

UC Berkeley

Cross-Currents: East Asian History and Culture Review

Title

The Cartographic Evolution of the Sino-Mongolian Border at Zamyn Üüd/Erlia

Permalink

<https://escholarship.org/uc/item/0cv9c85p>

Journal

Cross-Currents: East Asian History and Culture Review, 1(21)

Author

Powell, Susan

Publication Date

2016-12-01

Supplemental Material

<https://escholarship.org/uc/item/0cv9c85p#supplemental>

CROSS-CURRENTS



EAST ASIAN HISTORY AND CULTURE REVIEW

The Cartographic Evolution of the Sino-Mongolian Border at Zamyn Üüd/Erlian

Susan Powell, University of California, Berkeley

The shifting relationship between China and Mongolia throughout the twentieth century was played out both on the ground and in maps of their shared border—in the frontier. This cartographic photo essay focuses on one small but distinctive area of the border, where the Trans-Mongolian Railway both perforates the boundary and links the two nations. The twin cities of Zamyn Üüd and Erlian now sit on this crossing, but what was there before, how did this region evolve, and what do cartographic representations of the space tell us? In this essay I address these questions using maps drawn primarily from the library of the University of California, Berkeley.¹

Today, the border towns of Zamyn Üüd [Замын Үүд] and Erlian [二连] sit opposite each other in Mongolia and China, respectively, guarding the Trans-Mongolian Railway border crossing, one of the few cartographic piercings of the Sino-Mongolian border on modern maps. In 2007, nearly 70 percent of Mongolian commercial exchanges with China took place across the Zamyn Üüd/Erlian crossing (Lacaze 2012, 112). Despite the economic and symbolic importance of the area, however, the towns are not large (relative to others in their respective countries), and the surrounding countryside is the sparsely populated Gobi Desert (Atwood 2004, 156; Lacaze 2012, 117). Furthermore, even though these two cities and this border crossing are well represented in current print cartography, the space evolved significantly over the twentieth century. Reality on the ground pushes against the tidy representations of both print and digital maps. Figures 1 and 2 show where Zamyn Üüd and Erlian are situated along the modern Sino-Mongolian border. Note in particular the significant shift between Zamyn Üüd's past location and its current one. As documented in this essay, Zamyn Üüd was probably moved during the 1960s.



Figure 1. Overview map of Mongolia, showing location of the border towns of Zamyn Üüd and Erlian, 2016. *Source:* Created by Susan Powell using QGIS 2.8.5 (GIS software), with boundary data from Natural Earth and railroad data from DIVA-GIS.

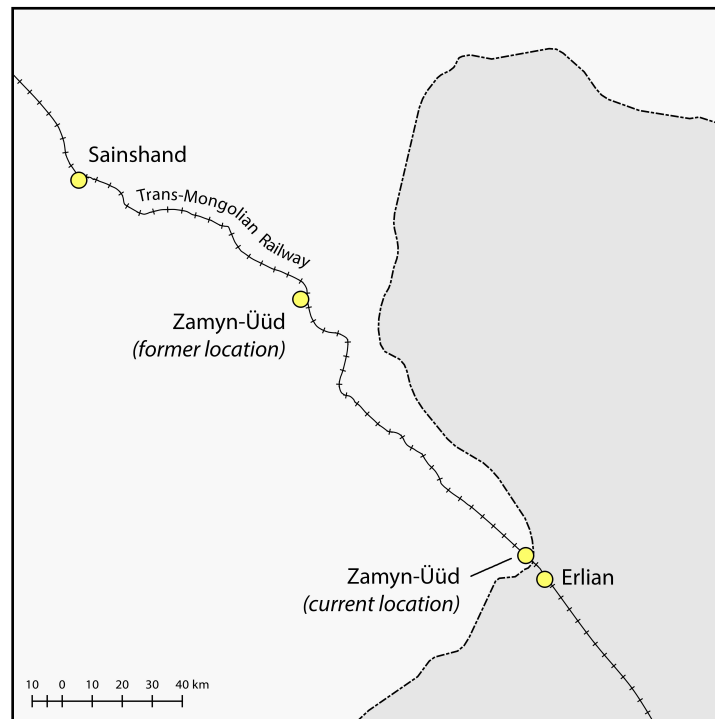


Figure 2. The Zamyn Üüd/Erlian crossing and surrounding area, 2016. *Source:* Created by Susan Powell using QGIS 2.8.5 (GIS software), with boundary data from Natural Earth and railroad data from DIVA-GIS.

