

CHAPTER 2

Barriers

Introduction

U.S. Army general William Tecumseh Sherman visited the Russian Empire in 1872. He described his impressions while traveling from Georgia in the Caucasus to Taganrog on the Sea of Azov: “the ‘steppe’ . . . is as much like our Western plains as possible. I could hardly realize that we were not in Kansas, except when we reached the Cossack villages, composed of straggling rows of single-story huts with thatched roofs.” Sherman thought that “in many respects the Cossacks resemble our Indians, [but] I doubt whether they would equal the Indians as enemies.” He continued north by train towards Moscow. “For the whole day,” he noted, “there was no variation in the face of the country, no more than occurs in our prairies in western Kansas, . . . the soil was black . . . , and very rich.” Sherman’s comments on the landscape and inhabitants of the steppes reflected his experience in the western United States where, since the end of the American Civil War, he had been in command of the U.S. Army fighting the Native Americans.¹ Sherman was an early example of an American who recognized similarities between the Great Plains of the United States and the steppes of the Russian Empire. But, his comments were confined largely to curiosity at finding a familiar landscape in a foreign land. Some of his remarks, such as his comparison between “Cossacks” and “Indians” and disparaging comments on cossack housing, conveyed a sense of American superiority. It seems not to have occurred to him that there may have been lessons from Russian experience in settling and plowing up their grassland that could be of value to Americans who were embarking on the same processes in the Great Plains. A sense of

¹ William Tecumseh Sherman, “General Sherman in Russia: Extracts from the Diary of W. T. Sherman,” *The Century Magazine* 57 (April 1899), 869–71. See also Norman E. Saul, *Concord and Conflict: The United States and Russia, 1867–1914* (Lawrence: University Press of Kansas, 1996), pp. 73–5.

superiority over Russia was the prevailing attitude among Americans at this time and posed a barrier to transfers and influences from the steppes to the Great Plains.

By the time of Sherman's visit, Russians were already aware of similarities between their steppes and the prairies and Great Plains of North America. Back in 1857, Eduard Tsimmerman and a teenaged Prince Mikhail Khilkov visited the American grasslands. In St. Paul, Minnesota, they bought a wagon and horses and traveled around the then territories of Minnesota, Nebraska, and Kansas. They noted that the settlement of these "expanses of steppe" (*stepnye prostranstva*) was underway with the protection of the U.S. Army. Tsimmerman continued: "Advancing inexorably to the west, these detachments of settlers occupied the fertile prairies, which strongly resemble our New Russian steppes, with their lightly rolling relief and small areas of woodland along the sides of streams and gullies."² Tsimmerman returned to the United States in 1869–70. He was again struck by the similarities,³ concluding: "On the Earth is hardly to be found expanses of land that are so similar to each other as our New Russian steppes . . . and the . . . frontier of the United States between the rivers Mississippi and Missouri." He stressed both regions' economic importance in growing grain for the world market and compared the ports of Chicago on Lake Michigan and Odessa on the Black Sea.⁴

Tsimmerman went further and considered what lessons Russians could draw from American experience of settling their grassland. He described how, since his previous visit in 1857, "everything has changed." In 1869, as he traveled west from Omaha, Nebraska, on the new transcontinental railroad, he observed:

The whole region has been transformed as if by magic: in place of the previous bare steppes, where our horses grazed on the empty space,

² Eduard Tsimmerman, *Ocherki Amerikanskogo Sel'skogo Khoziaistva* (Moscow: tip. I. I. Rodzevich, 1897), pp. 29–30. Tsimmerman was born in 1822 into a Russian German family and was a graduate of Moscow University. "Tsimmerman, Eduard Romanovich," *ES* 75, 185–6; Margarita Marinova, *Transnational Russian–American Travel Writing* (New York: Routledge, 2011), pp. 17–18. Khilkov made a career in railways, in the Americas and Russia, and was appointed Russian Minister of Transport in 1895. "Khilkov, Mikhail Ivanovich," *ES* 73, 199. On "New Russia," see p. xxiii.

³ Eduard R. Tsimmerman, *Puteshestvie po Amerike v 1869–1870 g.*, 2nd edition (Moscow: Grachev, 1871), pp. 214, 220, 222, 226.

⁴ Eduard R. Tsimmerman, "Votchinnnyi zakon v Amerike i nashi stepi," *Otechestvennye zapiski* 234, 9 (1877), 109–66, quotation from 109. Another Russian visitor to the Great Plains was the Grand Duke Aleksei, younger son of Tsar Alexander II, who went on a buffalo hunt in Nebraska with Buffalo Bill and General Custer. Lee A. Farrow, *Alexis in America: A Russian Grand Duke's Tour, 1871–1872* (Baton Rouge: Louisiana State University Press, 2014).

[where] . . . in the absence of accommodation . . . , [we] pitched a tent for the night, now are stretched out rows of fruitful farms, surrounded by fences. The expanses of steppe are covered with the shoots of wheat; herds graze on the meadows; in short, the former, unpopulated, empty steppe has come to life, has been settled, . . . and all this thanks to the beneficial influence of the railroad.⁵

In addition to the railroad, he attributed the transformation to the Homestead Act of 1862, which allowed settlers to acquire public land. Tsimmerman advocated such a law in the Russian Empire.⁶

Sherman's and Tsimmerman's accounts were among the first writings by Americans who visited the steppes and Russians who traveled to the prairies and Great Plains. Most, but not all, commented on the parallels between the landscapes. Tsimmerman and other visitors from the Russian Empire soon realized the potential for drawing on American practices, despite the fact that the agricultural settlement of the steppes had begun several decades before that of the Great Plains. Following the revolution of 1917, moreover, the Soviet government looked to American expertise and experience in agriculture and industry. Tsarist and Soviet authorities who drew on American practices were following a long line of "westernizers," who sought to emulate the western world rather than rely on home-grown, Slavic experience.⁷ The culture of the United States over this period was quite different, ever more confident and assertive, and less inclined to look to other countries. Thus, even though the Russians had several decades' experience in settling, studying, and cultivating their semi-arid grassland, it was some time before many Americans accepted that they could benefit from this experience.

There were a number of barriers to be bridged before Americans recognized not just similarities between their grassland regions, but that they could learn from the Russians' expertise and experience. One potential barrier was that in the years before the outbreak of the First World War in 1914, the two countries were leading competitors in the growing world market for grain. When the Americans had opened up their grasslands to

⁵ Tsimmerman, *Puteshestvie*, pp. 272–3

⁶ Tsimmerman, "Votchinniy zakon," 9. Another Russian later made a similar recommendation. Aleksandr Kol', "Amerikanskaia gomstednaia sistema nadeleniia pereselentsev zemleiu," *Voprosy kolonizatsii* 10 (1912), 1–34; 11 (1912), 121–45.

⁷ See Esther Kingston-Mann, *In Search of the True West: Culture, Economics and Problems of Russian Development* (Princeton: Princeton University Press, 1999); Michael David-Fox, *Showcasing the Great Experiment: Cultural Diplomacy and Western Visitors to the Soviet Union, 1921–1941* (New York: Oxford University Press, 2012), pp. 24–7; Robert V. Allen, *Russia Looks at America: The View to 1917* (Washington, DC: Library of Congress, 1988).

cultivation and built the infrastructure to transport grain to the Atlantic ports, their exporters came into competition with Russian traders, who had long been shipping grain grown in the steppes from ports on the Black Sea, such as Odessa, and the Baltic Sea. This rivalry could have led the American and Russian authorities and their business interests to hinder agricultural specialists from the other country learning about their experience in growing grain in their grassland.

There were other barriers, potential and actual, for example, the American sense of superiority over Russian “backwardness.” In part, such attitudes were a result of lack of knowledge and long-standing western perceptions of Russian “barbarism.”⁸ They were also based on specific issues that were well known in the United States in the late nineteenth and early twentieth centuries. Steppe agriculture would not have seemed a good model to follow at this time, since the region was hit by a succession of bad harvests caused in part by recurring droughts. In both the early 1890s and early 1920s, Americans organized famine relief in the steppe region and witnessed the desperate plights of the inhabitants at first hand. In addition, the Russian Empire acquired a reputation for persecuting its Jewish population. Further, the tsarist autocracy was encountering opposition from radicals and revolutionaries, who promoted their cause abroad, including in the United States, where they found some sympathy. All these issues contributed to a growing negative image of Russia that served as a barrier to Americans thinking that they could have anything to learn from Russian experiences.

A practical impediment to Americans learning from Russian experience and expertise was the language barrier that prevented most Americans from reading Russian scientific studies. While many educated Russians had some knowledge of western European languages, few Americans knew Russian or had much opportunity to learn the language, since it was taught in few American schools and universities before the 1940s. Among the small number of Americans who did know Russian were Jewish émigrés from the tsarist empire. A major obstacle to Americans learning from Russian experience was the Russian Revolution of 1917. In October 1917, the Bolsheviks established a Soviet government that was avowedly hostile to the capitalist world and counted the United States among its

⁸ See Marshall T. Poe, *“A People Born to Slavery”: Russia in Early Modern European Ethnography, 1476–1748* (Ithaca, NY: Cornell University Press, 2000); Larry Wolff, *Inventing Eastern Europe: The Map of Civilization on the Mind of the Enlightenment* (Stanford, CA: Stanford University Press, 1994); Martin Malia, *Russia under Western Eyes: From the Bronze Horseman to the Lenin Mausoleum* (Cambridge, MA: Belknap Press, 1999).

chief adversaries. Due to a deep suspicion of Communism in the United States, moreover, the government declined to establish diplomatic relations with the Soviet Union until 1933.

A persistent barrier in the United States to transfers and influences from the steppes was resistance to changes. There was some opposition inside the United States Department of Agriculture (USDA) to adopting practices from the Russian Empire and Soviet Union, not specifically on account of their origins, but because they challenged established hierarchies and institutions. Influences from the steppes that were adopted by the federal government, moreover, encountered some resistance in the plains states as members of the local population resented intrusion in their lives by Washington, DC. The rest of this chapter will analyze these barriers to transfers and influences from the steppes of the Russian Empire and Soviet Union in the Great Plains of the United States.

