Boundaries, Maps, and Movement:
Chinese, Russian, and Mongolian Empires in
Early Modern Central Eurasia

Comparative studies should examine the parallel and divergent responses to global processes that affected China and the other early modern empires. Central Eurasia during the seventeenth and eighteenth centuries offers one important site because three agrarian states contended for power: the Muscovite/Russian empire, expanding eastwards across Siberia; the Manchu Qing expanding first south-east, then north-west into the Central Asian steppes, deserts, and oases; and the Mongolian empire of the Zunghars, who created an autonomous state in western Mongolia, Turkestan, and Tibet. Although, between the mid-seventeenth and the mid-eighteenth centuries, the Zunghars rivalled Russian and Chinese power, by 1760 the Qing had crushed the state and exterminated the Zunghar people. The Qing then established permanent control, which lasted until the fall of the empire in 1911, over all of present-day Mongolia (Inner and Outer), Xinjiang, and Tibet.

The elimination of a powerful, independent Mongol-nomadic state in the steppe was a world-historical event. The closure of the steppe frontier meant the end of an age of fluidity, ecumenical exchange, fighting, and shifting of boundaries, and the division, dispersal, and extermination of the Mongols, who are now scattered from the Volga river to North China, one of the widest involuntary diasporas to occur on the continent. The outcome was the bipolar division of Central Asia between two empires, marked by a border delimited in treaty negotiations between the Chinese and the Russians. The bipolar division effectively lasted from 1760 until the collapse of the Soviet Union. Outer Mongolia, despite proclaiming its independence in 1911, became a Soviet satellite under Red Army occupation in 1921.¹

The division persists conceptually in the terminology generally used to describe the broad, physiographically unbounded region lying between

the Amur river and the Ural mountains. Inner Asia usually refers to the territories on the Chinese side of the border after the mid-eighteenth century (Manchuria, Mongolia, Xinjiang, Tibet), while Central Asia refers to those on the Russian side. Now, with central Eurasia occupied by five former Soviet Republics, the (truly) independent Mongolia, and the Chinese and Russian empires, we have returned to a historically more usual situation, replacing the three-hundred-year interlude. How the Asian border was constructed is one theme of this comparative study.

Borders are often defined first by military confrontation, then by negotiated treaties, then by inscription on maps. Map-makers and surveyors shore up the abstract verbal descriptions found in treaties; boundary markers and maps inscribe physically and visually the words written in agreements; and military and trading posts line up at the frontiers demarcated on maps. All three competing states – China, Mongolia, and Russia – produced important maps as a weapon in their struggle for control of central Eurasia, maps of unprecedented scale and accuracy. The maps served the same purpose as maps did in Europe, and although the style of production varied according to local circumstances and knowledge, all of them applied seventeenth-century western European knowledge, transmitted through Jesuits, Swedes, and other ‘geodesists’ (the practitioners of geodesy, the seventeenth-century term for land surveying). Thus, all three states expanded scientific knowledge of the globe in the early modern world.

Before the seventeenth century, the rulers of European and Asian states did not have clearly delimited conceptions of the boundaries of their domains. During the seventeenth century, however, as the result of mutual contacts, the major states of Eurasia negotiated fixed, linear borders. In 1639, the Ottomans negotiated a treaty with the Safavids that divided the contested frontier zone between them. In 1683 and again in 1699, after the failure of the Ottomans’ siege of Vienna, the Ottomans and Habsburgs negotiated a peace treaty defining the boundary between their territories that is said to have marked the beginning of the decline of Ottoman power. From the mid-seventeenth to the early eighteenth centuries, Russia began to mark its boundaries with the Ottomans, Tatars, Kalmyks, and other peoples living on its southern frontiers by negotiating treaties and constructing fortified defensive lines. Russia defined its boundary

1 Michel Foucher, L’Invention des frontières (Paris, 1986).
Boundaries, Maps, and Movement

with China by treaties in 1689 and 1727. As Michel Foucher concludes, the modern bordered state was invented during the seventeenth century on the frontiers between the giant Eurasian empires.

New surveying techniques supported the newly defined borders, not always to their rulers’ advantage. Louis XIV is said to have told his cartographers that they had cost him one-third of his kingdom, after he found that more precisely measured lines of latitude and longitude considerably reduced the area of France.1 But the techniques, developed under royal sponsorship to a new peak of accuracy in seventeenth-century France, helped the states to increase their control over their territories.

Maps control people, not just land. Drawing a line in the sand prohibits your opponent from crossing it without permission. As the Asian states drew lines across the steppe, they also controlled the movement of populations: refugees, nomads, tribes, traders, soldiers, and other highly mobile groups. Not only did the states need to constrain movement, but they also needed new classification systems to define who lived inside and who outside the new borders. Vaguely defined frontier zones gave way to clearly marked lines; fluid ethnic identities were sharpened into more rigid definitions. Ethnographic atlases, like their later counterparts the cadastral survey, the census, and the imperial atlas, fixed peoples, lands, and identities in new ways.2 In seventeenth- and eighteenth-century central Eurasia, boundaries and maps combined to restrict mobility.

