

THE IMPERIAL RUSSIAN PROJECT

AUTOCRATIC POLITICS, ECONOMIC DEVELOPMENT,
AND SOCIAL FRAGMENTATION

ALFRED J. RIEBER

FOREWORD BY YANNI KOTSONIS



THE IMPERIAL RUSSIAN PROJECT

Autocratic Politics, Economic Development, and Social Fragmentation

A pioneer in the field of Russian and Soviet studies in the West, Alfred J. Rieber's five-decade career has focused on increasing our understanding of the Russian Empire from Peter the Great to the coming of the First World War.

The Imperial Russian Project is a collection of Rieber's lifetime of work, focusing on three interconnected themes of this time period: the role of reform in the process of state building, the interaction of state and social movements, and alternative visions of economic development. This volume contains Rieber's previously published, classic essays, edited and updated, as well as newly written works that together provide a well-integrated framework for reflection on this topic. Rieber argues that Russia's style of autocratic governance not only reflected the personalities of the rulers but also the challenges of overcoming economic backwardness in a society lacking common citizenship and a cohesive ruling class. *The Imperial Russian Project* reveals how during the nineteenth century the tsar was obliged to operate within a changing and more complex world, reducing his options and restricting his freedom of action.

ALFRED J. RIEBER is a premier historian of Russia and the Soviet Union. He is University Professor Emeritus at Central European University in Budapest, Hungary and professor emeritus at the University of Pennsylvania.



Railroad Construction on the Shchadrinsk-Sinarskii Line near Shchadrinsk, 1912.

The Imperial Russian Project

*Autocratic Politics, Economic
Development, and Social Fragmentation*

ALFRED J. RIEBER

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To Russian colleagues who held to high standards in times of trouble

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Persistence amid Novelty: Alfred Rieber and the Problem of Power

YANNI KOTSONIS

As historians we are centrally concerned with change over time, and we reach all too easily for a simple mechanism that allows us to sort what is continuous from what has changed; hence “continuity and change.” Alfred Rieber’s collection of essays, and indeed his work in general, is not that kind of history, which would lead to an all too superficial rendering of the facts. Our breath taken away by the ubiquity of violence at certain times, we might narrate Russia as more or less violent enamoured of a particular actor, we may locate change in the person’s rise and fall. Fair enough, but we risk losing track of the larger polity that made one or another kind of violence possible, or of the fact that violence could be of one or another significance; and we may obscure the institutions and the polity to which the person pertained.

In relating the large to the small, and the short-term to the long-term, Rieber offers a historical style that has informed the field for decades. His work is about *persistence amid novelty* and he has us marvel at both. It is an effort to appreciate new facts and events in a context of enduring analytic categories. It is about the movement generated by the relationship between persons and institutions that somehow amounts to a direction and a goal, in an ongoing interplay of the small and the large. The direction and the exigencies, and the full-scale mobilizations, are given shape by a shared relationship with power in the personal guise of the autocrat and the institutional guise of the state. Rieber’s works are full of detail, of the many ideas, biographies, politics, favours, disfavours, comings, goings, rises, falls, and venalities, but Rieber appreciates these as parts of an unmistakable direction that allows him to speak at once about the recurring motifs of Russian history while detecting in them what is new. Each category emerges different and differently, but the

category itself is ever present and persistent. Even when the whole system sinks into the “sediment” and collapses in 1917, we can make sense of it through the persistent categories of analysis themselves, which in this case is a matter of power and its fragmentation. Peering past 1917, as Rieber has in his most recent work, the essays lay the groundwork for understanding a new quest that began as soon as the old order was given up for lost. The quest was joined by more and more seemingly inimical groups, as activists from across the political and social spectra sought to reconstitute social and political power, using one of the legacies of the old regime: the state and the state idea. This, it seems to me, was a legacy of the old regime that far outlasted autocracy.

The most persistent category for Rieber, it should be clear already, is power as a generic, with autocracy as its historical manifestation in Russia in the imperial period. It begins in these essays as sacred and personal, a matter of faith in and sheer obedience to the autocrat, with the person, the institutions, and the ideas in something of a heliocentric system of privilege and obligation. To be sure, Rieber shows that this system had complicated mechanisms and practices that made it lived by the actors in question. It began as a small (in population) order of servitors, involving very few people in the late seventeenth century and into the eighteenth, to the point that they can be named, their persons associated with specific demeanours and ideas, and their biographies and travails recounted in some detail ([chapters 1–3](#)). The populations became larger as the nineteenth century drew to a close, so that the actors are better narrated as large collectives of bureaucrats with a new ethos of professionalism ([chapter 9](#)). The service ethos of the gentry had its attendant personal ambitions, squabbles, and corruptions and the estate maintained an anachronistic reference to birth and status ([chapter 10](#)), but the overriding subject is the relationship of the nobility, however defined and constituted, to power more broadly. This endured, as different and changing persons and institutions showed a remarkably consistent preoccupation with their standing with regard to the autocrat and the institutions through which they served. The legal estates do change and to a large extent they lose their coherence and anchoring in the polity ([chapters 10–12](#)). They are joined by new criteria for advancement, in tension with the pre-Petrine legacies, so that by the 1890s it is possible to be well positioned in the bureaucracy thanks to a higher degree and no pedigree or land, nor even pretensions to pedigree and land; banking and finance might seem more lucrative ([chapter 9](#)). Even here one surmises, as I think Rieber does, that this is a new

rendering of an old problem of status and competence (chapters 5–6), and even then it is a problem nestled in the larger field of power as it reshaped itself over time: who should govern, on what basis, and in the name of who or what?

In all regards the shared idiom of power is autocracy, scarcely questioned by any large segment of the official, landowning, and mercantile elites before 1900, at which point mass movements of liberals, populists, and Marxists were locating sovereignty in something other than the autocrat. Until then it is persistent, alternately or simultaneously presenting itself as a person and a set of institutional practices, from *mestnichestvo* to the table of ranks to the attainment of a university degree. Nor can 1905 be the end of this story: shattered though the image of the father autocrat was in some spheres, it remained the touchstone for all and a foundation of significant political parties like the Octobrists and the Nationalists, not to mention Witte and Stolypin. It was a crisis of autocracy, as our Soviet and Russian colleagues term it, not yet its end.

The Moscow entrepreneurial group (chapter 4) is fascinating because it had qualities that might have cast it against the autocracy – think 1848 to the west of Russia – with a belief in their own self-reliance, an adherence to a vague (Slavic) ethnic sense of the collective as an alternative locus of belonging, a dislike of bureaucratic meddling (unless it was to their advantage, of course), and a nascent identification with larger strata of people outside the elite. And yet their loyalty to the autocrat was never in doubt. And when one steps back to consider such strata of capitalists and merchants on the all-Russian scale, as did Rieber in his classic *Merchants and Entrepreneurs*,¹ the loyalty to, and dependence on the autocrat for their contracts, laws, and protection, was unmistakable. And their deference to the state in matters of capital mobilization and capital-intensive construction was enduring. When banks developed poorly and gathered domestic capital feebly, it was the State Bank and the Ministry of Finances that stepped in. And the centrality of the state ensured that the private banks would play second fiddle as near filials of the state undertaking. Who else was going to finance, later own and operate, such capital- and labour-intensive undertakings as the railways? Who else could ensure supplies to the army and navy, if not the host of state-sponsored, state-protected, state-subsidized, and sometimes state-owned enterprises? Even Reutern, in advocating for a greater role for private entrepreneurs, was speaking in relative terms, and he allowed that the project of railway building would be realized at state initiative and under its supervision (chapters 7–8). By the 1890s

railways were state financed, owned, and operated, and the largest employer of industrial labour in the Russian Empire by 1905 was the state railway network. When those workers went on strike, their adversary was the state itself, which made the problem of power all the more immediate, encompassing overtly political and economic façades.

The term at issue is *vlast'*, of which mere force (*sila*) is a subpart. Power is more about the capacity to make things happen, which easily overlaps in Russian with what we might separate out as authority. This does change, and Rieber shows us how. Beneath the detail and sprinkled in the narrative is no longer only autocracy, but the state idea (*gosudarstvennost'*, *gosudarstvennaia ideia*), or the notion that power and, increasingly, governance is located in an ever expanding institutional complex, what Witte and Lenin would both term “a syndicate”: the state itself, with a dawning and spreading realization that the state may exist without an autocrat, and sovereignty may be located in wider or at least new segments of the population. Government by consent and a broad franchise may or may not be the way to express that sovereignty. Here, in the valorization of the state itself and the search for new notions of sovereignty, even the Moscow entrepreneurs could agree after 1905, as they joined a movement to lend new legitimacy to Russian statehood in the midst of its crisis. This story will carry us well beyond 1917 and well into the Soviet period. Social organization remains decidedly and explicitly a relationship to formal political power, so that even the anti-authoritarian argued his or her case against the overwhelming weight of opinion and practice that holds state power to be paramount, thereby recognizing, tacitly and often unwittingly, that political power is indeed paramount. Where would the intelligentsia be without “power” against which to define itself? And why did so many would-be liberals, oppositionists, and artists fashion themselves “statists” in the aftermath of 1917 and engage in a conversation with “power” in the form of Soviet leaders? How many bureaucrats and experts came round to the idea of “Soviet power,” finding in it a regenerated or reconstituted “power,” the absence of which had produced the collapse of 1917–18? (I am reminded, by the by, of the stream of visitors from the Russian Federation in the 1990s telling us that they wanted “Power! Any power!” [*Vlast'! Liubaia vlast'!*]) to end what they thought was chaos.)

It is fair to say, certainly by the post-1905 period, that much of the talk is about a different kind of power – at a bare minimum, an autocrat with social foundations rather than merely obedient subjects, as Stolypin would have it with regard to land reform and the alternation

of the zemstvo franchise in 1911. Sovereignty was being located in a variety of alternative spaces and ideologies, nations in particular. These Rieber examines in his most recent monographs, one carrying us into the Soviet period, much focused on the new reality of national thinking and refracted in the geopolitics of the twentieth century.² Something profound has taken place, though it would be misleading to assume that it is any less about power, any less about the political power than can make legitimate decisions, any less about the state. Quite the contrary: as the Russian “state school” of history has taught us, it is about a reintegration into a more encompassing power, and as such a more legitimate power. Not a kind and gentle power, not a power that formally asks for consent, but a power rendered legitimate by the very fact that it includes.

Estates transformed, classes emerged, groups shrank and sank to the point that the absence of cohesion – social, political – became the great weakness of the old regime, so that it lost the capacity to maintain itself as it faced crises encompassing (1905, the Great War) and localized (food supply to key neighborhoods of Petrograd in February 1917). It was a crisis of *vlast'*, both power and authority, and the related question of legitimacy. It all fell apart in 1917, to be sure, but Rieber shows us in some of his most influential work to date that we should look at the prehistory to learn why the events of 1917 were explicable (chapters 11–12).

As we disperse as a profession to open new and exciting lines of inquiry – long overdue explorations of gender, religion, nationality, daily life, and practices – we would all do well to reassemble on occasion, reread some classic works, and take stock. In so doing we can remember a few of the lessons that Rieber has taught us over the past decades about the persistent tensions and categories in which historical actors operated and allow us to make sense of the accumulation of details. Not all facts are equal, and some are more significant than others when placed in a wider context. The recurrence of a phenomenon does not make the picture changeless. No one operates outside of power, of one sort or another. One cannot pretend that the autocrat or the state does not exist. And power does change over time.

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Preface and Acknowledgments

The idea of assembling in one book a number of published and unpublished essays of mine written over the past fifty years was inspired by Yanni Kotsonis of New York University and taken up with alacrity by Richard Ratzlaff of the University of Toronto Press. I am very grateful to both of them for their encouragement and faith in the project. It was clear to me from the outset of this project, however, that I faced two major problems. First, how to take account of the scholarship which has appeared since the original publication of my essays dealing with the same or similar issues. Second, how to bring a greater degree of cohesion into a collection of disparate essays written for different occasions over a period of several decades. My answer was to find a middle way between simply citing the new material in the notes and rewriting entire texts. This proved to be less of a painful compromise than I anticipated. Where I thought it necessary, I have taken advantage of the newer work to make corrections, add material, or rewrite entire sections, while leaving intact the basic argumentation. At the same time, I organized the published and unpublished essays into sequential chapters linked by several major themes which I have outlined in the introduction. In an enterprise such as this one, there is always the problem of repetition, which I have tried to address by cutting or summarizing parts of the original texts where there was an overlap. Where the same incidents still show up in several essays, I have tried to place them in a different perspective.

The research for these articles has been supported over the years by the Guggenheim Foundation, the International Research and Exchanges Board (IREX), the American Council of Learned Societies, the Ford Foundation, the Soros Foundation, and the History

Department of the Central European University in Budapest. The late Professor P.A. Zaionchkovskii introduced me decades ago to the treasures of the Manuscript Division of the Lenin Library (now the Russian State Library), for which I am eternally grateful. Archivists at the State Archive of the Russian Federation (GARF), the Central State Historical Archive in Leningrad (TsGIA), and the archive of the Institute of Transportation Engineers in Leningrad extended courtesies and assistance beyond their normal duties. My thanks go to Paul Bushkovitch, Peter Gatrell, and Igor Khristovich for their critical reading of individual chapters. The two anonymous readers for the University of Toronto Press made a number of corrections and valuable suggestions to improve the internal coherence of the book. I hope I have taken full advantage of their criticisms. In preparing the present manuscript, I happily acknowledge assistance from Ala Creciun, Harrison King, and Lyudmila Sharaya, all graduates of the Central European University. I am greatly indebted to Viktor Lagutov of the Environmental Studies Department of the Central European University for his splendid work in redrawing my sketchy map of canals and producing the English language versions of the three railroad network of 1866, 1868 and 1875.

I have been fortunate over the past fifty years to have been associated with stimulating colleagues and students, too numerous to name individually, at the University of Pennsylvania, Columbia University, and the Central European University. For all the help I received, I still am responsible for any errors of act or interpretation that remain.

The original sources of the chapters are as follows:

Chapter 1, "The Petrine Vision and Its Fate," is a much revised version of "Politics and Technology in Eighteenth Century Russia," *Science in Context* 8, no. 2 (1995).

Chapter 2, "From Aufklärung to Romantic Idealism" has not been published before.

Chapter 3, "The Biogenetic Model," has not been published before.

Chapter 4, "The Moscow Entrepreneurial Group," is a revised version of as "The Moscow Entrepreneurial Group: The Emergence of a New Form in Autocratic Politics," part 1, *Jahrbücher für Geschichte Osteuropas*, new series, vol. 25, no. 1 (1977).

Chapter 5, "The Engineers," appeared originally as "The Rise of Engineers in Russia," *Cahiers du Monde Russe et Soviétique* 31, no. 4 (Oct.–Dec. 1990).

Chapter 6, "The Economists," has not been published before.

Chapter 7, “Origins of the Reutern System,” is a much revised version of “Zheleznnye dorogi i ekonomicheskoe razvitie: Istoki sistemy Reitera” (Railroads and Economic Development: Origins of the Reutern System), in Russian Academy of Sciences, *Stranitsy rossiiskoi istorii: Problemy, Sobytiia, Liudi* (St Petersburg, 2003).

Chapter 8, “The Reutern System in Operation,” contains much material from “The Debate over the Southern Line: Economic Integration or Economic Security?” *Journal of Ukrainian Studies* 29, nos. 1–2 (Summer – Winter 2004) in a new context.

Chapter 9, “Patronage and Professionalism,” is a revised version of “Patronage and Professionalism: the Witte System,” in *Problemy vseimnoi istorii. Sbornik statei v chest' Aleksandra Aleksandrovicha Fursenko* (St Petersburg, 2000).

Chapter 10, “Social Identity and Political Will,” appeared originally as “Sotsial'naia identifikatsiia i politicheskaia volia: Russkoe dvorianstvo ot Petra I do 1861 g.” (Social Identification and Political Will: The Russian Nobility from Peter I to 1861), in P.A. Zaionchkovskii, 1904–1983 gg. *Stat'i, publikatsii i vospominaniia o nem* (Moscow, 1998).

Chapter 11, “The Sedimentary Society,” appeared originally in Edith Clowes et al., *Between Tsar and People* (Princeton, 1991).

Chapter 12, “Social and Political Fragmentation,” appeared originally as “Social and Political Fragmentation in Imperial Russia on the Eve of the First World War,” in V.V. Noskov et al., eds., *Rossia i SShA: Poznavaia drug druga. Sbornik pamiati akademika Aleksandra Aleksandrovicha Fursenko* (St Petersburg, 2015).

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Abbreviations

AN/CC	Archives nationales. Correspondence commercial
AMAE	Archives du Ministère des affaires étrangères
B/E	F. A. Brokgauz and I. A. Efron, eds. <i>Entsiklopedicheskii slovar'</i>
COIDR	<i>Chteniia Obshchestva istorii drevnostei rossiiskikh</i>
GARF	Gosudarstvennyi arkhiv Rossiiko Federatsii
KA	<i>Krasnyi arkhiv</i>
KIDRO	<i>Kratkii istoricheskii ocherk razvitiia i deiatel'nosti Vedomstva putei soobshcheniia</i>
OR RGB	Otdel rukopisei. Rossiiskaia gosudarstvennaia biblioteka
PRO FO	<i>Public Record Office Foreign Office</i>
PSZ	<i>Polnoe sobranie zakonov Rossiskoi imperii</i>
RBS	<i>Russkii biograficheskii slovar'</i>
RA	<i>Russkii arkhiv</i>
RS	<i>Ruskaia starina</i>
SIRIO	<i>Sbornik imperatoskogo russkogo istoricheskogo obschestva</i>
TsGIA	Tsentral'nyi gosudarstvennyi istoricheskii arkhiv Leningrada
ZhMNP	<i>Zhurnal Ministerstva narodnogo prosveshchenia</i>
ZhPS	<i>Zhurnal putei soobshcheniia</i>

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Introduction

The essays in this book were written for different occasions and at different times over the past fifty years. Yet, it turns out upon reflection that they deal with three interwoven themes: the politics of economic development; the changing nature of the autocratic system of governance; and the impact of economic change and political practice on Russia's social structure, leading to fragmentation and the breakdown in 1917. These three themes shape the tripartite structure of the book. Part One, "The Foundations," consists of a single chapter, "The Petrine Vision and Its Fate." It focuses on the first systematic effort of the autocracy to overcome what becomes known in the historical literature as economic backwardness in Russia's relationship to the West.¹ Peter's reforming initiatives aimed to create scientific and educational institutions, organize technology transfer, and fashion an ideology of cultural innovation in order to promote economic growth. He envisaged a technological society in the service of the armed forces, virtually militarizing the state. These reforms required an immense increase in the power of the tsar-emperor and profoundly affected social relations from top to bottom. He pursued his aims ruthlessly, beating down, yet not eradicating, the defenders of the old order. He recruited a heterogeneous ruling elite from churchmen, noble scions of great families, new men of no high standing, and foreign technical and military specialists. At the same time, he undertook a massive mobilization and disciplining of the lower orders of the population. Peter's reforms raised fundamental questions about the relations between the state, the economy, and society that play out in the rest of the book.

Part Two, "Cultural Transfer, Interest Groups, and Economic Growth," consists of seven chapters. They explore the penetration, adaptation,

and institutionalization of the main currents of thought coming from Western Europe on the modalities of economic change in Russia. Ideas filtered in through a number of conduits. In the eighteenth century, the main carriers of the new ideas were Russian students returning from study abroad and foreign professors recruited to teach in Russian specialized schools and fill appointments in the Academy of Sciences. In the early decades of the nineteenth century, the newly founded universities and the Tsarskoe Selskoe Lycée opened up fresh learning perspectives nourished by an embryonic press and informal discussion circles (*kruzhki*). Following the Petrine tradition, these reforms of Alexander I were launched from above, preparing the ground from which self-generating seeds of change sprouted and blossomed. The reformers were drawn from the ranks of both bureaucrats and free-standing intellectuals. In the reigns of Alexander I and Nicholas I they still counted few in number. But they voiced their own set of “burning questions” of the day, posed differently but no less intensely than those of the radical intelligentsia. In their eyes, the main issue was the pace and goal of economic growth. They could not agree, however, whether commerce, agriculture, or industry would prove to be the most productive field for the increase of wealth. Standing in the shadows of their discussions loomed the even larger question of how best to preserve and reconcile Russian values with external theories and practices of economic change already denoted by contemporaries as “Western.”

Chapter 2 seeks to uncover the philosophical foundations of these debates and how the competing ideas were communicated to a larger public. At the end of the eighteenth and beginning of the nineteenth century, strong currents of thought embodying scientific and technical ideas entered Russia from the major centres of German intellectual life. They were transmitted, adopted, and absorbed by Russian scholars and students. The Russian interpreters struggled to reconcile the opposing principles of empiricism and speculative thought represented by the *Aufklärung* (the German Enlightenment) and *Naturphilosophie*. At times the terms of their interrogation seemed to echo similar efforts to resolve the tension between theory and practice that characterized the Petrine reforms. This problem will reappear as a leitmotif in the rest of the book.

Chapter 3 takes up the question of how this congeries of ideas, maturing into full-blown German Romanticism, entered the world view of the Slavophiles. By revealing a neglected component of their *Weltanschauung*, this chapter seeks to demonstrate how the Slavophiles

produced a cultural rationale for a new form of industrialism. They proposed to imbue economic development with a nationalist, moral spirit specific to Russia, in opposition to the universalist and rationalist values of the materialistic “West.” An analysis of their philosophical ruminations serves as a bridge to the following chapter, on the formation of the Moscow Entrepreneurial Group. [Chapter 4](#) also provides an opportunity to introduce the concept of the interest group as a key to understanding Russian economic development in the era of the Great Reforms, the seedbed of modern Russian politics.

The Moscow entrepreneurs were a heterogeneous assemblage of merchants and nobles engaged in commercial and manufacturing activities. Pooling their resources and inspired by the Slavophil theories of economic development, they sought to create a Russian national economy in such diverse fields as the tariff, banking, and railroad construction. With the participation of several leading Slavophil intellectuals, they infused their business activities with the ethical and nationalistic principles of the Orthodox faith, often in its Old Believer guise, as opposed to what they considered to be the logical, rational, universal ideas of Western civilization.² Because the group was informal, lacking an institutional and legal identity or even a manifesto, I assembled its membership on evidence drawn from private correspondence, share holding in joint stock companies, sponsorship of press organs, and cultural activities.³ They never identified themselves by the name I have given them. However, I concluded that by virtue of their personal relations, collective behaviour, and programmatic outlook, they represented a variation on an emerging form of politics in mid-nineteenth-century Russia. In search of what Bourdieu called a suitable identifier, I borrowed and modified for a Russian context the term interest group. Because it was originally coined to describe a form of political activity within a liberal democratic system, some modification was required to fit it into the very different political culture of the Russian autocratic system; but less perhaps than may appear on the surface.

The Moscow entrepreneurial group was not the only interest group to appear in the era of reforms, although it possessed some unique characteristics. [Chapters 5](#) and [6](#) identify two others, the professional engineers and the economists, engaged in advancing alternative models of economic development. Their group cohesion took shape along functional as well as ideological lines, reflecting both their social roles and specialized knowledge.⁴ Unlike the Moscow entrepreneurs, they borrowed their theoretical perspectives and practical activities from

Western Europe, adapting them to fit Russian cultural traditions and the structure of autocratic government.⁵ The engineers borrowed heavily from the statist as opposed to the latter-day liberal ideas of the French St Simonians. They envisioned themselves as the planners and builders of a Russian railroad network that would unify the commercial and industrial centres of the empire. The economists drew their inspiration from British political economists, suitably modified for the application in Russia. In contrast to the engineers, who relied more on the French model, they promoted the idea of building railroads with the assistance of private entrepreneurs guided and supervised by state agencies. Beyond that their economic policies were more comprehensive than the engineers', touching upon finance, banking, and the tariff. The transfer of ideas from Western Europe on economic development was nothing new in Russian history. Under Peter I and Catherine II the works of the Austrian and German cameralists and the French physiocrats had been imported and translated.⁶ The difference in the period after the educational reforms of Alexander I, was that these ideas became entrenched in the new universities and schools, inspiring a new generation of professionals who went on to occupy leading positions in the imperial bureaucracy. In the era of the Great Reforms, the three interest groups, each drawing upon a different current of West European thought to construct their own vision of Russia's economic development, were the main protagonists in the struggle to set the priorities of the government, particularly in the field of railroad construction, but also in finance and commerce. Although the three interest groups operated within the framework of autocratic rule in Russia, their activities expanded its parameters. But they were not the only big players in the arena.

Chapters 7 and 8 focus on the attempt of Finance Minister M.Kh. Reutern, relying heavily on the economists, to initiate a new set of policies that addressed the main problems of stabilizing and expanding the economy. As with other reforms, including the emancipation, local government, and the military, the reforming process was fraught with conflict. In the battles over such issues as railroad construction, the tariff, and banking, Reutern and the economists faced serious criticism and competition from the engineers and Moscow entrepreneurs. These chapters record how other interest groups and individual representatives of vested interests engaged in older forms of political activity, increasing the numbers of active players in the competition to determine the course of economic activity if not its development. The military interest group makes its appearance, claiming a stake in the economy and especially in

the construction of railroads. Although they deserve a chapter of their own, I have chosen to weave their activities into the general narrative, if only because they have already received extensive treatment in the historical literature.⁷ However, their participation in the debates and the bureaucratic manoeuvring are important in a more general sense to illustrate the link between the recurrent themes of the politics of economic development and the changing nature of the autocracy.

Interest groups emerged on the Russian political scene as a response to new challenges facing imperial rule. By the end of Nicholas I's reign, the autocrat was no longer able to cope with the expanding demands of governance, assisted only by a small coterie of advisers. As the veteran statesman, senator and chair of the Committee on Railroads, Count S.G. Stroganov, stated: "The late tsar [Nicholas I] wished to do everything himself, but it is already impossible to do everything by one self."⁸ Increasingly, Alexander II faced the need to address the more complex organizational and technical tasks of running the economy. Minister of Interior P.A. Valuev reminded the tsar: "One stroke of Your Majesty' pen is sufficient to abolish the entire Code of Laws of the Russian Empire, but no imperial command can raise or lower the level of state bonds on the St. Petersburg Stock Market."⁹ Moreover, for the first time since Peter I, Alexander II confronted grave threats to the external security and domestic stability of his empire brought about by defeat in the Crimean War and the financial crisis it engendered.¹⁰ To address these problems required another round of extensive reforms. Yet, Alexander resisted any effort to dilute his autocratic power. Throughout his life he rejected constitutionalism, "not because he was jealous of his authority," wrote the disappointed Valuev, "but because he was genuinely convinced that it would harm Russia and would lead to its dissolution."¹¹ Nor was he willing to systematize the work of the ministries and other administrative organs in a united government under a prime minister. The confusion of government, lamented D.A. Miliutin, the minister of war, was due to the tsar's unwillingness to "give exclusive influence to any one of us."¹² Instead he devised a method of balancing contending groups who sought his favour and support. Without surrendering any of his autocratic prerogatives, he placed responsibility for carrying out specific tasks in the hands of those who expressed in word and deed their unswerving loyalty to him. When he felt himself uncertain, he tossed the issue like a juicy bone into the pack of his squabbling ministers and waited to be convinced by the strongest or cleverest of them. He became, in effect if not in name, a "managerial tsar."¹³ This approach

also informed his reluctance to put an end to traditional political practices, such as factions or client networks and court favourites, inherited from his predecessors. That this aspect of Alexander's style of governance also plays an important part in the following chapters justifies a brief digression.

There had always been some kind of court politics in Muscovite Russia. Factions formed around powerful personalities or influential families and their clients. Issues and ideologies were secondary to the struggle for place, honour, and influence over the tsar.¹⁴ In pre-Petrine Muscovy the main foci of internal politics had been cultural and religious questions. Thereafter foreign policy became the favourite field for factional strife. It offered the greatest immediate rewards for ambitious men who sought to carve out careers as proconsuls of the Empire.¹⁵ Only occasionally during succession crises, as in 1730, 1767, and 1825, did groups of nobles coalesce briefly to defend their privileges or demand new rights.¹⁶ The limitations on political activity, to say nothing of political organizations, had been clearly defined since Peter.

The autocracy nourished a profound suspicion of associations that might have the slightest interest in politics. In the eighteenth century there were only a handful of societies officially recognized by the government, of which the two most important were the Free Economic and the Free Russian assemblies. The law of 8 April 1792 lay down strict rules on their organization and on state surveillance over them. A brief boom in societies in the reign of Alexander I aroused fears that prompted a law against secret societies in 1822 and, after the December Uprising, brought down the heavy hand of repression. Under Nicholas about two dozen societies were founded, but all of them were concerned with scholarly, charitable, or economic – mainly agricultural – issues. Only the Russian Geographical Society had any real potential for political activism. When it timidly explored this avenue it ran into trouble even in the reforming sixties. The Ministry of Interior closed its political economy section for having arranged debates on current questions. Even joint stock companies had to be approved by the government on an ad hoc basis, all attempts to create a general law of incorporation having failed.¹⁷

By the early nineteenth century, however, harbingers of new organizational forms and new patterns of communication began to appear, enlarging the institutional setting of politics and increasing the number of participants in political life. The creation of ministries, the evolution of a professional bureaucracy, the opening of new institutions of secondary

and higher education, and the emergence of a mass press marked the beginning of the slow process of depersonalizing factional politics and enlivening its ideological content. Yet even under the reign of Nicholas I, appointments to ministerial rank still depended exclusively on the personal whim of the tsar. This explains the phenomenon of the “free floater,” the individual, almost always a military man, whose appointment to one or another ministry or several in succession did not match the professional training or specialized knowledge of the officials under his authority. Instead, the “free floater” was an administrative device to circumvent the bureaucratic crystallization of expertise, otherwise known as “departmentalism” (*vedomstvoennost*) and to preserve the tsar’s control over every stage of the decision-making process.¹⁸

Although Alexander II remained at the centre of political life, his family, by virtue of its fecundity, began to clutter up the corridors of power; the phenomenon of the grand dukes made its appearance. Under Alexander I and Nicholas I, close relatives of the tsar including his brothers did not play an important role in the politics of autocracy, still less in the direction of the economy. In the reign of Alexander II this too changed. Coterie formed around the personalities of Elena Pavlovna, the tsar’s aunt and Konstantin Nikolaevich, his brother. They became centres of discussion and advocates of reform. The “Konstantinovtsy,” the eagles of Konstantin Nikolaevich, included some of the leading figures among the bureaucratic reformers, especially economists, but also among jurists and educators.¹⁹ But following the failure of his liberalization policy in the Kingdom of Poland, Konstantin Nikolaevich lost much of his influence, although he remained active in the State Council.

To fill out the cast of players in the struggle for influence at the centre of political life and over the path to economic development, these chapters also introduce the phenomenon of the faction. This is another element in autocratic politics that I have borrowed and adapted to Russian conditions from the general sociological literature. A faction forms around an individual wielding great personal influence through his access to the tsar who, unlike the “free-floater” with whom he shares certain characteristics, seeks to create a network of high-ranking clients in the ministerial bureaucracy in order to promote an ideology of governance that favours a large social grouping. In the case of the most prominent and influential faction in the period of the Great Reforms, headed by Count Peter Andreevich Shuvalov, this was the landed nobility. The scion of a politically influential noble family, Shuvalov had no specialized expertise but relied upon his connections and personal charm to win the favour and

even the affections of Tsar Alexander II. His first major appointment as head of the Third Section of His Majesty's Imperial chancellery gave him the power to control ministerial officials at the provincial level and, even more important, the opportunity to collect compromising information (*kompromat*) on the highest bureaucratic ranks. His service as governor general in the Baltic provinces from 1865–6 reinforced his sympathies for the Baltic German landed nobility, under attack by Pan Slavs. He shared these views with his father, Count Andrei Petrovich and his associates, who belonged to what was called "the planters' party," during the debate over the emancipation of the serfs. Following the attempted assassination of the tsar in 1866, he was called back to the capital to become chief of the Gendarmes. Exploiting Alexander's fears for his own life and the growing revolutionary movement, he intervened at the highest levels of government in order to secure ministerial appointments for his clients. He was successful in replacing several key figures among the Konstantinovtsy. For several years he exercised an enormous sway over the tsar. His defence of the economic interests of the nobility and their political influence brought him into conflict with the two most powerful leaders of a bureaucratic interest group, Reutern of the economists and Miliutin of the military, as well as to a lesser extent the Moscow entrepreneurs. Unpacking their tangled relations helps explain the politics of economic reform in [chapters 7](#) and [8](#).

On the periphery of the political centre, provincial interests were weakly organized, short-lived, and narrowly focused. Normally they were composed of local notables including government officials, big landowners, and a few commercial or industrial entrepreneurs, gathered together to promote a regional economic interest, which was, in the reform period, mainly the construction of railroads.²⁰ The local, especially provincial zemstvos became involved in the debates over the concession of railroad lines when the competition directly affected their regional economic interests.²¹ But the absence of an empire-wide zemstvo assembly long delayed the appearance of legal political parties that transcended regional interests.

While the institutional setting for politics in the reform era underwent a slow but significant evolution, the patterns of communication affecting the debates over the economy changed dramatically. [Chapters 7](#) and [8](#) highlight the expansion of the field of politics with the emergence of a mass press at the national level. A combination of political and technical factors created the possibilities for mass-circulation dailies in the 1860s. For ten years after relaxation of the censorship terror, Russian

press laws were in a state of complete anarchy, marked by the absence of any guiding principles or administrative unity. Repression was a hit-or-miss affair that encouraged the bold and the enterprising. Improvements in mechanical printing techniques allowed large runs of papers. Government permission for commercial advertising enabled papers to lower subscription rates. The expanding railroad network created new communities of readers outside a single locality. Together with the telegraph, the railroads facilitated the rapid – indeed, instantaneous – transmittal of news and information from Europe. Government ministers quickly grasped the political uses to which the mass-circulation press could be put. Departmental organs, drab and dull sources of official announcements and information, were transformed into opinion papers engaged in sharp polemics with rival papers of other ministries or the private press. The print war became part of factional bureaucratic politics. But the truly phenomenal change took place among privately run papers, such as *Moskovskie vedomosti*, *Golos*, *Syn otechestva*, and *St Peterburgskie vedomosti*. Under independent press lords such as Mikhail Katkov, A.A. Kraevskii, A.V. Starchevskii, and A.S. Suvorin, these papers reached a mass market. Before 1855 the largest circulation of a daily was about 3500; by the mid-sixties Katkov's *Moskovskie vedomosti* was printing 12,000 and *Syn otechestva* 20,000 copies.²²

Under Alexander II, the mass press exposed to public gaze the rivalry over economic policy among the interest groups and factions. The competing participants in the debates in the government tried to exercise influence on policymakers, including the tsar himself, by cajoling, subsidizing, or threatening, but this did not always work. The press became a wild card in political life. [Chapters 7](#) and [8](#) document how interest groups attempted to create their own organs of opinion or to gain the support of one already established. Leaks within the bureaucracy, particularly on economic questions, fuelled the heated debates in the press. Information and argument provided in the dailies had pronounced effects on decisions over such wide-ranging questions as nationalities, particularly in the Polish and Baltic provinces; education; and railroad construction. The tsar, who was known to follow certain press organs like *Moskovskie vedomosti*, was not immune to the currents of opinion. On several occasions, press exposés of his ministers, whether inspired by enemies or instigated by journalistic muckrakers, provoked him to insist on an end to intradepartmental polemics and to force the resignation of a minister.²³

[Chapter 9](#) analyses the attempt of S.I. Witte to resolve the two basic problems that persistently confronted the bureaucratic reformers of

imperial rule: first, to create a unified administration, transcending the squabbles among interest groups and factions, and second to introduce a systematic policy of economic development. Trained as a mathematician, associated with engineers, experienced as a railroad entrepreneur, and an early supporter of Pan Slavic ideas, Witte may be seen as synthesizing the ideas and practices of his reforming predecessors. He used his position as minister of finance to create a clientele network that he hoped would enable him to launch Russia on the path to industrialization and peaceful imperial expansion. As this chapter shows, Witte greatly expanded the functions and forms of the Ministry of Finance. Taking a page from his predecessors, Reutern and Vyshnegradskii, he sought to use foreign loans to introduce the gold standard and to create new ties between the professional engineers and the business community by establishing a network of commercial schools. Gaining the confidence of Alexander III and, in the early years of his reign, Nicholas II, he wielded enormous influence over the appointment of officials to other ministries which he staffed with men of specialized training beholden to him. Thus, he combined patronage and professionalism in the last attempt before the revolution of 1905 to overcome the divisions and rivalries within the bureaucracy and forge a united government with a coherent plan for economic development. That his efforts fell short testifies to the deep structural problems within Russian society and politics that are explored in the last three chapters.

Part Three of the book, "Social Structures in a Divided Polity," examines the deep splits in the social and political life of the Russian Empire leading to the crisis and collapse of the autocracy. The opening chapter, "Social Identity and Political Will: The Russian Nobility from Peter 'the Great' to the Emancipation of the Serfs," raises questions which remained unresolved throughout the last two centuries of the empire: who was a noble and what was the nobility (*dvorianstvo*)? From the time of Peter the Great, the tsar and his servitors, themselves nobles, had opposed any imperial-wide organization of the noble estate (*soslovie*), but neither was the autocracy able to establish a uniform standard or procedure for creating nobles or a legal framework for a noble estate. Noble status continued to undergo changes as the empire expanded and the autocrats sought to co-opt and assimilate the elites of different ethno-territorial regions. Although the key to noble status remained service, this chapter shows how the different economic interests of the nobility eroded their common interests in preserving serfdom. This chapter argues that the nobility was a highly diversified social grouping,

unable to unify even when its most fundamental material interest – a monopoly over possession of the land – was undermined by the terms of the emancipation of the serfs. The chapter concludes with a review of the abortive effort by Nicholas I through the creation of the guards regiments to eliminate the anachronisms, abuses, and corruption in law and custom that blurred the corporate identity and undermined the social cohesion of the nobility as a ruling class.

Chapter 11, “The Sedimentary Society,” weaves together the lines drawn in the previous chapters into a broad interpretive synthesis of the major trends in the changing relationship between autocratic politics and the social composition of Russian society between Peter I and the late imperial period. Juxtaposing the elements of social cohesion and fragmentation, the chapter demonstrates the disruptive impact of industrialization and the commercialization of agriculture. It seeks to explain the contradictory forms of social life as a result of the character of the periodic reforms, which imposed new strata of legal and organization forms on the pre-existing ones without replacing them. This serves as an introduction to the final chapter.

Chapter 12, “Social and Political Fragmentation on the Eve of the First World War,” expands and deepens the analysis of the profound crisis engulfing political, economic, and social life throughout the Russian Empire, preceding the complete collapse of the imperial project. Four structural problems are taken up in turn: the multiplicity of social identifications, uneven capitalist development, social particularism, and political fragmentation. The concluding words on the effects of fragmentation invite the reader to reflect on the enormous difficulties faced by the Provisional Government in attempting to introduce new forms of political life and a common citizenship while seeking to impose a unified economic policy under the strains of modern warfare.²⁴

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PART ONE

The Foundations

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Chapter One

The Petrine Vision and Its Fate

Like most successful rulers, especially those who earn the sobriquet “the Great,” Peter I employed pragmatic methods to fulfil a vision. And like others of his stature, only parts of his practical achievements survived him as the vision faded, although it was never extinguished.¹ This essay argues that with Peter, practice and theory gave birth to the vision of a society “dominated by technique.”² No ruler who survived a long and tumultuous reign could fail to adapt to changing circumstances. But none that sought to carry out a transformation of his state and society could do without a vision to guide if not to determine his policy choices. Peter was no exception. His encounter early in his reign with the German philosopher Gottfried Wilhelm Freiherr von Leibniz (1646–1716), their correspondence, and Peter’s subsequent relations with Leibniz’s famous student, Christian Wolff (1679–1754), helped to shape the guiding principles of his policies in education, science, technology, and the economy. But ideologizing practice came late in Peter’s reign. What happened afterwards to that ideology was perhaps more important. The Leibniz-Wolff cosmology remained an inspiration for Peter’s “new men,” his eagles as Pushkin later called them, who served his ideals and survived him into the middle of the eighteenth century. Over the following fifty years his vision lost much of its force and clarity. But it revived at the end of the century in new form. Also transferred to Russia by German philosopher-scientists, the principles of the late Aufklärung and Romantic thought were in many ways an extension of Leibniz-Wolff, although varying its emphasis and cloaked in a different language.

The Technological Vision

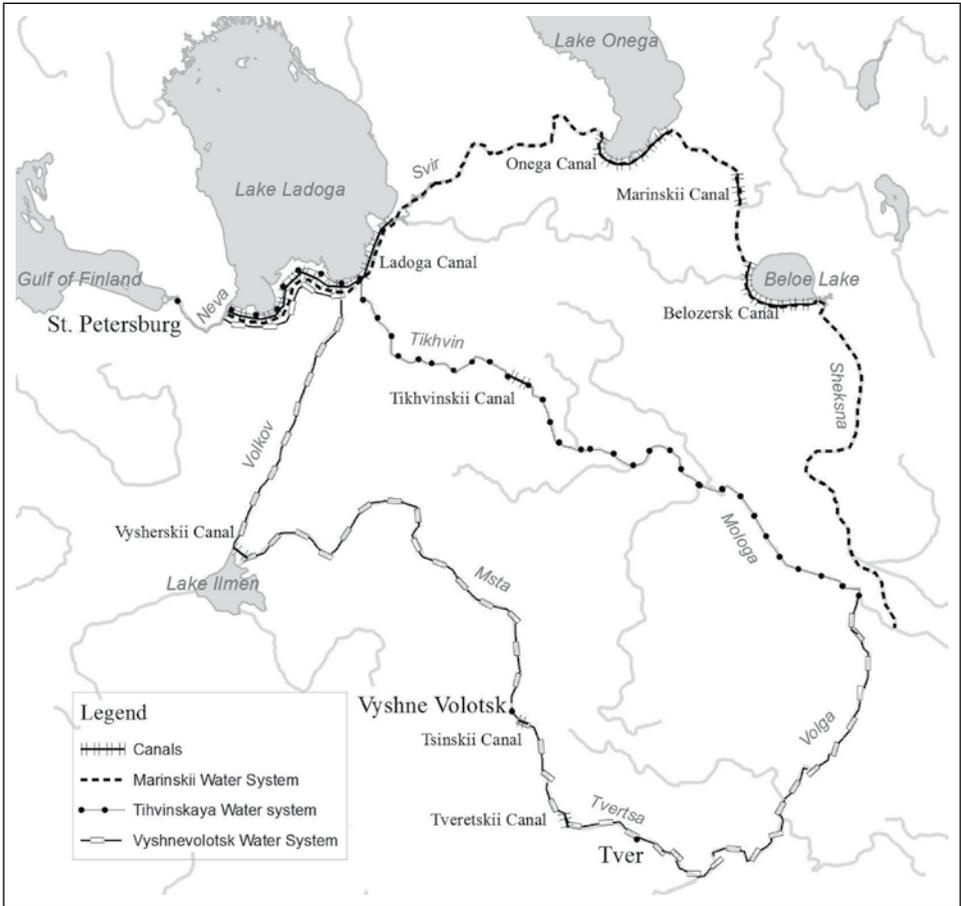
Peter was obsessed with technology before he plumbed its scientific foundations and he threw himself into its practical applications before he sought a philosophical rationale to justify innovation to his sceptical subjects. By the middle of his reign, however, he was drawing closer to the fusion of theory and practice and by the end he had constructed an institutional and ideological system that he hoped would maintain his achievements after his death. In his youth Peter had acquired a technical knowledge and proficiency that set him apart from other heads of state in eighteenth-century Europe; he was reputed to have acquired a master's skill in a dozen trades. What he lacked was an understanding of how best to generalize his skills and put them at the service of the state. Without technical knowledge and trained specialists the enormous and sparsely populated Russia with its great but scattered natural resources and its extensive but disconnected inland waterways would remain poor, backward, and prey to the large and better-organized states on its western frontiers. From the earliest years of his reign, he engaged in a crash campaign of technology transfer.

During his Great Embassy to Europe, he began to recruit foreign technicians, officers, weapons specialists, and mining engineers, to serve as advisers, teachers, and managers of his military and civil enterprises. In the first wave of recruits, he hired mainly shipbuilders from Holland (626 men) and England (57 men) but also Greeks, South Slavs, and Swedes.³ Peter envisaged all Europe as a school for Russians. In his Great Embassy he brought with him thirty young Russian nobles to study abroad. The stream never stopped. In the first decade of the eighteenth century, several dozen more were dispatched to Holland, Venice, and England. Another group was sent to Spain during the War of the Spanish Succession to study with the great Spanish engineer Cadorna. In 1712 thirty officers were posted to the French army.⁴

Although military and naval instruction took precedence, Peter nourished a vision of a great commercial future for Russia. The key was to perfect the inland waterways connecting the Baltic to the Black and Caspian Seas, opening Persia from the north, short-circuiting the lengthy ocean voyage of the maritime powers around the Cape of Good Hope, and cutting in on the great wealth of the Indies. But for this he needed to construct an immense canal system. During the Great Embassy he personally recruited a Scottish engineer, John Perry, to improve communications between the Volga and the Don. Then in

1701 he assigned him the task of turning the river port of Voronezh on a tributary of the Don into a naval base for a sea-going fleet. When Peter shifted his attention to war with Sweden in order to obtain a window on the West, he set Perry a new and daunting task. He commissioned him to plan an extensive network of canals that would link the Volga River with his newly designed capital of St Petersburg, thus providing a link between the Baltic and the main grain-producing provinces of central Russia.⁵ The building of canals in Western Europe was still in its infancy. A generation earlier the French had completed the great Midi Canal. In Britain during the first half of the eighteenth century, the improvement of river transport by weirs and locks was just getting under way. The first real canal, at Bridgewater, was only finished in 1761.⁶ Peter's plans surpassed anything undertaken in the West until the second half of the eighteenth century. But as frequently happened, his reach exceeded his grasp. Two of the three sections of the system, the Tikhvinskii and Vyshnyi-Volotskii, were completed only a century later. The construction of the Marinskii subsection dragged on well into the nineteenth century. By the time the entire network had been completed it was technologically obsolete as railroads had overtaken and supplanted it.⁷

Peter's stimulation of manufacturing and commerce was in many ways arbitrary and artificial. Nonetheless, his policies achieved a minimal level of economic growth through state purchases of iron, copper, hemp, timber, sailcloth, and woollens for the production of weapons, naval vessels, and uniforms. A great part of his success can be attributed to his judicious selection of talented and ambitious foreign technicians to manage key sectors of the economy. A vivid example is the career of V. de Hennin, a Saxon artilleryist and engineer recruited by Peter during his Great Embassy to Western Europe. Like many foreign technicians Hennin was young and inexperienced in practical tasks, but he possessed a solid knowledge of geometry, calculus, and design that could be applied to a variety of enterprises. He won his spurs in the old metallurgical centre of Olonets Province, north of the capital. Peter then entrusted him with reorganizing and expanding the Ural iron and copper mines and factories. Hennin gradually acquired a mastery of new techniques in on-the-job training and during trips to Western Europe, a process of learning that was characteristic of foreign technicians in Russian service. His work in the Urals had long-lasting effects on the technology of the entire metallurgical industry well into the nineteenth century. His construction of new copper smelting facilities relied on



Map 1.1 The canal system of north-west Russia

a mix of Saxon techniques and local traditions. His blast furnaces for iron production possessed an enormous capacity for their time. But his main contribution was not so much in devising a specific technology as in organizing production and the labour force. Peter's political protection was essential to his success. After the tsar's death Hennin became increasingly frustrated by conflicts with local bureaucrats and rivals in St Petersburg, and he resigned all his posts.⁸

Peter's main organizational innovation was to create a central economic bureaucracy capped by a Manufacturing College. Established in 1723, about the same time he was institutionalizing his broad cultural reforms in the Church and founding the Academy of Sciences, the Manufacturing College resembled a prototype of the ministries of national economy created by many European states in the twentieth century. Its ideological mandate was mercantilist and its authority over economic matters was extensive. It administered the state industries, issued patents, gave permission to private individuals to construct factories, and minutely regulated every aspect of the manufacturing process. From the outset the College faced serious problems in staffing its departments with trained personnel. Subsequently, it became increasingly embroiled in a struggle between rival merchant and noble groups for control over private industry. It fell into routine administrative habits after Peter's death. In the absence of strong, informed instructions from above, it became more of an obstacle than a spur to economic growth. By the reign of Anna Ivanovna (1730–41), the labyrinth of regulations had become so bewildering that any industrial enterprise that attempted to follow its twists and turns would simply not have been able to operate at all.⁹

Peter's state enterprises were the core of his industrial policies, but he was eager to allow all classes in the population to engage in manufacturing and trade. The merchantry received special privileges and were even permitted to purchase serfs for their industrial enterprises, a practice that was opposed by the nobility and did not long survive Peter's death. The existence of parallel but interconnected development of the public and private sectors contributed to the steady rise of per capita production in the eighteenth century, accompanied by increased exports of raw material and semi-finished goods, especially pig iron, grain, and flax. Thanks to Hennin and others the output of pig iron and iron goods soared by sixteen- and twenty-fold respectively between the death of Peter and 1800. By the end of the century, Russia had become a primary supplier of foodstuffs and bar iron for the British market. By providing flax, linen, iron, and tallow to Britain's older manufactures, Russian imports released British resources for the production of new products, particularly textiles,¹⁰ Without Russian products English industrialization would have occurred at a much slower pace.

