

**Landscape and Connections:
Petroglyphs of the Altai in the
2nd and 1st Millennium BCE**

Volume 2: Figures

Rebecca O'Sullivan

Merton College

DPhil Archaeology

Contents

1	Introduction	1
2	Literature Review	6
3	Methodology	25
4	Paths Through the Altai.....	28
5	Case Study – Mongolia	45
6	Case Study – Russia	63
7	Case Study – PRC	79
8	Discussion: Connections and Rock-art	94

1 Introduction

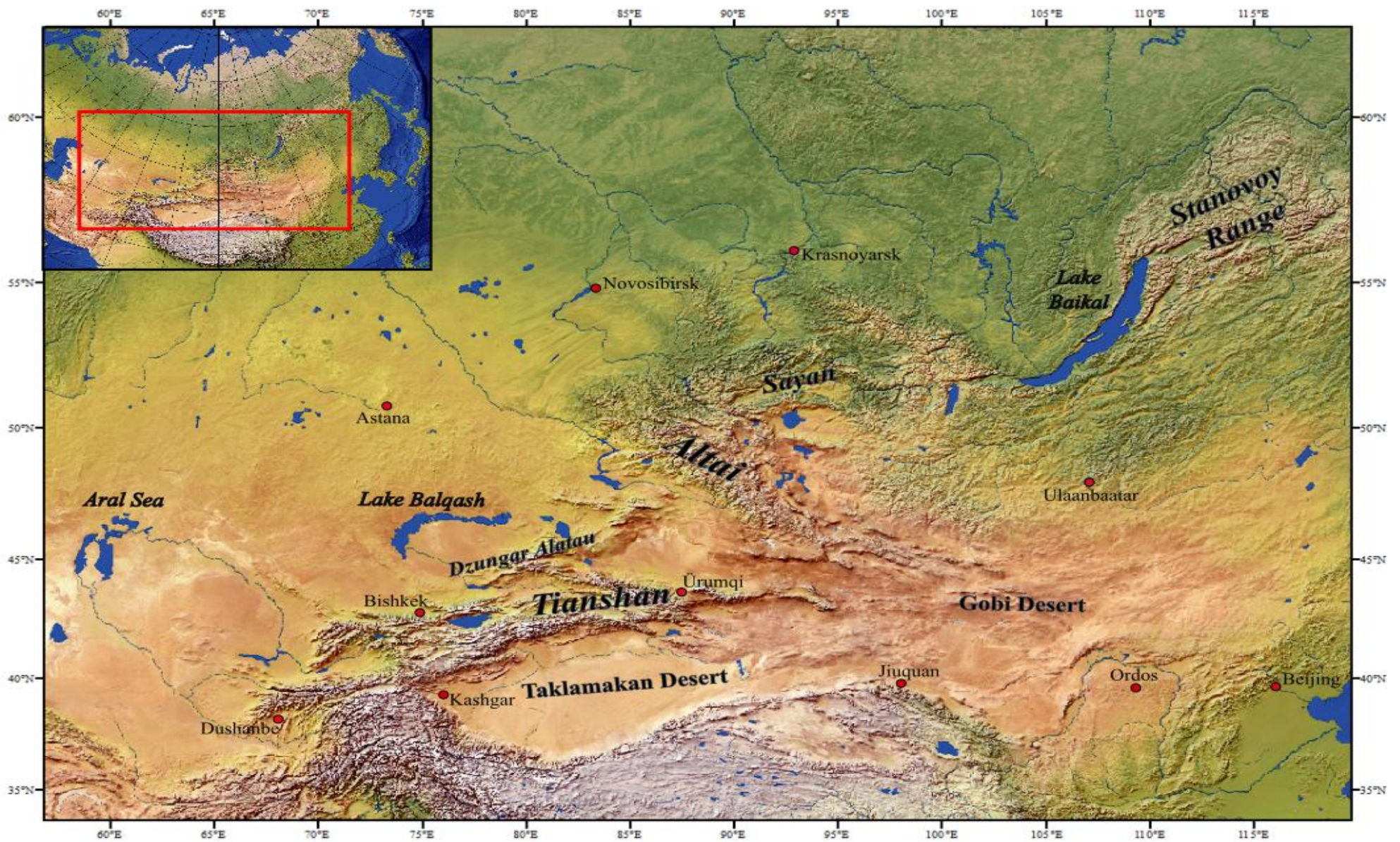


Figure 1.1. Map of the Altai Mountains in eastern Eurasia. Major modern cities are marked, in addition to mountains and water bodies.



Figure 1.2. Same map as above (Fig. 1.1) with international borders marked.



Figure 1.3. Petroglyph of an ibex being hunted by an anthropomorph and dogs. Bayan-Ulgii aimag, Mongolian Altai, c. 3rd millennium BCE.

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Fitzhugh, W. W. 2009c. The Mongolian deer stone-khirigsuur complex: dating and organization of a late Bronze Age menagerie. In *Current Archaeological Research in Mongolia*, edited by J. Bemann, H. Parzinger, E. Pohl, and D. Tseveendorzh, 183–199. Bonn Contributions to Archaeology 4. Bonn: Vor- und Frühgeschichtliche Archäologie Rheinische Friedrich-Wilhelms-Universität Bonn.

Figure 1.4. A deer stone. Uushgyn Övör, Mongolia, c. 930 – 785 BCE (Fitzhugh 2009c, fig. 2).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Sidirova, M. O., and E. P. Matochkin. 2010. Kompleks petroglifov Urkosh-14 (Gornyi Altai). *Vestnik Novosibirskogo Gosudarstvennogo Universiteta* 9 (5: Arkheologiya I etnografiya): 164–170.

Figure 1.5. Tracing of a petroglyph panel at Urkosh I, Ongudai District, Russian Altai, c. 9th – 8th centuries BCE (after Sidirova and Matochkin 2010, fig. 1).



Figure 1.6. The black outer surface of the panel has been crushed to make a bright, white figure of a caprine. Over time, the exposed rock changes colour, due to reactions between the elements and the rock. Tsagaan Salaa/Baga Oigor, Bayan-Ulgii aimag, Mongolian Altai, c. 1st millennium BCE (ox), modern (caprine).

2 Literature Review

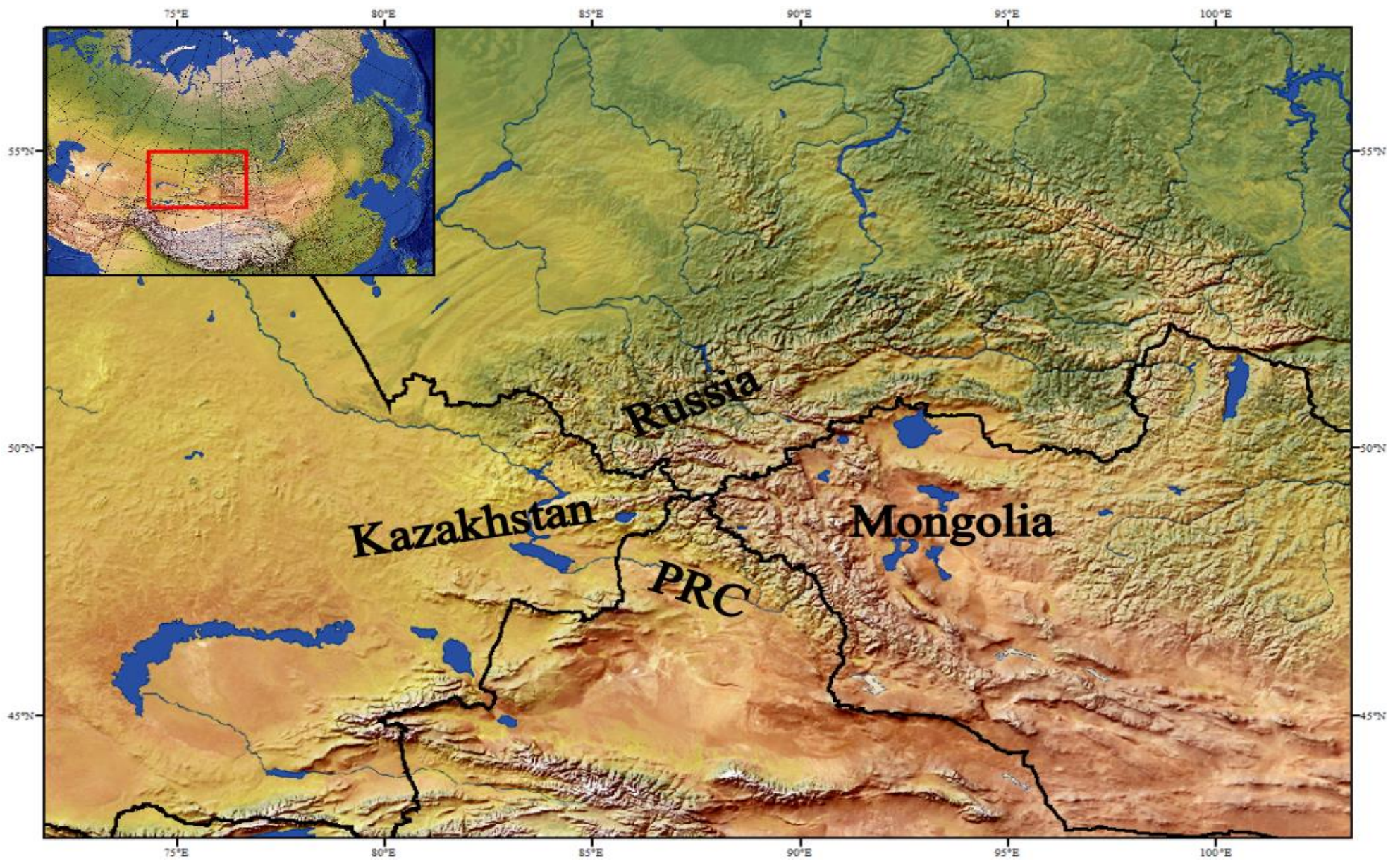


Figure 2.1. Four modern nations divide the Altai Mountains: Kazakhstan, Mongolia, Russia, and China.

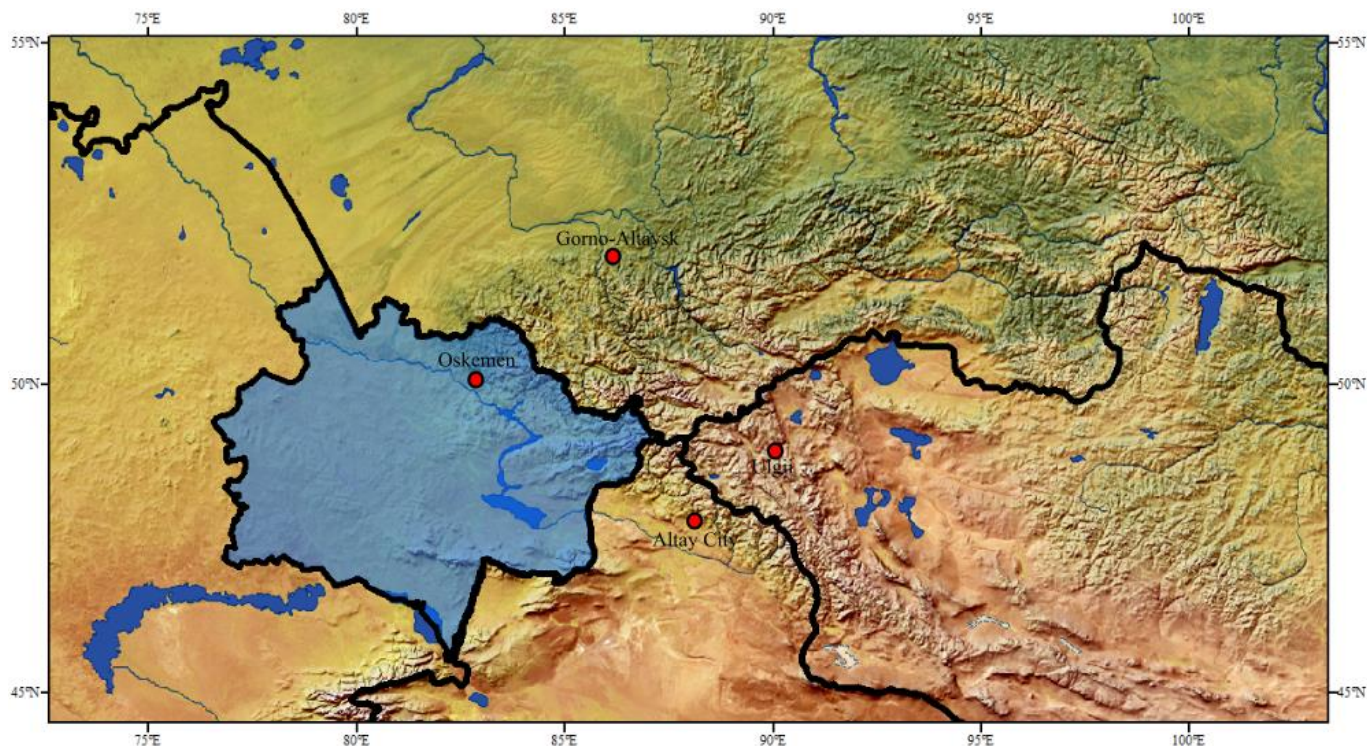


Figure 2.2. Location of East Kazakhstan Region, Kazakhstan, highlighted in blue.

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Sher, Ya. A., Ye. A. Miklashevich, Z. S. Samashev, and O. S. Sovetova. 1987. Petroglify Zhaltyrak-Tasha. In *Problemy Arkheologicheskikh Kul'tur Stepey Yevrazii*, 70–78. 16. Kemerovo: Kemerovskiy gosudarstvennyy universitet. Available at <<http://kronk.spb.ru/library/sher-etc-1987.htm>>.

Figure 2.2. Photograph of Jaltırak Kash from the 1980s, northern Kyrgyzstan, near to the Kazakh-Kyrgyz border, petroglyphs dated c. 3rd – 2nd millennium BCE (after Sher *et al.* 1987, fig. 1)

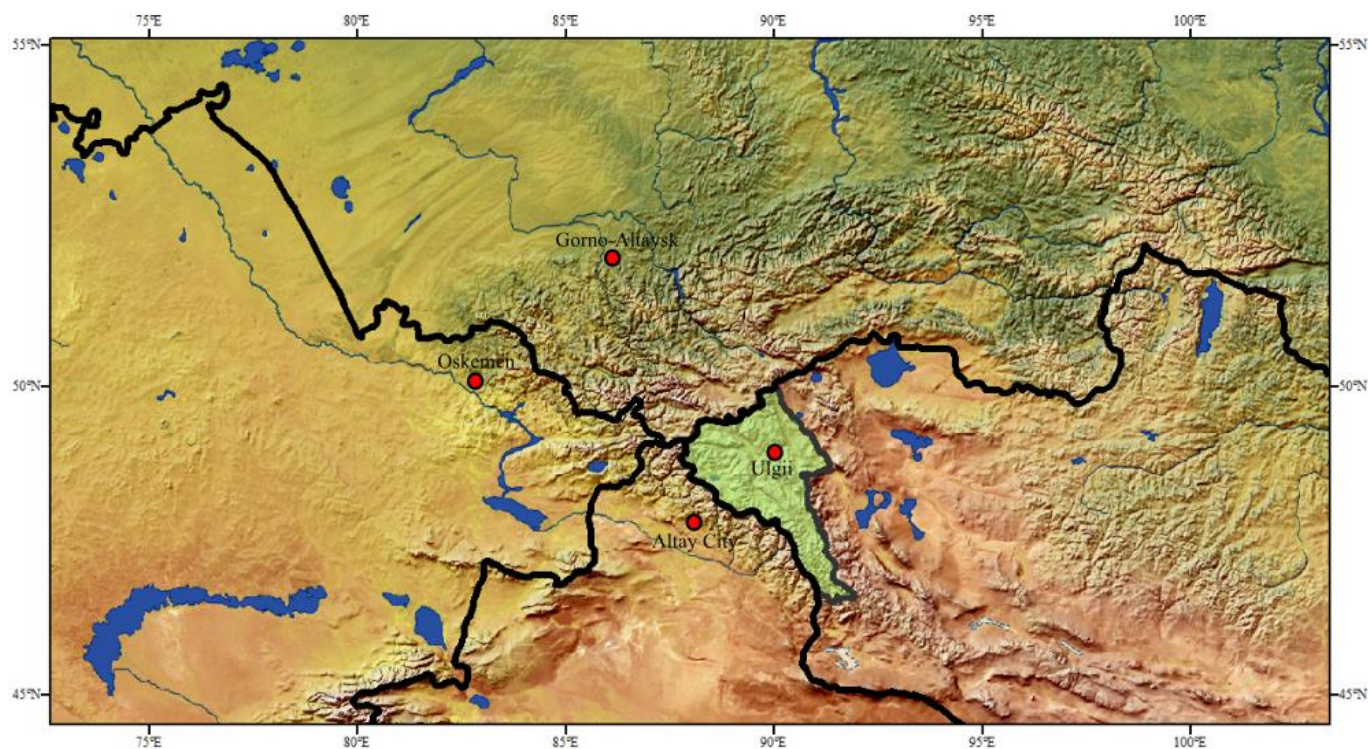


Figure 2.4. Location of Bayan-Ulgii aimag, Mongolia, highlighted in green.

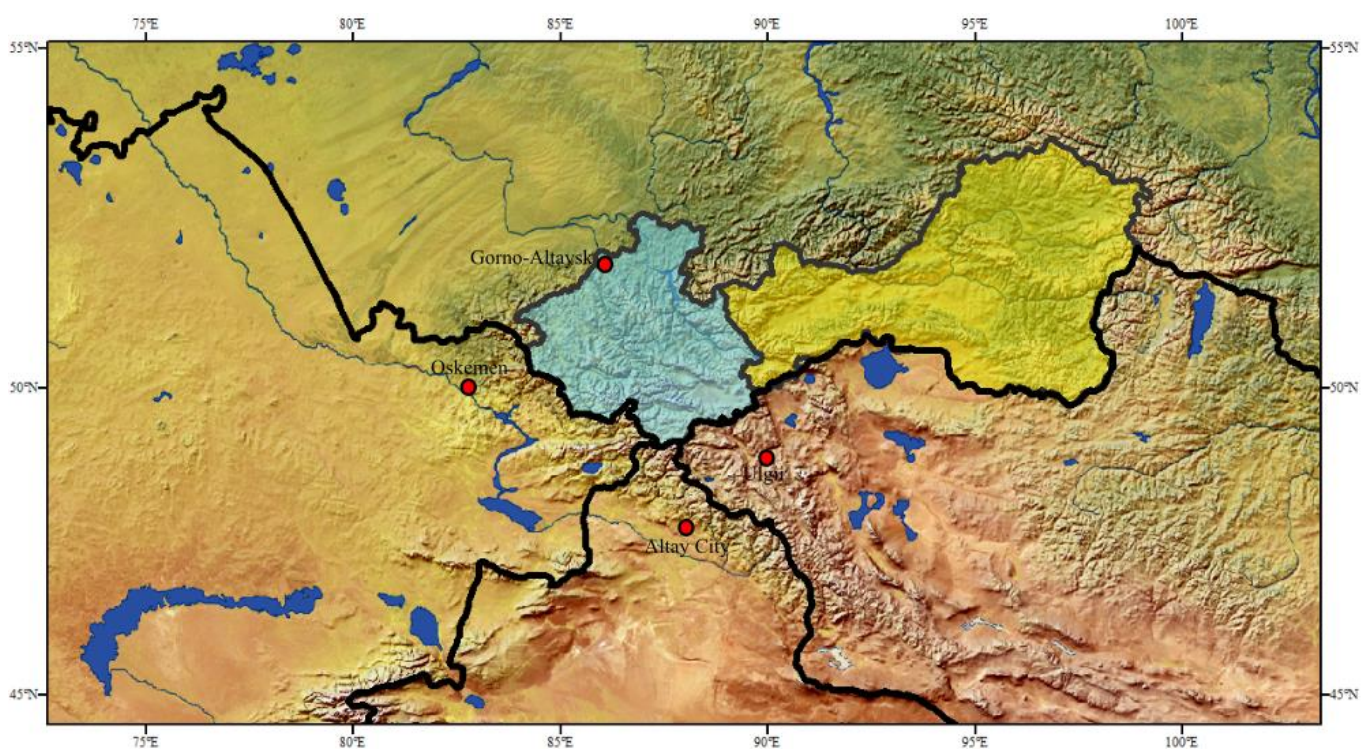


Figure 2.5. Location of the Altai Republic, Russian Federation, highlighted in blue. The Tuva Republic is highlighted in yellow.



Figure 2.6. Location of Xinjiang Uyghur Autonomous Region, PRC, highlighted in red.

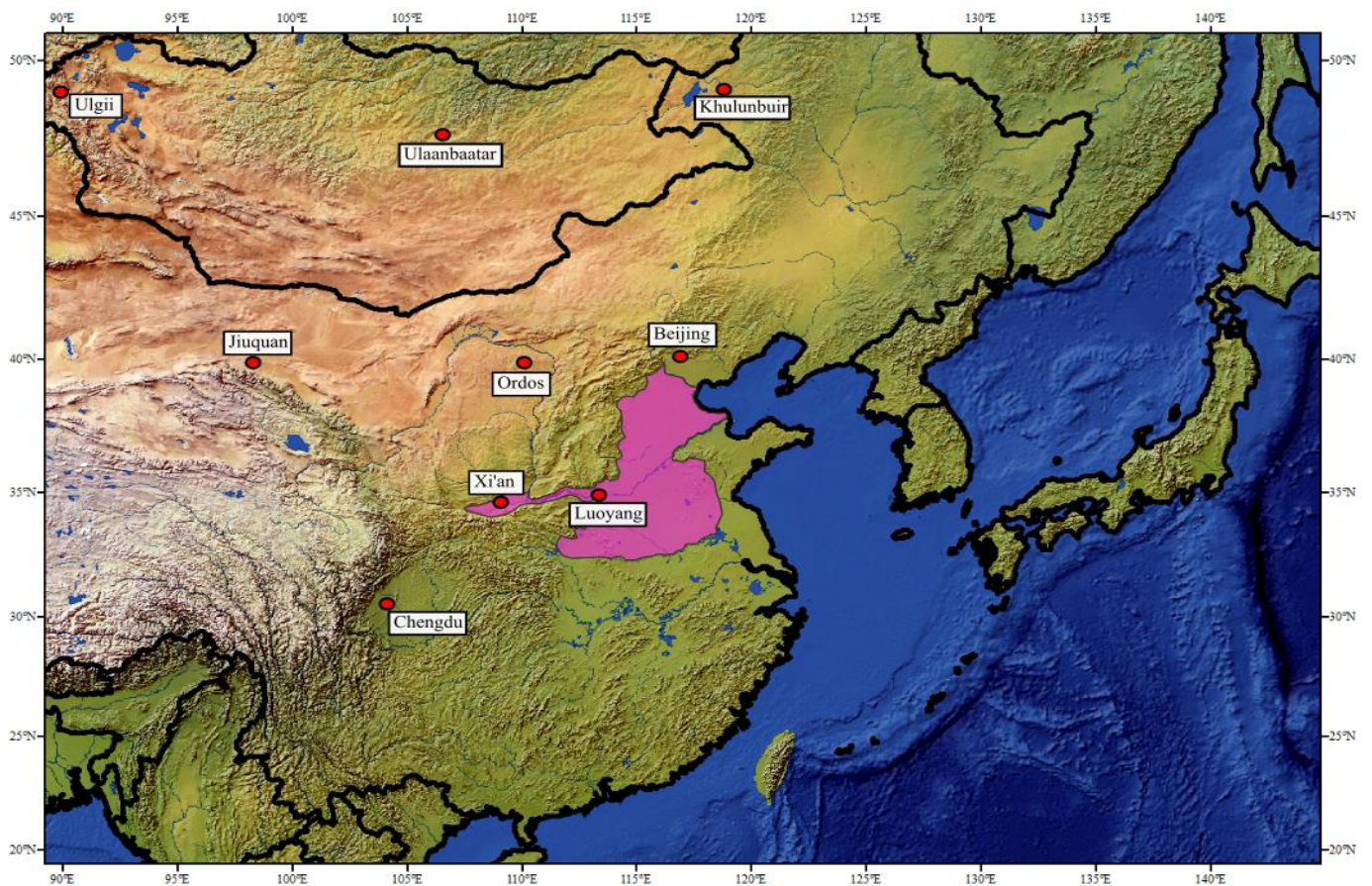


Figure 2.7. Location of the Central Plain, PRC, highlighted in pink.

