

## Introduction

On March 12, 1967, on the front page of *Pravda*, the main newspaper of the Communist Party of the Soviet Union, just under a headline reminding Soviet citizens that it was “election day,” was a short piece entitled “On the Shores of the Aral.” The piece described for Soviet readers the idyllic scene that day in Raushan, a small village in the Kungrad (Qo‘ng‘irot) district of the far western Qaraqalpaq region of the Uzbek Soviet Socialist Republic. Readers of the article learned that storks, “harbingers of a bounteous spring,” had recently returned to the shores of the Aral Sea. These shores of the Aral, the article informed *Pravda*’s readers, had once been characterized by salt flats, swamps, and dense reed thickets, but such typical features of the Aral landscape had in recent years submitted “to the will and labor of the Soviet people.” The Qaraqalpaq lands, reclaimed with Soviet labor from the marshes and lovingly cleared of weeds, now rewarded the inhabitants of Raushan’s state farm (*sovkhos*) with five thousand tons of rice annually. Thus, above the entrance to Raushan’s local polling place was a banner with the words “Labor – the source of wealth.” As he approached this polling place, an *aqsaqal* (elder) from Raushan’s state farm could barely conceal his joy, such was his belief that “happiness has settled forever on this land.” His sense of wonder over the changes brought to the region by Soviet rule was evident as he asked the *Pravda* reporter, in reference to the successful career of a local son, “Which of us could have dreamed before that an inhabitant of the Aral region would become a government figure?” before answering the question himself: “No one.”<sup>1</sup>

<sup>1</sup> “Segodnia – vybory!,” *P* 71 (March 12, 1967): 1. The Qaraqalpaq spelling of Kungrad is Qo‘nirat.

Many readers of *Pravda*, never having seen the shining expanses of the Aral Sea, might have found it difficult to picture this far-off Central Asian village. The newspaper's reassuring tone, however, informed them that even in the most distant corners of the Soviet Union, Soviet power had overcome the peculiar challenges of nature and turned the regional inhabitants – in this case, the formerly semi-nomadic, Turkic-speaking Qaraqalpaqs – into modern Soviet workers. Several months later, another front-page article, entitled “The Aral Is Becoming Richer,” announced to *Pravda*'s readers a new breeding ground for the local fish industry in the Aral region. Such articles told readers that Soviet power had brought modern agriculture, industry, representative government, and prosperity to what had once been one of the most “backward” and “barbaric” territories of the Russian Empire.<sup>2</sup>

Yet, an attentive *Pravda* reader might also have realized that beneath such confident and cheerful proclamations lurked uncertainty and tragedy. In October 1968, for instance, in an article on “our southern seas,” the section on the Aral Sea began: “Today there is not yet a fully-formed notion of the damage which will be sustained by the economy of the Aral region from the significant change in the level of the sea.” Already, the article told readers, the sinking of the sea level by one-and-a-half meters between 1960 and 1965 had resulted in the loss of seven million kilograms of fish annually. The forecast was for catches to be five times lower by the 1970s; by the year 2000, the level of the sea could sink as much as fourteen meters, resulting in such high salinity that “the Aral Sea would basically no longer exist.”<sup>3</sup> With it would go the fish, as well as the way of life of many people in the Aral Sea region. If happiness had indeed settled on these lands, it had not necessarily come to stay.

Fifty years later, the prophetic vision of the “fate of the Aral Sea” sketched out in *Pravda* in October 1968 has become reality. On the sands of the former sea bed, rusting hulks of fishing ships have become a global symbol for environmental degradation. The direct cause of the disappearance of the Aral Sea – once considered the fourth-largest lake in the world – was the increasing diversion in the 1950s and 1960s of Soviet Central Asia's main rivers, the Amu Darya and the Syr Darya, away from the sea and into reservoirs and agricultural fields. By the time *Pravda* reported on the fishing outlook in 1968, Soviet readers learned, almost half the sea's input had already been diverted; the volume of diverted

<sup>2</sup> “Aral stanet bogache,” *P* 205 (July 24, 1967): 1.