Competition in World Grain Market

A potential barrier was that the Russian Empire and the United States were in competition in the growing international market for grain. In the decades before the First World War, they were world's largest grain exporters.⁹ In many years, Russian exports outstripped American. According to Russian government data, in 1870, Russian grain exports were valued at 652 million French francs, while American exports were worth 378 million francs.¹⁰ In 1889, the Russian Empire controlled 35.5 percent of the world grain market, compared with a share of 33.1 percent for the United States.¹¹ In years of poor harvests, Russian exports fell sharply and American producers exported more. In the drought year of 1891, the Russian wheat harvest fell from 81 million hectoliters to 61 million hectoliters. Russian exports fell to 20 million hectoliters, while those from the United States and Canada combined rose to 72 million hectoliters.¹² Competition could have inhibited exchanges of expertise and cooperation between American and Russian agricultural scientists and their respective government departments of agriculture. In both the steppes and the Great Plains, farmers and their advisors were accumulating valuable experience in

⁹ See M. E. Falkus, "Russia and the International Wheat Trade, 1861–1914," *Economica*, n.s. 33 (1966), 416–29; C. Knick Harley, "Transportation, the World Wheat Trade, and the Kuznets Cycle, 1850–1913," *Explorations in Economic History* 17, no. 3 (1980), 218–50.

¹⁰ "Ekonomicheskoe obozrenie," *SKhIL* 112 (1873), 3rd page., 11.

¹¹ "Polozhenie Rossii na mezhdunarodnom khlebnom rynke," *SKhIL* 162 (1889), 3rd page., 161.

¹² "Iz zagranichnoi literatury: Urozhai pshenitsy v 1891 g.," *SKhIL* 168 (1891), 3rd page., 31–2.

growing grain in similar, and challenging, environments that they may have preferred to keep to themselves to give them a competitive advantage.

An arena in which this competition was played out was the world's fairs of the period. Countries exhibited their agricultural and industrial produce and displayed their scientific and cultural achievements. American agricultural exhibits, including grain and farm machinery, impressed Russian visitors, such as scientist Viktor Mochul'skii, who attended the World's Fair in New York in 1853, and future Minister of Agriculture Aleksei Ermolov, who visited the Vienna fair in 1873.¹³ A Russian account of the Exposition Universelle in Paris in 1889 (famous for the Eiffel Tower) noted that the Americans were keen to create strong impression. Their agricultural machinery was the most advanced in world and American farmers were "dangerous competition" for European farmers. The writer expressed concern that the Russian exhibit was not a success.¹⁴

The Russian government tried harder to promote its agricultural produce and achievements at the World's Columbian Exposition in Chicago in 1893. The general commissar of the Russian section reported to Minister of Finance Sergei Witte: "with a feeling of national pride I can say that our grain under expert analysis was shown to be of such high quality. . . that it was superior not only to all foreign, but even the American [grain]."¹⁵ A Russian observer noted the great interest attracted by their grain exhibits, but was disdainful of the agricultural exhibitions by individual American states.¹⁶ On the other hand, American observers were less than fulsome in their remarks about the displays of crops by its main competitor, when they chose to mention them at all. *The Chicago Tribune's* reporter was complimentary about the Russian agricultural exhibit of "all the . . . products of the empire," but was far more interested in other parts of the Russian displays, such as the furs, lacquer boxes, and "embroideries, weapons, articles of dress and household ornamentation,"

¹³ A. I. Khodnev, *Istoriia Imperatorskogo Vol'nogo Ekonomicheskogo Obshchestva s 1765 do 1865 goda* (Spb: tip. Obshchestvennaia pol'za, 1865), pp. 90–1; A. Ermolov, *Sel'skokhoziaistvennoe delo Evropy i Ameriki na venskoj vseмирnoi vystavke 1873 goda i v epokhu ee* (Spb: tip. Panteleevykh, 1875), pp. 610–67.

¹⁴ A. A. Efron, *Torzhestvuiushchaia Frantsiia: Nabroski s parizhskogo vseмирnoi vystavki* (Spb: Avsenko, 1890), pp. 99–100, 140–1.

¹⁵ P. I. Glukhovskii, *Orchet general'nogo kommissara Russkogo otdela Vseмирnoi kolumbovoi vystavki v Chikago* (Spb: Kirshbaum, 1895), pp. 84–6. See also *World's Columbian Exposition 1893 Chicago: Catalogue of the Russian Section* (Spb: Imperial Russian Commission, Ministry of Finance, 1893); S. M. Sokolov, "Rossiia na vseмирnoi vystavke v Chikago v 1893 g.," *Amerikanskii ezhegodnik 1984*: 152–64.

¹⁶ P. Slezkin, "Zametki o minuvshei vystavke v Chikage," *SKhIL* 174 (1893), 1st pag., 365–77.

than Russian grain.¹⁷ In his *Book of the Fair*, Hubert Bancroft noted that the Russian agricultural exhibit of grain was larger than those of France and Australia, but smaller than Great Britain's. He compared migration to Siberia with the movement of people to the American West. But, he had much, much more to say about the exhibits of American farm produce.¹⁸ The American author of a history of the fair published in 1897–8 opened his account of the agricultural exhibit with a flourish: "When the first agricultural nation of the world [i.e. the United States] organized a world's exposition in the heart of its agricultural region . . . it was natural that its agriculturalists should worthily signalize their primordial and fundamental art and bring offerings of its best fruits to celebrate the chief national industry." He presented a full account of the grain, including wheat, displayed by American agriculturalists. He singled out the "magnificent results obtained from the rich prairie soil by the educated skill of Kansas farmers." (But, he omitted to mention that Kansas farmers owed a big debt to wheat introduced from the steppes.) He referred to the Russian agricultural exhibit briefly, but did not comment on its quality.¹⁹

The competitive edge in the comments by Russians and Americans on the other country's displays of agricultural produce continued at the Exposition Universelle held in Paris in 1900. Sergei Bogdanov praised the Russian grain exhibit, but was less than enthusiastic about the American offering.²⁰ The American grain exhibit was prepared by the agricultural scientist Mark Carleton, who knew a great deal about Russian agriculture and crops. Nevertheless, he breezily wrote back from Paris: "No other country will compare with ours in the cereal exhibit except France and Canada and possibly Roumania. . . . I am much disappointed in Russia's exhibit of grain, though in general her showing is the largest of all foreign countries." He was, however, hurrying to complete his work in Paris so that he could make a second visit to the Russian Empire to collect varieties of crops in the steppes to introduce to the Great Plains.²¹

¹⁷ "Czar Land Treasure: Russia's Display One of Features of the Fair," *Chicago Tribune*, July 24, 1893.

¹⁸ Hubert Howe Bancroft, *The Book of the Fair: An Historical and Descriptive Presentation of the World's Science, Art and Industry, As Viewed through the Columbian Exposition at Chicago in 1893* (New York: Bounty, 1894), pp. 341, 344–62, 372–3.

¹⁹ Rossiter Johnson, *A History of the World's Columbian Exposition Held in Chicago in 1893*, 4 vols. (New York: D. Appleton and Co., 1897–98), vol. 3, pp. 1–14.

²⁰ S. Bogdanov, "Zemledelie na Parizhskoi vseмирnoi vystavke 1900 goda," *SKhIL* 199, no. 12 (1900), 535–6, 539–41.

²¹ NARA CP, RG 54, Finding Aid A1, Entry 58, Division of Vegetable Pathology and Physiology: Correspondence of M. A. Carleton, 1891–1900, Folder M. A. Carleton – 1900, Carleton to A. F. Woods, June 3, 1900.

The two countries' agricultural specialists kept close eyes on their main rival in the world grain market. From the end of the nineteenth century, Russian observers of American agriculture noticed that competition from across the Atlantic was decreasing. This was because of greater domestic demand for farm produce as the American population was increasing, and because the vast numbers of settlers in the plains had already occupied most of the land suitable for cultivation. The prospects for Russian grain exports seemed to be looking good on the eve of the First World War.²² Following the outbreak of war in 1914, however, Russian agriculture was seriously disrupted as the tsar's armed forces mobilized men and horses from the countryside. Russian railroads prioritized military needs over transporting grain to the ports. And Russian ships, including vessels carrying grain, were prevented from leaving the Black and Baltic Seas by the Ottoman and German navies. Grain exports from the Russian Empire fell from 308.8 million poods (c. 5.6 million U.S. tons) in 1914 to 10.5 million poods (c. 190,000 U.S. tons) in 1915, and 2.1 million poods (38,000 U.S. tons) in 1916.²³ Russian specialists noted how American exports of grain and other foodstuffs to Europe increased sharply to compensate.²⁴

American grain exporters had little competition from farmers in the steppes for almost a decade and half. Agriculture in Soviet Russia, including the steppes, experienced serious problems after 1917. The land reform of 1917–18 transferred land to small-scale peasant farmers, whose primary aim was subsistence rather than export. The authorities requisitioned grain from the peasantry during the Russian Civil War (1918–21) alienating many and contributing to a collapse in agricultural production. When drought hit parts of the steppes in 1921, there was a catastrophic famine. Gradual agricultural recovery over the 1920s was followed by the forced collectivization of family farms into large, collective, farms (*kolkhozy*). The policy was enforced most strictly in the fertile steppe region.²⁵ Parallel to

²² V. Müller, "Velichina narodonaseleniia v Soedinennykh Shtatakh Severnoi Ameriki i vyvoz pshenitsy iz nikh," *SKhL* 168 (Oct. 1891), 95–7; G. Chirkin, "O zadachakh kolonizatsionnoi politiki v Sibiri," *Voprosy kolonizatsii* 8 (1911), 1–37.

²³ George Pavlovsky, *Agricultural Russia on the Eve of the Russian Revolution* (London: Routledge, 1930), pp. 321–4; Hew Strachan, *The First World War* (Oxford: Oxford University Press, 2001), pp. 1091–2.

²⁴ N. A. Borodin and M. I. Volkov, *Sel'skokhoziaistvennaia Amerika vo vremia voiny: na osnovanii lichnykh vpechatlenii 1917 g.* (Moscow: Izd-vo Narodnoe pravo, 1918), pp. 26–32.