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at IAET SO RAN. 2002. *Razrabotana kul'turno-khronologicheskaya skhema epokh eneolita i rannei bronzy v Gornom Altae. Federal'noe Gosudarstvennoe Byudzhetnoe Uchrezhdenie Nauki Institut Arkheologii I Etnografii Sibirskogo Otdeleniya Rossiiskoi Akademii Nauk.* Available at <<http://archaeology.nsc.ru/ru/otdel/noo/noo15.aspx>>. Accessed 29 July 2016.

Figure 2.8. An 'Afanasevo ring', i.e. a circle of stone stele. Nizhniy Tyumechin 1, Altai Republic, c. 2910 – 2010±80 BCE (after IAETSO RAN 2002). For radiocarbon dates, see Vadetskaya *et al.* 2014, 14.

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at IAET SO RAN. 2002. *Razrabotana kul'turno-khronologicheskaya skhema epokh eneolita i rannei bronzy v Gornom Altae. Federal'noe Gosudarstvennoe Byudzhetnoe Uchrezhdenie Nauki Institut Arkheologii I Etnografii Sibirskogo Otdeleniya Rossiiskoi Akademii Nauk.* Available at <<http://archaeology.nsc.ru/ru/otdel/noo/noo15.aspx>>. Accessed 29 July 2016.

Figure 2.9. Ceramics considered typical of the Afanasevo culture. Excavated from Pervyy Mezhelek 1 and Yelo 1, Altai Republic, c. 2365±85 BCE and c. 2800 – 2460±50 BCE, respectively (after IAET SO RAN 2002). For radiocarbon dates, see Vadetskaya *et al.* 2014, 8 & 15-16.

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Kovalev, A. A. and D. Erdenebaatar. 2009. Discovery of new cultures of the Bronze Age in Mongolia according to the data obtained by the international Central Asian archaeological expedition. In *Current Archaeological Research in Mongolia*, edited by J. Bemann, H. Parzinger, E. Pohl, and D. Tseveendorzh, 149–170. Bonn Contributions to Asian Archaeology 4. Bonn: Vor- und Frühgeschichtliche Archäologie Rheinische Friedrich-Wilhelms-Universität Bonn.

Figure 2.10. Aerial plan of a Khemcek rectangular burial chamber, reinforced with a stone mound. Kheviin Am 1, Bulgan sum, Khovd aimag, Mongolia, c. 3400 – 1400 cal BCE¹ (Kovalev and Erdenebaatar 2009, fig. 3.1).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Kovalev, A. A. and D. Erdenebaatar. 2009. Discovery of new cultures of the Bronze Age in Mongolia according to the data obtained by the international Central Asian archaeological expedition. In *Current Archaeological Research in Mongolia*, edited by J. Bemann, H. Parzinger, E. Pohl, and D. Tseveendorzh, 149–170. Bonn Contributions to Asian Archaeology 4. Bonn: Vor- und Frühgeschichtliche Archäologie Rheinische Friedrich-Wilhelms-Universität Bonn.

Figure 2.11. Ceramic vessel. Iagshiin Khödöö 3, Bulgan sum, Khovd aimag, Mongolia, c. 2410 – 1970 BCE² (after Kovalev and Erdenebaatar 2009, fig. 3.11).

¹ Five radiocarbon dates were generated for Kheviin Am 1. If only dates from human bones are used, the range is closer to 2900 – 1400 cal BCE (Kovalev and Erdenebaatar 2009, 154).

² Radiocarbon date taken from human bones found *in situ*.

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Esin, Yu. N., J. Magail, H. Rousseliere, and Ph. Walter. 2014. *Kraska v naskal'nom iskusstve okunevskoi kul'tury minusinskoï kotloviny. Rocciickaya arkheologia* 3: 79–88.

Figure 2.12. Reconstruction of an Okunev stone stele. White Iyus, near Ankhakov, Minusinsk Basin, Russia, modern (Esin *et al.* 2014, fig. 13).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Jacobson-Tepfer, E. 2015. *The Hunter, the Stag, and the Mother of Animals: Image, Monument and Landscape in Ancient North Asia*. New York: Oxford University Press.

Figure 2.13. Stone stele with a face carved in relief. Tazmin, Ust'-Abakan Region, Republic of Khakassia, Russia (after Jacobson-Tepfer 2015, fig. 2.14).

The images originally presented here cannot be made freely available via ORA because of copyright. The images were sourced at Grushin, S. P. 2008. Poselenie épokhi bronzý Berezovaya Luka: rekonstruktsiya sistemý zhizneobespecheniya. *Izvestiya* 4 (2): 22–35.

Figure 2.14. Artefacts associated with Elunino. Bone harpoons (1-3), fragments of ceramics (4 & 5), remains of a bronze knife (6), stone arrowheads (7-9) and a bone container for needles (10). Berezovaya Luka, Aleysky District, Altai Krai, c. 2200 – 2000 BCE (after Grushin 2008, figs 2.7-9; 3.1-3; 5.6; 6.11-12; & 7.2).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Kiryushin, Yu. F., and S. P. Grushin. 2009. Predmety mobil'nogo iskusstva rannego I srednego bronzogo veka lesostepnogo Ob'-Irtysh'ya. *Arkheologiya, Etnografiya I Antropologiya Evrazii* 4 (40): 67–75. Available at <<http://archaeology.nsc.ru/journalru/18>>. Accessed 25 July 2016.

Figure 2.15. Stone, bird-shaped ornament. Berezovaya Luka, Aleysky District, Altai Krai, c. 2200 – 2000 BCE (after Kiryushin and Grushin 2009, fig. 2.5).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Cong Dexin 丛德新, Jia Xiaobing 贾笑冰, Guo Wu 郭物, Shang Guojun 商国军, and Ge Li 葛丽. 2013. Xinjiang wenquan xian adunqiaolu yizhi yu mudi 新疆温泉县阿敦乔鲁遗址与墓地 [The site and cemetery of Aduun Chuluu in Arishang County, Xinjiang]. *Kaogu* (7): 25 – 32.

Figure 2.16. Aerial photograph of three stone cists. The two cists on the left (SM50) were added to the enclosure wall of the cist on the far right (SM49). Aduun Chuluu, Arixang County, PRC, c. 1743 – 1574 cal BCE (Cong Dexin *et al.* 2013, fig. 12).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Cong Dexin 丛德新, Jia Xiaobing 贾笑冰, Guo Wu 郭物, Shang Guojun 商国军, and Ge Li 葛丽. 2013. Xinjiang wenquan xian adunqiaolu yizhi yu mudi 新疆温泉县阿敦乔鲁遗址与墓地 [The site and cemetery of Aduun Chuluu in Arishang County, Xinjiang]. *Kaogu* (7): 25 – 32.

Figure 2.17. Pen-annular earring with a trumpet-shaped end, often associated with Andronovo material assemblages. M4, Aduun Chuluu, Arixang County, PRC, c. 1743 – 1574 cal BCE (after Cong *et al.* 2013, fig. 10).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Tishkin, A. A. 1996. Pogrebal'nye sooruzheniya kurgannogo mogil'nika Biike v Gornom Altae i kul'tura naseleniya, ostavivshego ikh. In *Pogrebal'nyi Obryad Drevnikh Plemen Altaya*, edited by Yu. F. Kiryushin, A. L. Kungurov, V. I. Molodin, L. A. Chindina, M. T. Abdulganeev, and A. B. Shamshin, 20–54. Barnaul: Izdatel'stvo Altaiskiy Gosudarstvennyi Universitet.

Figure 2.18. Plan of Kurgan 7, with a cross-section (A) marked on the aerial plan. Biyke, near Elanda, Chemsalsky District, Altai Republic, Russia, c. 750 – 650 BCE (after Tishkin 1996, fig. 13).

The images originally presented here cannot be made freely available via ORA because of copyright. The images were sourced at Tishkin, A. A. 1996. Pogrebal'nye sooruzheniya kurgannogo mogil'nika Biike v Gornom Altae i kul'tura naseleniya, ostavivshego ikh. In *Pogrebal'nyi Obryad Drevnikh Plemen Altaya*, edited by Yu. F. Kiryushin, A. L. Kungurov, V. I. Molodin, L. A. Chindina, M. T. Abdulganeev, and A. B. Shamshin, 20–54. Barnaul: Izdatel'stvo Altaiskyi Gosudarstvennyi Universitet.

Figure 2.19. A textile fragment (1), earring (2), and strings of beads (3) from Kurgan 7. Biyke, near Elanda, Chemsalsky District, Altai Republic, Russia, c. 750 – 650 BCE (after Tishkin 1996, fig. 14).

The images originally presented here cannot be made freely available via ORA because of copyright. The images were sourced at Gryaznov, M. P. 1947. Pamyatniki Maiemirskogo etapa epokhi rannikh kochevnikov na Altae. *Kratkie Soobshcheniya Instituta Istorii Material'noi* (18): 9–17.

Figure 2.20. Reconstructions of horse bridle mouthpieces from Siberia (1) and Eastern Kazakhstan (2). Bit (A), bronze cheek piece (B), leather cheek piece (C) and reins (D). c. 800 – 600 BCE (Gryaznov 1947, figs 3.2 & 3).

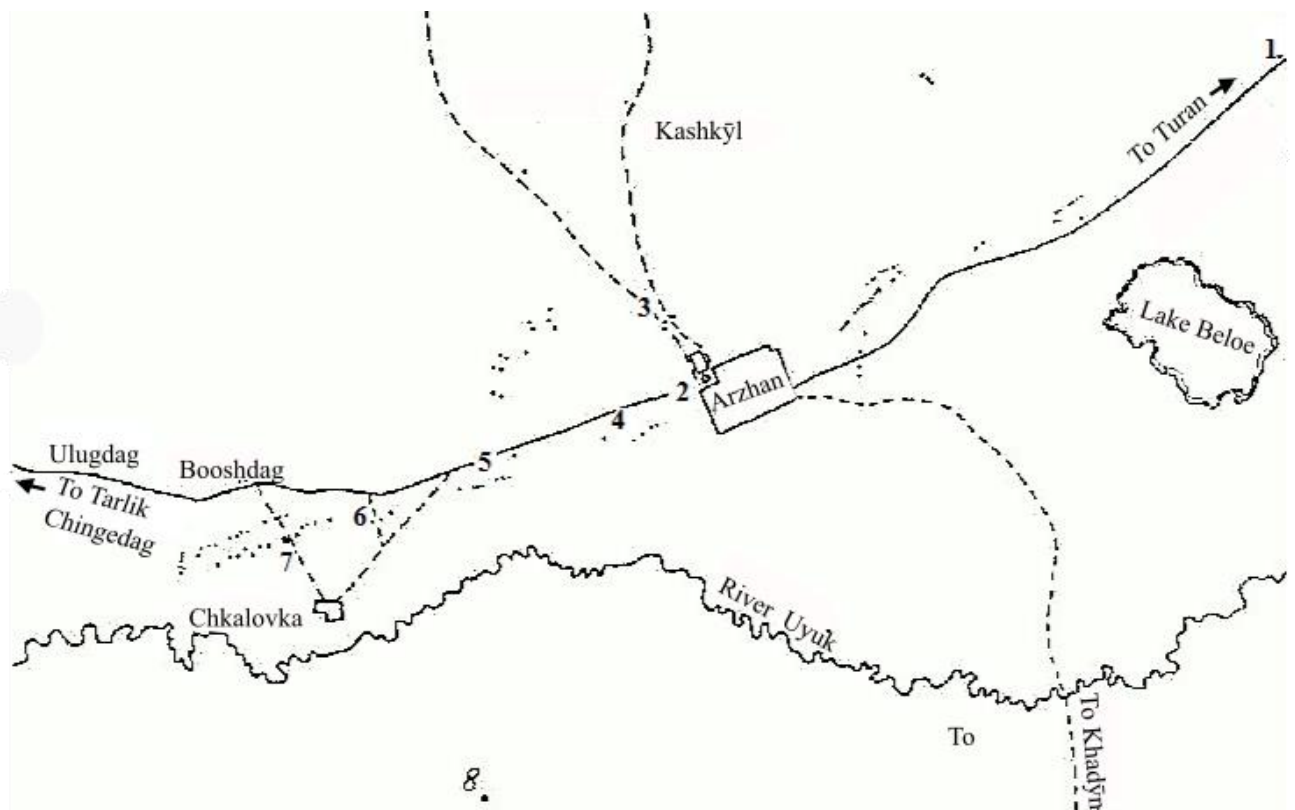


Figure 2.21. Map showing the village of Arzhan and nearby archaeological remains. There are three single, large kurgans made from either stone alone, or stone and soil (1, 2 & 8). Numbers 3-7 are groups of smaller kurgans (After Gryaznov 1980, fig. 1).

The images originally presented here cannot be made freely available via ORA because of copyright. The images were sourced at Zakharieva, E. I. 1976. *Dendrokhronologicheskoe issledovannie kurgana Arzhan. Sovetskaya Arkheologiya* (1): 100-107. Available at http://www.archaeology.ru/media/books_sov_archaeology/1976_book01.pdf. Accessed 27 July 2016.

Figure 2.22. Aerial plan of Kurgan 2, aka Arzhan 1. The burial is in the centre, with a wooden frame radiating outwards that supports a stone platform. The numbers indicate different 'chambers'. Arzhan, Piy-Khemsy District, Tuva Republic, c. 9th – 8th centuries BCE (after Zakharieva 1976, fig. 1).

The images originally presented here cannot be made freely available via ORA because of copyright. The images were sourced at Chugunov, K. V., A. Nagler, and H. Parzinger. 2001. The golden grave from Arzhan. *Minerva* 13 (1): 39–42; and Parzinger, H. 2011. Aržan 2 und die frühe Skythenzeit in Südsibirien. In *Terra Scythica: Materialy Mezhdunarodnogo Simpoziuma 'Terra Scythica'*, 192–203. Novosibirsk: Izdatel'stvo Instituta arkheologii étnografii SO RAN.

Figure 2.23. Inside the larch burial chamber of Grave 5 at Arzhan 2 (1), with detail of the female skeleton's gold hair pins and headdress decoration (2). Also, a gold fish decoration from Grave 2 (3). Arzhan, Piy-Khemsky District, Tuva Republic, c. 620 – 600 BCE (Grave 5) and 770 – 560 BCE (Arzhan 2) (after Chugunov *et al.* 2001, figs 4 & 6; Parzinger 2011, fig. 2.5).

The images originally presented here cannot be made freely available via ORA because of copyright. The images were sourced at Bergman, F. 1939. *Archaeological researches in Sinkiang*. The Sino-Swedish Expedition 7. Stockholm: Bokforlags Aktiebolaget Thule. Available at <<https://archive.org/details/ArchaeologicalResearchesInSinkiang1939>>. Accessed 28 January 2014.

Figure 2.24. Central panel of petroglyphs, enhanced with white pigment and photographed by the Sino-Swedish Expedition. Quruq Tagh, Xinjiang, PRC, originally estimated as dating 500 BCE – 800 CE (after Bergman 1939, plates XV & XVI).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at blog.sina.com/abc008522

Figure 2.25. Petroglyph of a giant female anthropomorph with two heads, surrounded by anthropomorphs of both sexes. Kangjiashimenzi, Qutubi County, PRC, c. 1st millennium BCE (source: blog.sina.com/abc008522).



Figure 2.26. Petroglyph of an anthropomorph shooting an arrow using a longbow. Tsagaan Salaa/Baga Oigor, Bayan-Ulgii aimag, Mongolia, c. 2nd millennium BCE.



Figure 2.27. A horse being ridden by an anthropomorph with a short bow. Although the horse dates to c. 1st millennium BCE and the rider is much more recent, another anthropomorph contemporary with the horse can be seen to the right, also holding a shorter bow. Tsagaan Salaa/Baga Oigor, Bayan-Ulgii aimag, Mongolia.

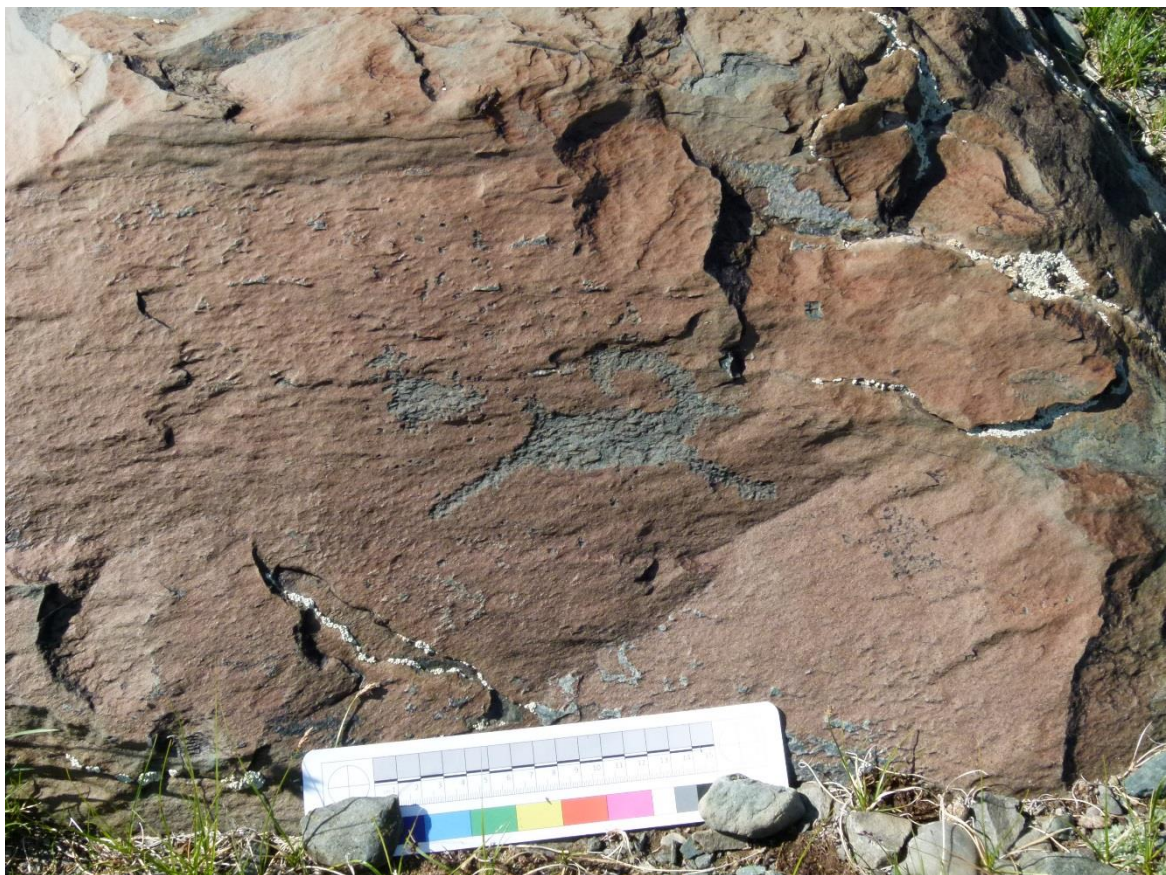


Figure 2.28. Petroglyph of a caprine typical of the 2nd millennium BCE. Tsagaan Salaa/Baga Oigor, Bayan-Ulgii aimag, Mongolia.



Figure 2.29. An ox with curved spine and pelvis, elongated muzzle and all four legs thrown forward as if braking. Typical of late 2nd millennium – 1st millennium BCE. Tsagaan Salaa/Baga Oigor, Bayan-Ulgii aimag, Mongolia.

The images originally presented here cannot be made freely available via ORA because of copyright. The images were sourced at Kovtun, I. V. 2012. 'Horse-headed' staffs and the cult of the horse head in Northwestern Asia in the 2nd millennium BC. *Archaeology, Ethnology & Anthropology of Eurasia* 40 (4): 95–105.

Figure 2.30. Drawings of a motif of a stocky horse. Saimaly Tash, Naryn Region, Kyrgyzstan (1), Sagyr I, Ust'-Kamenogorsk, Kazakhstan (2) and Moinak, Almaty, Kazakhstan (3). C. late 2nd millennium BCE (after Kovtun 2012, fig. 2).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Kovtun, I. V. 2012. 'Horse-headed' staffs and the cult of the horse head in Northwestern Asia in the 2nd millennium BC. *Archaeology, Ethnology & Anthropology of Eurasia* 40 (4): 95–105.

Figure 2.31. Bronze dagger with a horse-shaped pommel. Charyshskoe Village, Altai Krai, Russia, c. 1000 BCE (after Kovtun 2012, fig. 2).



Figure 2.32. Panel showing an elephantine figure and caprines overlaid by modern Cyrillic text, which is comparatively much lighter, which shows that it is more recent than the other figures. Tsagaan Salaa/Baga Oigor, Bayan-Ulgii aimag, Mongolia, c. 3000 BCE.