The town of Zamyn Üüd appears on maps until the mid-1900s as Wuteh, Üüd, Ude, or some other variant. It was a stop on the Kalgan-Urga² trade caravan route, located at a natural pass. Üüd (үүд) can be translated as “gate,” “door,” or “threshold”; Zamyn Üüd means “the road’s door.” Erlian commonly appears on older maps as Ereen, Iren Dabasu, Erh-lien, or some variant. Ereen (эрээн) is the Mongolian equivalent of Erlian and can be translated as “mottled” or “multicolored.” Variations of the toponym Zamyn Üüd begin appearing on maps in the late 1930s and early 1940s, as seen in *Herbert Mueller’s Map of All Mongolia* (1939) (map 7) and the 1943 U.S. Office of Strategic Services (OSS) map of *Outer Mongolia and Tannu Tuva* (map 9).

At and around Zamyn Üüd/Erlian we can see the convergence of two spatially shaping forces over the past 100 years, forces that influenced the evolution of the area’s geographic space: built infrastructure and the political delineation of the border. Both developed slowly through the first part of the twentieth century with the evolution of Mongolia’s infrastructure and changing relations between China and Mongolia. These forces shaped the relative importance and location of the border as well as places along it.

Over the twentieth century, both geopolitics and cartography narrowed the many caravan tracks that connected Outer Mongolia and China—crisscrossing the Gobi Desert—down to a handful of routes. Cartographers often simplify maps by leaving out features that they consider irrelevant to the purpose of the map—these techniques of generalization make maps easier to interpret, but can be misleading if not read in context. Through the 1930s and 1940s maps of the region produced by the American government generally depicted the landscape without much detail, with a few notable exceptions, such as the 1942 U.S. Army Map Service (AMS) map of *Mongolia and Adjacent Regions* (map 8). In their sparseness, though, the maps reveal the areas and features that were of foremost concern at the time of mapping, including the emerging border towns of Zamyn Üüd and Erlian.

In Mongolia roadways are often impermanent—readily moved, removed, or ignored for other tracks. This transience makes them difficult to map. Telegraph lines and railroad tracks, on the other hand, have a more permanent presence in the landscape, and therefore are better landmarks for fixing places spatially across time. A telegraph line or a railroad is a natural candidate for scientific cartography—presenting a single line through space, neatly and immovably traced in maps. As shown in the map from Stanford’s *Atlas of the Chinese Empire*

(figure 1), a telegraph station had been installed in Zamyn Üüd (identified as Ude) by 1908, with a line that connected Urga southeast to China.

Following the path of the telegraph line, the Trans-Mongolian Railway was constructed in the 1950s through a joint effort of China, Russia, and Mongolia, signed into agreement on September 15, 1952 (Atwood 2004, 504). The 1950s saw a brief thawing of Sino-Soviet (and thus Sino-Mongolian) relations (Atwood 2004, 503). During this time, the countries completed the construction of the Trans-Mongolian Railway line, which connects Ulaanbaatar to Beijing through Jining (集宁区). The line connecting Erlian with Jining was completed in December 1954 with Soviet assistance (Chang 1961, 542), but “in fact, the construction of this railroad to Outer Mongolia was not announced until it had been completed,” (Chang 1961, 539). In Mongolia the rail line was constructed entirely by Soviet prisoner labor (Atwood 2004, 545). The railway opened for operation on January 1, 1956 (Atwood 2004, 545). Because the Mongolian railway follows Russian standards, which differ from those used in Chinese rail tracks, the crossing at Erlian is a change-of-gauge station (Mellor 1964, 417). The train cars must be lifted off one set of wheels and placed on another in order to continue the journey.

The settling of boundary disputes that also took place during the brief Sino-Soviet alliance combined with the new physical infrastructure to define locations in the border area. The boundary dispute between China and Mongolia is a rich topic of its own (see Hyer 2015 for a thorough explanation), but here I focus on how the boundary between Zamyn Üüd and Erlian evolved cartographically. In maps produced from the 1920s through the 1960s, it is easy to see the world’s uncertainty as to whether Outer Mongolia should be treated as an independent nation or as a part of China. In a single year (1944), the OSS—a U.S. intelligence agency that operated during World War II—produced maps showing Mongolia alternately as a province of China (*Greater China*, map 10) and as a distinct nation, along with Manchuria (*The Northwestern Pacific*, map 11), albeit with different audiences (see the map captions for further discussion). Mongolia first declared independence from China in 1911 and established the Mongolian People’s Republic in 1924 (Atwood 2004, 635), but its independent status was not officially recognized by China until the Sino-Soviet Treaty was signed in 1946, and, even then, Mao continued to push for the reunification of Outer Mongolia with China (Atwood 2004, 186).