²⁵ See David Moon, *The Russian Peasantry 1600–1930: The World the Peasants Made* (London and New York: Addison Wesley Longman, 1999), pp. 356–65; R. W. Davies, *The Socialist Offensive: The Collectivisation of Soviet Agriculture, 1929–1930* (London: Macmillan, 1980); Davies, *The Soviet collective Farm, 1929–1930* (London: Macmillan, 1980).

the collective farms on peasant land were state farms (*sovkhozy*) on large, private estates confiscated after the revolution. Soviet economic planners aimed to create large-scale, mechanized farms that drew on the latest organizational principles and farm machinery. To this end, the Soviet government imported American technology and hired American specialists.²⁶ Collectivization proved a disaster. It was imposed on a reluctant peasantry. Opponents, branded as “kulaks,” were dispossessed, exiled, or executed.²⁷ Famine returned in 1931–3. Worst hit was the steppe region from Ukraine through southern Russia and the North Caucasus to Kazakhstan. Millions died.²⁸ The Soviet authorities tried to conceal the disaster from their own population and the outside world. They were assisted by *The New York Times* correspondent Walter Duranty, who dismissed reports of famine as exaggerations or propaganda. The famine was not widely reported in the American press.²⁹

It is a measure of the Soviet authorities' success in concealing the famine and the consequences of collectivization that in the United States there were renewed concerns over competition from revived exports of wheat and other crops grown in the steppes. In 1931, American soil scientist Curtis Marbut made a positive assessment of the prospects for Soviet grain production and exports. He concluded that the collectivization and mechanization of Soviet agriculture envisaged in the First Five-Year Plan (1928–32) combined with the large area of suitable land in the steppes promised a big increase in “Russian” wheat production. “Assuming nothing interferes with the carrying out of the plan,” Marbut asserted that in 1933, “Russia” would be able to export more wheat “than the maximum

²⁶ See Deborah Fitzgerald, *Every Farm a Factory: The Industrial Ideal in American Agriculture* (New Haven CT: Yale University Press, 2002), pp. 157–83; Jenny Leigh Smith, *Works in Progress: Plans and Realities on Soviet Farms, 1930–1963* (New Haven CT: Yale University Press, 2014), pp. 1–62.

²⁷ See Lynne Viola, V. P. Danilov, N. A. Ivnitiskii, Denis Kozlov, eds., *The War Against the Peasantry, 1927–1930: The Tragedy of the Soviet Countryside* (New Haven CT: Yale University Press, 2005).

²⁸ For examples of the literature on the causes of the famines, the responsibility of the Soviet government, and its impact, see Robert Conquest, *The Harvest of Sorrow: Soviet Collectivization and the Terror-Famine* (Oxford: Oxford University Press, 1986); R. W. Davies and Stephen G. Wheatcroft, *The Years of Hunger: Soviet Agriculture, 1931–1933* (Basingstoke and New York: Palgrave Macmillan, 2004); Frank Sysyn and Andriy Makuch, eds., “The Ukrainian Famine of 1932–33, the Holodomor,” *East/West: Journal of Ukrainian Studies* 2, no. 1 (2015); Sarah Cameron, *The Hungry Steppe: Famine, Violence, and the Making of Soviet Kazakhstan* (Ithaca NY: Cornell University Press, 2018); Niccolò Pianciola, “Famine in the Steppe: The Collectivization of Agriculture and the Kazak Herdsmen 1928–1934,” *Cahiers du monde russe* 45, nos. 1–2 (2004), 137–92.

²⁹ Sally J. Taylor, *Stalin's Apologist, Walter Duranty: The New York Times Man in Moscow* (New York: Oxford University Press, 1990), pp. 210–23.

amount exported . . . before the war.”³⁰ Marbut had visited the Soviet Union in 1930 for the International Soil Science Congress and excursion around the country. The delegates were taken to the state farms “Gigant” (“Giant”) and “Verbliud” (“Camel”) in the steppe region. These were showcase farms equipped with imported American machinery and staffed by American advisors.³¹ Not all American specialists were as optimistic as Marbut about the prospects for Soviet agriculture.³² Nevertheless, in 1933, when President Franklin Roosevelt considered formally recognizing the Soviet Union, it provoked controversy in the plains states. Kansas farmers were concerned that normalizing relations with the Soviet Union could lead to an increase in grain exports that would provide competition for their grain in the world market.³³

Concerns in the United States over competition from grain grown in the steppes coexisted with widespread perceptions of Russian “backwardness” that the revolution of 1917 served to enhance.

American Perceptions of Russian “Backwardness”

The image of “Russia” in the United States over the late nineteenth and early decades of the twentieth centuries was complex, multi-faceted, and changing. There were “positive” aspects to American perceptions, including the popularity of the classics of Russian literature, for example, the novels of Leo Tolstoy, which were widely read in translation. Tolstoy’s ideas on non-violence and communalism also attracted interest. Russian ballet, opera, and music all enjoyed recognition among the American public. Peter Tchaikovsky was acclaimed at the Carnegie Hall in New York in 1891.³⁴ Nonetheless, a growing and pervasive perception of tsarist

³⁰ C. F. Marbut, “Russia and the United States in the World’s Wheat Market,” *GR* 21 no. 1 (1931), 1–21; Marbut, “Agriculture in the United States and Russia: A Comparative Study of Natural Conditions,” *GR* 21, no. 4 (1931), 612; See also N. M. Tulaikov, *Sovremennoe polozhenie sel’skogo khoziaistva v Soedinnnykh Shtatakh Severnoi Ameriki* (Moscow: Novaia Derevnia, 1923), pp. 5–7.

³¹ SHSM MC, Marbut, Curtis Fletcher (1863–1935) Papers, 1852–1963 (C3720) [hereafter Marbut Papers (C3720)], Folder 143, “A visit to Russia” and “Supplement” by C. F. Marbut, Washington, DC, November 1930; Marbut, “Russia and the United States,” 1–21. See also pp. 77–9.

³² For contrasting views, see C. F. Marbut, “Russia and Wheat,” [review of V. P. Timoshenko, *Russia as a Producer and Exporter of Wheat*] *GR* 23, no. 1 (1933), 159–60; C. F. Marbut and V. P. Timoshenko, “The Expansion of the Wheat Area in Arid Russia,” *GR* 23, no. 3 (1933), 479–83. (Timoshenko, a Russian émigré, was not favorably inclined to the Soviet Union.)

³³ Norman E. Saul, *Friends or Foes? The United States and Soviet Russia, 1921–1941* (Lawrence: University Press of Kansas, 2006), pp. 254–315.

³⁴ See V. I. Zhuravleva, *Ponimanie Rossii v SShA: Obrazy i mify, 1881–1914* (Moscow: Rossiiskii Gosudarstvennyi Gumanitarnyi Universitet, 2012), pp. 951–72; Steven G. Marks, *How Russia*

and later Soviet Russia in the United States over our period was one of “backwardness.” By the 1890s, in Norman Saul’s words: “Americans, awash with national pride and new found imperialism, were . . . more prone to compare Russia unfavorably with the United States and Western Europe.” Negative American perceptions of Russia were fueled by reports of crop failures and famines in the steppe region, which prompted American relief efforts, by news of the persecution of Jews which were repeated by Jewish émigrés in the United States, together with accounts of growing opposition to the tsarist autocracy and harsh treatment of political exiles in Siberia.³⁵ Throughout the period, moreover, the technological superiority of American agriculture was demonstrated by exports of American farm machinery to the steppes.³⁶

American Famine Relief in the Steppes

In 1891, following a serious drought, the harvest failed throughout large parts of the steppe region.³⁷ The U.S. Consul in Odessa, Thomas E. Heenan, reported to Washington, DC: “I am much afraid that we are on the eve of witnessing one of the greatest, if not the greatest, calamity of modern times.” He had heard tales of entire communities starving, but that the authorities were unable to help because they were in debt. At the end of November, the Russian government banned exports of grain. Heenan noted “excitement” in the harbor at Odessa as exporters made “desperate attempts” to ship out as much wheat as possible before the ban came into effect. The consul thought a public appeal for aid in the United States would lead to an objection by the Russian government, but that this should not prevent aid being sent through private sources.³⁸ Private efforts were indeed made in the United States to organize famine relief for steppe provinces hit by the disaster. Reports by American relief workers

Shaped the Modern World from Art to Anti-Semitism, Ballet to Bolshevism (Princeton, NJ: Princeton University Press, 2003), pp. 109–10, 130–9, 191–3, 201–4.

³⁵ Saul, *Concord and Conflict*, pp. 189–96, 257, 282, 312 (quotation), 335–64, 395–6; Saul, *Friends or Foes?*, pp. 44–97.

³⁶ Saul, *Concord and Conflict*, pp. 151, 275–8, 410–1; Saul, *Friends or Foes?*, pp. 108–14, 119–21, 210, 218.

³⁷ See Richard G. Robbins, *Famine in Russia, 1891–1892: The Imperial Government Responds to a Crisis* (New York: Columbia University Press, 1975).

³⁸ NARA CP, RG 59, Microcopy no. 459, Despatches from United States Consuls in Odessa, 1834–1906, Roll 5, Vols. 9–10, January 2, 1889–December 28, 1895, Heenan to William F. Wharton, Assistant Secretary of State, November 2, 1891; Heenan to Wharton, November 21, 1891.

contributed to American notions of the “backwardness” of Russian steppe farming. William C. Edgar, a miller from Minneapolis, Minnesota, organized donations of surplus flour from the Great Plains, prairies, and further afield. He noted that people of “those states . . . which had, themselves, at some time in their history, felt the need of help, either through drought, crop failures, grasshoppers or other afflictions, were the first to respond to the call from their Russian brethren, and gave . . . more liberally . . . than any others.”³⁹ In 1892, Edgar traveled to the famine-hit Volga region. He described his efforts to deliver flour to the starving, the people he met, the towns and villages he visited, and the effects of the famine and the typhus epidemic that accompanied it. He made a few references to the landscape.⁴⁰ But, he did not note any similarities to his native Minnesota or the plains states. Edgar and most Americans who visited the steppes during famines had little thought of parallels between the landscapes of the steppes and Great Plains that were so common among other American visitors, such as General Sherman, in happier times.