3 Methodology

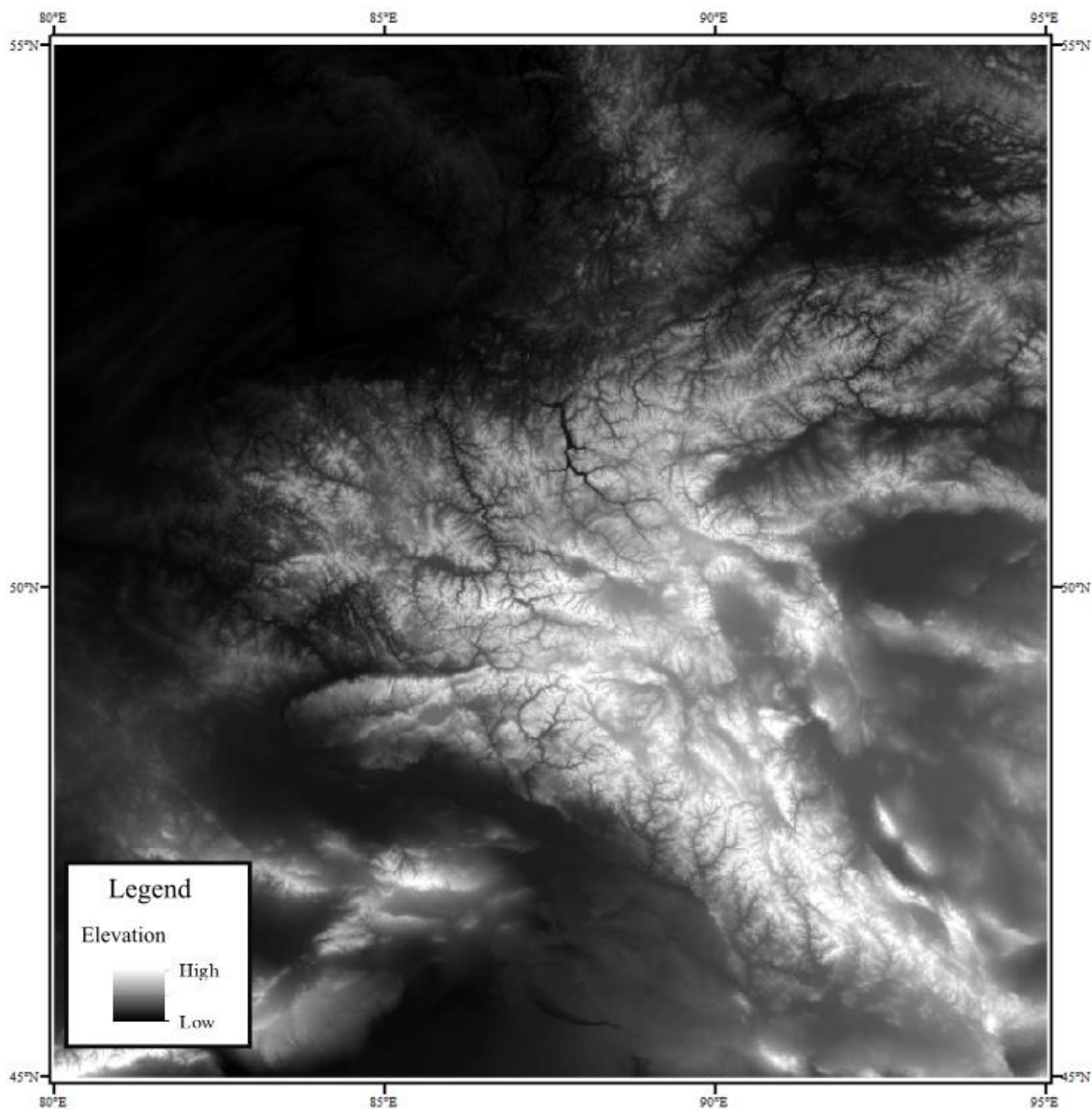


Figure 3.1. Digital elevation model (DEM) of the Altai and Sayan mountains. Lower altitudes are represented in black, with lighter colouring indicating increasing elevation.



Figure 3.2. Deer motif with 'tree-like antlers'. Dulategou, Altay City, Xinjiang, PRC, c. 2nd millennium BCE.

4 Paths Through the Altai

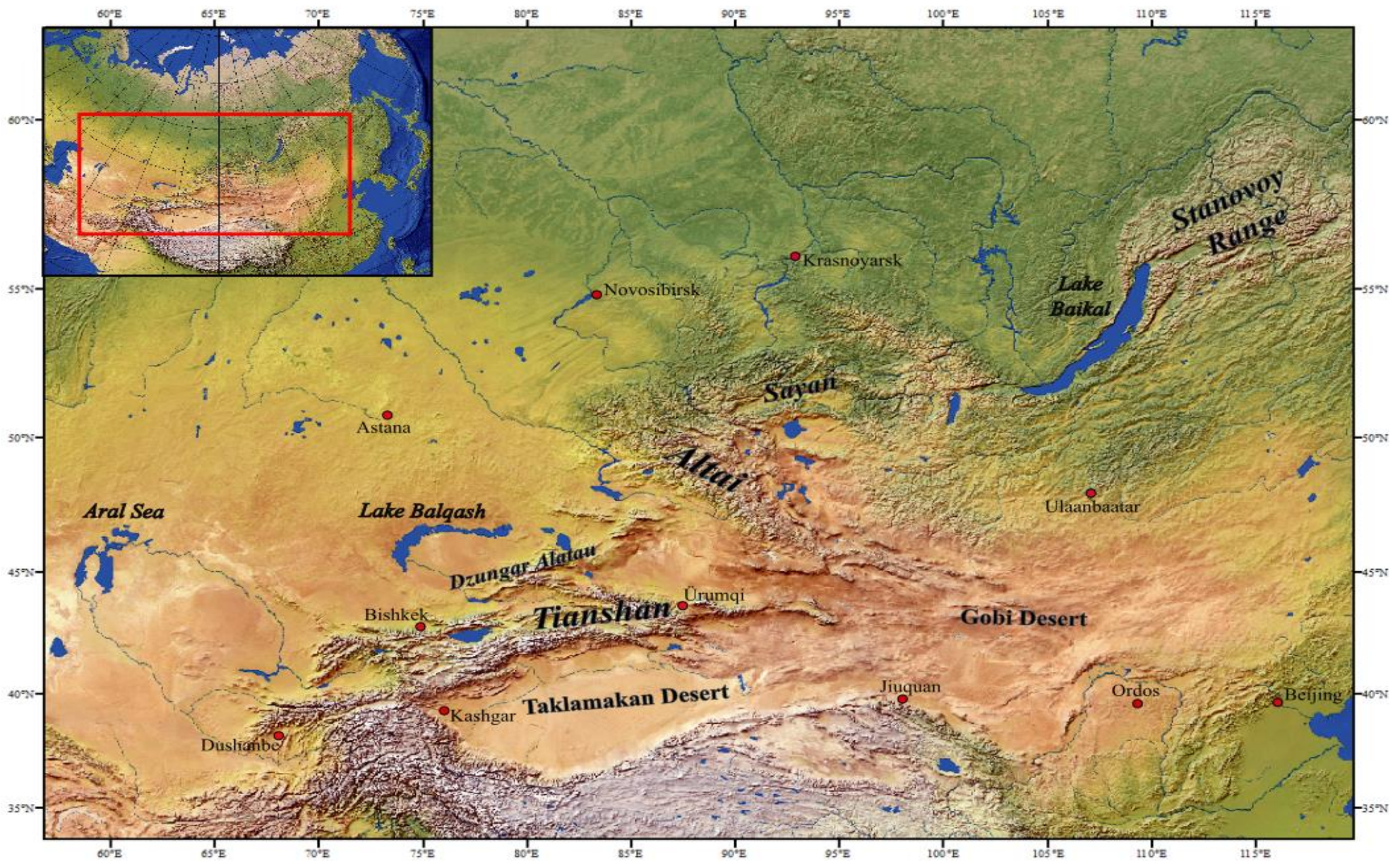


Figure 4.1. Map of the Altai Mountains in eastern Eurasia. Major modern cities are marked, in addition to mountains and water bodies.

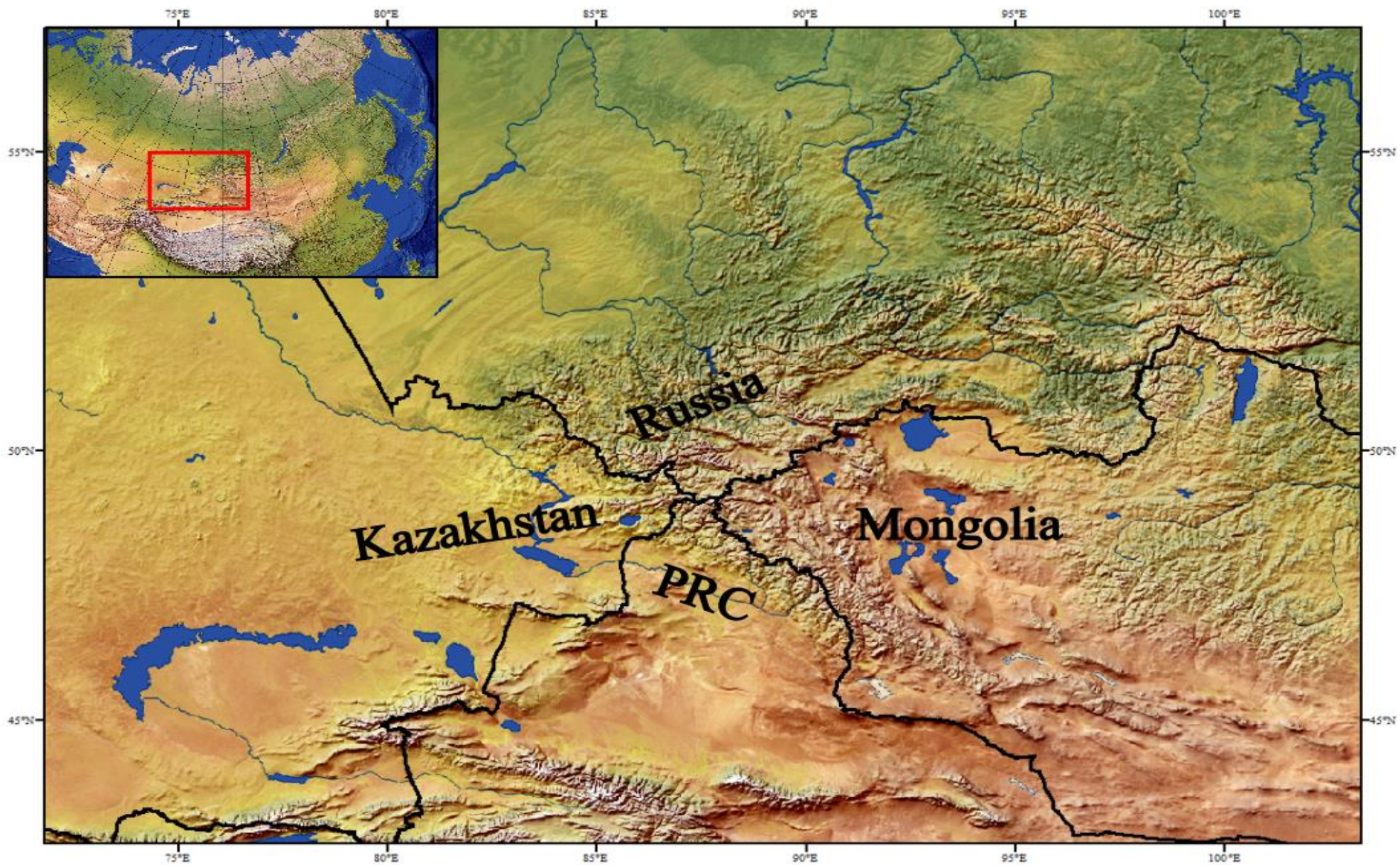


Figure 4.2. Four modern nations divide the Altai Mountains: Kazakhstan, Mongolia, Russia, and the PRC.

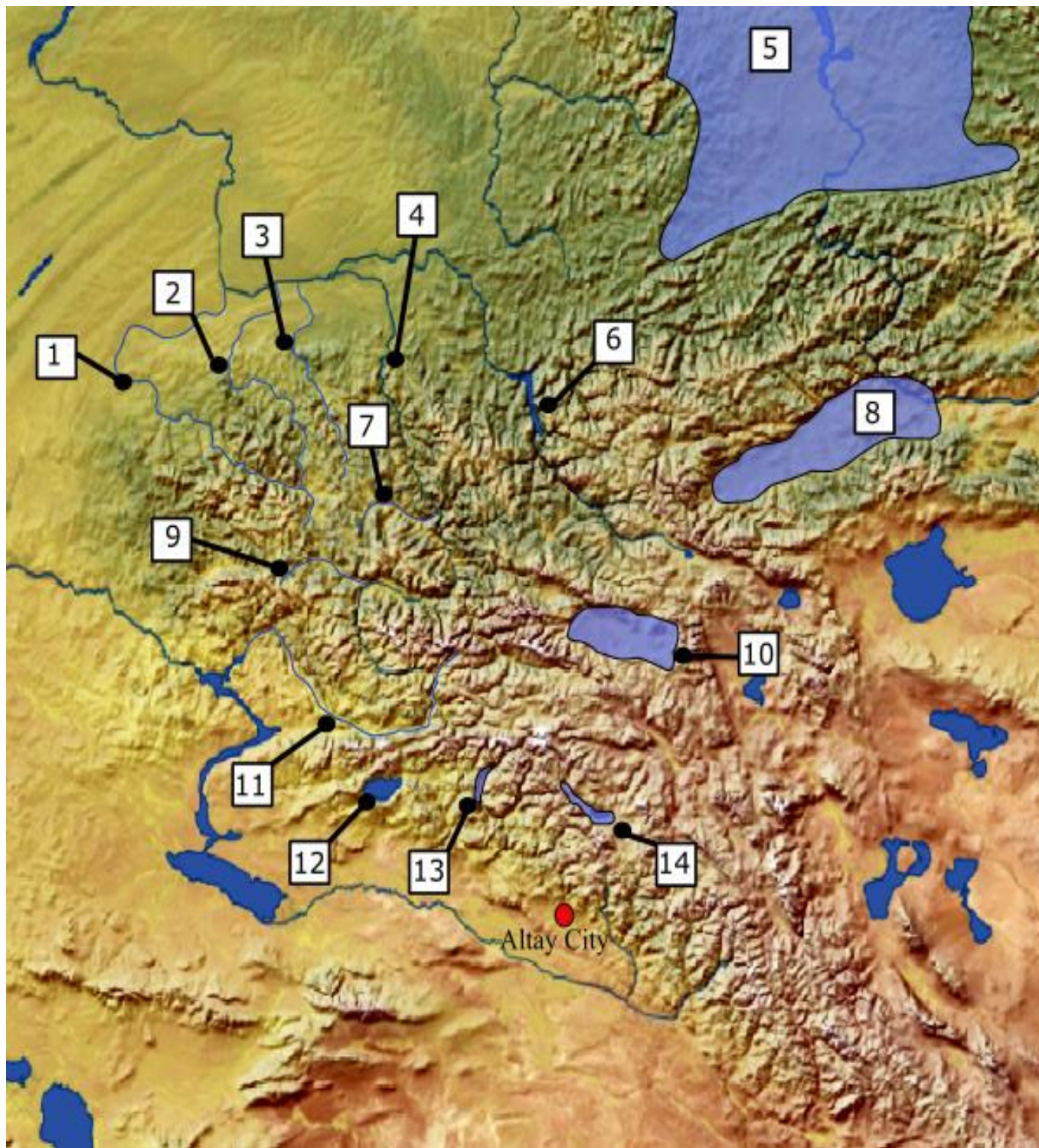


Figure 4.3. Map showing regions, settlements, and watercourses mentioned in Chapter 4. Charysh River (1), Anuy River (2), Peschanaya River (3), Katun River (4), Minusinsk Basin (5), Lake Teletskoye (6), Ursul River (7), Sayan Canyon/Khemchik River (8), Koksa River (9), Chuya Steppe (10), Bukhtarma River (11), Lake Markakol (12), Kanas Lake (13), Khoton Lake (14).

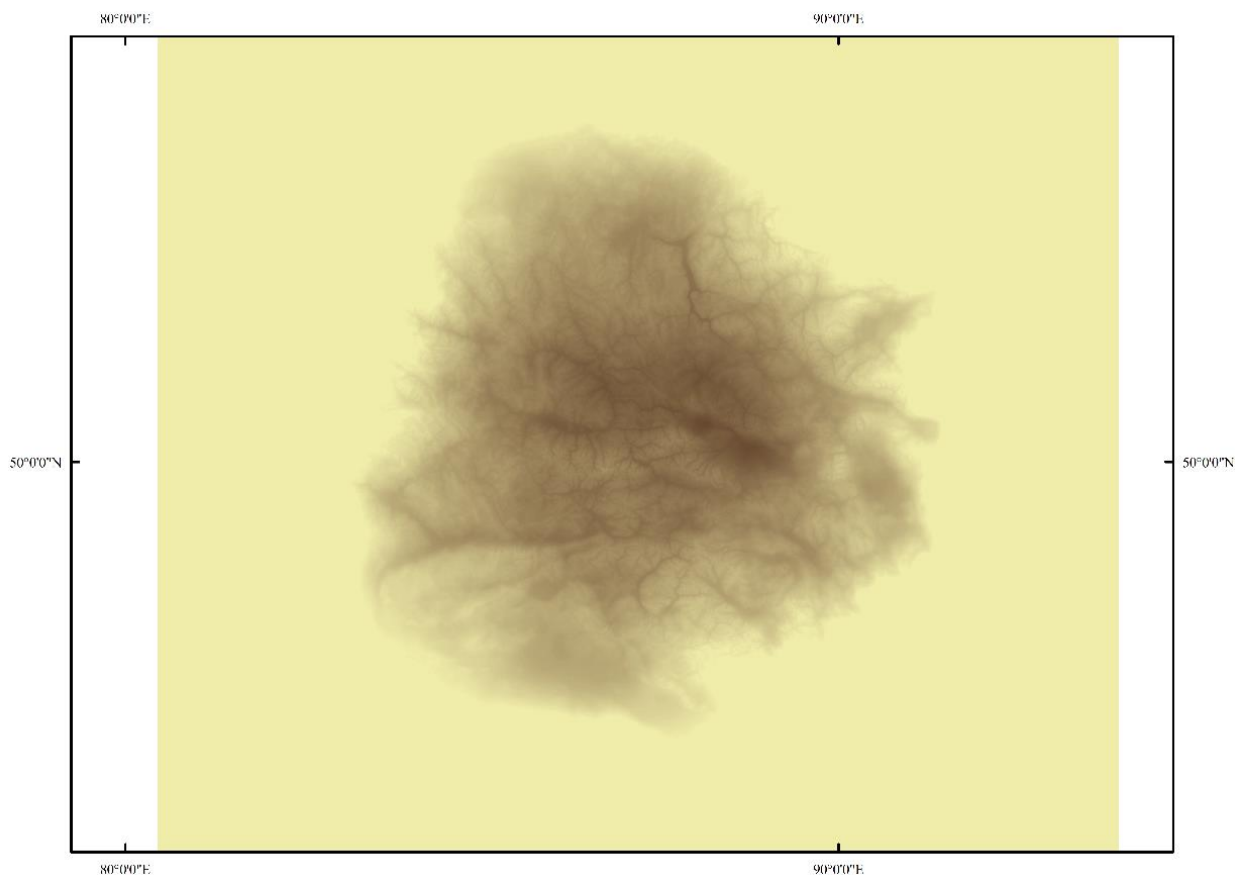


Figure 4.4. An accumulated cost surface showing parts of the Altai that have lower movement costs (dark). The figure shows only the centre of the Altai, so that the graphic does not appear distorted in favour of low-value areas around the edge.

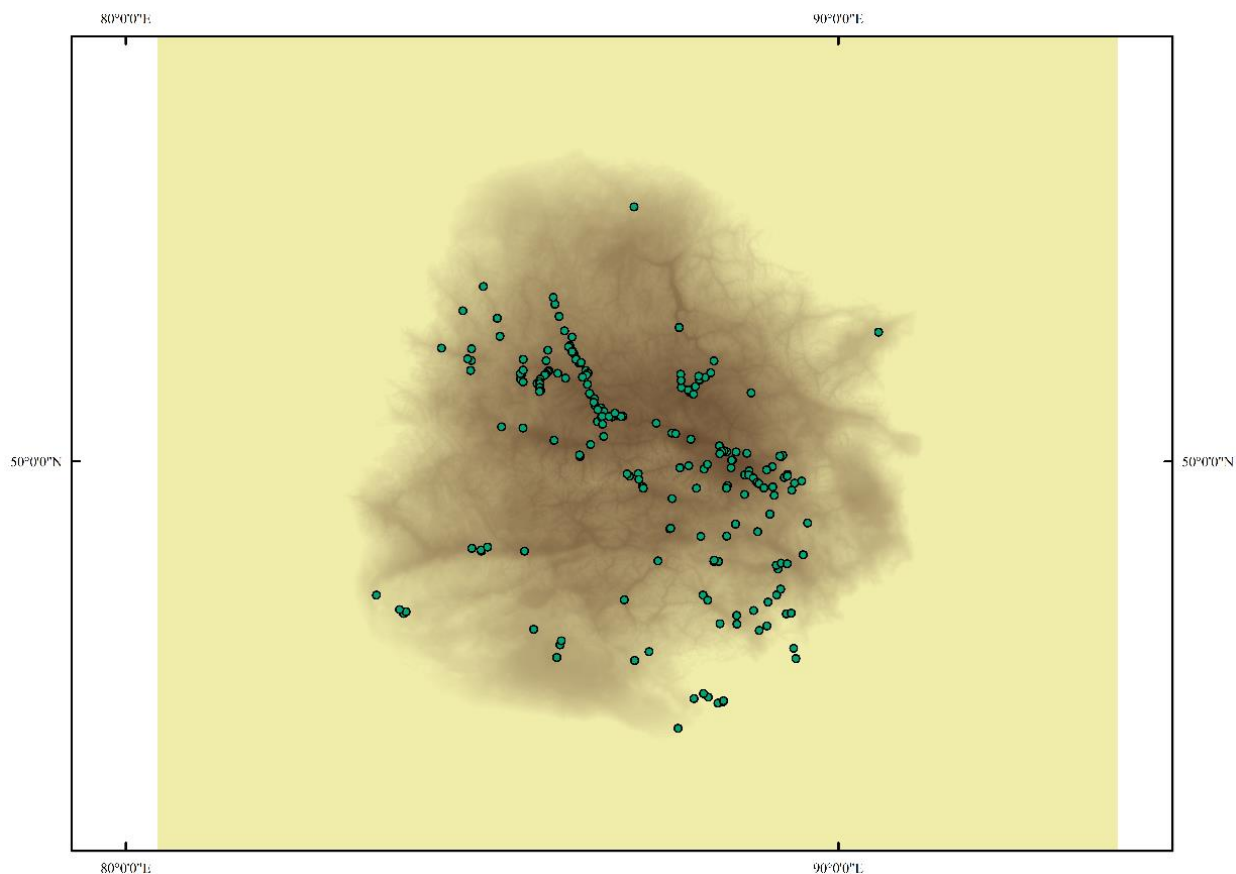


Figure 4.5. The accumulated cost surface with the locations of prehistoric rock-art sites indicated.