<sup>3</sup> “Nashi iuzhnye moria,” *P* 281 (October 7, 1968): 3.

water continued to increase, until by the early 1980s there were times when almost no water flowed into the sea at all.<sup>4</sup>

The disappearance of the Aral Sea in the late twentieth century is not, however, simply the outcome of communist gigantomania or the consequences of Soviet disregard for nature; rather, this dramatic transformation of a Central Asian landscape has roots that stretch back into the nineteenth century and extend around the world. Russian and Soviet colonial schemes to transform the arid lands of Central Asia paralleled similar schemes undertaken in the late nineteenth and twentieth centuries across arid landscapes from North Africa to Australia, from China to the American West, driven by similar visions of modernity, and what it meant to be civilized. It is this story that lies at the heart of this book.

Well before the 1960s, Russian and Soviet projects to transform Central Asian landscapes by harnessing its water resources were embedded in a larger, global dialogue about the power of science and technology to aid the human quest for modernity and progress. In the twentieth century, as a result of this quest, the human struggle to conquer nature took place on a heretofore unimaginable – and unsustainable – scale. The Aral Sea is only one of its casualties. This story, then, is a story about nature, and the way in which human beings across the globe have engaged with the natural environment in the modern era. Yet at the same time, Central Asian landscapes today – including the Aral Sea region – reflect not just human attempts to control nature, but the legacies of a colonial experiment. The arid landscapes of the Central Asian borderlands, seemingly marked as inferior, were spaces onto which Central Asia's Russian and Soviet rulers could project imperialist notions of modernity, civilization, and progress through increasingly radical methods. Visions of transforming the Aral Sea basin into a fertile colony of the Russian and Soviet empires sometimes seemed like unattainable visions, no more tangible than the smoke from an opium pipe. But with the material transformation in the twentieth century of large swaths of Central Asia, what were dreams for some became nightmares for others, in particular for those who today still inhabit the toxic sandscapes where the Aral Sea used to be. As is the case with modernizing schemes everywhere, some

<sup>4</sup> Ibid.; Philip Micklin, "Irrigation and Its Future in Soviet Central Asia: A Preliminary Analysis," in eds. Lutz Holzner and Jeane M. Knapp, *Soviet Geography Studies in Our Time: A Festschrift for Paul E. Lydolph* (Milwaukee, WI: The University of Wisconsin, 1987), 249.

have stood to benefit, while others, even those in whose name such schemes were ostensibly carried out, have been left in the dust.<sup>5</sup>

#### ENVIRONMENT AND EMPIRE

In recent years, environmental historians have urged us to see “that we cannot understand human history without natural history and we cannot understand natural history without human history.”<sup>6</sup> These historians, and others who use an environmental historical approach to the study of the past, argue that an understanding of the ways in which the natural environment has constrained and shaped human actions is crucial for understanding developments in the past. The natural environment is not merely a stage on which the drama of human history takes place; rather, humans are embedded in the natural world, and seemingly natural landscapes are themselves reflections of politics, ideologies, and culture. Indeed, over the course of time, the distinctions between what is “natural” and what is the result of human action become blurred. As human actions shape the environments in which they live, these changing environments in turn may shape the possibilities for human actions in the future. Inspired by imperial historian Alexander Morrison, who has noted that “the nature of Imperial control is determined as much, if not more, by the circumstances within the colony as it is by any particularities of metropolitan politics, culture, and economics,” as well as by German historian David Blackbourn, who has argued that “the human domination of nature has a lot to tell us about the nature of human domination,” this book adds to a growing number of works on Russian and Soviet environmental history arguing that understanding the nature of Russian and Soviet attempts to manage and control territory – in this case, Central Asia – requires understanding how Russians encountered the physical environments of those lands, as well as the extent to which those encounters both inspired and limited the nature of Russian and Soviet rule there.<sup>7</sup>

<sup>5</sup> Karen Piper’s narrative of the history of water and racial politics in Los Angeles is aptly titled *Left in the Dust: How Race and Politics Created a Human and Environmental Tragedy in L.A.* (New York: St. Martin’s Press, 2006).

<sup>6</sup> Richard White, *The Organic Machine: The Remaking of the Columbia River* (New York: Hill and Wang, 1995), ix.

