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Author(s): David Moon

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PEASANT MIGRATION AND THE SETTLEMENT OF RUSSIA'S FRONTIERS, 1550–1897*

DAVID MOON

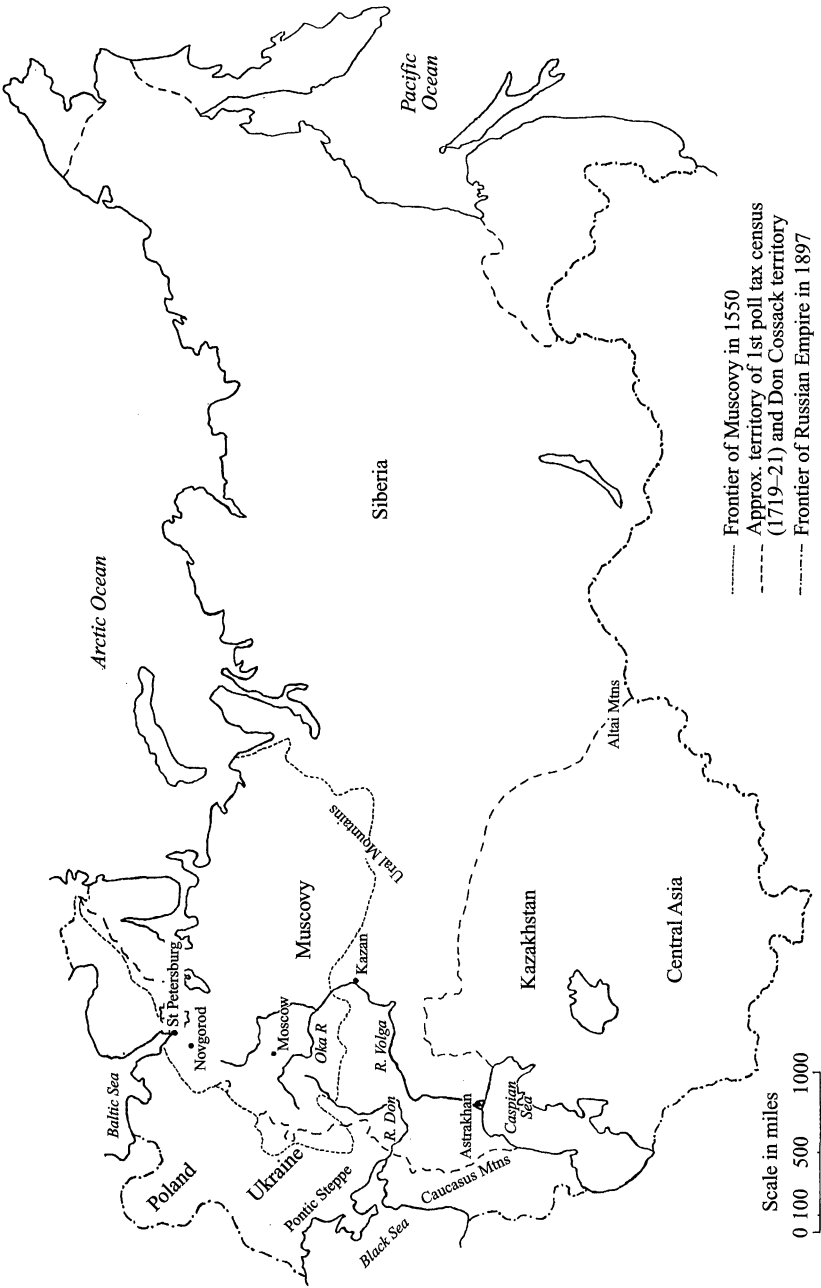
University of Newcastle upon Tyne

ABSTRACT. *This article surveys the expansion of Russian peasant settlement from 1550, when most of the 6.5 million peasants lived in the forest-heartland of Muscovy, to 1897, when around fifty million Russian peasants lived throughout large parts of the immense Russian empire. It seeks to explain how this massive expansion was achieved with reference to different facets of the 'frontier': the political frontier of the Russian state; the environmental frontier between forest and steppe; the lifeway frontier between settled peasant agriculture and pastoral nomadism; and the 'hierarchical frontier' between the Russian authorities and the mass of the peasantry. The article draws attention to the different ways in which peasant-migrants adapted to the variety of new environments they encountered, and stresses interaction across each facet of the frontier. Nevertheless, by 1897, the coincidence between the two main types of environment and the two principal lifeways of the population had been virtually eliminated in much of the Russian empire outside central Asia. This was a consequence of the expansion of Russia's political frontiers, mass peasant migration, the ploughing up of vast areas of pasture land, and the sedentarization of many nomadic peoples. The expansion of peasant settlement helps explain the durability of Russian peasant society throughout the period from the mid-sixteenth to the late-nineteenth centuries.*

In 1550 most Russian peasants lived in the forest-heartland of Muscovy¹ that was situated to the north of the Oka river and to the west of the Ural mountains. The total area of Muscovy in 1550 was approximately 1.1 million square miles. It was inhabited by a population of around 6.5 million. In marked contrast, in 1897 Russian peasants lived throughout large parts of an immense empire that stretched from the Baltic sea to the Pacific ocean, and from the Arctic tundra to the arid steppes of central Asia. The territories ruled from the imperial capital of St Petersburg in 1897 covered a total of 8.5 million square miles (see Map 1). The population in 1897 numbered 125 million in

* An earlier version of this article was presented to a conference entitled 'The frontier in question' held at Essex University on 21–23 April 1995. I am grateful to Hugh Brogan for inviting me to attend the conference, to my fellow panellists, Willard Sunderland and Rodolphe De Koninck, and all who participated in the conference for comments on my paper and giving me a broader perspective on the subject. I would also like to thank Melanie Ilic for her help in tracking down the relevant tables in the provincial volumes of the 1897 census, and to acknowledge the financial support of the British Academy and the University Research Committee and Staff Travel Fund of Newcastle University.

¹ Muscovy is the name often given to the Russian state before the reign of Peter the Great (1682–1725).



Map 1. Russia's political frontiers, 1550-1897.

what had become a multi-national empire in which Russians made up slightly under half the total population. Nevertheless, Russian peasants formed the majority or substantial minorities of the population in regions far beyond the original forest-heartland. This was a consequence of a shift to the south and east in the centre of gravity of Russian peasant settlement following three and half centuries of peasant migration and the settlement of Russia's expanding frontiers.

In spite of the dramatic changes in the area of the Russian state, the geographical extent of Russian peasant settlement, and the ethnic composition of the population, there was one major continuity. In both 1550 and 1897 peasants made up the overwhelming majority of the population of the Russian state. Although the proportion of peasants had declined from around 90 per cent in the mid-sixteenth century to 77 per cent at the end of the nineteenth century, in 1897 the legally-defined social estate (*soslovie*) of peasants excluded sections of the rural population who were classified as Cossacks or 'aliens' (*inorodtsy*). The proportion of peasants in 1897 was lowest, moreover, in some of the empire's non-Russian borderlands, in particular Poland and central Asia. In the fifty provinces of 'European Russia', peasants still comprised 84.2 per cent of the population.²

The aims of this article are, first, to try to explain how this massive expansion in Russian peasant settlement was achieved and, secondly, to suggest one of the reasons for the durability of Russian peasant society.

The article is organized around the theme of frontiers.³ The frontier of the

² On the growth in the area of the Russian state, see R. Taagepera, 'An overview of the growth of the Russian empire', in M. Rywkin, ed., *Russian colonial expansion to 1917* (London and New York, 1988), table facing p. 1. On the population in 1550, see R. O. Crumme, *The formation of Muscovy, 1304-1613* (London, 1987), p. 2; Ya. E. Vodarskii, *Naselenie Rossii za 400 let (XVI-nachalo XX vv.)* (Moscow, 1973), pp. 27-9; and in 1897: K. B. Litvak, 'Perepis' naseleniya 1897 goda o krest'yanstve Rossii: (istochnikovedcheskii aspekt)', *Istoriya SSSR* (1990), no. 1, 114. On the regional distribution of Russians and the ethnic composition of the population as a whole, see S. I. Bruk and V. M. Kabuzan, 'Dinamika chislennosti i rasselenie Russkogo etnosa (1678-1917 gg.)', *Sovetskaya etnografiya* (1982), no. 4, 9-25; idem, 'Etnicheskii sostav naseleniya Rossii (1719-1917 gg.)', *Sovetskaya etnografiya* (1980), no. 6, 18-34; idem, 'Dinamika i etnicheskii sostav naseleniya Rossii v epokhu imperializma (konets XIX v.-1917 g.)', *Istoriya SSSR* (1980), no. 3, 74-93; A. Kappeler, *Russland als Vielvölkerreich: Entstehung, Geschichte, Zerfall* (Munich, 1992), pp. 100-1. On the proportion of peasants in 1897, see: N. A. Troitskii, ed., *Obshchii svod po imperii rezul'tatov razrabotki dannykh pervoi vseobshchei perepisi naseleniya, proizvedennoi 28 Yanvarya 1897 goda* (2 vols., St Petersburg, 1905), I, xiii-xiv. See also: D. Moon, 'Estimating the peasant population of late-imperial Russia from the 1897 census', *Europe-Asia Studies*, XLVIII (1996), 141-53. 'European Russia' included Russia west of the Urals, Bessarabia, Ukraine, Belarus, Lithuania, and the Baltic provinces, but excluded Poland, Finland, and the north Caucasus.

³ The importance of 'colonization' has long been acknowledged as central to Russian history, most famously by Vasilii Klyuchevskii at the end of the nineteenth century. V. O. Klyuchevskii, *Russkaya istoriya: polnyi kurs lekttsii v trekh knigakh* (3 vols., Moscow, 1993), I, 19-20. More recently, 'frontiers' have attracted a great deal of attention from historians and historical geographers of Russia. For a few examples, see: B. H. Sumner, *Survey of Russian history* (London, 1944), pp. 9-56; D. W. Treadgold, *The great Siberian migration: government and peasant in resettlement from emancipation to the first world war* (Princeton, NJ, 1957), esp. pp. 3-9, 239-46; J. L. Wiczynski, *The Russian frontier: the impact of the borderlands upon the course of early Russian history* (Charlottesville, VA, 1976); D. J. B. Shaw, 'Southern frontiers of Muscovy, 1550-1700', in J. H. Bate and R. A. French, eds., *Studies*

Russian state in the period covered by this article was multi-faceted. Among the most important facets were: the political frontier of the Russian state; the environmental frontier between forest and steppe; the lifeway frontier between settled peasant agriculture and pastoral nomadism; and the hierarchical frontier between the ruling groups of Russian society, principally the state and nobility, and the mass of the peasantry. The first three facets of the frontier can easily be represented on a map. In 1550 all three roughly coincided, and lay just to the south of the Oka river (an eastward-flowing tributary of the river Volga). The fourth facet of the frontier refers primarily to the social structure of pre-industrial Russia, but can be represented geographically as the territorial extent of the coercive power of the Russian state and elites.⁴ For most of the period between 1550 and 1897 this multi-faceted frontier cannot be shown on a map by a single line. Rather it was a band of territory that defied clear demarcation. To use a term applied by Richard White to a similar space in the Great Lakes region of north America between 1650 and 1815, Russia's frontier was 'the middle ground'.⁵ It was an intermediate zone of interaction and mutual accommodation between the Russian state and neighbouring state structures, Russian peasant-migrants and the environment, and agricultural peasants and pastoral nomads and other native peoples. In the wake of the expansion of Russia's political frontier, Russian peasant-settlers eventually overcame the environmental and lifeway facets of the frontiers, in part as a result of interaction with the state and elites across the hierarchical frontier.

I

Before turning to the four facets of the frontier in more detail, we need to look at trends in peasant migration. The first date for which reasonably accurate figures for the Russian peasant population are available is 1678, the year of the

in *Russian historical geography* (2 vols., London, 1983), I, 118–42; A. Donnelly, 'The mobile steppe frontier: the Russian conquest and colonization of Bashkiria and Kazakhstan to 1850', in *ibid.* pp. 189–207; I. Stebelsky, 'The frontier in central Asia', in *ibid.* pp. 153–70; J. Pallot and D. J. B. Shaw, *Landscape and settlement in Romanov Russia, 1613–1917* (Oxford, 1990), pp. 13–32; D. J. B. Shaw, 'Settlement and landholding on Russia's southern frontier in the early seventeenth century', *Slavonic and East European Review*, LXIX (1991), 232–56; R. Hellie, ed., *The frontier in Russian history* [special issue of *Russian History*, XIX (1992)]; M. Bassin, 'Turner, Solov'iev, and the "frontier hypothesis": the nationalist significance of open spaces', *Journal of Modern History*, LXV (1993), 473–511; T. M. Barrett, 'Lines of uncertainty: the frontiers of the north Caucasus', *Slavic Review*, LIV (1995), 578–601; P. Gatrell, 'Ethnicity and empire in Russia's borderland history', *Historical Journal*, XXXVIII (1995), 715–27. See also W. H. McNeill, *Europe's steppe frontier, 1500–1800* (Chicago and London, 1964).

⁴ Marc Raeff identified 'Two major dimensions of the process of imperial expansion': 'territorial and political' and 'socioeconomic and cultural'. M. Raeff, 'Patterns of Russian imperial policy toward the nationalities', in *idem*, *Political ideas and institutions in imperial Russia* (Boulder, CO, 1994), p. 128.

⁵ R. White, *The middle ground: Indians, empires, and republics in the Great Lakes region, 1650–1815* (Cambridge and New York, 1991).

Table 1. *Peasant settlement by region, 1678-1897: numbers of males*

Zones/regions	1678†	1719	1762	1811	1857	1897
Forest heartland						
Cent NBE	1,852,000	2,346,177	2,776,051	3,513,327	3,838,852	5,097,216
N-W	271,000	418,671	598,052	807,598	888,094	1,897,390
Northern	478,000	325,723	396,513	484,015	625,566	910,146
N Urals	—*	265,810	588,780	1,008,772	1,717,238	2,757,237
Total	2,601,000	3,356,381	4,359,396	5,813,712	7,069,750	10,661,989
Steppes						
Cent BE	850,000	1,446,904	2,029,777	3,303,690	4,159,932	5,777,960
Mid-Volga	221,000	727,268	861,820	1,314,702	1,802,482	2,625,958
Lower-V & D	—†	1,684	221,753	601,609	1,183,363	2,750,973
S Urals	—†	16,181	143,047	334,334	661,774	2,100,152
Total	1,071,000	2,192,037	3,256,397	5,554,335	7,807,551	13,255,043
Siberia	49,000	173,912	356,050	600,368	1,114,090	1,949,050
Total	3,721,000	5,722,330	7,971,843	11,968,415	15,991,391	25,866,082

* 1678, N Urals included in Northern.