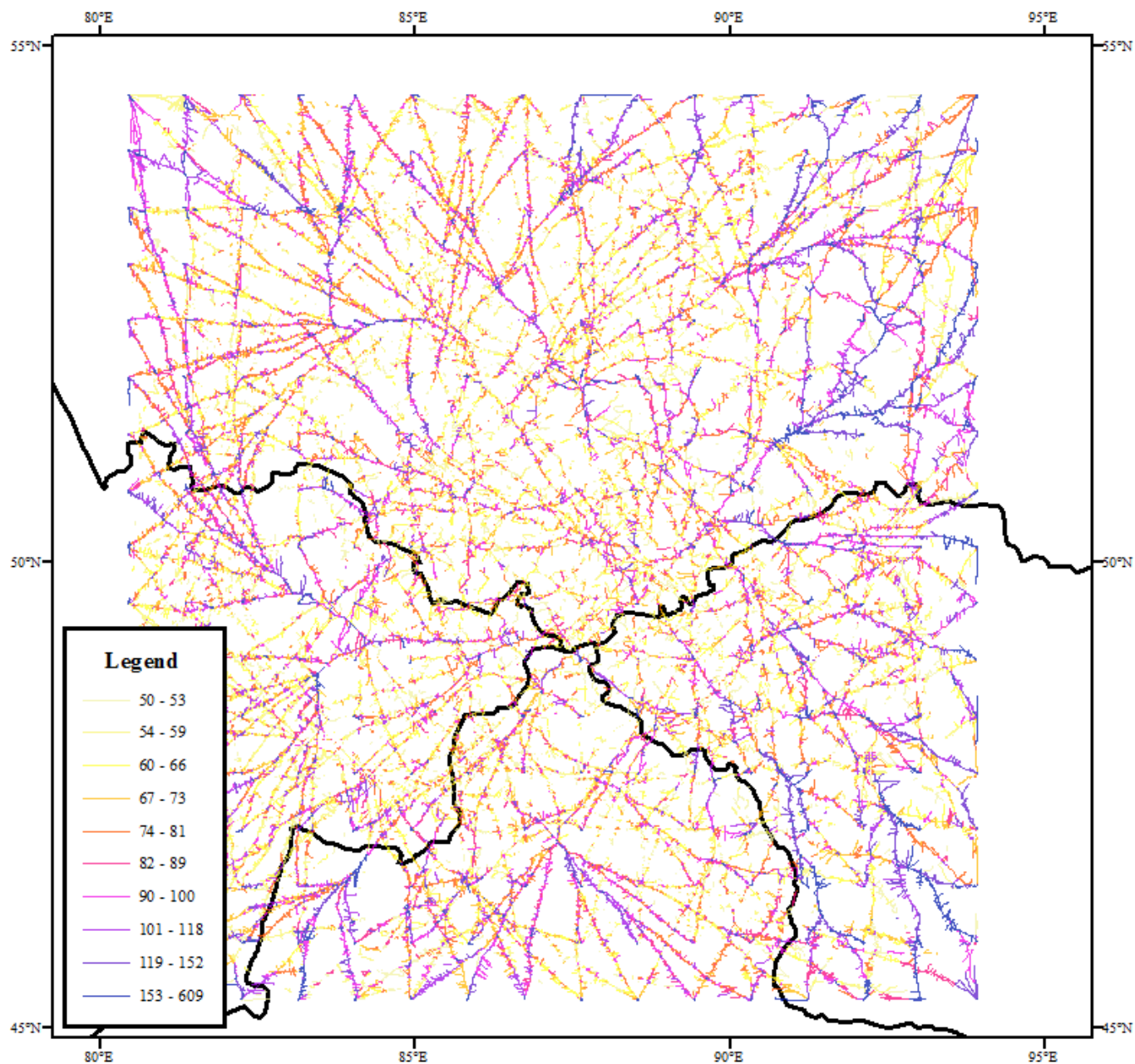


Figure 4.6. A spatial join of least-cost pathways across the Altai, with country borders (see Figure 4.2). Higher numbers represent a greater number of paths running through a particular cell. The category 153-609 indicates cells that have between 153 to 609 paths running through them.

Category	Lines	Proportion of total (%)
50-53	19,164	9.97
54-59	25,732	13.39
60-66	27,410	14.27
67-73	22,982	11.96
74-81	22,324	11.62
82-89	15,654	8.15
90-100	17,689	9.21
101-118	15,830	8.24
119-152	13,839	7.20
153-609	11,501	5.99

Figure 4.7. Table showing the number of polylines in each category of least-cost pathway.

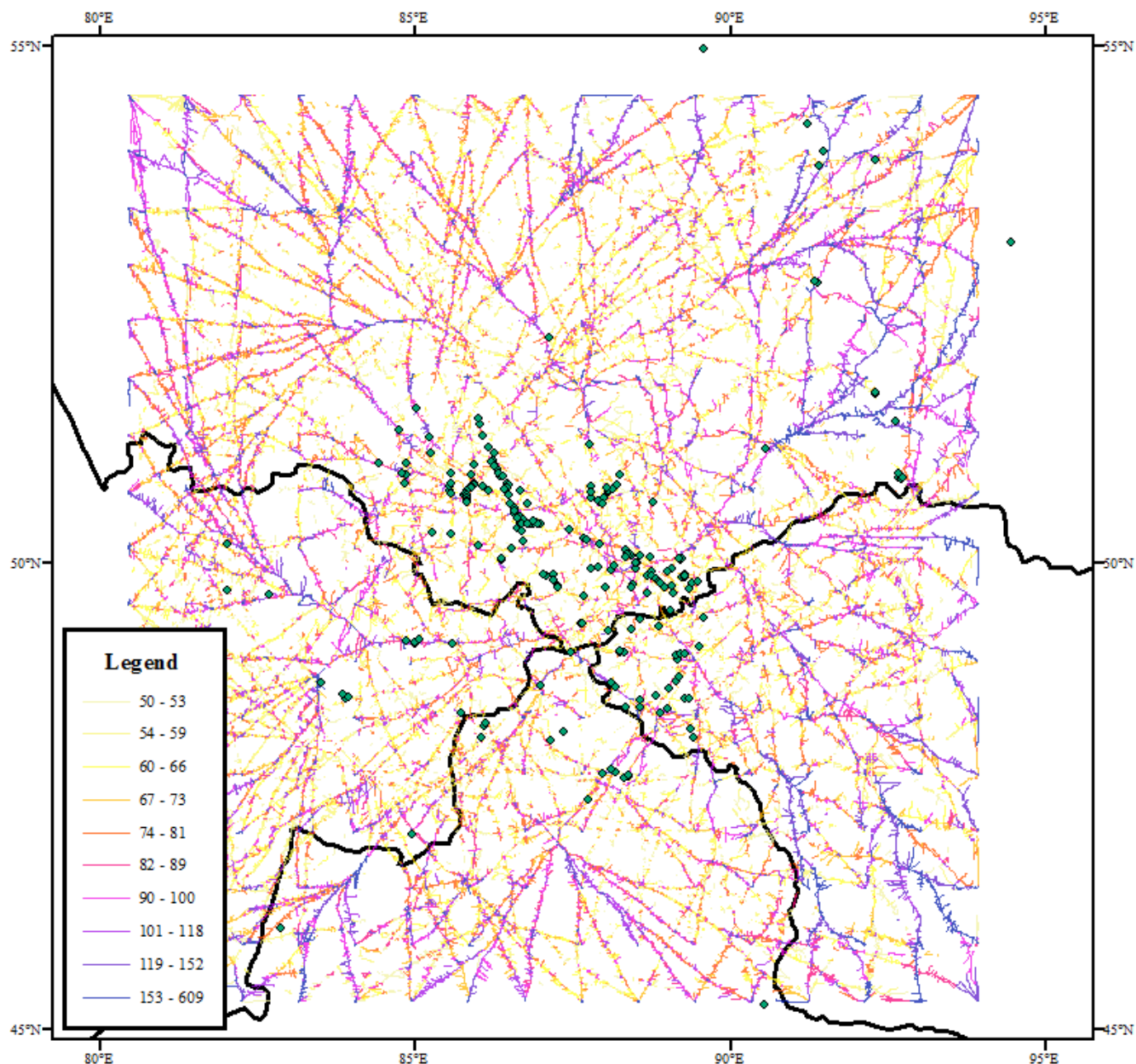


Figure 4.8. Locations of rock-art (petroglyph and pigment-based images) in the Altai Mountains and Western Sayan. The approximate borders of the PRC, Kazakhstan, Mongolia, and Russia are shown (refer to Figure 4.2). Sites in the Minusinsk Basin are not included.

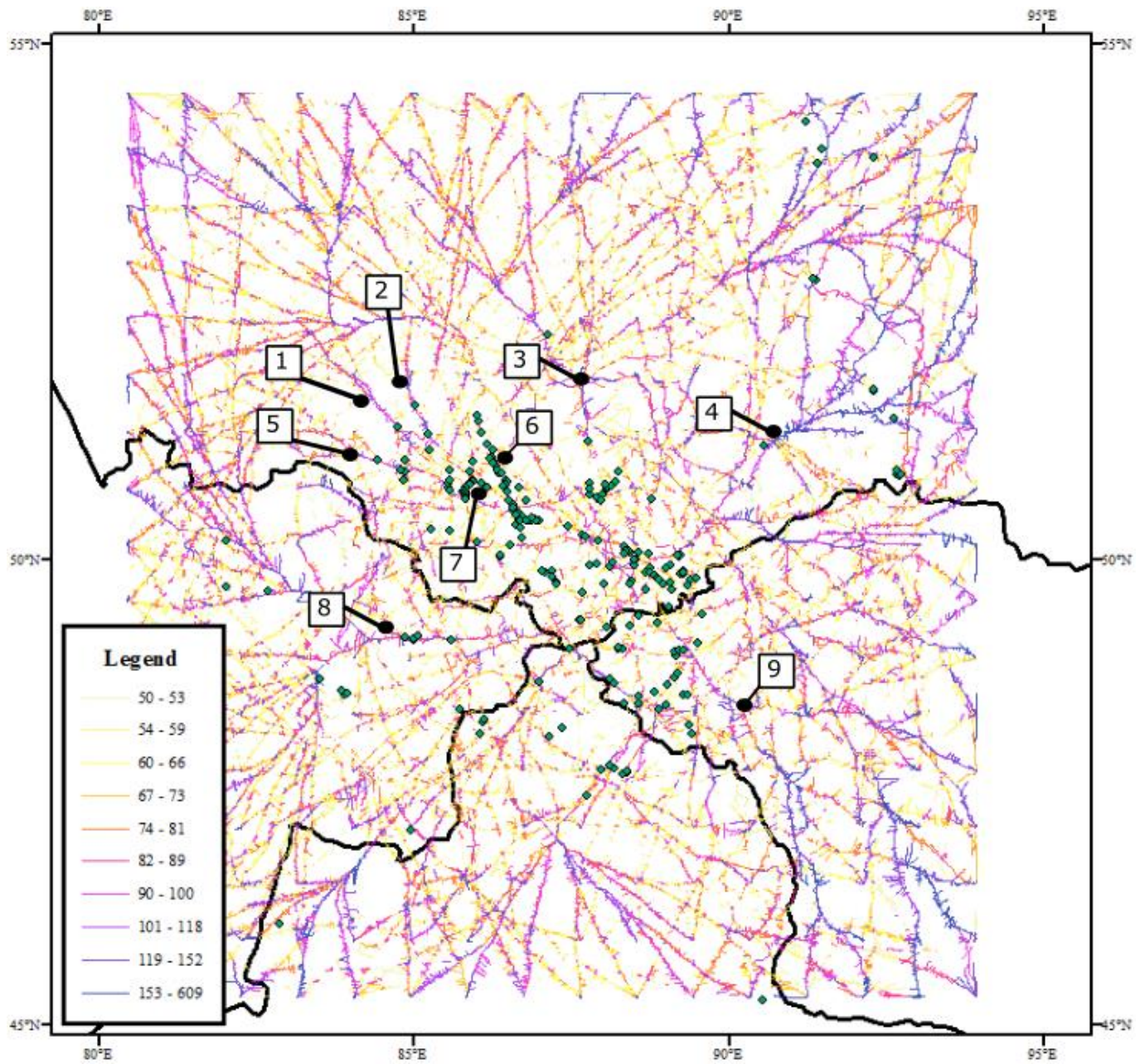


Figure 4.9. Places mentioned in Chapter 4, shown on a map of pathways through the Altai. Anuy River (1), Peschanaya River (2), Lake Teletskoye (3), Sayan Canyon (4), Charysh River (5), Katun River (6), Ursul River (7), Bukhtarma River (8), western Mongolia (9).

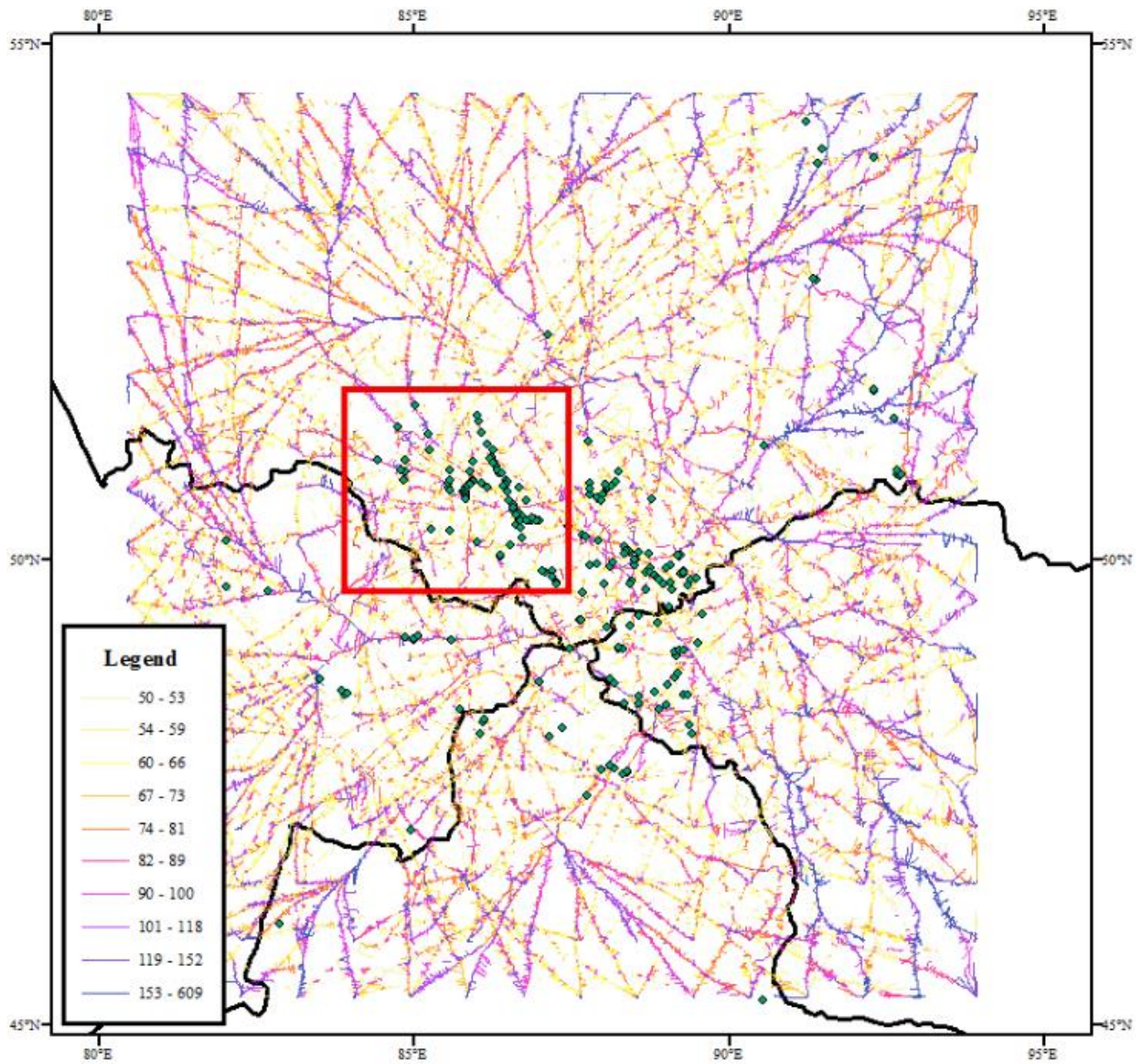


Figure 4.10. Map of pathways, with the region including the River Katun highlighted.

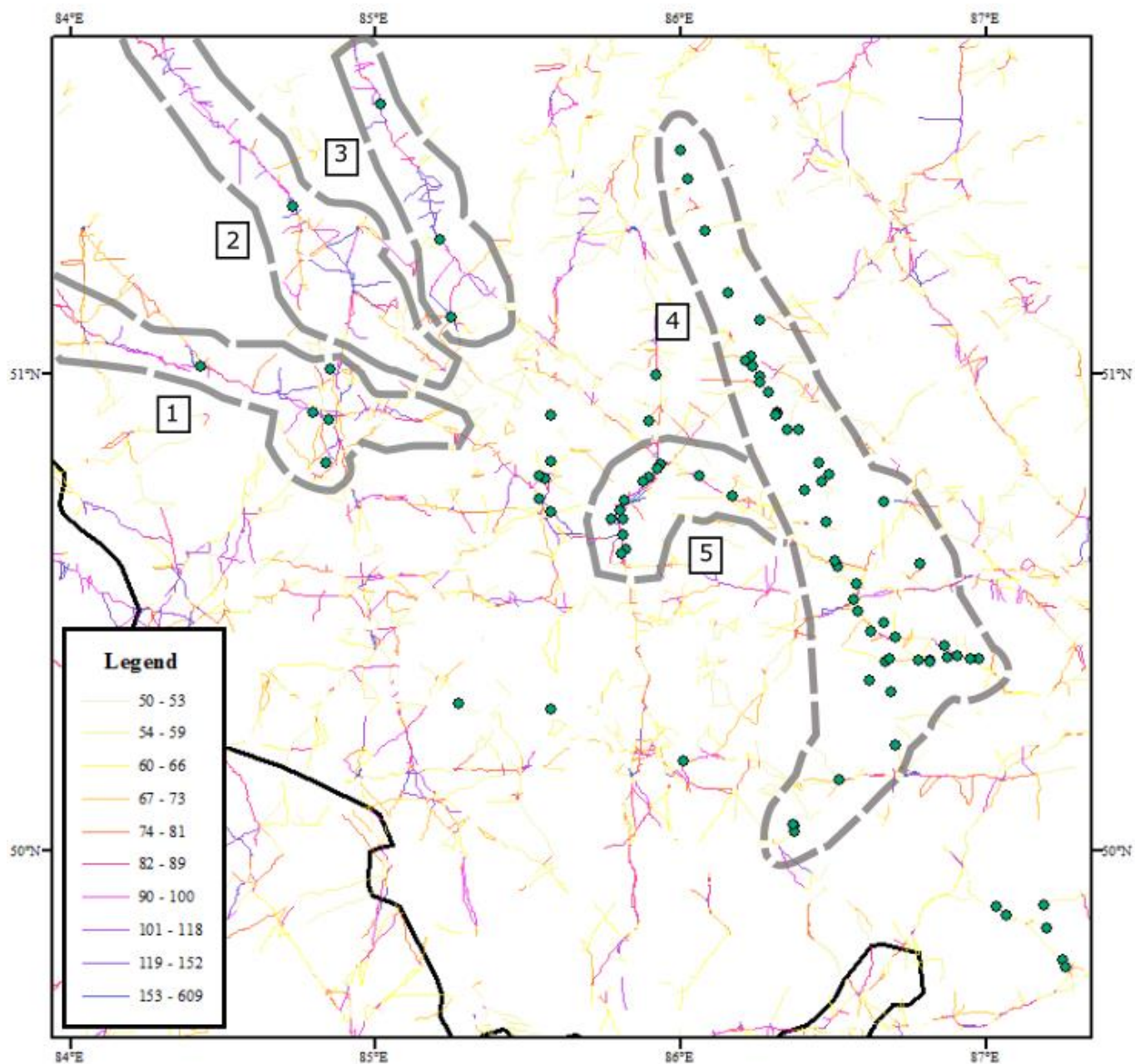


Figure 4.11. Distribution of rock-art sites and pathways in the Russian Altai. Charysh River valley (1), Anuy River valley (2), Peschanaya River valley (3), Katun River valley (4), Ursul River valley (5).

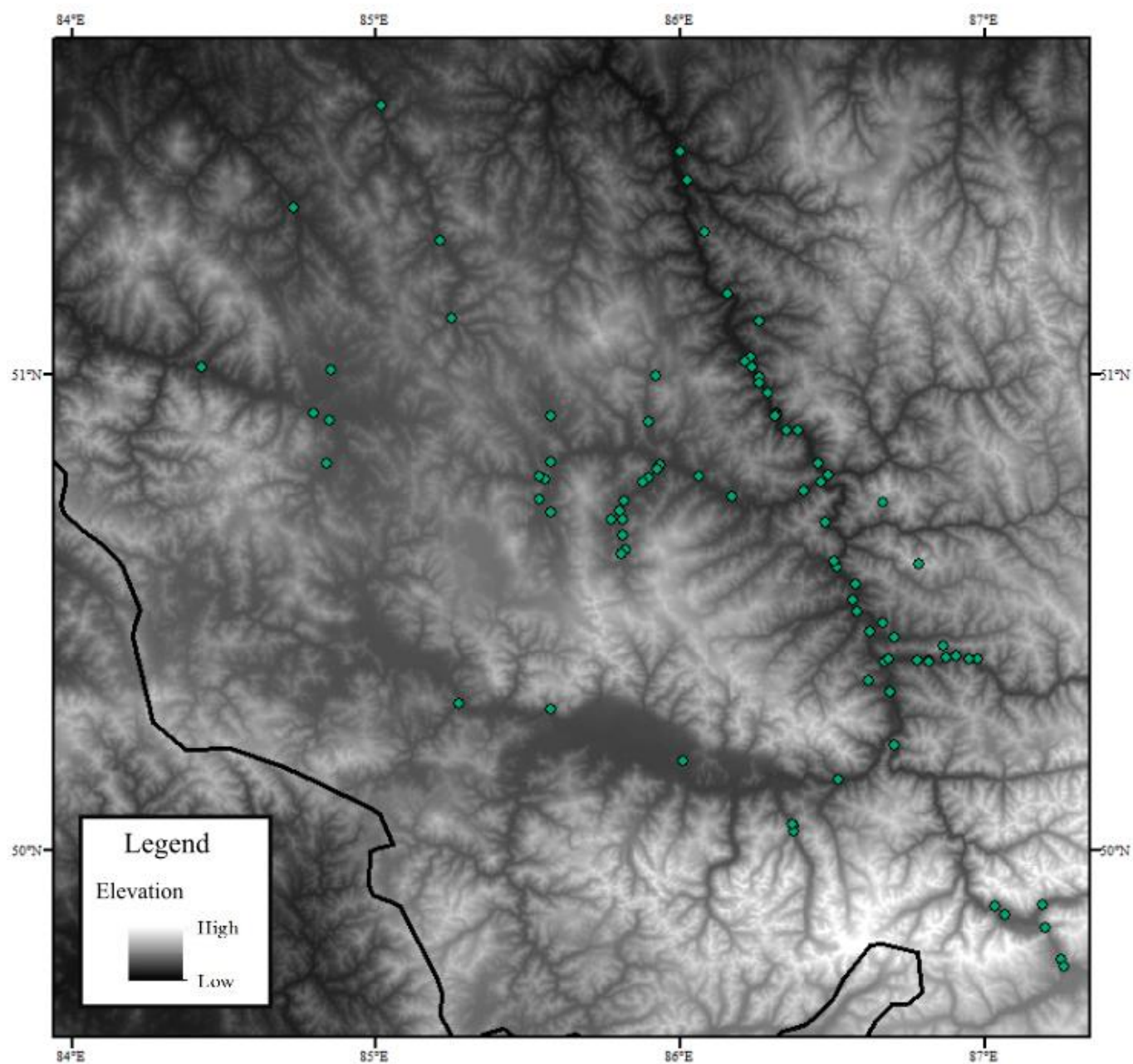


Figure 4.12 Data Elevation Map of the same area as shown in Figure 4.11, with rock-art sites in the Russian Altai.