* * *

All states distrust people who move freely from place to place.3 As the mobile are difficult to tax, draft into the army, interrogate for crimes, or mobilize for forced labour, states try to define their permanent inhabitants. Tax registers, land registers, censuses, border controls, passports, and visas all attach a person to a time and place, even if his right to move is not constrained. Every early modern state, struggling to build new bureaucratic apparatuses to contain resistance from localities, had to pay special attention to mobile, unregistered peoples. In eastern Eurasia, however, states faced greater difficulties in capturing human resources owing to the much lower population densities: villagers in the forests and steppes could easily flee to escape military service and taxes. The Ukrainian steppe

---

1 Foucher, L’Invention, p. 28.
frontier is the most conspicuous European example of a region inhabited by a mixture of deserters, criminals, new settlers, and escapees from state obligations, out of which the Cossacks formed an autonomous society.¹ But similar groups were found further east, on the Manchurian and Mongolian frontiers of China. As the Ming dynasty lost control over its northern frontiers in the late sixteenth century, a mobile population with shifting identities was formed from military deserters, tribes, and settlers on marginal land.

The Russian state, in the seventeenth century, imposed serfdom on its core regions in order to restrict the ability of its population to flee state-imposed obligations. Richard Hellie explains how the increasing institutionalization of serfdom, culminating in the legal code (Ulazhenie) of 1649, went hand in hand with the military and bureaucratic expansion of Muscovy.² Siberia and the Ukrainian frontier, where serfdom was not enforced, attracted migrants fleeing the bonds of constraint in the core.

The Manchus also used techniques to constrain mobility, as they increased the scope of their state in the seventeenth century. Bond servitude tied subordinate Manchus, Mongols, and Han Chinese personally to Manchu nobles for life, although it did not necessarily bind them to the land. Manchu state-builders in the early seventeenth century incorporated those who surrendered to them into ‘banners’, the combined military and administrative units which maintained detailed records of every man, woman, and child in them; banner registers contain the most detailed demographic information extant for any population in imperial China.³ The imposition of the queue (plait) on the Han population was the most dramatic way of visually stigmatizing the vast population subjected to Manchu rule, fixing them by law, as Philip A. Kuhn suggests, with tonsorial castration.⁴ And the revival of the decimal registration of families in the system of collective responsibility known as the baojia attempted to ensure, with limited success, that villagers would prevent each other from fleeing state supervision. As in Russia, these constraints were less rigidly enforced on internal and external frontiers than in the core.

Mongolian state-builders had their own special problems. As their society was by nature a mobile one, anyone who did not wish to serve under a khan attempting to create a steppe empire could simply move away, provided that he had the strength to fight for his own pasture. Steppe chief-

² Richard Hellie, *Enserfment and Military Change in Muscovy* (Chicago, 1971).
tains, who had uncertain control even over their own kinsmen and seldom had enough stable control over land to constrain other followers, themselves retained considerable autonomy within any confederation. Their main obligations to the khan were to provide men and horses for military expeditions. Although enforcing the regular payment of tribute by subordinates was crucial to Mongolian state-building, it was easier to exact tribute from settled populations, such as the oasis dwellers of Turkestan or Chinese peasants, than from nomads. Victory over a rival tribe usually meant killing most of the young male population or reducing it to slavery, and incorporating women and children into the victor’s population. This tactic, employed by both Manchus and Mongols, was one response to the inability of these regimes to control the fundamentally mobile populations of the unbounded steppe.

Once definite boundaries were drawn in the late seventeenth century, the dynamics of control over the steppe changed radically. The opportunities for flight were reduced, and would-be autonomous chieftains, instead of de facto autonomy under the guise of submission, faced a choice among three states, each of which was tightening demands on its subordinate peoples as it competed for control with the others. The control of deserters, refugees, and criminals became a critical issue of diplomacy and state-building for Manchus, Mongols, and Russians together.

* * *

The attempt made to control movement is well illustrated by the history of the Tungus chieftain Gantimur, whose defection from Manchu to Russian control caused a twenty-year-long crisis in Russo-Chinese relations from 1670 to the 1690s. Gantimur’s defection, however, also demonstrates how the two states discovered common interests in eliminating mobility and fixing identities along the ill-defined frontier, forcing Manchurian, Siberian, and Mongolian tribal leaders to submit to clearly defined bureaucratic states occupying demarcated territory.¹

Gantimur, a ‘great, bold man’, lived near the Nercha river in Siberia.²


² RKO, i. 498.
When the Russian Cossack Erofei Pavlovich Khabarov approached the region in 1653, Gantimur, to avoid Russian demands for tribute (iasak), fled south to the Naun river in southern Manchuria under Qing control. Khabarov, meanwhile, built the fortress of Nerchinsk in Gantimur's ancestral region in 1654. At the time of Gantimur's flight, the Qing rulers had been forcibly removing other native peoples from the lower Amur river region, destroying their settlements in order to deny food supplies to the Russian garrisons. Facing a choice, then, between good terms of service with the Manchu regime or the destruction of his homeland and the payment of iasak, Gantimur chose to flee. He received a mandarin rank for serving the Manchus, with a salary of 1,200 taels per year, and led his warriors against the Russians at the fortress at Kumarsky in 1655. In 1666-7, however, he deserted the Manchu army and placed himself under Russian control together with forty members of his clan. Later, over three hundred more related tribesmen came to join him. Baptized as a member of the Orthodox church in 1684, he remained at Nerchinsk until he died on the way to Moscow for a meeting with the tsar, Ivan V. The Russians confirmed his family as hereditary princes of their tribe, and they remained prominent in the region into the early twentieth century.

