

The Plough That Broke the Steppes: Agriculture and Environment on Russia's Grasslands, 1700–1914. By David Moon. Oxford: Oxford University Press, 2013. xx, 319 pp. Notes. Index. Illustrations. Tables. Maps. £69.00, hard bound. £26.99, paper.

David Moon begins this magisterial work on the transformation of the Russian plains with two unusual acknowledgments. The first is to the great earthy antipodes of Eurasian history—the forest and the steppe—which served as his natural surroundings for years while writing the book: “I would like to acknowledge these two contrasting environments for helping me shape my argument.” The second is to the “Russian authorities” for allowing him to travel around the country “without let or hindrance” (xii).

For many of us in the west, Russia is somebody else’s home, so perhaps we should indeed thank the people in charge for letting us come in and roam about. But then again, Moon’s acknowledgment is a reminder that until recently this was hardly the norm. Prior to the late 1980s, “the authorities” might let you in and, if you were lucky, they might even let you take a look at things beyond Moscow and Leningrad, but moving unhindered was virtually impossible since hindrance was the *raison d’être* of the system. We hear more and more these days that Putin’s Russia is just a crony capitalist redo of the old USSR, but such simplifications gloss over the many profound changes that have shaped the country—and our experience of it—since Soviet times, including the fact that most foreign scholars hoping to write about the steppe today can easily visit the region if they want to, even if there is precious little steppe left to be found there.

Moon’s book is proof of the great returns that have come from this new freedom of movement. The steppe he offers us here is wonderfully physical—dirt and feather grass, wheat and rutted fields, dust, locusts, snow storms, boundless skies. It’s also a place of subtle variation, less a single zone than a collage of subzones, each marked by its own range of soils, temperatures, and topographies. Moon is able to conjure such a vivid material tableau in part because he has seen the picture himself, having visited the remaining grassland reserves in southern Russia and Ukraine and felt firsthand the long-term implications of the great changes he’s writing about. This is one of those books that simply couldn’t have been written without “being there,” a point that Moon notes matter-of-factly in his introduction and again more elliptically (and eloquently) in the epilogue. Indeed, one of the special gifts of *The Plough That Broke the Steppes* is the gentle way that Moon makes us appreciate the power of place, including the power that places have over us as we write our histories.

Moon begins his story in the mid- to late seventeen hundreds with the arrival of colonists from the forests of central Russia and Ukraine who began the large-scale settlement of the region following its centuries-long incorporation into the empire. These first settlers did what people usually do when they arrive in a new and alien environment: they busily set about trying to make it feel like home. Though the grasslands had been used by nomads for mil-

lennia as pasture, the newcomers, being farmers, avidly plowed it up, taking advantage of the thick “black earth” topsoil (*chernozem*) that characterizes large parts of the region and, in the early going at least, seemed to promise endless bumper harvests. Used to life in the woods with abundant timber for their homes and tools, they also rapidly depleted most of the region’s limited forests.

The result was a recognition fairly early on that steppe farming was not, in fact, an easy business. Much of the land was indeed rich, but the climate was hot and dry and the thinning of the woodlands and steppe grasses diminished the soil and accelerated erosion. Not surprisingly, the initial response to this situation was to double-down by planting trees and introducing irrigation on a large scale—in effect, continuing the stubborn pursuit of remaking the land into something closer to the wetter, woodsier environments the settlers had left behind.

These efforts, however, led to their own problematic consequences and did little to overcome the basic challenges of steppe farming, all of which sets the stage for Moon’s most important observation—his contention that by the late eighteen hundreds, faced with the persistent futility of importing old ways to the steppe, Russian scientists, officials, and a subset of farmers finally shifted gears and began to “listen to the environment.”

A key figure in this great turn was the soil scientist Vasilii Dokuchaev, but Dokuchaev was hardly the only hero of the drama, and, as Moon makes clear, the shift to a more sustainable agricultural path eventually involved much more than a fuller understanding of soils. Armed with ever increasing amounts of data and a growing grasp of the web-like interconnectedness of the natural world, scientists, officials, and farmers on the steppe began to target their tree-planting and irrigation efforts more carefully. They introduced crop rotations and longer periods of fallow between plantings, and they plowed more lightly to conserve more topsoil. Most importantly, it was now becoming ever clearer, at least to those open-minded enough to listen to the land around them, that the biggest problem with steppe farming was not the steppe but rather the farmer—or, to be more precise, the problem was with how the farmer farmed. The solution was thus for the farmer to farm differently. He had to act as a steward of the land rather than simply as a planter and producer.

Moon notes that this mental breakthrough did not produce instantaneous change. Though the steppe enjoyed a heyday as the “breadbasket of Europe” in the last decades of the empire, the region was hardly an agronomist’s paradise. Most farmers on the plains continued their wasteful ways of plowing up whatever they could and seeding as much “money crop” as possible (wheat, in most cases), even when they knew that the results could be disastrous. Yet the broad agronomical turn of the age was nonetheless critical to what Moon sees as the overall upward trend of late imperial agriculture. And it is proof, too, of a dynamic that he identifies as an abiding reality of colonization history—the idea that the encounter with new environments, in time, leads to new ways of thinking. As he suggests, when outsiders first arrive in an unfamiliar or challenging setting, they respond by falling back on what they know—that is, they tend to reproduce the practices they followed at home. This often leads

to failure, even outright ruin. But in time the experience paves the way for “innovation in understanding and managing the relationship between the human and non-human worlds” (284).

For scholarship in environmental history, where paradigms of decline still rule the field, this is a fairly optimistic way of looking at things, and, in fact, it's not hard to come up with ample ammunition for a completely opposite interpretation. Jared Diamond's *Collapse: How Societies Choose to Fail or Succeed* (2005), for example, makes plain that humans from Mesopotamia to Easter Island have a long history of abusing the natural world and not learning one bit from the process. Yet, to be fair, Moon doesn't downplay either the environmental costs of outsider settlement or, for that matter, our persistent inclination to misread the world around us. He is simply stressing the potential for positive adaptation that is also a part of the story.

Perhaps most importantly, the book's close focus on place is a reminder that when people do indeed start listening to the land, the listening tends to emerge from concrete ecological contexts. A Mennonite farmer watches the topsoil blowing off his field and decides to plant a line of trees to break the wind and, in winter, help retain snow for moisture. An agronomist notices that the ravines near the river are widening and tells the peasants to leave a band of steppe grasses in place as they plow since the grasses will help hold down the soil. The muzhiks don't like the idea because it means less land for crops, but in time they see that they actually gain in crop production because they lose less land to erosion, and so they continue to plow around the grasses and things get a little better. To his great credit, Moon helps us appreciate these small revelations on the road to environmental awareness, and much more besides. The result is a major scholarly achievement.

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