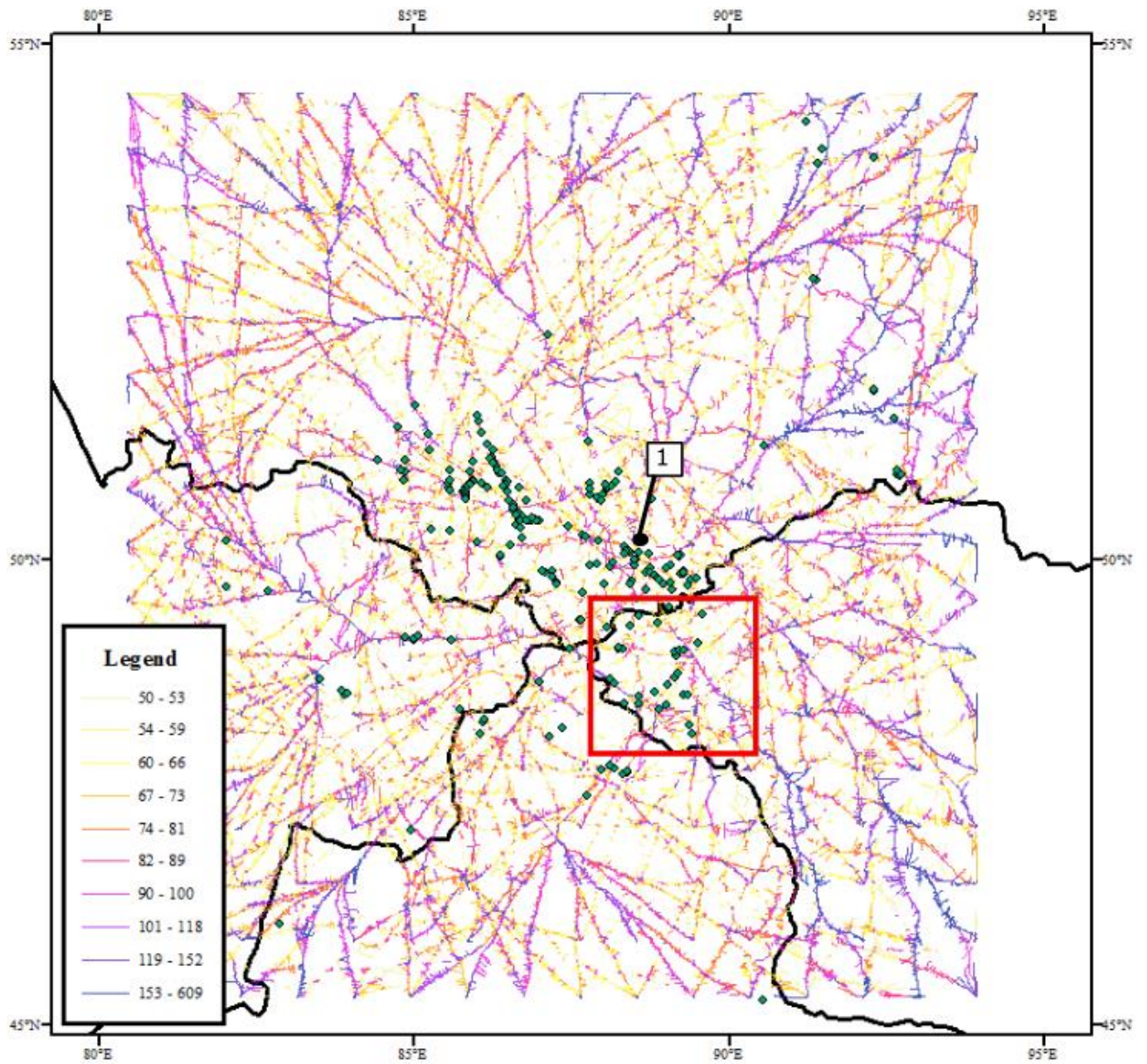


Figure 4.13. Western Mongolia's location in relation to rock-art sites and high-accessibility pathways. Chuya Steppe (1).

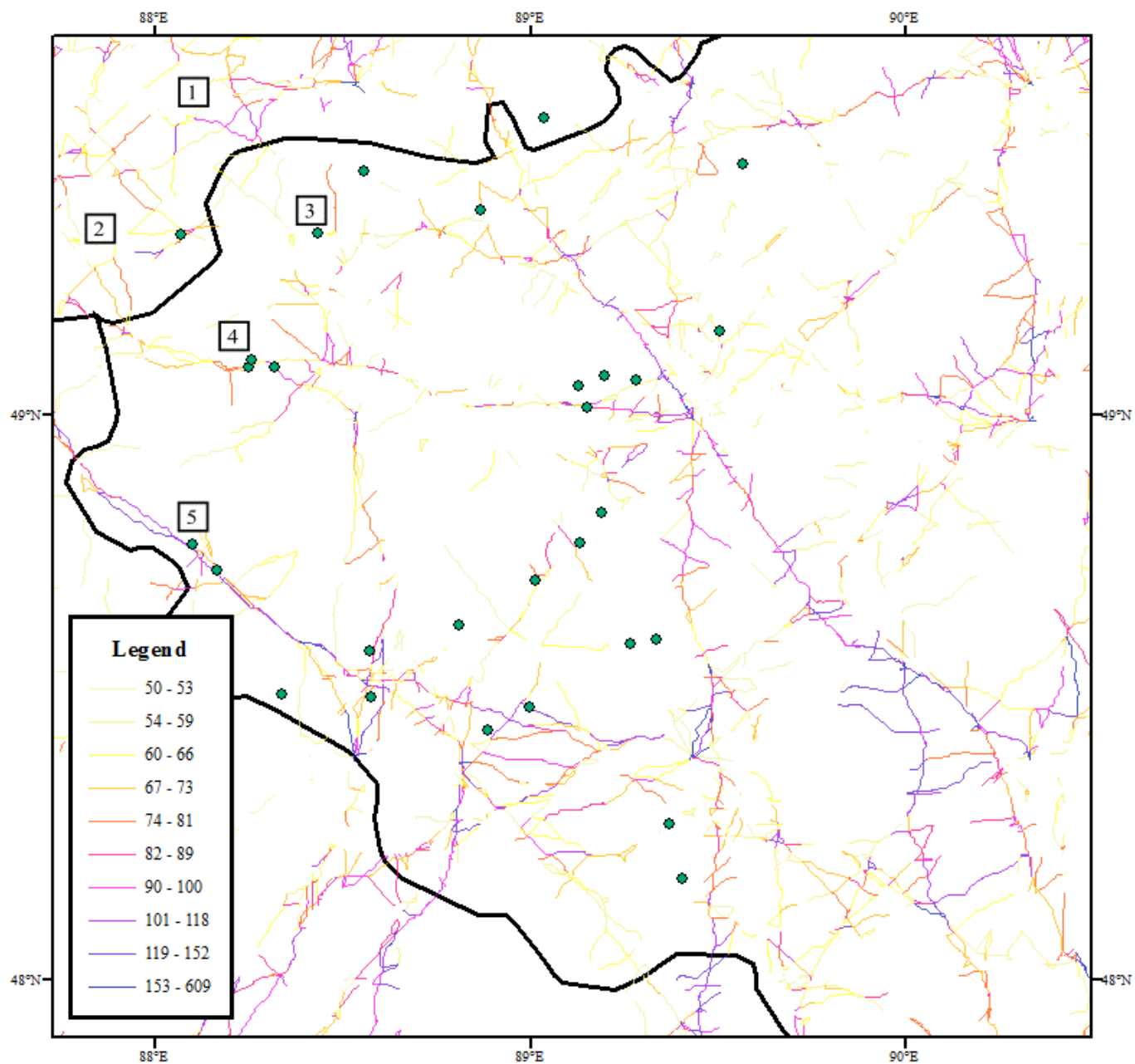


Figure 4.14. Distribution of rock-art sites and pathways in the Mongolian Altai. Dzhazator Valley (1), Ukok Plateau (2), Tsagaan Salaa/Baga Oigor (3), Shiveet Khaikhan (4), Aral Tolgoi (5).

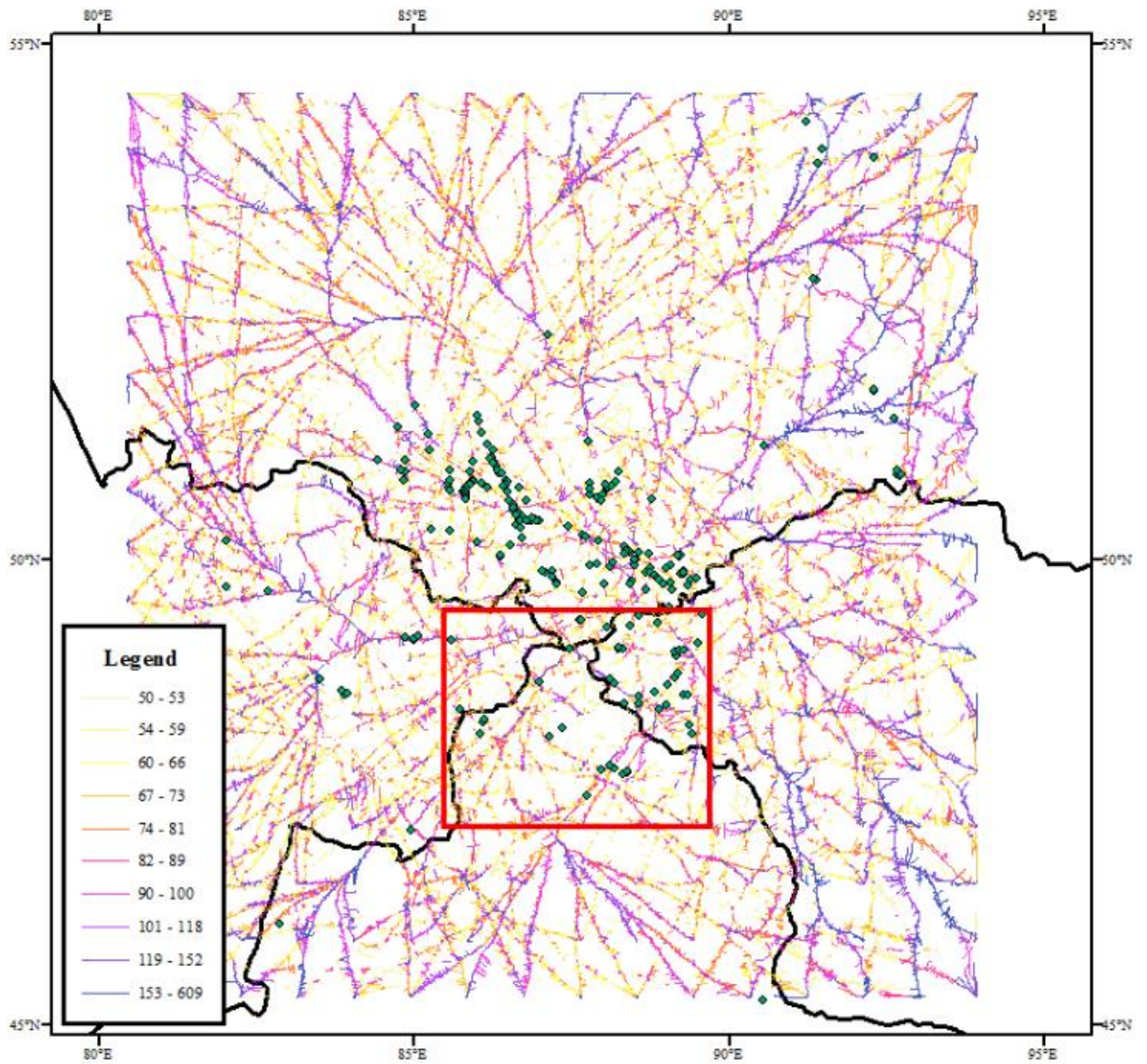


Figure 4.15. Location of the northern Junggar Basin, Xinjiang, PRC, in relation to rock-art sites and pathways.

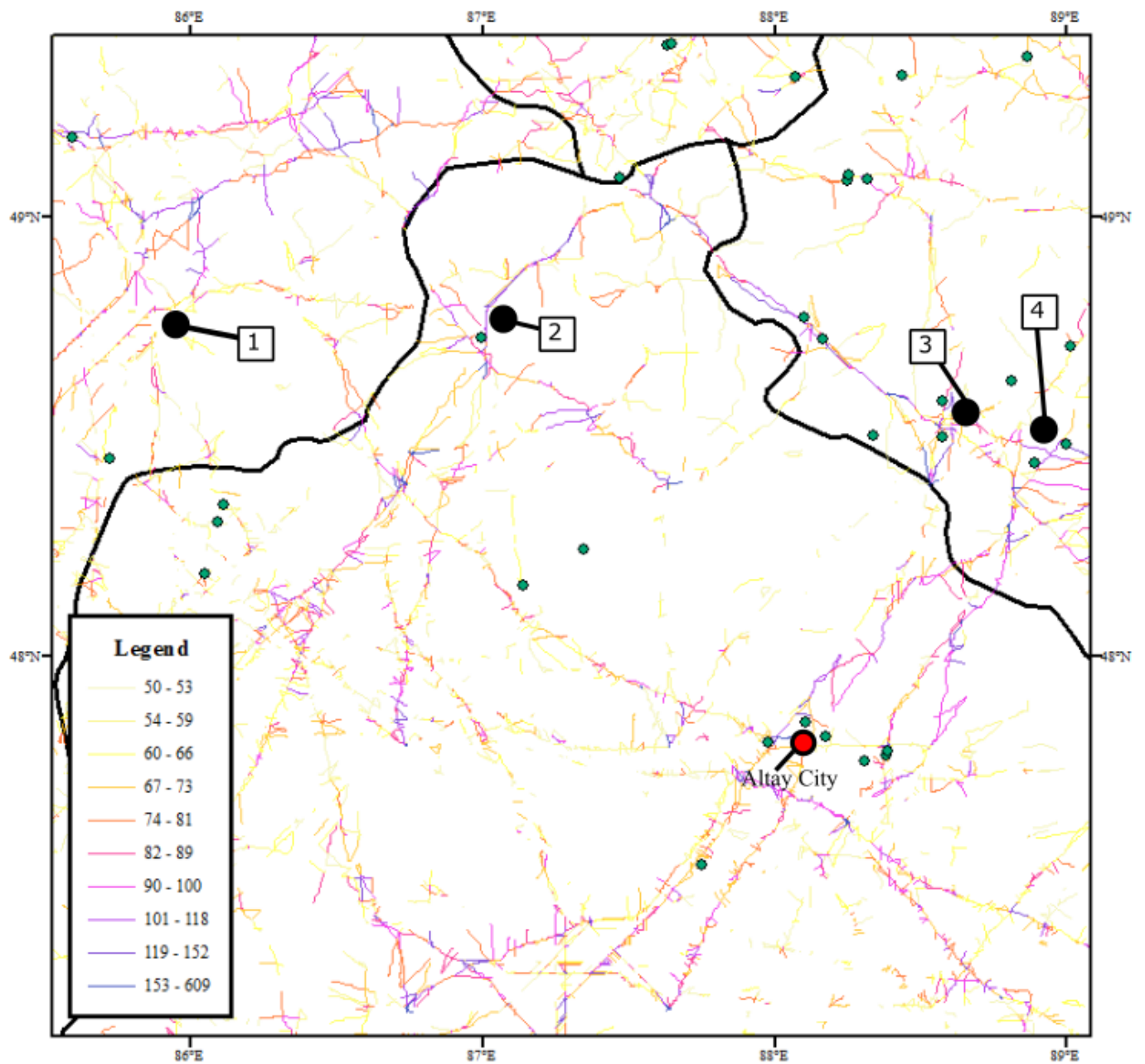


Figure 4.16. Distribution of rock-art sites and pathways in the northern Junggar, PRC. Lake Markakol (1), Kanas Lake (2), Khurgan Lake (3), Dayan Lake (4).

The images originally presented here cannot be made freely available via ORA because of copyright. The images were sourced at Jia, P. W. -M., and A. V. G. Betts. 2010. A re-analysis of the Qiemu'er'qieke (Shamirshak) cemeteries, Xinjiang, China. *The Journal of Indo-European Studies* 38 (3 & 4): 275–317.

Figure 4.17. Distribution of Khemcek phase I sites. Khemcek (1, 2 & 3), Kayinar (4), Kuobo;er (5), Burial at Burjin (6), Kuyirekebayidengkuolasi (7), Kalatasi (8), Chagan'guoleng (9), Basikekeren (10), Burial at Fuyun (11), Sasibulake (12), Burial at Jimusar (13), Kan'erzi (14), Ulanhus sum (15), Bulgan sum (16). Altai mountains and Tianshan, PRC and Mongolia, c. early 2nd millennium BCE (after Jia and Betts, 2010, fig. 1).

5 Case Study – Mongolia

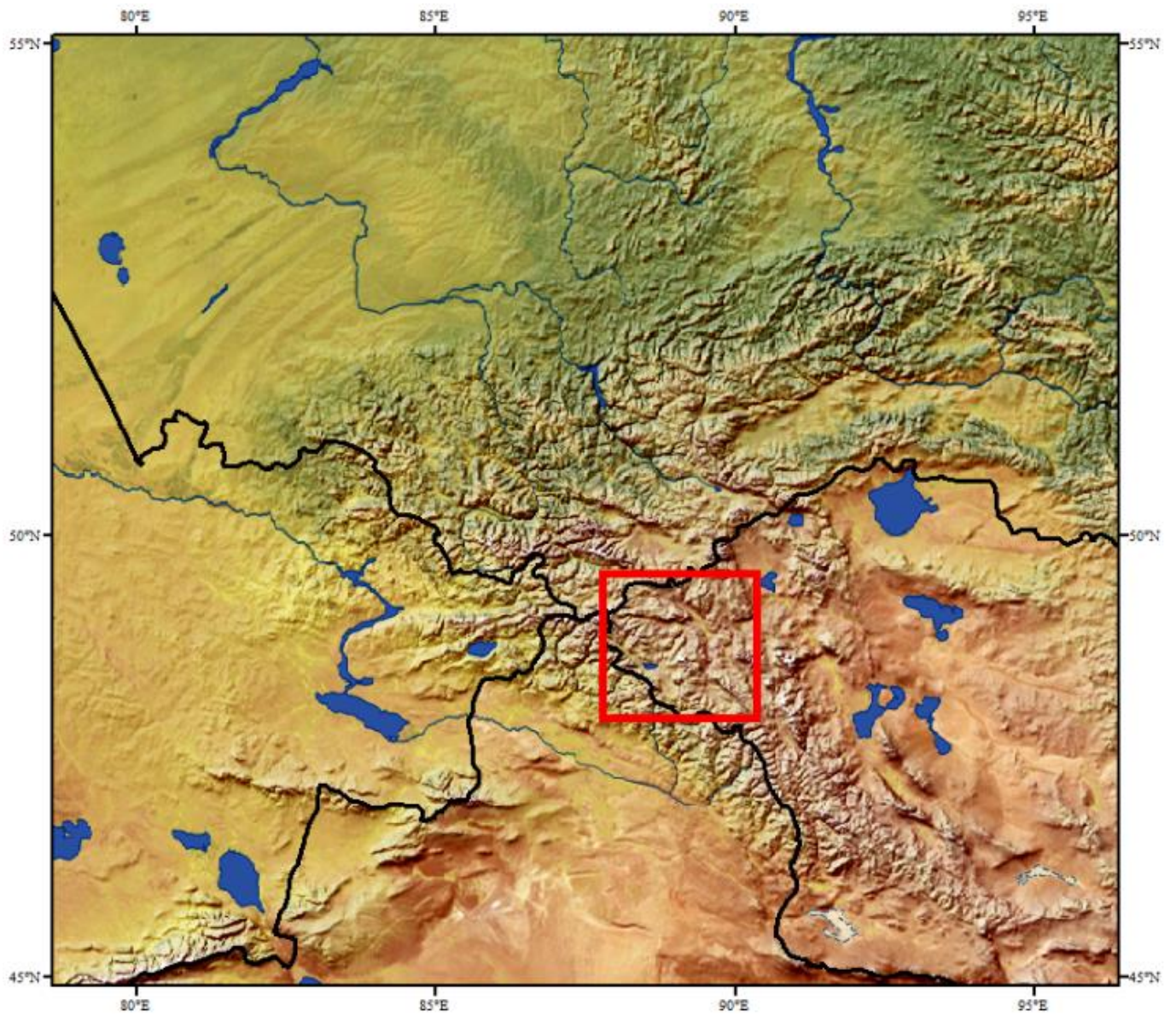


Figure 5.1. Map highlighting the region of western Mongolia discussed in Chapter 5.

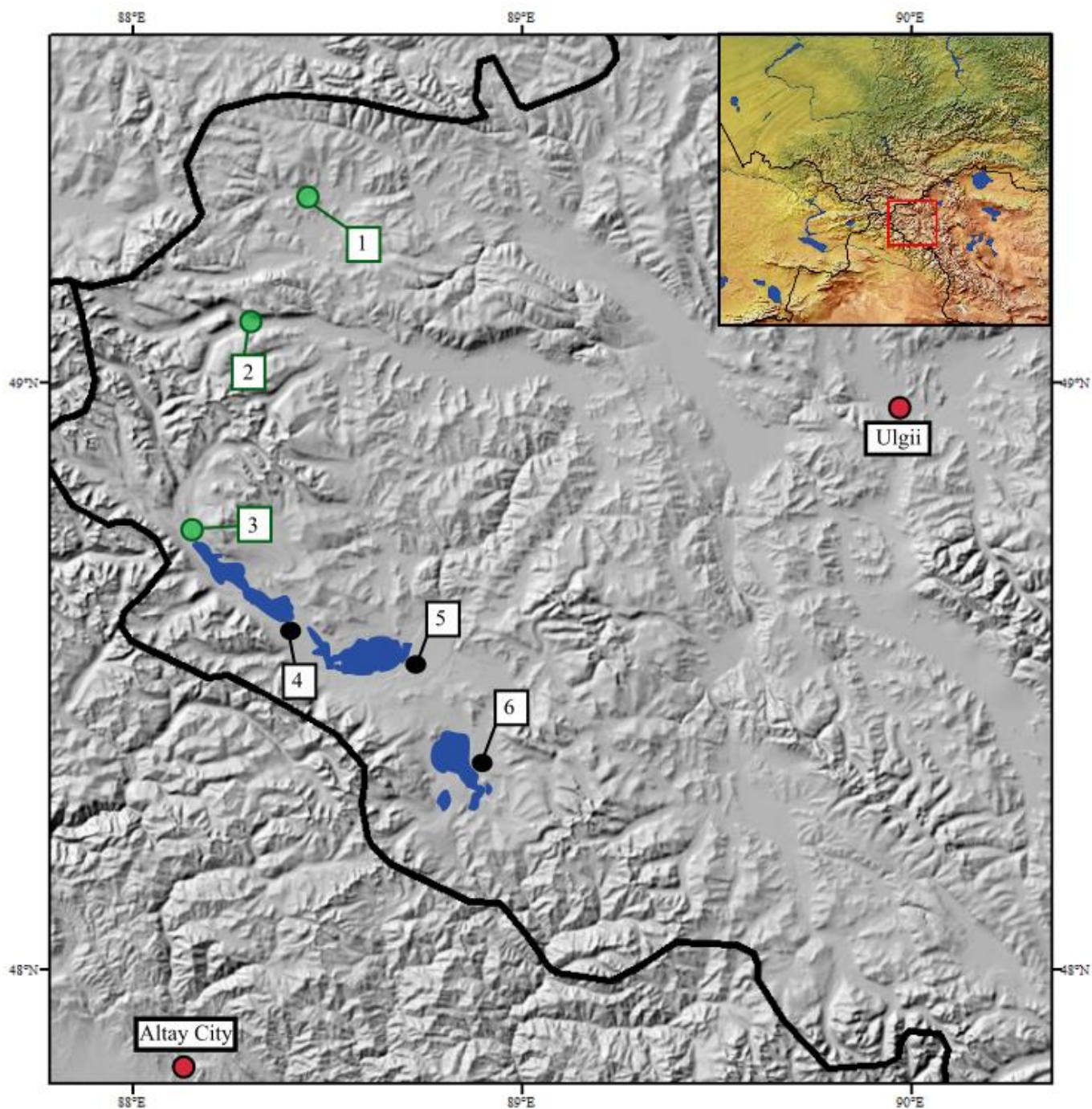


Figure 5.2. Map of western Mongolia and locations discussed in this chapter. Tsagaan Salaa/Baga Oigor (1), Upper Tsagaan Gol (2), Aral Tolgoi (3), Khoton Lake (4), Khurgan Lake (5), Dayan Lake (6).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at University of Oregon. 2009a. Archaeology and Landscape in the Altai Mountains of Mongolia. *Archaeology and Landscape in the Altai Mountains of Mongolia*. Available at <<https://mongolianaltai.uoregon.edu/index.php>>. Accessed 1 June 2017.