Initially, Peter's concept of technical education was narrowly utilitarian, highly specialized and closely tied to military requirements. Before his reign there had been no formal preparatory instruction for entrance

into government service, Peter changed all that by creating a bureaucratic rank order – the Table of Ranks – based on merit. He coerced the children of elites into his newly created mathematical and navigational schools, imposed a Western-style dress code on his servitors and introduced manuals of deportment in order to prepare them for their new social roles. In his eyes, the crucial prerequisite for civil as well as military servitors was applied mathematics. Later, when he came to appreciate the importance of mathematics for the philosophy of Leibniz and Wolff, his initial enthusiasm was translated into a general system of education.

In the late seventeenth century, military theorists in Europe began to illustrate the importance of ballistics in the effective use of artillery. In England and Sweden scientific laymen and minor mathematicians laid the foundations for a transformation of warfare. Their innovations were crucial in the instruction and training of seamen, gunners, surveyors, and fortification engineers.¹¹ These weapons technicians were lacking in Russia. For this reason Peter insisted that geometry and trigonometry be the basic subjects in all the secondary schools he created: Mathematics and Navigation Schools (1701), an Admiralty School (1703), Artillery School (1701), and Engineering School (1709). As in all his other enterprises, Peter was determined to promote talent where he found it irrespective of birth and rank. In the Mathematics and Navigation schools, for example, only about one quarter of the students came from noble families. He scoured the country for pupils who were already literate and knew the rudiments of arithmetic. Enrolments in these schools were never large relative to his needs and fluctuated from year to year. Within two years there were about two hundred students in the Mathematical and Navigation schools; then the figure steadily increased to a peak of 500 in 1711, only to decline to 447 by 1715. Enrolment in the Artillery School showed a more irregular pattern, hovering between 200 and 250 students in the early years and then falling to 136 in 1707. Repeated attempts to reorganize the Engineering School and shift its location to St Petersburg failed to push enrolment beyond 100 students at any one time. Peter's favourite school – the Admiralty – counted more than 700 students. This encouraged him to create an advanced Naval Academy in 1715, which also attracted large numbers of students, over 800 in St Petersburg and 500 in Moscow.¹² But once again after 1724 there was a decline, and it became precipitous as Peter's successors lost interest in a high seas fleet. In all these efforts Peter repeatedly came up against a serious obstacle. Even before he

became tsar he had suffered indignity and humiliation at the hands of conservative elements in Russian society. Once in power he confronted the opposition of the boyar elites and the Church hierarchy to his most ambitious plans. He quickly perceived that he would have to match his institutional and organizational innovations with a cultural transformation.

Early in his reign, Peter sought to break the monopoly of the Orthodox Church over Russian mores, customs, and beliefs. He mocked the elaborate church ceremonies and substituted his own secular rituals and symbols of authority. He altered the external appearance of the boyars and the entire noble estate, which was based on ecclesiastical forms, by ordering them to shave their beards and doff their kaftans. He left vacant the patriarchal see after the death of the patriarch in 1700, thus depriving the Church and society as a whole of a potential leader of the opposition to his cultural policies. His imposition of Western fashions and manners struck directly at the Church's sacred image of man. Yet, he never intended to destroy the Church as an institution, undermine its moral authority, or weaken Christian dogma. He envisaged the Church, suitably reformed and reorganized, as a potential ally in his plan to create a technological society. It would serve in his eyes a necessary bulwark against schism and heresy, on the one hand, and a reservoir of educated youth, the literate sons of priests, for his technical schools. What was necessary, then, he realized was both to revitalize the Church as an agent of social change without ceding to it a cultural monopoly and to create a cultural counterweight, a secular institution of equal prestige as a fount of technical knowledge and secular values.

Immediately after the pressure of the Great Northern War (1700–21) had been lifted by the signing of the Treaty of Nystadt, Peter proceeded along two fronts to consolidate his cultural policies. In 1721 he abolished the Patriarchate, created the Holy Synod in its place, a new governing board for the Church, endowed it with a new mission, and set over it a permanent watchdog of the state in the person of the Over-Procurator. Under the authority of the Holy Synod, he placed the reorganized church schools. At the same time, he planned an Academy of Sciences, which opened shortly after his death. He designed it not merely to acquire, preserve, and propagate knowledge but also to administer the secular arm of the state educational system. Two parallel sets of cultural institutions – the ecclesiastical and the secular – were joined by a unifying ideology.

The Ideological Vision: The Leibniz-Wolff Synthesis

Although Peter was guided by practical and strongly military needs, he demonstrated early in his reign an interest in endowing his reformed and new, hence fragile institutions with a fully integrated ideology borrowed from Western European thought yet not alien to basic Russian values. The fusion of the ecclesiastical and secular arms of the state within a shared philosophical design was embodied in the Spiritual Regulation of 1721 and the statutes of the Academy of Sciences in 1725. The political marriage of religion and science was performed under the canopy of what became known as the Leibniz-Wolff cosmology. It was a synthesis of the ideas of the great German philosopher, Newton's rival and Descartes's critic, Gottfried Wilhelm Freiherr von Leibniz and his disciple, Christian Wolff.

Leibniz first came to Peter's attention during the Great Embassy in 1697 through the good offices of the wife of the Grand Elector of Brandenburg, Sophie Charlotte, a student and daughter of the greatest patroness of Leibniz, the Electress Sophie of Brunswick-Luneburg. At this time, Leibniz was not successful in meeting Peter, but his interest in the dynamic young tsar replaced his previous contempt for Russia as a barbarian state. At first Leibniz was drawn to Russia primarily as a link to China and as a storehouse of many languages, both subjects of interest to Peter as well. Leibniz also noted with approval in 1698 that Peter "admired certain ingenious machines more than all of the pictures which he was shown in the royal palace [in Berlin]." ¹³ Leibniz conducted a lively correspondence with experts on Russia including the tsar's legal councillor, Huyssen, hoping to involve the tsar in all sorts of diplomatic and commercial enterprises. In 1708 he wrote to Peter urging him to create a Kunstkammer (cabinet of curiosities) modelled after the Cabinet of the Elector of Saxony and Polish King, Augustus the Strong, which served as a working and teaching collection of crafts. It was, he declared, the means to perfect the arts and sciences." Peter later endowed the St Petersburg Kunstkammer to advance the level of crafts at the imperial court. ¹⁴

But Peter only consented to meet Leibniz at Torgau in 1711, beginning a direct and fruitful exchange between them. Leibniz presented a memo laying out his program on printing and publishing, secondary schools, agriculture, research into the magnetic declinations of Russia, promoting manufacturing industry and establishing an Academy of Sciences on the model of the Berlin Academy founded in 1700. Leibniz also discussed with Peter mapping Siberia and improving sea and

land communications throughout the empire. Within the year Peter appointed Leibniz as a privy councilor “since we know that he can be of great help in the development of mathematics and of other arts, in historical research, and in the growth of learning in general.”

Following Peter’s charter of November 1712 inviting Leibniz to submit proposals for the spread of mathematical knowledge and other sciences, the German philosopher wrote three letters outlining his design to introduce the most advanced forms of administrative practice and most highly developed methods of study into Russia. Among the twelve colleges he envisaged, one was dedicated to inculcating the youth of the empire with a knowledge of all the sciences, and establishing close relations with foreign centres of learning through cultural exchanges of students and scholars. To educate the youth, he argued, it was vital to create an academy of sciences, functioning as a higher educational institution. The curriculum was designed to explain the nature of creation, foster a genuine love of God, and promote an understanding of the relations of body and soul, the latter being defined as reason and will. Courses in history, natural law, and civil law were to illuminate the individual’s relationship to the dead and the living. Passing on to the subjects of greater interest to Peter in the physical and natural sciences, Leibniz recommended the study of astronomy and geography to locate man in the world; engineering (called architecture) to build ships, dwellings, and fortresses, and geometry and arithmetic to calculate their measurements; mechanics “to enjoy all the conveniences on land and sea”; physics “to understand everything existing on earth, water and in the air”; and chemistry to study its decomposition. He also recommended the study of foreign languages. He ended on an optimistic note. If the tsar would entrust education to an intelligent and skilful director, the advantages for the state would go beyond any description.¹⁵

In his memo to Peter of 1716, Leibniz proposed a series of projects in “the arts and sciences [that] are the true treasures of mankind; they show the superiority of art over nature and distinguish civilized people from barbarians.” Among them were “libraries, museums, *Kunstkammer*, workshops of models, collections of objects of art, chemical laboratories and astronomical observatories.” In promoting these projects, Russia, he argued, had an advantage of starting “with a blank sheet,” thus foreshadowing the idea of “providential backwardness.” Leibniz’s ambitions for expanding his own service to Russia extended to establishing a “sound commerce between Moscow and China in order to transplant in Moscow and in Europe the sciences and arts known in China,

but unknown among us.” He further proposed to organize research into “the history, geography, origin and migrations of peoples” with special emphasis on systematizing the study of languages spoken on the frontiers of the Empire.¹⁶ These ideas corresponded with initiatives that Peter had, in many cases, already undertaken piecemeal.

What appealed to Peter in Leibniz’s philosophical system was its unity and practicality. Leibniz had challenged Descartes’s dualism by insisting on a pre-established harmony and a rational interconnectedness of things that could be comprehended by a rigorous analytical method. He claimed that his new logic or “universal characteristic” was sufficient proof of the existence of God but also the basis for all his discoveries in mathematics, physics, geology, philology, law, and technology. That he assigned an instrumental role to his logic was of particular interest to Peter. Throughout his life Leibniz was concerned with inventions and innovations ranging from the magnetic compass for shipping and pumps for mining, and telescopes for the battlefield to medicine, morals, law, and commerce. In hundreds of letters to his contemporaries he boasted of having devised a “Combinatory Art” that revealed every link in the great chain of being.¹⁷ Years before he met Peter he proclaimed a formula that the tsar would adopt as the basis for his mathematical and navigation schools: “There is nothing which is not subsumable under number. Number is therefore, so to speak, a fundamental metaphysical form, and arithmetic a sort of statistics of the universe, in which the power of things are revealed.”¹⁸ In his memo to Peter in 1716 he translated this formula into specific recommendations for Russian education. For primary and secondary schools he stressed the importance of moral and physical training, on the one hand, and practical application of science to technology, on the other. At the university level, general theoretical subjects, mathematics, physics, and philosophy would take precedence, but a course on scientific agriculture would introduce the practical side of learning.¹⁹

An additional appeal of Leibniz for Peter was the philosopher’s design for a harmonious relationship between institutional stability and socio-economic change. Leibniz had constructed a philosophy based on two principles that at first glance appeared contradictory. A state could be constructed in accordance with reason as defined by his “universal characteristic” because all things appeared to be interconnected through a pre-established harmony. Yet the world was constituted by a multiplicity of forces (monads), each with its own identity and each changing its condition, always developing, according to a single algebraical formula. How could pre-established harmony be maintained in

the face of constant change of its constituent parts? Leibniz's answer was not only ingenious, but fitted the needs of Peter as an enlightened ruler. Each force, of which the individual human soul was his prime example, develops autonomously, reflecting its own point of view and at the same time proceeding along lines parallel to the motion of all other forces. Because each force is self-contained, operating blindly as it were, it cannot perceive the unity of the world. But a prince acting rationally in the interests of all embodied in the state can direct all to the best possible end.²⁰

Equally important in Peter's latter-day attempt to systematize and institutionalize his views on the organization of science and technology in Russia was the role of Christian Wolff (1679–1754). A favourite student of Leibniz, who recommended him to a chair of mathematics and natural science at Halle University, Wolff elaborated a rigorous mathematical method that avoided the metaphysical aspects of Leibniz's philosophy at the same time as he popularized his teacher's work. This earned him the hostility of the German Pietists and mystics, ultimately forcing him to flee Prussia. Peter the Great, and his successors, were among the many rulers who sought to engage his services. Although Wolff never left Germany, Peter consulted him on the creation of the Academy of Sciences in Russia. Wolff argued that a university would be more useful for Russia than an academy. Although his opinion was not accepted in St Petersburg, repeated attempts lasting beyond Peter's lifetime were made to lure him to Russia. He refused, fearing that his freedom of inquiry would be more limited there. He did, however, agree to recruit outstanding German thinkers and was responsible for bringing to the academy Nicholas and Daniel Bernoulli, German, and Georg Bernhard Bilfinger.²¹ Thanks to his efforts the academy enjoyed in its very first years a reputation equal to that of those in Western Europe. His influence on the shaping of Russian education continued long after his death, in large part through the work of his most famous student, Mikhail Lomonosov, who studied chemistry with Wolff at the University of Marburg. On his return to Russia Lomonosov supervised the publication of Wolff's work, translated his monograph of physics, and adopted his views in his text on rhetoric, all of which assured Wolff a lasting influence in Russia well into the nineteenth century.

If pure and applied science were to be joined in the academy, then Christian service to the community and technology were to be harmonized in the reformed Orthodox Church. Side by side with the preaching of Christian humility and obedience to state authority, the Orthodox

Church in Peter's design was to assume the highly unusual task for an ecclesiastical body of encouraging the economic development of the country. On his instructions church schools and seminaries incorporated into their curricula mathematics, post-Aristotelian physics, and even such practical subjects as mechanics and scientific agriculture. It was Peter's intention to use the church schools as a conduit for funneling literate youth into state service. He allowed the nobility to enrol their children in the Slavonic-Greek-Latin Academy of Moscow and authorized the medical chancellery to take students from the church schools.²² It may be safely assumed that he sought to circumvent the conflict between science and religion that had surfaced from time to time in Russia and the West.

The Petrine Eagles

Three figures who embodied Peter's ideal of the alliance between religious and scientific-technological values were Feofan Prokopovich, Mikhail Lomonosov, and Vasili Tatishchev. Their efforts to fulfil his vision throw into bold relief the political struggle of the state against the entrenched interests over the promotion of economic change in Russia. Feofan Prokopovich was Peter's right hand in carrying out the Church reform and in restoring a close alliance between Church and state.²³ Although he completed his studies in Rome after graduating from the Kiev Academy, Prokopovich was strongly anti-Catholic. Often referred to erroneously as a "crypto-Protestant," Prokopovich hearkened back to an earlier Orthodox tradition of the learned churchman. His intellectual roots can be traced back to the great age of Byzantine scholarship under the Macedonian and Comneni dynasties and the reopening of the University of Constantinople, where Aristotelian science and mathematics were taught.²⁴ But Prokopovich went beyond antique learning. He enjoyed reading Francis Bacon and René Descartes. In his sermons he defended Copernicus's heliocentric theory against papal injunction. He claimed that Scripture did not contradict "the physical and mathematical proofs of heliocentrism," for it was necessary to interpret the word of God "not in the literal but in the allegorical sense." As a teacher at the Kiev Academy he began his lifelong campaign to sweep out the cobwebs of scholasticism from the ecclesiastical schools and introduce a modern curriculum. The Kiev Academy, with its ties to the West, was determined to compete in erudition and learning with the Jesuit universities of Poland. In 1701 it had already added courses in French and German

to supplement the classical languages, but also in natural history and, occasionally, in agriculture, domestic economy, and medicine as well. The scholastic tradition proved to be deeply entrenched until Prokopovich abruptly broke with it, first in his course on rhetoric and then, more radically in 1701, when for the first time he taught post-Aristotelian physics, arithmetic, and geometry at the academy.²⁵

Summoned by Peter to St Petersburg to head the reformist party in the Church Prokopovich drafted the Spiritual Regulation in 1721, giving the highest sanction to the teaching of arithmetic and science in church schools. According to its statutes the curriculum was to include a year of arithmetic and geometry, a year of "physics together with metaphysics in conformity with the essential elements of contemporary philosophical systems," a year of natural law and politics based on the works of Samuel Pufendorf, and two years of Orthodox theology taught in line with Prokopovich's new critical method.²⁶

Never one wholly to substitute theory for practice, Prokopovich founded a school attached to his residence in a suburb of the capital for orphans (he had been one) and poor relations. In addition to the traditional fare of religion, Russian, Greek, and arithmetic, the school offered courses in geometry, geography, history, and draughtsmanship. Prokopovich championed the teaching of Latin in all church schools, not simply to follow scholastic formulas but in order to tap into the richness of Western learning.

It was important for Peter to have the new standards for church education written by a churchman. Immediately following the publication of the Spiritual Regulation, Peter authorized the reopening of church schools, which had been closed for years while the children of the clergy were dragooned into the unpopular secular mathematical schools. But now, at least in theory, the dichotomy between ecclesiastical and secular learning had been erased. Russian culture would be pragmatic and integrated. Prokopovich's meteoric rise and controversial views, however, had already won him enemies in the Church. They began to resist the introduction of new ideas into the seminaries and the prescriptions of the Spiritual Regulation were not applied everywhere. The rumblings of a great political struggle within the Church were already faintly discernible in the latter years of Peter's reign.

Prokopovich neglected no opportunity to defend Peter's reforms. When the tsar began to draw more heavily on the ideas of Christian Wolff, Prokopovich refuted accusations that Wolff was an atheist. Throughout his long and embattled career he sought to overcome

“dangerous tendencies” in the Church associated with the monastic tradition of indulging in physical and psychological excesses as the sole proof of true religiosity. Monastic life in both the Byzantine and Russian Orthodox churches vacillated between two sets of principles: on the one hand, self-renunciation and retreat from the world; and on the other hand, worldly indulgence and lack of discipline.²⁷ But Prokopovich insisted that only through learning could superstition and fantasy in religious life be dispelled. Above all, he preached, monasteries should set an example by showing the road to salvation lay not only through personal good works but also through active participation in social life. To do otherwise, he declared, would be to expose “a terrible contradiction between religion and life.”²⁸ An eloquent spokesman for Peter’s vision of a technological society, Prokopovich linked the teaching of mathematics to economic development and the construction of a high-seas fleet. The eminent churchman even appealed to the profit motive in order to stimulate the growth of a large textile and iron industry.²⁹ In practice Prokopovich fashioned a curriculum for his model school that joined Peter’s concept of a technological society to a moral ideal by offering courses in mathematics, physics, and the legal-administrative ideas of Samuel Pufendorf.³⁰

A proponent of natural law, Pufendorf had designed a system similar to that of Leibniz that provided a unifying element for two apparently opposite principles. His definition of civic virtues taught respect for Christianity, obedience to the constituted authorities, and a priority of community over individual rights. At the same time, he advocated a neo-Stoic outlook that allowed a degree of voluntary action within the framework of generally valid moral laws.³¹ Although he reserved severe punishment for atheism, demonism, and sectarianism, he insisted on toleration for unusual ideas in the pursuit of scientific knowledge. His work was well known to Peter, who personally supervised the translation of two works, “Introduction to European History from the Latin,” published in St Petersburg in 1718, and “On the Duties of the Individual and the Citizen,” St Petersburg, 1724. No doubt too his collegial theory of Church – state relations also appealed to Peter, who had left the patriarchal seat unfilled until 1721, when he created the Holy Synod, a collegial body, to replace it. Implicit in the work of Leibniz and Pufendorf was the idea of the creative artist, scientist, and model citizen following their own theoretical bent (*Innerlichkeit*) within the framework of strict morality and service to the state, a concept that would be revived in another holistic and dialectical model a century later. Following the

death of Peter, the Church reforms, tied to the personal fate of Prokopovich, were endangered by the factional struggles that racked the Russian government and church. Prokopovich was a central figure in these struggles as the defender of the principles of autocracy and reform against aristocratic oligarchs and the old Church party. With the accession of Anna to the throne in 1731 and the defeat of the anti-Petrine forces, Prokopovich's star was at its zenith. As imperial decrees established church schools in every bishopric, one by one they acquired the status of seminaries teaching a broad curriculum, including Latin, modern languages, and the advanced sciences. Prokopovich began to recruit Ukrainian churchmen to replace Great Russian clerics who had suffered defeat, disgrace, and even exile as a consequence of the political struggle of 1730. A few years after his death in 1737, his followers, the so-called Ukrainian party, took control of the central administration of the Church, drove out the last of their main Great Russian opponents, and restored the teaching of Latin in all schools and seminaries. A statistical breakdown of the Church hierarchy reveals the extent of Ukrainian domination. From 1700 to 1762 seventy out of one hundred and twenty-seven bishops occupying chairs in the Great Russian sees were Ukrainians and Belorussians. In the same period twelve of fourteen prefects and twelve of thirteen rectors of the Moscow Theological Academy were Ukrainians.³² The central importance of the reformed Church was its role in introducing new ideas and artefacts into Russian cultural life throughout the eighteenth century. The church schools took up the slack from the decline of the cipher schools due to the opposition of the nobility. Prokopovich's concepts slowly filtered into philosophy courses, where after 1750 students were exposed to texts of a number of European thinkers, but especially Leibniz and Wolff.

In Ukraine, where the Cossack *starshina* was not incorporated into the noble estate until the 1760s, seminaries served as a substitute for the Cadet Corps as the preferred institution of secondary education for the sons of landowners. Here, in particular, the seminaries assumed the task of recruiting and preparing the well-born for bureaucratic careers in government and as specialists in scientific and technical fields. Even the smattering of arithmetic and geometry as well as an early mastery of Latin opened the way for students in church schools to enter the institutions of higher education in Russia or abroad in the fields of the natural sciences or medicine. The state was particularly successful in skimming the cream of seminary graduates for medical training. Between 1750 and 1825 approximately 50 to 60 per cent of all physicians

who received a medical degree and subsequently practised medicine in Russia received their secondary education in Russian seminaries. As late as 1802 the majority of the students in the St Petersburg Medical-Surgical Academy had attended church schools.³³

For Peter the Great the training of physicians had always been part of his militarized society based on technique due primarily to his recognition of the importance of doctors in treating the wounded on the battlefield and maintaining the health of soldiers in peacetime.³⁴ By the end of the eighteenth century, the field of medicine would become a major site for the introduction of new ideas in biology and Naturphilosophie, an ideological successor to the Leibniz-Wolff cosmology.

Startling confirmation of Prokopovich's legacy comes from the fact that graduates of the seventeen ecclesiastical academies created in the 1730s constituted the overwhelming majority of the staff and most of the students enrolled in the major secular institutions of higher learning that came into existence between 1747 and 1755. The first graduating class of the Academy of Sciences gymnasium was made up of twenty-three former seminarists. All of the scientists in the small group around Lomonosov who subsequently became the first professors at the Academy of Sciences University received their secondary education in church schools and seminaries. Every one of the first Russian professors at Moscow University had been similarly educated. Occupants of the first seven chairs at the Medical-Surgical Academy in Petersburg had been prepared at the Kiev Academy before going on to various medical schools in Russia and abroad.³⁵ Perhaps the most dramatic innovations in technical training were introduced by the famous Kharkov Collegium. Founded in 1721 by the Bishop of Belgorod and the enlightened patron Prince M.M. Golitsyn, one of Peter the Great's most brilliant generals, it became one of the major centres of learning in Ukraine in the eighteenth century.

The secular subjects in its curriculum, including German, French, mathematics, and architecture, gave the Kharkov Collegium its special character. Even more unusual, promising students were sent abroad to study and foreign professors were invited to teach at the Collegium. In 1765 the seminary opened its doors to laymen and expanded its course offerings with special supplementary courses in draughtsmanship, geometry, engineering, geometry, and – perhaps uniquely in the history of European seminaries – artillery. Voltaire and Rousseau were on the list of readings in French classes. By the end of the century physics and natural history were added. Enrolments ranged from 400 to 800

students, many of whom were laymen and not a few nobles. At first the Church authorities raised no objections to graduates entering secular fields. The first entering class at Kharkov University in 1802 was composed of Collegium graduates.³⁶

It would be a mistake, however, to exaggerate the achievements of the church schools and to forget that the level of training in mathematics and the sciences, to say nothing of practical subjects, did not match the intentions and hopes of Prokopovich and his followers. The monastic clergy stubbornly resisted the new learning. Parish priests also were reluctant to surrender their sons to the seminaries. There were shortages of trained teachers at the most basic level. The Riazan Seminary, for example, had great difficulty in finding anyone to teach Latin despite threats from the Holy Synod to withdraw its financial support unless courses in Latin were inaugurated. Opposition to the Ukrainian domination of the hierarchy who were the reformists gathered momentum after Prokopovich passed from the scene.³⁷ Rivalry between Great Russian and Ukrainian churchmen sparked debates over whether Russian and Greek or Latin and European languages should take pride of place in the seminary curricula. With the accession of Catherine II, "the Great," the entire question of the role of church schools in the educational system became acute as the new empress pursued her policies of centralizing, russifying, and secularizing monastic properties.

In the Academy of Sciences, the second front of Peter's campaign to advance his vision of a technological society, the towering figure of Mikhail Lomonosov duplicated the part played by Prokopovich in the Church. Lomonosov not only embodied Peter's scientific-technological ideals, but he resembled him sufficiently in looks and behaviour that popular legend pronounced him the natural son of the tsar. Born into a peasant family in the freer atmosphere of Russia's far northern region, Lomonosov discovered at an early age a rare source of enlightenment in his home town of Kholmogory on the White Sea. The resident archbishop had founded an astronomical observatory there as early as 1692, and the local seminary distributed books among the peasants. Taught by a local priest to read and having taught himself the rudiments of arithmetic, Lomonosov discovered in the house of a merchant an old textbook on grammar and arithmetic printed in St Petersburg during Peter's reign for students of the Mathematical schools. He made his way to Moscow and enrolled in the Slavic-Greek-Latin Academy, which in 1730 had not yet been touched by Prokopovich's reform of the old scholastic curriculum. Nonetheless, he learned enough Latin and arithmetic to be selected

as one of twenty students to be sent abroad to Marburg to study at the feet of Christian Wolff. The official instruction defining the purpose of their education bore the stamp of Peter's vision. It outlined a program of study that combined theory – that is, mathematics (geometry and trigonometry), physics, natural history, chemistry, mechanic, hydraulics, and hydrostatics – with practical subjects – mining, study of ores, machinery, and construction. In a final admonition to the students, the instruction read, “everywhere to neglect nothing in practice.”³⁸ Returning to Russia after years of study abroad Lomonosov discovered that the Academy of Sciences had not lived up to this very standard; it had abandoned the Petrine ideal of maintaining a balance between theoretical research and practical activities, as Christian Wolff had feared and warned.

Peter's original plan to crown his educational system with an academy serving as its administrative, research, and technological leader ran into trouble almost from the day it opened its doors. To guarantee instant prestige and European standing for the academy, the government recruited on Wolff's recommendations a coterie of distinguished scholars from the German universities. The only Russian-born member was its first president, Lavrentii Bliumentrost, one of Peter's physicians whose father had immigrated to Russia in the seventeenth century. The new academicians, however distinguished, came out of an intellectual world that exalted and rewarded pure research. Within a few years, the leading academicians began to grumble over annual expenditures on laboratories and workshops that Peter had regarded as an integral part of the academy's work. They attributed the mounting debts of the academy to the cost of maintaining the academic printing establishment, engraving bureau, and workshops for various building trades. Technicians in all these fields were in short supply in Russia. And the academy workshops provided trained personnel and technology for all the printing shops in Russia. They founded the engraving trade, designed new forms of windmills for polishing and finishing stones, and sent skilled craftsmen taught in its shops into the provinces. The scholars found these activities below their dignity. In a petition to the Senate dated February 6, 1733 the overwhelming majority of the academicians declared that arts and crafts had no place in the Academy of Science and that no other academy in the world was burdened with so many practical activities. It was this mentality that Lomonosov encountered on his return from Europe.³⁹

The struggle between Lomonosov and the academy administration centred on two interrelated policy questions. The first dispute came over

the domination of Germans over Russians in the academy. A generation after its founding, the academy had appointed only a few Russian members and none in the sciences, except for Lomonosov himself, and then only reluctantly. The second dispute arose over the balance of theory and practice. Foreign, more particularly German, domination meant that the academicians were primarily concerned with enhancing their European reputations. They cared little for the immense practical needs faced by a backward Russia lacking an adequate cadre of technical personnel. The political situation in the academy was further complicated by the constant friction between the administration and the academicians. The former favoured bureaucratic solutions to all internal problems and the latter, both Germans and Russians, believed in a free community of scholars governing themselves.⁴⁰ In an atmosphere of intrigue, backbiting, and factional strife it became increasingly difficult to retain distinguished European scholars or to recruit new members from abroad.

Experimental work within the academy also began to suffer. For example, Lomonosov had to wage a seven-year battle in order to win approval and funding for the first chemical laboratory at the academy. The foreign academicians supported him on this issue as a means of promoting pure science.⁴¹ But they were indifferent to his entrepreneurial activities that grew out of his laboratory experiments on coloured glass, which led to the establishment of a mosaic factory in St Petersburg.⁴² Experimental work in general attracted little attention from the more theoretically oriented academicians. Lomonosov despaired over the neglect he observed in the physics laboratory. During the last decade of his life he was, for the most part, completely absorbed in bitter personal fights with his fellow academicians that left little room for the pursuit of either science, technology, or economic activity.⁴³

Vasili Tatishchev (1686–1750), the third of this distinguished trio of “fledglings of Peter’s nest,” best known as a historian, was another polymath whose practical activities extended from soldiering and major contributions to the development of the mining and metallurgical industry to ethnography of the steppe peoples. Born into a poor noble family, educated at the Moscow Artillery and Engineering School, he fought at Narva, Poltava, and in the Pruth campaign before being sent to Prussia to complete his education. Appointed to the Mining and Manufacturing College upon his return from abroad, he proposed to Peter a large-scale project for mapping the Russian Empire. He combined his geographical survey with opening mines and establishing metallurgical factories in the Urals. During the attempted coup of 1730, Tatishchev supported the

principle of autocracy but proposed a novel elected bi-cameral consultative senate and assembly that was revived somewhat differently in subsequent abortive reforms by Speranskii, under Alexander I, Loris-Melikov under Alexander II, and in the first version of the Bulygin Duma in 1905. Perceived as an enemy of the plotters he was rewarded with an appointment as head of the Monetary Bureau, where he began to improve Russia's monetary system. He was a critic of private mining enterprises and engaged in numerous conflicts with powerful interests, suffering arrest but always ultimately vindicated. In the Prokopovich-Lomonosov tradition he wrote extensively on the rationalist and moral foundations of state service. In his work "Conversation of Two Friends on the Uses of Science and Teaching," he expressed his belief in natural law, natural morals, and natural religion borrowed from the writings of Samuel Pufendorf and Johann-Georg Walch, professor of philosophy and theology at Jena. Tatishchev's ideal was an equal balance between the soul and conscience achieved by the exercise of the mind through "useful science," including medicine, economics, law, and philosophy. In addition to his numerous scholarly historical works, in which he attempted to apply critical methods to interpreting the chronicles, he published works of a more journalistic type such as "Life of the Spirit" (*Dukhovnaia*) in 1775. He offered it as an instruction or guide to all the activities of man, from education and family life to state service and the economy. A rationalist but deeply Orthodox, an honest and devoted state servitor, often embattled, sometimes discredited, Tatishchev retired to his estate to complete his history in isolation. He died the day after he had selected his gravesite, instructed the priest on his burial, and then refused to accept the Order of Alexander Nevskii.⁴⁴

A Contested Legacy

After Peter's death his ambitious plans for disseminating technical knowledge also encountered mounting resistance from the nobility. Nobles were extremely reluctant to entrust their sons to the new technical schools, where they would be exposed to harsh discipline, primitive living conditions, and the company of non-noble youths. The tradition of home education was a powerful one in Russia, where there were no universities or boarding schools. The situation changed slightly in 1730, when the government created the Cadet Corps for noble children. Its founder Petr Iaguzhinskii, one of Peter's closest associates, sought to meet the demands of the well-born for an exclusive class institution that would prepare their sons for brilliant careers in state service and

answer the state's need for military officers. His curriculum still featured courses in mathematics, fortifications, and artillery, but added horsemanship and other more genteel pursuits to sweeten the fare. From 1732 to 1762 the Cadet Corps enrolled over 2000 nobles, mainly from the upper stratum, and graduated 1200 officers.⁴⁵ But the graduates held commissions almost exclusively in cavalry and infantry units without displaying any advanced technical training. The prestige of the Cadet Corps long overshadowed the Artillery and Engineering Schools and even eclipsed the Naval Academy.

The cohesion and service ethic of academicians, churchmen, and nobles, the triad of social groups on which Peter had constructed his society, suffered from factional warfare over his legacy. For almost forty years after Peter's death, the throne was the main prize in what has been called the era of palace revolutions, and the losers were exiled or executed. A uniform, Westernized nobility that Peter had striven to fashion out of the disparate service groups of Muscovy did not cohere. Under his reign there had not been enough time for an amalgam to take place. Great families, both old boyar and newly ennobled, and their clients jockeyed for power. The balance that Peter had sought to attain between foreign and native elements broke down. Ukrainian and Russian parties split the Church. German versus Russian parties divided the academy. These conflicts undermined Peter's holistic vision of Russian culture in which the nobles of birth and the nobles of merit, the Russian and foreign, the religious and secular, the theoretical and practical, were to be blended into a harmonious society dominated by technique.

After mid-century the state found it increasingly difficult to repair the fissures that had opened up in Russian culture and society as a result of the uncompleted Petrine reforms. Aside from a dwindling number of Peter's new men like Prokopovich, Lomonosov, Iaguzhinskii, and Golitsyn, most of the nobility resisted the pressure to create a society more open to talent and merit. The Church and the Academy of Sciences also turned away from their assigned roles in the grand scheme. The main aim of political struggle conducted by all three types of elites was to assert the autonomy of their particularist interests against the more general interests of the state.

In the years between Peter's death in 1725 and Catherine's ascension to the throne in 1762, the upper crust of the Russian nobility eagerly adopted entrepreneurial roles in order to pay for the cost of cultural Westernization which steadily mounted in the second half of the century. Requiring hard cash to purchase foreign luxuries and maintain a

suitable position at court, they intensified the economic exploitation of their estates and expanded their manufacturing and trading operations. This involved greater exploitation of their serfs and brought greater pressure on the government to grant concessions for the production of pig iron, copper, and woolen cloth. The noble elite also obtained monopolies over the production of alcohol, salt, and tobacco and the export of grain. They convinced the government in 1762 to forbid all non-nobles from buying peasants. They whittled away the powers of the Manufacturing College until this exemplary Petrine institution of centralized control over the economy had nothing more to do. In 1779 Catherine quietly abolished it.⁴⁶

But economically minded attitudes did not produce a capitalist mentality. The main object of the noble was not to make money as an end in itself or as a means of improving the operations of his estate or factory. His aim was to obtain as much income as possible in the short run in order to pay for an extravagant lifestyle that boosted his social status and facilitated access to high rank and imperial favour.⁴⁷ The strong inclination of the noble entrepreneur to consume rather than invest was reinforced by the unavoidable structural problems of dealing with serf labour in the fields and at the workbench. Given the appearance but not the reality of readily available free labour from his serfs, the noble was unable to calculate his actual profits, or even whether he had earned any. Moreover, the widespread resistance of the peasants on the land to innovative methods of production that would upset their traditional rhythm of life and time-honoured customs made it almost impossible for the estate owner to introduce technical advances. It was not surprising, therefore, that agricultural machinery did not find a ready market in Russia before the abolition of serfdom in 1861.⁴⁸

The Military Heirs

The main pressure to retain the essential elements of Peter's design came from the military. Russia's active foreign policy in Eastern Europe, particularly the need to dominate the Polish-Lithuanian Commonwealth and to advance its fortified lines into the southern steppe against the depredations of the Crimean Tatars and nomadic peoples required a steady supply of well-trained officers, particularly in the technical branches of artillery and engineering, and an assured source of arms and armaments. The Artillery and Engineering Departments of the War

College was run by a succession of powerful and ambitious men. Field Marshal B.Ch. Münnich, the lover of Empress Anna Ivanovna, Peter Shuvalov, the lover of Empress Elizaveta Petrovna, and two prominent lovers of Catherine the Great, Grigorii Orlov and Platon Zubov, exploited their roles as lovers and military men to gather large resources for the army and internal communications. Münnich reorganized the Engineering Department and completed another link in Peter's great canal system. Shuvalov belonged to one of the newly ennobled families who grasped the importance of combining technical knowledge with sensitivity to social concerns. He revived Peter's program of offering rewards for technical inventions, contributing a major technological innovation of his own as the inventor of an enormously effective field piece, "the Shuvalov howitzer." As master of ordinance, he brought about a fusion of the Artillery and Engineering schools into a more prestigious body, the Artillery and Engineering Corps, strengthened the technical subjects in its curriculum, but also injected elements of a broader, humanistic education. He increased the privileges for engineers in service, designed distinctive uniforms for them, and made it easier for them to transfer to other branches of the service at a higher rank. He intended for the new corps to compete with the Cadet Corps for the best sons of the nobility. His hopes were only partially realized.

The Artillery and Engineering Corps graduated a number of distinguished commanders and military administrators, but very few engineers. From opening day in 1762 to 1819 the corps produced only 219 engineers out of 2000 graduates. The maximum in any one year was thirteen; one or two was more normal. Several recurrent problems were inadequate training and an aversion to higher mathematics on the part of the sons of nobles. As an astute French engineer noted in the aftermath of the Napoleonic Wars, the Russian educational system lacked uniform standards at the secondary level; in a word, there was no equivalent in Russia to the baccalaureate in France. As a result, higher schools like the Artillery and Engineering Corps were forced to provide elementary or remedial instruction in some subjects or turn away most of the applicants.⁴⁹ Another problem was the insatiable demand of the army for the few engineers who did graduate. This left no engineers to complete Peter's grand design of inland waterways, develop port facilities or construct other parts of the economic infrastructure. From the mid-eighteenth century to 1809 not a single important new civilian construction project was undertaken by a Russian engineering officer.⁵⁰

Catherine II as Legatee: The Physiocratic Influence

As a general rule, Catherine's government failed to liberate all the productive force in the society that might have launched Russia into the industrial age. Like Peter, Catherine had a strong pragmatic bent, but in her case ideology, especially when carried on the winds from France, occasionally blew her off the course of strengthening the Russian economy. A case in point was the influence of physiocratic thought on her commercial and agricultural policies. As Schumpeter has pointed out, physiocracy contained nothing that was new, but the revolution in agricultural technique and the drawing-room interest in the unspoiled life of the countryside gave the ideas of François Quesnay a fashionable vogue; he and his ideas were all the rage in Paris and especially Versailles from 1760 to 1770.⁵¹ For Catherine this was one good reason for its attractiveness. But there were other practical matters, especially the need to break the crippling grip of noble monopolies and the perceived high cost of a protective tariff. In addition, there were important figures at her court who sought to take the economy out of the hands of noble favourites and put it under the more rational control of the state bureaucracy.

Among the most prominent state servitors were G.N. Teplov and N.I. Panin. They worked closely together in 1762 to produce an important document laying out the principles for the creation of a commerce commission. They recommended a series of reforms, including facilitating the export of raw materials and agricultural products, freeing up internal trade, and breaking up monopolies in the interests of stimulating a spirit of enterprise, but all to be sure under state tutelage. Scholars have differed over the ideological foundations of this policy.⁵² It reflected, like most reforms in Russian history, an eclectic blend of foreign ideas adjusted to Russian circumstance. But from this early document to the end of Catherine's reign, the evidence is heavily weighted on the side of a strong tendency on Catherine's part to adapt physiocratic doctrines to Russia. In the beginning she was hesitant. The tariff reform of 1766 introduced moderate rates; it was far from being a free trade document. As her Instruction (*Nakaz*) to the Legislative Commission in the following year indicated, she was probably influenced more by Montesquieu in seeking to strike a balance between collecting tariffs and encouraging trade. She was, after all, in need of income at this point. In her Great Instruction to the Legislative Commission she made it clear that her prime concern was "the spread of agriculture"; a predominantly agricultural

society would be more stable than an industrializing one. "Machines," she wrote, "since they diminish the number of working people, are pernicious in a state that is populous." By the 1780s she had become so convinced of the value of free trade that she instituted the most liberal tariff in Europe, a final tribute to the ideology of the physiocrats.⁵³

It was a risky enterprise launched when other European states including England still adhered to protectionist policies. The results were disastrous for Russian manufacturers and merchants, harmful for Russia's balance of trade, and beneficial only for foreign manufacturers on Russian soil. The serious financial consequences of what had been an ideologically driven policy soon became apparent. But it took the outbreak of the French Revolution to convince Catherine of the necessity of imposing a prohibition on the import of French luxury goods and ordering a general upward revision of the tariff. The new protective legislation was in place when she died.⁵⁴ The draughtsmen of the new policy were advocates of the old Petrine protective tariff and industrial policy. One of them, O.P. Kozodavlev, would become under Alexander I minister of the interior and the leading figure in promoting a new industrial policy.

Catherine's fixation on agriculture found its clearest expression in her creation of the Free Economic Society in 1765. Copying models of similar societies in Western Europe, its charter advocated improving agriculture through the spread of technical knowledge, improvement of crops and livestock breeding, and application of advanced technology to cultivating the land. The original fifteen members were mainly large landowners who were also drawn from the top ranks of officialdom. Inspired by the *Encyclopédie* and the physiocrats, they presented papers on agriculture and extractive industry with the emphasis on practical results. Soon after its creation Catherine requested a study on the comparative advantages and disadvantages of free and bonded labour. A European-wide competition for the best essay yielded 162 entries, most of them from Germany. The prize went to a primarily theoretical treatise in the physiocratic spirit that argued for the gradual emancipation of the serfs on the initiative of the owners. Second prize went to a French economist, Jean Joseph Louis Graslin, a precursor of Adam Smith, who was even more critical of bonded labour. None of the few essays selected for publication dealt with Russian realities. Nonetheless, over the next few decades the society maintained a steady stream of occasional papers (*Trudy*) that promoted scientific methods of agriculture and the introduction of mechanical inventions into the countryside.⁵⁵ The society gradually attracted more and more economists who

favoured emancipation. By the 1840s they constituted the main source of technical expertise for the committees that planned and implemented the emancipation of the serfs.

Still another issue resolved in the spirit of the physiocrats was Catherine's industrial policy or lack of it. She continued the practice of selling off large manufacturing enterprises to private individuals, mainly nobles. She also retained the prohibition on the purchase of serfs for factory work that discriminated against the merchants who were the main economic competitors of the nobles. And she continued throughout her reign to believe that industry, "when it had its uses should be scattered throughout the countryside" – as it had always been in Russia – rather than concentrated in urban centres.⁵⁶ Aside from dismantling the Manufacturing College, she made no new investments in state-owned industry. In the short run the failure to improve the technology of Russia's metallurgical industry had no serious impact on production of iron or its export. The external demand for high-quality bar iron produced cheaply by serf labour remained constant until the turn of the century. But an important opportunity was lost for Russia to develop its own finishing industries.

The Academy of Sciences

The political risks of freeing the serfs were certainly too great for Catherine to contemplate. But there were other arenas of state policy where the excuses for inaction or confusion were less compelling. Her treatment of the Academy of Sciences is another case in point. As in other intellectual initiatives Catherine's main concern here was to present to Europe the impression of an enlightened reign. The empress was less concerned with the substance of its work. She raised the art of public propaganda to new heights. She assigned the Academy a leading role in her charade. At great expense she recalled from his German retreat the great but aging mathematician Leonhard Euler to reoccupy his former post in St Petersburg. She spared no expense in recruiting distinguished figures in European science whom he recommended as academicians. At the same time, she destroyed the last remaining vestiges of the Academy's internal autonomy, placed its administration under a series of frivolous or ignorant favourites, and imposed government censors on its unwilling scholars.

Instead of encouraging the Academy to return to the model of Peter and Lomonosov of combining science and technology, Catherine turned

to her newly created institutions like the Free Economic Society, dominated by the nobility, as the source of fresh ideas and the diffusion of new techniques. The Free Economic Society under the control of large landowners naturally supported research on agricultural improvements for their estates. In this field, and this field alone, she issued strict instructions that the research be confined to practical matters. She blocked efforts to link technological innovation to social change, for she feared the connection between theories of agrarian reform and the emancipation of the serfs.⁵⁷ Ever wary of implementing subversive European ideas, she was content to allow translations of those articles in the *Encyclopédie* that corresponded to the specific needs of Russia as she perceived them. Even then, she twice halved the print run from 1200 to 600 copies of the *Encyclopédie* after 1769 and from 600 to 300 after 1770.⁵⁸ Her policies reinforced the pronounced tendency in the Academy towards pure research.

The conflict in the academy gradually polarized its members. The concept of balance between theory and practice gave way to a struggle between advocates of one extreme and the other, lasting until the 1860s. All the while the Academy repeatedly raised obstacles to technological innovation. The workshops continued to function but the academicians ignored their work. The self-educated mechanic I.P. Kulibin, who became director of the Academy workshops, made prototypes of several important inventions including the semaphore telegraph and an electrically powered boat. Nothing was done to test or produce them. In 1773 he designed a single-arch wooden bridge to span the Neva. Academician Euler verified the calculations but the Academy turned down his proposal to build it as "impractical." Even earlier a soldier's son who had attended a mining school in the Urals, I.I. Polzunov, taught himself by reading the works of Lomonosov and other academicians to construct complex machines. In the mid-1760s, he built a 32-horsepower steam engine which was used briefly before it broke down. But the Academy refused to approve the plans he had submitted to obtain a patent and improve it. This bias survived several periods of reform. In the new statutes of 1803 the state finally granted the Academy full internal autonomy, but at the same time fulfilled another long-standing demand of the academicians and abolished altogether the workshops and practical experiments that had been carried on in a desultory but often promising fashion for seventy years.⁵⁹

Two decades later a French engineer in Russian service, Antoine Raucourt, developed an innovative method for preparing cement.

Several individual members of the Academy commented favourably on his report. Yet, when Raucourt submitted an article to the administration defending his method against criticism, he was informed that it “was not by its character suitable for publication in the *Mémoires* of the Academy.” All the descriptive materials he had submitted were buried in the Academy archives, where they were only unearthed in the 1960s by the leading historian of cement.⁶⁰ In one of the most innovative periods in the history of European technology, the academy went into a long period of decline that only ended in the second or third decade of the nineteenth century.

Educational Reform

Rather than attempting to revive Peter’s emphasis on technical education, Catherine embarked on a search for a model of pedagogy that would be rational, uniform, and general for the layman and strictly separate for the churchmen. Her approach to both secular and ecclesiastical education was, as in all things, eclectic.⁶¹ From the first year of her reign she expressed her concern over the low level of church education and was determined to restore Peter’s system of parallel secular and ecclesiastical schools. But she found it necessary to rely on the resources of the Church to staff the newly designed elementary secular schools (*narodnye shkoly*). The problem was one of finding literate students and teachers. It became necessary to recruit most of the students from seminaries and to permit the clergy to teach them. Catherine insisted, however, that before they entered the classroom, the clerics must be “relieved of their ecclesiastical rank.”⁶² At the same time, the seminaries, dependent on state subsidies following Catherine’s secularization of monastic properties, went into decline. The number of seminarians increased but the quality of education plummeted. This trend had been underway for some time.

The Ukrainianization of the Church had lost its spirit of innovation. In many seminaries the teaching of Latin had become rigid, a reversion to the dry scholastic mode. It had become more of an obstacle to the recruitment of Russians than a gateway to Western knowledge. The state’s relentless plundering of seminary graduates for secular careers alienated the clerics, who saw their best minds lost to the Church. Many in the Ukrainian hierarchy had become wealthy defenders of monastic property. Catherine’s campaign against them had nothing to do with their secular inclinations, as Miliukov argued. Rather they were

the main opponents of her plan to secularize Church lands. A case in point was the authoritarian Ukrainian metropolitan of Rostov, Arsenii (Matseevich), one of the last and most vociferous defenders of Church autonomy, a fierce opponent of secularization of Church lands and state control over ecclesiastical education. He rejected the Prokopovich model. It was not the business of the Church to teach philosophy, mathematics, and astronomy, he thundered, only the word of God. Arsenii was a throwback to the clerical opposition that had confronted Peter, and he met a similar fate. Catherine removed him from his position, and placed him on trial by his peers. He was stripped of his rank and status as a monk and left to rot in prison until he died.⁶³ Catherine's purge of the Ukrainians and substitution of Great Russians was virtually complete by 1775.⁶⁴ But there remained the problem of replacing the Ukrainians with well-educated churchmen.

Catherine found a few exceptional men to work with her in maintaining the role assigned to the Church by Peter and Prokopovich. Among them were enlightened churchmen like Metropolitan Platon (Levshin) of Moscow (1737–1812), a favourite whom she appointed as tutor to the heir Paul, an outstanding scholar and preacher who taught philosophy at the Moscow Academy, and Metropolitan Gavriil (Petrov) of St Petersburg (1730–1801), who represented the clergy at Catherine's Legislative Commission and contributed to the dictionary of the Academy of Sciences. Both Great Russians, they obtained state support – though mainly from Catherine's son and successor Paul – and squeezed their own clergy for funds to maintain the spirit of Peter and Prokopovich in their diocesan schools. In the decade 1788–98 under Platon's leadership, the Moscow Slavonic-Latin-Greek Academy added courses in the history of philosophy which showed the strong influence of Bacon, Descartes, and Christian Wolff. A few years later a medical faculty was organized by E.O. Mukhin, a distinguished physician who had graduated from the Kharkov Collegium.⁶⁵ Under his influence a decree of the Holy Synod in 1798 defined philosophy as an amalgam of logic, metaphysics, natural history, and physics. For the course in moral philosophy, the text was Samuel Pufendorf's "On the Duties of the Man and Citizen," published by the synod in 1786. The same year the synod gave its blessing for a new method of teaching science that was made obligatory. A textbook in physics was supplemented by the works of Academician Leonhard Euler in mathematics and the Dutch physicist and mathematician Peter Musschenbroek, who was renowned as an outstanding experimentalist.