† Lower V-D and S Urals virtually unsettled in late C17.

‡ Totals for 1678 incomplete.

Sources: Kabuzan, *Izmeneniya*, pp. 59-175; Vodarskii, *Naselenie v konke XVII v.* p. 152; Troitskii, *Obshchii svod*, vol. 1, pp. 165, 167, 169, 171 (Table VII); Troitskii, *Pervaya vseobshchaya perepis' naseleniya Rossiiskoi imperii 1897 g.* (St Petersburg, 1899-1905), xii (Don), pp. 48-9; xxviii (Orenburg), pp. 26-7; xxxvi (Samara) pp. 34-5; xxxviii (Saratov), pp. 48-9; xxxix (Simbirsk), pp. 32-3.

Table 2. *Peasant settlement by region, 1678–1897 (percentages)*

Zones/regions	1678	1719	1762	1811	1857	1897
Forest heartland						
Cent NBE	49.77	41.00	34.82	29.35	24.01	19.71
N-W	7.28	7.32	7.50	6.75	5.55	7.34
Northern	*12.85	5.69	4.97	4.04	3.91	3.52
N Urals	—*	4.65	7.39	8.43	10.74	10.66
Total	69.90	58.65	54.68	48.58	44.21	41.22
Steppes						
Cent BE	22.84	25.29	25.46	27.60	26.01	22.34
Mid-Volga	5.94	12.71	10.81	10.98	11.27	10.15
Lower-V & D	—†	0.03	2.78	5.03	7.40	10.64
S Urals	—†	0.28	1.79	2.79	4.14	8.12
Total	28.78	38.31	40.85	46.41	48.82	51.24
Siberia	1.32	3.04	4.47	5.02	6.97	7.54
Total	100.00	100.00	100.00	100.00	100.00	100.00

* 1678, N Urals included in Northern.

† Lower V-D and S Urals virtually unsettled in late C17.

Sources: See Table 1.

household tax census. Figures derived from this census can be compared with data from the ten poll tax censuses held between 1719 and 1857, and the first general census of the population of 1897.⁶

The figures in Tables 1 and 2 on changes in the regional distribution of the male peasant population over time clearly show the massive shift in the balance of the peasant population from the forest-heartland to the steppes and Siberia that started over a century before 1678 and continued until, and after, 1897. For purposes of comparison, the data in Tables 1 and 2 are for the borders of the Russian state in the middle of the seventeenth century. This was the territory ruled by the Russian tsars before left-bank Ukraine transferred its allegiance to Moscow in 1654 and prior to the era of imperial expansion that began in the reign of Peter the Great (1682–1725). There are a number of reasons for choosing this territory. Left-bank Ukraine and most of the acquisitions of the eighteenth and nineteenth centuries comprised parts of east-central Europe,⁷ the Pontic steppe, Transcaucasia, and central Asia. Since these lands were, and remained, inhabited mainly by non-Russians, they can

⁶ See Ya. E. Vodarskii, *Naselenie Rossii v kontse XVII-nachale XVIII veka: (chislennost', soslovno-klassovyi sostav, razmeshchenie)* (Moscow, 1977); V. M. Kabuzan, *Narodonaselenie Rossii v XVIII-pervoi polovine XIX v. (po materialam revizii)* (Moscow, 1963); Litvak, 'Perepis', pp. 114–26; Troitskii, *Obshchii svod*.

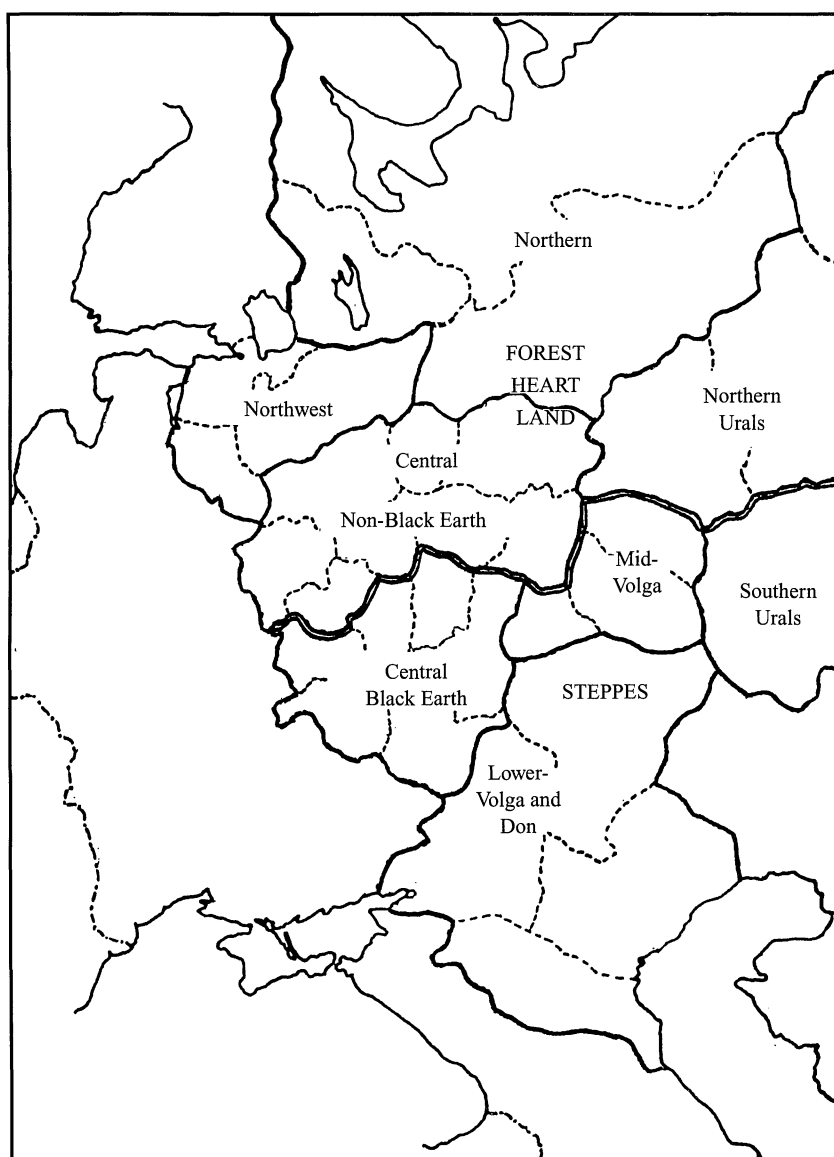
⁷ Right-bank Ukraine, Belarus, Lithuania, the Baltic provinces, Poland, Finland and Bessarabia.

be considered to be the empire's non-Russian borderlands. For the entire period between 1550 and 1897 the vast majority of Russian peasants lived inside the borders of the pre-Petrine Russian state of the mid-seventeenth century. This territory also has considerable practical significance for compiling a series of comparable figures on peasant settlement because it is approximately that covered by the first poll tax census of 1719–21 (to which I have added the Don Cossack territory).⁸ The territory of the pre-Petrine Russian state is also, with the exception of a few important later additions, that of the present-day Russian Federation that emerged in December 1991 as the rump state from the former Soviet Union which, itself, was the heir to Russia's imperial past.⁹

In order to trace patterns in peasant migration, I have divided the territory of pre-Petrine Russia into three main zones that reflect the expansion of Russia's political frontier, and the environmental and lifeway frontiers. The zones can, in turn, be sub-divided into a number of smaller regions. The first zone is the forest-heartland, which can be divided into four regions: the 'central non-black earth region' (Moscow, Vladimir, Nizhnii Novgorod, Kostroma, Yaroslavl', Tver', Kaluga and Smolensk provinces); the 'north-western region' (St Petersburg, Pskov and Novgorod provinces); the 'northern region' (Archangel, Vologda and Olonets provinces); and the 'northern Urals region' (Perm' and Vyatka provinces). South of the Oka river lie the steppes. The steppe zone of European Russia can be divided into two belts and four regions. The first of the belts is the transitional forested steppe. It contains two regions: the 'central black-earth region' (Ryazan', Tula, Orel, Kursk, Voronezh and Tambov provinces) and the 'mid-Volga region' (Kazan', Penza and Simbirsk provinces). The second belt is the open steppe, which comprises: the 'lower-Volga and Don region' (Saratov and Astrakhan'

⁸ On the territory covered by the first poll tax census see V. M. Kabuzan, *Izmeneniya v razmeshchenii naseleniya Rossii v XVIII-pervoi polovine XIX v. (po materialam revizii)* (Moscow, 1971), pp. 3, 59–63; idem, *Narody Rossii v XVIII veke: chislennost' i etnicheskii sostav* (Moscow, 1990), pp. 11, 57. Slobodskaya Ukraina (the future Khar'kov province) was separate from that part of Ukraine which came under Russian rule after 1654, but was also excluded from the first poll tax census. Smolensk and part of the future Smolensk province was 'recovered' from Poland once and for all in 1667, and was included in first poll tax census. The territory covered by the first poll tax census was approximately that of the following provinces and regions in 1897: Archangel, Astrakhan', Vladimir, Vologda, Voronezh, Vyatka, Kazan', Kaluga, Kostroma, Kursk, Moscow, Nizhnii Novgorod, Novgorod, Olonets, Orel, Orenburg, Penza, Perm', Pskov, Ryazan', Samara, St Petersburg, Saratov, Simbirsk, Smolensk, Tambov, Tver', Tula, Ufa, Yaroslavl', Stavropol', Terek, Enisei, Zabaikal, Irkutsk, Tobol'sk, Tomsk and Yakutsk. The total male population of all social estates of these provinces in 1897 was 29,186,152. Kabuzan estimated the total male population of the territory of the first poll tax census in 1897 at 28,670,353, but did not explain how he arrived at this total. Kabuzan, *Izmeneniya*, p. 14. The difference between the two estimates is 515,799, or 1.8 per cent. I have added the population of the Don region to my estimate. Kabuzan recalculated figures for the population in the years 1719–1858 for the provincial boundaries of 1806 (Kabuzan, *Narodonaselenie*, pp. 107–16, 180–227). I have recalculated the figures from the 1897 census for the 1806 provinces on the basis of information on provincial border changes in V. E. Den, *Naselenie Rossii po V revizii* (2 vols., Moscow, 1902), I, 163–83.

⁹ Sumner, *Survey*, pp. 10–16. The later additions include St Petersburg, the Kuban'/Krasnodar region, Chechnya and Daghestan in the north Caucasus, Tuva on the Mongolian border, and the Pacific far east.



Map 2. Regions of European Russia.

provinces and the Don Cossack and Caucasus territories) and the ‘southern Urals region’ (the large province of Orenburg). Across the Urals lies the third zone: Siberia¹⁰ (see Map 2).

¹⁰ The scheme for dividing Russia into natural regions is based on: V. P. Semenov, ed., *Rossiia: polnoe geograficheskoe opisanie nashego otechestva* (11 vols., St Petersburg, 1899–1914), I, *Moskovskaya promyshlennaya oblast’ i verkhnee Povol’zhe* (St Petersburg, 1899), pp. vi–vii; III, *Ozernaya oblast’* (St

In 1678 most Russian peasants still lived in the forest-heartland. Peasant settlement patterns changed considerably over the following two centuries, mainly as a result of mass migration. The main trend in the direction of migration was to the south and east, first to the forested steppe and, only in the eighteenth century, further south and east to the open steppe. The proportion of the Russian peasantry which lived in the forest-heartland declined steadily from almost 70 per cent in 1678 to 41 per cent by 1897. Over the same period the percentage of the Russian peasantry that lived in the steppe regions increased from 29 to 51 per cent. The peasant population of steppe regions surpassed that of the forest-heartland in the first half of the nineteenth century. Over the whole period, moreover, a steady stream of peasant-migrants crossed the Urals. The proportion of the Russian peasantry living in Siberia increased from 1.3 to 7.5 per cent between 1678 and 1897 (see Tables 1 and 2). Relying on incomplete figures, the Soviet demographic historians S. I. Bruk and V. M. Kabuzan estimated that from the 1670s to 1896, in the whole of the empire, almost ten million people migrated to the frontier regions. Well over a third migrated between 1871 and 1896.¹¹

Starting in the 1550s, Russian peasant settlement of the south-eastern steppe regions took almost three centuries. It took several generations for Russian peasants, who were used to living in the forest, to adapt to the very different environmental conditions of the steppes, especially the open steppe. The length of time was also a consequence of the persistent hostility of many of the native inhabitants of the steppes. Furthermore, into the nineteenth century, many peasant-migrants moved only relatively short distances.¹² By the second half of the nineteenth century, after three hundred years of colonization, the steppe regions had been transformed from the sparsely populated 'wild field' (*dikoe pole*) into a fully populated territory with little vacant land. In the late-nineteenth century, moreover, all four steppe regions were losing population through net emigration. Peasant-migrants in the nineteenth century, especially after the 1880s, moved further than most of their predecessors. Between 1867

Petersburg, 1900), pp. iii–iv; H. Bauer, A. Kappeler, B. Roth, eds., *Die Nationalitäten des russischen Reiches in der Volkszählung von 1897* (2 vols., Stuttgart, 1991), II, 35–65 (I am grateful to David Saunders for drawing my attention to these volumes); A. V. Dulov, *Geograficheskaya sreda i istoriya Rossii: konets XV-seredina XIX v.* (Moscow, 1983), p. 56; Kabuzan, *Izmeneniya*, p. 4; Vodarskii, *Naselenie Rossii v kontse XVII*, pp. 147–8. I have followed Kabuzan in using the provincial boundaries of 1806. I have included the Don territory in a combined lower-Volga and Don region. The borders of the nine regions do not always coincide exactly with those of the environmental belts. See Semenov, *Rossiya*, I, *Moskovskaya*, p. vii, n. 1.

¹¹ S. I. Bruk and V. M. Kabuzan, 'Migratsiya naseleniya v Rossii v XVIII-nachale XX veka: (chislennost', struktura, geografiya)', *Istoriya SSSR* (1984), no. 4, 52.