Figure 5.3. Map showing the river drainages in and around Tsagaan Salaa/Baga Oigor. Locations of petroglyphs in the area are also marked (University of Oregon, 2009a, Oigor Gol).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Waugh, D. C. 2005. Rock art and surface archaeology of Mongolia: Baga Oigor and Tsagaan Salaa. University. *Silk Road Seattle*. Available at <<https://depts.washington.edu/silkroad/archaeology/mongolia/bagaoigor/bagaoigor.html>>. Accessed 19 August 2015.

Figure 5.4. Map of the Tsagaan Salaa/Baga Oigor complex with the areas defined by Jacobson-Tepfer *et al.* (2001) (after Waugh 2005, fig. 1).



Figure 5.5. Road leading to a brick building used seasonally, with accompanying stone pens for herd animals. North of the confluence between the Tsagaan Salaa and Baga Oigor.



Figure 5.6. Differential erosion from weather and the elements on a panel. Seasonal meltwaters have eroded the lower rock's surface, rendering several caprine petroglyphs barely visible. In contrast, petroglyphs higher up the panel remain clear and the rock remains dark. Tsagaan Salaa/Baga Oigor, c. 2nd millennium BCE – 500 CE (and modern).



Figure 5.7. Yak with hobbled legs. Tsagaan Salaa/Baga Oigor, c. 2nd millennium BCE.



Figure 5.8. Eastern slope of Shiveet Khairkhan, Upper Tsagaan Gol, Bayan-Ulgii, Mongolia.

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at University of Oregon. 2009a. Archaeology and Landscape in the Altai Mountains of Mongolia. *Archaeology and Landscape in the Altai Mountains of Mongolia*. Available at <<https://mongolianaltai.uoregon.edu/index.php>>. Accessed 1 June 2017.

Figure 5.9. Distribution of archaeological monuments in the Tsagaan Gol drainage. Bayan-Ulgii aimag, Mongolia (University of Oregon, 2009a, Tsagaan Gol).



Figure 5.10. Petroglyphs of a horse and deer(?) stand on veins of white rock. Tsagaan Salaa/Baga Oigor, Bayan-Ulgii aimag, Mongolia, c. early 2nd millennium BCE.



(1)



(2)

Figure 5.11. A panel with a caprine and wolf (1), another showing a boar climbing a ridge (2). The animals on both panels are depicted as if they are using the ridge or crevice as the ground.



Figure 5.12. Cracks caused by weathering cross this panel. The larger fissures filled with white lichen are likely older, but there is no sign that they predate the petroglyphs. Tsagaan Salaa/Baga Oigor, Bayan-Ulgii aimag, Mongolia, c. 2nd millennium BCE.



Figure 5.13. A panel of rock-art that lacks explicit divisions between images, but seems to feature several scenes and individual figures. Tsagaan Salaa/Baga Oigor, Bayan-Ulgii aimag, Mongolia.



Figure 5.14. Close-up of the right side of the panel in **Figure 5.13**. Tsagaan Salaa/Baga Oigor, Bayan-Ulgii aimag, Mongolia, c. 2nd – early 1st millennium BCE.



Figure 5.15. A scene of two opposing oxen with an archer are separated from petroglyphs of caprines and an ox by a natural ridge in the rock. Tsagaan Salaa/Baga Oigor, Bayan-Ulgii aimag, Mongolia, c. 2nd – early 1st millennium BCE.

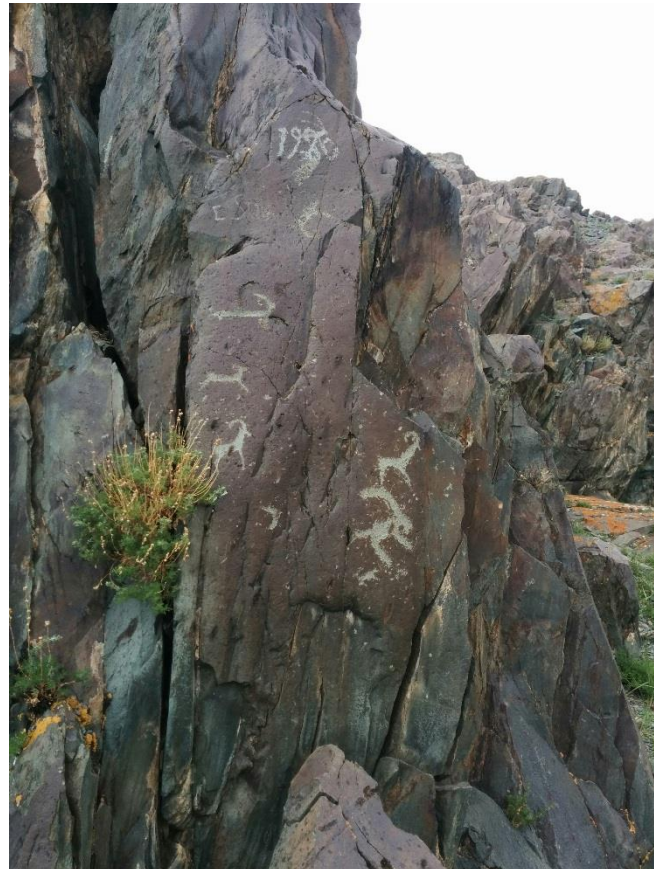


Figure 5.16. Petroglyphs of ibex and the date '1980', indicating they were made recently. The '1980' is overlaid by another ibex petroglyph. Tsagaan Salaa/Baga Oigor, Bayan-Ulgii aimag, Mongolia, 1980 CE.

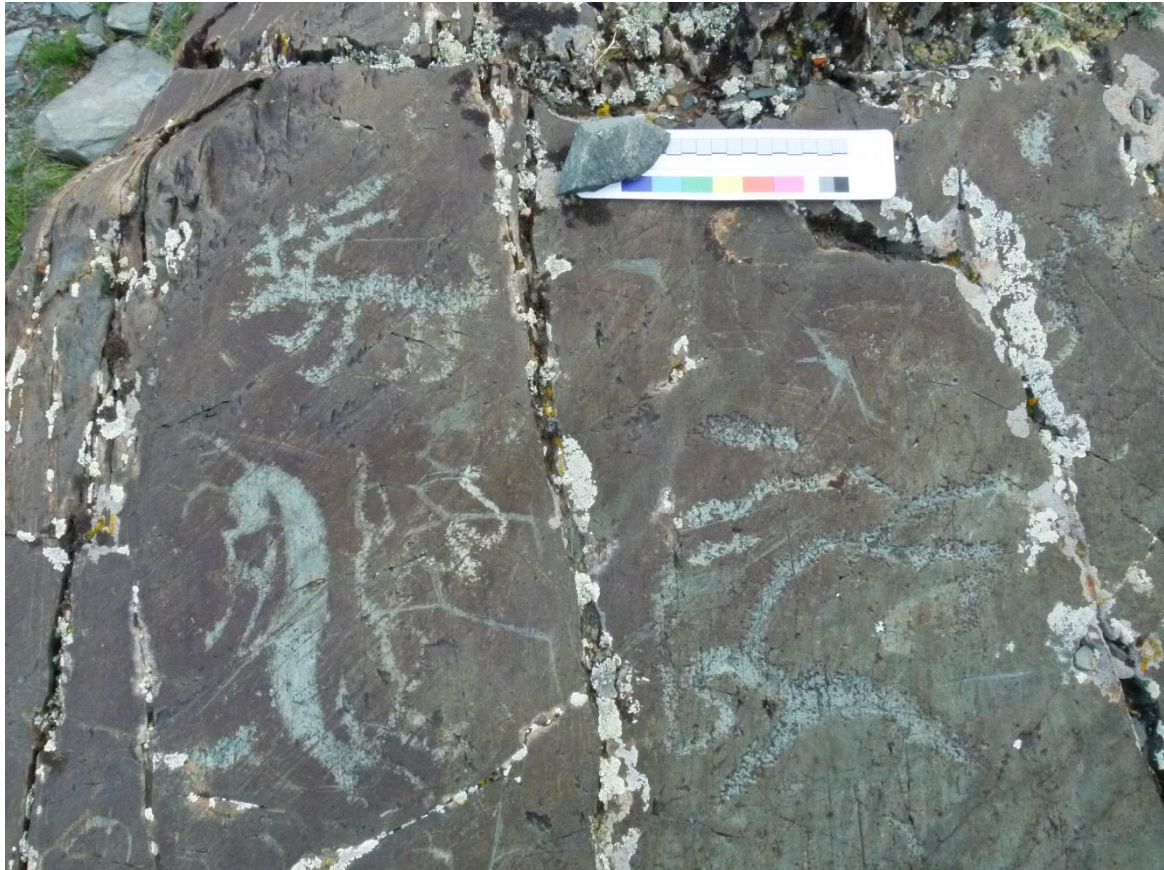


Figure 5.17. A deer stone-type deer typical of the early 1st millennium BCE. Tsagaan Salaa/Baga Oigor, Bayan-Ulgii aimag, Mongolia, c. 1st millennium BCE.

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Feima huadao. 2013. Zai you henan sheng bowuguan 再游河南省博物馆 [Another visit to the Henan Provincial Museum]. *Huaxia Jianding Guijia*. Blog. Available at <<http://jd.cang.com/1081193>>. Accessed 23 October 2015.

(1)

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Feima huadao. 2013. Zai you henan sheng bowuguan 再游河南省博物馆 [Another visit to the Henan Provincial Museum]. *Huaxia Jianding Guijia*. Blog. Available at <<http://jd.cang.com/1081193>>. Accessed 23 October 2015.

(2)

Figure 5.18. Jade deer of unknown provenance, thought to come from the Central Plains region (1) (after Freer Gallery of Art 2015, accession number S1987.869) and a jade deer from tomb M22001, Guo State Cemetery, Henan, PRC, c. 860 – 771 BCE (2) (Feima Huadao 2013, fig.4).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Jacobson, E., V. D. Kubarev, and D. Tseevendorj. 2001. Mongolie du nord-ouest : Tsagaan Salaa-Baga Oigor. Répertoire des pétroglyphes d'Asie centrale, Fascicule no. 6. Vol. 2. 2 vols. Mémoires de la Mission archéologique française en Asie centrale 6. Paris: De Boccard.

(1)

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Jacobson, E., V. D. Kubarev, and D. Tseevendorj. 2001. Mongolie du nord-ouest : Tsagaan Salaa-Baga Oigor. Répertoire des pétroglyphes d'Asie centrale, Fascicule no. 6. Vol. 2. 2 vols. Mémoires de la Mission archéologique française en Asie centrale 6. Paris: De Boccard.

(2)

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Bazaichenko, A. V. 2008. Osobennosti ctilya, osnovnykh obrazov i kompozitsii naskal'nykh izobrazhenii Gornogo Altaya Skifskoi epokhi. Izvestiya Altaiskogo Gosudarstvennogo Universiteta (4-5): 15-18.

(3)

Figure 5.19. Deer petroglyphs depicted with a single antler at Tsagaan Salaa/Baga Oigor, Bayan-Ulgii aimag, Mongolia. C. 2nd millennium BCE (1) and (2) (after Jacobson *et al.* 2001, figs 91 & 132), as well as Karachat, Kosh-Agach District, Altai Republic, Russia, c. 1st millennium BCE (3) (after Bazaichenko 2008, fig. 2.6).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Baipakov, K. M., and A. N. Mar'yashev. 2004. *Petroglify v Gorakh Kul'zhabasy*. Almaty: Institut Arkheologii im. A. Kh. Margulana.

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Baipakov, K. M., and A. N. Mar'yashev. 2004. *Petroglify v Gorakh Kul'zhabasy*. Almaty: Institut Arkheologii im. A. Kh. Margulana.

Figure 5.20. Deer shown with one antler that has many tines on both sides. Two panels at Kul'zhabasy, Kazakhstan, c. early 2nd millennium BCE (after Baipakov and Mar'yashev 2004, figs 37 & 43).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Su Beihai 苏北海. 2013. *Xinjiang yankehua* 新疆岩刻画 [*Petroglyphs of Xinjiang*]. *Xinjiang yishu yanjiu* 1. Urumqi: Xinjiang Meishu Sheying Chubanshe.

Figure 5.21. Drawing of a deer petroglyph, with a single antler and multiple tines on both sides. Hamusitegou, Aksu Village, Tianshan, PRC, unclear date (after Su Beihai 2013, fig. 14.20 (upper)).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Dalen Gurib, Na. 2000. *Neimenggu yanhua yishu* 内蒙古岩画艺术 [Inner Mongolia's art of rock carvings]. Hulunbuir: Neimenggu Wenhua Chubanshe.

Figure 5.22. Petroglyph of a deer with a single antler and tines on both sides at Jigonghailesitai, Urad Centre Banner, Inner Mongolia, PRC, c. 2nd millennium BCE (after Dalen Gurib 2000, fig. 76).



Figure 5.23. 1st millennium BCE style of depicting animals. The horses have thin legs that are thrown forwards. Tsagaan Salaa/Baga Oigor, c. early 1st millennium BCE.



(1)



(2)

Figure 5.24. Animals aligned one above the other. Caprines (1) and deer (2). Tsagaan Salaa/Baga Oigor, c. 2nd millennium BCE

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Jacobson, E., V. D. Kubarev, and D. Tseevondorj. 2001. *Mongolie du nord-ouest : Tsagaan Salaa-Baga Oigor. Répertoire des pétroglyphes d'Asie centrale*, Fascicule no. 6. Vol. 2. 2 vols. Mémoires de la Mission archéologique française en Asie centrale 6. Paris: De Boccard.

(1)

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Jacobson, E., V. D. Kubarev, and D. Tseevondorj. 2001. *Mongolie du nord-ouest : Tsagaan Salaa-Baga Oigor. Répertoire des pétroglyphes d'Asie centrale*, Fascicule no. 6. Vol. 2. 2 vols. Mémoires de la Mission archéologique française en Asie centrale 6. Paris: De Boccard.

(2)

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Devlet, E. G., and M. A. Devlet. 2011. *Sokrovishcha Naskal'nogo Iskusstva Severnoi i Tsentral'noi Azii*. Moscow: IAN RAN.

(3)

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Su Beihai 苏北海. 2013. *Xinjiang yankehua 新疆岩刻画 [Petroglyphs of Xinjiang]*. Xinjiang yishu yanjiu 1. Urumqi: Xinjiang Meishu Sheying Chubanshe.

(4)

Figure 5.25. Animals stacked atop another of the same animal. Animals arranged as if stacked above each other where they are the same animal. Caprines (or horses with headdresses), Tsagaan Salaa/Baga Oigor, c. late 1st millennium BCE (after Jacobson *et al.* 2001, fig. 485) (1); horses, Tsagaan Salaa/Baga Oigor, unclear date (after Jacobson *et al.* 2001, fig. 935) (2); bovines, Bizhiktig-Khaya, Barun-Khemchiksky District, Tuva Republic, c. late 3rd – 2nd millennium BCE (after Devlet & Devlet 2011, fig. 2.7) (3); and Luotuo Shi, Tuhulu Township, Ara Türik County (*yiwu xian* 伊吾縣), Xinjiang, c. 5th millennium BCE (after Su Beihai 2013, fig. 9.50 (upper)) (4).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Jacobson, E., V. D. Kubarev, and D. Tseevendorj. 2001. *Mongolie du nord-ouest : Tsagaan Salaa-Baga Oigor. Répertoire des pétroglyphes d'Asie centrale, Fascicule no. 6. Vol. 2. 2 vols. Mémoires de la Mission archéologique française en Asie centrale 6.* Paris: De Boccard.

(1)

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Devlet, E. G., and M. A. Devlet. 2011. *Sokrovishcha Naskal'nogo Iskusstva Severnoi i Tsentral'noi Azii.* Moscow: IA RAN.

(2)

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Su Beihai 苏北海. 2013. *Xinjiang yankehua 新疆岩刻画 [Petroglyphs of Xinjiang]. Xinjiang yishu yanjiu 1.* Urumqi: Xinjiang Meishu Sheying Chubanshe.

(3)

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Su Beihai 苏北海. 2013. *Xinjiang yankehua 新疆岩刻画 [Petroglyphs of Xinjiang]. Xinjiang yishu yanjiu 1.* Urumqi: Xinjiang Meishu Sheying Chubanshe.

(4)

Figure 5.26. Small animals depicted atop larger ones. Predator atop a horse, Tsagaan Salaa/Baga Oigor, date uncertain (Jacobson *et al.* 2001, fig. 256 (1); deer(?) atop a deer, Usty-Mozaga, Sayan Canyon, Sayan, c. 2nd millennium BCE (Devlet & Devlet 2011, fig. 3.11) (2); quadruped atop a horse, A'aiti gou 阿艾提沟, Baitag Bogd, Guchung County, Xinjiang, c. 3000 – 1000 BCE (Su Beihai 2013, fig.13.14 (upper)) (3) and Jiaxihalahai, Altay City, Xinjiang, unclear date (Su Beihai 2013, fig. 11.3 (lower)) (4).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Su Beihai 苏北海. 2013. *Xinjiang yankehua 新疆岩刻画 [Petroglyphs of Xinjiang]. Xinjiang yishu yanjiu 1.* Urumqi: Xinjiang Meishu Sheying Chubanshe.

Figure 5.27. A predator on top of a yak. Yeshan, Qaidam Mongol and Tibetan Autonomous Prefecture (*haixi mengguzu zangzu zizhizhou* 海西蒙古族藏族自治州), Qinghai, PRC, c. 2nd millennium BCE (after Su Beihai 2013, fig. 11.26 (lower)).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Loehr, M. 1955. The stag image in Scythia and the Far East. *Archives of the Chinese Art Society of America* 9: 63–76.

Figure 5.28. Ornament of a stag standing atop another stag that is lying down. Unknown provenance, Ordos Plateau, PRC, unclear date (after Loehr 1955, fig. 17).

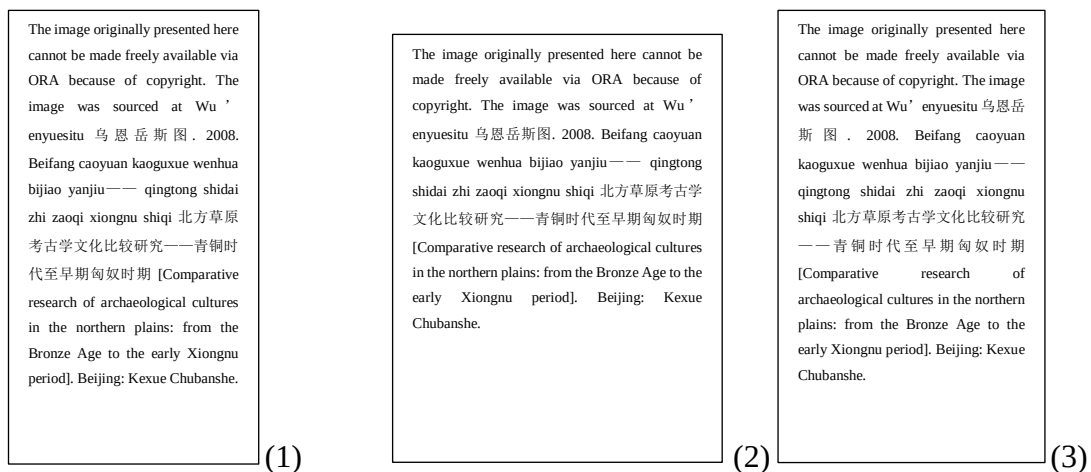


Figure 5.29. Metal ornaments of deer (1), horses (2), and donkeys (3). Unknown provenance, Ordos Plateau, PRC, c. late 2nd – early 1st millennium BCE (after Wu'enyuesitu 2011, figs 153: 4, 153: 6 & 153: 3).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Dalen Gurib, Na. 2000. *Neimenggu yanhua yishu* 内蒙古岩画艺术 [Inner Mongolia's art of rock carvings]. Hulunbuir: Neimenggu Wenhua Chubanshe.

Figure 5.30. Motif of two horses aligned with their heads facing opposite directions. Biqigtu, Sonid Left Banner, Inner Mongolia, c. 1st millennium BCE (Dalen Gurib 2000, fig. 32).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Jacobson, E., V. D. Kubarev, and D. Tseevondorj. 2001. Mongolie du nord-ouest : Tsagaan Salaa-Baga Oigor. Répertoire des pétroglyphes d'Asie centrale, Fascicule no. 6. Vol. 2. 2 vols. Mémoires de la Mission archéologique française en Asie centrale 6. Paris: De Boccard.

(1)

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Jacobson, E., V. D. Kubarev, and D. Tseevondorj. 2001. Mongolie du nord-ouest : Tsagaan Salaa-Baga Oigor. Répertoire des pétroglyphes d'Asie centrale, Fascicule no. 6. Vol. 2. 2 vols. Mémoires de la Mission archéologique française en Asie centrale 6. Paris: De Boccard.