An even greater human catastrophe in the steppe region in 1921–2 increased American perceptions of the “backwardness” of Russian agriculture. A drought, in the aftermath of the revolution, civil war, and forced requisitions of grain from a suspicious peasantry, led to a massive famine. Unable to deal with the disaster, the Soviet government allowed the American Relief Administration (ARA), led by Herbert Hoover, to set up operations. The relief effort lasted for two years, brought nearly 300 Americans to Russia, and probably saved millions of lives. Their efforts could not, however, avert around five million deaths.⁴¹ One of the relief workers, the future Stanford historian Harold Fisher, wrote: “On ruined towns and desolated villages across the bleak, dreary steppes had fallen the heavy pall of black misery, of inert despair. Into this atmosphere of fatalistic hopelessness came representatives of that distant incredible land – America.”⁴² Fisher expanded on the experiences of the American relief workers:

³⁹ William C. Edgar, *The Russian Famine of 1891 and 1892* (Minneapolis, MN: Millers and Manufacturers’ Insurance, 1893), p. 8.

⁴⁰ Edgar, *The Russian Famine*, pp. 45–61; Harold F. Smith, “Bread for the Russians: William C. Edgar and the Relief Campaign of 1892,” *Minnesota History Magazine* 42, 2 (1970), 54. See also George S. Queen, “American Relief in the Russian Famine of 1891–1892,” *RR* 14 (1955), 140–50; Victoria I. Zhuravleva, “American Corn in Russia: Lessons of the People-to-People Diplomacy and Capitalism,” *Journal of Russian American Studies* 1, no. 1 (2017), 24–32.

⁴¹ Bertrand M. Patenaude, *The Big Show in Bololand: The American Relief Expedition to Soviet Russia in the Famine of 1921* (Stanford, CA: Stanford University Press, 2002), pp. 57–8, 196–8, 262–70.

⁴² Quoted in Patenaude, *The Big Show in Bololand*, p. v.

The work in the villages was naturally arduous. The Americans . . . traveled long distances over the most abominable roads in the world in primitive, springless Russian vehicles. They traveled in all weathers; in the beginning through the rain and mud of autumn, and later through snow with the temperature many degrees below zero. Nights were spent in peasant huts which offered nothing in the way of comfort. . . There was the constant strain of working in the midst of suffering . . .⁴³

William Shafroth commented on the fertile black earth, but the primitive farming techniques, implicitly contrasting the latter with advanced American farming.⁴⁴

Another historian among the relief workers was Frank Golder. He was born in 1877 in Odessa into a Jewish family, who moved to the United States in 1881. In October 1921, he wrote from Soviet Russia to a colleague at Stanford:

The famine is bad beyond all imagination, it is the most heart breaking situation that I have ever seen. Millions of people are doomed to die, for little planting is done, the live stock is killed off, and the population is growing weaker. . . One asks in vain where are the healthy men, the beautiful women, the cultural life. It is all gone and in place of it we have starving, ragged, undersized men and women who are thinking of only one thing, where the next piece of bread is coming from.⁴⁵

While traveling down the Volga to Samara he noted: "There is not much scenery to thrill over."⁴⁶ He had no thought of comparisons with the United States. On an earlier visit to Russia in 1914, however, Golder had made such comparisons while traveling on the Trans-Siberian Railroad: "Siberia is flat and monotonous, but less so than our Dakotas because of the scrub timber and gulches"; "We seem to have passed out of the flat lands and are now in a rolling country, something like the woodland meadows of Missouri."⁴⁷

One American witness of the famine in the steppe region in 1921–2 who did make brief comparisons with the United States was the Canadian-born correspondent of the *Chicago Daily News*, Frederick Arthur Mackenzie. On his journey to the Volga region, he referred to the: "Stinging cold on the

⁴³ Harold H. Fisher, *The Famine in Soviet Russia: The Operations of the American Relief Administration* (Stanford, CA: Stanford University Press, 1927), p. 101.

⁴⁴ Quoted in Patenaude, *The Big Show in Bololand*, p. 55.

⁴⁵ Frank Alfred Golder, *War, Revolution, and Peace in Russia: The Passages of Frank Golder, 1914–1927* (Stanford, CA: Stanford University Press, 1992), p. 92.

⁴⁶ Quoted in Patenaude, *The Big Show in Bololand*, p. 58.

⁴⁷ Golder, *War, Revolution, and Peace*, pp. xi–xii, 23–5, 92.

great steppes – the prairies of south-east Russia.” He described a village showing “every sign of former prosperity . . . It was easy to tell that there were German colonists here, men who had brought to the Volga the same exactness and hard-working qualities that have made so many prosperous communities in the Far West [of America].” “It was in Samara, the Chicago of Russia,” he noted, “that I saw things at their worst.” He found “lads, gaunt and tall, thin beyond any conception a Westerner can have.”⁴⁸ As a journalist, it was his job to explain what he saw to his readers in ways that would help them understand. His allusions to the familiar conveyed the full extent of the suffering by making readers think of their home city, its hinterland, inhabitants, and people like themselves. In doing so, however, he can only have deepened perceptions of the “backwardness” of Russian steppe farming.

One group of relief workers from the United States whose responses to the famine in the steppes were more profound than most were members of the American Mennonite Relief organization. Their impressions were particularly striking, since many came from the Great Plains, most were descendants of migrants from the communities they were assisting, and some had themselves been born in the steppes. Two Mennonite relief workers recorded their impressions when they arrived at Chortitza in Soviet Ukraine in late 1921:

As we visited the Mennonite villages we were made aware of the terrible conditions. The quiet of death hung over the clustered houses like a pall. Not a dog barking, for the Mennonites had eaten their dogs, their cats too had all been consumed. Here and there a cow or a horse was left.⁴⁹

In April 1922, Peter Hiebert and Christian E. Krehbiel of Newton, Kansas, arrived in Halbstadt, in the Molotschna colony in southern Ukraine:

We went directly from the train to the church, where we came as unannounced messengers from another world, and were heartily welcomed. I was asked to address a fairly large gathering of sad-faced, under-fed

⁴⁸ Frederick Arthur Mackenzie, *Russia Before Dawn* (London: Unwin, 1923), pp. 127, 131, 152, 278.

⁴⁹ Peter C. Hiebert and Orie O. Miller, eds., *Feeding the Hungry; Russia Famine, 1919–1925: American Mennonite Relief Operations under the Auspices of Mennonite Central Committee* (Scottsdale, PA: Mennonite Central Committee, 1929), pp. 67, 75. On relief workers who were born in the steppes, see pp. 340, 390. Hiebert’s parents had migrated to Kansas from the steppes in 1876. Katie Funk Wiebe and Richard D. Thiessen (June 2010), “Hiebert, Peter C. (1878–1963),” *Global Anabaptist Mennonite Encyclopedia Online*, available online at <https://bit.ly/2qhOvLc>, accessed October 7, 2019; Christian E. Krehbiel was born in Summerfield, Illinois, and moved to Kansas with his family as a child. “Krehbiel, Christian E. (1869–1948),” [Obituary], *Mennonite Weekly Review* (June 10, 1948), 5.

Mennonites. I had never in my life heard any one pray, "Give us this day our daily bread!" as these people did with tears running down their haggard faces.⁵⁰

Overwhelmed by the horrors of famine, even to Americans accustomed to similar landscapes in the prairies and Great Plains, during the human tragedies of 1891–2 and 1921–2, the steppes seemed to be another world that defied comparison with anything familiar. The recurring famines in the steppes reinforced notions of "Russian backwardness," and contributed to a persistent image in the United States of "starving Russia" in contrast to a "prospering America."⁵¹

The Persecution of Jews in the Russian Empire

The negative image of Russia in the United States in this period was exacerbated by news of the persecution of its Jewish population. There were extremes of violence during the revolution of 1905. In November the *Los Angeles Herald* reported:

Thomas E. Heenan, American consul at Odessa, has sent a telegram to the American embassy saying that since Tuesday the bloody attempts upon the Jews have continued and that he estimates the number killed in the thousands. Artillery, he says, has been employed to suppress the rioting and the Jews have fired from windows upon the troops in the streets.

There was more in the article on this theme:

Other dispatches received from Odessa say that the Cossacks and Infantry fought a regular battle with Jews and revolutionaries . . . and estimated the dead at 100 and the wounded at over 2000. Press accounts from Odessa give details of horrible atrocities committed. The tongues of Jews were torn out by the roots, nails were driven in the heads of living persons and others were rolled in spiked barrels, but these reports must be accepted with a large amount of caution.⁵²

Such accounts were consistent with other reports that had reached the United States of the mounting repression of Jews in the Russian Empire since the early 1880s. Russian–Jewish émigrés in the United States, for example the forestry scientist Raphael Zon, received news from family members in Russia about the difficulties they encountered. The growing

⁵⁰ Hiebert and Miller, *Feeding the Hungry*, p. 200.

⁵¹ Zhuravleva, *Ponimanie Rossii v SShA*, pp. 209–58.