¹² N. A. Gorskaya, ed., *Krest'yanstvo v periody rannego i razvitoogo feodalizma* (Moscow, 1990), pp. 407, 411; R. Hellie, *Enserfment and military change in Muscovy* (Chicago and London, 1971), p. 129; Pallot and Shaw, *Landscape*, pp. 7–8, 17; W. Sunderland, 'Peasants on the move: state peasant resettlement in imperial Russia, 1805–1830s', *Russian Review*, LI (1993), 478; Yu. M. Tarasov, *Russkaya krest'anskaya kolonizatsiya yuzhnogo Urala: vtoraya polovina XVIII-pervaya polovina XIX v.* (Moscow, 1984), pp. 54–5, 88; Vodarskii, *Naselenie Rossii v kontse XVII*, p. 157.

and 1897 over a million people migrated to Siberia from the European part of the Russian empire (including large numbers of Ukrainians).¹³

From the middle of the nineteenth century, moreover, there were additional destinations for mass peasant migration. Increasing numbers of Russian peasants migrated beyond the borders of pre-Petrine Russia to the non-Russian borderlands.¹⁴ The total number of Russian peasants, both men and women, who lived in the southern and eastern non-Russian borderlands of the empire¹⁵ in 1897 can be estimated at around 3 million, almost 2.5 million of whom lived in left-bank and southern Ukraine and the Kuban' region in the north Caucasus.¹⁶ This was around 6 per cent of the number of peasants that lived inside the borders of pre-Petrine Russia. Few Russian peasants moved to the empire's non-Russian borderlands in the west since these regions already had their own indigenous peasant populations and there was little land available for settlement. Most of the Russian-speakers recorded in the 1897 census as living in the western borderlands were probably soldiers, officials, migrants working in the cities, and members of the local nationalities who had been assimilated to the Russian-speaking population.¹⁷ Migration by Russian peasants beyond the borders of the mid-seventeenth century to the non-Russian borderlands was partly cancelled out by the large numbers of Ukrainian peasants who moved to the central black-earth and lower Volga and Don regions and to Siberia (see below).

Immigration accounted for only part of the increase in the numbers of Russian peasants who lived in the steppe regions, Siberia, and the non-Russian borderlands. The rates of *natural* population increase, the difference between the numbers of births and deaths, were higher in the various regions that were being settled than in the forest-heartland. Ya. E. Vodarskii estimated that

¹³ B. N. Mironov, 'Traditsionnoe demograficheskoe povedenie krest'yan v XIX-nachale XX v.', in A. G. Vishnevskii, ed., *Brachnost', rozhdaemost', smertnost' v Rossii i v SSSR* (Moscow, 1977), p. 102; Tarasov, *Russkaya krest'yanskaya*, pp. 172; Ya. E. Vodarskii, *Naselenie Rossii za 400 let (XVI-nachalo XX v.)* (Moscow, 1973), 130–2, 139–41, 146–7; N. A. Yakimenko, 'Sovetskaya istoriografiya pereseleniya krest'yan v Sibir' i na Dal'nyi Vostok (1861–1917)', *Istoriya SSSR* (1980), no. 5, 95, 103; L. Goryushkin, 'Migration, settlement and the rural economy of Siberia, 1861–1914', in A. Wood, ed., *The history of Siberia: from Russian conquest to revolution* (London and New York, 1991), pp. 140–1.

¹⁴ Vodarskii, *Naselenie Rossii za 400 let*, pp. 54–5.

¹⁵ Left-bank and southern Ukraine, Transcaucasia and the Kuban' region, central Asia, and the Pacific far east.

¹⁶ Figures estimated from data in Bauer, *Die Nationalitäten*, pp. 361–7; Bruk and Kabuzan, 'Dinamika chislennosti', pp. 17, 23, 24; V. M. Kabuzan and G. P. Makhnova, 'Chislennost' i udel'nyi ves ukrainskogo naseleniya na territorii SSSR v 1795–1959 gg.', *Istoriya SSSR* (1965), no. 1, 32; S. I. Bruk and V. M. Kabuzan, 'Dinamika i etnicheskii sostav', p. 92; Kabuzan, *Dal'nevostochnyi krai v XVII-nachale XX vv. (1640–1917)* (Moscow, 1985), pp. 157–8. (V. M. Kabuzan, *Naselenie severnogo Kavkaza v XIX–XX vekakh* [St Petersburg, 1996] appeared too late for consideration in this article.) In marked contrast, in the Soviet period considerable numbers of Russians migrated beyond the borders of the Russian Federation, leaving around 25 million Russians in the 'near abroad' after the break-up of the Soviet Union in 1991. Gatrell, 'Ethnicity and empire', p. 716.

¹⁷ See: Bauer, *Die Nationalitäten*, pp. 358–60; Bruk and Kabuzan, 'Dinamika chislennosti', pp. 11, 17, 22–5; M. F. Hamm, ed., *The city in late imperial Russia* (Bloomington, IN, 1986), pp. 98, 127–31, 179–84, 214.

around one-third of the total increase in the population of the southern and eastern regions was due to immigration and the rest was a result of natural growth. In the second half of the nineteenth century, birth rates in the southern and eastern provinces were above the Russian average. These contributed to higher than average rates of natural population increase in these regions.

It has been argued that the population grew faster in the southern and eastern regions because they had less oppressive variants of serfdom or avoided unfree labour altogether, enjoyed better environmental conditions, and had an abundance of fertile land. These explanations are not entirely satisfactory. The regional variations in rates of natural increase continued after the abolition of serfdom in 1861. The continuation of lower rates after 1861 in central and northern European Russia may, however, have been due to the growth of seasonal migrant labour. This involved large numbers of young adults who otherwise would have remained in the villages and raised families. The warmer climate in the south and east may have been more pleasant, but it was also more favourable to the spread of epidemic diseases (see below). Moreover, the unreliable rainfall made these regions more susceptible to bad harvests. The greater availability of land may be a better explanation for the rates of population growth, in part, because it dissuaded peasants from migrating.¹⁸

The explanation for the higher rates of natural population growth in the regions that were receiving large numbers of migrants may be quite straightforward. A lot of the migrants were healthy, young people who moved to new regions, set up homesteads, and started families. They left behind the older, weaker people, who had passed their fertile years and were likely to die sooner. The population of the regions that were being settled grew more quickly partly because the birth rates were higher and death rates lower which, in turn, were a consequence of the larger numbers of young people. For the opposite reasons, the numbers of peasants in the older regions of settlement increased more slowly. According to data for 1897, moreover, rural women in the steppe regions of Russia had a marginally higher index of overall fertility ($I_g = 0.611$) than in the forest heartland ($I_g = 0.588$).¹⁹

In all regions, the Russian peasant population enjoyed high rates of natural increase for at least some parts of the period between 1550 and 1897 on account of the peasantry's very high fertility. This, in turn, was a result of the practice of universal, early marriage that was designed to maximize the reproductive capacity of the peasant population. Russian peasants were anxious to make sure they had large numbers of children so that sufficient would survive to

¹⁸ Vodarskii, *Naselenie Rossii v kontse XVII*, pp. 153–6; Goryushkin, 'Migration', p. 143; A. G. Rashin, *Naselenie Rossii za 100 let (1811–1913): statisticheskie ocherki* (Moscow, 1956), pp. 165–6, 216–19, 231; Kabuzan, *Izmeneniya*, pp. 16–37; idem, *Narody Rossii*, esp. pp. 128, 130.

¹⁹ See A. Coale, B. A. Anderson and E. Härm, *Human fertility in Russia since the nineteenth century* (Princeton, NJ, 1979), pp. 20–1; R. S. Clem, 'Population change in the Ukraine in the nineteenth century', in I. S. Koropeckyj, ed., *Ukrainian economic history: interpretive essays* (Cambridge, MA, 1991), p. 237. On the relative importance of immigration and rapid natural increase in the growth of the European populations of the Americas and Australasia, see A. J. Crosby, *Ecological imperialism: the biological expansion of Europe, 900–1900* (Cambridge, 1986), pp. 300–5.

adulthood to provide new generations of peasants to work on their households' land. Russian peasants employed traditional, labour-intensive and land-extensive, agricultural techniques. They needed large numbers of labourers at peak times of the agricultural cycle, and required ever larger areas of land to cope with the consequent population increase.²⁰ Natural population growth, therefore, put pressure on the land resources of the heartland of Russian peasant settlement, and was one factor behind peasant migration to Russia's frontiers.

II

Throughout the period between 1550 and 1897 Russian peasants migrated to lands that had been brought inside the expanding political frontier of the Russian state. The forest heartland was, approximately, the territory of Muscovy in the late-fifteenth century, after the annexation of the other Russian principalities of the Volga-Oka area and the extensive northern lands of Novgorod.²¹ From the mid-thirteenth to the mid-fifteenth centuries, most of the Russian principalities had been part of the Golden Horde: the westernmost division of the Mongol empire that had been founded by Genghis Khan at the start of the thirteenth century. After the break-up of the Golden Horde in the mid-fifteenth century, the political frontier of the Russian principalities was bounded to the south and east by the Tatar khanates of Kazan' and Astrakhan' on the middle and lower Volga, Siberia across the Urals, and Crimea to the north of the Black sea.

In the late-fifteenth century, the Russians took advantage of divisions between and weaknesses inside the khanates and formally renounced the 'Mongol-Tatar yoke'. Tsar Ivan IV 'the Terrible' (1533–84) went on the offensive. He conquered Kazan' and Astrakhan' in 1552 and 1556. Although the khanate of Crimea remained undefeated, in 1552 the Muscovites scored a significant victory over the Crimean Tatars near Tula (just south of the Oka river). Nevertheless, in 1571 the Crimean Tatars managed to penetrate Muscovite defences and sack the city of Moscow. This was the last time warriors from the steppes succeeded in reaching Moscow. Overall, in the battles between Russians and Tatars, while the Muscovite cavalry tried to match the superior horsemanship of the Tatar warriors, a critical factor in the Muscovite victories was the firepower of Ivan's infantry and artillery. The triumphs over the Tatars were also a testament to the increasing organizational strength of the emerging autocratic state based on Moscow. By the end of the sixteenth century, Muscovy controlled almost all the territory of the central black-earth and mid-Volga regions and the full length of the river Volga. Ivan the Terrible's victories over the Tatars began the process of the expansion of the

²⁰ See Mironov, 'Traditsionnoe', pp. 83–105; J. Blum, *Lord and peasant in Russia: from the ninth to the nineteenth century* (Princeton, NJ, 1961), pp. 326–44; M. Confino, *Systèmes agraires et progrès agricole: l'assolement triennal en Russie aux XVIIIe–XIXe siècles. Etude d'économie et de sociologie rurales* (Paris and The Hague, 1969), pp. 75–9.

²¹ Crummey, *Formation*, pp. 87–93; M. Gilbert, *Atlas of Russian history* (London, 1972), p. 25.

Russian political frontier into the steppe regions and Siberia that Andreas Kappeler has called 'the gathering of the lands of the Golden Horde'.²²

After the victories of the 1550s, the Russian state took steps to subjugate the native inhabitants and to open the steppes to Russian peasant settlement. The Russian state employed a variety of methods. The state joined in and manipulated the constantly shifting alliances and rivalries between the various steppe peoples, periodically allying with one people against another. For example, at times the Russian state allied with the Kalmyks against Bashkirs, Kazakhs and rebellious Cossacks. This was part of the process of interaction between states in the 'middle ground' of the frontier that lasted until the Russian state succeeded in expanding its control. One way in which the Russian state achieved this was by co-opting the elites of peoples in the borderlands into Russian service. The Russian state preserved and supported the elites' privileged status in their societies in return for their swearing allegiance and paying tribute to the tsar. This policy was carried out among steppe peoples such as the Tatars and Kalmyks and, later, in other frontier regions in Siberia and the western borderlands.

Furthermore, the state constructed a series of fortified lines along its steppe frontier to protect Russian settlers and the heartland of Muscovy from nomadic raids. The lines also served as a basis for further expansion into the steppes. The construction of the Belgorod and Simbirsk defensive lines in the first half of the seventeenth century secured the regions of the forested-steppe belt.²³ Further fortified lines were built in the southern Urals and across the north Caucasus. These lines were part of the state's strategy of subjugating the native inhabitants of these regions, for example the Bashkirs and Chechens. These Islamic peoples declared jihads against Russian incursion onto their lands. The Bashkirs rebelled at regular intervals between the late-sixteenth and late-eighteenth centuries, and participated in the Pugachev rebellion of 1773–4. The native peoples of the north Caucasus fought a long guerilla war against the Russian army that lasted from the late-eighteenth century to the 1860s. From the 1830s, they were led by the imam, Shamil. Nevertheless, the Russian state was able to defeat its neighbours in the steppe regions and incorporate their lands behind its expanding political frontier.²⁴

²² Crummey, *Formation*, pp. 29–30, 73, 96–101, 152–5, 171; H. R. Huttenbach, 'Muscovy's conquest of Muslim Kazan and Astrakhan, 1552–56. The conquest of the Volga: prelude to empire', in M. Rywkin, ed., *Russian colonial expansion*, pp. 45–69; Kappeler, *Russland*, pp. 25–36; V. P. Zagorodovskii, *Istoriya vkhozhdeniya tsentral'nogo chernozem'ya v sostav Rossiiskogo gosudarstva v XVI veke* (Voronezh, 1991), pp. 5–8, 31–5. See also D. Christian, 'Inner Eurasia as a Unit of World History', *Journal of World History*, v (1994), 206–7.

²³ Hellie, *Enserfment*, pp. 28–31; Kappeler, *Russland*, pp. 53–6; M. Khodarkovsky, *Where two worlds met: the Russian state and the Kalmyk nomads, 1600–1771* (Ithaca, NY, 1992), pp. 30–1, 50–7, 74–213; Pallot and Shaw, *Landscape*, pp. 14–20; Raeff, 'Patterns', pp. 129–30. See also: A. Kappeler, 'Die rolle der Nichtrossen der Mittleren Wolga in den russischen Volksaufständen des 17. Jahrhunderts', *Forschungen zur Osteuropäischen Geschichte*, xxvii (1980), 249–68.