In those decades of uncertainty, Chinese and Mongolian maps showed very different views of their shared boundary, disagreeing by up to 100 miles in some sections (Hyer 2015, 172). As can be seen on the map of boundary disputes (map 15), the area at Zamyn Üüd was one such contested section. The border disputes between Mongolia and China were officially resolved by the signing of a boundary treaty on December 26, 1962, in Beijing (Hyer 2015, 171).

With the spatial fixing of the border, places of crossing gained more significance. The fixing of the border created a stable line in space, which then intersects the spatially fixed railroad line; two lines intersecting form a spatially fixed point. However, at the time the railway was constructed, Zamyn Üüd was *not* located at the current border opposite Erlian, but was nearly 100 kilometers distant, toward Sainshand.³ Sometime after the completion of the Trans-Mongolian Railway, but before the 1970s, the town of Zamyn Üüd was physically moved to its current location. The trio of maps by the Scottish firm John Bartholomew and Son, from 1953, 1958, and 1971 (maps 16, 17, and 18, respectively), illustrates this well. In the 1953 edition, both Wuteh (Zamyn Üüd) and Erhlien (Erlian) are loosely placed on the map, with Erlian oddly even falling on the incorrect side of the border. By 1958, the railroad has been built and the towns appear in locations that agree with other contemporary maps, with Erlian at the boundary claimed by Mongolia and Zamyn Üüd some distance into Mongolia. By 1971, Zamyn Üüd has moved to its current location directly opposite the border from Erlian. One can imagine that Zamyn Üüd may have been moved because of the growing tensions with China.

A lingering puzzle raised by this timeline of events is identifying the point at which the Trans-Mongolian Railway crosses the border and the track switches gauges. The railway was constructed and operational by the beginning of 1956, nearly seven years before the official borders were agreed upon in the 1962 Sino-Mongolian boundary treaty. Yet, as seen in the map of the disputed territories leading up to the signing of the 1962 treaty, Erlian is at the edge of the lands that *Mongolia* claimed, but nearly 100 kilometers distant from the boundary claimed by China. What political negotiations must have occurred to place the change of gauge in disputed territory? The placement of the change-of-gauge station deep within disputed territory suggests that nearly a decade before the Sino-Mongolian border treaty was signed, China was already conceding some of the lands in practical terms.

The physical infrastructure that spatially fixes Zamyn Üüd also links Mongolia and Russia to China, through communication lines and lines facilitating the movement of goods and

people. In addition to its service as spatial fixer, the railroad also serves as an explicit link—both literally and symbolically—between nations. In the map *To Comprehend the Aggressive Attempt of the Soviet Communists through a Glimpse on Their Plot of Railroad Construction on China's Mainland* (map 13), the cartographer uses the strong symbology of Soviet railroads—including the newly constructed line between Urga and Tsining (a variant on Jining)—as chains binding China and pulling it under Soviet dominion.

This link was broken with the re-hardening of relations between China and Mongolia in the 1960s. The railroad and border at Erlian were now closed, but the tracks persisted. Thus, maps from the 1960s onward continue to show the railroad lines piercing the border at Zamyn Üüd, even though the auto road dutifully halts before the border (see maps 18, 19, and 20). From the late 1960s through the end of the 1980s, Zamyn Üüd served as a visible guard on the border crossing and a cartographic reminder of severed relations with China. The Sino-Mongolian border reopened at Zamyn Üüd/Erlian in 1992 (Lacaze 2012, 111), and with that reopening came the reinstatement of cartographic links, as seen in the 1992 map of Dornogovi aimag⁴ (map 21).