(2)

Figure 5.31. Predator on the rump of an ox, c. 2nd millennium BCE (1); and predator on the back of an elk, c. late 2nd millennium BCE (2). Tsagaan Salaa/Baga Oigor (after Jacobson *et al.* 2001, figs 1118 & 1318).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Wu' enyuesitu 乌恩岳斯图. 2008. *Beifang caoyuan kaoguxue wenhua bijiao yanjiu*——*qingtong shidai zhi zaoqi xiongnu shiqi* 北方草原考古学文化比较研究——青铜时代至早期匈奴时期 [Comparative research of archaeological cultures in the northern plains: from the Bronze Age to the early Xiongnu period]. Beijing: Kexue Chubanshe.

(A)

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Wu' enyuesitu 乌恩岳斯图. 2008. *Beifang caoyuan kaoguxue wenhua bijiao yanjiu*——*qingtong shidai zhi zaoqi xiongnu shiqi* 北方草原考古学文化比较研究——青铜时代至早期匈奴时期 [Comparative research of archaeological cultures in the northern plains: from the Bronze Age to the early Xiongnu period]. Beijing: Kexue Chubanshe.

(B)

Figure 5.32. Metal artefacts collected by C. T. Loo depicting several herbivores standing on each other's backs (after Wu'enyuesitu 2008, figs 155.4 & 7).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Rawson, J. 1993. Late Shang bronze design: meaning and purpose. In *The Problem of Meaning in Early Chinese Ritual Bronzes*, edited by R. Whitfield, 67–95. London: Percival David Foundation of Chinese Art.

Figure 5.33. Statue of a tiger with a bird perched on its back. Dayangzhou, Xingan County, Jiangxi, PRC, c. 1200 – 1046 BCE (after Rawson 1993, plate 9).

6 Case Study – Russia

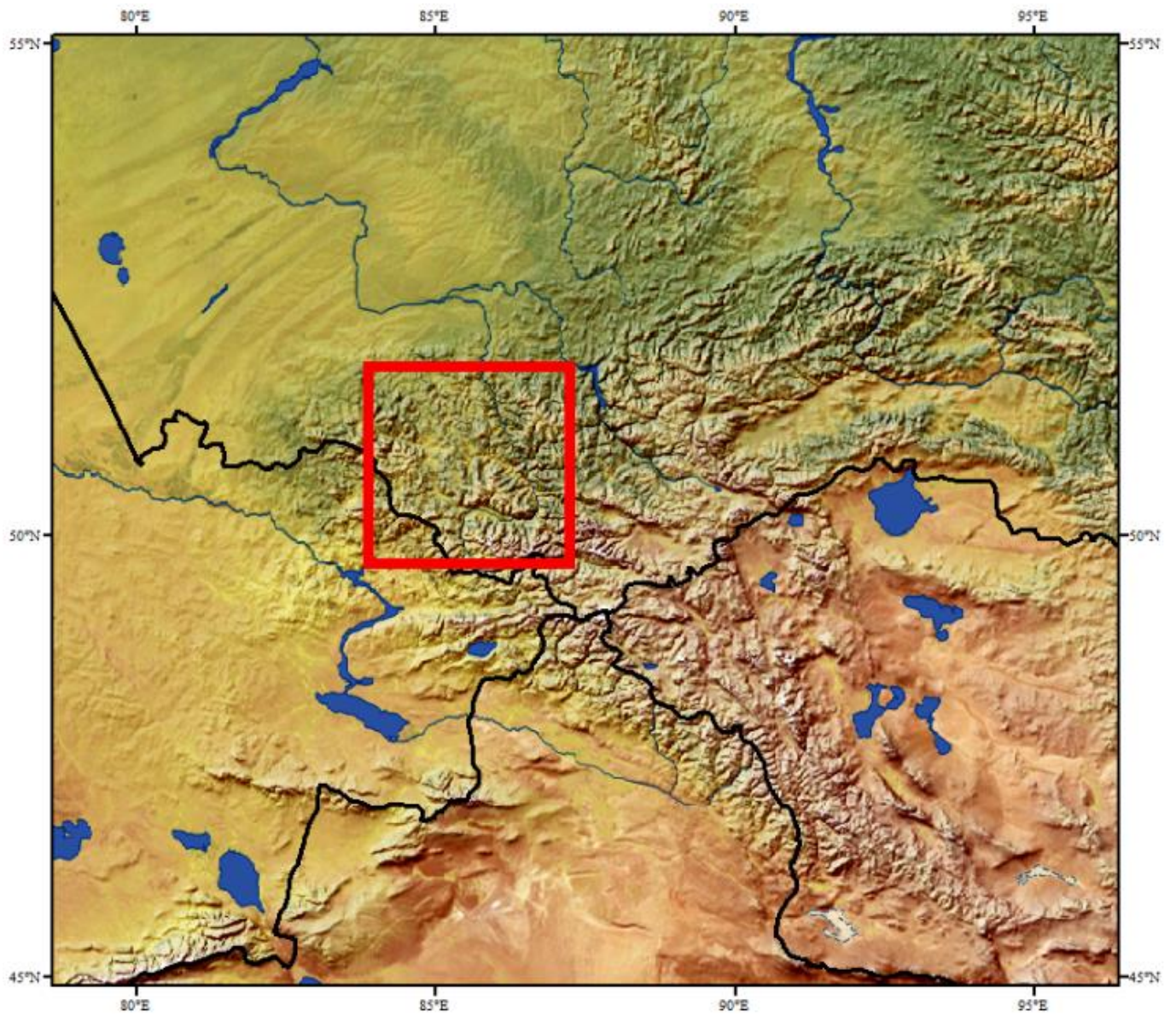


Figure 6.1. Map highlighting the region of Russia discussed in Chapter 6.

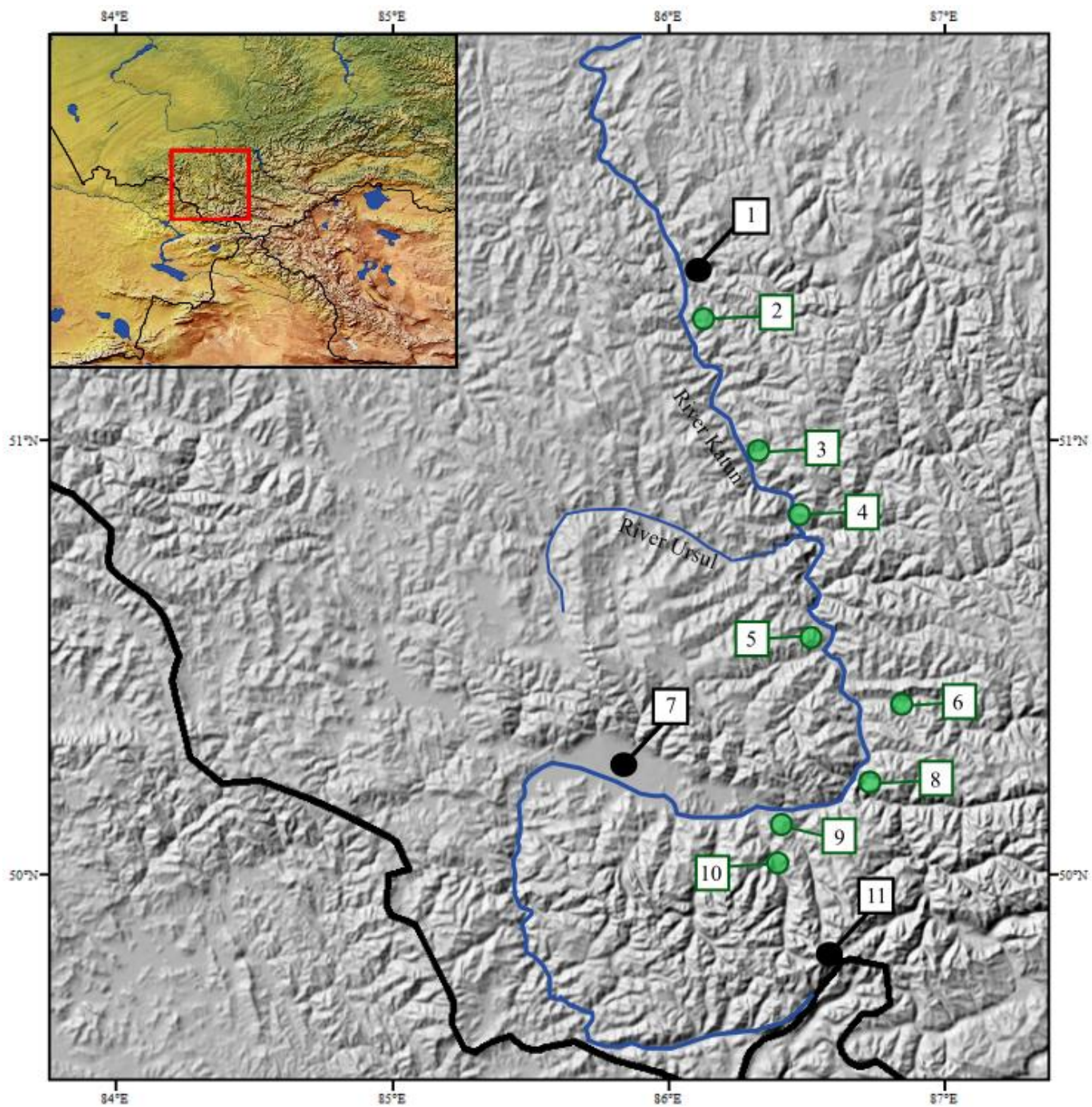


Figure 6.2. Map of Russia and locations discussed in this chapter. Chemal (1), Che-Chkysh Gorge (2), Kuyus Grotto (3), Kayancha (4), Bol'shoi Yaloman (5), Kalbak Tash (6), Uymon Steppe (7), Satakular River (8), Oroktoy (9), Kuilyu Cave (10), Belukha Peak (11).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced from E. G. Devlet.

Figure 6.3. Modern names and dates carved over older petroglyphs. Bol'shoi Yaloman, Ongudaysky District, Altai Republic (photograph taken by E. G. Devlet).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Plets, G., G. Verhoeven, D. Cheremisin, R. Plets, J. Bourgeois, B. Stichelbaut, W. Gheyle, and J. De Reu. 2012. The deteriorating preservation of the Altai rock art: assessing three-dimensional image-based modelling in rock art research and management. *Rock Art Research: The Journal of the Australian Rock Art Research Association* 29 (2): 139–156.

Figure 6.4. Petroglyph of an ibex that has been damaged by attempts to remove the figure. Kalbak Tash I, Ongudaysky District, Altai Republic, c. 5th – 3rd millennium BCE (Plets *et al.* 2012, fig. 6).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced from a user on Google Maps/Panoramio, who retains the intellectual property in print.

Figure 6.5. Rock panel covered with white paint and a red star. Older petroglyphs on the panel are now barely visible. Che-Chkysh Gorge, Chemalsky District, Altai Republic (photograph taken by Forsunka and made publicly available on Panoramio).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced from a user on Google Maps/Panoramio, who retains the intellectual property in print.

Figure 6.6. The Chemal Reservoir as seen from the top of Mt. Camel, with the Katun in the background. Chemal Village is predominantly located behind the forested mountain. Chemal, Chemalsky District, Altai Republic (photograph taken by Konstantin Smirnov, aka Kostia, and made publicly available on Panoramio).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced from a user on Google Maps/Panoramio, who retains the intellectual property in print.

Figure 6.7. Panoramic view taken from the western side of the Katun River looking towards the rock outcrop known as Kuyus Grotto, Chemsalsky District, Altai Republic (photograph taken by Aleksei Garshuka and made publicly available on Google Maps).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at <http://putevoditel-altai.ru/publ/2196-petroglify-grota-kuyus.html>.

Figure 6.8. Kuyus Grotto, located at the foot of a mountain on the Katun's floodplain. Kuyus Grotto, Kuyus, Chemsalsky District, Altai Republic (source: <http://putevoditel-altai.ru/publ/2196-petroglify-grota-kuyus.html>).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Dostoyanie Planety. 2016. Petroglify grotta Kuyus. *Dostoyanie Planeti*. Available at <<http://dostoyanieplaneti.ru/4111-etroglify-grota-uyus>>. Accessed 15th June 2017.

Figure 6.9. Upper section of Kuyus Grotto seen in **Figure 6.8**. The lower part of the grotto is directly beneath the tuft of green grass. Kuyus Grotto, Kuyus, Chemsalsky District, Altai Republic, c. 2nd millennium BCE (photograph and drawing after Dostoyanie Planety 2016).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Dostoyanie Planety. 2016. Petroglify grotta Kuyus. *Dostoyanie Planeti*. Available at <<http://dostoyanieplaneti.ru/4111-etroglify-grota-uyus>>. Accessed 15th June 2017.

Figure 6.10. Petroglyph of a so-called mythological creature with an anthropomorph on its back. Kuyus Grotto, Kuyus, Chemsalsky District, Altai Republic, c. 5th – 3rd millennium BCE (source: <http://dostoyanieplaneti.ru/4111-etroglify-grota-uyus>).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Privalov, A. n.d. Tropa k skalam. Photograph. *Naskal' nye Risunki Urochishche Che-Chkysh* («Dolina Dukhov»). Available at <<http://welcometoaltai.ru/attractions/che-chkysh/#close>>. Accessed 7th November 2016.

Figure 6.11. View of the Che-Chkysh Gorge orientated downstream from a rock-art panel. Che-Chkysh Gorge, Chemalsky District, Altai Republic (Privalov *n.d.*).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced from a user on Google Maps/Panoramio, who retains the intellectual property in print.

Figure 6.12. Rock shelter. Petroglyphs are pecked and carved into the wall on the right, behind the white figures, as well as on the left above the small cave. Che-Chkysh Gorge, Chemalsky District, Altai Republic, c. 2nd millennium BCE (photograph taken by Roman Shabanov and made publicly available on Google Maps).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Devlet, E. G. 1982. *Petroglify na kochevoi trope*. Moscow : NAUKA.

Figure 6.13. Ibex figures by the Yenisei River. The curvature of the rock panel mimics the bends in the gulley on the opposite side of the river. The panel has been enhanced to make the rock-art clearer. 'Road of Chinggis Khan', Shagonar, Ulug-Khemsy District, Tuva Republic, c. 2nd millennium BCE (after Devlet 1982, 39).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Devlet, E. G., and S. -H. Jang. 2014. *Kamennaya letopis' Altaya/The Stone Chronicle of Altai*. Moscow: IARAN.

Figure 6.14. A predator 'crawls' over the ledge towards anthropomorphs with crescent-shaped headdresses. Kalbak Tash, Ongudaysky District, Altai Republic, c. late 3rd – 2nd millennium BCE (Devlet and Jang 2014, fig. 153).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Okladnikova, E. A. 1984. *Petroglify Srednei Katuni*. Novosibirsk: Izdatel'stvo NAUKA.

Figure 6.15. Drawing of a rock panel with typical caprine, equine, and anthropomorphic figures. Kayancha, Ongudai District, Russian Altai, c. 2nd millennium BCE (after Okladnikova 1984, plate 2.1).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Okladnikova, E. A. 1984. *Petroglify Srednei Katuni*. Novosibirsk: Izdatel'stvo NAUKA.

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Okladnikova, E. A. 1984. *Petroglify Srednei Katuni*. Novosibirsk: Izdatel'stvo NAUKA.

(1)

(2)

Figure 6.16. Panel showing a deer(?), ibex, three quadrupeds(?), and one figure with six limbs (1). Panel of two deer(?), various apparent quadrupeds, and an elongated creature (2). Oroktoy, Chemalsky District, Altai Republic, c. late 3rd – 2nd millennium BCE (after Okladnikova 1984, plates 27.1 & 27.2).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Devlet, E. G., and S. -H. Jang. 2014. Kamennaya letopis' Altaya/The Stone Chronicle of Altai. Moscow: IA RAN.

Figure 6.17. Anthropomorphic figure with a crescent-shaped headdress. Kalbak Tash I, Ongudaysky District, Altai Republic, c. 2nd millennium BCE (after Devlet and Jang 2014, fig. 166).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Devlet, E. G., and S. -H. Jang. 2014. Kamennaya letopis' Altaya/The Stone Chronicle of Altai. Moscow: IA RAN.

(1)

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Devlet, E. G., and S. -H. Jang. 2014. Kamennaya letopis' Altaya/The Stone Chronicle of Altai. Moscow: IA RAN.

(2)

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Devlet, E. G., and S. -H. Jang. 2014. Kamennaya letopis' Altaya/The Stone Chronicle of Altai. Moscow: IA RAN.

(3)

Figure 6.18. Anthropomorphic figures with crescent-shaped headdresses. The crescent is either separate from the head of the anthropomorph (1), or attaches to the head (2 & 3). Kalbak Tash, Ongudaysky District, Altai Republic, c. 2nd millennium BCE (after Devlet and Jang 2014, figs 163 & 166).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced from E. G. Devlet.

Figure 6.19. Anthropomorphic figures with crescent-shaped headdresses. Bolshoi Yaloman, Ongudaysky District, Altai Republic, c. 1st millennium BCE (photograph taken by E. G. Devlet).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Okladnikova, E. A. 1984. *Petroglify Srednei Katuni*. Novosibirsk: Izdatel'stvo NAUKA.

Figure 6.20. Petroglyph panel featuring bovines, elk, caprines, and two anthropomorphs (expanded view). Oroktoy, Chemsalsky District, Altai Republic, c. late 3rd – early 2nd millennium BCE (after Okladnikova 1984, plates 26: 3, 4 & 5).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Kyzlasov, L. R. 1986. *Drevneishaya Khakasiya*. Moscow: Izdatel'stvo Moskovskogo Universiteta.

Figure 6.21. Okunevo-style face or mask carved on a stone stele that was used in an Andronovo monument. Solenoozernaya, Shirinsky District, Republic of Khakassia, c. 2200 – 1900 BCE (after Kyzlasov 1986, fig. 95).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Kyzlasov, L. R. 1986. *Drevneishaya Khakasiya*. Moscow: Izdatel'stvo Moskovskogo Universiteta.

Figure 6.22. Anthropomorphic face with hair(?) and a fur/feather(?) coat on a stone stele that was reused in a 1st millennium BCE burial. Khyzyl, Ordzhonikidzevsky District, Republic of Khakassia, c. 2200 – 1900 BCE (Kyzlasov 1986, fig. 97).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at <http://www.chnmuseum.cn/Default.aspx?TabId=212&AntiqueLanguageID=498&AspxAutoDetectCookieSupport=1>

Figure 6.23. Painted pottery basin decorated with fish and an anthropomorphic face. Banpo, Xi'an, Shaanxi, PRC, c. 5048 – 3340 BCE (source: <http://www.chnmuseum.cn/Default.aspx?TabId=212&AntiqueLanguageID=498&AspxAutoDetectCookieSupport=1>).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Su Beihai 苏北海. 2013. *Xinjiang yankehua* 新疆岩刻画 [Petroglyphs of Xinjiang]. *Xinjiang yishu yanjiu* 1. Urumqi: Xinjiang Meishu Sheying Chubanshe.

Figure 6.24. Drawing of an anthropomorphic face (or mask) motif found on ceramics, with horns at the temples. Banpo, Xi'an, Shaanxi, PRC, c. 5048 – 3340 BCE (after Su Beihai 2013, fig. 5.4 (lower)).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Su Beihai 苏北海. 2013. *Xinjiang yankehua* 新疆岩刻画 [Petroglyphs of Xinjiang]. Xinjiang yishu yanjiu 1. Urumqi: Xinjiang Meishu Sheying Chubanshe.

Figure 6.25. Drawing of an anthropomorphic face (or mask) motif found on ceramics, with horns at the temples. Jiangzhai 姜寨, Lintong District, Shaanxi, PRC, c. 4793 -- 3360 BCE (after Su Beihai 2013, fig. 5.6 (lower)).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Pyatkin, B. N., and A. I. Martynov. 1985. *Shalabolinskiye petroglify*. Krasnoyarsk: Izdatel'stvo Krasnoyarskogo Universiteta.

Figure 6.26. Petroglyph of an anthropomorphic face that has lines extending from its head, horns at its temples, and the face is divided horizontally into sections. Shalabolino, Kuraginsky District, Krasnoyarsk Krai, Russia, c. late 3rd millennium BCE (after Pyatkin and Martynov 1985, plate 39.4).

7 Case Study – PRC

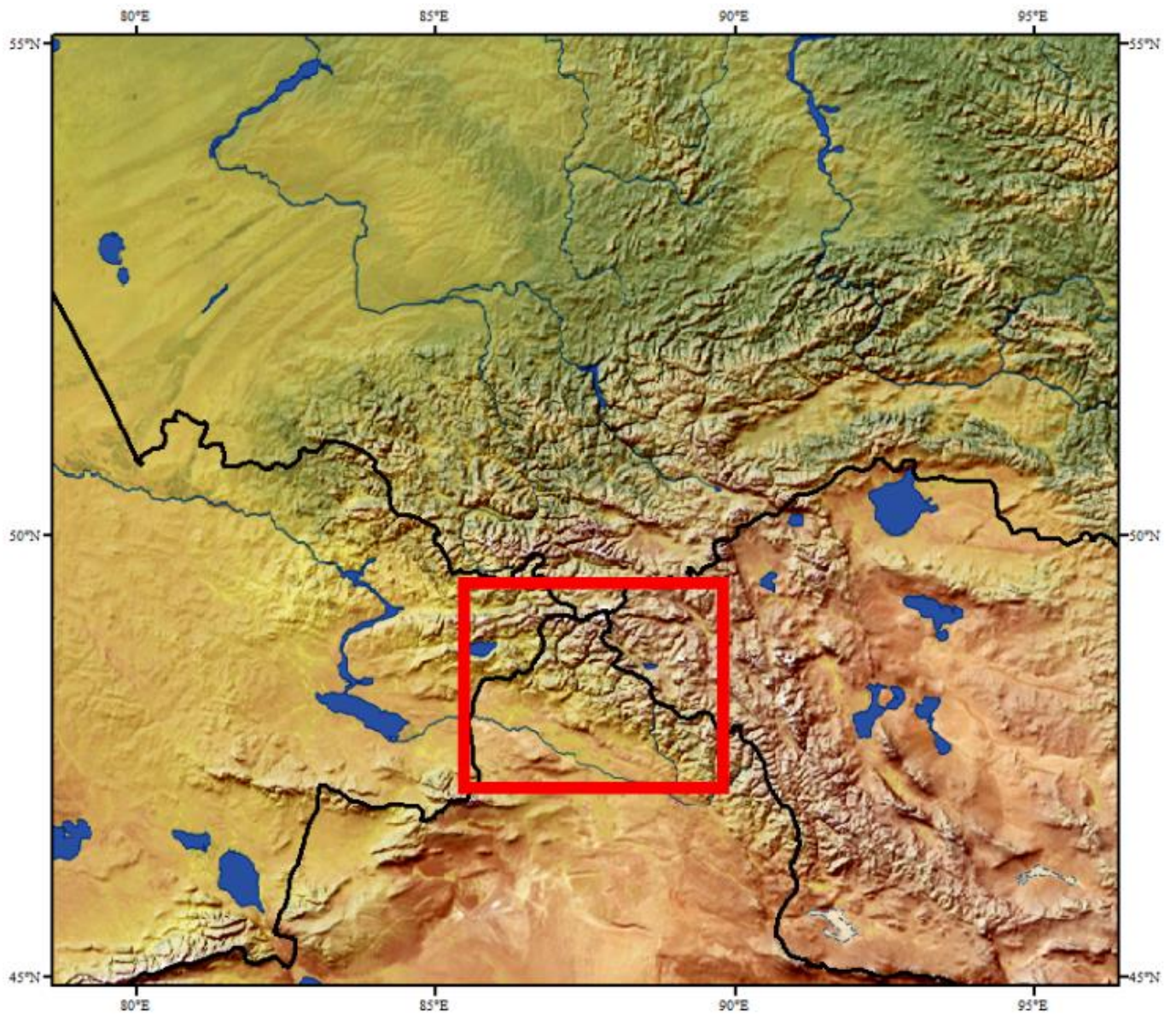


Figure 7.1. Map highlighting the region of the PRC discussed in Chapter 7.