The dominant ethos surrounding all these pedagogic activities was best articulated by Platon in his 1765 sermon "A Word on Education" (*Slovo o vospitanii*), which Catherine later included in her Nakaz and Instruction to Prince Saltykov. "I do not hold science in contempt, but I contend that it will be deprived of its usefulness if the moral soundness of the pursuit is not advanced. The best science is an act and not just a word."⁶⁶ Would Feofan Prokopovich or even Peter the Great have said it differently?

In secular education, Catherine's practical aims were twofold: to prepare youth for state service, but to free education from narrow professional limits by establishing uniform standards and open admission for all social classes except serfs. Her aspirations appeared to coincide with the main concern of her administrative innovations, difficult as it sometimes seems to extract a single guiding principle from her reforms. That is, rather than construct a technological society in the Petrine spirit, she sought to create a civilian, though not a civil, society in which elements of a German *polizeistaat* were combined with a *société des illuminés* of the Encyclopedists.⁶⁷ After much correspondence with German and French specialists and several unsuccessful experiments, she was finally persuaded in 1782 to adopt a Habsburg model on the advice of Joseph II. It appeared to meet a number of her needs. Originally designed in Austria to accommodate the Orthodox Serbian and Rumanian population of the monarchy, it fit the similar multinational character of the Russian Empire. It included religious training which corresponded to Catherine's concern over combating sectarianism as a divisive force in the empire. It embodied the virtues of obedience to authority and the law as expressed in the widely adopted work "On the Duties of Man and Citizen, a Textbook Designed for People's Schools on the Imperial Command of Her Imperial Majesty Catherine II." The author, Theodor Jankovic de Mirievo, the Serbian director of schools in Temesvar, had been sent to Catherine by Joseph II. He was immediately appointed to the educational commission that drafted the reform of the people's schools.⁶⁸ Although a total of 164,000 men and 12,500 women passed through these schools by the end of Catherine's reign, this model cannot be judged a success. It was not just a question of numbers. It was difficult to convince the public, especially the nobility, that this type of education was a valuable commodity because it did not provide immediate access to rank or position.⁶⁹ And many of Catherine's educational innovations were abandoned by her successors.

The failure of the education reforms to produce enough engineers was felt acutely in the fields of communication and mining. The production of pig iron and semi-finished iron had tripled between 1762 and 1782, largely as a result of an expanding English market in the throes of early industrialization. This stimulated the growth of the Ural mines and gave fresh impetus to improving water communications with the main export ports on the Baltic. The great "iron caravans" of wooden barges loaded with iron bars and towed by tens of thousands of barge haulers (*burlaki*) became a familiar sight along the rivers and canals of north and east Russia. But mining technology was still primitive; there were gaps in the canal system; and many of the existing sluices had been allowed to fall into disrepair since the time of Peter. Catherine's orders to restore the system and improve mining techniques encountered a familiar response from her officials. There were not enough trained personnel to undertake either task.

Catherine approved the creation of a separate corps of hydraulic engineers and appointed as its head a well-trained and highly experienced hydraulic engineer, General Friedrich Wilhelm Bauer, a foreigner long in Russian service. But the school failed to attract students.⁷⁰ Mining fared no better. In 1773 Catherine created a mining school and staffed it mainly with foreign professors who taught advanced courses. Her ambitious expectations of attracting graduates of Moscow University, established in 1755, were quickly dispelled. Catherine's Mining School was forced to admit students without any previous formal academic experience because too few qualified young men applied.⁷¹ Not until the post-Napoleonic period was higher technical education in Russia placed on a firm foundation.

The irregular progress of technical training did not mean that Russia did not undergo a period of sustained economic growth throughout the eighteenth century. Western neo-classical historians like Arcadius Kahan and Soviet Marxist historians generally agree on that point. The main advances have been well documented. The quantitative measures show favourable trade balances, rising levels of production of unfinished and semi-finished goods, and stabilization and standardization of the currency. But in terms of manufacturing finished goods Russia only became self-sufficient in textiles and weapons production. The Russian economy moved away from Peter's statist ideas to a more mixed form in which entrepreneurs from the main estates, nobles, merchants, and serfs all engaged and competed in trade and manufacturing. But there were hidden costs that only became obvious by the early nineteenth century or later.

Structural Problems

The problems were primarily those of an underdeveloped infrastructure most clearly visible in the areas of transportation, technical education, and urbanization. With respect to transportation unfavourable climatic and geographical factors played a part: long, harsh winters, huge distances between surplus agricultural producing regions and ports, location of mineral deposits, iron, copper, gold, and silver on the periphery of the empire, remote from the main population centres. But the failure to complete the canal system or to construct an ocean-going merchant fleet should also be taken into account. As far as technical education is concerned, in addition to the state's faltering commitment there were serious societal obstacles to the realization of Peter's vision.

The Russian nobility was not exceptional in displaying an aversion to technical education. The conservative merchantry scorned formal schooling as the devil's snare that threatened to lure their sons away from the family firm and their traditional estate. Despite their relatively high status and wealth as compared to the peasantry, the merchants constituted an insignificant percentage of the secondary and higher school population. As late as 1836 there were out of a total of 1444 students enrolled in these schools, with only 98 merchants compared to 978 nobles.⁷² Alternative sources of recruitment from the underdeveloped urban estates were at best uncertain. The children of non-nobles, with the exception of the sons of priests, fell far below the level of literacy or general culture enjoyed by the nobility, or at least its upper stratum. The church schools offered the only chance for upward mobility outside the narrow confines of the clergy. A steady supply of students flowed in from families of soldiers and Cossacks. At the same time, the Russian clergy, especially at the lower levels where the reforms of Peter and Prokopovich scarcely reached, were fearful that if their sons performed too well in the seminaries they might be shipped off to the medical academies. There, according to the memoirs of a graduate of Riazan Seminary who entered the St Petersburg Medical-Surgical Academy, "the work of the devil was carried on."⁷³

As for the relatively low level of urbanization compared to other European states, with the exception of Moscow and St Petersburg, isolated towns were swallowed up in the vast countryside. Urban centres in Russia were "service cities" rather than bustling nodes of trade and manufactures. State bureaucrats and army garrisons dominated town life. The petty merchants and craftsmen were saddled with heavy tax and administrative obligations that cut them off economically and

socially from the nobility, wealthier merchants, and officials.⁷⁴ The artisans and craftsmen of early-eighteenth-century Russia bore little resemblance to their counterparts in France, Italy, and Central Europe, to say nothing of Britain and North America. There were exceptions, to be sure. In Moscow province there were two towns that could boast a vigorous urban life, Iaroslavl and Tula. But Tula depended heavily on state orders for its famous military equipment. In other cases the position of the artisan population was more ambiguous. For example, Gorokhovets had a large artisan population including bell makers, silversmiths, blacksmiths, tailors, boot makers, and shirt makers. But even they “had little work,” in the contemporary description of a survey by the Academy of Science in the late 1760s, and were forced to seek supplementary employment in “manual field labour.”⁷⁵

Communications between towns was difficult at the best of times owing to distance and the primitive roads, or to be more precise, dirt tracks. In the fall and spring the early snowfalls and the thaw respectively turned these tracks into ribbons of mud for which there is a special Russian term – *rasputitsa* – the season of bad roads. Travel was actually easier in the dead of winter by sleigh, unless one was caught in the dreaded ground snowstorm (*buran*). Russian folklore, literature, and graphic arts abound in vivid descriptions and legends of life on and beside Russia’s roads.⁷⁶ The first paved highway in Russia, between Moscow and St Petersburg, was begun in 1817, but only completed in 1834. As late as 1870 there were only 10,000 kilometres of roads throughout the Russian Empire as compared to 38,500 in Britain and 261,000 in France.⁷⁷ River traffic was slow in the absence of steam power; the first steamships appeared on the Volga in 1823. It normally required two navigation seasons to send goods from the lower Volga to St Petersburg.⁷⁸

Most of the small-scale production of clothing, tools, and housewares was carried on in peasant villages and sold at local or regional fairs. The processing of wool, iron, and flax was done in monasteries or on large estates by serfs. As late as 1813–14 the number of manufacturing enterprises located in towns constituted less than half the total; almost 50 per cent were widely scattered in rural communities. Even in the two most densely populated provinces, with Moscow and St Petersburg as their urban centres, over 40 per cent of manufactures were produced in the countryside.⁷⁹ Here, as in so many sectors of the economy, the obstacle to technological innovation and urban development was the institution of serfdom, which drastically restricted the development of a domestic market. The peasant serfs made most of their own necessities;

they grew their own food, constructed their own huts, spun cloth, or wove bast for their clothes and shoes, carved their own furniture, utensils, and implements, including the wooden plow and other primitive agricultural tools. In contrast to Western Europe, the trading pattern between town and country exhibited a “reverse flow.” That is, the peasants brought their handicraft products to sell in the towns while the town merchants sold food to the peasants in return.⁸⁰

The demographics of the urban population underline the relative backwardness of Russia’s towns. Despite the fact that the urban population grew from 1.3 million in the 1740s to 3.6 million in the 1860s, the percentage of the urban to rural population fell from 11 to 7 per cent. The explanation lies with the more rapid growth of the rural population. The higher rate of morbidity among urban dwellers was due to poor sanitary conditions, vulnerability to infectious diseases, and a substantial number of isolated, impoverished, and ill people; as late as 1870 only 23 per cent of the urban population owned property. In addition, rural migration to the towns, as shown above, was held down by the institution of serfdom. At the very time, during the first half of the nineteenth century, when the rest of Europe was undergoing a rapid growth of industry and urban population, Russia fell farther behind. Finally, Russian towns, as the main Russian urban historian has pointed out: “The creation of a distinctive urban community and familial way of life, characteristic of greater democracy and freedom, less confined, dogmatic, and traditional associated with rural life, the formation of a special urban type of personality distinguished by mobility, initiative, entrepreneurship, broad horizons, literacy, dignity, and the aspiration for civil and political freedom compared with the rural, was still [in the mid-nineteenth century] far from a reality”⁸¹ By the late eighteenth century the Petrine vision had faded, except in the eyes of the military, despite Catherine’s claim to have embodied it. Another generation would have to pass before new ideas and institutional innovations could inspire the ruling elites of the empire to justify and undertake policies of economic development that moved beyond agricultural production and commercial exchange into the area of industrialization.

PART TWO

Cultural Transfer, Interest Groups, and Economic Growth

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Chapter Two

From Aufklärung to Romantic Idealism

The penetration of Western ideas into Russia in the late eighteenth and early nineteenth century is a stock item in the cupboard of intellectual history, yet the modalities are seldom described, let alone analysed. This chapter analyses the social context of the transfer of scientific ideas and technological practices to Russia from centres of German intellectual life in the late eighteenth and early nineteenth century. Answering the need to staff the new universities, German professors and scholars entered Russia, serving as *kulturträger* by teaching, occupying positions in learned societies, and publishing their scholarly works. At the same time, increasing numbers of Russian students travelled abroad to study, mainly at Protestant German universities like those of Göttingen, Halle, Jena, and Leipzig, the centres of idealist and Romantic thought in philosophy, literature, and the sciences. Returning home with the new learning in their knapsacks, they help to staff the new cultural institutions, especially the universities, where they gradually replaced their German mentors. That this transfer had a profound effect upon philosophy, literary criticism, and the arts is well known. But intellectual historians of Russia have been less interested in the evolution of scientific ideas of the late Aufklärung into a new philosophical system, Naturphilosophie, which offered the theoretical grounding for a model of economic change based on the organic, universalistic, dialectical, and progressive concepts. The working out of this system was the achievement of Russian intellectuals who aimed to infuse what was essentially a materialist activity with a high moral purpose equated with a nationalizing spirit. In this way they sought both to distance themselves from the source of their ideas and to enhance the worth of their achievement.

Schelling and Naturphilosophie in Russia

By the end of the eighteenth century a major shift was taking place in the epistemological foundation of science in a number of German universities. On the basis of more precise observations made with the aid of the microscope, Swammerdam, Malpighi, Needham, Caspar Wolff, and others raised questions about the behaviour of living matter that could not be explained convincingly by the old vitalist model of G.E. Stahl, the Leibniz-Wolff cosmology, or Newtonian physics. In the course of developing research strategies during the late Aufklärung biologists constructed a new vitalist model with large epistemological implications for all branches of knowledge. It was called Naturphilosophie, and F.W.J. von Schelling was its prophet. Scholars have identified three major trends or tendencies in Naturphilosophie: transcendental, speculative, and metaphysical. But even these subcategories do not fully embrace interpretive variations developed by individual scientists in both the German states and Russia: totalizing but not uniform, ambiguity was part of its charm.¹ Reduced to their two most fundamental differences, the interpretive variations accorded different weight to the empirical and conceptual elements in the explanatory model, favouring either unity or duality of matter, process or spirit.² With ample room to maneuver in this conceptual space, the Russian proponents of Naturphilosophie debated these variations in the culture wars over science and reform in the second and third decades of the nineteenth century.

The centre for the dissemination of the ideas of the late Aufklärung and their kulturträger to the East was the University of Göttingen in Hannover, where J.F. Blumenbach, as professor of biology and medicine, dominated the intellectual life of the faculty for sixty years (1780–1840).³ Blumenbach was also a key figure in interpreting, teaching, and popularizing biological Naturphilosophie in Russia. At Göttingen he led the attack on preformation theory by reviving the neglected work of Caspar Wolff on epigenesis and enveloped it in a Romantic aura that dazzled German philosophers and literati in the 1780s and had much the same effect on Russian intellectuals in the next generation. He synthesized the work in biology being done at Göttingen over the previous decades into a comprehensive explanation of organic change that stressed the unity of nature, and the teleological character of development of each species towards the most perfect form possible.

Of particular interest to his Russian audience was Blumenbach's widely read pamphlet *Über den Bildungstrieb und das Zeugungsgeschefte*,

published in three editions with many printings over the decade 1781–91 and translated into Russian in 1794.⁴ Here he argued that there is in all living things an active striving or inner urge (*Bildungstreib*) to achieve and maintain a specific form for each class of organisms. He carefully avoided suggesting that this was a mystical or metaphysical essence; “it remains for us an occult quality.”⁵ By endowing all life with a purposeful autonomy, the new vitalism stimulated research in the problem of development and the method of comparative analysis, mainly in anatomy. In Russia as in the German states, the ideas of the late Aufklärung on natural philosophy represented an advance over the Leibniz-Wolff cosmology with respect to both its epistemology and its functional possibilities.⁶ This elective affinity facilitated its reception in the intellectual circles of both cultures. It was transmitted through the same networks of professors and students moving in both directions. Finally, it foreshadowed the efforts of the next generation to merge science and philosophy into a new synthesis, Naturphilosophie, that provided a generation of philosophers, including Herder and Schelling, with an organic explanation of social change and economic growth.

Building on Blumenbach’s insights, his student K.F. Kielmayer formulated a biogenetic law that marked a critical departure from Kant, who would not accept the parity of physical and so-called organic laws. By identifying five basic vital forces and defining their functional interrelationship, Kielmayer demonstrated a complete correspondence between the growing complexity of organization and the stages of embryonic development. The same set of forces united in every individual are the same forces that give rise to an entire system of organic nature.⁷ His presentation of a unified system of nature had a profound effect upon the young Schelling and a whole generation of German-Russian biologists.

Friedrich Schelling greeted Kielmayer’s work as “the morning star of an entirely new era in the natural sciences.” Schelling wove together many strands of early Romantic thought into his philosophical system. The Göttingen school was the centre of its diffusion into Russia. Schelling transformed Naturphilosophie from its original transcendental into its speculative phase.⁸ In this form, its reception among Russian intellectuals was even more long lasting than in the German states. Schelling carried the development idea one step further than his contemporaries by locating the origins of Blumenbach’s formative urge not within but outside the organism, thus shifting from a morphological to a teleological basis of change. Schelling claimed that this made it possible, to

overcome the “fatal dualism” inherent in vitalism and Kantian philosophy by proposing that all natural phenomena, animate and inanimate alike, could be included under one general law of development. Liberally borrowing from Blumenbach and Kielmayer, reinforced by his knowledge of galvanism, magnetism, and electricity, Schelling argued that the organic process unfolded according to the “laws of polarity.” The attraction and repulsion of these natural forces kept the system in balance and provided a dialectical explanation of development towards a more conscious and hence higher form of reality culminating in man.⁹

Schelling’s unitary view of knowledge assured him of a broad, non-scientific audience and a considerable if diffuse influence in German and Russian intellectual circles. The alleged weakness of his empirical base exposed him to criticism and even ridicule by many German and Russian scientists who may have fallen under the influence of his philosophical system but feared that uncritical acceptance of his conclusions and, more seriously, his methodology would result in much useless or harmful day-dreaming about nature and man.¹⁰

Schelling’s influence in Russia has most often been analyzed with respect to his philosophical system.¹¹ Undeniably formative in the intellectual and psychological formation of Slavophiles and Westernizers, Schelling’s Naturphilosophie also had the potential of providing an impetus and a rationalization for scientific, technological, and economic growth along organic lines of development. Like Hegel, Schelling expressed his philosophical concepts at a level of abstraction and ambiguity that permitted his admirers a variety of interpretations not only between a “right” and “left” position in social thought, but also between quietism and activism in social and economic life.

If biologists and philosophers composed the vanguard of the new German science in Russia, poets thanks to Goethe did not lag far behind. In his hands botany, comparative anatomy, and mineralogy acquired an aesthetic as well as a moral and practical character. By serving as another bridge between the two cultures, Goethe helped fit science into the culture of the emerging Russian intelligentsia and shape the scientific outlook of men whose political views differed as greatly as those of Alexander Herzen and Sergei Uvarov.¹²

In sum, the biogenetic model of change common to all forms of Naturphilosophie was a powerful cluster of ideas that challenged the mechanist paradigm by asserting that (1) nature is a total unity, (2) an inner formative urge gives life a purposeful autonomy, (3) all change, both organic and inorganic, is the result of the conflict of polar forms, and

(4) a parallelism exists between the development of the specific, that is, the individual and the general, that is, the species. Interpretations over the relative importance of experimental methods and philosophical speculation could exist within the conceptual model. Naturphilosophie appeared to offer a new paradigm with implications for the development of material culture as well as speculative philosophy.

Diffusion: German Professors in Russian Universities

The diffusion and integration of Naturphilosophie in Russian intellectual life were part of a complex process that exhibited both internalist and externalist features. In the first two decades of the nineteenth century, reforms in education and the growth of a reading public brought significant changes in social relations. The aggressive imperialist phase of the French Revolution gave a strong impetus to a German-Russian cultural interaction. It spurred university reform in the German states and fostered the creation of universities in Russia on the German model. It stimulated the exchange of professors and students. In the wake of the great disillusionment with France and French cultural models, it challenged German and Russian intellectuals to answer similar questions about their personal identity, their obligations to society, their professional goals. The relationship proved mutually beneficial. Even the occasional resentment over "German domination" acted to spur young Russian scholars and scientists to strive for greater intellectual autonomy.

The transfer and reception of these ideas took place in a period of institutional reforms and changing *habitas* in the cultural life of Russia. The founding of the new universities, the first since the opening of Moscow University in 1755, and secondary schools like the Imperial Lycée at Tsarskoe Selo, were the main sites for the diffusion of the new knowledge. Their faculties and students formed part of a larger intellectual community that was undergoing a similar expansion only briefly interrupted by the Napoleonic invasion of 1812. For the most part, the professors of the universities were the initiators and leaders in diffusing scientific and philosophical knowledge throughout Russian educated society. They founded the new learned societies, edited their proceedings, spawned a proliferation of periodicals ranging from the first "thick journals" to almanacs and newspapers, and shaped the informal networks of circles that flourished under the reign of Alexander I.

The new institutions of higher education comprised four new universities at Dorpat (Derpt), Vilnius, Kazan, and Kharkov, founded in 1801–1803 and, after a long delay, a fifth in 1819 at St Petersburg.¹³ From the beginning, the new institutions were the battleground for contending elites drawing on different Western models of education. Under the young Alexander I, the Russian elite was split over the form and function of higher institutions of learning between the “German party” and the “French party.” The German party led by Count P.V. Zavadovskii, Russia’s first Minister of Education and the trustee of Moscow University, and his deputy, Mikhail Nikitich Murav’ev, won their fight to base the university system on the German model and to staff it with German professors or Russians trained in German universities. Their victory was diluted by the success of the French party in creating a centralized, hierarchical educational administration along Napoleonic lines by establishing several lycées and modelling the newly created higher technical schools on the *École polytechnique* and the *École des ponts et chaussées* and hiring French engineers to teach in them.¹⁴

The conflict soon manifested larger political implications. The main features of the German system, autonomy, a bias in favour of recruiting students from the nobility and a general academic curriculum aimed at educating the whole man (*Bildung*), as opposed to narrow technical training, went hand in hand with Zavadovskii’s proposals for a reform of the Governing Senate, namely, to place limitations on the power of the autocrat.¹⁵ However, university autonomy was one thing, constitutional reform another as reformers of all stripes from Zavadovskii to Speranskii learned to their chagrin.

The Russian reformers modified the German model by eliminating a theological faculty and giving the preponderant weight to two science faculties, medicine and mathematics-physics, over a single humanities faculty in philosophy. The revised structure and international faculty facilitated the introduction of new scientific ideas from abroad and placed the Russian scientific tradition and community on a firm footing, enabling it to withstand subsequent attacks by ideological conservatives and survive extensive changes in the domestic institutional setting. Moscow University occupied a special place in this system. Founded in 1755, its faculty and students took pride in the Lomonosov tradition of academic freedom, patriotism, and social egalitarianism. The same spirit inspired Mikhail Nikitich Murav’ev, a graduate of Göttingen and a Mason. Alexander I appointed him deputy minister of education and trustee of Moscow University, entrusting him in 1804 to draw up the

statutes of the new university. Murav'ev recruited a new cadre of German professors through his former mentor in philosophy at Göttingen, Christoph Meiners, the author of a famous history of German education. Meiners served as Murav'ev's assistant in drawing up the university statutes. On his recommendation, a number of distinguished German professors were appointed to the Moscow faculty: Fisher von Waldheim in natural history, F.F. Reis in medicine, H.M. Grellmann in statistics, J.F. Buhle in natural law and fine arts, Christian Schlözer in political economy, Friedrich Goldbach in astronomy, C.J.L. Schtelzer in juridical science, and G.F. Hofmann in botany.¹⁶

Murav'ev shared with his Masonic brothers N.I. Novikov and I.G. Shvarts a commitment to struggle against "coarse one-sided materialism." The last link with the enlightened world of Catherine's court before the French Revolution, he never retreated from those ideals. His house was a gathering place for the great writers of his day, Derzhavin, Karamzin, whom he protected, and Zhukovskii. Pogodin, educated by the professors Murav'ev had put in place, could still rhapsodize about his beneficial influence fifteen years after his death.¹⁷ In 1804–5 Murav'ev organized a series of public lectures by his appointees, Heim on commerce, P. I. Strakhov on experimental physics, Reis on "the philosophy of chemistry," and Fischer von Waldheim on natural history, all to audiences filling the big lecture hall of Moscow University with people of both genders at all levels of society.¹⁸ At the same time, he helped to forge close and lasting ties between the world of journalism and the university that proved to be another important vehicle for the transfer of the most up-to-date intellectual currents to a wider public.

Murav'ev also appointed Russian professors who shared some of the same perspectives as he did. For example, the translator and physicist P.I. Strakhov, who subsequently became rector of Moscow University was a high-ranking Mason. Yet Strakhov was also an experimental physicist whose university lectures drew large audience before the war of 1812–13.¹⁹ He was typical of the prewar transitional figures in Moscow intellectual life. Transitional in a double sense, they embodied the shift between the Aufklärung and Romantic idealism and combined in their teaching and writing elements of two apparently contradictory modes of thinking, the spiritual and the physical-mathematical.

The blossoming of Moscow University was part of the great recovery and rebuilding of the city after the French occupation and fire of 1812. In a burst of patriotism and local pride, Muscovites challenged St Petersburg as the cultural and intellectual capital of the empire. Its

plebian character with its large merchant quarter, in contrast to aristocratic, bureaucratic Petersburg, its more “Russian” urban environment from the irregular street pattern to its church architecture, contributed to a different spirit that imbued its intellectual life.²⁰ Under the enlightened and energetic governor general, Prince D.V. Golitsyn (1820–44), intellectual and commercial life flourished.²¹ The prestigious Nobles Pension was rebuilt and reorganized by the Masonic luminary of Catherine’s time, A.A. Prokopovich-Antoskii, with the goal of training nobles to enter directly into state service. Its most famous teacher was the philosopher and literary scholar I.I. Davydov, who subsequently occupied the chair of literature at Moscow University. At the pension he introduced the first postwar generation of students, including such luminaries of the thirties and forties as Pogodin, Shevyrev, and Odoevskii to the delights of German Romantic philosophy, in particular Schelling tempered with a dose of Baconian empiricism.²² Although Davydov proved to be an opportunist, his career, however morally dubious, illustrates the potential of Naturphilosophie. Precisely because of its vague pantheism, it could become a source of nationalism and historicism whether of the right or left.²³ And it could harbour under either umbrella an interest in science and its application to the practical needs of society.

With Golitsyn’s encouragement, Moscow University rapidly consolidated its position as the centre for the diffusion of scientific ideas in Russia. In contrast to the research orientation of the “German” academy in St Petersburg, it exemplified the “Lomonosov” tradition, bolstered by the scientifically oriented practitioners of Naturphilosophie, of integrating scholarship with teaching and the popularization of technical knowledge for the benefit of society as a whole. The close ties between the university and a burgeoning Moscow press forged in the late eighteenth century by Novikov and Shvarts were strengthened in the 1820s and 1830s by a steady increase in subscriptions to serious journals whose editorial boards and staffs were dominated by Moscow professors. In the aftermath of the Decembrist uprising, Moscow University attracted many disaffected young nobles because it seemed farther removed from both the danger of reprisals and the narrowly bureaucratic and oppressive atmosphere that had settled over the capital.

In the Napoleonic period, the movement of German professors into Russia and Russian students to Germany had undergone a quantitative leap. The science faculties of the German universities, pedagogical institutes, and other high schools were beginning to graduate a surplus

population who were unable to find places in their own small states. Under the additional pressure of the French occupation, they sought and found suitable employment with attractive salaries in the newly established Russian universities. At the same time, a growing number of Russian students flocked to the universities that had supplied the bulk of German scholars in Russia for advanced training. Thus, Halle and Strasbourg yielded to Göttingen and Jena, where the leading advocates of Naturphilosophie dominated the science faculties.²⁴

In the wake of revulsion against things French, the Russian scientific establishment favoured translations from German learned works. Russian scholars published more frequently than before in German journals and together with their German colleagues, collaborated on the publication of books and articles, often written in German or Latin, in Russia.²⁵ During this period, Schelling exercised a powerful and direct influence on Russian intellectuals through his writing and also through his disciples, of whom Lorenz Oken was the most prominent. Oken taught at Göttingen before moving on to become a professor at Jena, where his course on Naturphilosophie, comparative anatomy, the physiology of plants, animals, and man enjoyed great popularity and attracted numerous Russian students.²⁶

Oken may be said to have driven Schelling's thought to its logical conclusion. He argued that knowledge would be derived from God not experience, through a combination of reason and mystical insight. His most important contribution to the dissemination of Naturphilosophie was to apply Schelling's schematic thought to scientific disciplines like biology and zoology, and "to show how sciences should deal with nature."²⁷ Through their teaching and scholarly activity they helped to shape the Russian scientific community of the Alexandrine period.

The medical-biological field served as the ideal medium for transmitting the new scientific learning and the biogenetic model to centres of Russian culture and to prepare the way for its application to the promotion of technology and economic development. Since Peter I, Russian rulers had recognized the vital importance of physicians for the personal well-being of the monarch, the care of wounded on the battlefield, and the prevention and control of epidemics. Through state patronage, physicians enjoyed an unusual degree of autonomy in carrying out their professional duties. The physician virtually controlled all knowledge and technique in his relationship with the patient and even an autocrat restrained this freedom of action at his own peril.²⁸ By the end of the eighteenth century, the profession had further

strengthened its position by overcoming its reputation as little more than licensed butchers. Due in large part to Goethe's ideas, the field of comparative anatomy was expanding. With growing competence and increased confidence, the late-eighteenth-century physician, especially if he were a German, regarded himself as something of a universalist, combining technical training with a broad philosophical and humanitarian outlook. Where specialists in many fields were in short supply as in Russia, German physicians did not hesitate to range outside their field of specialization, often teaching philosophy, physics, mathematics, and even polytechnical subjects like agriculture and animal husbandry. Their exposure to Naturphilosophie as part of their technical training provided them with both the epistemological and methodological legitimization for doing so. Moreover, in Russia at the end of the eighteenth century German domination of the medical profession was not limited to teaching and scholarship, but extended into public health, professional, and amateur societies.²⁹

Under the banner of the unity of all knowledge and wielding the dialectical method for expanding an understanding of the natural and man-made world, German professors broke out of the narrow boundaries of their professional role. They turned themselves into an intellectual force for reforming Russian society. In the four newly created Russian universities a handful of German medical biologists transformed the cultural life of their institutions and the surrounding urban environment.³⁰ At Kazan University the leading figure was K.F. Fuchs, a graduate of Göttingen in 1800, who began his career as a physician, then served for twenty years as a professor of natural history and botany, lecturing on Blumenbach's system. He also taught pathology, physiology, and forensic medicine before being elected rector. Finding the city "a barbarous desert," he plunged into a wide range of scientific and cultural activities "in the true Göttingen spirit," as his Russian contemporaries recalled. Despite his heavy administrative responsibilities, he was active in public health, performing heroic work in fighting cholera. He completed a medical-topographical survey of the middle Volga, conducted meteorological experiments, published two important monographs on the ethnology of non-Russian tribes, wrote a treatise on the harmful effects of Ural mining operations on the health of the workers, and investigated various aspects of local history.³¹ He survived the purge of the university faculty by the notorious reactionary rector, M.L. Magnitskii, to keep science alive almost single-handedly at Kazan until the era of Lobachevskii. Together with his charming wife, the

poetess A.A. Fuchs, he turned his home into “the intellectual centre for the entire Kazan intelligentsia” during the 1830s and 1840s and a magnet for all visiting dignitaries from the capital and abroad.³²

During a much briefer stay at Dorpat University, the German medico-biologist K.F. Burdach became the centre for an even more impressive network of scientists who made major contributions in their fields. Trained in medicine at Leipzig where he devoured Schelling, Burdach sought to combine empirical rigour with the speculative flights of Naturphilosophie. Like many of his generation, he found the French occupation oppressive and Russian salaries too tempting to resist. In 1811 he accepted an invitation to join the medical faculty of Dorpat University. There he rapidly won the affection of his students and earned the enmity of his colleagues for his vigorous defence of academic freedom, his contempt for the academic bureaucracy, and his brilliant lectures delivered in Russian which extolled the progressive development of science towards higher levels of comprehension, revealing the greater complexity of nature.³³ In his three short years of tenure he made contact with German and Russian scholars like Ia.K. Kaidanov and L.Ia. Bojanus who shared his views on Naturphilosophie. He also formed a circle of scientists where his best students sought his company.³⁴ Among these were K.M. Baer and Christian Pander, who became under his guidance two of the most outstanding German-Russian scientists of the first half of the nineteenth century. Once Prussia was freed of French influence in 1814, Burdach returned to the University of Koenigsburg, but continued to maintain contact with his counterparts in Russia. He cooperated with the influential German-Russian court physician in St Petersburg, Joseph Rhemann, in publishing the first German-Russian medical journal with the aim of bringing the Russian medical profession into closer relations with its foreign counterparts; even Oken gave his stinting praise. Burdach persuaded Baer to join him at Koenigsburg, where they worked closely until Baer moved off to Wurzburg. There he rejoined his old friend Pander, who had in the meantime attended lectures at Berlin and Göttingen in order to study under Ignaz Döllinger, the friend of Schelling who had been attracted to Naturphilosophie before discarding its philosophical abstractions.³⁵

Although Baer and Pander rejected the metaphysical excesses of Naturphilosophie, they placed their experimental work in a broad philosophical context. Indeed, it is difficult to imagine how else they were able to plan the research design that led them to a major breakthrough in the field of embryology.³⁶ The relationship between Baer’s

work in embryology and Naturphilosophie is much disputed among historians of science. In his autobiography Baer minimized his intellectual debt to Naturphilosophie, but these reminiscences were published in 1864, when speculative Romantic philosophy had fallen into disfavour. On the other hand, he admitted his debt to Döllinger, who insisted on interpreting his empirical data with a broader philosophical context. Even more important was their lifelong commitment to the unity of the natural world, the scientific disciplines, and the marriage of theory and practice. In Würzburg, under the influence of the botanist and Naturphilosoph Christian Nees von Esenbeck, Baer became “a deserter from medicine.” Putting into practice the belief in the unity of nature he ranged widely over half a dozen disciplines, many of which he subsequently taught at the St Petersburg Medical-Surgical Academy.³⁷ As a member of the Russian Academy of Sciences he contributed to Russia’s economic development by devoting years to research in ichthyology and leading expeditions to Russia’s major rivers lakes and inland seas in order to promote the expansion of the fishing industry. After he retired he moved to Dorpat, where he continued his writing. Baer did not abandon his attachment to teleological arguments in biology and became one of the major critics of Darwin, denying the influence of external factors upon the organism and denouncing the idea of evolution as a “blind force.”³⁸

Similarly, Pander, although a lesser figure, also demonstrated how his belief in the close relationship between scientific activities and the idea of the wholeness of nature bridged the gap between theory and practice and surmounted disciplinary barriers. Known as “the father of Russian paleontology,” he published significant work in comparative anatomy, zoology, and geography before he entered service in the Mining Department, where he put to use his vast knowledge of fossil formations by leading expeditions to the Baltic provinces and the Urals in search of coal deposits.³⁹

In the medical faculty of Vilnius University, the dominant figure for over twenty years was the Alsatian-born Ludwig Bojanus (Boianus), who had studied at Jena University under Christian Loder, the teacher of Goethe and a key figure in the dissemination of German Romantic ideas in Moscow, and the famous physician Christoph-Wilhelm Hufeland. In more than forty published works, including articles in Oken’s journal *Isis* and Burdach’s *Russische Sammlung*, Bojanus made an important contribution to the Romantic vertebrae theory. He polemicized with the French pre-formationist Cuvier and caught Goethe’s attention

as a supporter of Étienne St-Hilaire, the French transcendental biologist closest to the spirit of the German Romantic school.⁴⁰

Bojanus's work influenced both Baer and Pander. His most famous student was E.I. Eikhwald, another Baltic German-Russian, whose views on the unity of structure and process in nature permeated his scientific and practical activities. His career spanned half a dozen fields beginning with medicine and leading to natural history, geography, paleontology, anthropology, and ethnography. Conforming to a familiar pattern of the Naturphilosophers, Eikhwald showed great interest in Russia's economic development. He taught at the Mining Institute from 1839 to 1855 and at the Engineering Academy; he was an active member of the Free Economic Society and published on the commercial possibilities of exploiting mineral deposits in West Russia, fisheries, and mineral waters.⁴¹

In the provincial centres of Kazan, Dorpat, and Vilnius a few individuals like Fuchs, Burdach, and Bojanus could emerge as the dynamic centre of small networks of like-minded scientists who adhered to the vitalist model of Naturphilosophie. In Moscow, where the pulse of intellectual life beat more strongly, the number of scientists and intellectuals was many times larger and their perspectives more diverse. Yet even there among a galaxy of German professors, two distinguished physicians, Christian Johann Loder and Gregory Johann Fischer von Waldheim kindled the enthusiasm of their students and a small literate public for the new learning.

Loder, another Göttinger by training and a former professor at Jena, where he taught physiology, medical anthropology, natural history, forensic medicine, and surgery, introduced Goethe into the mysteries of comparative anatomy and thus helped to inspire the vertebrate theory.⁴² In his lectures at Moscow University, Loder revealed the "poetry" of comparative anatomy by drawing the connections between the unity of anatomical structure and the design of nature. Yet he never abandoned himself to mystical flights and insisted that his students master experimental techniques. According to Prince Odoevskii, who cast a scornful eye at physics, chemistry, and utilitarian forms of knowledge, Loder's students were enthralled by "the science of man," which alone seemed worthy of their exalted mood. But it was *science*, Odoevskii emphasized, and it was Loder who settled down the restless students by demonstrating that the philosophical problems raised by Schelling and Oken could only be solved by studying physics and chemistry. Thus, Odoevskii noted ironically, "The proud metaphysicians were faced with

the necessity of setting up flasks, retorts and other equipment required for the investigation of coarse matter."⁴³

Loder's impact on the intellectual life of Moscow extended outside the university walls and beyond his discipline. An active participant in promoting public health facilities, he was an efficient hospital planner and administrator as well as a practising physician who worked tirelessly to help control the cholera epidemic. His lectures drew students and men in public life from a great variety of occupations. Pogodin, for one, was deeply impressed by Loder. "One such professor transforms an entire faculty," he wrote after having heard him lecture.⁴⁴ Odoevskii's friend, the young Romantic poet D.V. Venevetinov, regularly attended Loder's lectures and later took the physician as the model for his unpublished novel "Vladimir Parenskii."⁴⁵ That Loder could inspire such a varied group of intellectuals demonstrates the broad appeal of the universality and unity of culture which the German Romantics preached so fervently and practised so extensively. The dynamic interdependence of the natural sciences and the arts illuminated by Loder's lectures inspired those who embraced the Romantic *Weltanschauung* to grant the sciences a large role in solving man's greatest spiritual and material problems.

More than anyone else, Fischer von Waldheim gave these ideas an institutional form so that they outlasted the lifespan of the men who had originally proposed them. Although Fischer's Romantic outlook had been tempered by his studies with Cuvier in Paris, his long residence in Russia provides ample evidence that he remained attached to the ideals of his youth.⁴⁶ His most lasting contribution to popularizing science in Russia was to found the Moscow Society of the Explorers of Nature and to serve as its director for almost half a century, 1805–53. According to the official statutes of the society, its main purposes were to spread scientific knowledge throughout the Russian Empire and to apply that knowledge to the growth of commerce and industry. By sponsoring expeditions the society would gather data on natural resources ranging from mineral deposits to plant and animal life and survey potential sites for agricultural improvement and industrial development.⁴⁷ From the outset the society sponsored public lectures, published reports, encouraged university students and provincial intellectuals to participate in its work, and solicited funds from wealthy amateurs like Prince A.K. Razumovskii, "the philosopher botanist," and P.G. Demidov of the Ural manufacturing family.⁴⁸

A glance at the provincial correspondence of the society leaves no doubt that it stimulated interest in regional geography, mineralogy,

botany, and paleontology. Most of the provincial correspondents were members of the local nobility, but there were a sufficient number of colourful, semi-literate letters in the society's unpublished archives to suggest that a broader stratum of Russian society was interested in its activities than Herzen for one was prepared to admit.⁴⁹ Judging by the enthusiastic testimonials received by the society on its fiftieth anniversary, its expeditions made solid and lasting contributions to the development of scientific agriculture and the establishment of industrial enterprises.⁵⁰

Students were drawn to Fischer, as to Loder, by his ability to fit professional training in zoology and paleontology into a Christian Romantic outlook on the origin of the world and of the human species, a forerunner of the latter-day belief in intelligent design. One example was A.D. Galakhov, who like many creative figures of his generation combined training in science with a passion for literature. After having completed his formal training under Fischer in zoology, he became a well-known literary historian and professor at the St Petersburg Historical-Philological Institute. Galakhov rapidly emerged as an outspoken advocate of Romantic biology in both its French manifestation, personified by Étienne Geoffroy St-Hilaire, and the German Naturphilosophers.⁵¹ Later as he drifted more and more into literary criticism he remained under the strong influence of Naturphilosophie, especially as interpreted by Oken.⁵²

By contrast, the situation at Kharkov University demonstrated how risky it was for German scholars to preach Naturphilosophie as a purely speculative philosophy divorced from any scientific discipline. In 1804 Professor Johann-Baptiste Schad, a colleague of Schelling at Jena, was invited on Goethe's recommendation to teach philosophy and Roman literature at Kharkov, where he rapidly established himself as a major figure in the intellectual life of the local academic community. His own work reflects his great debt to Fichte and Schelling. He propagated their views among Russian students, whose dissertations bear witness to his influence.⁵³ In the super-excited religious atmosphere of the post-Napoleonic period in Russia, Schad was denounced for his "dialectical mysticism" and dismissed from his post by an order of the Committee of Ministers for having attempted to introduce "the system of Schelling which must not be allowed to penetrate into Russia."⁵⁴ Coming under a similar attack, one of his students, later dean and rector of Kharkov A.I. Dudorovich, skilfully defended himself by making clear the distinction between Schelling the natural scientist, whom he accepted, and Schelling the idealist philosopher, whom he rejected as "insufficiently religious."⁵⁵

Not surprisingly, the first attempt to introduce Schelling's philosophy into church schools also led to a scandal and a purge. When in 1809 Ignaz Fessler arrived in St Petersburg to teach philosophy and oriental languages at the Alexander Nevskii Academy, he had already acquired some notoriety in the Habsburg Empire as a Catholic apostate, Freemason, and polemical playwright. His courses soon aroused the wrath of Feofilakt, bishop of Riazan, who denounced them as too idealistic. His reasoning sounded like a distant echo of Peter the Great's favourite churchman, Feofan Prokopovich. Feofilakt stated that a priori notions, which did not rest upon experience, could never yield the truth.⁵⁶ Forced to resign, Fessler was exiled to the east, and the academy administration restored the familiar texts of Christian Wolff. The lesson plan first laid down by Peter the Great was clear. Empirical science embedded in a philosophical matrix could be expected to perform useful functions for the state without challenging religious Orthodoxy. Speculative philosophy could only sow doubt and confusion.

German scientists transplanted into Russian soil found more ample opportunities to continue and broaden the range of their activities than they might have had they remained at home. Their employer, the Russian state, desperately lacked specialists of all kinds, and set no limits upon the scientific activities of the German professors so long as they avoided ideological controversies and produced practical results. The purges of M.L. Magnitskii and D.P. Runich, while at times indiscriminate, nevertheless drew the line at speculative philosophy that threatened the foundation of the state religion.⁵⁷ The underdeveloped condition of Russian higher education slowed the process of professional specialization, encouraging talented men to carry on research and teaching in a number of fields. In such a favourable environment, the Romantic ideal came close to its full realization. The general theoretical principles outlined in the first part of this chapter were applied, often with striking results, to theory and practice at every level on the ascending scale of natural phenomena from geology and mineralogy at the base to the sciences of man at the apex of the pyramid that the Romantic philosopher-scientists had constructed as an integrated, dynamic, and unified model of development.

Diffusion: Societies and Circles

As part of the remarkable flowering of Russian intellectual life during the reign of Alexander I, a great variety of public, private, and secret

societies sprang into existence. Of the 160 socio-cultural societies formed in Russia between 1765 and 1836, 148 made their appearance in his reign. They took the form of official learned societies recognized by the government (a dozen of which had been approved following the establishment of the Free Economic Society in 1765), friendly societies founded to pursue knowledge with philanthropic aims, circles bringing together people, often students, with the same interests, salons more amorphous in the composition and views of their members, and purely social clubs.⁵⁸

In the realm of the natural sciences, the Physico-Medical Society (1804), originally called the Society of Comparative Medical and Physical Knowledge, was created on the initiative of M.N. Murav'ev, the ubiquitous patron of the arts and sciences. It began publishing its proceedings four years later, and continued with only brief interruptions throughout the nineteenth century. The Imperial Moscow Society of the Explorers of Nature was the brainchild of Fischer von Waldheim, whose aim it was to produce and diffuse scientific knowledge in Russia. Similarly, Kharkov University professors formed their own Society of Knowledge with two sections, one on the natural sciences and one on literature, although it succeeded in publishing only one volume of proceedings and went into decline after 1825. Leafing through the publications of these societies one is struck by the prevailing cosmopolitan spirit that pervaded them. Translations from the classical Greek and Roman authors, contemporary English, Scottish, French, Dutch, and German philosophers, critics, and natural scientists jumbled together pell-mell together with only a few indications here and there of strong ideological preferences.

The Circles

In Moscow, student circles (*kruzhki*) began to appear almost as soon as the university opened its doors. But they took some time to revive after the war of 1812–13. The Society of the Lovers of Wisdom (*Liubomudry*) was the most deeply imbued with Schelling's philosophical views through the filter of his Russian disciples, Vellanskii, Galich, and Pavlov. Thanks to Odoevskii's translations, part of Oken's work was also accessible to them in Russian. With the help of these guides the young friends wrestled with problems of individual identity, social relations, and the definition of a national culture. Its members subsequently separated into roughly three groupings. Some became identified as Slavophiles, including the Kireevskii brothers, A.S. Khomiakov and A.I. Koshelev,

or Panslavs like the poet F.I. Tiuchev. Others, like M.P. Pogodin and S.P. Shevryev, moved towards a more secular form of Great Russian nationalism closely associated but not wholly congruent with Official Nationality. Finally, there were individuals who defy easy classification, like D.V. Venevitinov, “the poet of thought,” and Prince Odоеvskii, the most consistent and authentic follower of Schelling, who presided in the circle over them all. What united them then and even after they followed their separate ways was the belief in the organic development of society in all its aspects from theories of aesthetics and literature to science, technology, and manufacturing within a nativist, Russian context.

The Youths of the Archives (*Arkhivnye imoshi*) took its name from the participants who worked in the archives of the main college of the Ministry of Foreign Affairs in Moscow. Overlapping personnel and the subsequent divergence in the ideological positions of their members makes it difficult to establish any clear-cut distinction among the circles. The *Liubomudry* also included Pogodin, Shevryev, Titov, plus N.A. Melgunov, but had a larger representation of future Slavophiles like I.V. Kireevskii, A.I. Koshelev, and V. F. Odоеvskii. Before his young life was snuffed out, the brilliant young poet D.V. Venevitinov was its intellectual centre. He, like others in the group, had drunk deeply at the well of Schelling.⁵⁹ The Youths of the Archives numbered among its members Kireevskii, Koshelev, Melgunov, the brothers D.V. and A. V. Venevitinov, Titov, Shevryev, Pogodin, S.A. Sobolevskii, and M.A. Maksimovich. One thing is clear. In addition to their literary interests, the participants were deeply immersed in German Romantic philosophy and drawn in particular to Schelling. This, taken together with an even less tangible but dominant spirit of universal moral norms prevailing in the pension and university, suggested that Russia could find its own means to achieve the ends of all civilized countries. In practical terms, this meant an acculturation of science and technology, a Russifying of the organic model of change. In related terms, the implication was that this suitably revised model could be enlisted to solve the special problems of Russia’s social and economic development.⁶⁰ Finally, in contrast to their erstwhile friends on the Senate Square, these young men fully accepted the political institutions of autocratic rule; their loyalty to the tsar was never in doubt.

A Burgeoning Press

Cultural space was not yet so sharply segmented in Russia as it became in the forties. The ideas circulating in these societies and circles were

a mixed bag, as evidenced by the contents of the one hundred and twenty-three periodicals established in this period. Compared with sixty-one in the previous quarter-century, this is only a rough quantitative indicator of a quickening intellectual life in the Russian Empire. The overwhelming majority of periodicals, many short-lived, were devoted to literature and philosophy, publishing prose and poetry and translations of classic and European authors. The editors and main contributors represented a wide range of opinion, often expressed in the same publication. They occasionally engaged in polemics, mainly over literary styles – classicists versus Romantics – or historical topics like the origins of the Russian state. There were also sharp exchanges over German idealist philosophy.⁶¹

In the Alexandrine period two periodicals in particular were strong advocates of German Romantic philosophy. In Moscow in 1824–5, the almanac *Mnemozina* appeared, where Prince Odoevskii popularized Schelling's views on the uninterrupted improvement of the human soul as part of a general ideological commitment to the national self-sufficiency of Russian literature and its civic importance. The "thick journal" *Moskovskii telegraf*, under the editorship of the historian N.A. Polevoi, had a long run from 1825–34. Its contributors included the cream of the Russian intellectual community. The journal popularized the ideas of Kant and Schelling along with John Locke. Although Polevoi was an eclectic thinker, he had been exposed to Schelling and influenced by his ideas as interpreted by Russian admirers like Prince V.F. Odoevskii, V.P. Androssov, and I.V. Kireevskii. Polevoi's Romantic ideal was a society that combined "material capital" and "non-material capital," industry with culture, literature, and education.⁶²

Although Schelling's influence dwindled in the early years of Nicholas I's reign, yielding to Hegel as the German darling of Russian intellectuals, a few organs in the periodical press continued to advance his cause. In 1827 the almanac *Severnaia lira* appeared featuring Schelling's ideas. More important, the main organ of the Moscow intellectuals, both Slavophiles and nationalists of the Pogodin-Shevyrev stripe, *Moskovskii nabliudatel'*, first appeared in 1835. It was soon taken over by a young group of ardent Hegelians. They had originally paid homage to Schelling as a precursor of their new hero in Berlin, but they rapidly passed through a number of intellectual transformations, ending up as radicals representing the classical alienated intelligent.⁶³ *Otvechestvennye zapiski*, first appearing in 1839 and becoming one of the mainstays of Russian periodical literature in the nineteenth century, still published numerous

articles on Schelling before it too fell into the hands of Westernizers led by Vissarion Belinskii, Alexander Herzen, and the young Hegelians. As late as 1863 the journal *Iakor'* was still propagandizing Schelling's philosophy as an instrument to combat the left wing press.