<sup>7</sup> Alexander Morrison, “How ‘Modern’ Was Russian Imperialism?” (presented at the First Congress of the Asian Association of World Historians, Osaka, May 29–31, 2009), 16; David Blackbourn, *The Conquest of Nature: Water, Landscape, and the Making of*

In the case of Central Asia, while many Russian and Soviet officials had visions for how Central Asian landscapes ought to look – based on their own preconceived notions, rooted in European ideas about what constituted a proper use of land and water resources – their abilities to effect these transformations were very much constrained by the materialities of Central Asian environments. To an extent, one can even argue that the natural processes of the region be considered actors in this narrative. Central Asia’s colonial rulers grappled with malarial mosquitoes, tigers, plagues of locusts, river flows, upwardly mobile soluble salts, and loads of silt, much as they tried to control, shape, and harness Central Asia’s human population. Whereas Central Asians could be convinced of the desirability of irrigation projects to make more land available for agriculture – provided their land and food were not taken from them in this process – phenomena such as soil salinization proceeded regardless of proffered incentives or professed ideologies. At the same time, while this book recognizes that it was not only human society that was left with the deep imprint of Russian and Soviet development projects, and that non-humans often thwarted Russian and Soviet plans for the transformation of Central Asian landscapes, its major focus is on *intentional* actors – imperialist administrators who incentivized cotton cultivation and approved irrigation projects, engineers who sought to rationalize and make more efficient existing systems of land and water use,

*Modern Germany* (New York: W.W. Norton, 2006), 7. Recent English-language monographs on Russian and Soviet environmental history include Stephen Brain, *Song of the Forest: Russian Forestry and Stalinist Environmentalism, 1905–1953* (Pittsburgh, PA: Pittsburgh University Press, 2011); Andy Bruno, *The Nature of Soviet Power: An Arctic Environmental History* (New York: Cambridge University Press, 2016); Ryan Jones, *Empire of Extinction: Russians and the North Pacific’s Strange Beasts of the Sea, 1741–1867* (Oxford: Oxford University Press, 2014); and David Moon, *The Plough That Broke the Steppes: Agriculture and Environment on Russia’s Grasslands, 1700–1914* (Oxford, UK: Oxford University Press, 2013). See also Jonathan Oldfield, Julia Lajus, and Denis B. Shaw, “Conceptualizing and Utilizing the Natural Environment: Critical Reflections from Imperial and Soviet Russia,” *Slavonic and East European Review* 93, 1 (January 2015): 1–15. Even with the increase in attention to the environment among historians of the Russian Empire and Soviet Union, little attention has been paid to Central Asia. Exceptions are Sarah Cameron, *The Hungry Steppe: Famine, Violence, and the Making of Soviet Kazakhstan* (Ithaca, NY: Cornell University Press, 2018), as well as the work of Marc Elie, including “The Soviet Dust Bowl and the Canadian Erosion Experience in the New Lands of Kazakhstan, 1950s–1960s,” *Global Environment* 8, 2 (2015), and Elie, “Governing by Hazard: Controlling Mudslides and Promoting Tourism in the Mountains above Alma-Ata (Kazakhstan), 1966–1977” in eds. Sandrine Revet and Julien Langumier, *Governing Disasters: Beyond Risk Culture* (London: Palgrave MacMillan, 2015), 23–57.

indigenous Central Asians who both cooperated with and subverted these tsarist and Soviet attempts to transform their lands through hydraulic management – as well as the consequences, both intended and unintended, of such actions.

The temporal setting for this book is the period from the second half of the nineteenth century, when Russia rapidly conquered the vast territory south of the Kazakh Steppe, through the first half of the twentieth century and the establishment of Soviet rule in Central Asia under Vladimir Lenin and Joseph Stalin. Because the Second World War was a seminal event in Soviet history, any work that includes a substantial section on the postwar period must cover an amount of ground that is beyond the scope of this book. However, as the epilogue makes clear, one of the central arguments of this book is that by World War Two the foundations had been laid for subsequent Soviet and post-Soviet attempts to transform Central Asian environments.