Why did Gantimur return to Russian subjection? By the late 1660s, Qing efforts to solidify control of the Amur region had weakened: the seven-year-old Kangxi emperor had succeeded to the throne under the supervision of regents who followed a cautious foreign policy. When the emperor took personal control in 1667, ousting his Manchu uncles, he renewed the aggressive expansion of the empire, but a major rebellion in China's south-west, the rebellion of the Three Feudatories, tied up most of his forces until 1681. Meanwhile, the Russians took advantage of Qing distraction to rebuild the fortress of Albazin in 1665, promoting agriculture to ensure secure food supplies along the Amur river and win over the local tribes to their side. Defying Manchu orders to move far away to the interior of Manchuria, Gantimur instead returned to his ancestral lands at Nerchinsk.

The Kangxi emperor demanded Gantimur's return, fearing that other tribes would follow his example; as Gantimur and his tribe were considered to be the most capable warriors in the region, they constituted a valuable resource for both expanding empires. When a message with this demand was delivered in 1670 to the governor of Nerchinsk, Danila Danilovich Arshinski, he not only refused to hand over Gantimur, but also demanded that the emperor of China acknowledge the suzerainty of the

tsar. His message was considered so insulting that the Manchu envoys dared not translate it for the emperor. Although both China and Russia saw the other as a backward country owing tribute to its own supreme ruler, each empire gradually came to recognize the power of the other and the value of co-operation between them. Russians, attracted by the potential of the fur trade with Beijing, sought to develop a regular official caravan trade. In 1674, the tsar, Alexei, sent his first major embassy to China, led by Nikolai Spafarii, with a letter asking for friendly relations and regular trade.1

By 1675, when Spafarii arrived at the border, the Manchu court had learned of Arshinski’s reply and refused to allow Spafarii to proceed to Beijing. Although Mala, the Manchu negotiator, at first insisted on Gantimur’s return as a condition of trade, in 1676 Spafarii was admitted to the court at Beijing to negotiate. Contrary to the experience of later Russian negotiators, such as Count Iuril Golovkin in the early nineteenth century, execution of the kowtow (keltou) was not the crucial issue.2

Spafarii’s discussions with the emperor and the high Manchu officials revealed efforts by both sides to resolve ambiguities over who was subject to whom. Although Siberian Cossacks had raided Manchu border positions for two decades, the Manchus were not sure if these Cossacks were Russian subjects; once they learned of the tsar’s jurisdiction over the Cossacks, they demanded that he enforce order among these ‘brigands’ to secure peace along the frontier. The Manchus also demanded the return of Gantimur because of his personal subordination to the emperor as part of the military bureaucracy, but the Russians refused, on the grounds that people were subject to the rule of the lord where they were born.3

The Gantimur question was intimately tied to the security interests of both empires. Gantimur’s small but powerful group of armed men could well encourage the more disparate Russian Cossacks to attack the Qing frontier, while, as the Beijing Jesuit Fr. Ferdinand Verbiest noted, Spafarii feared that returning Gantimur would encourage other tribes to flee Russian control: if Russia could not collect iasak from local tribes, it could not support its garrisons in Siberia.

1 Spafarii’s report in John Baddeley, Russia, Mongolia, China: Being Some Record of the Relations between Them from the Beginning of the XVIIth Century to the Death of the Tsar Alexei Mikhailovitch AD 1666-74 (London, 1919), pp. 304-428; RKO, i. 346-458; Mark Mancall, Russia and China: Their Diplomatic Relations to 1728 (Cambridge, 1971).
On the other hand, Russian deserters from Siberia had fled to China for protection; thirteen of them were now living in Beijing.1 Other Siberian tribespeople burdened with heavy tribute payments to the tsar had also fled to Qing territory for protection. The Qing officials now offered to exchange them for Gantimur and a guarantee of peace on the frontier, even though both sides claimed to have very inadequate knowledge of the frontier and weak control over who crossed it. The Chinese claimed that their empire was so wide that they did not know who had fled to Russia, and they relied on the Russians to identify these deserters and to send them back. Spafarii replied: 'The frontier was wide, and every one was free to go over the many roads and frontiers of Russia. Your case is quite other, for your country is shut in by lofty mountains and on the mountains by a mighty Wall, and every man who enters a frontier town is written in a book, so that you can tell much better than we can [who runs away].

Spafarii disingenuously neglected to mention Russian serfdom, but he was probably correct in assuming that the Qing maintained tighter registration than Russia over its mobile population. Yet both agreed that mutual clarification of the border would be beneficial: 'seeing the mutual surrender of fugitives, men should cease to run away — for deserters are always a cause of trouble between one country and another; their desire being ever for hatred and war, to cover their own delinquency.'3 Each side, while tightening internal control, minimized its brutality in order to present a lenient face to outsiders.

Yet the Gantimur question was not resolved, and the Kangxi emperor refused to allow any further trade or diplomatic relations with Russia until he had a definite answer from Tsar Alexei. Spafarii was dismissed from Beijing with only the message that Gantimur must be returned, peace must be maintained on the frontier, and envoys to China must obey all customs (for example, the ketou), else there would be no contact allowed with the court.

Although Spafarii's embassy failed to attain its objectives, it had long-lasting effects. Spafarii was sent not only to inaugurate trade, but also to obtain information about the relations between the Mongolian tribes on the border and the strategic situation in Siberia. He was helped out by the duplicitous Verbiest, who provided him secretly with maps and geographical descriptions of the region, including the locations of Manchu forces; information obtained from the Russian deserters in Beijing.4 For his part, as a result of the conflict over Gantimur, the Kangxi emperor realized that

---

1 Baddeley, Russia, ii. 377-8.
2 Ibid.
3 Ibid.
4 Ibid., p. 394.
the Amur Cossacks who had been exacting tribute from Siberian natives were in fact Russian subjects, and that their actions could be controlled by manipulating the prospects of trade for the Russian tsar.