Members of an emerging intellectual community also established links with one another through informal networks, including personal correspondence and friendships. Relationships were fluid as the intellectual interests of individuals shifted over time.⁶⁴ The participants admired a large number of diverse figures in the cultural life of Western Europe and Russia. For those who sought the sources of a philosophy of science that could bridge and synthesize both cultures, the cult figures were Lomonosov, because he represented the embodiment of the Russian savant, and Schelling, because of his powerful but ultimately ambiguous philosophy that opened the way for conceptual speculation; both for their universalism.

It is tempting to find the rudiments of an emerging civil society in these learned societies and circles and the periodical press. The problem is that they remained rudimentary at best because the limitations set by the state on the right to form associations and publish were strictly limited and punishment for violations more severe.⁶⁵ Nevertheless, Russia's newly constructed cultural institutions proved congenial to the reception and dissemination of scientific knowledge under the sheltering umbrella of German Romantic thought in the form of Naturphilosophie.

The spread of new ideas, especially in the realm of science and technology, was gradually regarded less as a Western import and more as an organic development generated by Russian scientists. This view gained greater acceptance as Russians began to succeed Germans as the major figures in the academic life of the empire. But the transition was not always smooth.

Diffusion: Returning Russian Students

In the early years of the nineteenth century, the influx of German scholars into Russian universities ran parallel to a movement in the opposite direction of Russian students to German centres of learning. For Russian youth, studying abroad had the attractions of greater personal freedom and fewer controls on the exchange of ideas. For the Russian government, the growing need for doctors, veterinarians, and mining engineers defined the fields in which it preferred to send Russian students abroad

at state expense. Those few who were permitted to study philosophy were warned against the lure of mysticism and the need to acquire a "correct philosophy useful to the citizen."⁶⁶ How many Russian students passed through their educational experience abroad without having been transformed spiritually as well as intellectually may never be known, for only a small minority wrote memoirs; the rest, it may be assumed, returned to pursue their narrow professional careers without leaving any visible effect upon the culture wars that wracked Russian society during the post-Napoleonic period. Those who fell under the spell of Naturphilosophie regarded their new social role with a sense of mission. Influential beyond their small numbers and the limits of their professional training, their work in medicine, biology, and philosophy bore the deep marks of Schelling's influence.

The returning Russian students bearing the mark of Schelling's influence shared similar social and educational backgrounds. D.M. Vellanskii, A.I. Galich, Ia.K. Kaidenov, and M.G. Pavlov were all sons of priests, born and educated in Ukraine and then sent abroad to German universities: Vellanskii at the Kiev Ecclesiastical Academy and then directly under Schelling at Jena; Galich at Sevskoi Seminary and then at Göttingen; Kaidenov also at the Kiev Academy and then at Vienna; and Pavlov at the Voronezh Seminary and then at Göttingen. Upon returning to Russia, they became professors, Pavlov at Moscow University and the other three at the St Petersburg Medical-Surgical Academy. That their influence and importance have been disputed is due mainly to the propensity of intellectual historians to judge their writings by standards of originality and profundity. Vellanskii has always been regarded as something of a charlatan. No one considers Galich an original or influential thinker. Kaidenov is most often simply ignored. Only Pavlov enjoys something of a reputation because Herzen, Stankevich, Odoevskii, Pogodin and others found him a stimulating teacher.⁶⁷

These evaluations obscure the real contribution of these men. By joining scientific knowledge and moral philosophy, they helped a generation of young Russian intellectuals resolve the conflict between their responsibility to put their specialized training at the service of society and the realization of their political impotence.⁶⁸ To the young idealists of the 1820s whose talents and temperaments opened careers in medicine, biology, and geology, the teaching of these four men offered the reassurance, to reverse Turgenev's subsequent metaphor, that scientific truth was more than the dissection of frogs. They may have rendered even more memorable service to Russian society by convincing those

students who found their calling in *belles lettres* and history that science was not their enemy, but merely a different mode of expressing similar perceptions of the world. However, their speculative flights exposed them to severe criticism during the period of religious reaction after the Napoleonic wars. Several of them fell victim to the ideological witch hunts of Magnitskii and Runich.⁶⁹

Arguably, Vellanskii was the only “pure” Schellingian in Russia. As professor at the Medical-Surgical Institute for thirty years, he adhered faithfully to his Romantic vision of nature as an organic self-fulfilling process, every part of which, animate and inanimate alike, was linked by indissoluble ties and moved forward towards a higher plane through a dialectical play between its passive and active elements.⁷⁰ At the height of his popularity his classes were crowded by a hundred students, his public lectures attracted the cream of Petersburg intellectuals, and his books circulated widely in the capital and the provinces.⁷¹ Vellanskii was also the conduit through which Schelling’s work percolated into the Elagin salon, probably the most renowned of the Moscow circles of intellectuals where in the 1820s and 1830s future Slavophiles and Westernizers could still meet amicably and foreign celebrities made a port of call.⁷²

For all the metaphysical speculation that filled his lectures and books, Vellanskii was no obscurantist. In his letters to Odoevskii he deplored the effects of Magnitskii’s and Runich’s purges of Russian intellectuals. Nor did he hold himself aloof from the practical application of his scientific ideas. He maintained a long and close relationship with V.A. Pivovarov, the St Petersburg merchant-patron who built Vellanskii an observatory on the roof of one of his factories. Vellanskii’s long-time confidant and biographer, N.I. Rozanov, the noble entrepreneur and publicist, engaged Vellanskii’s interest in various industrial and commercial ventures.⁷³ At least his closest friends perceived how his abstract propositions could serve as a guide and justification for their practical economic activities.

Lacking Vellanskii’s oratorical skill, Ia.K. Kaidenov, professor of veterinary science at the Medical-Surgical Institute, left his mark on the dissemination of scientific thought in his scholarly publications and academic administration. His enormously influential pamphlet *Tetractys vitae*, published in 1813, was one of the earliest attempts by a Russian scholar to demonstrate the unity of nature by erasing the boundary between physiology and psychology and by providing a model of organic change for all four basic forms of natural phenomena, mineral, vegetable, animal,

and human. He charted a new course for medical-biologists, helping to shape the formative work of four leading teachers of Naturphilosophie in the next generation: P.F. Gorianov, professor of botany, zoology, mineralogy, and pharmacology (a literal application of Kaidenov's teaching) at the Medical Surgical Academy from 1824–65; I.M. Boldyrev, professor of anatomy at Moscow University from 1817–19; I.T. Glebov, professor and vice-president of the Moscow Medical-Surgical Academy for many years; and M.G. Pavlov, professor of physics, mineralogy, and agriculture at Moscow University, 1820–40.⁷⁴ Kaidenov's acknowledged debt to Naturphilosophie proved no obstacle to rapid advancement in the medical bureaucracy; he rose to become vice-president of the Medical Department of the War Ministry and a member of the medical council of the minister of the interior.⁷⁵

Less fortunate, because he was a more abstract thinker, A.I. Galich had his career as professor of philosophy at St Petersburg University cut short by Runich's persecution during the worst years of Magnitskii's reign of terror. Following his official disgrace he continued to write and frequently appeared in Petersburg intellectual circles, even running a small seminar for interested students, one of whom, the famous censor and memoirist A.V. Nikitenko, absorbed much of his teaching. Judging by Nikitenko's tribute, Galich caught the imagination of the young generation by virtue of his encyclopedic approach to knowledge, his insistence upon rigorous thinking, his humanitarianism, and his ability to approach questions from both aesthetic and scientific perspectives yet discern the relationship between them.⁷⁶ Like many of his generation who sat at the feet of the Romantic scholars, Nikitenko combined a bureaucratic career with public service, which in his case included literary activity, charitable work, and membership in a club for the scientific improvement of agriculture, thus embodying in a practical life his mentor's philosophical world view.⁷⁷ However, in the deepening gloom of the capital after 1819 the more creative and liberating aspects of Galich's teaching were slowly stifled.

Few men embodied more fully the spirit of "Griboedov's Moscow" than M.G. Pavlov, doctor of medicine, and professor of physics, mineralogy, and agriculture at Moscow University from 1820–40.⁷⁸ By helping to bridge the gap between the foreign professorate and the Russian student body, Pavlov facilitated the transfer of German Romantic science to a new generation. Born into a family of Ukrainian clergy, he was educated at Voronezh seminary, Kharkov University, and the Moscow Medical-Surgical Academy. When the academy dropped its general science

curriculum in favour of an exclusively medical program, he successfully petitioned to take a concurrent degree in the Mathematics Faculty. Completing the requirements in both faculties he obtained a medical degree in 1818 with a dissertation that owed much to Kaidanov's *Tetractys vitae*. His talents attracted the attention of Governor General Golitsyn, who took Pavlov under his wing, sending him on his first mission abroad to Göttingen. There he studied Golitsyn's favourite subject under the tutelage of Albrecht Daniel Thaer, the founder of the modern system of scientific agriculture. Pavlov also immersed himself in Schelling. When he returned to Moscow to become professor of mineralogy and agricultural management at Moscow, he had fully integrated his practical studies into a revised version of Naturphilosophie. Known as Russia's first "potato philosopher," he plunged into the intellectual life of the city, delivering public lectures on agriculture and editing the thick journal *Atenei* with a special supplement, "Notes for the agriculturist, the manufacturer and the industrialist." He also served as director of the Agricultural School and the Scientific Training Farm of the Moscow Society of Agriculture. Within a few years of his death, he opened a secondary school to teach serf children modern agricultural techniques he had learned from Thaer under local conditions of soil and climate. In a moving eulogy, Golitsyn called Pavlov "the founder of the theory of agriculture in Russia," the perfect blend of the intellectual and the entrepreneur. To be sure, the dead hand of serfdom crippled many of his initiatives, and for all his efforts in the field of agriculture his real importance was as a teacher.

Before 1826, when Nicholas I cautiously permitted the reintroduction of university courses in philosophy that had been banned five years earlier, students at Moscow University found in Pavlov's lectures on physics satisfying answers to the big questions of life and its meaning which the government had tried to deny them. Following Oken closely, Pavlov insisted that speculation "for all its advantages was insufficient without empiricism. Each phenomenon and nature itself as the totality of phenomena is the union of opposites (*synthesis oppositorum*) – a combination of the ideal and material; consequently, speculative and empirical thought taken separately are one-sided and incomplete." For Pavlov "the goal of our researches" should be "to form a general theory of nature and by its light, with thoughtful reverence, to plunge into the Universal-Creative work, studying all its many-sided phenomena in its spatial and temporal dimensions."⁷⁹

In short, Pavlov sought to give every student, whatever his special field of interest, a sense of purpose and direction, a method of formal

analysis, and an identification with the higher purposes of man and nature. No wonder his teaching lighted the way for a generation of intellectuals, exercising an equal attraction for "Westernizers" like Herzen, Ogarev, and Stankevich, "Slavophiles" like Ivan Kireevskii and Koshelev, nationalists like Pogodin and Shevyrev, and representatives of the alternative intelligentsia, men like Odoevskii, M.A. Maksimovich, and G.E. Shchurovskii.⁸⁰

Yet all too quickly, Pavlov's appeal for the unity of knowledge met resistance, ironically enough from Schelling himself, in his latter-day metaphysical phase, and some of his Russian disciples. At Moscow University Davydov's new courses in philosophy began to compete with science cum philosophy and threatened to tip the balance in favour of speculative thought, especially among those students who lacked interest in experimental techniques. Most disappointing to Pavlov, the German Romantics began to abandon their advanced positions on the unity of philosophy and science. In the late 1820s Pavlov fought back to erase the impression left by the latter-day writings of Schelling and his Russian interpreters that salvation lay in estrangement from the material world rather than harmony with it. To this end, he posthumously recruited Lomonosov into the ranks of the Naturphilosophers. Praising him as "a first class physicist in his time," Pavlov argued that Lomonosov perceived science as something more than bare-bones empiricism. It was in his eyes rather a cognitive approach to nature that recognized both the unity of a divine plan and man's ability to encompass it, enabling him to mould the environment of which he was the highest embodiment.

According to Pavlov, Lomonosov's "natural philosophy" defined the relationship among physics, chemistry and mechanics, which he identified as the general structural and essential characteristics of science. For him, "natural philosophy" posited a relationship between science and technology, as for example in Lomonosov's application of chemistry to the practice of metallurgy in search of ways to exploit Russia's rich natural resources. In brief, Pavlov concluded, with disarming simplicity: "Lomonosov showed what one could do with science and then he did it!"⁸¹

Even the most alienated intellectuals did not reject out of hand the implications of Pavlov's teaching that scientific activity could not only be tolerated but positively encouraged without concluding a sordid compromise with the corrupt institutions of the autocracy. Rather, they engaged in the passionate debate over the legacy of German Romantic thought which filled the narrow world of student circles and the pages

of the thick journals. The polemical exchanges over the relative value of speculative philosophy and empiricism threatened to split the intellectual community into two camps, or two cultures. As seen by both Miliukov and Engels, the choice was posed by Schelling's intellectual odyssey from progressive to reactionary, or in modern terms, from transcendental to speculative Natuphilosopher.⁸² But it was more than that.

As the autocracy stepped up the pressure on its intellectual elite to conform to a predetermined pattern of behaviour, individuals with a complex psychological profile were forced to define themselves in terms of one or another model personality: the first being empirically minded, achievement oriented, and respectful towards authority; the second being speculative, other-worldly, and rebellious. Their common ties were strained to the breaking point by the need to choose. But this is to anticipate. In the pre-Decembrist years Russian high culture was still unmistakably unified, held together by a small, educated elite for whom a metaphysically valid conception of man's existence required the support of scientific knowledge. For most of them service to society still took the form of entering the state bureaucracy despite misgivings about its rigid rules and empty formulas. Nor was there any contradiction between the social role of the intellectual and the economic development of the country. This was the legacy of Peter I enriched by the German professors and their Russian interpreters. Herzen's battle cry, "God save us from the bourgeoisie," had yet to be sounded.

The intellectual leaders of the next phase of popularizing these attitudes among the expanding literate public were mainly Russian students of Pavlov and his Russified German colleagues. They were not the only popularizers of science in Russia at the time. What distinguished them from the others was their effort to place science in a broader cultural context that facilitated its acceptance by the ruling elite and the literate public. They are the subject of the next chapter.

Chapter Three

The Biogenetic Model and the Slavophil Entrepreneurs

The linkage between the Petrine vision and the biogenetic model of German philosophers and scientists transposed into its Russian setting provided the intellectual rationale for representatives of Official Nationality and the Slavophil critics to promote a specific Russian path to economic development. It enabled them to reconcile, dialectically, the apparent contradiction between national particularism (*samobytnost'*) and Western technology by infusing material production with spiritual goals.

Transitional Figures

Two key figures in the transition between Romantic ideologies and nationalist economic development in Russia were M.P. Pogodin and Prince V.F. Odoevskii. Pogodin was the leading spokesman for the role of science and technology in the new world of Orthodoxy, Autocracy, and Nationality. Born into a serf family, Pogodin ascended the social hierarchy to become one of the most influential intellectuals of his time, a more complex figure than the apologist for Nicholas I's Official Nationality, as he is normally portrayed.¹ Deeply influenced by Schelling and the historian Nicholas Karamzin, his first essays applied Naturphilosophie to the writing of history.² Later, by blending skilfully the historical and scientific strands of German Romantic thought, he demonstrated that the apparently contradictory beliefs in continuity and change in Russian thought could be resolved into a harmonious unity. Pogodin took Peter I as his model for his analysis of the relationship between science and society. He argued that in the year 1841 it was no more possible to deny Russia the steam engine and the railroad

than it was to dispense with manufactures and technicians imported from Europe in Peter's time. The realities of power remained incontrovertible. "If the Austrians can hasten from Vienna to Warsaw in one day, then how can we afford a week to get there?" Pogodin posed the question at the very moment when Nicholas I decided to undertake the construction of Russia's first trunk line.³ Yet, even though Pogodin acknowledged the importance of the state in establishing factories and recruiting Western technicians, he also recognized the need to encourage Russian entrepreneurs. Having rediscovered Peter's economic theorist, Ivan Pososhkov, Pogodin was delighted to find in his work strong arguments against state monopolies. Aside from Polevoi, a merchant's son, Pogodin was the first Russian intellectual to champion the cause of the *kupets*. In the pages of *Moskovitianin* the merchant underwent a startling transformation from the popular image of an insignificant, grasping, and selfish exploiter to a loyal, honest Christian servitor. Pogodin deplored the insults heaped upon a figure he complained had been misunderstood, and claimed for him an honoured place in the pantheon of Official Nationality. "The merchant is a comrade to the warrior: the warrior fights and the merchant helps and satisfies his every need." His praise reached the heights of hyperbole: "There is no social stratum (*chin*) on earth to whom the merchant is not necessary." It was unfair, Pogodin asserted, for other social groups to criticize the merchant and then to usurp his functions by trading illegally in order to avoid paying commercial taxes – a dart aimed at the noble entrepreneur. Pogodin defended the merchants' privileges in the name of a divinely ordered social system institutionalized by Peter I.⁴

Pogodin rejoiced when he discovered living confirmation of his belief that the merchant should embody the traditional Christian values of truth and humility, as exemplified in the charitable activities of the famous Moscow merchant N.I. Krasheninnikov.⁵ He was entirely convinced that in a suitable cultural setting commerce and manufacturing could enrich men's lives. His idealization of Russian fairs and the paternalistic factory system reflected his faith in the stability and permanence of Russian cultural values.⁶ It was this very combination of "the aims of practical life and ... the positive beliefs of religion" which originally drew Pogodin to Schelling and then kept this allegiance alive throughout his life and long after the decline of Naturphilosophie as a credible philosophical position in Western Europe.⁷ Pogodin's double vision of Russia's economic growth transformed Peter I into Russia's Prometheus Unbound, the Romantic hero who liberated his country's

energies by tying Russia's destiny to the development of commerce and industry. He assigned the merchant the indispensable social role of carrying out that process.

Prince Odoevskii, one of the few aristocratic members of the student circles, adopted a more philosophical stance in identifying Russian science with a higher moral purpose in contrast to soulless Western empiricism. He spent his formative years in the Noble's Pension, where he came under the influence of Davydov, whose admiration for Schelling was tempered by his eclectic approach, and Prokopovich-Antonskii, who still clung to his Pietist and Masonic idealism. Odoevskii acknowledged his debt to them for "a kind of earthy practicality and a moderate idealism." As early as 1822, Odoevskii published a synthesis of his youthful views under the suggestive title "In consideration of the fact that all knowledge and science only brings us genuine usefulness when it is united with pure morality and piety." Later he expanded these ideas most notably in *4338-I god. Fantasticheskii roman*, published in 1835 and 1840, and *Russian Nights*, published in 1844. A similar Schellingian theme runs through both these works; namely, that a fundamental unity underlies all the sciences with philosophy – "the universal science exercising influence on all the rest."⁸ According to Odoevskii, science could only be harnessed for the welfare of man if this relationship were recognized.

More than any of his friends, Odoevskii made explicit the indissoluble connection between speculative thought and practical economic activity. He proceeded from the assumption that the integration of all knowledge demands a general theory that explains both the cause and purpose of natural phenomena and human endeavour. "One cannot help noticing," remarks Odoevskii's mouthpiece Faust, "an obvious parallelism between the most abstract metaphysical concepts of the century and the activity of the applied sciences which form the entire social, familial and individual life of man in that century."⁹

Technology is the practical embodiment of a philosophical verity. Failure to grasp this profound truth leads to twin evils, Odoevskii continued, "dissent and lack of coordination in the sciences and in life." Most dangerous of all, "they make man helpless before nature." If men plunge ahead inventing laws and creating machines blindly and unsystematically, then they lose direction and become victims of their own inventive orgy. Such was the disease of Western life, he argued. In France, science purged itself of poetry and religion, plunging the country into revolution. In England, the separation of science, art, and religion paved the way to mercantile pursuits for material gain that

swallowed up everything else.¹⁰ In a powerful prophetic essay, “The Fifth Night,” he came close to articulating a utopian socialist critique of industrial capitalism by predicting the downfall of a civilization based upon unrestrained competition for material profit in the name of a Smithian or Benthamite “common good.”

This did not mean that Odoevskii opposed experimental science or technological progress. His science fiction novel clearly defines backwardness in technological terms. His vision of the future is filled with industrial marvels like electric subways under the Himalayas and the Caspian Sea.¹¹ For him Harvey, Fulton, Franklin, and Humboldt were courageous in their disdain of personal danger, single-minded geniuses in their pursuit of hidden forces that bound men to the rest of the universe. The steam engine had opened great possibilities for man. “Yes, railroads are a very important and great thing,” exclaimed Faust. “It is one of the instruments that is given man to conquer nature.” But, he reiterated, these inventions and experiments had to be integrated into the moral state of society.¹²

Odoevskii admitted that German philosophers like Leibniz, Goethe and Carus grasped this truth. But he echoed Pavlov and Pogodin by proclaiming that Russia had already produced its own representative of this scientific spirit in the person of Lomonosov, “who discovered the mysterious method which studies all aspects of nature as a whole, not its torn off members, harmoniously absorbing all manifold knowledge into himself.”¹³ In the 1860s, Odoevskii proceeded even further along the lines of defining a specific Russian type of science and mathematics and applying it to the construction of a new melodic and harmonic approach to music. He invoked the spirit of Leibniz, whom he quoted, in justifying his experiments with tonality, to demonstrate that “even if our soul doesn’t count numbers it still feels its conjugations.”¹⁴

Odoevskii’s preoccupation with propagandizing science and technology did not preclude him from putting the logic of his reasoning into practice. Together with his friend from the student circles, P.I. Koloshin, he joined a group of idealistic young men who entered the central apparatus of the Ministry of State Domains, where they promoted better methods in agriculture and participated in drafting the agrarian reforms of Count P.D. Kiselev.¹⁵ In this capacity, Odoevskii became co-editor, from 1843–8, of *Sel'skoe chtenie*, a collection of articles accompanied by maps and illustrations designed to explain to the common people in the simplest language natural science, agricultural techniques, statistics, the advantages of technological improvements, and

geography, while at the same time maintaining the strictest ideological conformity with Official Nationality. Re-edited and reissued a number of times, the periodical sold more than 30,000 copies by 1854, an enormous circulation compared to any other contemporary journal.¹⁶

Like Pogodin, Odoevskii broadened his involvement in practical scientific and business activities after the shock of the Crimean War exposed to many Russians the level of their country's backwardness. Together with his old friend from the days of the student circles, A.I. Koshelev, he assumed the social role of an entrepreneur. He became an active shareholder in Russia's first joint stock venture to finance the construction of a railroad network, the Main Russian Railroad Company.¹⁷ He also participated in drafting the first major legislation in Russia regulating joint stock companies, and then formed his own company for selling life insurance.¹⁸ He never lost the taste for experimental science. To the end of his life, he dabbled in chemical and magnetic experiments in the privacy of his study. After his death he left many unpublished manuscripts based on this work. Nor did he ever give up his role as a propagandist of science. "In Russia we have everything," he wrote in 1863, "and all we need is three things: science, science and science." To the end of his life he dreamed of the day when the Russian people would be mechanics in factories, on railroads and steamships, when "the little peasant would be carried around on rural locomotives, yes, and would even adapt them to local affairs."¹⁹ His language infused the paternalism of the aristocrat with the idealism of the 1830s.

In his public lectures, Odoevskii hammered away at the necessity for scientific education to supply Russia with the technicians necessary to exploit the country's vast natural resources and free it from dependence on foreign experts and know-how that, he argued, ruined the balance of trade and undermined the stability of the ruble. Knowledge of the *Book of Hours* and *The Psalter* were not enough, he insisted. Excoriating what he regarded as the obscurantist attacks on science by "Jesuits and scholastics," he concluded that "in science there is neither absolute authority, nor unconditional freedom of conscience, nor right of judgment. Thus, science does not belong to Papism or Protestantism, but demands proofs at every step."²⁰ Would Feofan Prokopovich have said it much differently?

If Pogodin and Odoevskii followed the path to organic economic development mapped by Romantic philosophy and history, their colleague from the student circles V.P. Androssov came to it more directly from his studies in statistics and political economy. But even he had won

his spurs with the young Moscow intellectuals by publishing a critique of Kant which bore all the earmarks of Oken's influence.²¹ Pavlov was sufficiently impressed to name him deputy director of the Agricultural School and to invite him to join the editorial board of *Atenei*. Recognized as a competent statistician, Androssov was recruited into a variety of bureaucratic and private enterprises, serving as the secretary of a special committee in Moscow for sorting silk and becoming editor of the *Zhurnal dlia Ovtsevodov* (Journal for Shepherders), which was widely circulated at the time. Androssov was a representative of the Göttingen school of statistics, founded by Achenwald in the eighteenth century and taught to Russian students in Göttingen and Moscow by August Schlözer, the celebrated historian and statistician. In the spirit of the late Aufklärung and its Romantic succession, the Göttingen school emphasized the collection and systematization of information as a part of politics in the same way as knowledge of the body was linked to the art of healing. For Schlözer and his disciples, this meant that the statistical method should be based on a study of the social and economic facts in the historical context of every individual country. The retrospective method of Schlözer assembled a picture of the moral welfare of people with a description of material conditions. Statistics could not exist without numerical data, but the statistician should not become a "slave to tables." When Androssov's work *Statistical Notes on Moscow* appeared in 1832, Pogodin wrote a rave if anonymous review for Nadezhdin's *Teleskop* in which he praised Androssov for infusing his work, which received the Demidov Prize of the Academy of Sciences, with moral principles. However, Pogodin could not resist the opportunity to tweak the Academy for its foreignness, a point that did not endear him to Uvarov, its president.²²

Androssov's publications, including his major work, *Zemledel'cheskaia statistika Rossii*, were cast in the Achenwald-Schlözer mould. Guided by the maxim "In the realm of political economy it is impossible to regard man outside Nature," he sought to draw a direct line between gathering data and employing it in creative and productive ways. Occasionally slipping into the language of Naturphilosophie, he reasoned that "Nature, expressing in its laws all the conditions of existence of things in their specific nature, disposes of the resources necessary for the general life of beings everywhere and in such a way that in order to obtain them [for mankind], they must be taken away by force. And therefore, no matter how important these resources are for the economic life of society, they will slip through our fingers if, for all our calculations, we expect to acquire them without any sacrifice of effort or labour."²³

During his short stint as editor of *Moskovskii nabliudatel'*, Androssov preached a vigorous industrialism. It was not enough, he wrote in an obvious swipe at the Academy, for "learned societies to pose problems and benevolently lavish prizes" in order to encourage production"; "only visible, tangible benefits can give life to economic and commercial enterprises." Androssov attributed Russia's backwardness in relation to the West to the fact that "in our country men's labour has not yet transformed Nature." What was needed above all was "an organic response" by domestic producers to meet the evolving needs of the people. He avoided the thorny question of serfdom by arguing that it was not so important to disrupt the traditional Russian form of agricultural production in order to copy Western farming, but rather to process what Russia produced by creating its own manufacturing plants. Only in this way could Russia "overcome its backward status as an agricultural economy and begin to industrialize."²⁴

Not only did Pogodin and Androssov present a plausible argument for a social acceptance of business activities in Russia, but they make it easier for us to understand how other members of their youthful network, like I.S. Mal'tsev and S.A. Sobolevskii, could feel equally at home in the literary salons and factories, in editorial offices and shareholders' meetings. The notion that the two worlds were incompatible reveals a misperception shared by the radical "alienated" intelligentsia and their subsequent interpreters.

The Mal'tsev family, although noble in origin, had been engaged in entrepreneurial activities for two generations before Ivan Sergeevich entered Moscow University to study philosophy and literature. His great-grandfather, V.Iu. Mal'tsev, had taken the unusual step for a nobleman of enrolling in a merchant guild. His uncle founded a well-known crystal glass factory. At first Ivan Sergeevich seemed destined for a purely literary career. A close collaborator of Pogodin's on the staff of *Moskovskii vestnik*, he composed a lively sketch of Goethe, introduced Sir Walter Scott to the Russian reading public, and translated Greek and German authors. He belonged to the network of talented young intellectuals serving in the Foreign Ministry who called themselves the Youths of the Archive.²⁵ But he too found business irresistible. Over the next three decades from his desk in the Foreign Ministry he closely followed developments in the commercial and industrial world, invested profitably in many enterprises, strongly opposed the attempts of the Ministry of Finance to place restrictions on the Russian-American Company (in which he was a stockholder), and vigorously defended

the company as the sole hope for the exploitation of Alaska's natural resources.²⁶

In 1838 Mal'tsev joined with his old friends of the student circles, S.A. Sobolevskii and P.I. Koloshin together with his brother Sergei, in founding a cotton spinning company. They entered a fiercely competitive field and there was no room for absentee shareholders and genteel manners. Almost of necessity, Sobolevskii assumed the leading managerial role. Educated at the Nobles' Pension in St Petersburg, where he excelled in languages and heard Galich's lectures, he then obtained a position in the Foreign Ministry, where he became friends with Mal'tsev and Odoevskii and other members of the Friends of the Archives. He befriended Kireevskii and attended meetings of the *Liubomudry*. Enjoying a close friendship with Pushkin, he was instrumental in bringing the poet together with Pogodin and in co-founding *Moskovskii vestnik*. In a word, he was connected to all the networks that propagated the Romantic view of science and society.

As the illegitimate scion of the well-known family of Soimonov, Sobolevskii inherited no wealth and, given his hobby of collecting rare books, was forced to earn a living. His youthful interests in mathematics, technology, and mechanics, stimulated by a European tour, launched him on an entrepreneurial career. He soon mastered both the production and the marketing side of the textile industry. His broad social contacts kept opening up fresh opportunities. Like Mal'tsev, Sobolevskii can hardly be regarded as social deviant within the noble estate. His legitimate half-sister had married the big Moscow textile manufacturer N.D. Mertvyi,²⁷ whose factories Sobolevskii frequented. Unfortunately for Sobolevskii, his factory was destroyed by fire and he lacked the capital to restore his fortune in the business world. Yet, he remained an industrial enthusiast to the end of his life, when in the 1860s he invested his last remaining capital in French railroads.²⁸

Thus far the burden of the analysis in this book has been to show that some Russian intellectuals, influenced by the organic theories of Naturphilosophie, attempted to explain and apply science and technology in ways compatible with the society's cultural norms as established by Peter I. As the same time, however, they also sought to redefine particular social values and social roles in order to continue the process of drawing Russia into Europe. In the hands of these intellectuals the biogenetic model of change borrowed from German thinkers through the medium of German universities and modified to suit their own psychological and social needs served equally to adapt philosophical

concepts to science and technology as it did science and technology to philosophical concepts. However, a gap remained in the integration of science and technology into the cultural matrix of early-nineteenth-century Russia, a gap between entrepreneurial activity and national consciousness. That is to say, it was not clear how an awareness of national consciousness would necessarily involve a commitment to economic development or that economic development could be construed as a form of national consciousness. Neither entrepreneurship nor nationalism had been given institutional legitimacy or even a precise definition in the culture without which they could not be integrated into the collective consciousness of the literate public or the mass of the population. There was plenty of entrepreneurial activity in Russia, but the estate that had been assigned by Peter to perform that social role had seen its functions eroded and its status diminished by competition from nobles, trading peasants, and foreign capitalists. The merchantry lacked the social prestige and the institutional freedom to pursue an active policy of economic development.²⁹ But their competitors were even less well placed in the social hierarchy to perform this task. What was needed was an intellectual rationalization of entrepreneurial activity that could overcome the stigma attached to it as a social role. That could only be provided by linking it to national greatness.

Many of the landmarks in the rise of a national consciousness corresponded in the same individual or intellectual movement with progress in science: Peter the Great and Lomonosov, the late Aufklärung and German Romantic thought. Still, by the second decade of the nineteenth century, despite the historical and literary production of individuals like Vasili Trediakovskii and Nikolai Karamzin, interest in national consciousness lacked a broad theoretical base. Participants in the post-Decembrist students' circles provided alternative interpretations. Side by side and opposed to the Official Nationality, three leading journalists carried the biogenetic model one step farther by closing the gap between science, technology, economic development, and the national spirit. The trio of N.A. Polevoi, M.A. Maksimovich, and N.I. Nadezhdin blazed the trail for the Slavophil industrialists who followed in their footsteps.

A Trio of Trail Blazers

Nikolai Polevoi emerged from a Siberian vodka merchant's family to become one of the best-known figures in the world of Russian journalism and literature. Largely self-taught, he briefly attended Moscow

University and struck up friendships with Ivan Kireevskii, Sobolevskii, and the Polish poet Adam Mickiewicz.³⁰ By his testimony, his voracious and indiscriminate reading exposed him to a welter of intellectual influences, perhaps owing more to the French than the German Romantics. Yet throughout his extraordinary career as editor, journalist, historian, and dramatist he consistently preached a close connection between Russia's spiritual and material development without submitting to the blandishments of Official Nationality. As a result, he suffered the consequences. Although Polevoi's main interest was literary, the editorial policy of his journal, *Moskovskii telegraf*, gave ample proof of his industrialism. Writing in 1828 he insisted, "National industry is the sole means to support and strengthen the state power ... Industry leads to wealth and enlightenment, for one without the other does not exist."³¹ He introduced a fresh note into the discussion of who would lead the new age of enterprise. Even earlier than his plebian rival Pogodin, he criticized the nobility's monopoly of the social and cultural life of the country and championed the merchantry as "the producer of national wealth."³² For Polevoi, England was the model of industrial practicality even though France after its "bourgeois revolution" of 1830 had made an important advance in its industrial policy.³³

In his historical work, Polevoi challenged Karamzin's interpretation of the monolithic state and the service nobility as the foundations of Russian history by suggesting that behind the military campaigns, diplomacy, and court life throbbed a richer and more varied social life.³⁴ His irascible attacks on authority in general and Karamzin in particular alienated Uvarov and Count Benckendorff, the head of the Gendarmes, and finally annoyed Nicholas I himself, who ordered *Moskovskii telegraf* to be closed down. Polevoi's active period in journalism was over. But even as he continued to denounce "kvass patriotism," he extolled the Russian national spirit in his many plays and articles on literary topics. Early on he had championed Pushkin and later he condemned Gogol from the same Romantic-heroic stance. By the same criteria Lomonosov and Kantemir were for him the embodiment of authentic and inspiring Russianess (*narodnost*).³⁵ His unofficial nationalism and proto-industrialism foreshadowed the emergence of the Slavophil entrepreneur.

Born in Ukraine, M.A. Maksimovich's initial interest in science was kindled by his father, who, although a noble, worked as an engineer and draughtsman at the Shostenskii Steam Factory, and his uncle, who was a former professor of law at Kharkov University. Maksimovich began his studies in biology, botany, and medicine at Moscow University in

the halcyon days of Pavlov, Loder, Hoffman, and Reis. While still an adjunct in botany, he published several works reflecting his enthusiasm for the Naturphilosophie of his teachers, particularly his favourite, Pavlov. This attracted Odoevskii's attention and led to an invitation to join the *Liubomudry*. Maksimovich plunged into the heady intellectual atmosphere of the student circles and the thick journals. His latent interest in literature flowered with the encouragement of his new friends, Herzen, Pogodin, and Ivan Kireevskii. Even as he established his credentials as a natural scientist, he found time in 1827 to edit an important collection, *Little Russian Songs*, the first of his many contributions to Ukrainian ethnology. As long as he remained in Moscow, however, he devoted his energies to popularizing science. A frequent contributor on scientific topics to *Moskovskii telegraf* (at least until he quarrelled with Polevoi in 1831), and then to Nadezhdin's *Teleskop*, he also wrote a series of short books on natural science that sought to systematize and simplify the main currents of Naturphilosophie. In such works as *The Foundations of Botany*, *The Main Foundations of Zoology* and *Thinking about Nature*, Maksimovich unfolded the richness of the divine plan in an effort to elicit a religious-moral response to the wonders of nature among his readers. The most widely read of his works, *Kniga Nauma o velikom Bozhiem Mire* (*The Book of Naum about God's Great World*) sold 12,000 copies and went through six editions by 1851. It was the first attempt of a scholar to explain to literate but not highly educated people the mysteries of astronomy, mathematics, and geology. In a burst of enthusiasm, Odoevskii urged that it be adopted as a textbook by all Russian primary schools.³⁶

In his studies of biology, Maksimovich returned again and again to the theme of the autonomous nature of organic growth with a unified system. In his first published work, *On the System of the Vegetable Kingdom* in 1823, which the editor of *Novyi magazin*, accepted only after it had been purged of "the excessive philosophical elements," Maksimovich sketched out an original interpretation of the cell as a discrete unit of a complex organic development in contrast to the prevailing belief that it was simply part of a network of divisions in organic tissue. He elaborated this concept five years later by arguing that "each cell is an enclosed bubble and has no communication with others either through pores or apertures. Fluid enters one cell and passes to another not mechanically through openings, but by another process." Although Maksimovich had made empirical observations of the process, he could not explain it. But the thrust of his argument was that the cell was an

autonomous part of a larger organism that did not grow in response to external influences, but rather in response to its internal needs.³⁷ As he shifted his field of specialization from biology to ethnography, he carried with him the same biogenetic model, applying it by analogy in the characteristic style of Naturphilosophie to problems of language and the customs and oral traditions of the Russian and Ukrainian peoples.

At the crossroads of his change in careers, Maksimovich seized the occasion to broadcast his ideas in a public lecture, entitled "On Russian Education," delivered in 1832 to an assembly of the faculty and students of Moscow University. He insisted that Russia was indissolubly bound to European civilization and needed to emulate European education in order to further its own development. This inner urge to its outer limits, as he put it, should result in "a corresponding consciousness that is entirely compatible with European education," yet fully expresses Russia's national character. "Autonomy [*samobytnost'*] will inevitably be the destiny of a people who wish to lead a fruitful life and leave behind a legacy for the rising generations. *There is no life where there is no autonomous development,*" he asserted. He concluded that the "Russian soul" (one is tempted to add, like the cell) had no predetermined form, nor did it follow a single trajectory in seeking to express itself. Therein lay its strength. The means of its fulfilment was education, which nourished "the organic whole" encompassing the many-sided spiritual and moral qualities of man.³⁸ Speeches like this won him favour among the supporters of Official Nationality and, taken together with his interests in science and ethnography, made him Uvarov's choice as rector of St Vladimir University in Kiev to lead the campaign against the domination of the faculty by the Polish nobility, embittered by the suppression of the Kingdom of Poland following the uprising of 1830–1.³⁹

Maksimovich was not, however, an apologist for Official Nationality. A closer look at his ethnographic studies reveals him to be another figure like Polevoi and Odoevskii who cannot easily be fit into the overly schematized categories of Slavophiles and Westernizers, but one who leaned more to the side of the former. Before the 1820s, Russian ethnography was a preserve of dilettantes who collected bits and pieces of antiquity in a random fashion. Maksimovich helped to set standards for collecting material and to establish a theoretical foundation for research and analysis.⁴⁰ As early as 1827, when he brought out his *Little Russian Songs*, he had identified the archaeological, linguistic, aesthetic, and social dimensions of the oral tradition. In his eyes, the popular poetry of Ukraine represented a living historical record that traced

the autonomous development of a distinct ethnic group celebrating its own customs and traditions. On this basis he constructed a theory of Ukrainian nationality. By analysing the style, structure, and themes of Ukrainian popular poetry Maksimovich concluded that the basic characteristics of a people are an expression of the kind of relationship they have established with their natural environment. In Ukrainian songs he detected "frequent comparisons with an unadorned all-enveloping nature – frequent conversations with the fierce winds, the gentle rain and heavy fogs." For him this indicated simpler, more direct, and even intimate ties between Ukrainians and the world around them. By contrast, he located in Great Russian songs a more artificial, often arbitrary treatment of nature. This aesthetic element suggested to him a flight from reality through an absorption in pure sounds, while the Ukrainians employed a more dramatic, passionate yet laconic style in developing the theme of the struggle of the soul with its own destiny.⁴¹

In a brief appendix of Ukrainian words to his collection of songs, Maksimovich drew attention to the historical conditioning of language, demonstrating how Ukrainian occupied a middle position between Polish and Great Russian. Thus, on both the thematic and linguistic levels of his analysis he traced the organic development of Ukrainian culture without severing its connections with the Great Russia and other Slavic peoples.⁴² Not surprisingly his scheme resembled Schelling's grand design of the autonomous organic growth of separate multiple units of a unified human species. Maksimovich's first collection of songs, together with a second volume in 1824, proved to be a major event in Russian literary history, making a profound impact on Pushkin and especially Gogol, who acknowledged Maksimovich as his teacher and guide in his understanding of Ukrainian flora, fauna, and popular poetry. Once established in Kiev, Maksimovich struggled to overcome ill health and Polish resistance as he worked to strengthen the idea of Ukrainian cultural autonomy within the context of the Russian autocracy. He attributed a vital role to the Ukrainian language in building the defenses of the common people against Polish-Catholic cultural hegemony, but he always insisted that Russian should remain the language of the upper classes and of administration.

Maksimovich's views on the authenticity of Ukrainian culture soon won the admiration of the Slavophiles, but aroused the suspicion of the official nationalists. His prodigious work in editing *Kievlianin* in three big volumes in 1840, 1841, and 1850 inspired A.S. Khomiakov to applaud him in the pages of *Moskvitianin*: "It is time for Kiev to accede

to the Russian language and to Russian life," he wrote: "I am sure that words and ideas conquer more effectively than swords and gunpowder: and Kiev can act in many ways more strongly than Petersburg or Moscow. It is a frontier city between two elements, two cultures."⁴³ Pogodin was less happy when Maksimovich insisted that Ukrainian was a separate language and not merely a dialect of Russian. Both men, however, accepted the reality of a separate Ukrainian culture, although they disagreed on the historical evolution of Ukraine. Maksimovich argued for the continuity since the time of Kievan Rus' and the organic drawing together of the three East Slavic ethnicities into an all-Russian state. Pogodin insisted on the rupture of Ukrainian history, produced by the Mongol invasion, and the achievement of national unity under the banner of the Great Russians.⁴⁴

As the censors objected to Maksimovich's insistence on the autonomous character of Ukrainian culture, he found himself drawn more firmly into the Slavophil camp. It came as no surprise when in 1856 he accepted an invitation to become an editor of the first purely Slavophil journal, *Russkaia beseda*.⁴⁵ In its pages, the long germinating sprouts of a policy uniting a new popular as opposed to state nationalism, technological innovation, and the industrialization of Russia broke through the surface of Russian public life.

The careers of Maksimovich and his friends serve to illustrate the gradual transformation of attitudes that took place among intellectuals concerned over the relationship between nationality and science. Reflecting a general trend in Russian social life, they responded to changing conditions in the 1840s by moving away from a cosmopolitan and towards a more narrowly Russian outlook. There were a number of reasons for this, most of them connected to state policy. The decline in the number of foreign scholars teaching in Russian universities and of Russian students studying abroad, the prohibitions on the importation of a growing list of foreign publications, and the increased surveillance by the policeman and the censor had a chilling effect on contacts with the outside world. At the same time, the growth of the bureaucracy and professionalization of education opened opportunities for talented young men to work from within for the improvement of society. The question that had preoccupied intellectual circles since the turn of the century became more acute, indeed the Russian term "burning questions" captures the intensity of the debate. To what extent would Russia's future development continue to follow the path of Europe, as had generally been assumed when the tempo and direction of change had been

set exclusively by the monarch and his or her closest advisers? As the setting of policy became more diffused throughout the bureaucracy and the opportunities increased for creative work outside the bureaucracy, particularly in the economy, then the alternative of a special path for Russia opened up. German idealist philosophy from Herder and Schelling to Fichte increasingly stressed the indigenous, autonomous development of society. Russians who endorsed the biogenetic model of change came to regard it as particularly well suited to Russian conditions. Similarly, the same intellectuals embraced science as a means of raising the moral and educational level of the country as a whole. The trend was foreshadowed and strengthened by the work of Odoevskii, Pogodin, and Maksimovich, but the process reached full maturity in the writings of the Slavophiles.

The Slavophil Synthesis

To grant the Slavophiles a prominent place among the propagandists of science and technology in Russia is to challenge the traditional view that they scorned rationalist thought, discouraged technological innovation, and feared industrialization as the harbinger of a Russian proletariat.⁴⁶ A revision of this view will appear less surprising if one recalls how deeply indebted the Slavophiles were for their ideas on history and literature to German Romantic thought that provided by analogy a model for holistic, organic development. Moreover, the antipathy of the Slavophiles to aspects of Western civilization and to Peter the Great should not obscure their concern over whether their inner spiritual resources were sufficient to defend their homeland against external aggression. Finally, it should be apparent from the foregoing discussion that the differences between the Slavophiles and the official nationalists over the role of the state in the formation of society need not necessarily have prevented them from agreeing on the importance of science, technology, and the growth of industry, even though they disagreed on the source of innovation and initiative.⁴⁷

The overlap in education and careers between the Slavophiles and the alumni of the Moscow circles is striking. Connected by personal friendships and joint publishing ventures, they formed an extensive social network. A.I. Koshelev and Ivan Kireevskii were members of the student circles, friends of Odoevskii. Together with Khomiakov, Maksimovich, and others they published in *Moskovitianin*, *Moskovskii nabliudatel'* and *Teleskop*, whose editors, Pogodin, Androssov, and Nadezhdin, were sympathetic.

When the Slavophiles were not on their estates (for most of them were nobles), they found the intellectual life of Moscow far more congenial than that of bureaucratic Petersburg. Their attraction to the world of science and technology was as natural as that of their younger associates, but their more rebellious attitude towards authority lent those interests a different thrust. Because of their concern over the damaging effects of factory life, the Slavophiles singled out railroads and scientific, mechanized agriculture, and later banking as the fields where science, technology, and economic development could be most easily adopted to their social values.

The leader in setting out this position was A.S. Khomiakov, whose penetrating intelligence and breadth of vision frequently made him the intellectual trailblazer for the Slavophiles. As an inventor, scientific farmer, and lay theologian, he exemplified the fusion of theory and practice, speculative philosophy, and scientific-technical expertise that characterized the biogenetic model. Although his scientific interests have attracted the attention of biographers, no attempt has been made to resolve the apparent contradiction between his avocation as a scientist-technologist and his glorification of pre-Petrine Russia.⁴⁸ Khomiakov was one of the first of the so-called alienated Russian *intelligenty* to point out the significance of the railroad for the future of Russia. What is remarkable about his railroad enthusiasm was his keen appreciation of the railroad as a material factor in military operations combined with his abstruse theorizing on the relationship between technological innovation and social stability. As early as 1845 he grasped the potential of railroads to move troops rapidly from one end of the country to the other, enabling Russia to skip the stage of building roads and “go directly from a general lack of communications to the most highly perfected form without a transition.” Here surely was one of the earliest statements of providential economic backwardness. He was also the first to argue that Moscow was, by virtue of its central location and nearby coal deposits, the natural hub of a network radiating to the Baltic, Black, and Caspian Seas.⁴⁹ With a few deft strokes Khomiakov set down the basic arguments for the Slavophile railroad entrepreneurs in the following decades: a centralized network connecting what Koshelev was later to call the “organic heart of Russia” – Moscow – to the main ports as a means of overcoming Russia’s backwardness in communications, a means of connecting the agricultural surplus-producing regions with the outer world and a guarantee of its military parity with the West.

Khomiakov was not content to present the practical side of the case. Once he foresaw the practical advantages of railroads for the people, he

sought to fit the new invention into the indigenous culture. Acknowledging that railroads were a product of Western technology, he was obliged to explain how an organic, autonomous Russian society held together by a collectivist spiritual principle (*sobornost'*) could withstand the disruptive impact of an external material force. His first step was to harmonize the mechanical principle that made possible the invention of the steam engine and the operation of the railroad and the organic principle of development that characterized change in nature and human society.

Drawing upon the work of French engineers, especially the brilliant Sadi Carnot, Khomiakov applied the "principle of reversibility" to the problem of Russia's borrowing from the West. According to this principle an engine working on a completely reversible cycle between two temperatures will be the most efficient because (a) the transfer of energy is "more regular, more even and less subject to fortuitous events (*sluchainosti*)," and (b) "a return to the source of power [may occur] without requiring new inputs or causing a frequent waste of energy." Khomiakov perceived that Carnot's principle had something to do with the conservation of energy. His anti-Newtonian bias derived from German Romantic science led him to believe that all forces operative in nature, whether heat, galvanism, magnetism, or electricity, were merely different forms of a universal principle of motion and change. His commitment to the usefulness of science predisposed him to perceive the broader implication of physical laws and the possibility of their application to human behaviour. He concluded that "many unsolved questions of history might be more easily explained by the law of reversibility."⁵⁰ Among the most troublesome of these for Russian intellectuals was the influx of ideas and goods from the West to Russia. Khomiakov avoided forcing the comparison between the reverse flow of heat and work and the same process applied to cultural exchange, but his analysis suggests a close parallel.