The Bolshevik Revolution of 1917 continues to serve as a dividing line for those who study the histories of the Russian Empire and Soviet Union, so this book contributes to a small, but growing body of literature that explores the continuities and ruptures between tsarist and Soviet rule. By examining hydraulic projects to transform Central Asian landscapes on both sides of 1917, this book explores the extent to which the Soviet Union can be thought of as an empire – even though it explicitly defined itself as a revolutionary, anti-imperial state – and, conversely, to what extent Central Asia remained a colony.<sup>8</sup> According to Jane Burbank and Frederick Cooper, a *politics of difference* in which the goal is “loyalty, not likeness” is a key defining characteristic of empires. Imperial Russian administrators in Central Asia employed this politics of difference, marking Central Asian subjects as *tuzemtsy* (“natives”) – different even from the *inorodtsy* (non-Christian “aliens”) who inhabited parts of the empire such as Siberia – and governing various parts of Central Asia by laws pertaining specifically to those territories.<sup>9</sup>

<sup>8</sup> For views of the Soviet Union as an empire – albeit a distinct type of empire – see Terry Martin, *The Affirmative Action Empire: Nations and Nationalisms in the Soviet Union, 1923–1939* (Ithaca, NY: Cornell University Press, 2001); Yuri Slezkine, “Imperialism as the Highest Stage of Socialism,” *Russian Review* 59, 2 (April 2000): 227–234; Francine Hirsch, *Empire of Nations: Ethnographic Knowledge and the Making of the Soviet Union* (Ithaca, NY: Cornell University Press, 2005). For Central Asia in particular, see Douglas Northrop, *Veiled Empire: Gender and Power in Stalinist Central Asia* (Ithaca, NY: Cornell University Press, 2004).

<sup>9</sup> Jane Burbank and Frederick Cooper, *Empires in World History: Power and the Politics of Difference* (Princeton, NJ: Princeton University Press, 2010), 11–13; Adeeb Khalid, “Culture and Power in Colonial Turkestan,” *Cahiers d’Asie centrale* 17/18 (2009): 418–422.

In the period after the revolution of 1917, Soviet institutions replaced local and regional Central Asian ones, while Soviet Central Asian citizens were divided into theoretically equal “nations” subject to an overarching Soviet identity and Soviet laws, just like Russians, Ukrainians, and other former tsarist subjects. From this point of view, the Soviet Union does not fit comfortably into a mold of empire in which distinctions are created to maintain difference, not to level the playing field. And yet, as Terry Martin has demonstrated, separate was not equal in the Soviet “affirmative action empire.” Rather, a civilizational hierarchy was maintained which identified certain (primarily “eastern”) nationalities as “culturally backward.” In Central Asia, Martin has argued, where “the Bolsheviks inherited a segregated society . . . [t]hey abolished legal segregation but preserved much of it in practice and even in thought.”<sup>10</sup> Recently, historians Valerie Kivelson and Ronald Suny have similarly argued that attention to practices of governance is as important as understanding the categories through which Soviet authorities purported to rule. According to them, the “imperious quality of [Soviet] rule – with imperious defined as ‘domineering, dictatorial, overbearing’ – in many ways overshadowed . . . rule through lateral distinction . . . What had been envisioned as an egalitarian multinational state in the early Soviet years evolved rapidly into a more centralized imperial formation . . .”<sup>11</sup>

In recent years, Adeeb Khalid and Botakoz Kassymbekova have made important arguments for the nature of early Soviet rule in Central Asia which lend nuance to this debate. For Khalid, whose work focuses on Uzbekistan, Central Asia in the 1920s and early 1930s “hung between empire and revolution.”<sup>12</sup> In *Despite Cultures*, a work on early Soviet rule in Tajikistan, Kassymbekova, drawing on Burbank and Cooper’s work, argues for thinking about imperialism and colonialism as “repertoires of power” utilized by early Soviet leaders, alongside revolutionary modernizing strategies, as “tactics of both state and empire building in Central Asia.”<sup>13</sup>

Even if the “slippery” concept of empire does not apply to the Soviet Union in all places at all times, this book argues that from an environmental perspective, early Soviet Central Asia remained a colony of the

<sup>10</sup> Martin, *The Affirmative Action Empire*, 56, 153.

<sup>11</sup> Valerie Kivelson and Ronald Grigor Suny, *Russia’s Empires* (New York: Oxford University Press, 2017), 10–11.