²⁴ Donnelly, 'Mobile', pp. 189–202; A. Bodger, 'Nationalities in history: Soviet historiography and the Pugachevscina', *Jahrbücher für Geschichte Osteuropas*, xxxix (1991), 561–81; Semenov, *Rossiya*, v, *Ural i Priural'e* (St Petersburg, 1914), pp. 138–41; M. Atkin, 'Russian expansion in the

In addition to the annexation of the steppe regions, the Russian political frontier also expanded east of the Urals. The Russian conquest of Siberia began in the late-sixteenth century, in the wake of the victories over Kazan' and Astrakhan'. In 1581–2, the cossack Yermak Timofeevich and his men crossed the Urals to defend the Stroganov family's commercial interests, including the fur trade. They defeated the Tatar khanate of Siberia. The khanate covered only a small part of western Siberia. Yet, by the middle of the seventeenth century, Russian fur-trappers and traders had travelled three thousand miles to the shores of the Pacific ocean. The significant, if thinly spread, native population of the Siberian forest put up considerable resistance to the invaders, but their bows and arrows and spears were no match for the Russians' firearms. As on the steppes, the Russian invaders took advantage of rivalries between local peoples. For example, Khantys fought with the Russians against the Evenki and other native Siberians. The Russians attempted, with mixed success, to use local elites to collect the fur tribute (*yasak*) in return for tax exemption and privileged status. The Turkic and Mongol nomadic peoples (including Tatars, Kazakhs, Buryats and Dzhungars) who lived on the steppes to the south presented a much greater obstacle to Russian expansion into Siberia than the indigenous peoples of the forest. The Russian authorities built further lines of fortifications from the southern end of the Urals to the Altai Mountains, along the boundary of the forest and the steppes. In the Pacific far east, Manchu China posed an even more formidable barrier to Russian expansion. In the late-seventeenth century Russian settlers had to abandon the Amur river basin after Muscovy was forced to acknowledge Chinese rule over the region, under the terms of the Treaty of Nerchinsk, in 1689. The Pacific far east did not become part of the Russian state until 1858–60²⁵ (see Map 1).

In spite of the resistance of the local states and indigenous peoples of the steppes and Siberia, in the long run they proved to be no match for the regular army, firearms, and organizational might of the expanding Russian state. The expansion of the political frontier of the Russian state by military and political means was only part of the story. In order to understand the process of peasant migration and the settlement of Russia's frontiers, we need to look at how the peasant-migrants managed to overcome the environmental frontier between forest and steppe and the lifeway frontier between peasant agriculture and pastoral nomadism.

Caucasus to 1813', in Rywkin, *Russian colonial expansion*, pp. 154–67; E. W. Brooks, 'Nicholas I as reformer: Russian attempts to conquer the Caucasus, 1825–1855', in I. Banac, et al., eds., *Nation and ideology* (New York, 1981), pp. 227–63; M. Gammer, *Muslim resistance to the tsar: Shamil and the conquest of Chechnia and Daghestan* (London, 1994); Kappeler, *Russland*, pp. 42–50, 149–55.

²⁵ J. Forsyth, *A history of the peoples of Siberia: Russia's north Asian colony 1581–1990* (Cambridge, 1992), pp. 1–151, 201–4; Y. Slezkine, *Arctic mirrors: Russia and the small peoples of the north* (Ithaca, NY, and London, 1994), pp. 17–18, 23, 67–9; Kappeler, *Russland*, pp. 36–42; Stebelsky, 'Frontier', pp. 144–53.

III

In 1550 the south-eastern political frontier of the Russian state coincided roughly with environmental frontier between forest and steppe that lay just to the south of the Oka river. Apart from a band of tundra to the north of the Arctic circle, most of northern and central European Russia and much of Siberia was originally cloaked by an immense forest: coniferous forest or *taiga* in the north, and mixed coniferous and deciduous woodland in the south. The belt of coniferous forest is dominated by evergreen pine, spruce, larch and fir trees. In the southern part of the coniferous forest, the variety is increased by hardier types of deciduous trees, especially birch, asp and alder. The soils in most of the coniferous belt are very poor with large areas of marsh. Further south, in the mixed-forest belt, the trees of the *taiga* are supplemented by broad-leaved trees such as oak, maple, elm and lime. In much of the mixed-forest belt the soil is moderately fertile, loamy, podzol. Both the coniferous and mixed-forest belts played host to a rich and varied wildlife before human activity, in particular the decimation of their forest habitats, hunting and trapping, greatly reduced their numbers. There were big populations of larger mammals such as elk, deer, bears, wolves and wild boar. It was the considerable numbers of smaller, fur-bearing animals, for example, foxes, hares, beavers, mink and sable, however, that were the chief attraction to the Russian trappers and traders who moved deep into the forests of northern Russia and, from the late-sixteenth century, into Siberia.

To the south of the mixed forest, across the Oka river, lies the transitional forested-steppe belt. It runs from Ukraine to the Urals. The southern fringe passes to the south of Voronezh, crossing the Volga at Samara. At its widest the belt barely exceeds 200 miles from north to south. It continues in a narrower strip across the most southerly part of western Siberia as far as the Altai mountains. Throughout the belt deciduous forest alternates with areas of open steppe grassland. The flora and fauna of the woodland were similar to those of the forested regions to the north. Before the grasslands were ploughed up by peasant-settlers, they had been covered with high grasses, flowering herbs, and thickets of bushes. The original animal population of the grassland included antelopes and wild horses. The soils of the forested-steppe belt are considerably more fertile than those of the forest-heartland. In the northern part of the belt, grey forest earth predominates. In the central and southern parts, however, is the famous black earth (*chernozem*), rich in humus and very fertile, that lured Russian peasants across the Oka river, out of the forests, and south and east to the steppes.

Beyond Voronezh and Samara the forested steppe shades into the open steppe: a huge expanse of seemingly endless grassland dominated by big skies that forms part of the immense Eurasian steppes which extend from Hungary to Manchuria. The Russian open steppe encompasses the lower Don and Volga river basins, reaching as far south as the northern shores of the Black and Caspian seas and the foothills of the Caucasus mountains. The open steppe is

almost entirely devoid of woodland except in the river valleys and ravines. The original flora and fauna were similar to those of the grasslands in the forested steppe. In most of the open steppe belt the soil is fertile black earth. Along the lower reaches of the Volga, however, the black earth gives way to the poorer, lighter, chestnut soils of the arid Caspian steppe²⁶ (see Map 3).

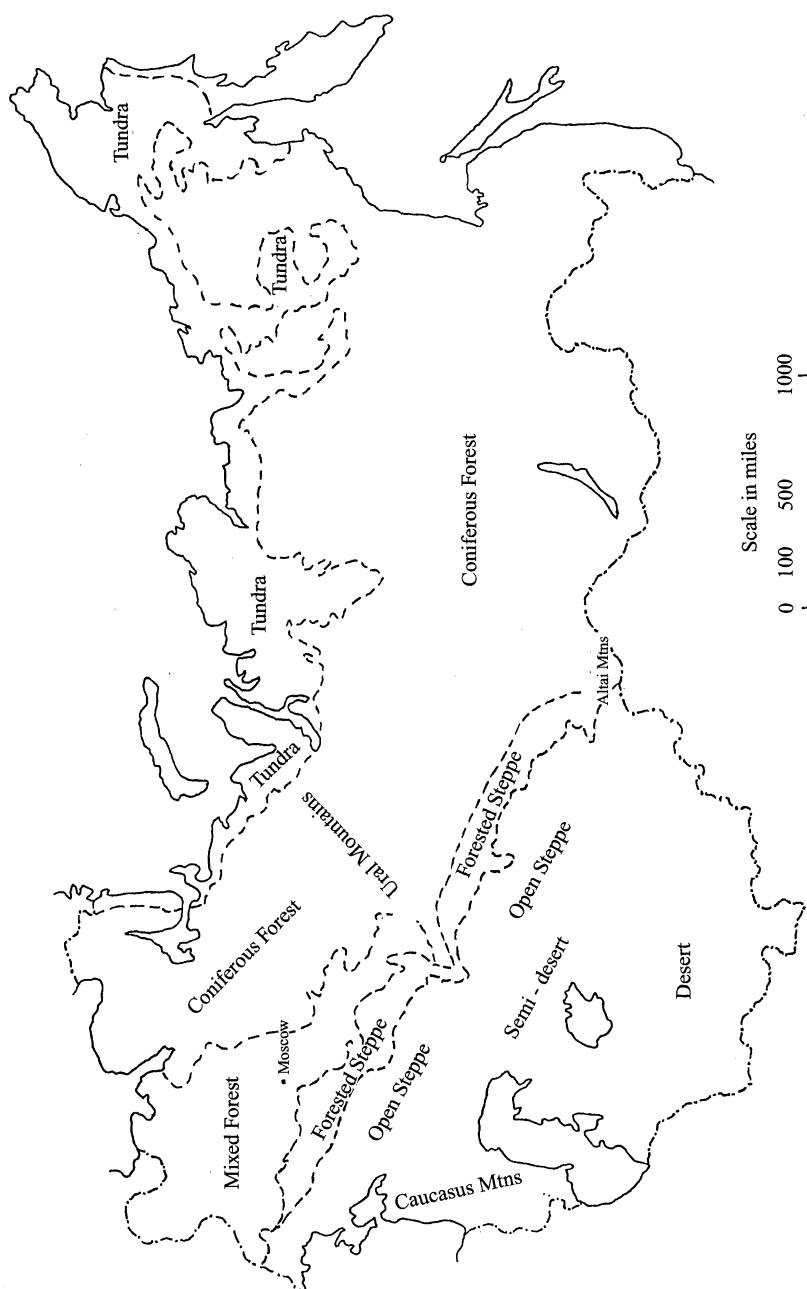
Across the lands that came to form the Russian empire the climate also varies. Large parts of Russia suffer from shortages of either heat or moisture, or both. In European Russia, the available heat increases from the north-west to the south-east, whereas moisture does the opposite. In the damp north-west, moreover, the soil is fairly poor, whereas the fertile black-earth of the open steppe in the south-east is cursed with low and unreliable rainfall. Adequate and reliable heat and moisture coincide with fertile soils only in the forested-steppe belt, where they combined to produce very good conditions for agriculture.²⁷ The regional variations in environmental conditions created by the combination of soil, natural vegetation, and climate played a large role in influencing the regions where Russian peasants settled.

Russian peasants interacted with the natural environments of the regions they settled in. Over the centuries, when most lived in the forest-heartland, they supported themselves by growing cereals and keeping livestock. Because of the relatively infertile soil, many peasants supplemented their incomes with non-agricultural activities. Peasants chopped down millions of acres of trees to make arable land, meadows and pastures. Peasants had to wield their axes before they could plough up the land. They also chopped down trees to provide the raw materials for construction and craft production.²⁸ This pattern of adapting to the environment, and altering it to suit the needs of peasant farming and other activities, was repeated across large parts of the expanding Russian state. Since most peasant-migrants aimed to continue farming, they settled in areas where the conditions were suitable for agriculture. Peasants did not, therefore, settle in large numbers in northern and eastern Siberia, where the permafrost made crop cultivation extremely difficult, or in the deserts of central Asia. Peasant-migrants frequently settled in areas with similar environments to their homes. Many of the early Russian peasant-settlers in the coniferous forest of western Siberia came from a similar forest environment in the northern and northern Urals regions. Migrants from the forested-steppe belt of European Russia who moved to Siberia often made their new homes in the continuation of the belt east of the Urals. It was also no accident that many

²⁶ See Dulov, *Geograficheskaya sreda*, pp. 5–12; V. V. Tochenov, et al., eds., *Atlas SSSR* (Moscow, 1985), pp. 104–5, 108–9; Pallot and Shaw, *Landscape*, pp. 5–6, 58–63; R. E. F. Smith, *Peasant farming in Muscovy* (Cambridge, 1977), pp. 66–74, 111–15, 158, 199–200; Sumner, *Survey*, pp. 19–47; J. Sparks, *Realms of the Russian bear: a natural history of Russia and the central Asian republics* (London, 1992).

²⁷ D. J. M. Hooson, 'The geographical setting', in R. Auty and D. Obolensky, eds., *An introduction to Russian history: companion to Russian studies*, 1 (Cambridge, 1976), p. 9; Smith, *Peasant farming*, pp. 220–2; I. Stebelsky, 'Agriculture and soil erosion in the European forest-steppe', in Bater and French, *Studies*, 1, 45.

²⁸ R. A. French, 'Russians and the forest', in Bater and French, *Studies*, 1, 27–30; Pallot and Shaw, *Landscape*, pp. 6–7; Smith, *Peasant farming*, pp. 10–79.



Map 3. Environmental belts.
This map is based on Pallot and Shaw, *Landscape*, fig. 1

of the peasants who settled on the arid open steppes of northern Kazakhstan in the late-nineteenth century were from the open steppe regions of the lower Volga and Don and Ukraine.²⁹

Some settlers, nevertheless, had to change their customary practices to adjust to different soils, climates and natural vegetations. The traditional Russian horse-drawn wooden plough (*sokha*), which was satisfactory for turning over the light soils of the forested regions, was useless on the open steppes, where the heavy black earth was matted with the roots of the steppe grasses. In its place, the settlers learned to use a heavier plough (*plug*) pulled by oxen. Because of the initial problems of ploughing the land, settlers in open steppe regions were more reliant on rearing livestock. On the treeless steppe peasant-settlers built their houses out of clay or bricks rather than wood. Donald MacKenzie Wallace, who travelled extensively in Russia in the 1870s, noted the transition as he moved from the forested steppe to the open steppe south-east of Samara:

As I proceeded eastwards I noticed a change in the appearance of the villages. The ordinary wooden houses, with their high sloping roofs, gradually gave place to flat-roofed huts, built of a peculiar kind of unburnt bricks, composed of mud and straw.

Villages tended to be larger on the south-eastern steppes than in the forested regions partly because there were fewer sources of water to settle by. Peasants who settled in Siberia quickly discovered that while many of the crops they had grown in European Russia also flourished in their new land, some of the varieties of seed-corn they had brought with them could not grow properly in the harsher climate. In the north of western Siberia, where the soil was not very fertile, peasant-settlers began to fertilize the land with animal dung, an innovation that was copied by the older Russian inhabitants (*starozhily*). Because of the environment, animal husbandry played a larger role in the economies of many peasants who settled in Siberia than it had done in their native provinces.³⁰

Throughout the various regions, Russian peasant-settlers developed customs and ways of life that, at least in part, were responses to the local environment. This was the 'middle ground' of the environmental facet of the frontier. But, in spite of this process of interaction with natural conditions, in the long run, the basic lifeway of the Russian peasantry survived. Peasants changed the environment rather more than it altered them.