Despite Russia's previous borrowings from the West, Khomiakov admitted that no single idea or artefact had been introduced "without profound ambivalence." Extrapolating from his interpretation of the law of reversibility, is it not possible to suppose that he equated cultural ambivalence with loss of mechanical efficiency? In his words, "the transfer of direct power into reverse power is always accompanied by a greater or lesser loss of force," so that the transfer of an idea from one society to another could not be carried out without meeting resistance. In other words the full impact of an external idea is diluted when absorbed by an alien body. In Khomiakov's meaning of technical analysis, innovation may be considered "a new term introduced into the equation where all

other terms are known, and in mathematics it is not difficult to calculate the change in the entire equation," while it is very difficult to predict the effect of introducing a new component part into a living organism. Yet despite the differences between Western and Russian societies, it would be wrong, indeed "fanatical" in Khomiakov's eyes, to reject all innovation in Western thought. It would even be advantageous to borrow from those sectors where the exchange of ideas approaches their highest coefficient. "In the realm of pure and applied sciences the entire world constitutes an integral wholeness (*odno tseloe*), and people can use the innovations and inventions of another people without loss of either dignity or the right to their own development." This came close to asserting that science and technology transcended culture. For Khomiakov, the final goal of these transfers was the conversion of the borrowed ideas (or energies) into practical work. "We are obliged to take everything that could enrich the land, spread industry, improve social well-being. The ambivalence will disappear and the errors will show up."⁵¹

Pursuing his analogy on the law of reversibility, Khomiakov explained that in order to restore full power and guarantee its efficiency on Russian soil, "the universal inheritance which we take from our Western brothers [!]" must be "enveloped" in national forms. His mixed metaphors illustrate the difficult task he had set for himself. Just how can railroads be made to conform to the national spirit? Khomiakov was not able to answer the question even though he concluded on an optimistic note that a railroad network in Russia would "enliven national life and bring fruitful results," just so long as construction was imbued with the spirit of the people.⁵² The tortuous reasoning which led Khomiakov to this prosaic conclusion illustrates the central dilemma which faced the Slavophiles as would-be modernizers. Although the bulk of their writings dealt with the moral and spiritual component of national identity, they could not and did not ignore the question of physical survival in a hostile environment. For all their talk of inner resources, they were never far removed from recognizing the need to develop Russia's natural resources. The question was by which methods? It required the humiliating defeat in the Crimean War to thrust them into an active role in developing not only railroads but the economy as a whole.

The Slavophil Entrepreneurs

During the Crimean War, the Slavophiles became increasingly critical of the government. Khomiakov and Koshelev both recognized that it

was impossible to fight a war for the liberation of Russia's Slavic brothers under the banner of Metternich's conservatism. Koshelev wrote of the defeat as an impetus to reconstruction. But their criticism, which struck at the evils of serfdom, corruption, and backwardness, brought down the wrath of Nicholas I.⁵³ By the end of the war most of the leading Slavophiles were under the ban of a censorship warning and police surveillance dating from the publication in 1852 of the controversial third volume of *Moskovskii sbornik*.⁵⁴ However, once the strict police and censorship controls were lifted following Nicholas I's death, a group of Slavophiles pooled their capital to found the journal *Russkaia beseda* as a joint stock company. The editorial board was composed of its shareholders, A.I. Koshelev, the editor-in-chief, Iu.F. Samarin, A.S. Khomiakov, and V.A. Cherkasskii.

The first issue stirred up a storm of controversy. Attacks from the St Petersburg press and M.N. Katkov's self-proclaimed "liberal" organ, *Moskovskii vestnik*, focused on the alleged eccentricity of *Beseda's* views on science and technology. The main target of their criticism was Samarin's "A Few Words on Nationality [*narodnost'*] in Science." This was a restatement and elaboration of Khomiakov's position on the relationship between universality (*vsemirnost'*) and autonomy (*samobytnost'*) in science. The line of descent stretching back to Oken, Schelling, and Leibniz showed up clearly throughout Samarin's analysis. Acknowledging that "the problem of science lies in the comprehension of the essence of phenomena," Samarin argued that "each idea presupposes a point of view, each act of cognition is a point of departure." In his view, the origin of all conceptual thought stemmed from consciousness of the uniqueness of national culture. Drawing an analogy from the discipline closest to his heart, Samarin concluded: "As in history the universal principles manifest themselves precisely through the medium of nationality (*v narodnoi srede*), so in the field of science thought elevates these same principles to the level of our consciousness through the same medium of nationality."⁵⁵

Koshelev brought Samarin's abstractions down to earth. Defining railroads as "the most important, significant and fruitful invention of the past twenty-five years," he ridiculed those who condemned the steam engine as a "hellish revolutionary machine." But he also rebuked the Westernizers who only appreciated railroads as a means of increasing wealth and transporting troops: "The state is not a workshop of a stock market or a military camp." Insufficient attention had been paid, he insisted, "to the more important and essential thing for man – his

moral, intellectual and social life." A railroad should serve "the national, free development of the people's needs." Echoing Khomiakov, Koshelev stressed the political and symbolic value of railroads without rejecting their contribution to commercial and industrial development. Moscow, "the heart of Russia," stood in the centre of his plan to link major trunk lines to the industrial and grain surplus-producing regions. In his view the southern line would join Moscow to the Black Sea through Kursk and Kharkov. Two additional lines would stretch eastward from Moscow to Saratov and to Vladimir and Nizhnii Novgorod. A single western line would link up at Dunaburg with the already completed section of the St Petersburg – Warsaw line in order "to enliven relations" between Moscow and the West. The entire network radiating from Russia's historic heartland would reinforce, in Koshelev's opinion, the national, cultural, political, and industrial leadership of the "Slavophil capital" over the rest of the empire. Railroad enthusiasm was the opening gambit in the Slavophil program for a new industrialism.⁵⁶

The Slavophiles were drawn more deeply into the debate over railroad construction following the government's initiative in negotiating a contract with European bankers to build Russia's first network. Differences among them began to open up. In reviewing the first steps taken by the new tsar, Alexander II, Samarin praised several progressive measures, "mainly railroad construction," but he regretted that foreigners and not Russians had received the concession. He was less concerned over who built "as long as they are built. Truly, I do not understand what political or moral harm could come to us from the fact that the French or English spend several hundred millions in Russia."⁵⁷ The more militant Aksakov brothers doubted whether foreign capitalists could meet the pressing needs of the Russian people. In the short-lived journal *Molva* Konstantin Aksakov upheld Koshelev's argument that "the first principle" of railroad building should be dedicated "to bring people into closer contact, to further the exchange of ideas, feelings and spiritual activity." But he was fearful of over-centralization, or what he called "the despotic aspect of railroads." He foresaw more clearly than his friends that trunk lines threatened the vitality and stability of provincial life. Unless the government exercised great care in planning the direction of the lines, it could doom local centres, drive people into empty lands, and stimulate artificial economic growth. His analysis exposed the serious contradiction in the Slavophil policy on railroads. As philosophers of a unified world view and Russian patriots, they were obliged to recognize the usefulness, indeed the necessity, of railroads. But once

theory was converted into practice, they perceived the potentially disruptive impact of railroads on traditional society that embodied other values dear to their hearts.⁵⁸

Among the Slavophiles, Ivan Aksakov, Aleksandr Koshelev, and Fedor Chizhov were most willing to strike out in new directions and leave behind much of the intellectual baggage of pre-Crimean Slavophilism. Two events brought home to Ivan Aksakov the dire need for railroads. On assignment for the Russian Geographic Society, he travelled widely in the south, where he was appalled by the wretched communications: "Russia has not moved forward one step since the time of the Huns, Alans and Avars," he reported.⁵⁹ The lack of reliable communications hampered trade and industry and increased the expenses of travelling merchants who had to cart their goods and rent shops in a dozen different towns. Aksakov expected the construction of a southern railroad to eliminate the plethora of local markets and turn Kharkov into a great emporium for the region, supplying goods to the surrounding countryside.⁶⁰

From the point of view of Russia's security, Aksakov pointed out the persistent danger of Russia's exposed southern flank. He underscored the fact that in order to prevent Western political domination Russia had no recourse but to adopt the products of Western technology, including railroads, steamships, and the telegraph, "thus creating a greater Europeanization of Russian than ever before."⁶¹ The challenge was staggering and Aksakov considered *Russkaia beseda* too monkish to lead the drive for reform and renewal.⁶² Disillusioned by the indifference of his own social estate, Aksakov turned towards the merchantry and sought to convert them and other lower orders of the population to an ideological program of Slavophilism and industrialization. That his heroic efforts met with indifferent success was not due so much to censorship harassment, much as he suffered from it, as to the attitudes of the merchants themselves.

The application of science and technology to agricultural problems appeared more natural for the Slavophiles given their deep attachment to the land. Yet even here the potential conflict between technical progress and social stability was unavoidable. Recognizing that until the serfs were freed no amount of agricultural improvement would overcome Russia's economic backwardness, the Slavophiles also understood that social regeneration alone could not rescue the peasants from ignorance and misery.⁶³ The Slavophiles' experience had taught them that when steam power and machine production were put at the service

of the peasants' needs, these evils could be eliminated. Koshelev illustrated this point vividly in the glowing report he wrote of his visit to the international exposition at the Crystal Palace in England.⁶⁴ Having made the trip to England to study agricultural equipment, Koshelev was unprepared for the variety, equality, and low cost of the tools and machines exhibited in the American and British pavilions. Here was an example of an industrial revolution producing for the masses in contrast to the small-scale production of luxury goods for the upper classes featured at the French and Russian pavilions.⁶⁵ Appearances to the contrary, Koshelev found that aristocratic English society directed its energies and capital towards the laudable social purpose of improving the lot of the common people. The key to this remarkable phenomenon lay in the nature of English science: "Here [in London] one is convinced that without science no progress can be made in any branch of production [and] the fruits of science mature only in their free development." The trouble with Russia, in Koshelev's eyes, was that it borrowed the wrong things from the West, its luxuries, immorality, and religious scepticism. According to him, what it should learn from the West was how to convert labour and knowledge into productivity in every sphere of human activity.⁶⁶ In the face of superior British manufactures, Koshelev rejected the neo-mercantilist idea, enjoying wide currency in Russia, that his goal could only be achieved by state intervention. The lesson that Koshelev carried away from the Crystal Palace was that the free individual, inspired by a collective social idea, represented the ideal social role for transforming Russia into a modern industrial society.

The Slavophiles did not hesitate to put these theories into practice in cultivating the land. Khomiakov, Koshelev, and Prince Cherkasskii managed their estates along capitalist lines and employed the most up-to-date agricultural techniques. Together with Iuri Samarin, N.P. Shishkov, the sugar beet manufacturer and scientific agriculturist, and M.A. Stakhovich, from the circle of "young editors" of *Moskvitianin*, they founded the Lebedianskii Agricultural Society, which became a model for similar organizations at the provincial and district level in the Central Agricultural Region.⁶⁷ In 1858 Koshelev, Samarin, and Cherkasskii added an agricultural supplement to *Russkaia beseda* that not only beat the drums for emancipation of the serfs with land but also supplied a constant stream of technical information for landowners. Cherkasskii's belief in the superiority of the individual cultivator carried him to the point where he broke with his associates over the issue of land tenure, pleading for a settlement that would establish

a new class of peasant freeholders.⁶⁸ That far the rest of the Slavophiles refused to go. They regarded the commune just as much as a defence against a bureaucratic invasion of the countryside as a moral good. They foresaw the possibility of organizing enlightened entrepreneurs like themselves grouped around voluntary agricultural societies into a new political leadership. Whatever form self-government might take in the post-emancipation period, they were convinced that agriculture would remain the central field of activity for the locally elected bodies. They envisioned that the agricultural societies and their subcommittees would naturally provide the expertise and administrative experience necessary to make provincial self-government work.⁶⁹ Technical knowledge could become the fulcrum of political control in the countryside.

The political aspirations of the Slavophiles underline the difference between their views and those of the enlightened bureaucrats and other capitalist-minded noble landowners on the function of the agricultural societies. Agricultural societies had existed in Russia since the founding of the Free Economic Society in 1765, followed by the Lifland Society in 1805 and the Moscow Agricultural Society in 1818. But all three were closely connected to the government either through joint membership or subsidies. Government reformers like Count P.D. Kiselev encouraged the formation of new societies in the 1830s and 1840s. But the vast majority of nobles resisted in part because of their cultural conservatism, but also because of their opposition to bureaucratic interference in the serf-lord relationship.⁷⁰

The Slavophil entrepreneurs were populist reformers but not democrats. They defended property qualifications for voting for the zemstvo boards set up in 1864 against the attacks of their own enfant terrible, Ivan Aksakov. Koshelev unearthed a historical pedigree for property qualification in pre-Petrine Russia and sought to counter Aksakov's moral outrage with the "English notion of convenience," that is, utilitarianism.⁷¹ For Koshelev, a rich vodka tax farmer, economic success was the necessary organizing principle for the electoral category of private landowners; surely, he argued, it did no harm to the commune. Thus, Koshelev unfurled again his double standard for landowners and peasants, while at the same time upholding achievement rather than social status as the basis for political power among the nobility.

Although the Slavophiles traced their social and ideological roots to the countryside, they opposed the Russian free traders whose railroad and tariff policies aimed at developing the agricultural at the expense of the industrial sector by stimulating the production and export of grain.

Pavlov's successor as professor of agriculture at Moscow University and a close associate of the Slavophiles, Ia.A. Linovskii, welcomed the repeal of the Corn Laws in England, but warned against the uncritical and universal acceptance of free trade, "otherwise no agricultural country would ever become industrialized."⁷² In a word, the Slavophiles did not want to settle for the position of "granary of the West." They had nothing against the division of labour, but they sought to apply this theory within Russia and not between Russia and the industrializing nations.⁷³

In addition to supporting the growth of an internal market for Russian agriculture, *Russkaia beseda* stated the case for technical education more strongly than any other journals except those of the professional engineers. They found allies in the Mathematical-Physics Department of Moscow University, where the emphasis on practical training of Russian technicians inaugurated by Pavlov and Linovskii was carried on by A.S. Ershov. It will come as a surprise only to those who associate Slavophiles exclusively with literary, philosophical, and historical interests that their leading journal in the post-Crimean period would print an attack on the tendency of literary figures to extol general education at the expense of training specialists for the construction of railroads, steamships, and processing industries. Alluding briefly to the dilemma of the unemployable intellectual, Ershov pleaded for the establishment of technical secondary schools on the French and German models for those whose talents and temperaments ill suited them for a classical education. Ershov was quick to fit technical education into the Slavophil world view. "Technique is so closely tied to and mutually interactive with science, exerts such an important influence upon the entire range of domestic conditions of life that a more industrialized people will acquire a decisive preponderance over a less industrialized people. Such at least explains the success of Europeans in their struggle with Americans [i.e., Native Americans] and Asiatics. A government should be as concerned with the organization of industrial power as with its military power." Those who command an army of workers should receive the same training, Ershov insisted, as those who command an army of soldiers. These were the reasons, he concluded, that he opposed condemning Russia to the status of an agricultural state. Pointing out that many inventors, including James Watt, were religious men, he scolded those who feared the morally corrupting influence of manufacturing: "To confuse materialism with higher technical education is a crude error."⁷⁴

The final point in the Slavophil's program of economic development touched on money and credit. Koshelev in particular explored the relationship between finance and politics. He sought to alert the public to the opportunities for industrial credit and to warn of the dangers of relying on foreigners to obtain it.⁷⁵ In a letter and lengthy memo addressed to the tsar, "On the Monetary Resources of Russia," Koshelev outlined the points that would become for the following twenty years the stock and trade of the Slavophil and populist position on credit. In his eyes Russia had long since exhausted the normal monetary resources available through internal and foreign loans, paper notes, and voluntary contributions from the population. Consequently, the danger clearly existed that Western Europe intended to humiliate and diminish the Russian Empire by demonstrating that Russia could not fight a war without the benefit of foreign loans. Lacking credit, Koshelev argued, Russia would not be able to tap its great reservoir of natural resources, which, in the absence of railroads, would remain inaccessible. In order to confront the problem he called upon the tsar to restore the link between the people and the government by summoning a version of the old *zemskii sobor*. Appealing to the nation as a whole would generate enough capital to pay interest on a new emission of credit notes. Thus, the government could easily obtain a one hundred million ruble credit for industrial and commercial expansion on a pledge by the representatives of the people to contribute six million rubles to cover the annual 4.5 per cent interest payment and 1.7 per cent amortization of the debt. Invoking the example of England, Koshelev concluded with a plea for an end to secrecy in fiscal affairs and, in ringing Slavophil tones, for a gesture by the tsar of greater trust in his people.⁷⁶

The Slavophiles constituted a loose grouping of intellectuals whose views on economic development and participation in public life were not homogeneous. Nor were they alone in advocating reforming activities in the socio-economic sphere. The informal intellectual networks of the 1830s and 1840s, which provided the linkages among them, were not hermetically sealed, even though the degrees of separation were greater between those in Moscow and those in St Petersburg. Members moved in and out of student circles and contributed to the same journals. Friendships were formed and broken over ideas and ideals. Individual Slavophiles held positions in the government before the Crimean War, such as Iuri Samarin and Ivan Aksakov in the Economic Department of the Ministry of Interior, Vladimir Dal' in the Department of Crown Lands, Odoevskii in the Foreign Ministry, and Maksimovich in

the Ministry of Education. Slavophiles were also prominent among the participants in the Editing Commission that drafted the emancipation statute.⁷⁷ They maintained close ties with some of the official nationalists like Pogodin, and at times the lines between them appeared to blur, but they did not merge. What distinguished the Slavophiles who preached economic development from other enlightened bureaucrats was their unique blend of ideology and social action. Their biogenetic model of change adopted a unified view of organic growth for all branches of the physical and human sciences, endowed entrepreneurs with a new social role, and embraced a popular form of national identity from below rather than dictated from above, although they can hardly be considered nationalists in the modern sense of the term. This is why they sought and celebrated forebears like Pososhkov and Lomonosov. But their search was not always consistent with their dislike of Peter the Great. Samarin, for instance, extolled Feofan Prokopovich mainly as a counterweight to the crypto-Catholicism of Stefan Iavorskii, but also as an early Orthodox proponent of combining scientific and religious values.⁷⁸ Despite their journalism and occasional forays into entrepreneurial ventures, the Slavophiles were only able to realize many of their ideas after the Great Reforms had created new rules and institutions, and broadened the social and cultural space for their economic activities.

Chapter Four

The Moscow Entrepreneurial Group

After the Crimean War Russian politics sounded a new key. The sombre monotony of the late Nicholaen period yielded to the rich polyphony of the era of reform. In the backwash of defeat, interest groups emerged to challenge the traditional alignment of political forces. A product of structural changes from above and a social flux rising from below, these groups sought to influence government policies without undermining the autocratic foundations of the state. At one level, their success can be measured by their effect on the economic policies of the state, which led to the great industrial spurt during the last decade of the nineteenth century.

It was not until the 1980s that these groups began to attract attention from both Soviet and American historians. One reason was that historians of both the Marxist and liberal persuasion tended to conceive of politics as a confrontation between extremes, liberal versus conservative, and capitalist versus feudal. In this classical dualist scheme, there was little room for intermediate groups which did not fit easily into one or the other camp.¹ Another problem was that the evidence for the existence of these groups, especially those which were informal, was elusive and fragmentary. Official publications, the periodical press, and even memoirs either do not mention them at all or else only in the form of tantalizing hints. Finally, it simply seemed unlikely on the face of it that any kind of independent, coordinated, and legal political action was possible in a system dominated by an all-powerful autocrat.²

These three formidable obstacles to a fresh look at Russian politics have long since been cleared away. The dualism of Western political life now appears in the Russian context both abstract and artificial. Access to archives has revealed the hidden, informal links which bound

individuals into an agency for collective political action. Interest groups have been detected in all sorts of authoritarian contexts. It is important to distinguish between bureaucratic interest groups shaped by an ideology and professional role in one of the government departments and more informal interest groups gathering individuals who also share an ideology and social role, but outside the administrative framework of the state and lacking any formal organization. Following up these insights and opportunities, this chapter seeks to reconstruct the ideology and political behaviour of one of the most important of the informal interest groups to coalesce in post-emancipation Russia; we shall call it the Moscow entrepreneurial group.

What is meant here by an interest group is a small number of men (ten to twenty) whose interrelationship is defined by four distinctive features: (1) a common functional role in society; (2) a value system consistent with that role; (3) a political program which reflects but also transcends that role; and (4) a set of formal and informal means of communication, association, and interaction along a broad spectrum of public life. The terms "Moscow" and "entrepreneurial" also require some explanation because they were not used by the members of the group to identify themselves. No few modifiers would do them justice as a group. Yet convenience requires a short definition. Moscow identifies one of their most salient characteristics, their regional base, though Great Russian would serve almost as well. Entrepreneurial defines their socio-economic role as precisely as any single word can; that is, "one who assumes the risk and management of a private business."

The term "Moscow" should be understood in its broadest context.³ The city was the base of the group's operations and the symbolic centre of their ideology. But their business activities spread into the rest of the Central Industrial Region. All along the periphery of the Great Russian heartland, they encountered other regional groups within the empire extending from St Petersburg, the Baltic provinces, and the Kingdom of Poland in the west to the Black Sea ports, the Caucasus, and Central Asia in the south and east. In all these areas, non-Russian merchants and industrialists predominated, relying heavily on foreign trade and investment in order to control the economic life of their regions. By contrast, the capital of the Moscow group flowed from the domestic textile industry and vodka tax farming. Thus, in Russia ethnic identity and economic specialization coincided. In the case of the Moscow group, these elements powerfully re-enforced one another and supplied them with a rationalization and justification of their separateness and their mission.

The term "entrepreneur" has become increasingly charged with metahistorical significance, but it still carries less ideological baggage than "bourgeoisie," which in this context would be highly misleading. Entrepreneur has the added merit of encompassing a wide variety of profit-making activities and is not limited simply to defining either industrial or commercial ventures.⁴ Finally, in Russian history it may serve to distinguish the economic activity of private citizens from that of the state bureaucracy. The Moscow entrepreneurs inherited a long tradition of "merchant Moscow" pitted against "official Petersburg." With the growing role of the Ministries of Finance, War, and Transportation in the economic life of the country, this distinction became even sharper. The Moscow group came to represent the stronghold of the private capitalist against the encroachment of bureaucratic interest groups which sought to maintain their control over the financial, commercial, and industrial life of the empire even as this underwent a transformation in the post-emancipation era.

The reason, then, for singling out the Moscow group for separate study, as distinct from other informal interest groups, lies in their pioneering role as the first political interest group outside the court and the bureaucracy to influence in any significant way the making of policy within the autocracy. In this case, the main focus of their activity was economic, but defined so broadly that it touched upon many other aspects of government operations in the foreign as well as the domestic sphere. In the period from 1856 to 1881, which may be called the first generation in the lifespan of the group, the Moscow entrepreneurs were involved in all the major economic developments, ranging from railroads and tariffs to banking and monetary policies. Inevitably, they were drawn into foreign policy issues which touched upon four major ethno-economic regions within the empire: the Baltic provinces, the Kingdom of Poland, the Caucasus, and Central Asia. To a very large degree, their role in the Russo-Turkish War of 1877–8 reflected these concerns writ large with Pan-Slavic overtones. Similarly, their attempt to publicize their views involved them in controversies over the government's press and censorship policies. Finally, their growing tendency to perceive economic issues in the light of Great Russian national aspirations stimulated them to become a major force in the cultural life of the country. Their achievements were magnified by their ability to hand down a new political tradition to the second generation of their group.⁵

The single most important and complicated problem in dealing with the Moscow entrepreneurial group is to determine its membership.

Like any political group, this one resembled a set of concentric circles moving out from a centre of activists to secondary and tertiary layers of those less involved and less committed. These circles pulsated; that is, they expanded and contracted over time, reflecting the volatile nature of the individual personalities and the specific issues involved. Yet in order to merit the name at all, the group must have displayed a degree of cohesion which can be measured by something more tangible than a historian's conviction that its members belonged together.

The Membership

The criteria for membership in this group have been inferred from a pattern of joint activity in three collective endeavours: (1) participation in a newspaper or journal in the capacity of either an editor, a contributor, or a financial backer; (2) administrative responsibility for or investment in a business enterprise; and (3) involvement in or financial support of a public service organization. Figure 4.1 shows that fourteen men (and their families) constituted the centre, the most active section of the group. Judging by the frequency with which they participated in common causes, they may be subdivided into an inner core of F.V. Chizhov, T.S. Morozov and family, Dmitrii and Aleksandr Shipov and family, I.F. Mamontov and family, and V.A. Kokorev; and a primary layer of I.A. Liamin, K.T. Soldatenkov, I.S. Aksakov, I.K. Babst, A.I. Del'vig, P. N. Tret'iakov and family, and A.I. and G.I. Khludov and family. The fine distinction drawn between the two subgroups is not based solely on a quantitative measurement, as the case of Liamin indicates, but also on a subjective evaluation of the intensity of their involvement.

Beyond them lies a secondary layer of a dozen or so men and their families who merge almost imperceptibly into an outer layer of sixty-odd men who were associated only on occasion with the activists. Even at their maximum size, one hundred, they represented a tiny fraction of the 17,000 merchants officially enrolled in the guilds of Moscow Province at mid-century. In the following analysis, the fourteen activists and their families occupy the centre stage, as befits their leading role in the group.

At first glance, the activists and their families appear to be a curious amalgam. They lack many of the characteristics normally attributed to small groups, that is, common social origins, education, religion, and occupation. For this reason, a study of their relationships must focus on the basic traits for identifying an interest group outlined at the

beginning of this chapter. To begin with their common functional role in society, all the core members, plus Tret'iakov, the Khludovs, Liamin, and Soldatenkov in the primary layer, enjoyed varied and successful entrepreneurial careers in the decade of the 1850s. Many of them founded fortunes before the Crimean War. Del'vig, Babst, and Aksakov became active entrepreneurs only later in the decade of the 1860s. Although of these three only Aksakov came to rely upon these activities as his main source of livelihood, all of them participated in joint enterprises with the group and regarded the Moscow entrepreneurs as the leading element in the economic development of Russia. With few exceptions, the Moscow group accumulated their capital as tax farmers, textile manufacturers, or both. In the first case, they acted as substitutes for state tax collectors in the absence of an efficient and honest provincial bureaucracy. From 1844 to 1856, tax farmers were astonishingly successful in increasing government revenue from the sale of alcohol by over 50 per cent, while other major sources of revenue remained virtually static.⁶ No wonder the vodka tax farmers perceived the location of the private entrepreneur under the protection of the state as the ideal entrepreneurial role, combining large profits with freedom from bureaucratic interference.

In the case of the textile manufacturers, an expanding market protected by tariffs and based on free hired labour before the emancipation put a premium on technological innovation and close cooperation with the government. Under these conditions, the merchant industrialists could compete successfully with the inefficient, labour-intensive, enterprises of the nobility based upon serfdom and with foreign, especially British, imports. Thus, the more enterprising merchants understood the vital connection between new forms of business enterprise and the benevolent attitude of the state bureaucracy.

What distinguished the Moscow group from the rest of the merchants was their willingness to invest profits in joint stock companies in fields outside their manufacturing specialty and to create their own economic infrastructure in the form of banks, railroads, and technical schools. While still attached to some of the traditional social values of the old Moscow merchantry, they began to employ modern business techniques and displayed a willingness to manage other people's money and to take risks with their own in a way which foreshadowed the behaviour of the industrial magnate in Russia at the end of the nineteenth century.

The vital centre of the Moscow group, F.V. Chizhov, got involved in textile manufacturing quite by accident. Born into a cultured but poor

	The Core					
	Chizhov	T. S. Morozov	Dmitri Shipov	Alexander Shipov	I. F. Mamontov family	V. A. Kokorev
Press:						
<i>Vestnik promyshlennosti</i>	•	•	•	•	•	•
<i>Aksioner</i>	•	•	•	•		
<i>Moskva</i>	•	•	•	•		
Pressure groups:						
Moscow Exchange Committee	•	•	•		•	•
Delegate to Merchant Assembly	•	•	•	•		•
Slavic Benevolent Society	•	•	•	•		•
Business Activities:						
Moscow Merchants' Bank	•	•			•	•
Merchants' Mutual Credit Society	•	•	•		•	•
Iaroslavl Railroad Company	•		•	•	•	
Russian company to purchase Nikolaevskii Line	•		•		•	•
Moscow-Kursk Railroad Company	•	•			•	
Tashkent Silk Company	•	•	•		•	
Arkhangelsk-Murmansk Company	•	•			•	
Joint-stock Company for Resettlement in Western Provinces	•	•	•			
Educational and Technical Organizations						
Society for the Diffusion of Technical Knowledge					•	
Society for the Encouragement of Russian Industry and Trade		•				
Total	14	13	10	5	10	7

Figure 4.1 The Moscow entrepreneurial group: first generation. A.J. Rieber, *Merchants and Entrepreneurs in Imperial Russia* (Chapel Hill: University of North Carolina Press, 1982), 154–5.

Primary Layer		Secondary Layer	
A. V. and H. V. Lepeshkin family	•		4
Vishniakov family		•	3
I. I. Chetverikov		•	3
A. I. Koshelev	•	•	4
V. Rukavishnikov		•	5
M. A. Gorbov		•	3
Sukhotin family		•	5
Samarin family	•	•	5
Mallutin family		•	6
P. M. and S. M. Tretakov	•	•	8
Krestovnikov family	•	•	6
A. I. and G. I. Khudov family	•	•	6
A. I. Delvig	•	•	7
I. K. Babst	•	•	7
I. S. Aksakov	•	•	8
K. T. Soldatenkov	•	•	10
I. A. Llamín	•	•	10

noble family in Kostroma, he was educated in the physics-mathematics faculty of St Petersburg University. Like a growing number of déclassé nobles in the 1830s, he chose a professional career as a teacher of higher mathematics. Then his health failed and he was forced to resign. While travelling abroad, he became involved in the Southern Slav movement. Arrested upon his return, imprisoned, and then exiled from the two capitals, he was forced by dire economic necessity to earn a living. Ingeniously, he converted his theoretical interests in science (he had already written a monograph on steam engines) into a practical business venture. In 1849, he leased fifty desiatinas of land near Kiev from the Ministry of State Domains and plunged enthusiastically into silk manufacturing, which he had studied while in Italy. First, he constructed a large factory for making silk cloth, and then he founded a school for training peasants to work on his silk plantation. From the outset, he displayed a real concern over the mental and moral state of the workers under his authority. This paternal interest was to become one of the hallmarks of the Moscow group. He also found time to write a monograph on silk breeding which went through several editions, and he contributed articles on the same subject to national newspapers. Impressed by his zeal and his results, the government supported the expansion of his enterprise with free land and small loans until 1857, when he was pardoned by the new tsar and left for Moscow. There Chizhov became editor of a new journal, *Vestnik Promyshlennosti* (The Messenger of Industry), which was devoted to advancing Russia's industrial interests and was the first joint venture of the Moscow entrepreneurs. In 1856, even before his return to Russia, he had submitted memo (anonymously) to the government urging the creation of a Ministry of Trade and Industry. The new tsar referred it to the Finance Committee, which overwhelmingly rejected the idea.⁷ The decision was an early indication of the opposition of the economists to a separate department for industrial policy outside their competence. A Ministry of Trade and Industry was only instituted in 1905. Acting independently over the next two decades, Chizhov took the lead in organizing the more energetic and far-sighted Moscow merchants in half a dozen major enterprises including the Moscow-Iaroslavl and Moscow-Kursk railroads, the Moscow Merchants' and Mutual Credit Banks, the Archangelsk-Murmansk Company, and the Joint Stock Company for Resettlement in the Western Provinces.⁸

Chizhov's close collaborator and friend, Baron A.I. Del'vig, a railroad engineer and inspector of private railroads from 1858 was not a

wealthy man, but he was infused with the entrepreneurial spirit. He invested his small capital in various ventures of the Moscow group, but his main service to them was as their “inside man” in the chancelleries of St Petersburg, furnishing them with invaluable confidential information on railroad concessions and other industrial ventures. Together with Chizhov, he was one of the first to propose the construction of the privately financed railroad to the Trinity monastery, which represented the most symbolic and financially successful of the railroad concessions granted to the Moscow group. The line was subsequently extended to Iaroslavl, once again with Del’vig’s invaluable assistance in advising and lobbying from within the bureaucratic maze. The Moscow stockholders elected Del’vig the director.⁹ His active lobbying over the concession of the southern line to the Moscow entrepreneurs helped win support from a majority of the Committee of Ministers, only to be rejected by Alexander II on the advice of Reutern. They were more successful, again with Del’vig’s support, in winning a concession to the Moscow – Kursk line.¹⁰ Although Del’vig and Chizhov did not always agree on the feasibility of financing additional lines, Chizhov demonstrated his respect and admiration for his friend by organizing in 1871 the Del’vig school for railroad mechanics in Moscow.¹¹

That the Shipov brothers adopted entrepreneurial roles shows deeper social forces at work. They came from a well-to-do family of service nobles, also from Kostroma, which explains, no doubt, their close friendship with Chizhov. Originally, the sons were destined for military careers. However, an unusually rich and varied home education, supplemented in the case of Aleksandr Pavlovich by a few terms at the Institute of Transportation Engineers, turned them away from the routine of army life in their mature years and towards public service and business enterprise. The oldest brother, Sergei Pavlovich, may be said to have provided a role model for his younger brothers. He spent his youth fighting the French and reading voraciously in the literature of political economy – Baumeister, Storch, Adam Smith, and See. After the Napoleonic Wars he attended the lectures of the noted German-Russian statistician Karl German’ at St Petersburg University. As commander of the crack Semenovskii Guards regiment, he proselytized his enthusiasm for manufacturing by ordering all his soldiers to learn a trade – carpenters, lathe operators, blacksmiths, and shoemakers filled the ranks. After taking over the terribly disorganized Commissariat of the Department of the Army, he ran it like an efficient business enterprise, hired trained statisticians, and introduced new bookkeeping procedures. When he borrowed from the Loan

Bank, he used the money to convert his father's declining estate into a profit-making enterprise – a rare exception among the profligate nobility of his time.¹² By becoming a “secret” vodka tax farmer, he amassed sufficient capital to enable his younger brothers Aleksandr and Dmitrii to establish a machine factory in Kostroma which rapidly became the largest Russian-owned enterprise of its type before the Crimean War. Aleksandr and Dmitrii also invested heavily in the textile industry of Nizhnyi Novgorod Province, and founded one of the earliest and most successful chemical factories owned and operated by Russians.¹³ As the energetic chairman of the Nizhnyi Novgorod Fair Exchange Committee, Aleksandr Shipov led an eleven-year fight to enable the merchants to purchase their own shops, and initiated well-intentioned but abortive literary evenings between merchants and intellectuals interested in the fair and commerce.¹⁴ When Sergei became governor of Kazan he was still on the lookout for new entrepreneurial talent. He took under his protection a young, energetic but rough-hewn merchant from a village in Shipov's home district of Soligalich in Kostroma Province and launched him on one of the most successful tax farming careers in Russian history. This was V.A. Kokorev, the legendary Old Believer millionaire.

The son of a salt merchant of the sect of Shore Dwellers, Kokorev had no formal education, but was endowed with a native shrewdness and a fine oratorical gift. While still a boy, he taught himself to read and write, traded on his own, and in 1843 became an agent for a vodka tax farmer. Drawing on his experiences, he wrote a memorandum on reorganizing the entire tax farming system. This brought him to the attention of Shipov, who helped him obtain a concession in Orel Province where he tested his theories so successfully that his reforms were adopted by the government and incorporated into a law which lasted until the abolition of tax farming in Russia in 1863. His ingenuity in promoting himself while improving the state finances opened the doors of the chancelleries in St Petersburg. Kokorev became an unofficial adviser to the minister of finance, F.P. Vronchenko, and to the president of the Committee of Ministers and chairman of the State Council, Prince A.F. Orlov.¹⁵

Subsequently, these contacts enabled him not only to further his own business ventures but also to present the collective views of the Moscow entrepreneurs to the highest state officials. Having amassed a fortune before the Crimean War, he was quick to take advantage of new economic opportunities following the conclusion of peace. By 1859, he was a founder and major shareholder in the Trans-Caspian Trading

Company, the Black Sea Steamship Company (2000 shares), the Volga-Don Railroad Company (4000 shares), the White Sea Company (500 shares), the Caspian Steamship Company (500 shares) and the Severnyi Company, which was engaged in the southern trade (2800 shares).¹⁶ In order to establish the first important provincial bank in Russia, the Volga-Kama Bank, Kokorev lined up support from his co-religionists in the Old Belief, Morozov, Soldatenkov, and Khludov. Earlier than anyone else in Russia, he recognized the value of oil as a means of cheap illumination. On the advice of the famous German chemist Justus von Liebig, he constructed a factory near Baku designed to distil a kerosene-like substance for lamps. In all these undertakings, Kokorev continued to benefit from his excellent relations with high officials, from whom he obtained concessions, privileges, and, much later when he overextended himself, relief from the threat of bankruptcy.¹⁷

A great admirer of Ivan Aksakov, Kokorev also praised Minister of Finance M.Kh. Reutern for his policies of constructing railroads, expanding internal credit, and managing the redemption of the liberated peasantry. But, quoting a Russian proverb, he noted, "Even the sun has spots." In his memoirs, Kokorev listed fifteen economic shortcomings which, he argued, hampered Russia's economic development. In general, he placed the blame on the liberal economists in the Ministry of Finance, although he did not specifically identify Reutern as their leader. Prominent among these shortcomings was the financing of railroads by foreign loans; high interest paid abroad in hard currency incurred heavy state indebtedness. It was preferable, in his eyes, to obtain investment capital at home by increasing the amount of paper rubles in circulation, which enjoyed the trust of the Russian people. He also deplored the failure to build domestic factories to manufacture rails, locomotives, and rolling stock before the construction of the lines. A second major shortcoming in his view was the abolition of tax farming. He attributed the impoverishment of the provincial nobility and the spread of drunkenness to this measure without mentioning his own losses. He was equally indignant over the imposition of the salt tax, which he considered ruinous for the salt industry. In contrast to the economists, Kokorev had only words of praise for Russian engineers and the work of P.P. Mel'nikov.¹⁸ Although Kokorev moved easily among the Westernized governing elite, he never abandoned his old-fashioned Russian dress and manner, nor his sectarian faith. These loyalties enabled him to provide a crucial link between nobles like Shipov and Chizhov, on the one hand, and merchants of the Old Belief

like himself. Among the latter were his co-sectarians in the Shore Dwellers, the Morozov family.

The founder of the Morozov family, Savva Vasilevich, was a former serf who bought his own and his family's freedom in 1820 with profits made from manufacturing silk cloth, a business which he founded in Moscow following the occupation and fire in 1812. By the time of his death in the 1850s he was the largest employer of workers in the cotton textile industry in Moscow Province. Among his five sons, all of whom founded their own concerns and dynasties, Timofei Savvich established the first Russian textile factory to employ advanced cotton spinning machinery. Like his friend Kokorev, he began to diversify in the post-emancipation period, moving into banking, railroads, and other new fields. He was the only merchant member of the Moscow group and one of the few Russian merchants in general to take part in meetings on technical education sponsored by the Russian Technological Society. All this despite the fact that he could not write correct Russian orthography to the end of his days. Among the many economic and cultural advantages which he secured for himself through his large family were several marriages which linked him to other big merchant families in the Moscow group including the Mamontovs and the Khludovs.¹⁹

When Ivan and Nikolai Mamontov arrived in Moscow, their exploits as vodka tax farmers had already gained them a fortune and won them the admiration of Kokorev. Gradually, Kokorev brought them into his enterprises and introduced them to Pogodin and the literary world around *Moskvitianin*. But the Mamontov family's large-scale investments in railroads and banking did not really begin until the late 1850s and early 1860s when Ivan Fedorovich and his son Savva became close friends with Chizhov and the Shipovs.²⁰

The Khludov family was united with both the Morozovs and the Mamontovs by the marriages of Aleksei Ivanovich's two daughters. Together with his brother Gerasim, Aleksei inherited a commercial company from their father, a former state peasant of the Old Belief who settled in Moscow after the Napoleonic Wars and turned from trading cotton to manufacturing cotton cloth. Through the intermediary of their older brother Savelii, a friend of Ludwig Knoop, they helped to found the Krenholm Plant near Narva, soon to become the largest and technically the most advanced cotton mill in Russia. Later, they established their own factories in Rjazan Province with a steam engine and 7000 spindles. Aleksei Ivanovich enrolled his three sons in good secondary

schools in St Petersburg in order to prepare them for a more active role in expanding his operations overseas. In 1860 he sent one son, Ivan, as his trade representative to Bremen, England, and the United States. As a result of this trip the Khludovs opened an office in Liverpool, a bold and rare initiative for a Russian merchant in those days. All three sons were among the first Russian merchants to visit and trade directly with Central Asia when the American Civil War cut off their supply of cotton from the United States.²¹

Another marital tie linked the Mamontovs to the Tret'iakovs, who were one of the oldest if not one of the wealthiest Moscow merchant families. The Tret'iakov flax manufactures in Moscow Province had a larger number of workers concentrated in factory production, as opposed to the putting-out system, than any other textile firm with the exception of the Morozovs'.²² Among Russian merchants, flax earned a reputation as a national product in contrast to what Kokorev called "American cotton." Despite their business success the Tret'iakovs invested less in other companies than any other members of the Moscow group, due in part to their all-consuming passion for collecting art, which after the 1860s demanded much of their time and money.

Both Soldatenkov and Liamin began their business careers in textiles and shared a keen appreciation of innovative techniques. By the mid-1870s Soldatenkov helped refinance and reorganize two of the largest calico factories in Moscow, the Giubner Company and the Tsindel' Company, the latter in association with Liamin, A.I. Khludov, and Ludwig Knoop.²³ Although the economic interests of the Moscow entrepreneurs defined their functional role, they did not automatically determine their political consciousness.

Many tax farmers and textile manufacturers continued to regard themselves as businessmen concerned solely with making and enjoying profits, while others confined their public role to fulfilling their estate obligations by serving in the town administration. In order to raise the level of social cohesion to the point where a functional role expanded into a political one, it was necessary for them to acquire a strong sense of social responsibility, that is, to perceive a direct connection between the promotion of their private interests and the general welfare. This leads directly to a consideration of the second major characteristic of the group – a set of values which developed autonomously but re-enforced their entrepreneurial role rather than conflicting with it.

The Social Milieu and Cultural Activity

The Moscow entrepreneurial group was an amalgam of three social subgroups, the first two consisting of social deviants flowing into the merchant guilds. One was composed of peasants and all of these except for the Mamontovs were of the Old Belief: Kokorev, the Morozovs, the Khludovs, Soldatenkov. The second subgroup, including Liamin, the Chetverikovs, Krestovnikovs, and and Tret'iakov, represented the mainstream of old merchant families who were partially Europeanized. (These lines become blurred in the secondary level where the more traditional old merchant families predominate, but then that helps to explain their reduced level of activism.) The third group was made up of déclassé nobles: Chizhov, Aksakov, Babst, the Shipovs. More culturally secure, they focused their energies on the politics of economic development, leaving the patronage of the new forms of cultural expression to their merchant colleagues.

The major patrons of the arts came from the first two groups, who sought to overcome their deviant or marginal social status by identifying themselves with the dominant Great Russian cultural traditions. The forebears of the Old Believer peasant entrepreneurs who joined the merchant guilds in mid-century found themselves attached to an estate which was still recovering from the shattering effects of the Napoleonic Wars and the postwar depression. The Russian merchantry seemed to be at the mercy rather than at the heart of economic change. Competitors from the nobility, the peasantry, the ethnic minorities, and the foreign colony hemmed them in geographically and socially. From every stratum of society they were regarded with contempt or disdain. The merchant families who began to adopt a European manner of dress and a veneer of European culture found themselves in a small minority within the merchant estate. To a degree, then, they too were socially marginal. Together representatives of both groups sought to dispel the gloomy image of the benighted merchant estate and replace it with a new social legitimacy. They drew upon the decaying cultural heritages of the pre-Petrine era and infused it with a new spirit of Russian nationalism in order to carry out that transformation.²⁴

The Old Believer communities of Moscow were beginning to break up in the 1840s under the dual pressure of economic expansion and police harassment. The growth of family fortunes and the introduction of the factory system undermined the egalitarian and communal character of their productive system. At the same time, the government

persecuted the “pernicious” sects which rejected the social institutions of the clergy, marriage, personal property, and inheritance and forced them to convert to more moderate sects of the Old Belief.²⁵ In the face of these secularizing pressures, many Old Believer merchants who came out of the peasantry transferred their ethical norms from the decaying religious communities to the Great Russian people. (In the case of Kozma Terent’evich Soldatenkov a French mistress helped ease the strain.)

This transition found its most dramatic expression in the lavish patronage of Russian national culture. The foundations of the great collections of the Russian merchants were laid in the 1840s and 1850s. They served not only as sound investments but also as a symbol of social respectability. It was a short step from collecting to subsidizing artists, architects, writers, and musicians. This led in turn to supporting a wide range of artistic and intellectual endeavours of which only the most spectacular, such as the founding of the Moscow Art Theater by the Morozovs and Mamontovs or of the Tret’iakov Gallery by the Tret’iakov brothers, are generally known.

As early as the 1840s K.T. Soldatenkov began to assemble his legendary collection of paintings. His most active period of buying followed a trip he made to Italy in 1872 accompanied by his favourite Russian painter, A.A. Ivanov, whom he commissioned to acquire the most outstanding example of national art. “My desire,” he wrote at the time, “is to build a collection of only Russian artists.” By this time Soldatenkov was already a member of the council of the Moscow School of Painting and Architecture, which as the centre of the realist movement trained and supported a generation of Russian painters. His country estate at Kuntsevo had long been a centre for intellectuals who shared his deep interest in uncovering the many layers of Old Russian culture, including the historian I.E. Zabelin, the lithographer A.A. Kozlov, N.Ch. Ketcher, the translator of Shakespeare whose work Soldatenkov published, and members of the famous family of merchant-collectors, the Shchukins.²⁶ Soldatenkov took up publishing historical documents and monographs which lacked a commercial market in a public-spirited effort to preserve and spread the popular, nationalist elements in Russian culture. When, for example, the Imperial Russian Library needed funds to bring out critical editions of rare books and original manuscripts of the pre-Petrine era, Soldatenkov helped to defray the cost. He founded his own publishing house, and with the assistance of his friends, M.S. Shchepkin, the famous actor, and his son, N.M. Shchepkin, the editor, he made available to the public large, inexpensive editions of the Russian

romantic poets N.P. Ogarev (1856), A.I. Poldav (1857), and the forerunner of the narodnik realists, A.V. Koltsov (1856). These were followed by two important collections of folklore edited by one of the leading ethnographers of the time, A.N. Afanasev, *Narodnye russkie legendy* (Popular Russian Legends, 1859) and *Narodnye skazki* (Popular Fairy Tales, 1858–9). In 1858 he published the popular eyewitness account “Zapiski ob osade Sevastopolia” (Notes on the Siege of Sevastopol) by N.V. Berg, one of the “young editors” of Pogodin’s Slavophil journal *Moskovitianin*.²⁷ In characteristically Romantic fashion, all of these works glorified the rich and heroic traditions of the common people of Russia.

In similar fashion, T.S. Morozov was drawn into the secular culture of Moscow through his patronage of the arts and publishing. Having assured his children of an excellent education, which he lacked, he supported their enthusiasm for Russian culture even though it carried them away from the family business. One daughter, Anna, became the wife of the historian G.F. Karpov, whose work on seventeenth-century Russia emphasized the religio-moral strength of the people as the crucial element in the drive for unification of the Eastern Slavs. Morozov joined his son-in-law in managing a publishing house which printed numerous works in Russian history. Following Karpov’s death Anna Timofeevna became a patroness of the Moscow Society of History and Antiquities. One of Morozov’s sons, Sergei, married into the nobility (the sister of A.V. Krivoshein, later deputy minister of finance), but remained true to the old Russian traditions. He founded the Museum of Handicrafts in Moscow and, in general, tried to stimulate the traditional crafts in the face of the very industrial progress his father helped unleash. Morozov’s most famous son, Savva, was the great patron of the Moscow Art Theatre, the friend of Stanislavskii and Nemirovich-Danchenko.²⁸

The cultural activities of A.I. Khludov represent the most radical shift in allegiance from the Old Believer community to the cult of the Russian people. Already known in the 1860s as a collector of old Russian books and manuscripts, Khludov abjured his faith, embraced Orthodoxy, and together with his close friend N.I. Subbotin, professor of the Moscow Ecclesiastical Academy, formed in 1872 a Brotherhood of the Metropolitan St Peter, dedicated to combat the schismatics. Khludov became treasurer of the organization, covered its deficits out of his own pocket for ten years, played host to its meetings in his house, and purchased a large, valuable collection of seventeenth-century polemical works on the Old Believers in order to support Subbotin’s research and publication on the schism. Moreover, the important collection of books

on the early history of the Czechs in his library, which was described by Kolar, testifies to his interest in the Slavic movement. He bought his large Serbian collection from the well-known Pan Slav, A.F. Gilferding. Although he lacked any formal schooling Khludov gave his daughters an excellent European-type education which enabled them to play important roles of their own as patronesses of the arts.²⁹

Although the Old Believer collectors set the tone for the other merchants in the group, P.N. Tret'iakov and Savva Mamontov soon eclipsed their mentors in the size and scale of their patronage. The founder of the largest private picture gallery of national art in Russia, P.N. Tret'iakov began collecting paintings of the Flemish school in imitation of the Hermitage. Within a few years, however, according to the great critic of the realist school, V.V. Stasov, the collections of Soldatenkov, Khludov, and Kokorev "could not help but influence" Tret'iakov to shift his attention to Russian painters. His house in Moscow became a haven for them, especially for N.V. Nevrev, who pioneered a realistic portrayal of Russian peasant life. By the time Tret'iakov wrote his first will in 1860, he was determined to construct a national gallery for Russian art. Over the next thirty years, he, Soldatenkov, and Savva Mamontov liberally supported the *Peredvizhniki* (Wanderers) and helped them to become the dominant group in the Russian art world. His friendship with the Mamontov family, based on common business and artistic interests, was consolidated by his marriage to Savva Ivanovich's sister, Vera, who was perfectly suited by temperament and education to preside over the expanding artistic and musical salon of the Tret'iakov house.³⁰ One daughter of their union, Vera Pavlovna, married the famous Russian pianist-pedagogue Alexander Siloti and left a vivid memoir of the Tret'iakov family's patronage of musicians. Pavel Tret'iakov's less well-known brother, Sergei, was a generous patron of Russian national music, a founder and strong supporter of the Imperial Russian Musical Society. He was also a backer of Anton and Nikolai Rubinshtein, the founders, respectively, of the St Petersburg and Moscow conservatories and themselves scions of merchant families.³¹

When in 1870 Mamontov acquired the old Aksakov estate of Abramtsevo and turned it into Russia's most famous artists' colony, he performed, consciously or not, one of the great symbolic acts in the development of the Russian national movement. The manor house where Gogol read aloud "Dead Souls" and the Slavophiles gathered now sheltered the new artistic and musical life of the *Peredvizhniki* and the Private Opera of Fedor Shaliapin. Combining matchless taste and generous spending,

Mamontov deserves more credit than anyone else for restoring Moscow as the cultural centre of Russia in the last quarter of the nineteenth century. In the arts as in business he championed private initiative against the bureaucratic domination of the Petersburg court and the Academy of Fine Arts. He perceived a vital spiritual connection between the industrial and the artistic life of Russia. Upon the completion of the Donets railroad, which he and the Shipovs financed, he commissioned V.M. Vasnetsov, then a young and virtually unknown artist, to decorate the main station with a triptych symbolizing through the imagery of Russian fairy tales the marriage of technology and popular national traditions.³²

A.I. Mamontov is less well known as a patron than his brother, but his support of the architect V.A. Gartman helped accomplish for architecture what Savva Ivanovich achieved for painting. Gartman (or Hartman) is famous in the West as the author of the paintings which inspired Musorgskii to compose "Pictures at an Exhibition." But he was also and primarily a leading representative of the movement in architecture to revive the old Russian style by means of applying ornamental devices borrowed from Russian handicrafts to the decoration of buildings. He designed A.I. Mamontov's dacha, his printing house, and the wooden National Theatre in Moscow, which was much altered in its final form. On the advice of Tret'iakov, Savva Mamontov bought several of Gartman's models and donated them to the Museum of the Academy of Artists.³³ When Gartman planned the military wing of the Moscow Polytechnic Museum in ornate "pseudo-Russian" style, he was expressing much the same aspiration as Vasnetsov to fuse Russian folk traditions and modern technology.