⁵² *Los Angeles Herald*, November 6, 1905.

numbers of Russian Jews who settled in the United States publicized their experiences and the plight of Jews who remained in the Russian Empire.⁵³

Opposition to the Tsarist Autocracy

American attitudes to Russia were further colored by reports of mounting opposition to the tsarist government from radicals and revolutionaries who wanted to replace the autocratic regime with a liberal or socialist alternative. Some of the regime's opponents resorted to terrorism. The tsarist authorities used the power of the state and its secret police against the revolutionary movement. Many revolutionaries were executed or banished to Siberia. Others fled abroad, where they attacked the tsarist autocracy. An American who contributed to the growing negative image of the tsarist regime was George Kennan. He first visited Russia in 1865, when he traveled to northeastern Siberia with the Russian–American Telegraph Expedition to survey the route of a cable to link the United States and Russia via the Bering Straits. The project was abandoned after a transatlantic cable was laid in 1866. But, Kennan's life-long fascination with Russia had begun. At first an enthusiast for all things Russian, his study of the Siberian exile system in 1885–6 turned him implacably against the tsarist regime for its authoritarianism and harsh treatment of its opponents. Kennan supported exiled revolutionaries, such as the former terrorist Sergei Kravchinskii (“Stepniak”). His articles and public lectures were published in book form as *Siberia and the Exile System* in 1891. In the words of Frederick Travis, Kennan “led a shift in American public opinion of the tsarist government from enthusiastic and uninformed friendliness to hostility.”⁵⁴ It is a measure of the hostility to the tsarist regime in the United States that there was heated debate in the late 1880s and early 1890s over whether Russian revolutionaries, including terrorists, who had sought refuge should be extradited to face trial in Russia.⁵⁵

An increasingly negative image of tsarist Russia in the United States in the late nineteenth and early twentieth centuries was shaped, therefore, by

⁵³ See Zhuravleva, *Ponimanie Rossii v SShA*, pp. 90–148; Saul, *Concord and Conflict*, pp. 257, 396, 475. On the Jewish question in Russian–American relations, see Valerii Engel', “Evreiskii vopros” v ruskoamerikanskikh otnosheniakh: Naprimere pasportnogo' voprosa 1864–1913 (Moscow: Nauka, 1998).

⁵⁴ Frederick F. Travis, *George Kennan and the American–Russian Relationship: 1865–1924* (Columbus: Ohio University Press, 1990), p. xiii and passim; Zhuravleva, *Ponimanie Rossii v SShA*, pp. 149–209.

⁵⁵ E. L. Nitoburg, *Russkie v SShA: Istorii i sud'by, 1870–1970: Etnoistoricheskii ocherk* (Moscow: Nauka, 2005), pp. 30–32. In the end they were not extradited.

its growing reputations for persecuting its political opponents, Jewish subjects, and for periodic droughts, bad harvests, and famines that continued after 1917. It may not be altogether surprising, therefore, that Russia was not the first place Americans would look for expertise in agriculture or indeed much else beyond the realms of literature, the arts, and revolutionary ideas. These widespread negative impressions of Russia in the United States provide a context to understanding why most American agricultural specialists were largely ignorant of Russian agricultural sciences at this time.

American Ignorance of Russian Agricultural Sciences before c. 1900

At the end of the nineteenth century, American agricultural scientists were a little surprised by and slightly condescending towards the work of their Russian counterparts. The author of an article published in 1897 in the central journal of the American agricultural experiment stations noted that “agricultural science” was “new” in Russia, but “promising.” Above all, the article noted the inaccessibility of Russian research, since it was written in Russian, and because of the “scattered nature” of Russian publications.⁵⁶ It was certainly true that most Russian publications on agricultural sciences were in Russian and that they were “scattered,” if that implied that there were a number of specialist publications. But, Russian agricultural sciences were certainly not “new.” They dated back to the seventeenth century. Serious study of the environment and farming in the steppes began when agricultural settlement of the region took off in the eighteenth century. By the turn of the twentieth century, such studies existed in large quantities, aspects of which, for example, soil science and steppe forestry, were original and relevant to the Great Plains.⁵⁷ In Nikolai Vavilov (1887–1943), whose career began at this time, Russia had a crop scientist and geneticist of international importance.⁵⁸ Russian agricultural scientists

⁵⁶ “Investigation and Research in Russia,” *ESR* 9 (1897–8), 201–5.

⁵⁷ For a study of Russian agricultural experimental institutions, see Ol’ga Elina, *Ot tsarskikh sadov do soverskikh polei: istoriia sel’sko-khoziaistvennykh opytnykh uchrezhdenii XVIII–20-e gody XX v.*, 2 vols. (Moscow: Rossiiskaia Akademiia Nauk, 2008). For a monograph based on Russian studies of the steppe environment and agriculture, see David Moon, *The Plough that Broke the Steppes: Agriculture and Environment on Russia’s Grasslands, 1700–1914* (Oxford: Oxford University Press, 2013).

⁵⁸ For examples of the large literature on Vavilov, see Peter Pringle, *The Murder of Nikolai Vavilov: The Story of Stalin’s Persecution of One of the Great Scientists of the Twentieth Century* (New York: Simon and Schuster, 2008); N. P. Goncharov, *Nikolai Ivanovich Vavilov* (Novosibirsk: Izd-vo SO RAN, 2014).

who visited the United States in the early twentieth century, for example, Nikolai Tulaikov, were dismayed that their American counterparts did not know about Russian work. Dmitrii Artsybashev may have been exaggerating, but perhaps only slightly, when he wrote in 1909 that Americans did not know about and did not study “our continent.”⁵⁹

The limited knowledge among American agricultural scientists of the work of Russian scholars persisted despite original work of international importance by scientists in Russia in the late nineteenth century. The most famous is Dmitrii Mendeleev, who devised the periodic table of elements in the late 1860s. He faced a long battle to prove his priority, however, in part because he announced his innovation in an article published in Russian.⁶⁰ Another important Russian scientific innovation in this period, which was also published in Russian, was the theory of soil formation by Mendeleev’s colleague at St. Petersburg University, Vasilii Dokuchaev. As we shall see, it took rather longer for Dokuchaev’s theory and its wider implications to become accepted in the United States. This was despite the similarities between the soils of the steppes, where Dokuchaev carried out his field work, and the Great Plains. The limited knowledge of Russian research among many American agricultural scientists was due in part to a language barrier.

Language Barrier

Most Russian research in agricultural sciences was written in Russian for the very good reason that it was intended for other Russian specialists as well as landowners interested in “improving” the ways they cultivated their land.⁶¹ Over the second half of the nineteenth century, Russian scientists in other disciplines published their work in Russian rather than in German

⁵⁹ N. M. Tulaikov, “Pochvennye issledovaniia v Soedinennykh Shtatakh,” *Pochvovedenie* 10, 4 (1908), 321–2; D. Artsybashev, *Sel’sko-khoziaistvennoe mashinostroenie v Soedinennykh Shtatakh Severnoi Ameriki i v Kanade* (Spb: Sel’skii Vestnik, 1909), p. 5.

⁶⁰ Michael D. Gordin, “The Table and the Word: Translation, Priority, and the Periodic System of Chemical Elements,” *Ab Imperio*, 2013, 3 (2013), 53–82.

⁶¹ See Joseph Bradley, *Voluntary Associations in Tsarist Russia: Science, Patriotism, and Civil Society* (Cambridge, MA: Harvard University Press, 2009), pp. 38–85; Moon, *Plough*, pp. 46–88. The Southern Russian Agricultural Society published a monthly journal in Russian. M. P. Borovskii, *Istoricheskii obzor piatidesiatiletnei deiatel’nosti Imperatorskogo Obschestva Sel’skogo Khoziaistva Iuzhnoi Rossii s 1828 po 1878 god* (Odessa: P. Frantsov, 1878). An exception was a German-language periodical for settlers in the southern steppes, founded in 1846, which published articles on agriculture. *Unterhaltungsblatt für deutsche Ansiedler im Südlichen Russland*. “Die erste Zeitung für die deutschen Kolonisten in Südrussland,” available online at www.hfdr.de/sub/besonderes.htm, accessed March 29, 2018.

as had been common earlier in the century. This was part of a drive to establish Russian as a major scientific language alongside the “triumvirate” of German, French, and English that were the main international languages of science at this time. After 1917, Russian was the main language of publication for Soviet scientists.⁶²

The language barrier to exchange of information between Russian and American agricultural scientists was more impenetrable for Americans than their Russian and Soviet counterparts. Throughout our period many, but not all, Russian and Soviet scientists had some knowledge of western European languages, in particular German, French, and English. In the Soviet Union, scientists were required to study at least one foreign language so that they could read international scientific literature. While some struggled, especially with verbal fluency, many could read scientific texts with the aid of dictionaries and communicate at international meetings, sometimes with help from colleagues with better language skills.⁶³ An exception was pioneering soil scientist Dokuchaev, who had only a limited knowledge of German and French and little English. He had some help with languages from his wife, Anna Egorevna, who was of Scottish descent.⁶⁴

On the other hand, with some important exceptions, few American scientists over our period knew Russian, although some knew western European languages. The most widely studied foreign language in the United States in the late nineteenth and early twentieth centuries was German. For many recent immigrants, it was their native language. But, teaching German in the United States collapsed, never to recover, after the United States joined the Allies fighting against Germany in the First World War.⁶⁵ David Fairchild, who headed the USDA’s Office of Seed and Plant Introduction for many years from 1898 and traveled extensively,

⁶² See Michael D. Gordin, *Scientific Babel: The Language of Science from the Fall of Latin to the Rise of English* (London: Profile Books, 2015), pp. 49, 103, 220–6 and passim.

⁶³ See Gordin, *Scientific Babel*, pp. 87–93, 222–3. Tulaikov, who knew English well, interpreted for some of his Soviet colleagues at the International Soil Science Congress in the United States in 1927. ARAN, f.582, op.3, 1927, d.454, l.3.

⁶⁴ On Dokuchaev’s limited language skills, see Bancroft Library, Berkeley, California, The Hilgard family papers [hereafter, Hilgard Papers], Hilgard, E. W., Incoming Letters, Box 23, File: Voeikov, Aleksandr Ivanovich, Voeikov to Hilgard, January 6/18, 1892; E. S. Kul’pin-Gubaidullin, “Vasilii Dokuchaev kak predtecha biosferno-kosmicheskogo istorizma: sud’ba uchenogo i sud’by Rossii,” *Obshchestvennye nauki i sovremennost’*, no. 2 (2010), 103–13; I. P. Vtorov, “Pervoe vospriitie idei V. V. Dokuchaeva mezhdunarodnym nauchnym soobshchestvom,” unpublished paper presented to Mezhdunarodnyi nauchnyi seminar “Nauchnoe nasledie V. V. Dokuchaeva,” Moscow, May, 30–31, 2016. (I am grateful to Dr. Vtorov for a copy of his paper.)