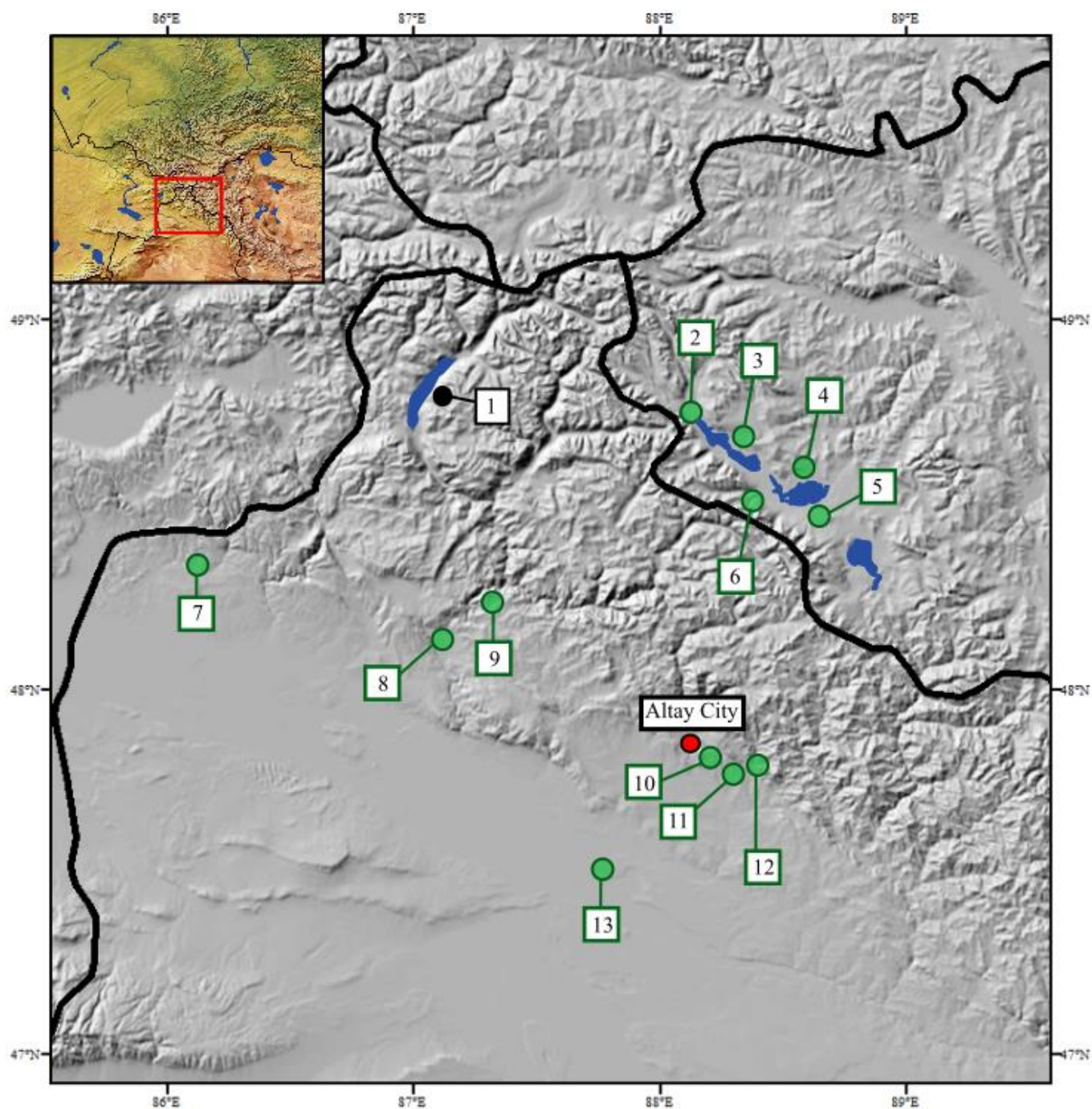


Figure 7.2. Map of the PRC and locations discussed in this chapter. Kanas Lake (1), Aral Tolgoi (2), Biluut (3), Khurgan Lake I (4), Khurgan Lake II (5), Tsengel II (6), Mayimatuobie (7), Kuxugen (8), Aqbastau (9), Jiangjunshan & Jiaxihalahai (10), Dulategou (11), Handagate Village sites: Moku'ergou, Qiao'ergou, Duo'ategou & Cao'erhei (12), Khemchek & Yuyitasi (13).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Taçon, P. S. C., H. -S. Tang, and M. Aubert. 2016. Naturalistic animals and hand stencils in the rock-art of Xinjiang Uyghur Autonomous Region, northwest China. *Rock Art Research: The Journal of the Australian Rock Art Research Association* 33 (1): 19–31.

Figure 7.3. A metal fence in front of Cave 1 is decorated with white scarves and colourful flags of Tibetan Buddhism. Dunden Bulag Rock Shelter, Altay City, PRC (after Taçon *et al.* 2016, fig. 2).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Taçon, P. S. C., H. -S. Tang, and M. Aubert. 2016. Naturalistic animals and hand stencils in the rock-art of Xinjiang Uyghur Autonomous Region, northwest China. *Rock Art Research: The Journal of the Australian Rock Art Research Association* 33 (1): 19–31.

Figure 7.4. Panel showing horse, yak, and anthropomorphs depicted in profile. The large horse on the right and the smaller horse below are titled, so that they appear to be leaping. Cave 1, Dunden Bulag Rock Shelters, Altay City, PRC, c. 3300 – 1000 BCE (after Taçon *et al.* 2016, fig. 5).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Taçon, P. S. C., H. -S. Tang, and M. Aubert. 2016. Naturalistic animals and hand stencils in the rock-art of Xinjiang Uyghur Autonomous Region, northwest China. *Rock Art Research: The Journal of the Australian Rock Art Research Association* 33 (1): 19–31.

Figure 7.5. Close-up of the anthropomorphs at the top of the panel in **Figure 7.4**. All face right and are tilted to go over the curved part of the rock panel in the lower right-hand corner. Cave 1, Dunden Bulag Rock Shelters, Altay City, PRC, c. 3300 – 1000 BCE (after Taçon *et al.* 2016, fig. 3).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Taçon, P. S. C., H. -S. Tang, and M. Aubert. 2016. Naturalistic animals and hand stencils in the rock-art of Xinjiang Uyghur Autonomous Region, northwest China. *Rock Art Research: The Journal of the Australian Rock Art Research Association* 33 (1): 19–31.

Figure 7.6. Left of the panel in **Figure 7.4**, towards the back of Cave 1. The auroch on the left belongs to an earlier phase, but someone has later added an anthropomorph to its back. Three anthropomorphs stand right of the central groove, with quadrupeds visible in the lower right corner. Cave 1, Dunden Bulag Rock Shelters, Altay City, PRC, c. 3300 – 1000 BCE (after Taçon *et al.* 2016, fig. 4).



Figure 7.7. Petroglyph of a bovid, horse, and anthropomorph. Cracks caused by weathering are visible, with a major one developing over the horse's neck. Dulategou, Altay City, PRC, c. 3rd – 2nd millennium BCE.



Figure 7.8. Modern peck marks and scratches. Dulategou, Altay City, PRC, modern.



Figure 7.9. Photograph of a gulley orientated north. Dulategou, Altay City, PRC.

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Ren Meng 任萌. 2014. Ya' ou da caoyuan de yishu jiejing —— xinjiang yanhua 亚欧大草原的艺术结晶——新疆岩画 [The crystallisation of Eurasian steppe art: rock-art of Xinjiang]. *Dazhong Kaogu* (1): 80 – 88.

Figure 7.10. Panel of petroglyphs featuring ibex, dogs, and one anthropomorph visible that is lit by the sun. Modern writing is visible in the lower left. Dulategou, Altay City, PRC, c. 2nd millennium BCE (after Ren Meng 2014, fig. 12).



Figure 7.11. Deer 'standing' on a slight rocky protrusion. Dulategou, Altay City, PRC, c. 2nd millennium BCE.

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Su Beihai 苏北海. 2013. *Xinjiang yankehua* 新疆岩刻画 [Petroglyphs of Xinjiang]. Xinjiang yishu yanjiu 1. Urumqi: Xinjiang Meishu Sheying Chubanshe.

Figure 7.122. Two horse and one bovine(?) depicted above each other, with a canine and two bovines on the right. This black and white line drawing makes it impossible to tell which figures of the two horse and bovine(?) overlie each other, i.e. which was made first. Jiaxihalalai, Altay City, PRC, unclear date (after Su Beihai 2013, fig. 11.3 (lower)).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Wei Jia 魏佳. 2014. Xinjiang a'ertaishan he tianshan diqu yanhua diaocha yu yanjiu 新疆阿尔泰山和天山地区调查与研究 [A survey and study of rock-art in the Altai and Tianshan regions of Xinjiang]. Doctoral Thesis, Xibei Daxue, Xi'An. Available at: <<http://xuewen.cnki.net/ArticleCatalog.aspx?filename=1014364653.nh&dbtype=CDFD&dbname=CDFDLAST2014>>. Accessed 12 March 2015.

Figure 7.133. Panel of caprines, one anthropomorph (22), and one deer (29) figures. Mayimatuobie, Qaba County, PRC, c. 2nd millennium BCE (after Wei 2014, fig. 25).



Figure 7.14. Ceramic vessel with a caprine painted on its shoulder. Currently held in the Xinjiang Region Museum (*Xinjiang zizhiqu bowuguan* 新疆自治區博物館). Yabulake Cemetery, Kumul City, PRC, c. 1000 BCE.



Figure 7.15. Wooden vessel engraved with images of ibex and tigers in profile. Currently held in the Xinjiang Region Museum. Yanghai Cemetery, Turpan, PRC, c. 500 BCE.

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Taçon, P. S. C., H. -S. Tang, and M. Aubert. 2016. Naturalistic animals and hand stencils in the rock-art of Xinjiang Uyghur Autonomous Region, northwest China. *Rock Art Research: The Journal of the Australian Rock Art Research Association* 33 (1): 19–31.

Figure 7.16. Painted yak figure with a triangular tail. Cave 1, Dunden Bulag Rock Shelters, Altay City, PRC, c. 3300 – 1000 BCE (after Taçon *et al.* 2016, fig. 16).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Tang Huisheng 汤惠生, and Zhang Wenhua 张文华 . 2001. *Qinghai yanhua: shiqian yishu zhong eryuan duili siwei jiqi guannian de yanjiu* 青海岩画：史前艺术中二元对立思维及其观念的研究 [The rock-art of Qinghai: research on the thinking and concepts behind binary opposition in prehistoric art]. Beijing: Kexue Chubanshe.

Figure 7.17. Three yak petroglyphs and one horse with a rider. Yeniugou, Qaidam Mongol and Tibetan Autonomous Prefecture, Qinghai, c. 2nd millennium BCE (after Tang and Zhang 2001, fig. 10).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Tang Huisheng 汤惠生, and Zhang Wenhua 张文华 . 2001. *Qinghai yanhua: shiqian yishu zhong eryuan duili siwei jiqi guannian de yanjiu* 青海岩画：史前艺术中二元对立思维及其观念的研究 [The rock-art of Qinghai: research on the thinking and concepts behind binary opposition in prehistoric art]. Beijing: Kexue Chubanshe.

Figure 7.18. Two yak and one canine(?). The lowest yak has a curled tail, more commonly seen on attacking wolves. Yeniugou, Qaidam Mongol and Tibetan Autonomous Prefecture, Qinghai, c. 2nd millennium BCE (after Tang and Zhang 2001, fig. 47).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Omirbek, B., G. Zolbayar, and A. Ansagan. 2009. *Bayan-Ölgiy Aymgiyn Nutag Devsger Dahı Tuuh Soyolın Dursgaluud*. Ulaanbaatar: Sorhon Tsagaan.

Figure 7.19. A yak, with a vertical, oval tail, is attacked by humans and a canine. Shiveet Khairkhan, Bayan-Ulgii aimag, Mongolia, c. mid-2nd millennium BCE (after Omirbek *et al.* 2009, fig. 1, p.40).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at <https://www.countingflowers.co.uk/about-countingflowers/natural-fibres/5/yak-wool>

Figure 7.20. A male yak running in Mongolia (source: <https://www.countingflowers.co.uk/about-countingflowers/natural-fibres/5/yak-wool>)

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Devlet, E. G. 1982. *Petroglify na kochevoi trope*. Moscow : NAUKA.

Figure 7.214. Two crescent-headed anthropomorphs with sticks projecting from their rumps that end in circles. Ortaa-Sargol, Khemchik River, Tuvan Republic, c. 2nd millennium BCE (after Devlet 1982, plate 9).



Figure 7.22. Anthropomorphic figure with a crescent-shaped headdress. The usual stick with a ball appears as a triangular-shaped fan. Shiveet Khairkhan, Bayan-Ulgii aimag, Mongolian Altai, c. 2nd millennium BCE.

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Omirbek, B., G. Zolbayar, and A. Ansagan. 2009. *Bayan-Ölgiy Aymgiyn Nutag Devsger Dahı Tuuh Soyolın Dursgaluud*. Ulaanbaatar: Sorhon Tsagaan.

Figure 7.23. Two anthropomorphs with erect penises and weaponry, or bags, hanging from their waists. Khar Khatuu, Bugat sum, Bayan-Ulgii aimag, Mongolian Altai, c. 2nd millennium BCE (after Omirbek *et al.* 2009, fig. 1. p.54).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Su Beihai 苏北海. 2013. *Xinjiang yankehua* 新疆岩刻画 [Petroglyphs of Xinjiang]. Xinjiang yishu yanjiu 1. Urumqi: Xinjiang Meishu Sheying Chubanshe.

Figure 7.24. A deer with a single antler with tines on both sides and a horse(?). Yuyitasi, Altay City, PRC, unclear date (after Su Beihai 2013, fig. 3.13 (upper)).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Su Beihai 苏北海. 2013. *Xinjiang yankehua* 新疆岩刻画 [Petroglyphs of Xinjiang]. Xinjiang yishu yanjiu 1. Urumqi: Xinjiang Meishu Sheying Chubanshe.

Figure 7.25. Three caprines and one deer with a single antler and tines on both sides. Yuyitasi, Altay City, PRC, unclear date (after Su Beihai 2013, fig. 3.15 (upper)).

8 Discussion: Connections and Rock-art

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Novgorodova, E. A. 1982. *Ulangon: ein skythenzeitliches Gräberfeld in der Mongolei*. Asiatische Forschungen, 76. Wiesbaden: Harrassowitz.

Figure 8.1. Ceramic vessel decorated with an applied deer motif with a single antler and tines on both sides. Ulangom,Uvs aimag, Mongolia, c. 5th – 3rd century BCE (Novgorodova 1982, fig. 5 (lower)).



Figure 8.2. Two yaks. Shiveet Khairkhan, Bayan-Ulgii, Mongolia, c. early 2nd millennium BCE.

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Fitzhugh, W. W. 2009b. Stone shamans and flying deer of northern Mongolia: deer goddess of Siberia or chimera of the steppe. *Arctic Anthropology* 46 (1–2): 72–88.

Figure 8.3. Drawing of a deer stone with an anthropomorphic head at the top. The anthropomorph has earrings and a belt at its ‘waist’ with tools hanging from it. Ushkin Uver, Mongolia (stone 14, according to Volkov’s 1981 classification) (Fitzhugh 2009b, fig. 4).

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Liu Yunhui 刘云辉. 2008. Shaanxi chutu de gudai yuqi: xia shang zhou bian 陕西出土的古代玉器 • 夏商周篇 [The part on ancient jade wares of Xia, Shang and Zhou dynasties unearthed in Shaanxi province]. *Sichuan Wenwu* (5): 53 – 68.

(1)

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Liu Yunhui 刘云辉. 2008. Shaanxi chutu de gudai yuqi: xia shang zhou bian 陕西出土的古代玉器 • 夏商周篇 [The part on ancient jade wares of Xia, Shang and Zhou dynasties unearthed in Shaanxi province]. *Sichuan Wenwu* (5): 53 – 68.

(2)

Figure 8.4. Two jade deer depicted with their legs thrown forward in the style commonly seen in the Eurasian Steppe. The head of (2) also faces backwards. Rujiazhuang, Baoji City, PRC, c. 1000 BCE (after Liu Yunhui 2008, figs 42 & 41).



Figure 8.5. Two ibex, and a bull, amongst other petroglyphs. The ibex are identifiable by their large, ridged horns. Some later retouchment of the petroglyphs is evident in the deer at the very bottom of the panel. Baga Oigor, Bayan-Ulgii aimag, Mongolia, c. 2nd millennium BCE.



Figure 8.6. Four caprines with smaller horns than those seen in **Figure 8.5**. The two at the bottom have either been retouched or are more recent additions in entirety. Shiveet Khairkhan, Upper Tsagaan Gol, Bayan-Ulgii aimag, Mongolia, c. 2nd millennium BCE (uppermost caprines).

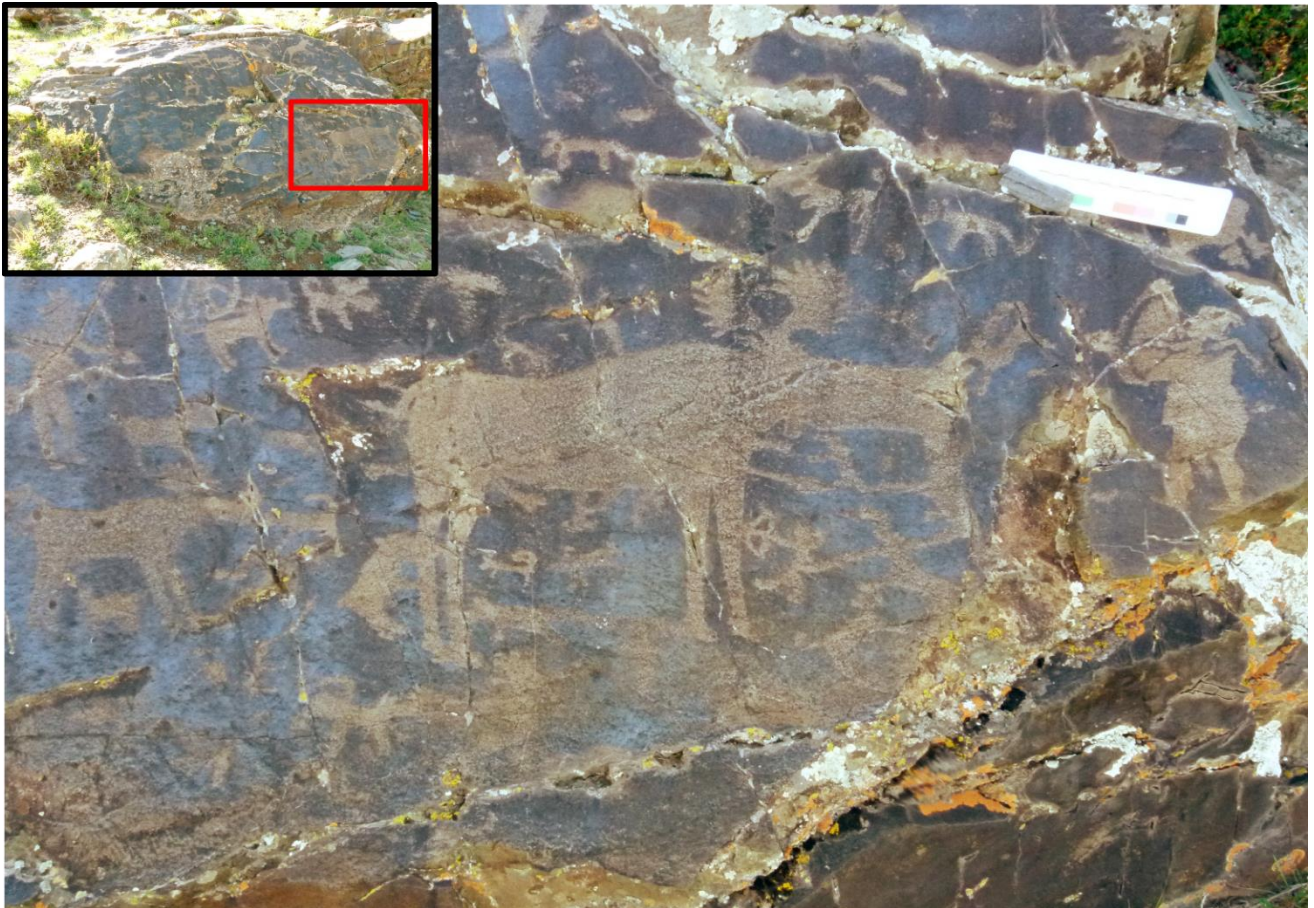


Figure 8.7. Elk petroglyph at Tsagaan Salaa/Baga Oigor, Bayan-Ulgii aimag, Mongolia, c. 2nd millennium BCE.



Figure 8.8. Oboo (pile of stones) in front of Shiveet Khaikhan, Upper Tsagaan Gol, Bayan-Ulgii aimag, Mongolia, c. 20th – 21st century.

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at University of Oregon. 2009b. Cultural Landscape: Confluences. *Archaeology and Landscape in the Altai Mountains of Mongolia*. Available at <http://mongolianaltai.uoregon.edu/cultural_confluences.php>. Accessed 26 August 2015.

Figure 8.9. Khirigsuur. Sagsay Gol, Bayan-Ulgii aimag, Mongolia, c. 2nd millennium BCE (after University of Oregon 2009b, image 5).



Figure 8.10. Cracking and exfoliation of the rock is eating away at the face of the lower yak and rump of the central ox. This has occurred since the petroglyphs were pecked. Biluut, Bayan-Ulgii aimag, Mongolia, c. 2nd millennium BCE.

The image originally presented here cannot be made freely available via ORA because of copyright. The image was sourced at Jacobson-Tepfer, E. 2015. *The Hunter, the Stag, and the Mother of Animals: Image, Monument and Landscape in Ancient North Asia*. New York: Oxford University Press.

Figure 8.11. 1st millennium BCE deer pecked over a 2nd millennium BCE petroglyph of a quadruped. Upper Tsagaan Gol, Bayan-Ulgii aimag, Mongolia, c. late 2nd – early 1st millennium BCE (after Jacobson-Tepfer 2015, fig. 6.34).



Figure 8.12. Panel with various animal petroglyphs created during the 1st millennium BCE. There is very little superimposition, though in some cases the edges of a petroglyph overlap with others. Tsagaan Salaa/Baga Oigor, Bayan-Ulgii aimag, Mongolia, c. 1st millennium BCE, including late 1st millennium BCE.