Thus, the merchant wing of the Moscow entrepreneurs asserted their fundamental belief in the superiority of the spontaneous, popular, private, and national against the bureaucratic, aristocratic, and foreign elements in Russian life. They claimed to place industry at the service of culture, and where possible, culture at the service of industry. By showing the mutual dependence of economic development and national consciousness, they provided, at least from their point of view, an alternative to obscurantism and backwardness, on the one hand, and crass materialism and foreign domination, on the other hand.

The Slavic Equation

The intellectuals from the nobility in the Moscow group took a different path to arrive at the same conclusion that the ethical values of the Russian

people could be achieved through the development of the country's economic resources. In the case of Chizhov, the Shipovs, Del'vig, and Ivan Aksakov, direct exposure to the Slavic liberation movement rather than pre-Petrine Russian culture provided both the impetus and the justification for their entrepreneurial activities. Above all it inspired them to seek practical ways for Russia to escape the political and economic domination imposed by the Germans and the Austrians on the West and South Slavs and to rescue their enslaved brethren in the Balkans from the Turkish yoke.

Chizhov's interest in the Slavic lands was first kindled in 1843 during his travels in Istria, Dalmatia, and Montenegro. There, he later confessed, the popular enthusiasm for him as "a Russian brother" converted him to Slavophilism. In the next few years he supplied religious books and objects for worship to Dalmatian Slavs, travelled widely in the Balkans and Central Europe, and met many spokesmen for the Slavic cause from Hanka, Kollár, and Šafarik in Prague to Mickiewicz in Paris and Ljudevit Gaj in Croatia. In Italy he met Gogol' and was enchanted by the Russian painters there, especially A.A. Ivanov, who later became the favourite and the artistic adviser of Soldatenkov. Returning home Chizhov eagerly joined the Slavophil circle and wrote extensively in their thick journals *Russkaia beseda* (Russian Conversation) and *Moskovskii sbornik* (Moscow Magazine).³⁴ As editor and publicist his credo was a popular national industrialism with Pan-Slavic overtones. "Political economy, trade and industry," he confided to his diary, opened "the real path to uplift the lower strata of the people. In these fields, according to my views, the merchants ought to step forth into public life, for the merchants are chosen from the people. The merchants are the primary basis of our historical life, that is, they are strictly Great Russian."³⁵ Among the many industrial enterprises Chizhov championed, none took precedence over the great southern railroad linking Moscow to the Black Sea. Although he and the Moscow group lacked the capital to launch the venture, he repeatedly proclaimed in the press its strategic and political importance in preventing a repetition of the Crimean War and strengthening Russia's position in the Balkans. Throughout his life he strove in vain to interest the mass of the Moscow merchants in commercial ventures which would tie them to the future development of the Balkan Slavs and weaken the influence of the Catholic Poles. No one else in the Moscow group was as single-minded in his efforts to defend the economic heartland of Russia – the Central Industrial Region – from the penetration of foreigners and ethnic minorities.³⁶

Among the Shipovs, Sergei Pavlovich once again provided the model for his family's attitudes on the Slavic problem. During the Russo-Turkish War of 1828 he became deeply committed to the idea of the liberation of the Orthodox population from Turkish control. Also a veteran of the Polish revolt in 18312 and director of the government commission on internal, spiritual, and educational affairs in the Kingdom of Poland in 1837, he strove to assimilate the Poles through a policy of enlightened Russification.³⁷ His ideas were warmly endorsed by his younger brothers, who joined Chizhov and Aksakov in helping to found the Moscow Slavic Benevolent Committee in 1867 and subsidizing the Slavic benevolent committees that branched out. In the wake of Prussia's victory over France in 1871, additional members of the group, including Kokorev, Morozov, Soldatenkov, and Tret'iakov, began to join in hopes that a wave of heightened patriotism might encourage the government to promote more nationalist economic policies.³⁸ The Moscow group was in advance of the merchant *soslovie* in extending financial and moral support to the South Slav uprising against the Ottoman Empire. They also offered free transportation for Russian volunteers on their Moscow – Kursk line. In a dramatic and unprecedented initiative, Aksakov, Tret'iakov, and Morozov formed a committee of three to meet with War Minister Dmitri Miliutin to work out "a plan of action for arming the Bulgarians."³⁹

The enfant terrible of the Pan-Slav movement, Ivan Aksakov, made his first journey to the Slavic areas of Europe only in 1859, when he carried with him Khomiakov's "Address to the Serbs." But by then his association with the Slavic cause already had a long history. In 1849, much like Chizhov, he had been arrested for harbouring subversive thoughts about the liberation of the Slavs.⁴⁰ Historians have rightly emphasized that he was primarily interested in a political solution by political means. But it should be added that ever since his work on the Ukrainian markets, he appreciated the need for commerce and industry to supplement the military power of the empire and a strong voice in the popular press. Without the direct financial support of the merchants in the Moscow group he could never have published his Pan-Slav message in the pages of *Den* (Day) and *Moskva*. Although he had greater reservations about becoming a businessman than other noble members of the group, Aksakov turned his directorship of the Moscow Merchants' Mutual Credit Society into powerful political capital. During the Eastern crisis of 1875–8 the main office of the bank under his initiative became the centre for fundraising and recruiting volunteers for the struggle in the Balkans against the Turks.⁴¹

For Kokorev, preaching economic nationalism was only a step to endorsing Russia's mission as the liberator of the Slavs, the promotion of Slavic under Russia's benevolent aegis, and imperial expansion in the Caucasus and Central Asia. Kokorev deplored the failure of Alexander II to adopt the recommendation of Field Marshal Bariatinskii on the Eastern Question. The fruitless sacrifice of the Russo-Turkish war could have been avoided, he argued, if ten years earlier Russia had joined Prussia against the Habsburg monarchy in the war of 1866. Reversing the error of 1848, this would have created an independent Hungary and partitioned the rest of the monarchy between the German provinces going to Prussia and the Slavic lands passing under the protection of Russia.⁴²

Baron Del'vig shared many of the views of the Pan-Slavs despite the fact that he was born into a Lutheran, Baltic noble family, trained as an engineer, and employed in the ministerial bureaucracy. Here was a case of a convert to Orthodoxy who readily perceived Russia's attraction for the Western Slavs. During his army service in the Hungarian campaign of 1849, he was deeply moved by the warm reception which the Slovaks gave to their Russian "brothers." Subsequently, through his friendship with the Shipovs and his participation in Chaadaev's Moscow circle in 1852 he met several Slavophiles, including Ivan Aksakov, and became very close to Chizhov.⁴³ Disappointed with the professional performance of his colleagues in the Ministry of Transportation, Del'vig was equally opposed to the influx of French engineers to build the first Russian railroad network.

Babst also came from the Baltic nobility, and his conversion to Slavophilism owed much to the same sources as Del'vig's. Having received an excellent early education from his father, a graduate of Göttingen, he went on to study at Riga gymnasium and Moscow University, where he concentrated on literature and history. Babst formulated his views on political economy under the influence of a leading figure in the German historical school, Wilhelm Roscher, whose work he translated into Russian. Intellectually he was already disposed to accept the Slavophil interpretation that economic development reflected the peculiarities of a country's geography, history, and culture. Yet, as late as 1857 he still believed that these very factors dictated an economic policy based upon large-scale export of agricultural produce and foreign loans. Called to Moscow University from Kazan, he soon became a frequent visitor at Pogodin's and the Slavophil salons. Chizhov invited him to co-edit *Vestnik promyshlennosti*, and his Slavophil friends elected him to the Society of

the Lovers of Russian Literature. Gradually, Babst's economic views changed and by the mid-1860s he was a determined defender of the Moscow merchants' industrial program, including high protective tariffs. His unique position as tutor to two successive heirs to the throne, Nikolai and Aleksandr Aleksandrovich, enabled him to propagate the ideas of the Moscow group at the highest level of government.⁴⁴

The Slavic liberation movement, as an almost natural extension of Slavophilism, also touched the lives of some merchant members of the group. The Mamontov family had its interest in Pan-Slavism kindled by Pogodin. In 1841 he sent his son, armed with a letter of introduction, to accompany Ivan and Nikolai Mamontov on a visit to the famous Czech Pan-Slav, Šafarik, in Prague. When Pogodin himself followed, the Austrian police interpreted the trips, which may have been innocent enough to begin with, as an international plot. They came to regard poor Šafarik as "the leader of the Russo-Slovene party" which aimed at breaking up the Habsburg monarchy.⁴⁵

The Mamontovs quickly learned that cultural ties with the Slavic peoples were political dynamite. Given their practical turn of mind, they, like the rest of the Moscow entrepreneurial group, perceived that the success of Russia's mission as a leader of the Slavs would depend as much upon national economic power as on cultural ties. The question was whether the government could be persuaded to accept this view.

Attitudes towards Secular Authority

In general, the attitude of the Moscow entrepreneurial group towards secular authority was ambivalent. This is not surprising in light of the potential conflict between their patriotism and their dislike of the Petersburg bureaucracy. Most of them had suffered indignities at the hands of officials. Old Believers and sectarians such as Kokorev and Soldatenkov were frequently under police surveillance, while others such as Chizhov and Aksakov had been arrested before the Crimean War for their excessive zeal towards the Slavic cause. Members of the group figured prominently in the famous list of subversives compiled by Governor General Zakrevskii in his report to the head of the Third Section, V.A. Dolgorukov. Of the twenty-eight names, eleven were either members of the group, like Kokorev, Babst, I.F. Mamontov, Ivan Aksakov, and Soldatenkov, or their "agents" and clients, like P.S. Stepanov, N.F. Pavlov, M.S. Shchepkin, N.M. Shchepkin, N.Kh. Ketcher, and Osip Ger.⁴⁶ In the Shipov family, Sergei narrowly escaped a brush

with the law because he was a member of the Union of Welfare in the 1820s. His nephew, Aleksandr Pavlovich's son, was not so lucky. In 1862 he was arrested and imprisoned for revolutionary activity. Because the Shipovs, like all members of the Moscow group, considered themselves loyal subjects, the government's arbitrariness and unfounded suspicions irritated them all the more. "I am personally known from my articles and brochures," wrote Aleksandr Shipov to the head of the Third Section in defence of his son, "as a man who follows the movement of progress as initiated by the government, but with a possibly conservative direction, and I could not lead my children into subversion."⁴⁷

Not only was the government arbitrary in their eyes, but it was lax in protecting the interests of the people. The "stupidity," "conceit," and "ignorance" of "the army of pen-pushers," as Chizhov contemptuously called the bureaucrats, blocked any movement towards the improvement of Russian industry.⁴⁸ "What we need are [political] tactics," wrote Dmitrii Shipov to Chizhov, "and we must take action skilfully against our internal enemies who are almost as bad as the external ones."⁴⁹ The actions taken make it clear that the internal enemies were bureaucrats, especially those associated with the Ministry of Finance who tied economic development to cooperation with foreigners, ethnic minorities in the empire, Baltic Germans, Jews, Poles, Greeks, and Armenians.

Despite their dislike of bureaucrats, the Moscow group was firmly opposed to any form of political opposition to autocracy. Sergei Shipov refused to join the Decembrists and Chizhov condemned them.⁵⁰ Aksakov at his most ecstatic never challenged basic institutions of government. Merchants like Khludov, Liamin, Morozov, Mamontov, Tret'iakov, and Soldatenkov served faithfully in the town government in Moscow. Even they hesitated to rally behind the more radical Pan-Slav petitions of their noble contemporaries like Prince Cherkasskii, Samarin, and Aksakov himself.⁵¹ At most they favoured a form of decentralization best expressed in the words of Sergei Shipov: "For the successful development of the productive forces of the people, its wealth and well-being and even the power of the state itself, [it is desirable] to create governing institutions in such a way so that each region would have its administrative autonomy and would live its own life." Lest this be misinterpreted as a signal for ethnic diversity, Shipov quickly added that the ties to the centre would be guaranteed by an all-Russian army including recruits from all tribes and regions, an administrative elite of merit appointed from the centre, the active diffusion of "the general spirit of nationality" [*narodnost'*], and government assistance in the industrial development of the entire empire.⁵²

In their quest for a new identity, the members of the Moscow Entrepreneurial Group sought to endow their economic activities with a moral and political purpose which would enhance their own worth without alienating them from the state. In other words, they strove to shape a new form of social space in an authoritarian state. In order to succeed in their ultimate aims, however, they needed to accomplish more than this; they had to exercise their social autonomy in the political arena. The questions were, then, How to influence the government without challenging it? How to court power without submitting to it? The answers lay in their ability to define a broadly based political program and then to get the government to carry it out. This required them to enter the public sphere by subsidizing newspapers, lobbying vigorously in the corridors of power, forging alliances with the engineers when feasible, and engaging in political struggle with the economists over the course of Russia's economic development throughout the rest of the imperial period.

Chapter Five

The Engineers

A second model for economic growth in Russia emerged from the ideas and practices of a group of engineers who sought to fashion for themselves a new social role that combined specialized knowledge with a vision of society transformed by technology. They represented what Robert Merton has called an alternative to the engineer as auxiliary who plays a passive role in society by transferring a narrow technical attitude towards solving problems to the general area of social change.¹ The appointment in 1862 of P.P. Mel'nikov as the first professionally trained engineer to occupy the post of minister of transportation symbolized the coming of age of this group of engineers. This was the climax of a long process of professional formation. In some ways, it was a fulfilment of the Petrine tradition. But the transfer of technology and technical specialists from the West had a different foreign source than in Peter's time and carried with it a different ideology.² The closest parallel with the Russian experience is provided by the French. The rise of the Russian engineering profession, like that of the French, diverges sharply from the Anglo-American tradition of autonomous, technically trained specialists operating in the economic milieu of market capitalism. Rather, it takes its ethical and organizational inspiration from the belief that the professions offer a way of life morally superior to the marketplace. Implicit in this view is a determined effort to control the untrammelled effects of competition rather than an absolute opposition to capitalism.³ The similarity of the engineering professions in France and Russia does not simply reflect the similarity in bureaucratic structures of two highly centralized unitary state systems. Beyond this, a close organic connection was established in the early nineteenth century between French engineers of the *grandes écoles* and the first generation of Russian professional

engineers, of whom P.P. Mel'nikov was one of the outstanding representatives. Before that the Russian state had struggled unsuccessfully to create a cadre of civil engineers that could carry out the grandiose designs for public works first planned and initiated by Peter the Great.

The Reforms of Paul I

The revival of Russian engineering in the late eighteenth and early nineteenth centuries owes much to the irascible Paul I, who was determined to reverse his mother's economic policies by shifting emphasis back to direct intervention of the state in constructing public works, managing industry, and training specialists for state bureaucratic agencies reorganized along functional lines. Too often dismissed by the older literature as an erratic and confused if not clinically insane man, he has been to a large extent rehabilitated as an important figure in the development of a rational-bureaucratic state. His role in the field of engineering bears out the revisionist view.⁴ His main achievements, expanded and refined under his sons, Alexander I and Nicholas I, were to reconfirm the leading role of engineering in stimulating economic growth, to separate military and civil engineering, and to place engineering education on a level comparable to that of the best West European engineering academies.

One of Paul's early decrees established a separate department of waterways under the energetic Count E.A. Sivvers, a Baltic noble who had served under Catherine as governor general of Novgorod and director of waterways of the St Petersburg, Novgorod, and Tver provinces. The most prominent positions in his department were still occupied by foreigners, including some who became leading figures in the early decades of the nineteenth century when a real corporate sense finally took shape among engineers. They included Count Peter Kornil'evich van Sukhtelen, a Dutchman who later served as inspector of the Engineering Department, Franz-Pavel Devolant (Sainte-de-Wollant), M.P. de Vitte, and others. Decades of training Russian engineers had not produced a cadre of engineer-administrators capable of running a specialized section of the department. Under this foreign leadership, a great decade of canal building followed.

Paul reversed his mother Catherine's development policies for the south and reoriented them towards the Baltic. In collaboration with Sievers, whom he called out of retirement, he authorized in 1798 the construction of five canals and planned a sixth, the great Tikhvin,

providing a short link between the Volga and Lake Ladoga. By the end of the decade, Russia had been provided with the most extensive inland networks of waterways in the world.⁵

At the same time, Paul re-established the Mining College and appointed one of the few distinguished Russian engineers, M.F. Soimonov, director and head of the Mining School. A great figure in the history of Russian mining and the son of the famous navigator who had graduated from Peter's Navigation School, Soimonov led the first scientific expedition since the time of Peter I organized at government expense to prospect for minerals. Politically, Soimonov was a champion of state interests in the mining industry. Outraged by the irresponsibility of private owners in running the mines and their cruel exploitation of the labour force, he battled the Commerce College for regulation of the industry. The intradepartmental struggle foreshadowed the industrialization debates of the nineteenth century. The key question was to what extent would the state engineers have control over the administration and production of the major industrial enterprises in Russia? Soimonov's proto-industrial policy also extended into new fields. Thanks to his good sense in pursuing discoveries made in his father's time, he opened the first important iron smelting factory in what was to become the great industrial region of the Ukraine at the town of Lugansk in Ekaterinoslav province. Although managed at first by a foreigner (the Scottish industrialist Gascoyne), and operating at a loss, the factory stimulated interest in the vast coal deposits of south Russia and slowly became the nucleus of the great armaments industry in the area that played a key role in the defence of Sevastopol half a century later.⁶

Paul's reign also marked the first effective revival of Peter's interest in technical education. Initiatives taken by the tsar created or revitalized institutions that provided the badly needed cadres of Russian engineers over the following half-century. Soimonov reorganized the languishing Mining School (renamed Institute), improved the technical curriculum, upgraded the quality of the school's technical publications, and sent abroad promising students to complete their studies. Paul intended to create a similar higher school to train engineers in transportation, but these plans were only carried out as part of a general educational reform under Alexander I.⁷

Paul's complementary policy of rationalizing officers' preparatory schools, of which military engineering was an integral part, was interrupted by his assassination and only carried out piecemeal by his two sons, Alexander and Nicholas Pavlovich, within a decade after his death.

Paul virtually eliminated the differences among the three branches of the army by transforming the Artillery and Engineering Corps into the Second Cadet Corps, which within a few years was given an equal ranking with the First (Infantry) Cadet Corps. The change began the process of de-emphasizing specialized training in the corps, where it had never been particularly effective in producing engineers for the army. The next logical step towards creating a completely separate set of educational institutions for military and civil engineering was taken early in Alexander I's reign. Under van Sukhtelen's leadership an engineering school was established in order to train *konduktery* (from the French *conducteurs*, meaning assistants to engineers). The first class consisted of twenty-five non-commissioned officers who served as regimental draughtsmen; they were not, it may be safely assumed, recruited from the nobility. Officer classes were then added to bolster the school's status, and it gradually assumed the burden of training professional cadres of military engineers. But the Napoleonic Wars with their omnivorous appetite for field officers and funds crippled the school even though the struggle to obtain adequate support was led by no less a figure than the grand duke, Nicholas Pavlovich.

The future Nicholas I played an essential if occasionally ambiguous role in the creation of Russia's major institutions of military and civil engineering. Nicholas was the only Russian ruler to be trained as an engineer. His elder brother, Tsar Alexander, personally selected as his tutor the German military engineer K.I. Opperman, and insisted that Nicholas receive practical as well as theoretical instruction. Nicholas's lifelong interest in technical education and the construction of large public works, fortresses, and transport facilities dates from these lessons.⁸ Appointed inspector-general of engineers in 1818, Nicholas Pavlovich promoted the professionalization of engineers in the military, mining, and transport fields by recommending the appointment of well-trained officials to key administrative posts, supporting the establishment of professional journals, and creating and improving specialized engineering schools.

With Nicholas's unflagging support, the engineering school established by van Sukhtelen was finally transformed in 1810 into the Main Engineering School; it was a landmark in the creation of a separate corps of military engineers. The school continued to flourish under the patronage of the grand duke. From the outset it was run by foreign-trained Russian citizens and experienced foreign engineers like Count K.E. Sivers and Baron Friedrich von Elsner who recruited first-rate

instructors from France and the German states and, later, outstanding graduates from Russian universities like a leading figure among the Moscow entrepreneurs, Fedor Chizhov.

The school's high reputation also owed much to the outcome of an early controversy over the role of higher mathematics in the curriculum. A persistent problem in the establishment of middle and higher technical schools in Russia throughout the nineteenth century was the poor preparation of incoming students. The nobles were educated at home for the most part, and there was no sound elementary educational system for the general population. In the case of the Main Engineering School, the first director, Sivers, was convinced that without training in higher mathematics the institution would become nothing more than a trade school. The French instructors backed him up. Elsner and the older generation of foreign engineers, including Opperman, favoured a more narrowly technical curriculum in math and sciences, aimed at the practical needs of engineers in order to allow greater time for general subjects. In this case Sivers won.⁹ But the controversy between more theoretical and more practical training reappeared in different guises throughout the long history of Russia's educational reform down to the end of tsarist period and well into the new Soviet era.

Reforms of Alexander I

Alexander's reforms in the two other major fields of technical education, mining and transportation, also continued and enlarged Paul's initiatives. Alexander displayed a keen interest in technical matters when he was still the heir. Despite his father's ban on the importation of foreign books, he subsidized a translation of Victor Cousin's work on differential and integral calculus. As tsar he abolished the restrictions on foreign literature, permitted the establishment of private printing presses, and in 1804 authorized the Academy of Sciences to publish an annual that, under the title *Tekhnologicheskii zhurnal*, became Russia's first technological quarterly.¹⁰

But the establishment of several higher technical schools under Alexander was part of a general educational reform that introduced a fateful division in Russian higher education with paradoxical results. The reforms improved the quality of instruction and broadened the range of educational choices. But legislation delayed the formation of a cadre of engineers enjoying the social status and rank that would enable them to play a major role in the competitive bureaucracy. Alexander I

committed himself at the outset of his reign to the idea of an orderly system of government, organized along functional lines, an administration free from arbitrary and capricious acts. His unofficial committee attempted to give more precise form to these ideas, but in the field of education, as in other areas, his young collaborators found it easier to celebrate the triumphs of order and rationality than to embody them in concrete proposals. Educated abroad, and lacking first-hand knowledge of Russian institutions, they resorted to imitating educational models from Western Europe. The question remained, which model?

Even under strong rulers like Peter and Catherine, the eclectic borrowing of ideas and institutions from different European states created difficulties in adapting and integrating them into Russian society. Under Alexander I, problems of cultural integration multiplied. The eighteenth century had witnessed a proliferation of national models of education. In each country schools represented the institutional expression of cultural differences in an age of state building. The Russian elite, more cosmopolitan than any in Europe, was also more culturally heterogeneous. The top officials had been educated privately at home and abroad by Germans, French, English, Dutch, and Swedish teachers. They agreed on the need for enlightened policies, but which enlightenment was to be their guide? The question was particularly acute in education, where the state confronted a virtual *tabula rasa*. In the absence of alternative sources of funding and institutional authority and initiative, the government had an opportunity to set its mark once and for all upon the entire educational system that was intended above all to produce generations of future state servitors.

As in other areas of institutional reform in Russia, the main choices were among the French or Napoleonic, the German *polizeistaat*, and the aristocratic ideal of the English nobility. In the debate over higher education, Count Paul Stroganov, who had received his university training in Geneva and Paris, endorsed the Napoleonic model, a centralized pyramidal hierarchy crowned by the *grandes écoles*, a series of prestigious technical higher schools designed to train specialists in all fields of engineering and administration. Even under the *ancien régime*, French technical education, which was the best in Europe, had been centred on the *École des mines* and the *École des ponts et chaussées*, the first organized school of civil engineering in the world.¹¹

Stroganov's vision of imitating the French experience encountered strong opposition from the minister of public education, Count V.P. Zavadovskii, an anglophile aristocrat who shared the contempt of the

Russian nobility for technical education. In his view, the purpose of higher education was to prepare the nobility to become the governing elite through a general education rather than cram them with technical detail best suited for professional roles in a rigid bureaucratic hierarchy. Zavadovskii preferred the creation of an autonomous university system on the English and German models.¹² Both proposals sought to create an alternative to the largely military education in the Cadet Corps that had provided the bulk of administrative and technical personnel for the Russian government over the previous century. Yet neither of them was so bold as to propose the limitation or elimination of those long-standing military schools for the noble elite. As a result of the educational reorganization over the following seven years, no fewer than three different forms of higher education emerged to compete for the small number of educated Russians, still mainly nobles, for careers in the upper ranks of the civil and military service. They were the military, mining, and engineering schools.

The consolidation and professionalization of the military schools, begun under Paul I, continued under Alexander with the transformation of the prestigious Imperial Corps of Pages. Founded in 1759 as an elite finishing school for sons of the nobility, it was originally intended to supply well-mannered and high-born young retainers to the court. The level of instruction was uniformly low in all subjects, though there was a scattering of excellent teachers, usually Russian seminary graduates who had studied abroad. Most of the instruction was carried on in small self-taught groups of three or four. Few students remained beyond two years, just long enough to pass exams and acquire the high gloss of a European-style courtier. For nobles, the main attraction of the corps and source of its prestige was the hot-house atmosphere of Western European civilization and culture. Under Alexander I, it became a military school, which increased its appeal to the nobility. Guarding its reputation as a cultural oasis, it provided practical training in military subjects that enabled its graduates to move rapidly up the service ladder into high positions in the state administration. Throughout the first half of the nineteenth century, individuals with military service took precedence over civilians in the service hierarchy. According to the conventional wisdom, it was worth more to be a Chevalier of St George than a governor. As in the case of other institutions of higher learning in Russia, the Page Corps struggled to raise its standards and impose strict academic discipline on the smug and lackadaisical children of nobles. By the 1830s, it became a real pioneer in military education; memoirists

of the 1840s give it credit for a solid education though still not of the university level.¹³

When Nicholas I resolved to undertake a fundamental reorganization of the Mining Department and transform the Mining Institute into a corps of mining engineers, he appointed a graduate of the Corps of Pages, General K.V. Chevkin, who was not a mining engineer, to serve as his personal assistant in drawing up the plans. Chevkin conducted thorough and detailed surveys throughout Russia of mining installations and schools, and proposed far-reaching changes in the curriculum and organization of the institute. Unfortunately, he also shared Nicholas's enthusiasm for the militarization of technical schools and imposed upon the mining engineers the uniforms, routine, and discipline of the Cadet Corps. The rigid conformity was deeply resented by the students. Nicholas, however, was delighted and assigned Chevkin a leading role in railroad construction, a task which he carried out with a characteristically obsessive attention to detail. He ultimately became the director of the Main Administration of Transportation and helped plan and supervise Russia's first national network.¹⁴ For all his superb mastery of technical problems, Chevkin had not been trained as an engineer. In the best tradition of the Page Corps, he was an obedient, incorruptible, loyal servitor of the tsar. He remained an isolated figure having no professional ties within the bureaucracy. He did not share in the growing collective mentality of the engineers that took shape in the higher technical schools following the French model of education.

Adopting Stroganov's proposals, Russia's technical schools for mining and transportation were based upon the *École des mines* and the *École des ponts et chaussées*. The old Mining School was drastically reorganized yet again in 1804 and the Institute of Transportation Engineers was founded six years later. The Mining Cadet Corps, as it then became known, sought to combine the attractions of first-rate technical training with cultural refinement in order to attract the sons of nobles, who were traditionally indifferent to the delights of geometry and geology. The conventional curriculum of technical subjects was enlivened by the addition of courses in poetry, mythology, and music. Sparing no expense, the Corps acquired some of the finest dancing and fencing masters in Petersburg. The final examinations promised entertainment of a very high order. It became one of the great social events of the capital with ministers, senators, the diplomatic corps, the Metropolitan of the Orthodox Church, and leading cultural figures in attendance.

The experiment was rather too successful. Many nobles entered for only a year or two in order to acquire the finishing touches to their social graces; the school produced a number of famous actors, perhaps the only mining school in Europe to achieve such a distinction. Moreover, few of the graduates entered a lifelong career in mining. As part of its inducement to the nobility the school offered a post-graduate program designed to delay still longer any direct contact with practical tasks in remote places. Those who graduated with the title of mining engineers were assured of an additional year of training in the laboratories and factories of St Petersburg. At the end of that year, they were permitted under certain circumstances to spend another two years visiting factories and mines rather than being appointed to active service as mining officers. At this point many graduates accepted regular commissions in the army or retired at a respectable rank and took up gentlemanly pursuits. As a result, the Corps failed to produce enough engineers to satisfy the needs of the state.

Among the few who recognized the dimensions of the problem was A.F. Deriabin, the son of a poor priest from Perm, a graduate of the old Mining School and in 1801 director of several large state factories in the Urals. A firm believer in state development of industry, he took charge of the decaying Ural enterprises. He rapidly increased their production, discovered new iron ore deposits, and constructed the big iron foundry at Verkhne Baranginsk. Convinced that private industry could not reinvigorate the metallurgical industry, he drafted proposals that ultimately became the foundation for the basic mining legislation in Russia in the first half of the century. Among his accepted recommendations was the establishment of a separate government administration for mining towns by a Mining Department that would draft all laws and regulations concerning mines and be headed by an official "not only coming from the upper classes but knowledgeable by virtue of his experience and learning in mining and industry." The combination of social and professional qualities was not easy to find. The first director of the new Mining Department was the ennobled son of a Hungarian engineer recruited to Russian service, G.S. Kachka. He was almost immediately succeeded by Deriabin himself.¹⁵ Professionalism had triumphed over social status in one small area of Russia's engineering field.

Under its new direction, the Mining Cadet Corps attempted to compensate for the defections of the nobility by imposing an obligation, in true Petrine style, upon all graduates to enter the mining service for a specific period of time. Students on scholarship, who were presumably

either poor nobles or non-noble, faced a ten-year minimum term, while those paying tuition had only to serve for five years. Again, there were escape hatches for the landed nobles. Three of the five years might be spent as before in Petersburg or on tour visiting factories and another two in state-supported study abroad, so that the nobles could fulfil their obligations without much inconvenience or discomfort. The persistence of shortages of mining engineers may be guessed from the attempt of the corps to set up mining schools in the Ural districts in order to guarantee a supply of well-qualified students, presumably drawn from sons of engineers and technical personnel who might have on-site experience. But the experiment failed for lack of teachers. The corps was obliged to select fifty children of state officials serving in factories under the Mining Department's control, bring them to St Petersburg and enroll them in preparatory classes attached to the corps.¹⁶ One stark lesson emerges from Deriabin's own personal experience and the repeated, vain efforts to recruit engineers from the nobility. If Russia were to train its own cadre of professional engineers, it would need to create and staff an entire new level of preparatory schools and recruit students from outside the privileged elite to fill them. Education from the top was not a sufficient answer.

Of the three major specialized fields of engineering in Russia, military, mining, and transportation, the latter acquired the most sharply defined corporate identity, clear-cut ideology and politically significant potential for transforming the economy. The Institute of Transportation Engineers was the brainchild of Mikhail Speranskii as part of his broader plan of government reform. In Speranskii's structural-functional model of the Russian bureaucracy, transportation engineers were allotted a place of honour. As part of the basic document that outlined his ambitious plans for state reform, a memorandum entitled "Introduction to Codification of State Laws," he proposed that a separate ministry be created solely for transportation. He clearly recognized, in the spirit of Peter of Great, the major role it was destined to play in Russia's economic development.

Speranskii envisaged a reorganization of the old Department of Water Transportation in order to bring all transportation and communications under the aegis of a new department. The decree creating the Corps of Engineers stipulated that in the future no one who did not have specialized training in the Institute of Engineers could serve in the department.¹⁷ This provision followed Speranskii's cardinal principle of linking recruitment and promotion to educational requirements that

had been recently embodied in the decrees of 3 April and 10 August 1809. The first obligated nobles who bore the court title of *kammer-junker* or *kammerger* either to enter state service or be placed on the retired list. The second established educational qualifications for the rank of collegial assessor, that is, rank eight in the Table of Ranks conferring hereditary nobility.¹⁸ In a technical field like engineering, it was even more important in Speranskii's mind to break the indolent monopoly of unqualified nobles over access to high office.

The Corps of Transportation Engineers and the French Model

From the outset the new Corps of Transportation Engineers was distinguished by rigorous professionalism and strong French influence. Napoleon's reorganization of the French higher technical schools made them an acceptable model for Alexander's educational reforms. In the first decade of the French Revolution, they had been a bulwark of republicanism. Napoleon militarized them and restricted access to the upper classes, cutting off their students from dangerous political currents.¹⁹ Technology harnessed to the needs of the state strongly appealed to Alexander's autocratic views. The planning for the new corps had grown out of concern over the inability of the Department of Water Communication to deal with the catastrophic situation of the hydraulic system on the Vyshne Volotskii canal, which linked the capital to the interior. The tsar entrusted the problem to a group of four specialists, including de Wollant and a brilliant and accomplished Spanish-born, French-trained engineer, Augustin de Bethencourt et Molina (Bétancourt in France), recruited from Napoleon's army during the brief Russo-French honeymoon following Tilsit. Bétancourt was the driving force in the committee. Educated in Madrid and then in Paris, where he spent six years (1785–91) at the *École des ponts et chaussées*, Bétancourt enlarged his perspectives by travelling in Spain and Britain and returning to France, where he collaborated to produce a pioneering work on the new science of machines, *Essai sur la composition des machines*, subsidized by the *École polytechnique*. The recommendation of the committee to create a single head of the department was approved by the tsar, who appointed his son-in-law Peter Friedrich Georg of Holstein-Oldenburg. At the same time, Bétancourt submitted a proposal to establish a special school for hydraulic engineers based in part on the rules introduced by Napoleon in France in 1806.²⁰

The statutes of the school provided for a staff consisting of a director, two professors of pure mathematics, two professors of applied mathematics,

a professor of hydrography and statistics of rivers, two professors of drafting and architecture, an economist, one supervisor for machinery, and one for the library. The number of students was limited to eighty. The first two years of study emphasized arithmetic, algebra, and higher mathematics, including plane trigonometry, surveying and levelling, drawing, and architecture. For practical training students would spend their summers on work projects in the environs of the capital. In the last two years, the curriculum stressed solid geometry, stone masonry, carpentry, basic mechanics, and hydraulics, as well as drafting plans and estimates for public works. Periodically, students were to receive full and complete information on all river and canal systems either in existence or in the planning stage. No frills here.

In his new capacity, Holstein-Oldenburg appointed a new committee to consider the creation of a corps for all means of transportation composed of Bétancourt, de Wollant, Étienne-François de Sénovert, a friend of Bétancourt who had served for seventeen years as captain in the French King's Engineers, and F.P. Lubianovskii, who served as a liaison with his former chief Speranskii. This group designed the structure of what became known in 1810 as the Corps of Transportation Engineers. From the beginning it was organized along military lines proposed by the members of the committee and favoured by the tsar. But originally Bétancourt understood militarization in a statutory way. He was subsequently distressed when his successor as director of the corps, the Duke of Wurttemberg, acting in the spirit of the late years of Alexander I, imposed a strict military discipline on all the activities of the members of the corps.²¹

That the main designers of the corps and the first three directors of the institute, Oldenburg (1809–12), de Wollant (1812–18), and Bétancourt (1819–22), were foreigners points to the lack of success over the previous century in producing well-educated and broadly based engineers in Russia. Moreover, from the moment the corps opened its doors, it had difficulty filling the 200 vacancies with qualified Russians; foreigners like Sénovert were rapidly promoted in rank. Keenly aware of the need for experienced construction engineers, Alexander took advantage of the Tilsit spirit to extract from Napoleon four additional first-class French engineers for Russian service who were graduates of the *École polytechnique* and the *École des ponts et chaussées*: Pierre Bazaine, Jacques Fabre, Charles Potier, and Antoine Destrem. They set high standards for the embryonic Russian engineering profession. Fabre and Potier immediately joined the staff of the institute, while Destrem

and Bazaine were dispatched to Odessa, where under the command of the Duc de Richelieu they planned the reconstruction of the port. Thus, a hundred years after Peter's endeavours to create a cadre of Russian engineers, it was still necessary to import foreign specialists in order to staff the major training centre for engineering and to supervise the construction of large public works.²²

The social profile of the first entering class at the institute must have been a source of some satisfaction for the founders. Of the twenty-nine students who actually enrolled, about half, it seems fair to say, came from the nobility, including three Baron Stroganovs and the brothers S.I. and M.I. Murav'ev-Apostol, the future Decembrists. But the preparation of the applicants was less encouraging. Of the sixty-two who initially applied only ten knew logarithms and trigonometry and twenty of them hardly knew any arithmetic at all.²³ But the main problem facing the institute continued to be, as it had been so often in the past, continuity. The threat of war with France quickly banished hopes of a promising beginning and delayed for at least another decade the emergence of a trained cadre of Russian civil engineers.

With the outbreak of hostilities in 1812, the four French engineers "on loan" to Russia were placed under police surveillance and then exiled for two years to Irkutsk. Prince Oldenburg left his post to take a command in the army, and several of his important projects were suspended. On his orders, twelve of the sixteen second-year students joined Barclay de Tolly's First Western Army. Throughout the war, emergency orders and voluntary enlistments seriously disrupted recruitment and training in the institute. At one point, the staff was reduced to one professor of mathematics.²⁴

The situation improved slightly after the end of the war, when the four French engineers returned from exile and decided to remain permanently in the tsar's service. Potier, one of the two who returned to teach at the institute, published in 1816 the first book printed in Russia on descriptive geometry. Fabre and Destrem resumed their work in the south, taking command of expeditions of institute graduates and other officers to build the port of Taganrog, complete the Georgian Military Highway, and improve waterways between the Volga and Don and along the Kuban and Rion Rivers. The practical demands of state construction projects kept siphoning off scarce talent needed to prepare new cadres. The number of engineers graduated from the institute remained low: eighteen in 1815, twelve in 1817, only eight in 1818, and sixteen in 1819.²⁵ Some of those who joined the army during the war did

not return and in the first two post-war classes more than half the graduates remained as teachers in the institute. Deprived of a steady supply of engineers the institute languished under the direction of de Wollant.

In the stagnant post-war atmosphere, the tsar reverted to former ad hoc practices. He entrusted General, Count A.A. Arakcheev, a noted artilleryman, with building new all-weather roads in the crucial north-west provinces, including the stone highway from St Petersburg to Moscow. An efficient but untrained martinet, Arakcheev organized military worker brigades and recruited military colonists. In his characteristically ruthless way, he subjected the entire operation to an elaborate control apparatus in order to maintain order. Over time, Speranskii's plans seemed nothing more than remote dreams.

Russian engineering was saved from complete disintegration by the very same circumstances that had revived it in the past. Building ports, roads, canals, fortifications, and public buildings was too complex an undertaking for untrained martinets and a mob of half-enslaved labourers. Two men realized this more astutely than most and fought to restore engineering to an honoured place in state service: Bétancourt and Grand Duke Nicholas Pavlovich, the newly appointed inspector general of engineers. In quite different, often contrasting fashion they deserve credit for training the Russian engineers who were to dominate the great advance in transportation and public works throughout Russia over the following half-century.

When in 1819 Bétancourt succeeded the lackadaisical de Wollant, he substituted vigour for inertia. He overhauled the institute and recreated a cadre of intermediate-grade technicians (*konduktery*) to relieve the engineers of much elementary work. Citing the increase in construction projects and the "extremely inadequate number of engineers," Bétancourt recommended the creation of two additional schools. The military-building school would yearly train 100 engineers to staff the military worker brigades (created by Arakcheev); in the school of technicians 300 soldiers' children would enter every year to train as carpenters, master craftsmen, draftsmen, and clerks for the Department of Transportation.²⁶ It was his intention that the institute accept only those who already had a "scientific education." But Russia was not France. It became necessary to make changes in the institute curriculum and to restore the declining quality of the teaching staff.

From the outset the polytechnic ideal served as the model for the curriculum of the institute. But the French administrators quickly discovered that Russia lacked the solid educational foundations upon

which the *grandes écoles* rested. There were too few preparatory schools, and they were too widely scattered to attract a sufficient number of boarders. Russian noble families were culturally predisposed to keeping their children at home for as long as possible. Tutors and private instructors were incapable of providing the proper training for entrance into an engineering school; even if they could, their pedagogical methods were too varied and arbitrary to establish anything like a uniform standard of instruction upon which the specialized schools could build. Very simply, there was no equivalent in Russia of the French baccalaureate. Consequently, at the institute (and in many other specialized schools in Russia), it became necessary to provide three years of preparatory schooling before students were allowed to pass into the "scientific education" of the upper three classes.²⁷

The French administrators were determined not to turn out cadres of narrow technicians. The preparatory classes offered geography, hydrology, geodesy, trigonometry, analytical geometry, and mechanical drawing, but also Russian, French, rhetoric, and literature. Great emphasis was placed on the importance of what we today would call language skills. For as the director of the schools, Bazaine, explained in a public lecture in 1831, the arts of expression constituted the very essence of the polytechnic education. He held up the examples of the great scientists whose success rested in part on their superb command of prose style, with which to communicate their discoveries, men like Pascal, Fontenelle, Euler, and Laplace (three Frenchmen out of four, *nota bene!*) Historical studies were designed to provide the patriotic and moral values that constituted the indispensable base for all other subjects.²⁸

The integrated curriculum and high standards of the institute administrators and instructors left them isolated within the thinly stretched Russian educational system. The staff set about writing textbooks for every course in order to meet the specific needs of the students. Several of the texts became standard for other schools in the empire. The entire enterprise had a self-contained character that set a special stamp on the engineers. They not only acquired their entire formal education at the institute, absorbing its ethos and values, but also were strictly separated more from other state institutions. Unlike their French counterparts they did not share a secondary education common to all the professional elites.²⁹ This distinctiveness remained with them throughout their bureaucratic career.

At the same time the polytechnic curriculum was constituted, Bétancourt set about recruiting engineer professors from France to revitalize

the declining quality of teaching in the institute. By 1820, of the original four French engineers, only Bazaine remained at the institute. The young Russian engineers who had been serving as instructors were given little opportunity to develop their abilities before Arakcheev snatched them away for service in the military colonies. Bétancourt naturally looked to the *École polytechnique*, where in 1820 he sent Bazaine on a special mission to offer two promising recent graduates, Gabriel Lamé and Benoît-Paul Clapeyron, a high salary and corresponding rank to enter Russian service. His choices were inspired.

Following a decade of teaching at the institute, Lamé and Clapeyron became two of France's most distinguished engineers, ultimately being elected to the French Academy. They not only firmly implanted higher mathematics into the curriculum of the institute, but also taught the most advanced methods in mechanics, hydrology, and construction. Following Lamé's mission to England and his two lectures on railroads at the institute, the French engineers introduced material on railroad building in their courses. No other technical school in Europe had yet taken this step. As the first proponents of building an extensive Russian railroad network, they won eager converts among their Russian students. They also trained the young Russian engineers to construct the first suspension bridge on the continent, the 1020-foot span over the Neva. On the basis of that achievement Lamé and Clapeyron published several seminal papers on elasticity before their return to France.

Bétancourt continued to recruit talented French engineers for the institute, including Antoine Raucourt, a polytechnician, who soon joined his colleagues. Within a few years Raucourt's successful experiments produced a new kind of resilient cement that won the admiration of members of the Academy of Sciences. Taking another important step in the process of professionalization, the French engineers founded the first journal for engineers in Russia, originally published in French as the *Journal des Voies de Communication* from 1826 to 1834. In the aftermath of the Polish revolt and the departure of the French engineers, it briefly suspended publication, but reappeared in Russian in 1836 as *Zhurnal putei soobshcheniia*. Like their expatriate counterparts in the Russian Academy of Sciences, the French engineers published their latest experiments and technical findings in St Petersburg in French for European-wide distribution, thus contributing to the prestige of Russia's institutions of higher learning, poised on the cutting edge of scientific and technological progress.³⁰

The French engineers were not only the conduits of technology transfer at the most fundamental and formative level, that of schooling, but

also the source of an ideology of industrialism. They pointed their Russian students towards a new social role – the professional functionary imbued with the collective spirit of a corps in the tradition of the higher technical schools in France. Following the French model the graduates of the Institute of Transportation Engineers shared a set of common purposes and values embodied in a doctrine of public service that combined high civic with professional ideals. The French engineers were the avant-garde of St Simonianism in Russia.

St Simonianism and the Russian Engineers

Like so many thinkers of the early nineteenth century, Henri, Comte de St Simon left behind a fragmented legacy. Unsystematic, half-formed ideas mingled with brilliant insights and a bold vision. His followers soon found themselves at odds over his true meaning. The St Simonians represented no more coherent group of epigones than the Marxists. What united them was their antagonism towards the irrational society which sprawled around them and the assurance that the scientific elite commanded both the skills and the will to set it right. Precisely how this was to be done and, in a realistic political sense, by whom were questions which understandably created conflict too great to be contained within an organized movement. However, in what would become a tradition of social revolutionary movements, the French St Simonians sought to hammer out their differences in the most convenient arena open to them, the press and public meetings.

Although St Simon had planned to found a journal of propaganda, to be called *Le Producteur*, it was left to his disciples to carry out his intentions. In the prospectus printed in 1825, the editors stressed that their underlying theme would be “to exploit and alter external nature to the fullest benefit [of human beings] ... by financing industrial concerns of every kind which would have as their goal the improvement of a branch of commercial, agricultural or manufacturing industry whether it be the improvement of methods or machines.”³¹

This note found a responsive audience among the polytechnicians who saw themselves as the bearers of the new civilization. Under the First Empire, French engineers had covered themselves with glory, but their monuments were more permanent than those of the Grande Armée. They linked France with the rest of Europe by building roads, canals, bridges, and public buildings in the wake of Napoleon’s conquests. Their transformation of patterns of communicating had no

parallel since the Roman Empire.³² They had fulfilled in the most dramatic fashion the highest aims of the *grandes écoles* set down long before the revolution.