After the end of the Three Feudatories rebellion in 1681 and the subjugation of rebels in Taiwan in 1683, the emperor was ready to move aggressively against Russian positions in Manchuria. In 1685 and 1686, Manchu forces twice besieged and destroyed the fortress at Albazin; the Russians, although warned of the build-up of Manchu troops, had prepared no effective defence. The lack of a clear frontier in the Amur region, and the ambiguity of claims to sovereignty over it, had led to the conflict, and now Russia and China recognized it was in both their interests to draw a clear boundary, which they did by the treaty of Nerchinsk in 1689. Before the treaty, authority over the region rested on the ability to exact tribute from native tribes, allowing the tribal chieftains to profit from ambiguity, flexibility, and mobility. Under the terms of the treaty, local peoples’ obedience was determined by where the boundary ran; all who, like Gantimur, had switched allegiance before the treaty, could remain in place, but henceforth deserters would be returned. Albazin was demolished, but the Russians established an official trading post at Nerchinsk.1

Resolving the ambiguity of the border was an essential precondition of the more important Russian and Chinese objectives. As the Russian treasury depended heavily on the returns from state caravans, the Russians needed official recognition of the valuable fur trade.2 The Manchus’ essential goal was Russian neutrality towards Galdan Bošogtu Khan, the rising power in Mongolia in the 1680s; despite repeated appeals for an alliance, the Russians refused to aid Galdan, and the Kangxi emperor was left with a free hand to mount his vast military campaigns in the steppe to crush the Zunghar state. He, however, did not succeed in eliminating the state or the Zunghar people; a task finally completed by his grandson, the Qianlong emperor, in 1760. But the Kangxi emperor’s relentless pursuit of Galdan far into the steppe did destroy Galdan’s armies and round up his desperate followers, until Galdan died of smallpox in 1697.

The treaty of Nerchinsk, followed in 1727 by the treaty of Kiakhta establishing officially supervised trade, stabilized the frontier between Russia and China until the late nineteenth century, and both sides almost always observed its terms: Russia, for example, sent back tribal escapees from China in 1733. The Qing, however, allowed one important exception to

---

1 For a summary and discussions of the treaty, see Fu, Sino-Western Relations, i. 101; Mancall, Russia and China, pp. 141-59; Walter Fuchs, ‘Materialen zur Kartographie der Mandju-Zeit’, Monumenta Serica, iv (1939-40); ‘Stateinyi Spisok F. A. Golovina’, RKO, ii. 71-641.

2 Clifford M. Foust, Muscovite and Mandarin: Russia’s Trade with China and Its Setting, 1727-1805 (Chapel Hill, 1969).
the prohibition against border crossing. In 1616, the Torghut Mongols had fled the rising power of Galdan’s father, Batur, to move thousands of miles west to the shores of the Volga river. In 1655, they submitted to Alexei and served in his armies. A century later, after severe maltreatment, most of the Torghuts went on a vast journey in 1771 back across the steppe to Qing territory. Although the history of Gantimur foreshadowed in small scale this much larger transition of identities across central Eurasia, aside from this epic Mongolian Long March, there were no other major flights across the frontier for another century.

* * *

Maps are valuable instruments of power. For soldiers, they define strategic locations and efficient routes of march, and for tax collectors, cadastral surveys measure the individual landholder’s obligation and fix him in place. Maps point to trade routes, useful both for the merchant and for the customs agent, while the ethnographic atlas classifies and situates diverse peoples within a bounded imperial space. Early modern states and empires, which found maps extremely useful for stabilizing their control, made use of new technologies of cartography developed since the Renaissance.

The French rulers discovered during the Italian wars of the early sixteenth century the importance of mapping for military operations. Successive kings and ministers, particularly Henri IV and Cardinal Richelieu, laid the basis for increasingly comprehensive and systematic use of maps in governance. When Louis XIV took personal power in 1661, he and Jean Baptiste Colbert announced four major goals of cartography: to regulate the system of fortifications so as to improve the defence of frontiers; to clarify political and juridical jurisdictions both domestically and internationally; to define clearly fiscal obligations, so that every official knew where taxes were to be paid, and where public works were to be built; and to delimit the role of the church by defining the boundaries of its dioceses. At the same time, the Jesuit order stressed history and geography in its schools, including the newest surveying techniques.

Thus, by the late seventeenth century, the French state sponsored rapid improvements in the techniques of cartography that raised it to the leading scientific rank in Europe, surpassing England and the Netherlands.

---

1 Fu, Sino-Western Relations, i. 165, etc.
4 Josef W. Konvitz, Cartography in France, 1660-1848: Science, Engineering, and Statecraft (Chicago,
Colbert, in 1668, asked the French academy to help the state improve the accuracy of its maps of France, so that the rulers could have an inventory of their realm’s resources and its boundaries. Jean-Dominique Cassini (1625-1712) became the leader of a series of projects designed to produce a complete national survey of France. His son, Jacques Cassini de Thury, and grandson, César-François, continued his work until the national survey was finally published from 1744 to 1793.

