pour l'exécution, mais fort mal gravées à tous égards. ... les montagnes sont d'un fort mauvais goût dans la Carte Hollandoise: ce sont des petites buttes toutes détachées & semées au hazard, sans aucun enchainement qui exprime le naturel; l'écriture est maigre, & d'un goût également mauvais. ... quelques Rivières qui ne se comuniquent pas dans la Carte originale comme dans la copie Hollandoise, & si l'on se donnoit la peine d'y regarder de bien près, & de soumettre toutes ces copies à un sévère examen, il n'est pas douteux qu'on y trouveroit bien des fautes de cette espece'. D'Anville, 'Réponse de M. d'Anville' (see note 57).

61. *Nouvel atlas de la Chine, de la Tartarie chinoise et du Thibet* (Amsterdam, Barthelemy Vlam, 1785).

62. Jean-Baptiste Grosier, *Atlas général de la Chine pour servir à la Description générale de cet Empire* (Paris, Moutard, 1785). Another edition of this atlas cannot be dated exactly: *Atlas général de la Chine, de la Tartarie chinoise, et du Thibet. Pour servir aux différentes Descriptions et Histoires de cet Empire* (Paris, Dezauche, 1790?).

63. For Bradock Mead's editing of d'Anville's maps, see Theodore Foss, 'The editing of an atlas of China: a comparison of the work of J.-B. d'Anville and the improvements of John Green on the Jesuit/K'ang-hsi atlas', in *Imago et mensura mundi: Atti del IX Congresso di storia della cartografia* (Rome, Istituto della Enciclopedia Italiana, 1985), 361–76.

Les cartes de la Chine de Jean-Baptiste Bourguignon d'Anville: origine et réseaux de soutien

Avant 1735, Jean-Baptiste Bourguignon d'Anville avait produit 41 cartes de l'Empire des Qing, ou Chine, selon un processus nettement plus complexe que ce que les chercheurs avaient estimé jusqu'à présent. Une étude approfondie des cartes de d'Anville et de leurs originaux a révélé leur relation avec les différentes versions d'un atlas chinois, dont la première fut achevée dès 1718, fruit de près d'une décennie de levés réalisés en collaboration par des fonctionnaires de l'Empire Qing et des missionnaires européens. L'origine précise de certaines des cartes est identifiée pour la première fois, et le réseau permettant le remarquable échange de documents cartographiques qui permit à d'Anville de produire ses cartes de Chine est également discuté, illustrant par là même le rôle central des jésuites français, aussi bien que la connexion avec Saint-Petersbourg.

Die Chinakarten Jean-Baptiste Bourguignon d'Anvilles: Herkunft und Vernetzung

1735 hatte Jean-Baptiste Bourguignon d'Anville 41 Karten Chinas zur Qing-Reich (oder China) fertig gestellt. Der Weg zu diesen war weit komplexer als bisher in der Forschung angenommen. Eine detaillierte Studie der Karten d'Anvilles und ihrer Originale hat ihre enge Beziehung zu verschiedenen Versionen eines chinesischen Atlas aufgedeckt. Der erste von diesen war 1718 als Ergebnis von fast zehn Jahren gemeinsamer Vermessung durch Beamte des Qing-Reiches und europäischer Missionare fertig gestellt worden. Die genaue Herkunft einiger dieser Karten konnte erstmals identifiziert werden. Auch das Netzwerk hinter diesem außergewöhnlichen interkontinentalen Austausch kartographischer Materialien, das d'Anville die Produktion seiner Karten ermöglichte, wird diskutiert. Dabei wird die zentrale Rolle der französischen Jesuiten und ihrer Verbindungen nach St. Petersburg deutlich.

El mapa de China de Jean-Baptiste Bourguignon d'Anville: origen y redes de apoyo

Para 1735 Jean-Baptiste Bourguignon d'Anville había producido cuarenta y un mapas del Imperio Qing, o China, un proceso significativamente más complejo de lo que los investigadores han apreciado hasta ahora. Un estudio detallado de los mapas de d'Anville y de sus originales ha revelado su relación con las diferentes versiones de un atlas de China, la primera de las cuales se completó a principios de 1718, que fueron resultado de casi una década de colaboración entre los funcionarios del imperio Qing y misioneros europeos. Por primera vez se identifican los orígenes exactos de algunos de los mapas, y también se mencionan las conexiones existentes en el notable intercambio intercontinental de material cartográfico que permitió a d'Anville producir los mapas de China, lo que ilustra el papel central de los jesuitas franceses, así como la conexión con San Petersburgo.