In the northern and central regions of European Russia the biggest impact peasants had on the environment was the clearance of vast areas of forest. The extent of deforestation increased with the growth in the peasant population. In

²⁹ Forsyth, *History*, pp. 100–1; Goryushkin, 'Migration', pp. 141–2; Treadgold, *Great*, p. 241; Stebelsky, 'Frontier', p. 158; Vodarskii, *Naselenie Rossii za 400 let*, pp. 50, 87.

³⁰ D. V. Naidich, 'Pakhotnye i razrykhlyayushchie orudiya', in P. I. Kushnera, ed., *Russkie: istoriko-etnograficheskii atlas: Zemledelie. Krest'yanskoe zhilishche. Krest'yanskaya odezhda. (seredina XIX-nachalo XX veka)* (Moscow, 1967), pp. 33–45; Z. J. Deal, *Serf and state peasant agriculture: Kharkov province, 1842–1861* (New York, 1981), pp. 331–3, 395; Gorskaya, *Krest'yanstvo*, pp. 409–13; M. Matossian, 'The peasant way of life', in W. S. Vucinich, ed., *The peasant in nineteenth-century Russia* (Stanford, CA, 1968), pp. 1–8; D. MacKenzie Wallace, *Russia*, 1st edn (2 vols., London, Paris and New York, 1877), II, 30–1; Pallot and Shaw, *Landscape*, p. 8; Goryushkin, 'Migration', pp. 144–50.

most provinces of the central non-black-earth, central black-earth, and mid-Volga regions, the area of land covered by forest was reduced by between a half and two-thirds over the eighteenth and nineteenth centuries. The open steppe regions, moreover, lost much of what little woodland they had. Between 1696 and 1914 European Russia lost about 28 per cent of its forests. Peasants were not solely to blame for the devastation of Russia's forests. Noble landowners, industrialists, ship builders, and exporters also contributed. Deforestation destroyed the habitats of forest wildlife, some of whom came close to extinction in large areas west of the Urals.³¹

The introduction of peasant agriculture also had a serious impact on the steppe grasslands. Peasant-settlers burnt the natural grasses and scrub of the open steppes to prepare the land for ploughing. The area of steppe land cleared and ploughed up increased with the tide of peasant migration and population increase. The loss of the natural grass covering and woodland were potentially very harmful. By the nineteenth century, in large parts of the steppe regions, overcropping, overgrazing, and the use of marginal lands, especially on slopes in river valleys and ravines, led to widespread soil erosion. The resulting gulleys grew rapidly, and took away more and more of the valuable, fertile, black earth.³²

Peasant-settlers in Siberia also had a harmful impact on the natural environment. If the damage was less than in European Russia, however, it was only because the number of migrants relative to the enormous area of land was much lower. Although the fur-trade had been the principal motive for the original Russian settlers in Siberia, most of the fur-trappers and traders were not peasants. Peasants migrated to Siberia rather later, and did so with the aim of farming the land. The fruits of their labour went in part to feed the growing numbers of Russian trappers, traders, soldiers and officials who lived east of the Urals. The spread of peasant agriculture across southern Siberia was achieved at the cost of large areas of forest, much of the animal life it supported, and the livelihood of many of the native peoples who lived off the resources of the forest.³³

By the end of the nineteenth century some educated Russians believed that deforestation and ploughing up the land had had a harmful effect on the climate of the steppe regions. They were right to be concerned. Deforestation tends to make climates drier and more extreme, with hotter summers and colder winters. More importantly the weather becomes more erratic, increasing the risk of summer droughts and harvest failures. Zack Deal has shown that peasant agriculture in the Ukrainian province of Khar'kov (that adjoined the central black-earth region of Russia) had a detrimental impact on the province's climate. Throughout the steppe regions, the combination of deforestation and careless agricultural techniques, that led to soil erosion and

³¹ French, 'Russians', pp. 30–41; Semenov, *Rossiia*, II, *Sredne-Russkaya chernozemnaya oblast'* (St Petersburg, 1902), pp. 64–8, 77–8; xiv, *Novorossiia i Krym* (St Petersburg, 1910), p. 72; Smith, *Peasant farming*, p. 47.

³² Stebelsky, 'Agriculture', pp. 45–61.

³³ Forsyth, *History*, pp. 43, 64, 101, 159, 163, 191, 218; Slezkine, *Arctic*, pp. 24, 102.

an increased likelihood of droughts, had created the potential for a disaster on the scale of the 'dust-bowl' in the American mid-west in the 1930s.³⁴ In spite of the ecological damage and the problems they were storing up for the future, by the end of the nineteenth century Russian peasant migrants had, to a large extent, overcome the environmental frontier between forest and steppe.

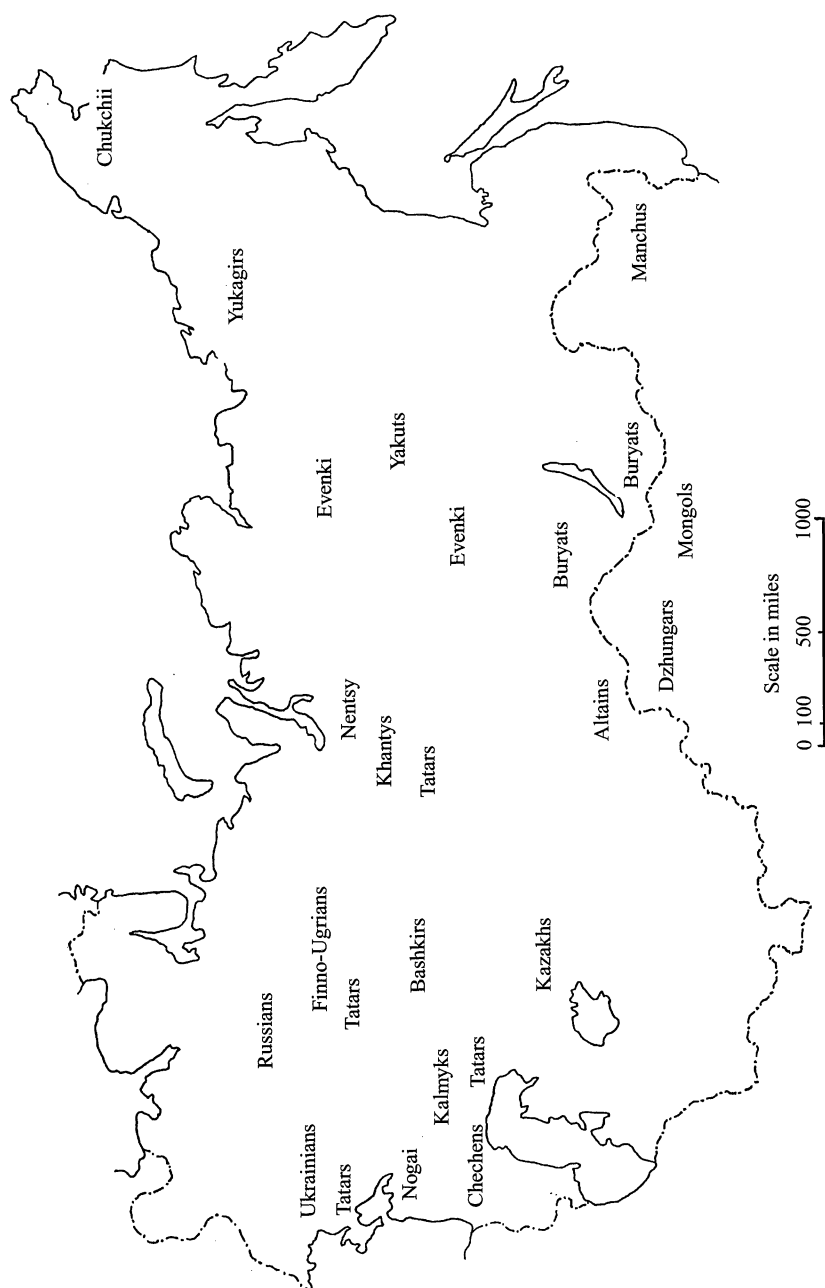
IV

Before the expansion of the political frontier of the Russian state out of the forest-heartland and migration by peasants to the south and east, the environmental frontier between forest and steppe south of the Oka river had roughly coincided with the lifeway frontier between sedentary farming and nomadic animal husbandry. The Urals formed a lifeway frontier between peasant agriculture and the herding, hunting, trapping and fishing economies of many of the native inhabitants of the Siberian forest. There had always been some arable farming in the steppe regions and Siberia, however, especially among the inhabitants of the khanate of Kazan'. Overall, though, pastoralism had been more important than crop cultivation in the steppe regions before Russian conquest. In most of the regions Russian peasants migrated to, the activities of the indigenous populations were more appropriate, and less harmful, to the environment than peasant agriculture. That the conditions of the open steppes are better suited to pastoral nomadism than arable farming is clearly demonstrated by the fact that this had been the dominant way of life of the native inhabitants for several millennia prior to the arrival of peasant-migrants in the eighteenth century. The steppe nomads and native Siberians had certainly had an impact on the natural conditions of the regions they lived in, but they had achieved a rough balance with their environments. Crucially, however, their lifeways were capable of supporting far smaller populations than settled agriculture³⁵ (see Map 4).

Russian peasant-settlers had to adapt aspects of their traditional behaviour and lifeways as a result of contact with the native populations. The size and location of villages in the steppe regions were influenced not just by the relative shortage of water sources, but also by the needs of defence against nomadic raiders. Peasant-settlers took advantage of high river banks with commanding views or patches of dense woodland. Relations between peasant-settlers and the native populations of the regions they moved to were not characterized only by conflict. Peasant-settlers borrowed or adapted some features of the indigenous

³⁴ Semenov, *Rossiia*, II, *Sredne-Russkaya*, pp. 50–1, 113; XIV, *Novorossiia*, pp. 72–3; Deal, *Serf*, pp. 325–78; Sumner, *Survey*, p. 17.

³⁵ A. M. Khazanov, *Nomads and the outside world* (Cambridge, 1984), esp. pp. 44–53, 90–7; Khodarkovsky, *Where two worlds met*, pp. 17–22; McNeill, *Europe's steppe frontier*, pp. 3–6; Pallot and Shaw, *Landscape*, p. 20; Forsyth, *History*, p. 19; Slezkine, *Arctic*, pp. 1–7; I. Kh. Kalmykov, R. Kh. Kereitov, A.-I. M. Sikaliyev, *Nogaiitsy* (Cherkessk, 1988), p. 61; Gorskaya, *Krest'yanstvo*, pp. 462–8; Smith, *Peasant farming*, pp. 201–2. People who rely on pastoralism and hunting also change their environments, see Crosby, *Ecological imperialism*, pp. 270–80; I. G. Simmons, *Environmental history: a concise introduction* (Oxford, 1993), pp. 7–8, 13–14, 91–4, 98–100.



Map 4. Selected indigenous peoples, 16th-17th centuries.

populations' working practices and customs, in particular the reliance on raising livestock. There was some trade between peasants and nomads. Indeed, the dominant economies of the two groups, crop cultivation and livestock husbandry, were complementary.³⁶

In most regions Russian peasant-settlers intermarried with the local population. The preponderance of men among the settlers made this inevitable. Ethnic mixing between Russian settlers and the indigenous Finnic and Tatar peoples left marked traces in the physical appearance of the Russian population of the mid-Volga region. Intermarriage was also common in Siberia. The late-nineteenth century proponent of Siberian regionalism, Nikolai Yadrintsev, argued that mixed marriages between Russians and native Siberians had created a Siberian 'ethnic type'. The dialect of Russian spoken by peasants who settled in Siberia showed the influence of native Siberian languages. A few peasant migrants 'went native'. A recent American historian of 'interethnic interaction' on Russia's frontiers, Willard Sunderland, has found evidence of whole communities of Russian peasants assimilating to the local Chuvash and Mari populations in the mid-Volga region. In more remote parts of Siberia, some children of mixed marriages became partly 'Buryatized' or 'Yakutized'. In northern Siberia many Russian settlers, including peasants, who lived among the Khantys, Nentsy, Yukagirs and Yakuts, adopted local customs and ways of life, including eating raw meat, speaking the local language, and practising the Shamanist religion.³⁷

The various forms of interaction and accommodation between the two lifeways, peasant agriculture and pastoral nomadism, were part of the 'middle ground' that emerged on Russia's frontiers.³⁸ This middle ground proved to be a relatively short-lived phenomenon. The examples of 'nativization' of peasant-settlers were exceptional. Only a small minority of migrants became assimilated to the local populations. In spite of the process of interaction and intermarriage with local peoples, most Russian peasant-settlers retained the essentials of their identity, culture, and way of life. In the long run, Russian peasant-migrants had a greater impact on the pastoral nomads and other indigenous peoples than the other way round.

³⁶ Pallot and Shaw, *Landscape*, pp. 18–19; Goryushkin, 'Migration', pp. 142, 145–7, 155–6; Khazanov, *Nomads*, pp. 35–7. See also D. I. Ismail-Zade, *Russkoe krest'yanstvo v Zakavkaz'e: 30-e gody XIX-nachalo XX v.* (Moscow, 1982), p. 88.

³⁷ Semenov, *Rossiya*, vii, *Srednee i Nizhnee Povol'zhe i Zavol'zhe* (St Petersburg, 1910), p. 157; W. Sunderland, 'Empire-building, interethnic interaction, and ethnic typecasting in the rural world of the Russian empire, 1800–1850', unpublished paper presented to SSRC Imperial Russian history workshop, Portland, OR, September 1994, pp. 15–16 (cited with permission of author); Forsyth, *History*, pp. 67–9, 78, 143, 155, 163, 198–9; Slezkine, *Arctic*, pp. 43–5, 97–8, 119; Treadgold, *Great*, pp. 241–3. See also W. Sunderland, 'Russians into Yakuts? "going native" and problems of Russian national identity in the Siberian north, 1870s–1914', *Slavic Review*, LV (1996).

³⁸ For a fascinating case study of the 'middle ground' which was created by the indigenous Nogai nomads, and incoming Russian, Ukrainian, and German agricultural settlers in the Melitopol' district of Tauride province in southern Ukraine in the early-nineteenth century, see W. Sunderland, 'Imperial policies and frontier practices: the Tavrida Nogai under Russian rule, 1805–1860s', unpublished paper presented to conference 'The frontier in question', Essex University, 21–23 April 1995, pp. 14–23 (cited with permission of author).