Until recently, most historians of cartography drew a sharp distinction between ‘religious’ maps that portrayed sacred realms, with no attention to measurement, and ‘scientific’ cartography originating in seventeenth-century Europe and transmitted to China by the Jesuits. The distinction is the basis of Joseph Needham’s claim that China developed into a world leader in cartographic achievement owing to its long experience with the grid and its focus on exact measurement.¹

More recent work, however, rejects this sharp distinction between cultural and scientific representation.² All maps are social constructions of space, drawn for a particular purpose and sponsored with political ends in mind. Exact measurement does not obliterate cultural content, although it may try to conceal it, and cartography is not a simple development from inexact to exact, but a process in which shifting forms of representation are influenced by cultural environments. With each change in environment, much is lost as well as gained. Maps contain silences and erasures as well as manifest content, and careful attention to what is put in and what is left out reveals much about the intentions of the maps’ producers. This new perspective on cartography complements recent studies in the history of science in general, which try to undermine a simple story of increasing exactitude in the measurement of nature by showing how early modern science was closely shaped by its cultural context.³

When rulers asked for maps of their realm, they asserted their interest in the large-scale view and sought to replace local variation with centralized, standardized measures. As James C. Scott has recently argued, the baffling variety of local custom, local measures, and local ecologies formed a val-

---


able barrier for subject peoples against the increasingly intrusive claims of the state. State powers aimed to measure selectively elements of the local environment, particularly land, population, and productive capacity, in the interest of efficient extraction. Local detail was deliberately obscured in the interest of abstract measurement; thus, mapping subject peoples complemented the effort to fix them in place.¹

* * *

Most cultural analysis of cartography has only been applied to early modern western Europe, but here this perspective is extended to the use of cartography in three empires of central Eurasia. The Russians, Chinese, and Mongols each produced significant broad-scale maps as they contended for power in the seventeenth and eighteenth centuries. The first was the Jesuit atlas of China.

Although earlier Chinese dynasts had long recognized the political value of maps, the Kangxi emperor, like his European contemporary Louis XIV, promoted the mapping of the empire on an unprecedented scale.² He delighted in the measurement technology that he learned from the Jesuits, who accompanied him on his northern campaigns against Galdan, where the Kangxi emperor applied his weekly lessons in geometry to determine latitude by measuring the height of the pole star, and to measure the height of cliffs. After the campaigns, he commissioned the Jesuits to produce for him an atlas of the entire empire, the famous ‘Jesuit Atlas’ (Huangyu Quanlan Tu), published in three versions from 1717 to 1721.³

The stages of production of the atlas reveal its close relationship with strategic concerns.⁴ The Jesuits first produced, in 1700, a survey of the capital, Beijing, designed to help ward off periodic flooding by nearby rivers. The emperor was able to check with his own eyes the accuracy of their mapping technique. After he called on them in 1707 to map a portion of the Great Wall, the success of the project inspired him to call for a map of the entire empire. The Jesuits began by surveying the homeland of the Manchus around Mukden, Jehol, and the Ussuri and Amur rivers. From there, they proceeded to map Bci Zhili, the province around Beijing, and this, too, had to be checked for accuracy. In 1710, further surveys of sparsely settled territory along the Amur river helped to establish the stra-

tegic bases along the border negotiated with the Russians. Finally, the Jesuits investigated the other provinces of China, fixing a total of 641 points of latitude and longitude by astronomical and geographical measurements.

Five woodblock and one copper edition of the atlas were produced between 1717 and 1726, and it is said that a version was also engraved in jade. Clearly, the rulers wanted the atlas to be, as the Qianlong emperor said, ‘handed down for all eternity’. But the most widely known version of the map was that done by Jean-Baptiste d’Anville, printed by Jean-Baptiste du Halde in his Description de la Chine, published in Paris in 1735.2

Local officials and native assistants were crucial to the completion of the project: for instance, the Jesuits mapped Tibet, which they did not visit, by relying entirely on Chinese and Manchu sources. Russian influence on Chinese mapping of the frontier is also clearly evident. Both powers were interested in surveying the border area after the treaty of Nerchinsk. Spafarrii had presented to the court in Beijing a hand-drawn map of the entire Russian empire, and the Jesuits had gathered more information from Spafarrii’s embassy which they passed on to Beijing.3 Two Russian maps dating from 1700 have also been found in the Beijing archives. Besides the Jesuit atlas, there are other maps from the late seventeenth and early eighteenth centuries with Manchurian and Mongolian inscriptions of areas in Manchuria not covered by the Jesuits. Clearly, the Manchus drew on many sources in order to increase their knowledge of the little-known frontier.

Nearly all studies of the Jesuit atlas stress its role as a progressive initiator of Western scientific change in China. In this view, the Jesuits’ new cartographic techniques brought ‘scientific cartography’ to China.4 But, as J. B. Harley argues, it is an illusion to distinguish sharply between purely ‘scientific’ and purely ‘rhetorical’ maps. No maps are completely objective representations, independent of the circumstances of their production. The Jesuit atlas contains embedded cultural assumptions, which become most clear when it is compared with other maps of the same region done by Russians or Mongolians, and its scope is sharply bounded: regions considered beyond China’s administrative or cultural influence are marked only with empty space. Whereas Philipp Johann Strahlenberg’s map, discussed below, gives equal attention to all of central Eurasia, the Kangxi

---

1 Ibid., p. 234; Fuchs, ‘Materialen zur Kartographie’, Monumenta Serica, i (1935-6), 398; Joseph-Anne-Marie de Moyria de Mailla, Histoire Générale de la Chine (Taipei, 1967), xi, 313-17.
3 Fuchs, ‘Materialen zur Kartographie’, p. 412; Baddeley, Russia, ii. 328.
THE JESUIT ATLAS OF CHINA
(Detail): PLATE 11: Zungharia – Tianshan – Kashgaria

emperor’s atlas provides information only about the regions directly of concern to the state. The only man-made structures marked on the atlas, aside from towns, are the Great Wall, the symbolic marker of the division between China proper and the non-Han territories to the north-west, and the Willow Palisade, the symbolic barrier protecting the Manchus’ homeland in the north-east.