<sup>12</sup> Adeeb Khalid, *Making Uzbekistan: Nation, Empire, and Revolution in the Early USSR* (Ithaca, NY: Cornell University Press, 2015), 10.

<sup>13</sup> Botakoz Kassymbekova, *Despite Cultures: Early Soviet Rule in Tajikistan* (Pittsburgh, PA: University of Pittsburgh Press, 2016), 15–16, 201.

Soviet Union in spite of Soviet campaigns to modernize the region and stamp out “backwardness.”<sup>14</sup> The Central Asian borderland region was developed as a source of raw materials for the Soviet state, and Soviet authorities exploited Central Asia’s human labor resources with this goal in mind. This does not mean, however, that the Soviet Union was simply the tsarist empire in a new guise; indeed, as Khalid has pointed out in the case of Uzbekistan, Central Asia was a very different place already in 1931 than it was in 1917. Some Soviet modernizing campaigns, such as the drive for literacy and the creation of new educational opportunities, changed many Central Asian lives for the better. Simultaneously, however, the Soviet state built on the imperial foundations established in Central Asia by the eve of the Bolshevik revolution – an economy centered on agriculture tending toward a cotton monoculture, the practice of encouraging resettlement of vast numbers of people to the Central Asian borderland to more firmly bind it to the metropole, and the reshaping of indigenous lifeways by encouraging the sedentarization of nomadic peoples – to transform lands and livelihoods on a much grander scale and in a much more deliberate and intrusive manner. This environmental perspective supports Khalid’s conclusions that by the 1930s in Central Asia, the violence of the Soviet state “destroyed alternatives. Collectivization and the expansion of cotton tied Central Asia . . . to the Soviet economy; the closing of the borders cut Central Asia off from the rest of the world,” leaving it more dependent on Russia than ever before.<sup>15</sup> Yet, even while Soviet methods, including force and violence, served as the tools, tsarist-era dreams, anchored in global visions of modernity and progress, provided the imagination, as well as the raw materials, for the transformation of realities in Soviet Central Asia.

#### THE MAKING OF CENTRAL ASIA

Central Asia is not a place you will find on a standard world map. The term “Central Asia” (*Central-Asien*, *Asie centrale*) to describe a particular world region was introduced by the noted German geographer Alexander von Humboldt in 1843, based on a journey he made to the region in 1829.<sup>16</sup> Over the centuries, this geographical region has been home to

<sup>14</sup> Kivelson and Suny, *Russia’s Empires*, 397.    <sup>15</sup> Khalid, *Making Uzbekistan*, 10.

<sup>16</sup> Alexander von Humboldt, *Asie centrale. Recherches sur les chaînes des montagnes et la climatologie comparée* (Paris: Gide, 1843); *Central-Asien: Untersuchungen über die Gebirgsketten und die vergleichende Klimatologie* (Berlin: Carl J. Klemann, 1844).



various political units and has been imagined in different ways. Like Benedict Anderson's concept of nations as *imagined communities*, however, *imagined* here does not imply *imaginary*. Central Asia had real meaning for its Russian and, later, Soviet rulers, and the ways in which Central Asia was conceptualized had real consequences for the people who lived there.<sup>17</sup>

Politically, the geographical region covered in this book is described by what was the Russian imperial province of Turkestan at its largest extent (around the turn of the twentieth century), together with the Central Asian states which in the late nineteenth century became autonomous protectorates of the Russian Empire: the Emirate of Bukhara and the Khanate of Khiva (a third state, the Khanate of Khoqand, was abolished to give the Russians control over the fertile Ferghana Valley). In 1924, after a brief stint as Soviet "people's republics," these protectorates were abolished by the Bolsheviks, who divided the region into what would become by 1936 the four union republics (Soviet Socialist Republics, or SSRs) of Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan. In the Soviet imagination, these four republics formed Middle, or Central, Asia (*Sredniaia Aziia*).<sup>18</sup> Politically, too, they initially were united, coming until 1934 under the jurisdiction of a single Central Asia Bureau (*Sredazbiuro*) of the Central Communist Party in Moscow. Part of the former imperial province of Turkestan became the southern part of the Kazakh SSR; in Soviet policy "Central Asia and Kazakhstan" were often considered together, though northern Kazakhstan was historically, politically, and economically more closely linked with Siberia than Turkestan.<sup>19</sup>

In terms of physical territory, Soviet geographers defined Central Asia as:

the broad region (*oblast'*) located in the southeast of our country and occupying territory from the Caspian Sea in the west up to the administrative boundary with the People's Republic of China in the east, and from the Aral Sea in the north up to the administrative boundary with Iran and Afghanistan in the south.