In some regions the indigenous populations were swamped by incoming peasants. In spite of their rebellions, the Bashkirs were unable to hold back the tide of peasant immigration. By the middle of the eighteenth century they were outnumbered by Russian peasants, and at the end of the century they made up only 21 per cent of the population of their native southern Urals region. In Siberia, the indigenous population was outnumbered by Russians by the end of the seventeenth century. Two centuries later, at the time of the 1897 census, native peoples comprised under 15 per cent of the population.³⁹

How were the Russian peasant-migrants able to overcome the lifeway frontier and displace the nomads of the steppes and native peoples of the Siberian forest? In his book *Ecological imperialism*, Alfred Crosby examined the way in which European migrants were able to colonize the temperate regions of the Americas and Australasia and turn them into 'Neo-Europes' with extremely productive European-style agriculture. He argued that the European settlers achieved this because the plants, livestock, and, above all, diseases, they brought with them were able to thrive in their new environments at the expense of the native biota, including the indigenous populations. 'It was', Crosby wrote, 'their germs, not these imperialists themselves, for all their brutality and callousness, that were chiefly responsible for sweeping aside the indigenes and opening the Neo-Europes to demographic takeover'. The biggest killer was smallpox, which, in Crosby's argument, was at least as important as gunpowder in the European takeover of non-European parts of the globe. The native Americans' and Australasians' susceptibility to diseases such as smallpox was a result of their isolation from the 'Old World' that had prevented them from coming into contact with, and building up immunities to, the pathogens common in Europe.⁴⁰

Crosby argued that his interpretation was also valid, to some extent, in explaining the Russian colonization of Siberia. Although many of the crops and livestock the Russian migrants took with them across the Urals were familiar in Siberia, some of the diseases that also accompanied the settlers were new to the native Siberians. Diseases such as smallpox, measles, VD, and typhus took their toll on the indigenous population. The numbers of some ethnic groups fell by over half in the space of a few years in a macabre parallel to the 'great dying' among so many native peoples further afield.⁴¹

Crosby's interpretation does not, it seems to me, help explain the Russian conquest and peasant settlement of the steppe regions. The nomadic peoples of the Eurasian steppes already had many of the same crops and livestock, especially horses, cattle and sheep, as the Russian peasant-settlers. Unlike many native Siberians and the indigenous populations of the Americas and Australasia, moreover, the steppe nomads were not isolated from Europe and

³⁹ Kabuzan, *Narody*, pp. 84–5, 227; Donnelly, 'Mobile', p. 202; Forsyth, *History*, p. 115; Troinitskii, *Obshchii svod*, I, xiii.

⁴⁰ Crosby, *Ecological imperialism* (quotation from p. 196). See also W. H. McNeill, *Plagues and peoples* (London, 1994) [1st edn, 1976], esp. pp. 70–1, 77.

⁴¹ Crosby, *Ecological imperialism*, pp. 36–40. See also Forsyth, *History*, pp. 58, 78, 150, 161; Slezkine, *Arctic*, pp. 26–7, 102.

therefore susceptible to 'Old World' diseases. On the contrary, they had been in constant contact with European and Asian societies for many centuries. In marked contrast to the white settlers in Europe's temperate overseas colonies and the Russian migrants in Siberia, the Russian peasants who moved on to the steppes did not have the decisive 'weapon' of disease. In fact, diseases may have worked to impede peasant settlement of the steppes. Many of the plague epidemics that regularly afflicted Russia from medieval times came from the Pontic steppes or travelled up the river Volga, through the south-eastern steppe regions, from the Caucasus and central Asia.⁴²

It was not only Russians who were affected by the plague, however. William McNeill, in *Plagues and peoples*, put forward a hypothesis that the decline of the Mongol empire and nomadic dominion of the Eurasian steppes was a consequence of plague epidemics that devastated the population of the steppes between the thirteenth and fifteenth centuries. The Mongols may have been the cause of their own downfall. McNeill also argued that the introduction of the bubonic plague bacillus to the marmots of the steppes was a result of Mongol expansion. Like the black rats in medieval Europe, these burrowing rodents played a large role in spreading the plague. The consequent 'disembowelment of steppe society' allowed agricultural settlers, including Russian peasants, to begin colonizing the open grasslands of central Eurasia. McNeill's hypothesis has a twist in its tail. As the peasant-settlers ploughed up the steppes, they destroyed the marmots' habitat, making peasant farmers less likely to succumb to plague than the pastoral nomads they displaced.⁴³ To the present day, bubonic plague is endemic in Mongolia, where it can devastate nomadic communities. The herdsmen call it 'marmot sickness' after the rodents that are chiefly responsible for carrying the disease. There is archaeological evidence, moreover, that the plague was present in central Asia in the fourteenth century. Nevertheless, in spite of its brilliance, McNeill's hypothesis remains to be proved.⁴⁴ Nor can it fully explain the turn in the tide in the relationship of 'plough versus flock' and the eventual success of Russian peasant settlement of the steppes.

The key to this success probably lies in the peasants' ability to gain access to the land. At the heart of most conflicts between the peasant-settlers, native peoples, and the Russian state was the crucial issue of land. Disputes over land reflected the contrast between the settled agricultural lifeway of the incoming peasants and the nomadic pastoralism of many of the native inhabitants. The two lifeways, and the associated economic, social and political systems, entailed radically different ways of using the land and concepts of landownership. The Russian state assumed that most land in newly-conquered frontier regions was state property, and disposed of the land as it saw fit. From the late-sixteenth century, the state expropriated nomads' pasture land and handed it out to

⁴² J. T. Alexander, *Bubonic plague in early modern Russia: public health and urban disaster* (Baltimore, MD, and London, 1980), pp. 11–29.

⁴³ McNeill, *Plagues*, pp. 141–84, 225–6.

⁴⁴ T. Severin, *In search of Genghis Khan* (London, 1991), pp. 218–31. See also D. Morgan, *The Mongols* (Oxford, 1986), pp. 133–4.

Russian nobles and other settlers, or simply permitted Russian migrants to take land for themselves. In many regions incoming Russians bargained with the native people to buy or rent land. Most, but not all, deals were one-sided as many native inhabitants had no concept of buying or renting land, scant understanding of the value of the land to the Russians or what they intended to do with it, and little notion of what they were being offered in return was worth. In the southern Urals, for example, Russian landowners seized land from the native Bashkirs or persuaded them to sell it at knock-down prices.⁴⁵

Peasant-settlers took over and cultivated land with little regard to who owned it or its customary use. In many cases this meant that settlers were ploughing up pastures while the nomads were away grazing their herds on other lands. Some native people appealed to the Russian authorities in their struggle to retain their traditional lands. In the late-seventeenth century native Siberians in Yakutsk successfully petitioned the Muscovite government against the loss of their lands on the grounds that they were unable to catch sufficient fur-bearing animals to pay their tribute (*yasak*).⁴⁶

In the southern Urals there were many cases of land disputes between the native Bashkirs and Russian peasant-settlers. To take one example, in the first half of the nineteenth century, a dispute between the Bashkir village of Sabanovaya and the neighbouring Russian state peasant settlement of Yaroslavka in Orenburg province dragged on in the courts for several decades. In 1842 the Bashkirs complained that, after allowing the peasants to cultivate part of their land in 1804, the incomers were gradually taking over the rest of it, ploughing up the land, seizing the meadows, and chopping down the trees. The Bashkirs also complained that the peasants had the support of local Russian officials. The Bashkirs appealed to the Russian authorities to stop the peasants appropriating their land, otherwise they would be left with insufficient to support themselves and their cattle.⁴⁷

In spite of their complaints, indigenous peoples lost large amounts of land to Russian landowners and peasant-settlers. For example, the Bashkirs still owned 32.4 million acres of land in the southern Urals region in the early nineteenth century. By 1905, however, their landholdings had been reduced to under 21.6 million acres.⁴⁸

⁴⁵ Donnelly, 'Mobile', pp. 197, 201; Forsyth, *History*, pp. 64, 157–9, 172, 181–6; Khazanov, *Nomads*, p. 124; Slezkine, *Arctic*, p. 103. See also T. J. Barfield, *The perilous frontier: nomadic empires and China, 221 BC to AD 1757* (Oxford, 1989), p. 22.

⁴⁶ Forsyth, *History*, p. 64. See also Slezkine, *Arctic*, pp. 24–5.

⁴⁷ *Rossiiskii gosudarstvennyi istoricheskii arkhiv, fond 1380 (Reviziya senatora A. N. Peshchurova Orenburgskoi gubernii), opis' 1, 1842, delo 68 (Po zhalobe poverennykh ot obshchestva gosudarstvennykh krest'yan Terentiya [?] Konvalova i Yakoba Ul'yanova s Bashkirtsami derevni Sabanovoi o spornoj zemle)*, esp. listy 4–5 ob. The outcome of the case was not recorded in the file preserved in the central archives in St Petersburg. For more examples of land disputes between Russian peasants and Bashkirs, see: Sunderland, 'Empire-building', pp. 12–13. See also: Wallace, *Russia*, II, p. 48.

⁴⁸ Semenov, *Rossiya*, v, *Ural*, pp. 185–6, 152, 236. The data for 1905 is for the contemporary borders of Orenburg and Ufa provinces. I could find no mention of Bashkir landownership in the western districts of Orenburg province that became part of Samara province in 1850, where some Bashkirs had lived, in Semenov, *Rossiya*, VI, *Srednee i Nizhnee Povol'zhe*.

The Russian state permitted native populations to keep some land, but on its terms. From the eighteenth century the Russian authorities pursued a deliberate policy of sedentarization (or denomadization) of nomadic peoples.⁴⁹ Since pastoral nomadism made far more extensive use of land than settled farming, the state needed to restrict nomadism in order to make land available for peasant-settlers. Grants of land and other inducements were offered to nomads who settled, took up farming, and converted to Orthodox Christianity. In 1739 a special colony was founded at Stavropol' on the Volga for Kalmyks who gave up pastoral nomadism and their Buddhist religion. The colony was not a success. At the end of the eighteenth century, in a similar programme, Nogai nomads of the lower-Volga and north Caucasus were allotted land in territory annexed from the recently defeated khanate of Crimea to encourage them to settle and take up agriculture. Most, however, persisted with pastoral nomadism within the confines of their new lands. The Kazakhs proved to be equally resistant to sedentarization. In the 1870s, a Russian observer noted: 'Only hopeless poverty can rouse the [Kazakh] nomad to till the soil. But as soon as he has provided himself with stock, he immediately throws away the clumsy spade he used to till the soil instead of a plough – he becomes nomadic'.⁵⁰

In several areas in the late-nineteenth century, the Russian state redistributed the land between the native population and incoming peasant-settlers. Often, the best land was allocated to the peasants. In parts of the Transbaikal and Altai regions of Siberia, each adult male received the same amount of land regardless of whether the recipient was a member of the indigenous Buryat and Altaian populations, who engaged in nomadic cattle-rearing, or a newly-arrived peasant farmer. A similar policy was pursued in northern Kazakhstan to provide land for Russian and Ukrainian peasant-migrants. The size of the allotments, and the practice of allocating land to individual households, were completely alien to and incompatible with pastoral nomadism, which required large areas of unfenced land for livestock to graze on.⁵¹ Without sufficient land, some nomads had little choice but to abandon their centuries-old way of life. Some tried their hands at growing crops, but most lacked the necessary skills, experience, and implements. In the late-nineteenth century many nomadic peoples, for example large numbers of Siberian Tatars, Nogai and Bashkirs, were reduced to working as day-labourers or became destitute.⁵²

Hand-in-hand with Russian conquest, peasant settlement, loss of land, and sedentarization came attempts to undermine the local culture as the Russian state began to move away from its earlier policy of accommodation with local elites. The change in policy began in the latter part of the eighteenth century.

⁴⁹ Khazanov, *Nomads*, pp. 45, 198–202.

⁵⁰ Khodarkovsky, *Where two worlds met*, pp. 208–9; Kalmykov, *Nogaitsy*, pp. 75–6. Quotation from Khazanov, *Nomads*, p. 84.

⁵¹ Forsyth, *History*, pp. 157, 173–4, 181–6; Khazanov, *Nomads*, pp. 124, 220; Stebelsky, 'Frontier', pp. 157–8.

⁵² Forsyth, *History*, pp. 157, 163, 166, 186; Kalmykov, *Nogaitsy*, pp. 75–6, 78–80; Semenov, *Rossiia*, v, *Ural*, pp. 185–6; Wallace, *Russia*, II, 45–9.

By the late-nineteenth century a policy of Russification was in operation throughout large parts of the Russian empire. In many regions, moreover, the Russian authorities encouraged, or sometimes forced, native peoples to convert to Orthodox Christianity. For the rulers of the Russian empire, the various aspects of their policies towards native peoples in the frontier regions were 'progressive' as they entailed 'raising' the native populations to what they believed was a 'higher level of civilization'.⁵³ For many native peoples, however, 'civilization' meant not only being deprived of their land, but also their way of life and culture. Some became assimilated, to varying degrees, to the dominant Russian population. Assimilation was most common and most marked in regions where large numbers of Russians settled, and among peoples whose traditional lifeway differed least from the incoming Russians, for example, the settled Finno-Ugrian peoples of the mid-Volga, southern Urals, and western Siberia. Nevertheless, many native peoples survived and retained their ethnic identity, if not their land. Assimilation seems to have been less common among Islamic peoples, for example Tatars and Bashkirs. In Russian law the settled, agricultural peoples of the European part of the empire were classified as state peasants; the surviving steppe nomads and most indigenous peoples of the Asian part of the empire, as 'aliens'.⁵⁴

Some native peoples refused to submit. When rebellions and appeals to the Russian authorities had failed, some responded to the expansion and settlement of Russia's frontiers by migrating. In the mid-Volga region in the eighteenth century, as more Russian peasants moved into the region, significant numbers of native Finno-Ugrian and Turkic peasants moved to the southern Urals and lower-Volga regions and, further afield, across the Urals. In Siberia the influx of Russian settlers forced many native Siberians, including some Yakuts in central Siberia, to leave their traditional lands. Most moved to the less hospitable lands to the north and east, where they came into conflict with, and displaced, other native peoples.⁵⁵

The most spectacular, and tragic, migration was by the Kalmyk nomads from the Caspian steppe on the lower-Volga. Loss of grazing land to peasant-settlers and the increasing demands of the Russian army for horsemen compelled them to leave. In 1771 the majority of the Kalmyks left the Volga to return to their original homeland in Dzhungaria in central Asia. During the journey across the steppes and desert countless Kalmyks and their livestock were killed by disease, hunger, cold, and Kazakh raiders exacting revenge on

⁵³ For overviews of Russian state policy towards non-Russians, see Kappeler, *Russland*, pp. 177–229; Raeff, 'Patterns', pp. 126–40. For particular examples, see Semenov, *Rossiia*, vi, *Srednee i Nizhnee Povol'zhe*, pp. 133–4; Forsyth, *History*, pp. 149–51, 169–72, 181–5; Slezkine, *Arctic*, pp. 47–71, 119–22.