The name of the atlas itself, Huangyu Quanlan Tu (Map of a Complete View of Imperial Territory), reveals the Kangxi emperor’s desire to include the entire realm within his gaze.\(^1\) The compilation of the atlas was just one component of a broader project to systematize and rationalize the ruler’s knowledge of space and time. An edict of 1713, for example, ordered the synchronization of the calendar regulating times of sunrise and sunset and the twenty-four hours of the day in Khorchin Mongolia, based on the new techniques of measurement and surveying employed by the Jesuits.\(^2\)

The new techniques, as implemented in the atlas, both expanded and constrained the imperial gaze. Areas that could not be surveyed in detail, or for which accurate information was unavailable, had to be left blank; this included much of Mongolia and Manchuria, up to the Nerchinsk boundary, over which the Qing nominally claimed control.

The contemporary Russian map by Strahlenberg announces in almost equally large type ‘Imperium Russicum’, ‘Tattaria Magna’, ‘Sina’, and ‘Magna Mogolis Imperii Pars’.\(^3\) The borders between Russia and China are not marked distinctly, even though the treaty had been negotiated and surveying begun thirty years earlier. Although the Siberian regions are drawn in greater detail, the deserts, steppes, mountains, lakes, and rivers of all of central Eurasia are clearly depicted, as the latitude-longitude coordinate system is a universal, global one, transcending the administrative boundaries of states. Chinese and Russian provinces are named, but in between the empires are numerous ‘kingdoms’ (regnum) of the diverse peoples of Central Asia: ‘Cosaci Horda’ (Kazakhs), ‘Euloeth Kalmaki’ (Zunghars); ‘Regnum Kaschkar’. The intricate criss-crossing of regional names, topography, large- and small-scale divisions, and detailed labels creates a sense of multifarious complexity.

The Jesuit atlas, by contrast, is radically simplified. The maps of the north-west frontier are blank beyond the Great Wall, except for the map of the Ordos region, where the Yellow river goes beyond the wall and which,

---

1 Yee, ‘Cartography’, p. 181; ‘Kang-hi ... desira de faire dresser une carte exacte qui réunit sous un seul coup d’œil toutes les parties de son empire’, Joseph-Anne-Marie de Moyriac de Mailla, Histoire Générale de la Chine (Paris, 1780), xi. 314.
3 Philipp Johann Strahlenberg, An Historico Geographical Description ... of the Northeast part of Europe and Asia (London, 1736).
during the Ming, was the most troublesome area of conflict between the empire and Mongolian tribes. The map of Zungharia, entitled 'Zawang Arbutan Tu' (Tsewang Rabtan), contains only a few place names, sketchy mountains and rivers, and much blank space; the Qing did not control the region in the 1720s, nor were they well informed about it. After the conquest of Xinjiang in 1760, however, the number of place names on Qing maps of the region increased dramatically.

But the Qing focus on administrative boundaries and place names excluded cultural and ethnographic information of the kind included by Strahlenberg. The atlas gives no hint that diverse peoples moved through the space it depicts, or that there were contested claims to the area. The Jesuits and their assisting officials did include depictions of spaces which they did not visit, including Japan, Korea, and Tibet as well as Xinjiang – they were not committed to direct observation – but they included no Russian territory or Russian place names while including many Manchu and Mongolian ones.

Needham claims that the Jesuits' scientific cartography built on a long-standing tradition of native Chinese achievements, which continued to progress in the following centuries. But more recent scholars stress the slight effect of Jesuit cartographic techniques on Chinese map-making. The traditional grid continued in use through the end of the nineteenth century, unaffected by the latitude-longitude system. Although several interesting hybrid maps discussed by Richard Smith show attempts to combine new and old techniques, they still reflect the tributary-system view of the world. They did not disrupt imperial China's complacency about its centrality in the world or its condescension towards foreign peoples.

The potentially unsettling new technology of the Jesuits was adapted to the needs of the imperial state, to ensure that its cultural and political foundations were unaffected. The atlas's focus on administrative units, its suppression of evidence beyond the cultural frontiers, its erasure of the sphericity of the earth and the multiplicity of peoples living on it, reinforced the monocentric cultural universe of the Qing and confirmed it with more precise measurements. These were techniques of state simplification that increased the purview of the autocratic gaze, but did not chal-

---

2 James Millward, 'Coming onto the Map: The Qing Conquest of Xinjiang' (paper delivered to the Association of Asian Studies, 1997).
Johan Gustaf Renat, a Swedish artillery officer, was taken prisoner by the Russians at the battle of Poltava in 1709 and exiled to Siberia. Around 1716, he was captured again by the Zunghar khan, Tsewang Rabdan, when he took part in an expedition sent from Tobolsk to search for gold in the sands of the Yarkand river. He spent seventeen years working for Tsewang Rabdan and his successor, Galdan Tsering (r. 1727-45), making guns and mortars, and teaching the Mongols to smelt iron, pour bullets, and print books.2

Other captive Swedes and Russians were meanwhile building factories in Zungharia to produce articles such as velvet, cloth, and paper. Freed in 1733, Renat returned to Sweden the next year, taking with him two maps of Zungharia. His extraordinary odyssey has generated a great deal of discussion of the origin of these two highly distinctive maps.3 According to Renat, Galdan Tsering drew one of the maps himself, and the other was copied from a Chinese original. Galdan Tsering, the grand-nephew of the Galdan defeated by the Kangxi emperor, was no simple barbarian horse-

---

1 Yee, "Traditional Chinese Cartography", p. 183.

---

*Boundaries, Maps, and Movement*
rider. He was a scholar as well as a soldier, who carried around with him one hundred camel-loads of books.¹ In an interview with the Russian envoy Leontii Ugrimov, in 1733, he showed a keen interest in the weaponry, transportation routes, cities, and rulers of his great neighbour to the north.² His only hope of survival against impending Chinese attack was to obtain new military technology from the Russians and use it to unite the Khalkha and Zunghar Mongols against their common enemy, China. The early eighteenth century, comprising the last years of the Kangxi emperor,

¹ Baddeley, *Russia*, i. 168.
and the early reign of the Yongzheng emperor, was a time of truce, giving Galdan Tsering breathing space to gather his forces.