<sup>17</sup> Benedict Anderson, *Imagined Communities: Reflections on the Origin and Spread of Nationalism* (New York: Verso, 1983).

<sup>18</sup> *Tsentral'naia Aziia*, which can also be translated as Central Asia, often refers to a larger region including Xinjiang in northwest China and Mongolia.

<sup>19</sup> In the imperial period, northern Kazakhstan was governed as part of the Steppe region; both tsarist and Soviet authorities, however, found "compelling similarities with . . . Central Asia in the natural environment, economy, and culture of the southern oblasts [regions] of Kazakhstan," in ed. Robert Lewis, *Geographic Perspectives on Soviet Central Asia* (New York: Routledge, 1992), 5.

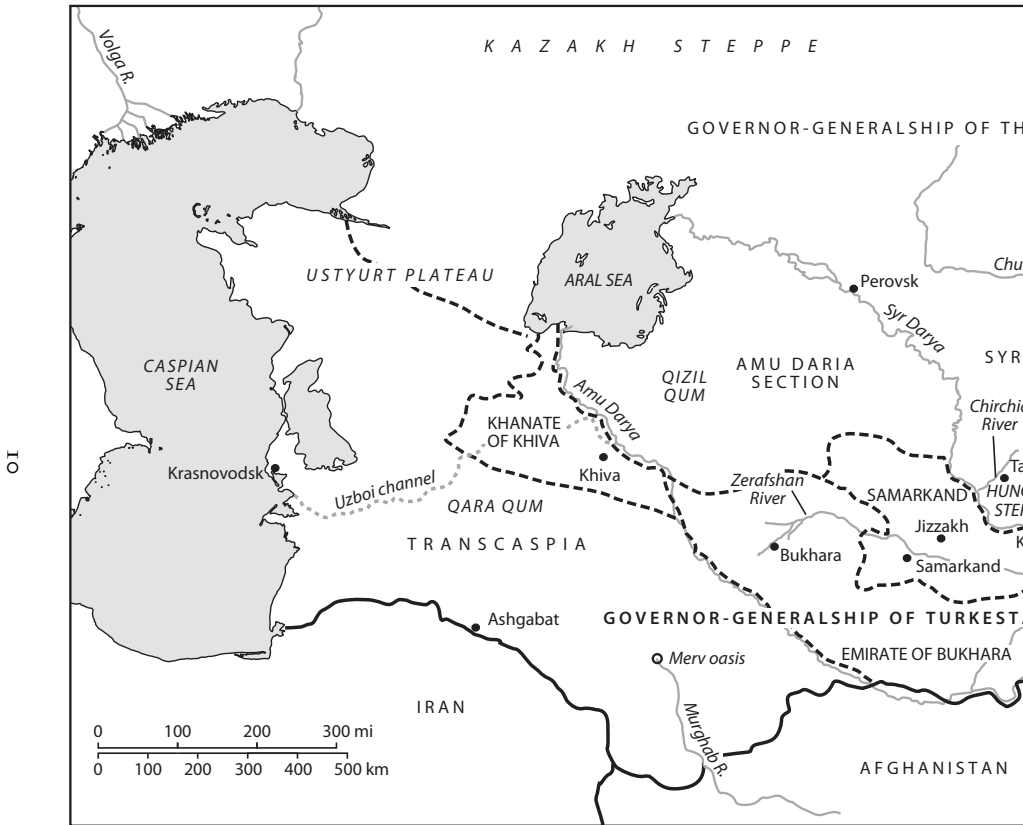


FIGURE 1.1 Map of Turkestan under Russian rule, c. 1900.  
 Map by Bill Nelson.