⁶⁵ Gordin, *Scientific Babel*, pp. 180–3.

claimed to speak French, Italian, and German, and also some Malay.⁶⁶ A Soviet scientist who attended the International Botanical Congress in Ithaca, New York, in 1926 reported that American scientists sometimes knew German, rarely French, but almost none knew Russian, besides “old émigrés.”⁶⁷ Many of these Russian-speaking émigrés were Jews who had moved to the United States from the Russian Empire in large numbers from the 1880s (see pp. 105–7). Jewish immigrants comprised many of the 1.2 million people counted in the 1910 U.S. Census who gave “Russia” as their place of birth. Since the first language of many Russian Jews was Yiddish, however, only around 60,000 people listed Russian as their native language.⁶⁸

Russian is considered to be a “difficult” language for native speakers of English by specialists in language learning, because it has “significant linguistic and/or cultural differences from English.” The U.S. Foreign Service Institute’s School of Language Studies ranks Russian in its third category out of four in degree of difficulty. The School calculates that it takes 1,100 class hours for an English speaker to reach “professional working proficiency” in Russian.⁶⁹ In the late nineteenth century and first four decades of the twentieth century, moreover, Americans who had not been born in Russia had little opportunity to study the language. Before 1914, only six American universities, starting with Harvard in 1896 and followed by California at Berkeley and Chicago in 1901, offered courses in Russian. Enrolments were low. Russian language teaching did not become widely available in the United States until the 1940s and 1950s, when interest and need were spurred by the alliance with the Soviet Union in the Second World War and the rivalry, including scientific rivalry, in the ensuing Cold War.⁷⁰ Even then, the number of American scientists who

⁶⁶ David Fairchild, *The World Was My Garden: Travels of Plant Explorer* (New York: Scribner’s Sons, 1938), pp. 180, 194, 300; Daniel Stone, *Food Explorer: The True Adventures of the Globe-Trotting Botanist Who Transformed What America Eats* (New York: Dutton, 2018), pp. 164, 315.

⁶⁷ A. F. Lebedev, “V Biuro Upolnomochennykh Vsesoiuznykh S’ezdov po pochvovedeniiu (pis’mo iz Ameriki),” *Biulleteni pochvoveda*, nos. 5–7 (1926), 54.

⁶⁸ Gordin, *Scientific Babel*, p. 226.

⁶⁹ “FSI’s Experience with Language Learning,” U.S. Department of State, available online at www.state.gov/foreign-language-training/, accessed March 29, 2018. I was taught Russian on an intensive course at the start of the graduate program at the Centre for Russian East European Studies at the University of Birmingham in the UK in the early 1980s. Most of our instructors had learned Russian at the UK Joint Services School for Linguists early in the Cold War. See Geoffrey Elliott and Harold Shukman, *Secret Classrooms: An Untold Story of the Cold War* (London: St Ermin’s Press, 2002).

⁷⁰ See Albert Parry, *America Learns Russian: A History of the Teaching of the Russian Language in the United States* (Syracuse, NY: Syracuse University Press, 1967); Saul, *Concord and Conflict*, pp. 390–5, 566–7; Saul, *Friends or Foes?*, pp. 186–92, 363–5.

knew Russian was tiny.⁷¹ Prior to the 1940s, attempts to introduce Russian language courses at American universities met with limited success. In 1926, for example, Zon tried to persuade the dean of administration at the University of Minnesota to start teaching Russian at the university. His request was turned down as the dean felt there would not be sufficient demand.⁷²

For most of our period, American scientists who wished to know more about Russian studies in their fields often struggled. The American soil scientist Eugene W. Hilgard (1833–1916), was more eager than most of his compatriots to study the work of his Russian counterparts. But, although he was multilingual, he was unable to read Russian. He was born in Germany, moved to the United States with his family as a child, later studied in Germany and Switzerland, and lived for two years in Spain, where he met his wife. Besides English and German, he knew Latin, French, and Spanish.⁷³ From 1870, he corresponded with several Russian scientists, but relied on their knowledge of western European languages. Gavril Tanfil'ev wrote to him in German. Jean [Ivan] Vilbourchevitch, who had emigrated from Russia to France, composed his letters in French. Hilgard's longest-standing Russian correspondent, Aleksandr Voeikov, wrote to him in English.⁷⁴ In 1902, Voeikov wrote: "It is much to be regretted that you are unable, in California, to use Russian books, for as to the study of soils we are further advanced than any country in Europe. You should study Russian on the Pacific coast . . ." Voeikov was probably unaware that Russian teaching had started at Berkeley the previous year. But Hilgard, who was a professor at Berkeley, did not avail himself of the opportunity. In January 1908, he asked if Pavel Ototskii, the editor of the Russian soil science journal (*Pochvovedenie*), could include abstracts of articles in other languages. Ototskii replied that it was a matter of resources and he was already overburdened producing the journal.⁷⁵

⁷¹ Gordin, *Scientific Babel*, p. 218.

⁷² MHS, Raphael Zon papers, 1887–1957 [hereafter Zon Papers], Box 5, Folder 7, F. J. Kelly, Dean of Administration, University of Minnesota, to Zon, March 2, 1926.

⁷³ Frederick Slate, "Biographical memoir of Eugene Woldemar Hilgard, 1833–1916," *National Academy of Sciences Biographical Memoirs* 9 (1919), 94–155, available online at www.nasonline.org/publications/biographical-memoirs/memoir-pdfs/hilgard-eugene.pdf, accessed March 27, 2018.

⁷⁴ For examples of their letters, see Hilgard Papers, Hilgard, E. W.: Incoming Letters, Box 21, Folder: T-Misc, Gavril Tanfil'ev to Hilgard, August 1/13, 1893 [in German]; Box 23, Folder: Vilbourchevitch, Jean, Vilbourchevitch to Hilgard, January 7, 1891 [in French]; Folder: Voeikov, Aleksandr Ivanovich, Voeikov to Hilgard, January 10, 1874.

⁷⁵ Hilgard Papers, Hilgard, E. W.: Incoming Letters, Box 23, File Voeikov, Voeikov to Hilgard, June 22/July 5, 1902; Hilgard, E. W.: Outgoing Letters, Letterpress copy books, vol. 26, June 1907–July

The language barrier hindered American scientists who attended conferences and congresses in Russia from making the most of the opportunities to learn about Russian scientific work and engage in informal exchanges with Russian scholars. Towards the end of the excursion that followed the International Soil Science Congress in the Soviet Union in 1930, Charles Shaw of the University of California, Berkeley, remarked that he had appreciated the opportunity to spend time with Soviet scientists and other people, but that: "It was hard to learn of you for we do not speak your language."⁷⁶ American scientists who wanted to know more about the work of Russian and Soviet scientists generally depended on them to provide abstracts and translations in western European languages. In 1927, the Nebraska-born ecologist Frederic Clements wrote, a little abruptly, to Vavilov:

I shall appreciate receiving copies of your publications as they appear, and would like also to obtain those of Russian workers . . . in . . . ecology and evolution. The steppe vegetation has so much in common with our grassland formation that I am especially anxious to secure anything in this field. Naturally, however, publications in Russian without summary in some other language are practically of no use to me.⁷⁷

Vavilov would have been entitled to feel slightly irritated, since he spoke several languages and took every chance to improve his English. When he visited the United States in 1930, he sought the help of one of the USDA's administrative staff, Miss Martini, to help him learn "slang," as the only "slang" he knew was "hot dogs." Miss Martini was happy to oblige their distinguished foreign visitor, and prepared what Vavilov referred to as a "splendid text-book on slangs."⁷⁸ This rather charming episode has to be seen against a background of tense relations between the capitalist United States and communist Soviet Union in the wake of the Russian Revolution of 1917.

1910, pp. 120–3, Hilgard to Dr. N. Toulaiokoff [Tulaikov], January 28, 1908 (Tulaikov and Hilgard corresponded in English); Tulaikov, "Pochvennyye issledovaniia," 321–2.

⁷⁶ ARAN, f.487, op.1, d.27, Stenogramy vstrech delegatov II-go Mezhdunarodnogo Kongresa pochvedov s sovetskimi uchenymi, l.120.

⁷⁷ TsGANTD Spb, f.318, op.1-1, d.143, l.147, Frederic E. Clements to Vavilov, February 7, 1927.

⁷⁸ NARA CP, RG 54, Finding Aid PI-66, Entry 30, Records of the Division of Cereal Crops and Diseases. Foreign Correspondence, 1900–34, Box 8, File Russia, Vavilov, Indio, California, to Harlan, October 13, 1930; Vavilov to Harlan, October 25, 1925. Vavilov spoke English, French, German, Italian, and Persian, in addition to his native Russian. Gary Pau Nabhan, *Where Our Food Comes From: Retracing Nikolay Vavilov's Quest to End Famine* (Washington, DC: Island Press, 2009), p. 126.

American Suspicion of Communism after 1917

The Bolshevik seizure of power and installation of the Soviet government in Russia in October 1917 led to suspicion of communism in the United States and around the capitalist world. It fed on earlier perceptions of Russian “backwardness.”⁷⁹ From its foundation, the Soviet government provoked a hostile response in the United States. In 1918, the United States sent troops to join the foreign “intervention” that aimed to keep Russia in the First World War and to support the White forces in the Civil War against the Bolsheviks. The intervention failed and American troops were withdrawn in 1920. At the same time, there was a “Red Scare” in the United States, prompting fears of subversion orchestrated by the Communist International (Comintern) from Moscow. At this time, there was widespread opposition in the United States to immigration from Russia.⁸⁰ The U.S. government refusal to recognize the Soviet government meant there were no diplomatic relations between the two countries. The tense international situation and lack of formal relations hindered contacts between American and Soviet scientists, and thus posed a further barrier to Americans learning from Russian expertise. In June 1922, Vavilov (who had managed to visit the United States in 1921–2) received a request to assist Americans visit Soviet Russia. He replied that it was difficult for them to do so on account of the absence of American recognition, and because the Soviet authorities would not admit Americans into their country. This was in retaliation for the U.S. government’s refusal to allow Communists to visit the United States.⁸¹

The diplomatic difficulties did not put a complete stop to American scientists building good relations with Vavilov and other Soviet scientists with whom they had mutual interests. There were limits to how far they were permitted to go by the U.S. government. One episode stands out. In 1925–6, Vavilov was planning to travel to Abyssinia (present-day Ethiopia) to collect samples wild grain. The trip was important for his research as he believed Abyssinia to be the home of the ancestors of some cultivated cereals, in particular barley. There was a serious impediment. The Soviet Union did not have diplomatic relations with Abyssinia and so he could

⁷⁹ Michael David-Fox emphasized the “superiority-inferiority calculus” in the interaction between western visitors and their Soviet hosts in the interwar years. David-Fox, *Showcasing*, pp. 26–7.