Renat's maps were the first indigenously produced Mongolian maps of the steppe since the Yuan dynasty. They reveal important aspects of the khan's perception of his territory during the period when he was desperately building up his state to resist Chinese attack. The maps do not have a grid, but they are roughly drawn to scale, and the relative positions of terrain features are accurate. Both of them contain a large number of Mongolian labels of rivers, tributaries, towns, stations along roads and rivers, and fortresses. John Baddeley claims that the 'Mongolian' tradition of map-making gives only place names and no terrain features; clearly, these maps do not belong to such a tradition. Mountain ranges, rivers, lakes, and empty spaces are prominent. There are no defined boundaries, and no clear frame on the edges. Most striking is the very disproportionate scale of Lake Balkhash and the Irtysh river – the lake is portrayed as much larger than its natural size. The maps, along with the evidence of development of agricultural, military, and industrial production, indicate that Galdan Tsering was engaged in a genuine state-building effort, similar to those of his giant neighbours. By labelling his realm, he showed that he understood the importance of naming fixed locations. The boundaries of the realm remained ambiguous, unfortunately, while the Russians and Chinese were rapidly clarifying the boundaries of their domains. Their conception of space left no room for an autonomous Mongolian state.

* * *

Another captive Swede was the source of one of the most important maps of Siberia and central Eurasia during the early eighteenth century. Philipp Johann Strahlenberg was a Swedish officer also taken prisoner by the Russians at Poltava and sent to Tobolsk in 1711. While there, he collected information about Siberia, Mongolia, and neighbouring regions and completed his first map of them in 1715. When it was lost in a fire soon afterwards, his second copy was confiscated by the governor of Tobolsk, and he was forbidden to make any more. He continued his work, however, and after his return to Moscow in 1723 engraved a large detailed map covering all of Russia, central Eurasia, Mongolia, and part of China, which was published in 1730. His book was published first in German, then in an English translation in 1736, with a classically long-winded eighteenth-century title: 'An Histori-Geographical Description of the North and

2 Baddeley, *Russia*, i. 166-76.
Eastern Part of Europe and Asia; but more particularly of Russia, Siberia, and Great Tartary; both in their Ancient and Modern State: Together with An entire New Polyglot Table of the Dialects of 32 Tartarian Nations; and a Vocabulary of the Kalmuck-Mungalian Tongue, as also a large and accurate Map of those countries, and variety of cuts, representing Asiatick Scythian Antiquities'.

As its title promised, the book provided detailed ethnographic descriptions of the Mongolian, Tungusic, and other peoples (described here as 'nations') of central Eurasia. Thus, it united cartography, ethnography, linguistics, and archaeology.

Strahlenberg's map was primarily responsible for creating the conception that Russia was both a European and an Asiatic state divided by the Ural mountains. The Muscovites of the seventeenth century, uninterested with precise definition of their eastern border, saw themselves as part of neither Europe nor Asia. After Peter the Great's victory over Sweden in 1721, Russians replaced the image of themselves as a tsardom (tsartsvie) with the grander ambition of an empire (imperia) comparable to those of western Europe. True empires needed a sharp distinction between the homelands and the colony, but Russia, unlike England, Spain, or the Netherlands, had no large body of water separating it from the colonial periphery. In the 1730s, the historian and geographer Vasilii Tatishchev, who consulted with Strahlenberg, promoted the sharp differentiation between Europe and Asia, relying on the Ural mountains as the border clearly demarcated on Strahlenberg's map as the 'Terminus inter Europam et Asiam'. In contrast to Strahlenberg, whose map relied primarily on information from Swedish exiles in Siberia and reports from merchants and travellers, the new Academy of Sciences, founded by Peter the Great, based its map of the Russian empire on the scientific techniques of geodesy. Its Atlas of the Russian Empire, published in 1745, however, followed Strahlenberg's division of Russia into two large parts separated by the Urals.

* * *

These maps were major advances in structuring the vast unbounded space of central Eurasia, yet the influence of all three remained curiously limited. Although Strahlenberg's book was highly influential throughout the empire, the map itself remained little known, even though it is regarded,

---

Boundaries, Maps, and Movement

Strahlenberg's Map (Detail)

Source: Philipp Johann Strahlenberg, An Historico-Geographical Description ... of the Northeast part of Europe and Asia (London, 1736).
next to S. Remezov's atlas, as the second most important source of information about the Siberia of its time. The maps were not distributed widely in Russia because Strahlenberg's rivalry with the director of the officially sponsored Academy of Sciences, the Frenchman Joseph Nicolas deLisle, obstructed knowledge of his achievements; much of his information was pirated and published in Amsterdam in 1726 without his approval. The Renat maps remained totally unknown until they were rediscovered in Sweden in 1879 by the playwright August Strindberg. Even the imperially sponsored Jesuit atlas was printed in its original form in China in only a few copies, and the popularly available edition of the *Tushu jicheng* omitted its most crucial innovation: the numbered lines of latitude and longitude. The limited circulation of the original atlas is one reason why it had such little influence on local gazetteers or other cartographic projects. Cartography using the Mercator projection produced by the Chinese themselves did not really begin until the late nineteenth century.

