

## Pipe Dreams

The drying up of the Aral Sea – a major environmental catastrophe of the late twentieth century – is deeply rooted in the dreams of the irrigation age of the late nineteenth and early twentieth centuries, a time when engineers, scientists, politicians, and entrepreneurs around the world united in the belief that universal scientific knowledge, together with modern technologies, could be used to transform large areas of the planet from “wasteland” into productive agricultural land. Though ostensibly about bringing modernity, progress, and prosperity to the deserts, the transformation of Central Asia’s landscapes through tsarist- and Soviet-era hydraulic projects bore the hallmarks of a colonial experiment. Examining how both regimes used irrigation-age fantasies of bringing the deserts to life as a means of claiming legitimacy in Central Asia, Maya K. Peterson brings a fresh perspective to the history of Russia’s conquest and rule of Central Asia.

MAYA K. PETERSON was the Assistant Professor of History at the University of California, Santa Cruz.

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# Pipe Dreams

*Water and Empire in Central Asia's Aral Sea Basin*

MAYA K. PETERSON

*University of California*



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*To my parents, for being my original source of inspiration.*

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My interest in Russian history began in high school, when I took the last class that Peter Viereck ever taught at Mount Holyoke College. The following fall, I showed up at Swarthmore College, ready to tackle not only Russian history, but also the Russian language. My Swarthmore professors, including Sibelan Forrester, Bruce Grant, Pieter Judson, and Bob Weinberg, have remained generous mentors through the years. In a master's program at Harvard University, I began learning Uzbek with Gulnora Aminova, and I first encountered the Aral Sea in a class taught by Laura Adams. The Davis Center for Russian and Eurasian Studies, which provided a wonderful academic home over many years, funded my first trip to the Aral Sea basin that summer.

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## Note on People, Places, and Institutions

This book uses the term *Central Asia* for the region described by the Soviet concept of Central Asia (the area comprised by the Uzbek, Turkmen, Tajik, and Kyrgyz Soviet Socialist Republics, along with the southern part of the Kazakh SSR), and *Central Asians* to refer to the indigenous people who inhabited the region (Kazakhs, Kyrgyz, Tajiks, Turkmen, Uzbeks, and others) in both the tsarist and Soviet periods. Likewise, *Russians* or *Slavs* is used as a shorthand to describe people coming from central parts of the empire, either in an official or unofficial capacity, to the Central Asian borderlands, though many of these people, including the governors of the Central Asian province of Russian Turkestan, were Baltic Germans or may have been ethnically Slavic, but not Russian (e.g., Ukrainians or Poles). *Russian Turkestan*, *Turkestan*, and *Turkestan krai* [border region] all refer to the region under direct Russian rule in the imperial period (that is, excluding the autonomous protectorates of Bukhara and Khiva). *Central Eurasian* describes a broader territory, including the protectorates, the Kazakh Steppe, and regions that were generally beyond the boundaries of the Russian Empire and Soviet Union, such as Persia (Iran), Afghanistan, and the Xinjiang province of northwest China.

In terms of spelling, I have generally used transliterations commonly used in English-language publications for names of places and peoples that may be familiar to the audience (e.g., Amu Darya, rather than Amu Daria; Ferghana, rather than Farghona; Kazakh, rather than Kazak or Qazaq; Bukhara, rather than Bukhoro), but I have taken the liberty of spelling other place names with transliterations that better approximate their Central Asian spellings, rather than the Russified versions of those



names: e.g., Qurghonteppa for Kurgan-Tiube, Qaraqalpaq for Karakalpak, Qara Qum for Karakum. There were, of course, still choices to make. The oasis of Khorezm, for instance, may be spelled Khwarezm or Khoresm (in addition to many other spellings). In all cases, I have tried to be consistent.

Throughout this work, for simplicity, I refer to the Ministry of Agriculture, although this institution underwent several important name changes between the late nineteenth and the first half of the twentieth centuries. What was the imperial Ministry of Agriculture and State Domains (Ministerstvo Zemledeliia i Gosudarstvennykh Imushchestv) was reorganized in 1905 into the Main Administration of Land Management and Agriculture (Gosudarstvennoe Upravlenie Zemleustroistva i Zemledeliia, often abbreviated GUiZ). Turkestan gained its own branch of the ministry in 1897; that branch, however, retained the title of Administration of Agriculture and State Domains through the end of the imperial period. In 1915, GUiZ became the Ministry of Agriculture (Ministerstvo Zemledeliia). After the Bolshevik Revolution, the tsarist-era Ministry of Agriculture became the People's Commissariat of Agriculture. Throughout, I have given the commonly used abbreviated version of Soviet ministries (people's commissariats) when they first appear – for instance, the People's Commissariat of Agriculture (Narodnyi Kommissariat Zemledeliia) was typically referred to by its abbreviation, Narkomzem – but I have otherwise used their English translations, for those not familiar with these abbreviations or the Russian language. I have translated the tsarist-era Otdel Zemel'nykh Uluchshenii (OZU), a department of the Ministry of Agriculture, literally as Department of Land Improvement, rather than Department of Reclamation, since the term *melioratsiia* was coming to be used more frequently to mean “reclamation” in the twentieth century. Explanations of Russian and Central Asian terms that appear frequently in this work can be found in a separate glossary.