In contrast to most of the maps presented here, the final section of images in the photo essay show Zamyn Üüd and Erlian at a different, more intimate scale. At the scale that most of the maps of the area were (and are) produced, each town is represented by *a point* on the map—that is, a dimensionless space. Mapped at a larger scale, the towns gain dimension and their features become visible. It was during the period of closed borders that the Soviets completed large-scale mapping of the two border towns (maps 22 and 23). The large-scale Soviet maps offer the first multidimensional mapping of Zamyn Üüd and Erlian. In the past ten years, Google Maps, OpenStreetMap, and similar web-mapping platforms, as well as satellite imagery, have allowed the public to zoom in and see the two-dimensional extent of the towns that was previously largely hidden.

Interestingly, although we *can* zoom in, and this gives the impression of a more precise, accurate representation of the spaces, a couple of quirks of Google Maps's data caution against blind acceptance. In one example of a cartographic sleight of hand, Zamyn Üüd is labeled with a bigger font than Erlian (identified as Erenhot on the map), so when using map view the Mongolian side looks bigger. When you switch to satellite view it becomes immediately apparent how much larger Erlian actually is—four to five times the footprint of Zamyn Üüd. In a second example, at high zoom levels in map view the lines for the railway and for the auto roads

do not match up at the border. Thus, boundaries still present cartographic problems even if they are not actively contested.

Zamyn Üüd, Erlian, and the spaces around and between them are more than just two-dimensional, of course. Rather than one-dimensional lines, borders are actually multidimensional zones (Delaplace 2012, 8). The border is more than a concept, and a border crossing is more than its cartographic representation as a neat, discrete piercing of a boundary line. These are also real spaces shaped by the technology of the border, as well as by the people and goods that navigate the crossing. The town of Zamyn Üüd consists of both the formal landscape of border-crossing infrastructure (i.e., train stations and customs offices) (figure 3) and the everyday roads and buildings of daily life in a town (figure 4).



Figure 3. The train station in Zamyn Üüd, 2006. *Source:* Takeshi Kitayama. Available at <https://www.flickr.com/photos/harunire/118712718/in/photostream/> and <https://www.flickr.com/photos/harunire/118712984/in/photostream/>, accessed December 1, 2016. Combined by Susan Powell on December 6, 2016. Used under an Attribution-NonCommercial-ShareAlike 2.0 Generic (CC BY-NC-SA 2.0) license.



Figure 4. A road through the town of Zamyn Üüd, 2006. *Source:* Takeshi Kitayama. Available at <https://www.flickr.com/photos/harunire/118719366/in/photostream/>, accessed December 6, 2016. Used under an Attribution-NonCommercial-ShareAlike 2.0 Generic (CC BY-NC-SA 2.0) license.

As Gaëlle Lacaze (a French anthropologist who has studied relationships at the Zamyn Üüd/Erlian border) describes it, the border is not a simple spatially fixed entity for the people who interact with it (2010, 2012). The Chinese border city of Erlian, although aggrandized with the appellation “Dinosaur Capital,” has in practice been largely appropriated by Mongolians for trade (Lacaze 2012). The border crossing is also exploited by foreigners on “visa runs”—the Chinese requirement of multiple-entry visas necessitates that one exit the country once every few months. The movements required to cross and re-cross the border successfully are described in painstaking detail in the English-language article for Erlian on wikitravel.org:

The driver will take you across the gates [to the Mongolian immigration station] and stop while he registers vehicle information. Go to the window at the right and purchase an entrance ticket for ¥5. Walk to your left (near the rainbow) and enter immigration control. Receive your stamp which declares you have exited China, if you have time buy some duty free items.

**** **IMPORTANT** ****

In the past travellers from here would enter the door at their left and re-enter China, without having entered Mongolia. This is no longer possible and they check every single stamp in your passport to make sure travellers have corresponding Mongolia stamps.

- *Go outside, hop in the same car and the driver will take you across to the Mongolian checkpoint (about a 5–8 minute drive). This is the end of you're [sic] trip with that driver. Pay him the agreed upon amount.*
- *Go through Mongolian Immigration, forms are in English and Mongolian. Border patrol personnel on the Mongolian side speak minimal English and no Chinese. You are now in Mongolia.*
- *Go out the door in the back, and loop around to your left. Enter the building. Fill out your departure forms and walk back out side [sic] to a line of cars. You have now left Mongolia.*
- *Find one of those cars to take you back to the Chinese Border. Enter Chinese immigration, fill out your arrival card and get your stamp. You may be asked to open your bag along the way. You are now back in China.*
- *Find a Mongolian car to take you across the border. They drop you off at some Mongolian area with many different 3 wheeled cars, all of whom will try to ask you if you are interested in finding a prostitute. Kindly reply no and tell them your destination.*
- *Your Visa run is over. ("Erlian travel guide")*