For the distribution of knowledge, maps are paradoxical objects. They construct an imagined space that shaps and reveals rulers and peoples' conceptions of their collective place on the globe. When maps' imagined spaces are printed and widely distributed, they open large expanses to anyone's view, but the power of these collective imaginations turns them into threatening artefacts. Rulers found them dangerous; thus, their distribution had to be controlled. Even today, controls are imposed over geographical imagery that is so accurate as to make military men nervous, or embarrassed. Landsat satellite images of the earth, until recently, were deliberately degraded so that military targets in the United States would not be revealed to foreign powers, and United States Geographical Survey topographical maps do not feature nuclear waste dumps. Eighteenth-century Chinese maps to this day remain 'national security' items, which researchers in the Qing archives in Beijing are not permitted to view. This may explain why the more comprehensive and accurate the view offered by the map, the more likely it is to be kept closely under official control.

* * *

Theories have blossomed recently to explain the growing importance of nationalism in the post-cold war world. With some exceptions, most theorists endorse what we may loosely call a 'discontinuity thesis': that nationalism as an 'imagined community' is a distinctive and new product of nineteenth-century western Europe, a product of the English and French

---

2 J. B. Harley, 'Maps, Knowledge', p. 284.
3 Liah Greenfeld does include sixteenth-century England, and Benedict Anderson focuses on creole
revolutions that spread eastwards to central Europe and Russia and only reached Asia in the late nineteenth century. In this view, nationalists who claim to derive the essence of their nation from its early origins create factitious history for ideological purposes: imagined communities drink from tainted springs. A second latent assumption is that nationalism in East Asia is unproblematic because East Asian societies were more homogeneous than those of Europe and had already been politically unified for centuries under bureaucratic empires. Thus, there is a dual erasure of East Asia from the analysis of nationalism: if the nationalist essence is seen as deriving smoothly from the imperial heritage, then it is unproblematic; or if it is seen as a derivative late developer, the earlier European experience becomes the focal point of analysis. The two views, while contradictory, are popular among theorists of nationalism today and account for the neglect by them of East Asia.

These assumptions may be challenged by arguing, first, that there are important continuities between nationalism and the earlier imperial experience. Nationalism is not merely a derivative of Europe, but draws on native roots. On the other hand, imperial unity was not simply transferred to national unity. Radical redefinitions of identities based on the imperial heritage were necessary before the nationalist idea could be transmitted to a mass public, and the formation of these new identities depended on the contingencies of challenges and interactions with other states. This process needs detailed examination in comparative context, similar to Prasenjit Duara’s recent work on the production of new historical narratives by twentieth-century Chinese nationalists out of China’s interaction with other imperialist nation-states.

To be more specific, the creation of ‘border consciousness’, and the tenacious insistence of twentieth-century Chinese regimes on sovereignty over their frontiers was not a new development of the late nineteenth century. It is a heritage of the late seventeenth century, which first established the borders that later state authorities had to defend. The Qing legacy to modern nationalism was both to incorporate a wide diversity of peoples, especially nomads, within the state boundaries, by contrast with the Ming, which excluded them; and to engage in extensive mapping, sur-

---

1 Hobsbawm, Nations and Nationalism, pp. 66, 137.
2 Peter C. Perdue, review of Bryna Goodman, Native Place, City, and Nation: Regional Networks and Identities in Shanghai, 1853-1937 (Berkeley, 1995), Journal of Interdisciplinary History, xxvii (1997), 749-51; Prasenjit Duara, Rescuing History from the Nation: Questioning Narratives of Modern China (Chicago, 1995).
3 Mary C. Wright, China in Revolution: The First Phase, 1900-13 (New Haven, 1968).
veying, classifying, controlling, and measuring procedures to keep them within the empire and under state control.

Benedict Anderson’s discussion of maps regards them, along with the census and the museum, as products of the nineteenth-century colonial era. He and Thongchai Winichakul distinguish sharply between pre-colonial maps, or ‘sacred geographies’, and colonial Mercator grids.¹ The maps discussed here do not fit well into this dichotomy. The Renat map has no grid or borders, but neither is it a religio-cosmographic diagram. The Jesuit and Strahlenberg maps use a Mercator grid, but they are products of European geodesists working under the command of indigenous rulers. All three are hybrid constructions created out of the interaction between the early modern central Eurasian empires, using both inherited constructions of space and the new cartographic technology of the European scientific revolution.

The question of secrecy and the distribution of knowledge is, however, connected closely to the impact of maps on popular nationalism. The mass distribution of a schematic representation of a country’s shape, the ‘logo-map’ in Anderson’s terminology, created for the broad population the fundamental image of the ‘geo-body’ of the nation, in Thongchai’s terms. The earlier maps were not widely distributed, so they did not shape a mass public, but they did construct a definite image of the imperial realm in the minds of elites. Later, this image was transmitted to the public with few changes through the technology of print capitalism by nationalist ideologues in order to mobilize a mass movement. The national boundaries of these states were not laid down in the deep mists of history by timeless cultural forces; they were, rather, constructed during their interaction with each other as they engaged in a triangular struggle for power over the steppes, forests, and deserts of central Eurasia.

Massachusetts Institute of Technology