Although opportunities outside France were fewer after the war, foreign governments like Russia's maintained a steady stream of requests for specialists, confirming France's pre-eminent place in engineering and technology.³³ Everywhere the French engineers went, they gathered in small groups discussing the organization of the future industrial order. In Russia in the early 1820s a brilliant group of French expatriates, including Lamé, Clapeyron, Bazaine, and Raucourt, met regularly in the evenings with young Prosper Enfantin, in St Petersburg on a commercial mission, often at the house of Xavier de Maistre. Enfantin was already half a St Simonian.³⁴ He admired J.B. Say and especially Heinrich Storch, who attracted his attention "by his attempts to transfer into the moral sphere analogous formulas and economic classification of the science of wealth."³⁵ The brother of the more famous Joseph, Xavier de Maistre had settled down in St Petersburg after having served actively in the Russian Army during the Napoleonic Wars. Living there without interruption, until 1852, he occupied himself in writing sentimental romantic novels and continuing his chemical experiments, publishing in the learned journals of Turin and Geneva.³⁶

De Maistre's salon had a particular appeal to the French engineers, for there they could find that happy blend of Romantic idealism and scientific discipline which inspired their own preoccupations. In a word, they were predisposed to accept a doctrine which sought to blend these two apparently contradictory enthusiasms into an integrated system. When Enfantin returned to Paris, he was fully converted to St Simonianism by Olinde Rodriguez, another polytechnician, and subscribed to the *Catéchisme des industriels*. By this time the St Simonian journal *Le Producteur* was being circulated from hand to hand in the classroom of the *École polytechnique*.³⁷ After the paper closed in 1826, the centre of discussion shifted to meetings in private homes, often organized by Enfantin, and the polytechnicians swelled the audience in ever increasing numbers.³⁸

Despite his activities in Paris, Enfantin had not forgotten his Petersburg friends. He corresponded with Picard, who kept him informed on the progress of their mutual comrades, who had not "stopped mulling over St Simonian ideas."³⁹ It may be conjectured that Enfantin had passed on to his Petersburg colleagues some St Simonian literature which shed light on points raised in their earlier discussions. In any

event, the small colony of expatriate engineers kept in close touch with the spread of St Simonian ideas in France. Aside from Bazaine, Potier, Lamé, Clapeyron, and Destrem, the polytechnicians in the Russian corps of engineers included M.C-J. Collet, a professor in the institute, Th. M.-L. Ducouédic, André-G. Henry, P.-H. Frédéric Merel, Th.-J. Com-père and Antoine Raucourt. Altogether, thirteen polytechnicians served in Russia before mid-century, ranking second only to Belgium in number on foreign missions.⁴⁰ The most active and prolific of these, Colonel Raucourt, returned to France in 1830.⁴¹ Almost immediately thereafter he published a number of tracts that illustrate his deep attachment to St Simonian ideas. Like other adherents of the doctrine, he was fascinated by the pseudo-science of phrenology, a passion he shared with his Russian colleague M.S. Volkov, who of all the Russian engineers manifested the most pronounced philosophical bent.⁴²

Volkov, who belonged to the older generation of Russian engineers and was therefore a colleague rather than a student of the French, imbibed the St Simonian doctrines more directly and deeply. He found it difficult to tolerate the increasingly nationalistic and militarist drift of Nicholas's reign and resigned from the institute in 1843 in order to launch himself on a broader European scene. But he kept his contacts with Russian colleagues, especially A.I. Balandin, an instructor at the institute and later associate editor of the *Zhurnal putei soobshcheniia*. Free to express his enthusiasm from abroad, Volkov wrote from Vienna in 1844 a rhapsodic paean to the St Simonian myth of the engineer as the liberator of mankind that it was no longer possible to print, if it had ever been, in Russia. "Glory to the railroads!" he intoned. "In my opinion, henceforth, history will record two great epochs in the transformation of society – the introduction of Christianity and the introduction of railroads." Volkov, like his spiritual mentors, St Simon and Michel Chevalier, envisaged railroads as the material means of achieving Christ's teachings on the brotherhood of man. He noted that in a multinational empire like the Habsburgs' railroads had become the newest and most effective means "of fusing the members of one and the same governmental organism." By annihilating space and time, railroads would destroy national hatred and jealousy, which sprang from the arbitrary and rigid separation of peoples. A common language would arise in response to the needs of a united Europe. What the genius of Napoleon had sought to accomplish by force of arms, the railroads would achieve peacefully.⁴³ Although Volkov embarked on a new career as political economist with a European audience, he never

lost his fascination with the construction of Russian railroads and took up the cause once again when Russia had thrown off the suffocating blanket of censorship terror, adding his opinions to those of his former students, Lipin and Mel'nikov, in petitions to the throne for a great Russian railroad network. Nor did Volkov ever abandon his St Simonian dreams of universal peace through improved communications. In the post-Crimean era he endorsed Infantin's great project of constructing a Suez Canal under joint Anglo-French sponsorship as the basis for the independence of Egypt.⁴⁴ Most of the small colony of French expatriate engineers in Russia kept in touch with the spread of St Simonian ideas in France in the early 1830s. In 1830 Lamé had an opportunity to renew his personal contacts in Paris, where he was sent on a six-month mission to England and France to study "noteworthy construction." Awarded the order of Stanislav 3rd class, but reprimanded for having returned two weeks later, Lamé replied drily that this was due to the poor state of roads in Russia. Lamé soon took an opportunity to expand that casual remark by delivering his two famous public lectures at the institute, "The Construction of Railroads in England" and "The Condition of Roads in England."⁴⁵ At the same time, Clapeyron quietly introduced into his course a sufficient amount of material on railroads that he was able to require his students to submit as one of their final projects a problem on railroad engineering. These initiatives were taken at a time when the Russian reading public was just becoming aware of the broader implications of railroad building.

Unfortunately for the future of Russian railroads, anti-foreign sentiment was once again on the rise, this time under the impact of the Polish revolt. French sympathy for the Poles was everywhere obvious, and Poles were especially prominent in the Russian engineering profession. From 1798 to 1827 nineteen Poles, compared to nine Russians, attended the *École polytechnique* in Paris, and there was a good representation of Polish engineer-students in the institute. Nicholas and his brother Grand Duke Mikhail regarded the influence of the French engineers at the institute as increasingly "pernicious" and ordered them to keep their political views to themselves. Hence their dislike of the graduates of the institute, whom they regarded as "academic types and therefore free thinkers." But Clapeyron's notorious volubility soon landed him in trouble. Following a long mission to Vytegra on Lake Onega, which was a form of semi-exile, he and Lamé were forced by the government to leave the country and return to Paris. Bazaine followed; Raucourt had already preceded them.⁴⁶

The departing French engineers left behind a small band of students and disciples who carried on *l'esprit de corps* and pursued their common interests in railroad construction. But the Russians had not given up on the idea of state construction. The absence in Russia of an energetic group of entrepreneurs, in contrast to France, gave them little choice. The Russian cohort at the institute subsequently served as the principal propagandists, technical personnel, and chief administrators of the state-built railroad system well into the 1870s. They included N.I. Lipin, who was the first to teach an entire course on railroads at the institute, then in 1856 vice-president, later president of the department of railroads in the Main Administration; Baron A.I. Del'vig, the main inspector and chief of the administration of private railroads from 1861 to 1871 and one of the founders of the Russian Technological Society; P.P. Mel'nikov, minister of transportation from 1862 to 1869; S.V. Kerbedz, president of the Administrative Section of the Council of the Ministry of Transportation; Mel'nikov and Kerbedz, the two chief construction engineers of the first Russian-built railroad from Moscow to St Petersburg; P.A. Iazykov, the translator of Lamé into Russian and director of the railroad department of the ministry, 1858–65; A.Z. Zavodovskii, vice-president of the department of railroads and a member of many important state committees on transportation.⁴⁷ All had been students of Lamé and Clapeyron.

Upholding these ideas was not without its risks, especially in the years following the Polish uprising, when the autocracy's suspicion of French political influence and socialist doctrines intensified. Moreover, at this very moment the appeal to Russians of St Simon's ideas on the technocratic order was completely obscured by the eruption of the Ménilmontant scandal, which focused the attention of outraged European opinion on the sexual behaviour of the French St Simonians. As the interest in St Simon, increased several of his self-appointed interpreters saw the need to give a summary reassessment of his often confusing legacy. In 1829 and 1830 St-Armand Bazard, a former carbonaro and political refugee, delivered a series of lectures which were edited by Enfantin and published in two parts as *L'Exposition*. Like most such attempts at synthesizing ambiguous and contradictory statements into a harmonious ideology, Bazard's lectures turned out to be revisionist in many important details. What emerged with striking emphasis was the notion of a new Church dedicated "to the fulfillment of the human personality through liberation of women" and "rehabilitation of the flesh," a misunderstood expression which meant adoption of sexual attitudes to different personality traits rather than promiscuity.⁴⁸

Shocking to society as these views were at the time, especially when distorted by critics, they would scarcely have caused an uproar if *Enfantin* had not resolved to act out the new lifestyle in an experiment in communal living at *Ménilmontant* near Paris. His arrest and a trial followed the public outcry, and the scandal reverberated in distant St Petersburg. The watchdogs of "Official Nationality" gleefully reported the colourful proceedings, ridiculed the disciples' outlandish dress, outrageous sexual mores, and religious excesses.⁴⁹ The attack was joined by representatives of educated society along the entire spectrum from academicians to the radical intelligentsia which, being largely indifferent to ideas of a new industrial order allowed itself to be mesmerized by the highjinks of *Ménilmontant*. The literary critic and publisher of *Teleskop*, N.I. Nadezhdin, regarded St Simonianism as a kind of "frantic, madcap behaviour" which led straight to the French barricades. The distinguished statistician K.F. German' denounced St Simon's economic theory as the old idea of robbing Peter to pay Paul, couched to be sure in "modest prose and keeping in mind humanitarian conviction," but leading nevertheless to class hatred and "rebellion." Even Vissarion Belinskii and Mikhail Bakunin, in their religious phase to be sure, feared the impact of the "French disease" of St Simon on the healthy minds of young Russia. Of the radicals, only Alexander Herzen and Nikolai Ogarev found merit in St Simon's writings, but they too seized on those aspects of the doctrine which predicted the social transformation of society and ignored his technocratic ideas.⁵⁰ Agreement among the prominent spokesmen of the autocracy and the opposition that the burden of St Simon's message was social revolution prompted a vigorous response from the government. The censorship placed St Simon's work on the forbidden list.⁵¹

Haunted by the Decembrist uprising and the Polish revolt, the autocracy sought to reimpose its faltering moral leadership over Russian society in the face of the emerging challenge of the intelligentsia. For the first time since Peter I, the autocrat and his supporters embraced a counter-Enlightenment culture embodied in its clumsy attempt, perhaps unique in the imperial period, to define a formal ideology justifying its power. The Romantic, conservative triad of Nationality, Autocracy, and Orthodoxy, invented by S.S. Uvarov, explicitly excluded an industrial policy. The government did not so much reject the idea of industrial growth as declare its neutrality. This meant, in effect, that the state neither took initiatives in promoting manufacturing nor encouraged the activities of private entrepreneurs. The improvement

of internal communications might he perceived as exceptional, but the construction of canals and railroads was prompted almost exclusively by commercial and strategic concerns. Given Nicholas I's background in engineering and the long tradition of state intervention in the economy, he may be fairly condemned for having failed to become Russia's St Simon on horseback.⁵²

The technocratic ideas of St Simon were particularly well suited to the centralized structure of the autocracy, the concentration of scientific cadres in the Academy of Sciences, and the engineering cadres in the elite schools modelled on the French *grandes écoles*. The noble families had begun to overcome their aversion to enrolling their sons in technical schools, mainly because of their elite status and assurance of high rank for its graduates in the bureaucracy. But Nicholas I was genuinely frightened by the phantoms of internal subversion. The militarized Main Engineering School had always appealed to him as more highly disciplined and less arrogant in its intellectual pretensions than the Institute of Transportation Engineers. If engineering was to occupy an important place in Russian higher education, then all technical schools should be subjugated, in his mind, to the military model. That was the direction in which he moved. The engineers had no choice but to accept his decision, but they nourished in the darkness of reaction a different, broader vision which emerged in the full light of day at the end of the Crimean War and the beginning of the Great Reforms.

As the nets of militarization and Russian exclusivism closed around them, the engineers struggled to keep alive their view of an enlightened, forward-looking technological society, and to maintain their intellectual ties with the West. They found no attraction in the egalitarian and liberationist fantasies of the Petersburg expatriate Père Enfantin and his Ménilmontant coterie. But they were inspired by another of the epigones, Michel Chevalier, who, after a fierce internal struggle, rejected the religious and sentimental overtones of the latter-day St Simon and broke with the self-appointed heir, Enfantin. Still inspired "by the mathematical spirit," he retained the essentially hierarchical and developmental political economy of St Simon's original doctrine.⁵³

As early as 1831, Chevalier, as editor of the St Simonian *Le Globe*, was already campaigning for a European-wide rail network from Cadiz to St Petersburg that would resolve the major political questions of his time. Linking east and west, the railroads would bring Russia into the mainstream of European civilization, eliminate its fear of isolation, end its search for an outlet to the Mediterranean that fuelled the Eastern

Question, and usher in a period of universal peace. In his eyes, Russia had the most to gain from the technocratic solution. Extensive domestic construction of railroads, particularly a direct north – south line between Astrakhan and Odessa through Moscow, with a branch line to St Petersburg, would unify the country and join its most productive regions.⁵⁴ But at this point Chevalier still had to pass through the ordeal of arrest, trial, and imprisonment as part of the Ménélmontant scandal. After his pardon in 1833, he set sail for the United States in order to study first-hand the effect of railroads upon American society. The published multivolume account of Chevalier's trip had a profound effect upon Russian engineers and was widely cited in their technical articles.

In arguing for extensive railroad construction in France, Chevalier provided the Russians with a persuasive case for solving their mammoth transportation problems. First he pointed out, a bit prematurely in the case of the United States as it turned out, how the railroads were overcoming the problems of great distances and sectionalism which threatened the stability of the Union. "Once New York is six hours from New Orleans, there will no longer be any possible separateness. Great distances will have disappeared and this colossus ... will maintain its unity without effort."⁵⁵ Chevalier rejected the argument that state-built railroads would place an intolerable burden on the budget. Rather, railroads would stimulate commerce and industry, returning a neat profit to the Treasury. It would be disastrous for France to wait until other countries experimented with this extraordinary invention, for "if we remain with folded arms as onlookers, we will end up, as a result of our caution, by finding ourselves at the tail end of Europe, at least with respect to industry and commerce." How familiar these arguments would become in the hands of Russian technocrats! But unfortunately for them, Chevalier provided, albeit inadvertently, some ammunition for their opponents. He was still enough of a socialist to perceive railroads as the bearers of equality and democracy, not only reducing the distances between regions but also between classes.⁵⁶ Chevalier followed up his glowing report with a plea to the July Monarchy to undertake a social renovation by developing the country's natural resources. He had not abandoned, but merely muted, the ethical component of industrialization. "Labour, the creator and supporter of national industries, raises the moral standard of men and is in truth the sole means to raise this moral standard to which, at the present moment, it is possible to appeal with any form of success."⁵⁷ Nor did he ignore the larger political and diplomatic implications of railroads. Chevalier proposed

five great lines radiating from Paris and Marseilles to Spain, the Mediterranean, Belgium, the Rhine, and the Atlantic, which, he claimed, would revise the Treaty of Vienna and restore to France its European preponderance.⁵⁸

Meanwhile in Russia, Lamé, Clapeyron, Eugène Flachat, and his half-brother, Stéphane Mony, cooperated on an important work, having taken the precaution of sending to Paris their manuscript, in which they expressed their disillusionment with the autocratic state as the instrument for fulfilling their plans for industrialization.⁵⁹ When they returned to France they renewed ties with their former polytechnician classmates, including the brothers Flachat and Émile Pereire, who subsequently became the driving force behind *Crédit mobilier* and the private capitalists who founded the *Grande Société des Chemins de fer russes* and planned the first Russian rail network.⁶⁰ Together their joint propaganda in favour of French leadership in railroad development combined Chevalier's broad political outlook with practical proposals which became the model for the financing, construction, and administration of both the French and Russian networks. They shared with Chevalier a desire to break England's commercial preponderance on the Continent and recover for France the leading role in developing the European economy. They envisaged Paris as the natural economic and political hub of a national system with lines radiating out towards the frontiers in all directions, binding the centre to the periphery. With unusual prescience they warned that the strategic interests of the country would best be served by constructing a belt of supplementary lines running parallel to the frontier and splaying the radial lines from Paris in order to form a gigantic wheel so that troops could be rushed to any endangered point; it was sound advice that was ignored by the government, with fatal results at the outbreak of the Franco-Prussian War in 1870.⁶¹

Turning from the political to the economic side, the French engineers squarely forced the problem of how such a vast enterprise would be financed and built. As confirmed technocrats, they regarded the *laissez-faire* system as "not only false [but] immoral." Because public works did not offer attractive speculation for private investors, it was up to the state to act in the interest of the greater number. Yet the state hesitated, fearful of piling up huge deficits. Since "the government dared not and the private companies could not," then a mixed system remained the only solution. The state would plan the network, and the private entrepreneurs would raise the capital by issuing stock backed by a government guarantee of 5 per cent return on invested capital

over the first eight years. Once the line was completed, the state would receive one-half of the profits, over and above an 8 per cent return on the investment, unless the company chose to reduce fares an equivalent amount.⁶² Their investment strategy was far ahead of its time. It foreshadowed the grand alliance between St Simonian engineers and bankers to overcome the French government's resistance to a great rail network. Their design was later applied, following the Crimean War, to the construction of the first Russian railroad network as well.⁶³

Perceiving the railroads as the solution to all problems, Lamé and Clapeyron followed up their financial plan with a more extended analysis of railroads as a key factor in national security and expanded their ideas on professional education.⁶⁴ In both cases the implicit lessons for Russia were just as compelling as the explicit illustrations of French needs. While praising the work of the *grandes écoles*, they saw clearly the need for additional technical schools to serve other branches of the economy, by training professionals who would "direct the industrial development (*élan*) of France." Disturbed by signs of an anti-scientific mentality in France, they argued that classical education was utterly impractical and that educational reform ought to begin with the sciences, where the results would be useful and immediate. In their eyes, the purpose of education should be to guide students towards careers which are "best suited to their individual talents and organic predisposition." Yet they also insisted that each country should devise a system which reflected its psychological character. To better illustrate, they drew upon their Russian experience. On the basis of having taught 600 students during their service in St Petersburg, they discovered that the Russians had "no aptitude for higher mathematics" but excelled in engineering courses, especially in designing, where they easily matched the best that the *École des ponts et chaussées* could offer. Indeed, as practising engineers the Russians displayed "all the imagination and energy desirable."⁶⁵

Despite their professed concern over different individual and national types, Lamé and Clapeyron were fundamentally committed to technological education. Students could best understand general mathematical principles by studying first the practical uses of mathematics. In the same way, "the basis of industrial education [mechanics] instructs the mind on the importance and the creative potential of general laws, and accustoms the mind to consider a mass of facts from a coherent point of view: seeks to define clearly the central idea of the task at hand and to coordinate all the working details in such a way that they achieve the desired end in the best possible fashion." They recommended the

establishing of a universal school and four special schools based upon principles that had inspired the *École polytechnique*.⁶⁶ To Lamé and Clapeyron, then, the needs of the future industrial society required that the state take a leading role in training its citizens for specific tasks and supporting the application of the new technology to the unresolved problems of the past. In this vast enterprise, professional specialization and talent, not wealth or high birth, would identify the leaders.

In retrospect, it is easy to see why the French engineers' hymn to railroads and their enthusiasms for central planning struck a responsive chord in the minds and hearts of their Russian counterparts. Not only did railroads afford a unique opportunity to solve most of Russia's most pressing political and economic problems, but, in the process of building them, the professional specialists would become the new heroes of modern society. By contributing to the glory and prosperity of the state, engineers would yield nothing to the soldier and the administrator. Nor was the moral component of St Simonianism the least of its many appeals. Purged of its mystical and radical democratic implications, the St Simonian technological society retained a solid moral residue. The global perspective remained intact. Railroads would further the peaceful intercourse among nations, even though they served, from a military point of view, patriotic ideals as well. They opened up the possibilities of exploiting vast untapped resources and raising standards of living. If social egalitarianism was muted, at least modern communications were accessible to all. Implicit in all the rhapsodies to the iron rails was the ancient dream of conquering time and space, of reducing nature to manageable proportions. These ideals, stated or implicit, appealed to educated youth in Russia who, by the very fact of access to higher education in a society still burdened by serfdom, lived under the perpetual shadow of social guilt. The moral economy of latter-day St Simonianism enabled them to be loyal servants of the state and yet fulfil their ethical obligations to society. Sharing this ethos helped provide a collective sense of identity that constituted an essential part of the Russian engineers' professional pride and served as a partial substitute for the ideals of autonomy that engineers outside the Russian tradition have extolled as the true and ultimate test of the "free professions."

Russian Engineers and the Early Railroads

Deprived of their French colleagues and mentors, the Russian engineers at the institute forged ahead on their own, relying upon the importation

of foreign books and periodicals and the occasional mission abroad to keep contact with developments in the West. Mel'nikov became professor of applied mechanics after the departure of his French mentors. In 1835 he published the first textbook in Russian on railroad construction that introduced the basic technical vocabulary. Volkov, who had attempted unsuccessfully together with his friend and colleague Clapeyron to teach separate courses on railroad construction in 1828, finally gained official approval seven years later to introduce an entire section on railroads in his course.⁶⁷ These modest academic activities had no visible impact on government thinking. Junior officers like Mel'nikov and Volkov lacked any influence in the higher bureaucracy or court. Technical knowledge without social status was a formula for frustrated innovation in Nicholas's Russia.

It required a person of high rank with access to Nicholas I who was sympathetic to the aspiration of the engineers to raise the issue to the level of state policy. Major General K.V. Chevkin, the head of the Mining Department who had advised Nicholas on the military reorganization of the Mining Institute, met all these qualifications. On his initiative, the Austrian mining specialist and railroad entrepreneur Franz-Anton von Gerstner was invited to Russia, ostensibly to survey Russia's mineral deposits. He was also allowed to present to Nicholas his plan for a Russian railroad network. Nicholas's interest was piqued by the experienced and competent foreign specialist. He ordered an inquiry that led to a prolonged debate within the bureaucracy over the merits of building railroads in general as well as Gerstner's proposals in particular, a debate that spilled over into the public arena, giving the engineers their first opportunity to carry their views before the public.⁶⁸

In seeking to promote their railroad policy the engineers had to rely mainly on their expertise, for they lacked political influence in the top levels of the bureaucracy, and the intellectual community was either indifferent or hostile to their aspirations. They faced strong opposition among the highest officials, including General Karl Tol', the head of their own department, and Count E.F. Kankrin, the minister of finance. In their view, canals were adequate to Russia's transportation needs; railroads were too expensive and premature by a century. To frighten Nicholas, Tol' resorted to quoting Chevalier's opinion that railroads were the great democratizing force of the nineteenth century!⁶⁹ Speranskii looked with favour on railroads, but Siberian exile had tempered his enthusiasm about all causes. His support was bound to be passive.

Enlightened opinion expressed in Russia's thick journals was not much better. When Volkov submitted an article favouring state-built railroads to Pushkin's journal *Sovremennik*, the poet himself rejected it. "There is no need for the government to get mixed up with the project of this Gerstner," he wrote. "Russia cannot afford to throw away three million on the attempt. The business of a new railroad is something for private individuals; let them be the ones to take the necessary steps."⁷⁰ Most of the other serious periodicals in the capital were managed by apologists for the autocracy like Faddey Bulgarin and Nikolai Grech who, while not opposed in principle to the building of railroads, feared that the financial burden would be too great for Russia. In Moscow, where the press sought to present itself as an alternative to the official viewpoint, there was little sympathy for the engineers' position. Nadezhdin used the occasion to express support for private initiative in hopes of diminishing the role of the state in social and economic life.⁷¹

Outside their own professional journal the engineers found only one other periodical that was willing to present their views, the prestigious *Biblioteka dlia chteniia*. Modelled on the Parisian *Bibliothèque universelle*, it represented a forum for all points of view, which diminished the force of its individual contributions. And the two articles supporting the engineers' position were written anonymously, which further weakened their impact.⁷²

Despite these feeble indications of bureaucratic and public support, Nicholas I, who always made up his own mind in any case, was favourably disposed towards railroads and confident in the abilities of the Russian engineers, which he had devoted much time and effort in cultivating. Over the course of the seven years that separated Gerstner's first proposals from the construction of 1842 of the first major trunk line between St Petersburg and Moscow, Nicholas authorized a number of missions abroad by Russian engineers as a means of gaining further information and exposing them to the practical results of railroad construction in Europe and America. Volkov's mission to France in 1835, when he renewed his old friendship with Clapeyron, was hailed by his fellow engineers as "a remarkable trip." It inspired a series of articles in their professional journal endorsing the construction of a vast railroad network in Russia. They boldly cited the recent work of Chevalier as the basis for their arguments that railroads would serve both Russia's economic and strategic needs.⁷³ It was something of an accomplishment to reveal their intellectual indebtedness to a recently condemned and imprisoned subversive like Chevalier. As Mel'nikov ruefully remarked,

“The publication of an article by civil servants was only permitted following strict censorship of superior officers”; and their department was “under the command of a fool,” a dedicated opponent of these ideas.⁷⁴

At the same time that Volkov was kindling his colleagues’ enthusiasm, another of Mel’nikov’s associates, Lt. Colonel N.O. Kraft, was dispatched to Austria in order to report on the financial condition of the Linz – Budweis line, constructed by Gerstner. Kraft’s report criticized the Austrian entrepreneur for having underestimated construction costs and having imposed a large deficit on the private investors. His conclusions confirmed the committee’s suspicions that Gerstner had been purposefully evasive in submitting estimates for his proposals in Russia, relying on his reputation as the builder of the first steam railroad on the Continent to see him through. Kraft’s careful estimates persuaded Nicholas that Gerstner lacked the capital to undertake construction of the St Petersburg – Moscow line.⁷⁵ It was a great victory for the engineers, for they had established their credentials as experts. Wielding their technical knowledge, they had exposed the irresponsibility of a private entrepreneur, a foreign specialist to boot, in planning a complex engineering enterprise. They accomplished this without discrediting the idea that Russia needed railroads. The next step was to convince the tsar that if the state provided the capital they could build Russia’s railroads as competently and probably more cheaply than private capitalists and foreign engineers.

The Russian engineers had a high regard for West European technology, but they opposed the idea of foreigners building Russian railroads and rejected the emerging alliance of bankers and engineers among the French St Simonians that substituted mixed public and private construction of railroads for Simon-pure state lines. Mel’nikov regarded Gerstner as only the first in a series of foreign experts who attempted “to exploit us” by taking advantage of Russia’s backwardness.⁷⁶ To the end of his life, Mel’nikov bitterly recalled Nicholas’s preference for “Germans” at the head of the Department of Transportation; first it was Tol’ and then Count Kleinmikhel. “Apparently, Nicholas Pavlovich did not know his Germans well,” Mel’nikov wrote in 1871, “and was little attracted by good Russians. It was this way: the upright character of the Russians, honorable and affectionate, was unsympathetic in his eyes. It was much more pleasant [for him] to have people around him like Count Kleinmikhel.” But Mel’nikov was not simply indulging his Germanophobia. He was equally upset by the appointment of Édouard Collignon, a graduate of the *École des ponts et chaussées* taught by

Mel'nikov's own former professors, to head the Grande Société des chemins de fer russes, a private company that was granted the concession to build the first network in Russia after the Crimean War.⁷⁷

Despite Mel'nikov's bitterness, Nicholas did not accept the gloomy predictions of his top advisers on railroads in Russia. He insisted on first-hand proof that railroads were both feasible and profitable by sending his engineers to Western Europe and the United States. The Belgian mission of Mel'nikov and S.V. Kerbedz in 1838 and the American mission of Mel'nikov and N.O. Kraft in 1840 yielded even more important results than those of Volkov to France and Kraft to Austria. The engineers returned from Belgium more than ever convinced of solid financial and strategic advantages of state-built lines. Rehearsing an argument which they would repeat again and again, they pointed out that private interests were not always consistent with public welfare, especially in reducing fares, encouraging the growth of trade and industry, and "developing the material and moral resources of the country."⁷⁸ In this case, Mel'nikov did not allow his enthusiasm for the technology to be affected by the knowledge that the Belgian network had been planned and built by French or French-trained engineers from the *École des ponts et chaussées*. Belgium was not, after all, a great power like Russia.

More than Belgium, however, the American mission provided Mel'nikov with practical proofs that his views were sound. Normally a cautious and reserved man, he returned from the United States intoxicated with the prospect of covering Russia with a vast rail network. American specialists encouraged him, explaining that in a huge country lacking modern communication like the United States and Russia, credit not capital was the only feasible way to build railroads "and your government can obtain it." Let the government lay down the trunk lines, they told him, and private capital will flow into the secondary lines.⁷⁹ Rhapsodic description, however, could not be expected to move Mel'nikov's superiors, nor were they really consistent with Mel'nikov's own style. He was after all a professional engineer, not a utopian socialist. Patiently he ground out a six-volume report on his trip. Mel'nikov's subject was highly technical and he was uncompromising in detail and precision. Later he claimed that the volumes were filed away in the archives without anyone having read them. This would not have been surprising. But Mel'nikov was wrong. In fact, over 400 pages were excerpted and published in the *Zhurnal putei soobshcheniia*.⁸⁰ Mel'nikov followed this up with a determined effort to submit to the tsar

personally his proposal for a Petersburg to Moscow railroad. Through the good offices of the former first secretary of the Russian mission in Washington, a certain Kremer, Mel'nikov became friend with Count A.A. Bobrinskoi, an enterprising capitalist landowner, an enthusiastic proponent of railroads and economic growth "à l'américaine," who also held the socially influential post of *Shtatmeister* in the court of Nicholas's enlightened second daughter, Grand Duchess Olga. Bobrinskoi not only agreed to present Mel'nikov's views to Nicholas on the need for a Petersburg – Moscow railroad, but also urged the Leipzig bankers Dufour and Harcourt to make the tsar a proposal to construct the line.⁸¹

By this time Nicholas was already convinced of the need and the technical feasibility of building major trunk lines in Russia. Over the course of the following decade, Nicholas authorized the construction of three such lines: St Petersburg to Moscow, St Petersburg to Warsaw, with a branch from Vilna to the Prussian frontier, and Moscow to the Black Sea. In each case the overriding consideration for the direction and terminal points must be viewed as strategic. As early as 1835, when the tsar made his first speech to the committee considering Gerstner's proposals, he outlined "all the advantages which, in his opinion, could derive from the construction in Russia of railroads on a large scale, especially for a rapid movement of troops when necessary." Only financial considerations had delayed his decision. Once the Moscow – Petersburg line had been completed and was in service, he created a special committee under the presidency of the heir, Alexander Nikolaevich, to examine the question of constructing a Petersburg to Warsaw line. Once again his finance minister, this time Count N.D. Gur'ev, pleaded the necessity for a postponement until it was determined how much income the Petersburg – Moscow line would generate during a normal year of operation. Nicholas agreed, but then reversed himself and ordered immediate construction mainly for strategic reasons: "In case of a sudden outbreak of war with the present state of the rail network in Europe, Warsaw, and with it our entire west, could be overrun by enemy forces before our troops could succeed in getting from Petersburg to Luga."⁸²

Shortly after construction had begun on the Warsaw line, as the Eastern Question heated up, Nicholas with a sense of urgency ordered surveys on the southern line to the Black Sea. Mel'nikov and Kerbedz were placed in charge. The Crimean War overtook both these ambitious projects, and they were suspended only to be resurrected as two of the five trunk lines within the network concession made to the Grande

Société after the war.⁸³ It was quite natural that Nicholas, trained as a military engineer, should have grasped the great strategic significance of lines to the western frontier and Black Sea and that as a Russian nationalist he should have insisted that although foreign capital would play a large role in the financing; “the work and material would be Russian and that the investment would bring interest and profit to Russia.”⁸⁴ These were to be state-built lines much as the Russian engineers wanted them to be.

There was no lack of eager entrepreneurs in Russia and Europe who sought to capitalize on Russia’s early interest in railroads. But the Russian entrepreneurs had little except enthusiasm to recommend them. The technical sections of their plans were imprecise and incomplete; their proposals for raising capital bordered on the fantastic.⁸⁵ The foreigners, especially Dufour and Harcourt, were more concerned with estimates on income and recommended that Nicholas create a committee to investigate the advantages of the line for trade and industry. Nicholas responded by appointing a group of railroad enthusiasts. Under the chairmanship of Count A.K. Benckendorff, another of Mel’nikov’s despised Germans but one who could be relied upon to carry out the tsar’s will, which was no longer in doubt, the committee included two engineers, Mel’nikov and Kraft, and two entrepreneurs, A.V. Abaza and Count Bobrinskoi, who had already submitted railroad projects of their own.⁸⁶ Chevkin, who had just returned from a mission to investigate British railroads, was added as a mediator. Abaza brought to the committee a well-informed and experienced merchant’s outlook, and it is due to him, no doubt, that the commercial sections of the final report were thoughtful and persuasive. But the bulk of the report reflects the influence of Mel’nikov.

Replete with references to the American railroad experiences, the document also emphasized that the state would be the chief beneficiary of the St Petersburg – Moscow line. The railroad would firmly link the capital with the interior. Rapid transportation of troops, mail, and grain for export would enhance the military, administrative, and financial power of the government.⁸⁷ Careful estimates of construction costs and revenues revealed that the line would be financially profitable, even though Mel’nikov insisted that it had to be more solidly built and thus more expensive than most railroads then in existence.⁸⁸

Nicholas sided with the engineers and ordered the state construction of the line, financed by the treasury, planned by Russian engineers, and built with rails manufactured in Russia. In order to circumvent the

residual bureaucratic opposition, Nicholas appointed a special committee under the heir Alexander Nikolaevich to administer construction and a technical commission to carry on the work. The latter, which actually supervised and built the line, was dominated by the engineers.⁸⁹ The only foreign engineer who participated in the construction of the St Petersburg – Moscow line was Major George Whistler, who served as a consulting engineer on the specific recommendation of Kraft and Mel'nikov.⁹⁰ During the following nine years, the Russian engineers shouldered the burden of constructing Russia's first trunk line. Although personal rivalries were bound to arise, the undertaking as a whole reinforced the professional ties that had been first forged in the institute. The Corps of Engineers came to regard the St Petersburg – Moscow railroad as the symbol of their technical equality if not superiority to West European and American engineers.

Outlines of a Profession

By the 1840s the general outlines of the Russian engineering profession were well established. Its evolution since Peter's time had run parallel to that of France rather than the Anglo-Saxon countries where the comparison is inappropriate. The polytechnic ideal with a strong St Simonian coloration had penetrated deeply into the educational institutions, publications, and mentality of the engineers themselves. The profession was open only to those who had passed through the officially approved higher schools; professional competence was certified by the state. The education of the engineers was comprehensive, incorporating both theoretical and practical subjects, science, and the arts. By combining preparatory and advanced classes, in a six-year course of study the engineers were enclosed in a self-contained system which enhanced their esprit de corps. Graduating as officers with high standing in the Table of Ranks, the engineers were automatically assured lifelong status and security.

The Institute of Transportation Engineers and the corps of mining engineers acquired a socially elitist coloration. From 1844 only hereditary nobles were admitted, in contrast to the Technological Institute and the handicraft schools, which were intended for "people of middle standing," the children of third guild merchants, *meshchane* and *raznochintsy*. The curriculum of the two elitist institutions reflected its class character. The aim was to give the graduates a gentlemanly polish, by teaching foreign languages, dancing, fencing, music, and singing as

well as instruction in the social graces which would enable them to move in higher circles of society. The study of French was obligatory for the transportation engineers in order to give them access to the latest technical literature. These obvious attractions for the sons of nobles brought in not only technical specialists but also, in the case of the Mining Institute, a number of brilliant guards officers. Under Nicholas I, about 77 per cent of the transportation engineers and 69 per cent of the mining engineers were from the nobility. Among them there was even a scattering of titled nobles, reaching a high in 1852 when fourteen including six princes were enrolled in the Institute of Transportation Engineers. The majority were Orthodox (85 per cent of the mining and 62 per cent of the transportation engineers) with a substantial minority of Polish Catholics and Baltic German Protestants. By this time, a very small percentage were foreigners. Nevertheless, Russia still needed the talents of foreign-born engineers recruited from abroad.⁹¹

Until the 1860s and 1870s engineering careers were almost completely identified with state service. Yet to be a loyal servant of the state was not the same as being a mindless robot. The engineers felt a deep obligation to put their special knowledge at the service of society, guided by their professional conscience. Their education and their careers mutually reinforced their collective belief that technology was the solution to social problems. Thus, they came to identify the general welfare with the growth of their influence within the bureaucracy. More uniformly than their French colleagues, they were devoted monarchists and centralists. They believed that the state should take responsibility for planning and developing both communications and natural resources; they remained suspicious of the private sector with its particularist, crassly materialistic aims. The dominant values in shaping the ethos of the Russian engineers, internationalism and technocracy, became deeply embedded in the culture.⁹² They survived major political upheavals and remained a powerful current in Soviet intellectual life into the late twentieth century.

After Peter the Great, the state was more ambivalent about the role of engineers in solving large policy questions. But it was forced to acknowledge, often under pressure, that a strong engineering profession with its own ethos was a vital necessity for the maintenance of Russia's great-power status. The marriage of technology and central state power had a natural attraction for Peter the Great and his successors, particularly Paul I, Alexander I, and Nicholas I. All three were given a military education; and all three were witnesses to the stunning achievement of the military engineers of revolutionary and imperial France, who for the

first time since the Roman Empire reconstructed the great highways, unified the waterways, and erected public buildings and other monuments throughout the European continent from Cadiz to Odessa, in a more lasting tribute to French genius than all the victories of Napoleon. It was one thing for the Russian autocracy to recognize the need for engineers, and another thing to answer it. The exigencies of war, domestic political pressures, and cultural factors worked time and again to deflect or weaken the imperial will. Half-trained engineers were hurried into field commands; nobles long resisted enrolling their sons in technical schools; the French Revolution revived ancient fears of alien ideologies penetrating Russia through secular education and technology transfer. Of the three constraints the latter proved the most damaging in the post-Napoleonic period. Even before 1825, suspicion of secret societies led Alexander I to tighten discipline in the technical schools. The involvement of three graduates of the Institute of Transportation Engineers in the Decembrist revolt and the sympathy of the French engineers for the Poles in 1830 intensified the militarization of technical schools after 1834, although foreign missions continued. The numbers of students enrolled in the Mining Institute fell from a high of 500 in 1830 to fewer than 200 by 1848. Following the revolutions of 1848 even foreign contacts were cut off and the Russian engineers were isolated from the stimulating international scientific and technical milieu which had originally helped to shape their training and outlook. It required the shock of the Crimean defeat and the reforming impulses of the new tsar, Alexander II, to restore the international ties, end the militarization of the higher technical schools, and usher in a new era in the history of Russian engineering.

Chapter Six

The Economists

After the Crimean War, a third model of economic development began to take shape in the hands of a group of economists associated with the Ministry of State Domains and the Ministry of Finance. Their work prepared the way for the policies of M.Kh. Reutern, minister of finance from 1862 to 1877. Reutern emerged as the chief advocate of an integrated economic plan that combined banking, currency, tariff, and budgetary reforms together with railroad construction. His proposals for a railroad network featured a unique combination of private foreign capital and Russian entrepreneurial talent under the supervision, and on occasion with the intervention of, the state bureaucracy.¹ Seen in the perspective of the long nineteenth century, his views represent an intermediate stage between the bureaucratic reformers of the reign of Alexander I and the full-blown industrial policy of Sergius Witte at the end of the nineteenth century. These links have not been clearly established and require an investigation of the theoretical foundations and the politics of economic development.

Among the forerunners of an integrated financial-industrial policy as promoted by Reutern and his associates, three figures stand out: O.P. Kozodavlev, M.M. Speranskii, and Admiral N.S. Mordvinov. Speranskii is best known as the author of the Financial Plan of 1810 and his administrative reforms. Although he favoured the development of Russian industry, he gave primacy of place to agriculture as the pillar of state prosperity. His views on industrial development were vague. In theory he favoured an amalgam of the theories of Adam Smith and the physiocrats. In Marc Raeff's vivid image, Speranskii held that "the road that led to freedom and individualism in economic life had to be travelled in conveyances provided and administered by the state." This was the

“blind, spot” that persisted in Russian economic thinking to the end of the regime.² By itself, however, the combination of the two theories was not unique to Russia; other countries, notably France, followed the same trajectory. The problem for Russia was that the policies of the state were exclusively formulated by the bureaucracy and were not controlled by a national representative institution or moderated by a vigorous and autonomous capitalist marketplace. Therein lay serious implications of the contradiction and weakness of the system.

O.P. Kozodavlev remains one of the unsung reformers under Alexander I. Sent as a youth to study law at Leipzig University but strongly attracted to literary studies, he returned to Russia to serve for many years in the Academy of Sciences. There he participated in editing Lomonosov’s work. Serving in the Senate under Paul I and Alexander I, he was an active force in promoting reform in education and criminal law. As minister of interior from 1811 (de facto 1810) until 1819, he devoted himself primarily to promoting domestic industry and trade, in addition to his encouragement of agriculture and the spread of colonization. His main aim was to remove obstacles to manufacturing and to protect Russian industry from foreign competition. He also invested government funds in the development of industry and sponsored the publication of a whole series of instructive monographs on various branches of manufacturing. His efforts were responsible for a strong increase in the production of silk, wool, sugar beet, and sesame products. Following Alexander I’s instructions, he drafted legislation for the liberation of serfs through mutual agreement with landowners and the liberation of the serfs in the Baltic provinces, taking steps, however timid and incomplete, to further increase and strengthen the middle stratum in Russian society. A champion of openness (*glasnost*) in government, he encouraged the discussion of economic questions, especially manufacturing, in the pages of the official journal of the ministry, *Severnaia Pochta*. Much of his work lapsed with his death.³

Admiral Mordvinov was a more systematic, prolific, and innovative thinker on industrial policy. Yet he did not occupy a major office in the bureaucracy and had almost no influence on state policy under Alexander I. He even fell under suspicions in the early years of Nicholas I’s reign for his outspoken views on politics as well as economics. Yet, although he remained a marginal figure in the political world, his economic writings were widely disseminated.⁴

By contrast, during the entire reign of Nicholas I, the ministers of finance were preoccupied with monetary policy and tariffs. From 1824 to 1844 the position was held by E.F. Kankrin, who despite his

knowledge of Western economic thought – he had read and understood Adam Smith – believed that the Russian economy could not afford to expend its poor capital resources on developing industry. His first commitment was to maintain fiscal stability. For social and political reasons he favoured extending credit to the nobility to sustain agricultural production instead of extending loans to industrialists. He believed that the high protective tariff instituted in 1820 was sufficient protection for Russian industry to develop. During his two decades in office, the government Commercial Bank and Treasury systematically turned down applications for credit to develop industry.⁵ His successor, F.P. Vronchenko, was regarded by his contemporaries as a badly educated, insignificant bureaucrat who like Kankrin owed his long term in office to his reputation for honesty and loyalty to the throne. His successor, P.F. Brok, was also a time server in the ministry, where he had spent eighteen years before being appointed. He also proved to be unpopular and unsuccessful, being blamed for the massive printing of paper money to pay for the Crimean War and then failing to reduce the debt by paying it off with inflated rubles.⁶

In 1858 Brok was replaced by A.M. Kniazhevich, who had occupied subordinate positions in the ministry, having been passed over twice as minister despite his expertise. It was characteristic of the youthful and inexperienced Alexander II to appoint men who had loyally served his father, even though they were not suited to take up vigorously the cause of reform. Already sixty-six years old and worn down by routine work, Kniazhevich himself admitted he lacked the energy and competence to deal with the complex problems facing Russia. His main preoccupation was to place state credit on a firm foundation, but he could think of no more imaginative means to that end than to reduce all non-essential spending, which included cuts in the military budget. His efforts to increase state income were ineffectual.⁷ One of his main contributions to the cause of reform came from his advocacy of *glasnost* in the realm of finances and the budget.⁸ The other was his project of recruiting a new generation of financial specialists. This cohort, which will henceforth be called the economists, belongs to the more general category of “enlightened bureaucrats,” as Bruce Lincoln has called them.⁹ They led the campaign for economic development over the following twenty-five years. Their intellectual formation took place in the period when new ideas on political economy began to filter into Russian public life, despite attempts by opponents to prevent Western influences from subverting the true course of Russia’s destiny.

These economists sought to adapt ideas generated in Western Europe under different historical circumstances to the realities of Russia, seeking to find a balance between the operation of the free market and the perceived needs of the state. They are sometimes called the Russian Smithians or, because Smith came to Russia through the heavy screen of German political economists, representatives of the German-Russian historical school as later defined by Wilhelm Roscher.¹⁰ But a clear distinction must be made between the two visions of economic development.

The Russian Smithians and the Historical School

The Russian Smithians believed in the application of certain universal principles to problems of Russian backwardness. They were proponents of strict policies of free trade, *laissez-faire* policy, and defence of private property in the agrarian question, which in the Russian context translated into an acceptance of serfdom as long as it proved economically viable and an abolition of the peasant commune if and when emancipation took place. They viewed the peasants as fundamentally backward and favoured greater freedom of action for the nobility in dealing with them. They also favoured transferring state lands into the hands of private property owners, presumably members of the nobility.¹¹ Following a familiar pattern of transfer, Smith's ideas penetrated into Russia along several intellectual paths. A few Russians studied directly with Smith and returned to spread the glad tidings. Under Catherine II the Imperial Free Economic Society became a centre of Smithian influence as well as physiocratic ideas. The major writings of Smith's French disciple, Jean-Baptiste Say, were almost immediately translated into Russian and continued to have an influence on the development of ideas of political economy into mid-century.¹²

For the Russian economists the most powerful current of thinking about political economy coming out of Germany was the new science of statistics. The term *statistik* derives from the importance of numbers for statecraft, and by its very definition differs from the English concept of political arithmetic. The German historical school of statistics assumed the point of view that there was no sharp distinction between the state and civil society, which was quite the opposite of the view evolving in Britain, where written records originally served the function of providing certainty in establishing the identities of the individual and family. Thus, for the German school and its Russian proponents, statistics possessed the means for determining state policy on rational

and predictable grounds which might on occasion run counter to the entrenched interests and the traditional policies of the ruling elites. For an “enlightened despot” statistics could be perceived as serving benevolent ends; in the German and Austrian universities of the eighteenth century the academic discipline of *statistik* was supposed to provide graduates with the knowledge required to manage the resources of the state to maximize the wealth and well-being of their countries.¹³ But for an autocrat determined to resist change, statistics had the potential for subversion. Perhaps this is why from time to time in Russian and Soviet history publishing statistics has been perceived as subversive of the established order and statisticians have suffered the consequences.

One of the earliest transmitters of Adam Smith’s theories through the filter of the German historical school was Heinrich Storch, a Baltic German who had been educated at Jena and Heidelberg before entering Russian service as a teacher of the Cadet Corps and then an official in the foreign ministry. He began to publish a series of works in the 1790s, the most serious of which was a historical-statistical study of Russia which showed the first evidence of the influence of Adam Smith.¹⁴ Storch appears to have imbibed Adam Smith directly rather than through any intermediate interpreters, although Smith’s work was already well known in Russia. At the same time that he proclaimed the importance of *laissez-faire*, Storch also insisted on the centrality of the autocracy in creating the institutional prerequisites for growth. He stated that no laws, including those of Smith, could be blindly applied to Russia and implied that his work on political economy would fill the gap; clearly, he was intent on maintaining his position in Russia as an adviser to the imperial court.¹⁵

In addition to natural liberty, the division of labour, and the psychology of self-interest – the universals – Storch insisted on the organic view of change. In his *Historische-statistisches Gemälde* he acknowledged the importance of Russian historical development with respect to the development of industry, commerce, colonization, and the middle class.¹⁶ But this enabled him to propose a solution to the problem of serfdom that fell short of full emancipation by suggesting that all bonds of servitude in Russia would gradually disappear. His goal was to introduce capitalism in agriculture and commerce, to which he gave precedence over the development of industry. Like many of the economists who followed him, Storch identified capital shortage as the main obstacle to productivity, but he said little of how investment would take place. He strongly opposed a state investment program. In the

final analysis, Storch's attempt to reconcile autocracy and laissez-faire was not successful. The problem of whether or how to do this remained a troublesome one for economists in Russia over the remainder of the nineteenth century.

An alternative and more successful scheme to marry economic freedom with autocratic politics emerged from the work of another German scholar, August-Ludwig Schlözer, who left a more profound influence on the thought and practice of Russian political economists in the nineteenth century, a figure who has already made an appearance in these pages. In his treatises on statistics as in his historical work, Schlözer's teaching, writing, and his training of both German and Russian students made him a centre for diffusing a powerful current of economic thought throughout Russian institutions of learning and public discourse. As an outstanding member of the Göttingen School of statistics, otherwise known as the state school, Schlözer relied heavily for his basic ideas on the previous work of Gottfried Achenwald, his predecessor at Göttingen, who is generally credited with having coined the term *Statistik*.

In the mid-eighteenth century, Achenwald had broadly redefined statistics not only in scope to include geographic, ethnographic, historical, and legal as well as economic data, but also in function as the necessary adjunct to a statesman's education. Schlözer continued his work, publishing in 1804 his *Theorie Statistik*, which had a great influence on Russian political economists at that time. Outside the state, in his view, there were no statistics, only ethnology. But it was important to select for analysis only those elements that were important for the well-being of society. The object was to bring together through exact and reliable figures information on the territory, population, and industry of the state as the basis for making policy.¹⁷

Schlözer's first major Russian interpreter was Karl Fedorovich German', the father of Russian statistics. A graduate of Göttingen and student of Schlözer, from whom he acquired his passion for detailed and accurate analysis, he arrived in St Petersburg in 1795 as the tutor in the household of Count D.A. Gur'ev, the future minister of finance, one of whose sons, A.D. Gur'ev, became president of the Department of State Economy. Three years later German' was appointed rector of the gymnasium attached to the Academy of Sciences. As the first appointment to the newly established chair of statistics at the academy, German' was one of the most successful popularizers of the ideas of the Göttingen school in Russia.¹⁸ His two textbooks published a decade later were

the first theoretical works in Russian on statistics inspired by Schlözer.¹⁹ Under his editorial guidance, the *Statisticheskii zhurnal* began to appear in 1806, producing four volumes including the reports of the Ministry of the Interior. German' was optimistic: "political secrecy" had disappeared, driven out of Russia by the wisdom of the monarch. "What secrets can the father have from his children?" he exclaimed.²⁰

The optimism of German' appeared to have firm institutional foundations. Two important schools in the capital, the Imperial Tsarsko Sel'skoe Lycée and the St Petersburg Pedagogical Institute were centres of the Göttingen School of political economy. The Lycée had been created by Alexander I on a model designed by A.K. Razumovskii, the minister of education, and M.M. Speranskii. Originally, it was intended to give a broad humanistic education and its first class shone with stars like Pushkin, Baron A.A. Del'vig, a lesser known but equally influential poet and literary figure, and Wilhelm Küchelbecker, the poet and Decembrist. In its revised form after 1815 it acquired a more utilitarian cast than originally planned and ended up more in the Petrine tradition's abortive *kamer-junker* school for training civil servants. However, the curriculum included finance, jurisprudence, moral history, logic, and the German language, to which great importance was attached.