⁸⁰ Norman E. Saul, *War and Revolution: The United States and Russia, 1914–1921* (Lawrence: University Press of Kansas, 2001), pp. 309–75, 390–1.

⁸¹ TsGANTD Spb, f.318, op.1-1, d.23, l.173, [Vavilov] to D. Borodin, June 22, 1922. On Vavilov’s visit to the United States in 1921–2, see pp. 119–20.

not obtain a visa. He wrote to Harry Harlan, a fellow cereal scientist and friend, asking if the USDA could help. Harlan, who appreciated the scientific importance of Vavilov's planned trip, offered to write to Ras Tafari, the regent and heir to the throne. He drafted a cable and was about to send it when his immediate superior thought it advisable to hold an "informal and confidential consultation with the State Department." As a result, Harlan was informed that: "Such a request from him . . . would undoubtedly be accepted as the official request of the United States, which in view of the existing conditions the Department of State would be unwilling to have made." Harlan did not send the cable. (Vavilov visited Abyssinia with help from French scientists.)⁸²

Until November 16, 1933, when the United States finally recognized the Soviet Union and established diplomatic relations,⁸³ American scientists who worked for the federal government, including the USDA, were not permitted to travel there in their official capacities. This created serious problems in 1930, when Marbut, the chief of the U.S. Soil Survey, and Zon, director of a government forest experiment station, were invited to attend the 2nd International Congress of Soil Science in the Soviet Union. After much effort, Marbut took unpaid leave and went as a "special representative of the American Society of Agronomists," which paid for his attendance. The USDA helped by sending him on an official trip to Europe before the Congress. Nevertheless, taking part in the Congress and the excursion that followed cost Marbut \$725 in lost salary for the 41 days he was in the Soviet Union.⁸⁴ Zon was also eager to attend the congress. The U.S. Forest Service was prepared to facilitate his visit to Europe. However, when he was informed that he could go to the Soviet Union only in his own time and at his own expense, he declined to do so. His

⁸² NARA CP, RG 54, Finding Aid PI-66, Entry 30, Records of the Division of Cereal Crops and Diseases. Foreign Correspondence, 1900-34, Box 8, File Russia, Vavilov to Harlan, November 9, 1925; Harlan to Vavilov, January 21, 1926; Vavilov to Harlan, cables, June 26 and 30, 1926; Harlan to H. H. Ras Tafari, cable [draft, not sent], June 30, 1926; Harlan to Vavilov, cable [draft, not sent]; M. A. Taylor, Chief of BPI, memo to Mr. McCall, July 1, 1926; McCall to Harlan, July 2, 1926; Harlan to Vavilov, August 26, 1926; Vavilov to Harlan, April 25, 1927.

⁸³ "Recognition of the Soviet Union, 1933," Milestones in the History of U.S. Foreign Relations, Office of the Historian, United States Department of State, available online at <https://history.state.gov/milestones/1921-1936/ussr>, accessed March 27, 2018.

⁸⁴ Marbut Papers (C3720), Folder 47 Correspondence, 1930, P. E. Brown, The American Society of Agronomy, to Marbut, March 20, 1930; Marbut to W. Elmer Ekblaw, Clark University, Worcester, MA, April 18, 1930; Ekblaw to Marbut, April 21, 1930; Folder 49 Correspondence, 1930, Marbut to Louise and Roy, April 27, 1930; E. N. Meador, Assistant to the Secretary [of Agriculture] to the Secretary, June 25, 1930; Henry G. Knight, Chief of Bureau [of Chemistry and Soils] to Dr. Stockberger, July 1, 1930.

letters from the time show great restraint that probably concealed his bitter disappointment at not being able, for the first time since he had fled tsarist Russia in 1896, to visit the country of his birth.⁸⁵

The lack of diplomatic relations complicated the procedure for the Soviet organizers to invite the American scientists who were able to attend the soil science congress in 1930 as they could not be sent through diplomatic channels. Well in advance, in December 1928, A. G. McCall of the USDA wrote to David Jacobus Hissink, the general secretary of the International Soil Science Society, to suggest the invitations be sent to American institutions or the American Organizing Committee for the previous congress. Some scientists expressed concern about their safety if they traveled to the Soviet Union. Those most worried were émigrés who had left Russia before or after 1917. The Soviet scientists organizing the congress secured reassurances from the Soviet government that the “visa for entering and leaving Russia would give the fullest guarantee that could be desired.”⁸⁶

The suspicion worked both ways. The Soviet authorities restricted and controlled visits by its citizens abroad, in particular to capitalist countries. The Soviet delegation to the 1st International Congress of Soil Science in Washington, DC, in 1927, included “two or three commissar type advisers,” who maintained surveillance over the Soviet scientists, in particular Konstantin Glinka, who led the Soviet group.⁸⁷ Likewise, American visitors to the Soviet Union were subjected to surveillance, and restricted in where they could go.⁸⁸ The scientific aims of the excursion around the Soviet Union that followed the Soil Science Congress in 1930, in which Marbut took part, were to study different types of soils and visit

⁸⁵ Zon Papers, Box 6, Folder 8, Zon to Ed [Munns], Bureau of Soils, January 3, 1930; “Σ” [possibly chief forester Stuart] to Zon, n.d., received January 8, 1930; Zon to Susanna Paxton, Russian Travel Dept., Open Road Inc., New York, March 22, 1930; Box 7 Folder 1, Zon to E. H. Clapp, Forest Service, April 21, 1930; D. G. Volensky, International Society of Soil Science, Moscow to Zon, May 16, 1930; R. J. Stuart, Forester to Zon, May 8, 1930; Zon to Stuart, May 15, 1930.

⁸⁶ ARAN, f.487, op.1, 1929, d.18, l.105, A. G. McCall to Hissink, December 13, 1928; l.165, Hissink to K. K. Gedroitz, August 20, 1929; l.167, Gedroits to Hissink, September 2, 1929; l.168, Zavaritskii to Hissink, September 18, 1929; l.197, Hissink to Larilov, December 17, 1929 (quotation).

⁸⁷ J. S. Joffe, “Russian Contributions to Soil Science,” in *Soviet Science: Symposium at the 1951 Philadelphia Meeting of the American Association for the Advancement of Science*, ed. R. G. Christman (Washington, DC: AAAS Publications, 1952), p. 61. Jacob Joffe, an American scientist of Russian–Jewish origin, was assigned to look after the Soviet delegation as he spoke Russian. On Joffe, see F. E. Bear, “Jacob Samuel Joffe (1886–1963),” *SS* 97 (1964), 1–3.

⁸⁸ See David-Fox, *Showcasing*; Choi Chatterjee and Beth Holmgren, “Introduction,” in *Americans Experience Russia: Encountering the Enigma, 1917 to the Present*, eds. Chatterjee and Holmgren (New York: Palgrave, 2012), pp. 1–11.

experiment stations that were applying soil science to agriculture. The itinerary was carefully prepared, however, to acquaint their foreign guests with the “magnificent program of socialist construction, which is carried out in the land of the Soviets, particularly the socialist reconstruction of agriculture.”⁸⁹ The organizing committee was concerned also to counter “foreign propaganda” about the impossibility of holding such an event in the Soviet Union.⁹⁰ The preparations for the congress and excursion were overseen by the Soviet government, which aimed to ensure their country was shown in the best possible light.⁹¹ They had some success. As well as Marbut’s positive assessment of the prospects for Soviet grain production and exports noted earlier, University of California scientist Shaw raised doubts concerning the accuracy of information about the Soviet Union reported in the American press: he thought that about two-thirds was correct, but one-third incorrect.⁹²

The awkward international situation and suspicions it engendered continued after U.S. formal recognition of the Soviet Union in 1933 and impeded, but did not prevent, contacts and exchanges between American and Soviet agricultural scientists.

Resistance to Change

A general resistance to change was a barrier to some of the transfers and influences from the steppes in the United States as they would entail alterations to machinery, changes in the ways things were done, and upset existing hierarchies and authorities. When varieties of wheat from the steppes were introduced in the 1870s and afterwards, some plains farmers were reluctant to adopt them in case they failed. Farming in the semi-arid and drought-prone Great Plains was a risky business, especially as many farmers – except the Mennonites who introduced the new crops from the steppes – had little previous experience of such conditions. Moreover, the kernels of the wheat from the steppes were harder than the sorts widely grown at the time. Millers resisted the new wheats from the steppes, because they faced the expense of installing new equipment to grind the harder grains.⁹³

The innovation from the steppes that encountered the most and longest resistance was the new Russian soil science. Russian scientists had come up

⁸⁹ ARAN, f.487, op.1, d.15, l.79. ⁹⁰ ARAN, f.487, op.1, d.14, l.117-ob.

⁹¹ ARAN, f.487, op.1, d.12, ll.58, 66. ⁹² ARAN, f.487, op.1, d.27, l.138 ob.