⁵⁴ Semenov, *Rossiia*, v, *Ural*, pp. 138, 168; Forsyth, *History*, pp. 156, 161–3; Slezkine, *Arctic*, pp. 83–92; Wallace, *Russia*, 1, 238–46. On the legal status of 'aliens' ('*inorodtsy*'), see *Svod zakonov Rossiiskoi imperii*, 1st edn (St Petersburg, 1832), book iv, *Zakony o Sostoyaniyakh*, pp. 226–51, arts. 713–832.

⁵⁵ Kabuzan, *Narody*, pp. 84–5, 104–8, 119–21, 125–9, 135–6, 227; Tarasov, *Russkaya krest'ianskaya*, pp. 55, 127; Forsyth, *History*, pp. 92, 154–5, 174–7, 180–1, 196.

their rivals. It is estimated that only a third of the 150,000 Kalmyks who left the Volga reached Dzhungaria. The minority who remained in Russia suffered the same fate as other nomadic peoples.⁵⁶

As a consequence of all these factors, by the end of the nineteenth century, Russian peasant migrants had overcome, to a large extent, the lifeway frontier between peasant agriculture and pastoral nomadism in large parts of the territory of the pre-Petrine Russian state.⁵⁷ Peasant-settlers had ploughed up and cultivated vast acreages of former pasture land, and many previously nomadic people had been compelled to settle or to depart. (The only significant exception was northern and eastern Siberia, where native peoples continued their traditional reindeer herding on lands that were totally unsuited to arable farming.) In many regions, moreover, Russian peasants made up the majority, or substantial minorities, of the population. By the end of the nineteenth century so many Russian peasants had migrated across the Oka river to the steppes and passed through the Urals to Siberia that the majority now lived in these zones.⁵⁸

The final question to answer is how were several generations of Russian peasant-migrants able to overcome the environmental and lifeway frontiers and expand the regions of Russian peasant settlement well beyond the forest-heartland? The answer lies in interaction across the fourth facet of the frontier: the hierarchical frontier between the ruling groups of Russian society and the peasantry.

V

The population of the Russian empire was divided into a hierarchy of social estates (*sosloviya*). At the top were the nobility, clergy, and (after 1775) merchantry. At the bottom, on the other side of the 'hierarchical frontier', were the peasantry and the townspeople. In 1897 the elite groups of society made up under 2.5 per cent of the population, while peasants and townspeople combined made up almost 88 per cent.⁵⁹ Until the reforms of the 1870s and 1880s, the hierarchical frontier was marked by elite exemption from the twin burdens imposed on the lower orders by Peter the Great in the early eighteenth century: conscription into the lower ranks of the Russian army and the poll tax. Before serfdom was abolished in 1861, moreover, nobles owned and exploited around half the peasantry. The distinct and inferior legal status of the peasantry, and concomitant exploitation, continued after the abolition of serfdom and the other 'great reforms' of the 1860s.⁶⁰ In the words of Edgar

⁵⁶ Khodarkovsky, *Where*, pp. 207–35; Semenov, *Rossiia*, vi, *Srednee i nizhnee Povol'zhe*, pp. 193–7. On the exodus of the Tavrida Nogai to the Ottoman empire in 1860, see Sunderland, 'Imperial policies', pp. 23–7.

⁵⁷ See Wallace, *Russia*, II, 49–52, 95. According to data from the 1897 census, the number of pastoral nomads in the empire as a whole can be estimated at 3.6 million. Around 3 million were Kazakhs, and all but a few hundred thousand lived in central Asia. See Moon, 'Estimating', pp. 144–5, 149.

⁵⁸ Bruk and Kabuzan, 'Dinamika chislennosti', p. 17.

⁵⁹ Troitskii, *Obshchii svod*, I, xiii.

⁶⁰ *Svod zakonov*, 1st edn (1832), book IV, *Zakony o Sostoyaniyakh*, esp. pp. 121–225, arts 386–712; G. L. Freeze, 'The *soslovie* (estate) paradigm and Russian social history', *American Historical Review*,

Melton, servile Russia depended for its existence 'on its peasant population, which provide[d] most of the revenue, labor, and rents that support[ed] the ruler and his civil/military elite'.⁶¹ On both sides of the hierarchical frontier, however, the Russian state and elites, and peasants, had a common interest in expanding and settling Russia's frontiers.

Many historians have tried to divide peasant migrants into two types: those who moved, or were moved, as a result of state policy, and those who migrated voluntarily. The Russian state pursued a deliberate policy of organizing resettlement and encouraging its subjects to colonize the outlying territories. Writing about state-sponsored settlement in South-East Asia, the geographer Rodolphe De Koninck has called peasant-settlers 'the territorial spearhead of the state'. On a more practical level, the state wanted peasant settlers in the steppes to cultivate the rich black earth and, in Siberia, peasants were needed to grow food to feed the increasing numbers of Russian military servitors, officials, fur-traders and trappers.⁶² The settlement policy of the Russian state followed a fairly standard pattern over the centuries and in the various border regions. First, militarized settlers were sent to defend the frontier regions. Then, once the area behind the new frontier was secure, land was granted to noble landowners and settlers from the lower orders of the population. Noble landowners cultivated their land with the labour of enserfed peasants, and settlers who were not serfs owed obligations to the state. (Noble landowners and serfdom, but not state obligations, were absent in Siberia.) In this manner, the hierarchical facet of the frontier expanded together with the political facet as the state and elites extended their coercive powers to the new borderlands.

The Muscovite state sent men to serve in garrisoned towns and fortified lines along the frontier. These military servitors came from a wide variety of backgrounds, including gentry, townsmen, soldiers, Cossacks and peasants. Many were settled along the frontier and granted land in payment for their service. Once the frontier had been secured, some of the militarized settlers moved south and east to the new frontier. Others, the single-homesteaders or *odnodvortsy*, stayed where they were and suffered the loss of their relatively privileged status when Peter the Great demoted them to the ranks of the state peasantry in 1719.⁶³

xci (1986), 11–36; Hellie, *Enserfment*, pp. 240–2; E. Kimerling Wirtschafter, *From serf to Russian soldier* (Princeton, NJ, 1990), pp. 9, 11; F. W. Wcislo, *Reforming rural Russia: state, local society, and national politics, 1855–1914* (Princeton, NJ, 1990), pp. 28–35, 67–80, 175–6, 186–7, 227, 238–40; D. Field, 'The year of the jubilee', in B. Eklof, J. Bushnell and L. Zakharova, eds., *Russia's great reforms, 1855–1881* (Bloomington and Indianapolis, IN, 1994), pp. 40–57.

⁶¹ E. Melton, 'Household economies and communal conflicts on a Russian serf estate, 1800–1817', *Journal of Social History*, xxvi (1993), 560–2.

⁶² R. De Koninck, 'The peasantry as the territorial spearhead of the state: the case of Vietnam', *Sojourn: social issues in Southeast Asia*, xi (1996). On Siberia, see Slezkine, *Arctic*, p. 24.

⁶³ Gorskaya, *Krest'yanstvo*, pp. 398–421; Hellie, *Enserfment*, pp. 53, 128–9, 174–80, 186, 208, 212–15; Kabuzan, *Narody*, p. 94; Pallot and Shaw, *Landscape*, pp. 14–26, 33–46, 58–62; Shaw, 'Southern frontiers', pp. 117–39; Stebelsky, 'Agriculture', pp. 46–51. On the distinction between

Meanwhile, the state granted tracts of land to nobles or permitted them to purchase land in what had become the old borderlands. These noble landowners were then encouraged to populate their new estates by moving serf peasants from their existing domains in the central regions. Noble landownership and, later, serfdom spread to the central black-earth and mid-Volga regions in this manner from the end of the sixteenth century. Monastery-owned estates and peasants also played a role in the settlement of border regions, especially in the mid-Volga region.⁶⁴ The process of state-sponsored settlement behind fortified lines that took place in the regions of the forested-steppe belt in the sixteenth and seventeenth centuries was repeated further south and east in the open-steppe regions in the eighteenth and nineteenth centuries.⁶⁵ As the fortified lines moved further south and east across the steppes, they left in their wake settlements inhabited by Russian peasants, many of whom were serfs, who ploughed up and cultivated the fertile black earth, thereby enlarging the agricultural and tax base of the Russian state.

In addition to the policy of encouraging noble and monastic landowners to move their serf peasants to new estates in the border regions, the state tried to persuade other sections of the population to migrate. The state offered land, grants and loans, and temporary exemptions from taxes and conscription to state peasants, Cossacks, religious dissenters, retired soldiers, foreigners, and even fugitives from serfdom. This policy was pursued in some of the more outlying regions including: western Siberia in the seventeenth and eighteenth centuries; the southern Urals and lower Volga regions in the late-eighteenth and early-nineteenth centuries; and the north Caucasus in the early-nineteenth century.⁶⁶

On occasions, when the state was unable to attract sufficient settlers, it resorted to compulsion. There was some compulsory resettlement to the Belgorod line in the 1640s and to the southern part of the central black-earth region in the reign of Peter the Great.⁶⁷ The most well known and extensive use of compulsion was the policy of exiling criminals, vagrants and other undesirables to Siberia. Although historians have paid most attention to

peasants and Cossacks, see: A. L. Stanislavskii, *Grazhdanskaya voina v Rossii XVII v. : Kazachestvo na perelome istorii* (Moscow, 1990), pp. 44, 124, 247.

⁶⁴ Gorskaya, *Krest'yanstvo*, p. 406; Pallot and Shaw, *Landscape*, pp. 25–6, 35–45; Shaw, 'Southern frontiers', pp. 122–3, 133, 135, 138.

⁶⁵ Atkin, 'Russian', pp. 153–67; Donnelly, 'Mobile', pp. 189–97, 201–2; J. G. Hart, 'From frontier outpost to provincial capital: Saratov, 1590–1860', in S. J. Seregny and R. A. Wade, eds., *Politics and society in provincial Russia: Saratov, 1590–1917* (Columbus, OH, 1989), pp. 10–27; Semenov, *Rossiia*, v, *Ural*, p. 138; Tarasov, *Russkaya krest'yanskaya*, pp. 34–55, 61–2, 127.

⁶⁶ Stebelsky, 'The frontier in central Asia', p. 148; Tarasov, *Russkaya krest'yanskaya*, pp. 35–6, 89; Sunderland, 'Peasants on the move', pp. 472–85; D. Moon, *Russian peasants and tsarist legislation on the eve of reform: interaction between peasants and officialdom, 1825–1855* (Basingstoke and London, 1992) pp. 23–61; R. P. Bartlett, *Human capital: the settlement of foreigners in Russia, 1762–1804* (Cambridge, 1979), pp. 118–24.

⁶⁷ Pallot and Shaw, *Landscape*, pp. 28, 43; Gorskaya, *Krest'yanstvo*, p. 407; Donnelly, 'Mobile', pp. 197, 202.

political exiles, the overwhelming majority were peasants. The exile system did not play a very significant part in the settlement of Siberia, however, since the majority of exiles were men, a lot were old, and had a high death rate.⁶⁸ A much greater contribution to the settlement of Siberia was made by the state policy of promoting peasant migration in the late-nineteenth century. The aim of colonizing Siberia was one of the reasons for the construction of the trans-Siberian railway that began in 1891. What Steven Marks, a recent historian of the railway, has called finance minister Witte's policy of 'taming the wild east' invites direct comparison with the conquest and settlement of the 'wild field' in the sixteenth and seventeenth centuries.⁶⁹

By no means all settlement of Russia's frontier regions was organized or promoted by the state. A considerable number of peasants moved of their own accord, for their own reasons, often illegally. The 'outer wave' of Slavonic settlement of the steppes, often in advance of the political frontier of the Russian state and well ahead of the fortified lines, was the communities of Cossacks that grew up along the rivers that flowed south through the steppe region. The largest Cossack community was the Don Cossacks. The state sometimes augmented Cossack hosts by resettling and reclassifying Russian and Ukrainian state peasants. Later, in Siberia, the state formed new Cossack hosts from members of the indigenous populations, for example Buryats. The main source of additional Cossacks, however, was peasants who fled illegally to the Cossack hosts.⁷⁰ Another important group of settlers in the frontier regions of Russia who moved there of their own accord was Ukrainian peasants and Cossacks who moved east from the traditional areas of Ukrainian settlement. Like the Don Cossacks, Ukrainians migrants often settled on land in front of the Russian political frontier and fortified lines. Some settled in the southern part of the central black-earth region and others as far east as the Volga.⁷¹

In addition to the Cossacks and Ukrainians, throughout the period from 1550 to 1897, untold numbers of Russian peasants migrated voluntarily to the frontier regions. In the second half of the sixteenth and the early seventeenth centuries there was mass peasant migration from the forest-heartland to the more fertile lands across the Oka river. In part the migrants were seeking to

⁶⁸ E. N. Anuchin, 'Issledovaniya o protsente soslannykh v Sibir' v period 1827-1846 g.', *Žapiski imperatorskogo Russkogo geograficheskogo obshchestva po otdeleniyu statistiki*, III (1873), 8, 65-73; Goryushkin, 'Migration', p. 143; Vodarskii, *Naselenie Rossii za 400 let*, p. 102; A. Wood, 'Russia's "wild east": exile, vagrancy and crime in nineteenth-century Siberia', in Wood, *History*, pp. 117-18.