Social commentary aside, these directions show just how thickly complex the border and its crossing are, and how precisely it must be navigated if you are, as implied, an English-speaking foreign male staying in China. The minutiae of the border-crossing experience, especially as it might differ for various groups of people, is hard to represent adequately through cartography. Similarly, the temporal dependency of the border—the fact that it closes at night and on holidays (Lacaze 2012, 126)—is largely absent from the maps, even from current “smart” maps like Google Maps (see map 14 for an example of a rare cartographic representation that incorporates a time dimension).

The maps presented here of Zamyn Üüd, Erlian, and the border they straddle reflect both the general hardening of borders and the desire for spatial fixity that progressed over the twentieth century. However, contemporary mapping, with its ever-finer levels of zoom, shows that even modern “scientific” maps must display representations that don’t always stand up to scrutiny or to lived experience lived on the ground. This particular location is an ideal spot for observing the interplay of these cartographic forces, particularly with the contested international boundary, the Trans-Mongolian Railway, and the mid-twentieth-century relocation of the town of Zamyn Üüd.

Susan Powell is the GIS, maps, and geography librarian in the Earth Sciences and Map Library at the University of California, Berkeley.

Notes

- 1 The maps investigated here are necessarily a limited representation, both of the place (which I discuss in more detail below) and of the totality of maps that cover this area. The map collection of the University of California, Berkeley, while deep, of course does not contain *all maps* produced of this area. Further, for language reasons, I limited my scope to maps written in English, Russian, and Mongolian Cyrillic script. Significant mapping of the area also exists in Chinese and Japanese, as well as classical Mongolian script.
- 2 Ulaanbaatar was formerly known as Urga.
- 3 The movement of the town of Zamyn Üüd is noted in the Wikipedia article for the town, but beyond that I have found no mention of its change in location.
- 4 An *aimag* is a first-order subdivision of Mongolia (the country currently has 21).

References

- Atwood, Christopher P. 2004. *Facts on File Library of World History: Encyclopedia of Mongolia and the Mongol Empire*. Facts on File, ProQuest ebrary. Available at <http://site.ebrary.com/lib/berkeley/detail.action?docID=10358985>, accessed November 30, 2016.
- Chang, Kuei-Sheng. 1961. "The Changing Railroad Pattern in Mainland China." *Geographical Review* 51 (4): 534–548.
- Delaplace, Grégory. 2012. "A Slightly Complicated Door: The Ethnography and Conceptualisation of North Asian Borders." *Frontier Encounters: Knowledge and Practice at the Russian, Chinese and Mongolian Border*, edited by Franck Billé, Grégory Delaplace, and Caroline Humphrey, 1–17. Cambridge, UK: Open Book Publishers. DOI: 10.11647/OBP.0026.01.
- "Erlian Travel Guide." In *Wiki Travel Guide*. Available at <http://wikitravel.org/en/Erlian>, accessed November 30, 2016.
- Hibbert, R. A. 1967. "The Mongolian People's Republic in the 1960s." *The World Today* 23 (3): 122–130.
- Hyer, Eric. 2015. *The Pragmatic Dragon: China's Grand Strategy and Boundary Settlements*. Vancouver: University of British Columbia Press.
- Juntunen, Alpo. 1991. "The Influence of Railway Construction in Mongolia: The Shift from Chinese to Russian/Soviet Protection." *Journal of Transport History* 12 (2): 169–186.
- Lacaze, Gaëlle. 2010. "'Run after Time': The Roads of Suitcase Traders." *Asian Ethnicity* 11 (2): 191–208.
- . 2012. "Prostitution and the Transformation of the Chinese Trading Town of Ereen." *Frontier Encounters: Knowledge and Practice at the Russian, Chinese and Mongolian Border*, edited by Franck Billé, Grégory Delaplace, and Caroline Humphrey, 111–135. Cambridge, UK: Open Book Publishers. DOI: 10.11647/OBP.0026.07.
- Mellor, R. E. H. 1964. "Through-Railway Links between U.S.S.R. and Its Neighbours." *Geography* 49 (4): 416–417.
- "Zamyn-Üüd." Available on Wikipedia, en.wikipedia.org/wiki/Zamyn-Üüd, accessed November 30, 2016.