⁹³ See James C. Malin, *Winter Wheat in the Golden Belt of Kansas: A Study in Adaption to Subhumid Geographical Environment* (Lawrence: University of Kansas Press, 1944).

with the new way of conceiving, analyzing, and classifying soils during field work in the steppe region in the 1870s–80s. The Russian scientific innovation took study of soils away from the geological and physical conceptions that prevailed among most American scientists at that time. These ideas had underpinned the U.S. Soil Survey that began under Milton Whitney in 1899. Significantly, Whitney and other American scientists who persisted in adhering to these older understandings of soils had gained most of their experience in studying the well-worked soils of the humid and forested eastern United States. They had little experience of the Great Plains, where the environmental conditions and soils differed sharply from those they were accustomed to, but resembled the steppes. Changing the scientific basis of the U.S. Soil Survey would render the existing surveys obsolete and entail starting the survey again. The Russian soil science thus threatened Whitney's authority and the years of work invested in his survey.⁹⁴

When the U.S. government decided to plant shelterbelts of trees in the Great Plains in 1934, on the basis of some Russian and Soviet studies promoted by Zon and others, there was resistance from several American foresters who challenged viability of the project. They enlisted the support of one of the leading Soviet forestry scientists, Georgii Vysotskii, who had long doubts about the viability and benefits of planting shelterbelts in the steppes.⁹⁵ The Great Plains Shelterbelt Project provoked opposition among local Republican politicians, newspaper editors, and inhabitants, including some farmers, who resented meddling and interference by east-coast elites, led by Democratic President Franklin Roosevelt, who they felt had no understanding of plains farming.⁹⁶

Conclusion

The issues considered in this chapter posed significant barriers to influences from the steppes taking root in Great Plains agriculture. The barriers were unlikely to be overcome, moreover, until there was widespread appreciation in the United States of the similarities between the two regions, the common challenges facing farmers in both, and that

⁹⁴ For an overview, see Roy W. Simonson, *Historical Highlights of Soil Survey and Soil Classification with Emphasis on the United States, 1899–1970* (Wageningen: International Soil Reference and Information Centre, 1989).

⁹⁵ H. H. Chapman, "Editorial: The Shelterbelt Tree Planting Project," *JoF* 32 (1934), 801–3; G. N. Vyssotsky, "Shelterbelts in the Steppes of Russia," [translated from Russian] *JoF* 33 (1935), 781–8.

⁹⁶ See Craig Miner, *Next Year Country: Dust to Dust in Western Kansas, 1890–1940* (Lawrence: University Press of Kansas, 2006), pp. 262, 281.

Americans could learn from experience and expertise in the Russian Empire and Soviet Union. In contrast to the accounts of their visits to the other country's grassland by Sherman and Tsimmerman (see pp. 54–6), not all Americans who traveled to the steppes noted the resemblance between the two regions. It is not surprising that American relief workers who witnessed human suffering during famines in the steppe region in the early 1890s and early 1920s did not comment on parallels with the American plains, nor that they did not recommend learning from steppe agriculture. Travelers with little experience of the grassland region in their own country were also unlikely to note similarities or recommend learning from their experience. Eugene Schuyler, an American diplomat who helped Sherman when he visited Russia,⁹⁷ had traveled across the steppes himself in 1867. He described the wildlife, the flowers, the trees in river valleys, the fertile soil, as well as the gullies. The steppes, for Schuyler, were exotic: "I then thoroughly understood that Asiatic scenery, such as is to be seen from the Caspian to Peking, really begins with the east shore of the Volga." He saw more "Asiatic" scenery on a later trip across Central Asia. Schuyler had a romanticized view of Russian culture and believed that Russia had a mission to "civilize" Central Asia. He was a native of Ithaca in upstate New York and had little experience of the prairies and Great Plains of his home country.⁹⁸ Nowhere does it seem to have occurred to him that there was a landscape similar to the steppes in the United States. For him, the steppes did not remind him of Kansas, but were the gateway to the exotic east.

People whose visits were motivated by political considerations had matters beside landscapes and agriculture uppermost in their minds. Some American Communists who visited the Soviet Union in the 1930s seem to have been blinded to any similarities between the steppes and the American grasslands by ideological fervor and a desire to find a new social order. A striking example was Anna Louise Strong, who spent time on collective farms in the steppe region. Even though she was from Nebraska, her account of Soviet wheat farming contains no comparisons with her home

⁹⁷ Saul, *Concord and Conflict*, p. 74.

⁹⁸ Eugene Schuyler, "On the Steppe," *Hours at Home* 9,4 (Aug., 1869), 319–29; Schuyler, *Turkestan: Notes of a Journey in Russian Turkistan, Kokand, Bukarha, and Kuldja*, 2 vols. (New York: Scribner, Armstrong & Co., 1876); Patricia Herlihy, "Ab Oriente ad Ulteriolem Orientem: Eugene Schuyler, Russia, and Central Asia," in *Space, Place, and Power in Modern Russia*, ed. Mark Bassin, Christopher Ely, and Melissa K. Stockdale (DeKalb: N. Illinois University Press, 2010), pp. 119–41.

state.⁹⁹ Vern Ralph Smith, the Moscow correspondent of the American Communist Party newspaper, *The Daily Worker*, visited a collective farm village in the steppe region. Despite his earlier experience of working in the wheat fields of Kansas, he noted no parallels in his account of the village in the steppes, besides a passing reference to “the great sweeps of the prairie.” Instead, he presented an officially approved account of the village’s history that focused on the achievements of Soviet agriculture and the “success” of collectivization. Most comparisons he made with the United States were negative. For example, he lavished praise on the scientific achievements of Trofim Lysenko (who opposed Vavilov’s genetics) in contrast with “capitalist agronomy.”¹⁰⁰

Zara Witkin, an engineer from California, traveled to the Soviet Union in 1932 “fired by the belief that a noble attempt to refashion human society was taking place there.”¹⁰¹ On his way across the United States to catch his ship to Europe he journeyed: “Over the stupendous Rocky Mountains, across the great western desert, . . . Then vast rolling prairies . . .” Once he arrived in the Soviet Union, he traveled to the steppes. His account of his trip is full, not of admiration for the noble experiment, however, but of complaints about the incompetence of Intourist (the Soviet travel agency for foreigners), the lack of beds and linen in third-class train cars, half-built or dilapidated new hotels. At the Khar’kov tractor plant he encountered an “air of confusion” and finished tractors left outside to rust. At the “Verbliud” state farm he found deserted fields, tractors with broken headlights, incompetent workers, a foul toilet, and bad food that upset his stomach. He seems to have been too distracted by the “wanton neglect,” and by sending furious telegrams to Intourist, to notice whether the terrain resembled the “vast rolling prairies” back home. He was impressed by the dam and hydroelectric power station on the Dnepr River, one of the prestige projects of the First Five-Year Plan, but noted that “much of [it] was of American make.”¹⁰²

⁹⁹ Anna Louise Strong, *The Soviets Conquer Wheat: The Drama of Collective Farming* (New York: Holt, 1931). See the Encyclopedia of Marxism biographical note, available online at www.marxists.org/glossary/people/s/t.htm#strong-anna-louise, accessed July 10, 2013.

¹⁰⁰ Vern Ralph Smith, *In a Collective Farm Village* (Moscow: Co-operative Society of Foreign Workers in the USSR, 1936), pp. 7–28, 53–67, 97; “Vern Smith is New ‘Daily’ Correspondent in USSR,” *The Daily Worker*, August 24, 1933.

¹⁰¹ Michael Gelb, ed., “Editor’s Introduction,” in Zara Witkin, *An American Engineer in Stalin’s Russia: The Memoirs of Zara Witkin, 1932–1934* (Berkeley: University of California Press, 1991), p. 1.

¹⁰² Witkin, *An American Engineer*, pp. 36, 53–63, 68.

Witkin's disenchantment on his encounter with the Soviet Union and the sense of American superiority his experiences provoked in him echoed the views of an earlier American visitor to the steppes. In 1907, while secretary of war in President Theodore Roosevelt's administration, William Howard Taft traveled west from Vladivostok along the Trans-Siberian railroad. He observed: "The country is like the Dakotas or Nebraska and will support a population of millions. The opportunities for development, therefore, of Russia toward the Pacific on the one hand are quite like the actual development in the United States towards the Pacific on the other." Russia needed, he believed, "industrious people" to emulate the American experience. He hoped that the development of Siberia would make it "one of the most prosperous and healthily populated parts of the globe" and "bring Russian and American civilization closer and closer together."¹⁰³ Thus, Taft's response to recognizing similarities between the steppes and the Great Plains was that the Russians should learn from American experience.

Before many Americans came to appreciate not just the parallels between their grassland regions, but that they could learn from the Russians' longer experience of settling, cultivating, and studying their grasslands, the barriers considered in this chapter needed to be overcome. Some of these barriers contained elements that allowed them to be bridged. The competition in the world grain market that played out at the world's fairs also enabled American and Russian specialists attending the fairs to see each other's exhibits and learn about their agriculture. Competition spurred Russian specialists to study grain production in the prairies and Great Plains and, later, American specialists paid serious attention to steppe agriculture. Competition thus prompted greater knowledge of their chief rival. One of the issues that encouraged negative American impressions of Russia also assisted in bridging the language barrier and American ignorance of Russian agricultural sciences. The large numbers of Jewish immigrants in the United States who had fled oppression in the Russian Empire in the late nineteenth and early twentieth centuries provided a pool of educated people, some with scientific training, who knew Russian.

In aftermath of the Russian Revolution of 1917, the new Soviet state and the capitalist United States were deeply suspicious of each other as their political and economic systems were diametrically opposed, and there were restrictions on travel and contacts between the two countries. But,

¹⁰³ Ralph Eldin Minger, "William Howard Taft's Forgotten Visit to Russia," *RR* 22 (1963), 153-4.

the restrictions were not absolute. Some Soviet scientists, including Vavilov and the delegates to the Soil Science Congress in 1927, did visit the United States. Some of their American counterparts, for example, Marbut and other Americans who attended the next Soil Science Congress in 1930, traveled to the Soviet Union. The trips that took place after 1917 built on contacts that had been established before the revolution. Many of the Russians who visited the Great Plains and Americans whose itineraries took in the steppes saw parallels between them and opportunities to exchange experience. Even the resistance to changes could eventually be overcome, if the advantages of transfers from the steppes were too compelling to ignore. It was not only steppe agriculture that experienced serious problems as a result of recurring droughts. The Great Plains experienced the same phenomenon, most urgently during the Dust Bowl in the 1930s, which prompted searches for remedies from regions with similar experiences, such as the steppes. The ways the barriers to transfers and influences from the steppes to the Great Plains were bridged is the subject of the next chapter.