⁶⁹ S. G. Marks, *Road to power: the trans-Siberian railroad and the colonization of Asian Russia, 1850-1917* (Ithaca, NY, 1991), pp. 141-5, 153-69, 220-2; idem, 'Conquering the great east: Kulomzin, peasant resettlement, and the creation of modern Siberia', in S. Kotkin and D. Wolff, eds., *Rediscovering Russia in Asia: Siberia and the Russian far east* (Armonk, NY, and London, 1995), pp. 23-39; L. M. Goryushkin, ed., *Krest'yanstvo Sibiri v epokhu kapitalizma* (Novosibirsk, 1983), pp. 31-7; Treadgold, *Great*, pp. 32-5, 67-81, 107-49.

⁷⁰ Pallot and Shaw, *Landscape*, p. 20; Shaw, 'Southern frontiers', pp. 121, 129-31; A. P. Pronshstein, ed., *Don i stepnoe Predkavkaz'e* (Rostov na Donu, 1977), pp. 31-64; Semenov, *Rossiya*, xiv, *Novorossiya*, pp. 190-7.

⁷¹ Kabuzan, *Narody*, pp. 84-5, 95-6, 134-5, 138-9, 204, 209; Pallot and Shaw, *Landscape*, pp. 63-6; Semenov, *Rossiya*, vi, *Srednee i nizhnnee Povol'zhe*, p. 158; xiv, *Novorossiya*, p. 185.

escape the political and social upheavals, famines, epidemics, wars, and foreign invasions of the second part of the reign of Ivan the Terrible and the Time of Troubles (1598–1613). From the 1560s, moreover, peasants in the heartland endured high taxes and demands from the state and increased exploitation by their landowners. Richard Hellie noted the paradox that one of the reasons peasants were fleeing from the heartland to the increasingly secure frontier was to escape the taxes that were being levied in the central regions to pay for making the borderlands secure from the threat of nomadic raids. The final legal consolidation of serfdom in 1649 and the introduction of the poll tax after 1719 imposed severe legal restrictions on peasant movement, but did not succeed in arresting the steady stream of illegal peasant migration. The steppe frontier therefore acted as a ‘safety valve’, offering fugitive serfs the chance of freedom.⁷²

The prospect of freedom on the frontier became more remote as Russia’s frontiers, including the coercive power of the state and elites that constituted the geographical aspect of the ‘hierarchical frontier’, moved ever further from the forest-heartland. The institution of serfdom spread outwards from the heartland to the steppe regions with the expansion of noble landownership. Seigniorial power in the frontier areas was intensified with the extension of restrictions on the movement of peasants to settlers in the borderlands, for example in the north Caucasus in 1796. Serfdom, but not the poll tax, was virtually absent, however, in Siberia.⁷³

The local authorities in regions being settled frequently connived with fugitive serf peasants. Motivated by the need for more settlers, they turned a blind eye to fugitives’ illegal status and permitted them to settle. Sometimes the policy of allowing fugitives to remain in frontier regions was temporarily sanctioned by the central authorities. This ‘blind-eye’ policy was in operation on the Belgorod line in mid-seventeenth century. In 1636 Tambov gained a reputation as a town ‘whence no one was returned’. The policy was repeated in many outlying regions throughout the period, including the north Caucasus as late as the 1830s. Although the authorities sometimes turned a ‘blind-eye’ to fugitives because it coincided with their interest in establishing a Russian population in the frontier regions, fugitive peasants took advantage of the policy, and manipulated the authorities, in order to settle under favourable conditions in frontier regions.⁷⁴ This interaction across the hierarchical frontier in border regions suggests the existence of a ‘middle ground’ between peasant-settlers and the elites on Russia’s frontiers.

⁷² Blum, *Lord*, pp. 155–63, 235–41, 552–4; N. M. Druzhinin, *Gosudarstvennye krest’iane i reforma P. D. Kiseleva* (2 vols., Moscow and Leningrad, 1946 and 1958), 1, 921–3; Hellie, *Enserfment*, pp. 93–4, 106–7, 124–34, 143, 179; Pallot and Shaw, *Landscape*, pp. 17, 27, 31; Bassin, ‘Turner’, p. 507. Lack of data makes it virtually impossible to estimate the numbers of fugitive serfs who settled in frontier regions with any degree of accuracy.

⁷³ See Hellie, *Enserfment*, p. 27; V. I. Koretskii, *Formirovanie krepostnogo prava i pervaya krest’ianskaya voina v Rossii* (Moscow, 1975), pp. 83–116; Vodarskii, *Naselenie Rossii v kontse XVII*, p. 93; E. I. Druzhinina, *Yuzhnaya Ukraina v 1800–1825 gg.* (Moscow, 1970), pp. 84–5.

⁷⁴ Hellie, *Enserfment*, pp. 129–31; Pallot and Shaw, *Landscape*, pp. 42–3; Treadgold, *Great*, p. 25; Donnelly, ‘Mobile’, p. 200; Moon, *Russian peasants*, pp. 23–61.

Many historians have considered which of the two types of settlement, state and voluntary, legal and illegal, made the greater contribution to the settlement of Russia's frontiers. Many pre-revolutionary Russian and western historians have stressed the importance of state-sponsored settlement. Most Soviet historians and some western historians, on the other hand, have been at least as keen to emphasize the leading role of voluntary migration.⁷⁵ In the 1880s the Ukrainian historian D. I. Bagalei contrasted Russian and Ukrainian colonization of the Muscovite steppe frontier. He argued that settlement by Russians was largely controlled by the state, while most Ukrainian migration was voluntary. He added that the Russian settlers had less 'personal initiative and enterprise' than the Ukrainians. Bagalei's argument has come in for much criticism, including, not surprisingly, suggestions of national bias.⁷⁶ The Soviet demographic historians, Bruk and Kabuzan, suggested that before the nineteenth century the state did not have the means to control the mass voluntary resettlement. Over the course of the nineteenth century, however, they argued that the government apparatus became sufficiently strong to regulate colonization.⁷⁷ This argument is undermined by the fact that a large proportion of the migrants to Siberia in the late-nineteenth century were either outside the control of the authorities, or migrated to Siberia before the 1880s, when the state began to implement its policy of supporting rather than hindering peasant resettlement.⁷⁸

Most recent historians of peasant migration in Russia are rejecting this approach that emphasizes types of migration and are seeking a 'middle ground'. They are tending towards the view that it is not really appropriate to distinguish between state and voluntary settlement. Rather, it was the combination of actions by the Russian state and the peasant-settlers, to varying degrees in different places and times, and the constant interaction between them that best explains how the frontier regions were opened up and settled by Russian peasants between the mid-sixteenth and late-nineteenth centuries. The conclusions of Willard Sunderland concerning state peasant resettlement in the early nineteenth century are perhaps valid for whole period. He has argued that by looking beyond the 'official dimension' of the resettlement policy, 'we discover a different, much more dynamic world in which state policy interacted with timetables, arrangements and initiatives established by the peasant settlers themselves'.⁷⁹

Peasant settlement of the outlying regions and the Russian state's expansion of its political frontiers to the south and east were interdependent. Scattered

⁷⁵ Compare: Sumner, *Survey*, pp. 47–8; Donnelly, 'Mobile', pp. 197, 202; Marks, *Road*, pp. 141, 153–6 with: Bruk and Kabuzan, 'Migratsiya', pp. 41–2; Tarasov, *Russkaya krest'ianskaya*, pp. 88–89, 171; Vodarskii, *Naselenie Rossii v kontse XVII*, p. 197. See also: F.-X. Coquin, *La Sibérie: peuplement et immigration paysanne au XIX siècle* (Paris, 1969), pp. 722–3, 741; Treadgold, *Great*, p. 9.

⁷⁶ D. I. Bagalei, *Ocherki iz istorii kolonizatsii i byta stepnoi okrainy moskovskogo gosudarstva* (Moscow, 1887), pp. xv–xvi, 131–2, 569–71; Shaw, 'Southern frontiers', pp. 117–18.

⁷⁷ Bruk and Kabuzan, 'Migratsiya', pp. 41–3, 51; Bruk and Kabuzan, 'Dinamika', pp. 16, 18.

⁷⁸ Goryushkin, *Krest'yanstvo*, p. 33; Treadgold, *Great*, p. 80.

⁷⁹ Sunderland, 'Peasants on the move', p. 484. See also Forsyth, *History*, p. 44; Gorskaya, *Krest'yanstvo*, p. 405; R. Pipes, *Russia under the old regime* (London, 1974), pp. 14–15; Raeff, 'Patterns', p. 131; Shaw, 'Southern frontiers', pp. 118, 139; Smith, *Peasant farming*, p. 113.

agricultural settlers, whose primary concerns were their families, homesteads and fields, were no match militarily for the highly mobile nomadic horsemen of the steppes. Peasant-settlers who moved to the open steppe had left behind the forests that had afforded them some protection against the nomad-raiders. The settlers therefore needed the military might of the Russian state in order to protect them from and displace the nomads. It was the state that organized the construction of the fortified towns and lines and mobilized the men to defend Russian peasant settlers from the threat of raids. Russian military strength, however, increasingly depended on taxes and recruits extracted from the Russian peasantry. The additional tax revenues generated by peasants who cultivated the rich black earth of the steppe regions, and the larger population that could be supported by expanding the political frontier of the state, moreover, made the conquest, agricultural settlement, and defence of the steppes a worthwhile proposition. While the state secured its political frontiers militarily and set the general framework for their colonization, to a large extent the settlement of the outlying regions depended on the initiative, and resources generated by, the peasants who migrated to the frontier.⁸⁰

VI

By the end of the nineteenth century, the coincidence between the two main types of environment, forest and steppe, and the two principal lifeways of the population, settled peasant agriculture and pastoral nomadism, had been virtually eliminated in much of the territory of the pre-Petrine Russian state (but not Russia's empire in central Asia) by the expansion of Russia's frontiers, mass peasant migration, and the sedentarization of nomadic peoples. The geographical expansion of Russian peasant agriculture to the frontier regions is an additional dimension to the broader process of the 'homogenization' of the Russian empire in the late-nineteenth century described by Andreas Kappeler.⁸¹

The general trends in peasant migration and the spread of arable farming to the frontier regions continued long after 1897. Khrushchev's 'virgin lands campaign' of the 1950s, in which around 300,000 Russians and Ukrainians moved south and east and ploughed up almost 89 million acres of untilled or abandoned land in south-eastern European Russia, southern Siberia and northern Kazakhstan, was one more episode in the four-hundred-year history of Slavonic agricultural colonization of the Eurasian steppes. The campaign began two decades after the completion of the sedentarization of the nomadic Kazakhs in the 1930s, as part of Stalin's programme of forced collectivization, which had led to famine and a catastrophic collapse in the rural Kazakh population.⁸²

⁸⁰ See Bagalei, *Ocherki*, pp. 10–11, 253–69, 569; McNeill, *Europe's steppe frontier*, pp. 6–14, 126–31, 182–202. See also McNeill, *Plagues*, pp. 57–8, 69, 85.

⁸¹ Kappeler, *Russland*, pp. 262–3. Kappeler was primarily concerned with Russian civil and military administration, the Russian language, and the Orthodox religion.

⁸² L. I. Borodkin and S. V. Maksimov, 'Krest'yanskii migratsii v Rossii/SSSR v pervoi chetverti XX veka', *Otechestvennaya istoriya* (1993), no. 5, 124–43; A. Nove, *An economic history of the*

But, by 1897 another process was under way that, in the long run, marked the beginning of the end of Russian peasant society. That process was mass urbanization that accompanied the rapid industrialization of Russia that began in the 1880s. Urbanization and industrialization continued at a faster pace under the Soviet five-year plans of the twentieth century. In the years of the first five-year plan (1928–32), around 12 million people migrated from the villages to work in the new industries. In 1961, for the first time, the urban population of the lands of the former Russian empire exceeded the rural population.⁸³ If, since the eighteenth century, the Russian state had been pursuing a policy of sedentarization of nomads to release land for peasant farming; in the 1930s the state carried out a programme of collectivization of peasant agriculture with the aim of transferring resources and labour for urban industry.

Nevertheless, at the end of the nineteenth century, Russia was still a predominantly peasant society. By 1897, Russian peasant-migrants had largely overcome the environmental and lifeway frontiers, and were themselves altered by their interactions with new environmental conditions and native inhabitants in the 'middle ground' of the frontier regions. By gradually colonizing large areas of the expanding Russian empire, however, the Russian peasantry had been able to sustain a considerable population increase without having to make fundamental changes to the peasant way of life. Unlike the populations of north-western Europe, they did not need to practise family limitation or migrate overseas. By settling and ploughing up ever greater areas of forest and steppe, moreover, most Russian peasants were able to persist with their traditional, labour-intensive and land-extensive, agricultural methods. Even in the latter part of the nineteenth century, relatively few peasants had changed to more land- or capital-intensive systems of farming, or had given up agriculture altogether and migrated to the new industrial cities of the empire.⁸⁴ The durability of Russian peasant society that was still very much evident in 1897 was, to a large degree, a consequence of peasant migration and the settlement of Russia's frontiers between the mid-sixteenth and late-nineteenth centuries.

USSR, 1917–1991, 3rd edn (London, 1992), p. 340; R. Conquest, *The harvest of sorrow: Soviet collectivization and the terror-famine* (New York and Oxford, 1986), pp. 189–98; Khazanov, *Nomads*, p. 45. According to Catherine Merridale, 'after allowance [has been] made for undercounting of Kazakhs and for out-migration ... the population of Kazakh villages [fell] from 5,873,000 on 1 June 1930 to ... 2,493,000 on 1 June 1933.' 'The 1937 census and the limits of Stalinist rule', *Historical Journal*, xxxix (1996), 240. On the collectivization of nomadic reindeer herders in Siberia, see Slezkine, *Arctic*, pp. 187–217.

⁸³ See P. Gatrell, *The tsarist economy, 1850–1917* (London, 1986); S. Fitzpatrick, *Stalin's peasants: resistance and survival in the Russian village after collectivization* (New York and Oxford, 1994), pp. 80–1, 315, 319; D. L. Hoffman, *Peasant metropolis: social identities in Moscow, 1929–1941* (Ithaca, NY, 1994).

⁸⁴ See Pallot and Shaw, *Landscape*, pp. 7–9, 31, 112–35; Treadgold, *Great*, pp. 62–3; Wallace, *Russia*, I, 255, II, 415–16; B. A. Anderson, *Internal migration during modernization in late nineteenth-century Russia* (Princeton, NJ, 1980), pp. 90–120.