After a number of temporary appointments, the post of director was filled in 1816 by E.A. Engel'gardt, a man of many talents and broad experience in military and administrative affairs who had been taught his political economy by Storch. Engel'gardt had even collaborated with Storch in publishing a multi-volume work in German on the reign of Alexander. He had previously served as director of the Pedagogical Institute. In both positions he exhibited an openness, independence, and interest in promoting the latest German scholarship which in the case of political economy meant the work of the Göttingen School.²¹ But storm clouds were already gathering over the state school, which was targeted as a cradle of subversion.

Periodically in Russian history, attempts of reformers to institute new policies of economic development have encountered powerful enemies in the state bureaucracy and society who regard with suspicion any sign of creative borrowing from Western models, no matter how modified to fit Russian conditions. In Russia following the Napoleonic Wars, the same obscurantists who raged against the philosophical abstractions of Schelling's Russian disciples also denounced the scientific principles of Schlözer's Russian disciples. In 1819 a thirty-year-old statistician and geographer recently appointed to the newly established University

of St Petersburg (formerly the Pedagogical Institute), Konstantin Arsen'ev, was attacked for writing and lecturing against the interests of the state. This touched off a controversy that threatened the entire fledgling field of Russian statistics. Like many of his educated Russian contemporaries, Arsen'ev was the son of a priest, trained at a seminary before entering the St Petersburg Pedagogical Institute.²² After graduating he began teaching at the institute, under Engel'gardt's enlightened administration. In 1819 Arsen'ev published a text on statistics with a preface acknowledging his intellectual debt to German'. Shishkov's journal, *Dukh zhurnalov*, immediately took him to task for having stated that "an entirely unproductive class is, in political-economic relations, completely insignificant; it is a heavy burden for the state." Wasn't this a reference to the nobility, clergy, and military, asked the reviewer? Although Arsen'ev found a defender in *Syn Otechestva*, the controversy attracted the attention of Dmitri Runich, who was then a member of the Main Administration of Schools.

Runich was already on the intellectual warpath, having attacked Professor Kunitsyn, author of a text on natural law as a "collection of anti-Christian, anti-monarchist absurdities." Kunitsyn had been trained at Göttingen in law and finance, but he was also influenced by the ideas of Adam Smith.²³ Runich then turned against S.S. Uvarov, at that time the trustee of the St Petersburg educational district, denouncing his plan for the newly created university as "completely unbefitting a Russian university" and "simply a copy of the present day liberal German university." Uvarov was forced to resign and Runich took his place. He then confiscated student notebooks from Arsen'ev's class and uncovered evidence constituting what he called, in a report to the rector, an assault on morality and the well-being of the state. Arsen'ev together with three other professors was brought before a special university court. He defended himself by citing Schlözer to the effect that it was necessary "to establish results on the basis of facts that are statistically correct."²⁴ The problem with citing Schlözer was that he already had acquired a reputation in Germany and Russia as a liberal reformer.²⁵

In 1821 at the Trial of the Four Professors, Magnitskii entered the fray. Three of his four targets were political economists who shared the views of Schlözer and Adam Smith: Arsen'ev, German', and Kunitsyn. The fourth was the Schellingian, Galich, who wrote an abject confession and was forgiven. The others felt the full force of Magnitskii's attack. He systematically exposed Arsen'ev's sins, accusing him of spreading subversive ideas in the guise of statistical analysis and attributing some

of them to Schlözer. Magnitskii found Kunitsyn's book on natural law to be riddled with "false principles leading to highly harmful teachings, contradicting Christian truth."²⁶ Kunitsyn was forced to resign from the Lycée; Arsen'ev and German' were driven out of the university. In vain Engel'gardt courageously attempted to protect his staff from the attacks of the obscurantists; surrounded and harassed by intriguers he resigned in 1823. But the result of the persecution and purges of the political economists was paradoxical.

Shortly after their disgrace the victims recovered their reputations and were reappointed to important posts in the government. Arsen'ev was rescued from exile by none other than Grand Duke Nicholas Pavlovich, the future tsar, who took him aside and chided him in his paternalistic way. "What's wrong with you, Arsen'ev? Why are they pursuing you this way? We know you are pure and honourable. Don't worry, you'll stay with us and won't lose a thing."²⁷ True to his word Nicholas Pavlovich protected Arsen'ev, retaining him as an instructor in the engineering and artillery schools and, after 1825, personally appointing him to teach statistics and history to the heir, Alexander Nikolaevich the future Alexander II, the tsar liberator. Arsen'ev was given access to all the official statistical material in the imperial archives in order to bring the history of Russian statistics up to modern standards. The results of his work were published in several monographs on the previous reigns of Peter II and Catherine II as well as a comprehensive study of the contemporary state of Russia's resources, *Statisticheskie ocherki Rossii* (St Petersburg, 1848), based on the archives of the Mining Department, the Ministry of Interior, and other departments. Arsen'ev's relations with the heir, Alexander Nikolaevich, were particularly close. When the heir embarked on his tour of Russia in 1837, he was accompanied by only two scholars, his tutor, the poet Zhukovskii, and Arsen'ev.

Already in 1832, Arsen'ev was appointed a member of the council of the Ministry of Interior and soon was put in charge of the statistical section, where for the following twenty years he published a stream of books and articles which earned him the reputation of one of the founders of Russia's official statistics. There he joined with another leading statistician, G.P. Nebolsin, in organizing a statistical study of Russia's trade, guilds, and manufactures, recruiting a group of younger officials, including N.A. Miliutin, the future reformer and deputy minister of interior, and, A.P. Zablotskii-Desiatovskii, one of the co-founders of the Imperial Russian Geographical Society. Zablotskii's work attracted the attention of Count P.D. Kiselev, who appointed him in 1840 editor

of the newly founded *Journal of the Ministry of State Domains*. Zablotskii played an important role in preparing the work for Kiselev's reform of the state peasantry, providing statistical information that demonstrated the advantages of free over serf labour.²⁸

Acquiring additional honours, Arsen'ev joined with Count F.P. Litke in 1845 to found the Imperial Russian Geographical Society, the source of much of the inspiration and hard work of the economists and statisticians in the emancipation of the serfs, becoming its vice-president from 1850 to 1854. Like his mentor Arsen'ev, he fell under the suspicion of reactionaries including the powerful M.N. Murav'ev (later nicknamed "the Hangman" for his repression of the Polish revolt). As minister of state domains, Murav'ev abolished his entire department of agricultural economy. But as with Arsen'ev, imperial protection enabled him to survive and rise in the bureaucracy, becoming in 1859 state secretary of the department of economy of the State Council. From this position, he played an active role in the preparation of the emancipation and a decisive role in the abolition of vodka tax farming, an achievement which earned him even more enemies. But Alexander II continued to honour and reward him.²⁹ Thus did Arsen'ev serve as the link between the Göttingen school of political economy and the reforming activities of the tsar and his advisers.

Although German' lost his university post, he remained secure in the Academy of Sciences as an adjunct, and then in 1836 as a full member. He also served as an inspector in several elite schools and for many years until his death in 1838 as chief of the statistical section of the Ministry of Interior. Kunitsyn also recovered nicely, entering the chancery of the Ministry of Finance and in 1826 becoming a senior official in the second section of His Imperial Majesty's Chancery, participating actively in the drafting the Civil Code. Engel'gardt returned to public activity in 1836, when he was appointed editor of the *Agricultural Gazette* (*Zemledel'cheskaia gazeta*), originally published by the Ministry of Finance, where he remained until 1853. Nevertheless, in 1822 the Lycée was placed under the Military Educational Administration, where it long remained. Nicholas expressed his satisfaction that under that administration there would not be any more graduates "in the spirit of Engel'gardt," by which he meant that the Lycée would return to its original mission of training people for the civil service.³⁰ This is what happened, but only to a degree.

The spirit of Pushkin remained strong. Graduates of the Lycée recalled through a romantic haze the intimate atmosphere of learning

and comradeship that suffused the rest of their life. Like the other elite Russian educational institutions, such as the School of Jurisprudence, the Lycée fostered personal relations that became the invisible threads that united many of the reforming officials in a common cause.³¹ By an ironic twist, it was fortunate for the faculty and students that they were removed from the pernicious surveillance of the Ministry of Education, then firmly in the hands of the obscurantists, and entrusted to a military figure. The military men turned out not to be martinets. Even Grand Duke Mikhail Pavlovich was impressed by his charges at the Lycée. "These lycéens," he wrote, "are a surprising bunch; they are liberal but at the same time they quickly master all the requirements of military service and are superb officials."³² The long-term director, Ia.I. Rostovtsev, not yet the reformer he was to become in the preparation of the emancipation, was a strict disciplinarian but only in appearances. The Lycée also maintained a faculty with high standards and established a new department of political economy in 1837, where the works of Arsen'ev and German' continued to be taught. The graduates in the 1830s read like an honour roll of the reformers of the 1860s, with the economists leading the pack. Among them were M.Kh. Reutern (1839), the future minister of finance; A.V. Golovnin (1839) and Baron A.P. Nikolai (1839), both future ministers of education; E.I. Lamanskii (1845), director of the State Bank; and V.P. Bezobrazov (1847), professor of political economy. The latter two were also high-ranking officials in the Ministry of Finance.

In Kiev the key figure in spreading the Smithian message was I.V. Vernadskii, who taught political economy at St Vladimir University before going on to Moscow in the early 1850s and finally to Petersburg to teach at the lycée and university. One of the galaxy of the second generation of political economists, Vernadskii was a prominent member of numerous reform committees during a decade of service in the Ministry of Interior, including the committee to organize the land banks. His views were close to those of the Manchester school, and he was a supporter of tariff reform, leading to the revision of 1857. The peak of Vernadskii's influence came in the late fifties and early sixties when he edited a series of periodicals devoted to promoting free trade and a dissolution of the peasant commune. But like most Russian Smithians he never abandoned the idea of an active role of the state in the economy, although as late as 1881 he still thought it worthwhile to translate Storch's *Course on Political Economy or Establishing Principles Promoting the Welfare of the People* into Russian as *Kurs politicheskoi ekonomii ili izlozhenie nachal*

obuslovivaiushchikh narodnoe blagodenstvie. Already in Kiev, he exercised a strong influence on his younger contemporary N.Kh. Bunge, the future minister of finance.³³

In Kazan the polymath I.K. Babst, who had been educated at Riga and Moscow as a historian, taught political economy from 1851 to 1857. He formulated his views on political economy under the influence of Wilhelm Roscher, whose work he translated. Before moving to Moscow University, he was already an advocate of the productive investment of capital. He denounced the privileges of individuals and social groups (*soslovie*) as the main obstacles to this end and proposed the establishment of banks and the construction of railroads as the main means of overcoming them. These views attracted the attention of Vernadskii, who brought him to Moscow. There he fell under the influence of the Slavophil entrepreneurs and became the editor of their leading journal, *Vestnik Promyshlennosti*, gradually shifting his views to become a staunch supporter of protective tariffs. As tutor to two successive heirs to the throne, Nikolai Alexandrovich and Alexander Alexandrovich, the future Alexander III, he propagated his views at the highest levels of government.³⁴

Not all the economists followed the same trajectory leading to reform. F.G. Ternier provides an example of a gradual convert to Western political economy as his career began to intersect with those of like-minded men. Educated at Derpt University in the 1840s, he avoided politics and, by his own admission, lacked any strong views on political economy. But he then worked in various capacities for Ludwig Tengoborskii in Warsaw, helping to compile *Études sur les force productives de la Russie*. Under the influence of Tengoborskii and G.P. Nebolsin, he recognized that the great advantage of the United States in competing with Russia for the export of grain and cattle rested on the American processing industries. The Crimean War convinced him of the necessity for Russia to process its own raw materials and open commercial markets overland. His articles began to appear in the *St Petersburg vedomosti*. Having begun his bureaucratic career under Count Kiselev in the Ministry of State Domains, he came to know the liberal economist A.P. Zablotskii-Desiatovskii, Kiselev's biographer and a protégé of the statistician Konstantin Arsen'ev. It was then that Ternier discovered the writings of Jean Baptiste Say, which inspired him to develop a more systematic concept of economic development. Like other economists, he yearned to place his knowledge at the service of broader concerns in the Ministry of Finance.

Post-Crimean Crisis

While the economists were slowly moving up the ladder of the imperial administration in time-honoured Russian fashion, the defeat in the Crimean War greatly accelerated that process. It abruptly brought home to the highest officials and the new tsar, Alexander II, the danger to the empire of continuing the struggle and the need to undertake reforms in order to overcome fundamental weaknesses in the military, financial, and transportation sectors. Shortly after the death of Nicholas I, Alexander II came to the realization that his government faced a crisis of unprecedented proportions. Russia's military and economic position was threatened by collapse. His closest advisers had counselled peace and reform.

After the fall of Sevastopol, the grim prospect of fighting most of Europe compelled Alexander to seek counsel with the elder statesmen of his father's generation. At two conferences, "the wise men" repeated and embellished their gloomy prognosis that a continued war might add the Habsburg Monarchy and Sweden to the already formidable coalition of Russia's enemies. Not only might Poland and Finland then be lost, but the country would face the complete exhaustion of its financial resources. The much respected Count P.D. Kiselev declared: "The war will inevitably lead to bankruptcy." To continue the fighting would be to reduce Russia to the state of Sweden after the wars of Charles XII.³⁵ The point was reinforced by a similar view expressed by the war minister, General V.A. Dolgorukov, who raised the spectre of a general European war against Russia. In a separate memorandum, he lamented that Russian industry was incapable of replacing losses in materiel in case of a complete blockade. He concluded that "after several unsuccessful campaigns the peace terms will be even harsher for us: in that case all the sacrifices will have been only a vain squandering of Russia's last resources."³⁶

Nor was the immediate fear of dismemberment a figment of overheated Russian imagination. British and French war aims, though never consistent or coordinated, envisaged stripping Russia of part or all of its western borderlands. Napoleon favoured the re-establishment of Congress Poland of his uncle's time, and the British at their most reasonable hoped to detach the Caucasus. Even the neutral Swedes, though internally divided, were eager to regain Finland if Russia's decisive defeat could be assured.³⁷

After the war, internal tensions continued, concentrated in the Kingdom of Poland. The same fears returned to haunt Alexander II and a

new generation of advisers. In a confidential instruction to his brother, Konstantin Nikolaevich, the newly appointed viceroy of the kingdom in June 1862, the tsar firmly rejected any thought of granting the Poles a constitution or reconstituting a national army. To act otherwise, he wrote, would be "to give up Poland and recognize its independence with all the ruinous consequences for Russia that is the breaking away from us of everything that was ever conquered by Poland and that Polish patriots to this day consider their patrimony." It would be even worse, he continued, to court the Poles under the banner of Pan-Slavism for this could only lead to "the disintegration of Russia, not merely into separate governments but into separate and probably hostile republics."³⁸ These ever-present concerns must be kept in mind when considering the post-Crimean debates over financial stability and railroad construction when strategic and political concerns competed with economic considerations.

Foreigners and Russian railroad specialists agreed that the Crimean War offered "a striking example of the advantages which ... railroads can bring to the defense of a country. Climate and distance can be conquered; with the help of railroads Russia could have thrown several hundred thousand men into the Crimea and supplied them."³⁹ At the height of the siege of Sevastopol, one of the tsar's personal adjutants, General S.P. Golitsyn, translated for a Russian audience an anonymous German pamphlet on the uses of railroads in warfare. Golitsyn frequently served as a semi-official publicist by presenting the views of the autocracy on such controversial matters as the Eastern Question and peasant reform.

Almost daily confirmation arrived in St Petersburg of the price Russia was paying for the absence of a major network. In August 1855 a Russian army of 200,000 men was pent up in the Crimean peninsula. They could only be supplied and reinforced by two dirt roads which led across the inhospitable steppe and were virtually impassable for several months of the year because of either the spring thaw or the winter snows. Huge convoys of peasant carts struggle to bring food, supplies, and drinking water to the defenders.⁴⁰ Among the numerous proposals made during the war, the one which interested the tsar would have crossed the steppe between Perekop, at the mouth of the Crimea, and the Dniepr River. In addition to referring the plan to the minister of finance, the head of the Main Administration of Transportation, and the Railroad Committee, on which Alexander II had served when he was heir, the tsar took the unusual step of consulting the commander-in-chief of the Crimean army, Prince M.D. Gorchakov. Gorchakov insisted

that before any action could be taken, careful estimates and surveys should be made. The originator of the plan, the enterprising industrialist General S.I. Mal'tsov (not to be confused with his cousin, I.S. Mal'tsov, also a wealthy noble entrepreneur), realized that it was impossible to work out accurate estimates for this short stretch of line so close to the zone of military operations. He successfully petitioned the tsar to enlarge his proposal to include a southern line linking the Crimea to Moscow.⁴¹ Yet the war was lost without a single mile of rail having been laid down, even though the idea of a southern railroad had been under consideration since 1852. The unwieldy bureaucratic structure was incapable of responding quickly to an emergency situation.

If dismemberment was a recurrent nightmare for Russian policymakers, the threat of economic collapse was just as pressing in the post-Crimean years. By the end of the war, Russia conformed to the classic model of a failing economic power: high levels of foreign debt, a depreciating currency, a negative trade balance, and stagnant levels of coal and iron production. Looming over all these shortcomings was the institution of serfdom. For a generation the state budget, a chaotic and secret affair to begin with, was in chronic deficit. State indebtedness had climbed to three quarters of a billion rubles by 1854 and doubled during the three years of war. The government could not increase its revenues without a fundamental transformation of the economy including the abolition of serfdom. The income from direct taxes on the peasantry (the poll or head tax) had scarcely increased from 1840 to 1854. The production of pig iron and coal remained at virtually the same level from 1830 to 1851, although the population had risen by 10 per cent. Despite a prohibitive tariff, the importation of metallurgical products rose steadily during the same period. Lacking competition, the inefficient Ural factories running on serf labour with access to plentiful forests for fuel, provided four-fifths of Russia's iron, but at exorbitant cost. Deliveries were hampered by the deplorable condition of Russia's communications system. The movement along Peter's vaunted canal system was extremely slow due to the lack of steam transport and the winter freeze-over; from the lower Volga to St Petersburg freight required two navigation seasons. The dirt roads, normally in disrepair, were unusable in spring and summer for the transport of heavy freight like iron and steel. Thus, Russia's iron and steel industries were unable to provide for the needs of railroad construction, to say nothing of steam machinery. The lack of a skilled labour force, due in part to the serf economy, forced the few machine tool factories to rely on

foreign workers. The private factories of Baird and the state factory of Alexandrovskii in St Petersburg served as centres for distributing practical knowledge. But there were too few of these; in 1850 Russia had only twenty-five machine tool factories with 1475 workers. The lack of skilled technicians was further hampered by the absence of any higher educational institution preparing engineers for machine building.⁴²

Exports fluctuated widely depending upon the unpredictable harvests in both Russia and Europe. In the prewar generation Russia enjoyed a narrowly favourable balance of trade, but payments on foreign loans had swallowed up 87 per cent of the net income earned. And the balance was shifting against Russia. It was unfavourable in half the years between 1845 and 1855. The only item of state income that showed a significant increase was the sale of alcohol, a familiar but unwholesome indicator of social decay.⁴³

The shock of the Crimean War brought home the penalties of Russia's economic backwardness, rattled the upper ranks of the bureaucracy, and completely overwhelmed the minister of finance, P.F. Brok, who was incapable of coping with the situation. A brief mini-boom was deceptive. A rush to invest the highly inflated paper currency accumulated from war profits, the vodka tax farming, and reckless printing of money poured into jerry-built joint stock companies. During the three years from 1856 to 1858, the annual number of companies incorporated jumped from eight to fifteen to forty-three. The government encouraged this speculative fever in hopes of soaking up the excess paper. It cut interest rates on deposits in state credit institutions from 4 to 3 per cent, partly in order to encourage investment in the newly planned railroad companies, but also to reduce the charge on the state budget of 6 million rubles in interest payments to depositors. Within a mere six months, the sharp increase in savings was reversed with shocking results. Deposits which had increased from 20 million rubles before the war to 140 million rubles in July 1857 fell drastically to 95,000. The state was caught short by the sudden withdrawals. It had already borrowed half the deposits to cover its own budgetary needs and had loaned the rest to the nobility. In neither case had the capital been invested in productive enterprises. And there was no way of recovering the loans quickly if at all. The government's contingency plan had been to issue long-term state bonds bearing 4 per cent interest in hopes of soaking up the excess savings and preventing a massive withdrawal of deposits. But investors preferred to purchase state-guaranteed railroad bonds at 5 per cent and other high-yield but speculative issues.⁴⁴

At the same time, Russia was hit by the European depression of 1857. Foreign investors began to unload Russian securities, including railroad stock, demanding payment in hard currency. The flight of gold further undermined confidence in the ruble, already shaken by recurrent budget deficits and borrowing abroad. The international ruble rate of exchange fell to 83 per cent of par. In desperation the state turned once again to its only source of capital – foreign loans. In 1859 and 1860, two large consolidation loans floated in England and Prussia warded off imminent catastrophe. But the international money market, unsettled by the outbreak of the wars of Italian unification, was slow to subscribe. It was clear that the entire banking, credit, currency, and budgetary structure of Russia needed a thorough overhaul.⁴⁵

The realization was not slow in coming that extensive structural changes in the financial sector, together with the ambitious program of railroad development that was being planned, could not be carried out without large-scale foreign investment. An imperial *ukaz* of January 1857 emphasized the desirability of attracting foreign capital to Russia in order to launch a great rail network and “to make use of the considerable experience acquired in the construction of many thousands of miles of railroads in Western Europe.”⁴⁶ But foreign capital would only flow into Russia if the international climate was propitious. On the surface this did not appear to present problems once Russia had quickly restored good relations with France. Alexander II harboured no territorial ambitions in Europe (unlike in the Caucasus and Central Asia), intending only at some later date to push for revisions of the Black Sea clauses of the Treaty of Paris. The only shadow on the horizon was the status of the Kingdom of Poland which Europe, especially France, continued to regard as an international question, a position Russia firmly rejected. The larger problem was that the Russian Empire was as yet unable to break the connection between economic backwardness, frontier security, and the nationalities question. The prospect that the success of the reform of finances at home depended upon the perception of Russian policy as compatible with international norms raised serious questions about the ability of Russia to continue to play the role of an independent great power.⁴⁷

Spirit of Reform

Within a year after signing the humiliating Peace of Paris, the Russian government undertook a series of policies that would in the space of a

decade profoundly transform the country. The centrepiece was, to be sure, the emancipation of the serfs.⁴⁸ But parallel to its preparation a number of reforms in the economy set the stage for Russia's first systematic attempt to launch an industrial policy under the ministry of M.Kh. Reutern. There is no evidence that these policies had been planned or coordinated. Yet they embodied many of the ideas of a mixed economy that had been evolving from the penetration of Western ideas on political economy and the rise of a new generation of trained economists and statisticians slowly making their way through the ranks of the state bureaucracy.

Their advance to positions of influence was facilitated in part by the patronage of powerful figures in the imperial family, particularly the tsar's brother, Grand Duke Konstantin Nikolaevich, and his aunt, Grand Duchess Elena Pavlovna. An unusually well-educated and intelligent member of the imperial family, Grand Duchess Elena Pavlovna invited many of the young economist reformers to her salon evenings for discussions on Russia's future. She helped them make contacts with highly placed bureaucrats and sought to experiment with plans to emancipate the serfs by applying them to her own estates.⁴⁹

Konstantin Nikolaevich occupied several key positions in the bureaucracy and in society which enabled him to promote the careers of reformers known to contemporaries as the "konstantinovtsy" or "the eagles of Konstantin Nikolaevich." The grand duke wielded great influence over his brother before the Polish revolt. As minister of the navy, president of the Imperial Russian Geographical Society, chair of the Main Committee on the Organization of the State of Agriculture (after the emancipation), and chair of the Finance Committee, he sponsored and protected his protégés while encouraging his brother to advance the emancipation of the serfs, expand *glasnost'*, and promote educational, judicial, and financial reform.⁵⁰ He succeeded in securing appointments of his eagles to such ministerial positions as education (A.V. Golovnin), justice (D.N. Zamiatin), the navy (Admiral N.K. Krabbe), and above all finance (M.Kh. Reutern). His influence declined precipitously in the mid-sixties. His loss of prestige was due to the collapse of his conciliatory policy as viceroy of the Kingdom of Poland into the violence of full-scale rebellion. The attempted assassination of the tsar in 1866 discredited much of his domestic policy of greater openness and legality in favour of more repressive police measures. Most of his eagles fell from their perches; only Reutern and his economists survived.

Under the aegis of Konstantin Nikolaevich as president of the Geographical Society, the membership expanded rapidly, the economists

forming the overwhelming majority of its members. Bruce Lincoln has argued that “every government official who helped to draft and support the Great Reform legislation took an active part in the Geographical Society between 1850 and 1857.”⁵¹ Their main object initially was to gather data on Russia’s population, trade, and manufacturing enterprises. But even with the backing of Konstantin Nikolaevich, the attempt to turn the 1857 “*reviziia*” (population survey) into a scientific census was opposed by the minister of finance, P.F. Brok, and was not carried out until 1897.

The success of the economists depended not only on the patronage of powerful members of the imperial court and the ministries but also on the emergence of a wholly new concept of public space encapsulated in the terms *glasnost'* (freedom of information), which had made a fleeting appearance as far back as Kozodavlev, and *zakonnost'* (rule of law). Contested and never firmly established, they were essential components of the reforming spirit.⁵² According to Mikhail Lemke, the leading historian of censorship in imperial Russia, the press reforms began on 12 November 1859 with an imperial decree that laid out new principles guiding the supervision of the press. It separated the Main Administration of Censorship from the Ministry of Education and merged it with the Committee on Publishing Affairs. New instructions were issued providing clear guidelines for censorship.⁵³ Up to this point the censorship statute had forbidden criticism of the government or making “any proposal concerning change in any aspect of state administration or in the rights and privileges [of the population].”⁵⁴ But the Council of Ministers acknowledged in 1859 that “disclosure in newspaper and journal articles of existing disorders and abuses may prove useful in so far as the government may receive information independent of official sources and ... some of this information may be used to verify official reports.”⁵⁵ Three years later, the Censorship Committee was abolished and its functions were transferred to the Ministry of Interior. The new Temporary Censorship Regulation still placed restrictions on what could be published, but discussion and debate over economic questions could now move forward at an accelerated tempo.

Following the death of Nicholas I and the Crimean defeat, an expectant atmosphere of change was widely commented upon by representatives of educated society. The contrast between Russia and “the West” became a leitmotif of public debate.⁵⁶ With the relaxation of censorship, the proliferation of new journals and newspapers and the creation of new venues for discussion such as learned societies, statisticians and

financial specialists of the second generation began to form networks of personal and professional exchange that profoundly influenced the course of reform in the direction of Western models

In the years after 1848, the period of “censorship terror,” the few new periodicals which had appeared in Russia were, nonetheless, harbingers of things to come. Although only sixteen new publications appeared in the years from 1850 to 1854 (as compared to the same number in 1857 alone and fifty-nine the following year), several already displayed the mark of the economists. In 1851 the *Vestnik* of the Imperial Russian Geographical Society began to publish. Edited at various times by such figures as the eminent economist E.I. Lamanskii, it concentrated initially on ethnographic issues, moving on to become a leading vehicle for statistical information. Similarly, the *Sbornik statisticheskikh svedenii o Rossii*, published by the statistical section of the Geographic Society, came out in 1851–8 with three sturdy volumes of statistical material on agriculture, industry, foreign trade, finance, and geography. Drawn from the ranks of the economists, the editors were A.P. Zablotskii, Lamanskii, and V.P. Bezobrazov.

In the provinces too there were stirrings. The official paper of Stavropol began its publication in 1850 with statistical and ethnographic material. In Samara the official provincial newspaper provided a mass of statistical data on the province. The Kazan economic society began to publish its *Zapiski* in 1854. Edited by the professor of technology at Kazan and then Moscow University, M.Ia. Kittary, it propagandized the latest inventions and scientific discoveries, primarily in manufacturing.⁵⁷ But the real explosion of periodicals and newspapers came only in 1857 and 1858, introduced the previous year by the leading advocate of the new trends in political economy, *Russkii vestnik*, edited by M.N. Katkov.

In his early phase as a supporter of a moderate tariff, economic development, and freedom of the serfs, Katkov welcomed representatives of a wide range of Russian Smithians from the most extreme advocates of free trade to supporters of moderate protectionism. Several of the new papers took on a distinctive political economic coloration. Among them the *Zhurnal dlia Aktsionerov* published material of interest for the commercial world and theoretical pieces by leading economists such as I.K. Babst (in his pre-Slavophil phase) and N.Kh. Bunge, the future minister of finance. The most outspoken advocate of the Russian Smithians was *Ekonomicheskii ukazetel'* and its supplement *Ekonomist*, edited by Vernadskii, advocating free trade and liberation of the serfs with

private plots and polemicizing fiercely with the radical left. More long-lived and influential, *Birzhevoe vedomosti* was edited by the powerful and wealthy entrepreneur, K.V. Trubnikov, an advocate of the intensive development of industry and railroad construction as well as colonization of the periphery and the development of a system of specialized technical education.⁵⁸ In the pages of these papers the economists placed their articles and engaged in polemics with the other emerging interests, particularly the Slavophil entrepreneurs, who sponsored their own papers.

Personal and professional ties among the economists evolved through new social networks that became possible in the expansion of public space in post-Crimean Russia. The literary circle and the salons had been part of Russian society since the time of Alexander I. But they assumed a new life once the deadening hand of Nicholas I had been removed. As Bruce Lincoln has noted, "It would be impossible to reconstruct all the interconnecting relationships that tied [the reformers] into a loosely knit group of 'enlightened bureaucrats.'"⁵⁹ The economists took part in many of these. Some circles were mainly composed of literary men, although such rigid distinctions were not strictly observed. The formal meetings of the Geographic Society led to the informal economic dinners that followed the plenary sessions where conversation was less inhibited. Salons multiplied, centred on a few key individuals with overlapping membership. The most important of these were those of Grand Duchess Elena Pavlovna and Nikolai Miliutin, brother of the war minister, Dmitrii. There were half a dozen circles of public-spirited individuals who gathered periodically to exchange ideas without fear of surveillance or persecution, a far cry from the days of Nicholas I.

The economists were not always in agreement. But they shared a general belief in the active role of government in creating the conditions in which private enterprise could, within limits, flourish. Their enthusiasm for a market economy in the pure Smithian or Manchester tradition was tempered by several concerns. First, they doubted the ability of the Russian capitalists, rooted in the cautious mentality of the merchant estate, to provide adequate capital and the leadership necessary for industrialization. As Konstantin Nikolaevich once remarked in his diary with respect to the role of Russian merchants in Central Asia: "They have very little entrepreneurial spirit."⁶⁰ Second, they feared that an unbalanced economy and a heavy concentration in industry would create an unruly proletariat and replicate in Russia the urban social problems of Western Europe.⁶¹ Third, they recognized that

giving capitalists a free hand could lead to widespread corruption and undermine the state order.⁶² Whatever their differences, the economists understood the interconnectedness of reforms in banking, credit, monetary policy, tariffs, and railroad construction, embodied in three major principles which guided their activity: expanding credit, stabilizing the ruble, and increasing trade in order to increase foreign and domestic investment, primarily in railroads.

Tariff Reform

The first step in loosening the rigid autarchic bonds of the Nikolaevan economy was the tariff reform of 1857. At the end of August 1856 Alexander II appointed a committee to revise the tariff of 1850. Its membership reflected the views of its president, Ludvig Tengoborskii, who had led the effort in 1850 to moderate the protectionist policy of the post-Napoleonic years. His enormously influential work on the Russian economy was originally published in French. It was translated into Russian by Vernadskii, who shared Tengoborskii's view that Russia was by virtue of its soil, nature, and geographical position an agricultural country and that industry should remain a secondary field of economic activity.⁶³

The composition of the committee reflected, in the main, the interests of the chairman. The members included three influential economists with a strong statistical background and advocates of moderate tariffs as a means of reducing the costs of railroad construction and increasing foreign trade, N.A. Miliutin, A.P. Zablotskii-Desiatovskii, and G.P. Nebolsin.⁶⁴ The main driving force in its deliberations was Iu.A. Gagemeister, who had been trained in the Göttingen school of political economy at the University of Dorpat. A member of Minister of Finance Kniazhevich's "brain trust" of economists, Gagemeister was a veteran official of the ministry who had established his credentials as an expert in tariff and tax policy. He was active in several important commissions of the early reforming years. Together with Kniazhevich, he drafted the official government program of 1860 to rescue the country from its financial crisis. Awarded the title of state-secretary, an unprecedented honour for an official of his rank, he became director of the Credit Chancellery of the ministry. But a chance remark made abroad in 1860 on the inevitability of Russia's bankruptcy prompted Alexander II to dismiss him as director. *Glasnost'* had its limits! But Gagemeister was too valuable a man to lose. The following year he was appointed senator

and he continued to be a force behind the scenes for tariff reform. Soon after Reutern created the Society for Aid to Russian Industry and Trade in 1867 as an advisory body to the Ministry of Finance, Gagemeister became one of its vice-presidents.⁶⁵

Gagemeister first outlined his design for the tariff of 1857 in the pages of *Russkii Vestnik*, edited by M.N. Katkov, who was then still in his liberal phase, shaping the journal into one of the leading organs of economic reform in Russia. Gagemeister argued that no country could be exclusively agricultural and that industry was the driving force behind the enlightenment of the entire population. With a nod to the German historical school, he insisted upon the importance of geographical and historical factors in determining the tariff policy that best suited national conditions. He attributed Russia's backwardness to a low level of productive labour, insufficient capital, and a lack of railroads. The immediate need for Russia, he wrote, was to remove the barriers that hampered development, to protect the creditor, to reduce the tariff in order to import steel and finished products for industrial growth and only then to take positive measures to encourage industry. He foresaw the construction of railroads as opening a new era for Russian industry and singled it out as the sole area where government expenditures would be desirable. In his eyes the correct course for tariff revision was a progressive reduction of rates on those items where Russian industry could begin to compete with foreign goods.

The economists found powerful if unanticipated support at the highest levels of diplomacy. As soon as the tariff commission was appointed, the newly appointed French ambassador-extraordinary and half-brother of Napoleon III, the Duc de Morny, actively pursued the reduction of tariffs on French products. In private talks with the Russian foreign minister, A.M. Gorchakov, he obtained confidential information on the deliberations of the tariff commission, enabling him to prepare a lengthy memorandum listing his demands for reducing duties on French products. At the same time, he pressed for a separate commercial treaty between France and Russia as part of his strategy to restore diplomatic relations after the Crimean War and bind Russia to Napoleon's broader political plans in Europe through French investments in railroads and the commercial treaty.⁶⁶ Gorchakov too was determined to repair frayed ties with France. Morny's efforts were crowned with success. Delighted with the reductions proposed in the tariff of 1857, he convinced his government to conclude a separate treaty with Russia.⁶⁷

The rumours of revision set off an avalanche of petitions addressed to the tariff commission. The Moscow merchants, supported by the arch-reactionary and xenophobic governor general, A.A. Zakrevskii, were outspoken in their opposition to reduction of the rates on manufactured goods, especially textiles, which threatened their interests. But the members of the commission held firm.⁶⁸ The producers of raw materials and semi-finished goods, particularly pig iron and rolled steel, also mounted a campaign opposing any reductions. But this was one of the categories that the commission was determined to free up. As the French consul pointed out, without the large importation of iron Russian industry could not handle the order for rails for the proposed network, to say nothing of locomotives and rolling stock, which would exceed 25 per cent of the current output by the outmoded Ural factories.⁶⁹ Overall, the tariff of 1857 aimed to increase the importation of bulk goods, especially iron, necessary for industrial development. The reductions reduced Russia's favourable balance of trade, but the finance ministry argued that the results would stimulate domestic industry by cutting the costs of raw materials.

During the deliberations a muted debate in the press, maintained at a theoretical level at the censor's insistence, ranged the Slavophil entrepreneurs, who favoured greater protection, against the economists. Their differences extended from tariff reduction to railroad construction. The Slavophiles brought new arguments to bear to fit altered circumstances. Gone was their earlier defence of the embattled handicraftsman. The threat from the West had become more concrete. At all costs, they argued, Russia had to avoid becoming an agricultural colony of Europe. The development of domestic industry would stimulate a rise in land values, fill up the empty spaces, and generate capital for investment. "Our quarrel with the free traders is that they want a division of labour among nations, and we within our own country."⁷⁰ The Slavophiles sought the support of Russian engineers arguing the importance of technology to bolster their case. "Technology is so closely tied to science, interacts with it and exerts such an important influence upon all the conditions of domestic life that industrialized people acquire a decisive preponderance over less industrialized people." What explained the success of European nations in their struggles with the natives in America and Asia was "the pre-eminence of technology."⁷¹ To achieve similar ends in Russia, A.S. Ershov, a spokesman for the Slavophil entrepreneurs, issued a strong plea for a vast government program of technical education beginning with specialized technical

secondary schools and culminating in the establishment of higher polytechnic schools on the French and German models. "To confuse materialism with higher technical education is a crude error," he concluded; many outstanding innovators maintained high moral standards.⁷² By explicitly endorsing this view, the Slavophil editors banished the remnants of old fears that technology and science corrupted the soul. As they predicted, the immediate results of the tariff proved damaging to Russian industrialization.

The tariff commission acknowledged that railroad building directly influenced the new duties on iron and steel. Running parallel to the negotiations over the tariff, the Russian government had granted a concession to a consortium of European bankers led by the Pereire brothers, with the impressive sounding title of the *Grande Société des Chemins de fer russes*, to construct a major rail network in European Russia.⁷³ But Russian industry was not capable of furnishing the necessary components. The committee majority affirmed that the sharply rising demand for rails and other iron products, largely due to the vast railroad network conceded to the *Grande Société*, could only be satisfied by foreign sources. Russian production was limited by outmoded technology depending on wood-burning furnaces and the great distance between the Ural plants and the west and south, where the main trunk lines were to be built. Moreover, in the pre-emancipation world, possessional (factory) serfs still provided the main labour force. According to the concession to the *Grande Société*, all rails and metal products for bridges and other infrastructure would be admitted duty-free. Beyond that, the commission set duties high enough so that foreign iron and steel could not be sold more cheaply than the Russian products in the central provinces.⁷⁴ But the economists' expectation that competition would stimulate the domestic production of iron was quickly disappointed.

The tariff reform had a ruinous effect on the backward Russian metallurgical factories of the Urals, which sharply curtailed production of pig iron. Although the government promoted the idea of using domestic iron for the production of rails, locomotives, and railroad cars, the domestic plants could only produce 15 locomotives out of 371 and 94 railroad cars out of the 7363 ordered for the major railroad lines from 1857 to 1864. The situation only began to improve in 1862, but most of the finished steel products still came from abroad.⁷⁵

As a good son of the historical school, Gagemeister had favoured the selectively protective tariff over the prohibitive and free trade variants,

either of which, he predicted, would prove ruinous for Russian industry. Later, from the vantage point of 1867, he saw the evolution from the prohibitive tariff of 1822 through the reform of 1857 to the reductions of 1867 as a sound policy of setting rates item by item in light of the current state of each industry. He was less pleased with the changes in labour productivity and railroad development. Commenting on the tariff revision of 1867, he deplored the large number of holidays and the widespread drunkenness that reduced labour productivity even after the emancipation. He regretted that the amount of capital available for investment in new enterprises remained insufficient, being tied up in government paper. What was needed to stimulate the domestic market, he argued, was the breakup of the peasant commune and the creation of a class of small landed proprietors. As for railroads, he noted, with few exceptions they had not been designed to serve the needs of exporting grain, which was the biggest earner of foreign currency.⁷⁶

Credit, Banking, and the Budget

The main source of loans to industry in the pre-reform period had been the Treasury. Most of the loans which were granted went to high officials, favourites, or the state metallurgical factories. In the period between 1836 and 1859 seventeen proposals, mainly from merchants, had been submitted without success to the government for the creation of special credit banks.⁷⁷ In the late 1850s Bunge had broken through the heavy censorship screen against the discussion of banking as a dangerous subject which encouraged speculation. He published a series of articles in the leading thick journals, promoting the idea of extensive credit. Favouring the historical school of Roscher over Adam Smith, whom he found too abstract, "cosmopolitan," and "universalistic," he like other "economists" continued to move farther away from economic liberalism in the 1860s.⁷⁸

Although the economists differed on details, they uniformly supported creating new credit instruments as another measure to overcome obstacles in the path to a modern economy. Gagemeister explained why this was urgent in light of the government's proposal to lower the interest rate on deposits in the State Bank, which he regarded as "unjust for the people and ruinous for the Treasury." Unjust because it was a reversal of previous government policy without offering depositors any alternative except to engage in speculation. By lowering interest below that paid by European banks, such a measure would lead to

the conclusion everywhere that private credit did not exist in Russia and that depositors would have to be satisfied with whatever the government offered them. The measure would lead to a flight of capital abroad, which in hard currency would lead to a decline in the rate of exchange. And what would the government do when the demand of the depositors exceeded the cash on hand? It was not possible to print more paper or float a new loan without depriving the Treasury of the advantages of lowering the interest rate. Clearly, the government was motivated by the desire to reduce the burden of payments on the large increase in deposits of credit notes printed during the Crimean War. The solution was, first, to maintain the 4 per cent rate in the State Bank in order to prevent the flight of hard currency abroad and the danger of inflation at home from the circulation of worthless paper currency; and, second, to encourage new domestic outlets for trade and industry with the assistance of private credit institutions which could offer higher interest rates derived from profitable investments.⁷⁹

The ambitious plan of the economists for the creation of provincial private land banks (*zemskie banki*) aimed at ending the state monopoly on credit and opening a new era in capitalist relations in the countryside. In 1859, even before the emancipation of the serfs, the government suspended state loans secured by immovable property. A commission was formed to draft legislation on private banks which would provide loans to landowners whose estates were not mortgaged to the State Bank (about one third of the total) and to free peasants who would need credits to cover their redemption payments on the land granted to them by the decree on emancipation. The membership of the commission read like a roster of Russia's leading specialists in political economy: V.P. Bezobrazov (director), N.Kh. Bunge, I.V. Vernadskii, Iu.A. Gagemeister, A.P. Zablotskii-Desiatovskii, E.I. Lamanskii, and M.Kh. Reutern, together with the Slavophil landowners A.I. Koshelev and V.A. Cherkasskii – Iu.F. Samarin was appointed but did not serve on account of illness – and reform-minded bureaucrats like Nikolai Miliutin and K.K. Grot.⁸⁰

The driving force behind the report was Bezobrazov. Educated at the Tsarsko-Selskoe Lycée, he first entered the Ministry of Finance in 1849 and returned after brief stints in the Ministries of State Domains and War to serve for twenty years (1863–85) at Finance. Among the economists, he was closest to Bunge and Babst, regarding the circle around Konstantin Nikolaevich as a shade too radical. According to F.G. Terner, with whom he also worked closely, Bezobrazov was an energetic and

brilliant economist, but failed to achieve high office due to his egotism and overweening self-confidence. He was an inveterate organizer. Embodying his ideal of civic virtue, he hosted Sunday morning receptions for a lively group of publically spirited people from the capital and the provinces. Later, when he became an academic, his Thursday evenings continued this tradition, attracting such luminaries as Grand Duchess Elena Pavlovna. He was one of the founders of the Political-Economic Committee of the Russian Geographical Society and a leading light in its informal successor, the economic dinners.⁸¹

Like other economists of his generation, Bezobrazov's views were eclectic, reflecting his wide reading in the work of the Smithians and the German historical school, including Roscher and his successors, L. Stein and Adolph Wagner.⁸² He firmly rejected the financial system of Kankrin as "medieval." But he was also critical of the methodology of Tengoborskii, which relied on official statistics. Instead, his work rested on personal observation and the collection of data on his numerous field trips throughout provincial Russia. This material provided much of the statistical basis for the commission on *zemskii* (land) banks. Bezobrazov also adopted the methods of Stein and Wagner, who revised and broadened the purely fiscal approach of the cameralists to argue for a more progressive taxation system.⁸³ His belief that the weakness of the banking system was the chief impediment to a rationalization of land use after the emancipation and the future industrialization of the country provided him with the rationale for the establishment of private provincial banks.⁸⁴

Ever the cautious bureaucrat, Bezobrazov pointed out that a model for such a system could be found not only in Western Europe but also in the Baltic region and the Kingdom of Poland. Moreover, he indicated that the commission favoured a transitional period in introducing land-based credit in order to take into account the uncertainties of the emancipation settlement. In the eyes of the economists on the commission, the success of the banking reform depended upon overcoming a number of serious weaknesses in the institutional forms and moral character of Russian society. First and foremost, "independent initiative and the spirit of cooperation in society" was lacking, they maintained, due to long-standing reliance on government tutelage in all affairs. Second, only a handful of people possessed the requisite specialized knowledge concerning the creation of banks and credit operations, a particularly glaring shortcoming among noble landowners. Third, Russia lacked adequate credit instruments and a credit market. Fourth, the legal

and administrative structure was inadequate to support an expanding credit system. What the commission could not acknowledge was the inherent contradiction that to correct these flaws required decisive government action to overhaul the entire system of governance.

In the spirit of *glasnost'* and self-governance, the commission recommended that the government not impose a standard organization on the new banks; that it not grant special privileges or monopoly over credit operations to any banks; that it allow the banks complete freedom of action and internal governance; that it require full transparency for all their operations; that it allow the banks to extend credit not only to individuals but to juridical bodies under equal conditions; that it recommend especially to landowners a form of organization based on partnerships (*tovarichestvo*) in preference to joint stock companies (presumably to avoid speculation); and that it draft legislation to introduce a sound legal basis for the establishment of private banks.⁸⁵ As with other reforms in the economic sector, the creation of *zemskii* banks required parallel reforms in other areas such as censorship and the judiciary. The commission proved sadly prescient in warning of the obstacles facing the creation of private credit institutions under the conditions which it regarded as essential. Its recommendations fell on barren ground.

The second major initiative of the economists was to propose a new centralized state bank to take the place of the outmoded treasury banks.⁸⁶ In 1859, under the aegis of Kniazhevich, the young economists in his ministry, including two future ministers of finance, Reutern and Bunge, together with Gagemeister, drafted a series of measures that served as the foundation for the creation of the State Bank the following year. Its avowed purpose was "to stimulate trade and strengthen the monetary credit system." The State Bank rapidly became the largest commercial bank in the country and remained so until 1917. From the outset it was clearly an instrument of state policy, using its great resources to liquidate treasury bonds and then invest in government securities. Its other main function was to support state credit.⁸⁷ Reutern offered the position of director of the bank to Baron Alexander Shtiglits, the wealthiest private banker in Russia. The descendent of a converted Jewish banker from Germany ennobled by Nicholas I in the 1820s, Shtiglits had vastly increased his father's fortune by shrewd investments, including participation in the Grande Société. In short, he was connected to Reutern's group of economists by numerous personal and business ties. In some ways it was a curious appointment. The banking house of Shtiglits, once the most trusted and powerful financial institution in the empire,

had fallen on hard times along with the Grand Société, in which he had heavily invested. But his reputation in Europe and his contacts with the great banking house compensated for this, at least in the eyes of Reutern, Lamanskii, and Count K.V. Nesselrode, Russia's leading diplomat, who put great pressure on Kniazhevich to appoint Shtiglits. He fulfilled their expectations by negotiating three big foreign loans. Shtiglits recognized his shortcomings as an economist and fiscal expert and accepted the offer only after being assured that the real administrative work would be carried on by an assistant director from Reutern's circle, E.I. Lamanskii. In 1866 Shtiglits retired and Lamanskii became the director, serving for many years in this key position.⁸⁸

During a trip to Europe in 1856 Lamanskii had already established good relations with the Banque de France and Baring Brothers thanks to Shtiglits's recommendation. He had also participated in the Vienna International Congress of Statisticians the following year, and sought to establish closer ties between the Russian Geographical Society and European business and financial specialists. Lamanskii's boss, the then minister of finance, P.F. Brok, had opposed the mission, claiming that Russia had nothing to learn from the West, and forced Lamanskii to resign from the finance ministry. Konstantin Nikolaevich raised money to pay for his trip, but warned Lamanskii in London "to write nothing about Russia and our internal [financial] disorder." Brok vigorously opposed the appointment of Lamanskii as deputy minister, citing Lamanskii's visit to Herzen in London and his alleged connection with the Petrashevtsy circle of radicals in the 1840s. Lamanskii's public criticism of Brok annoyed the tsar, who reportedly "had a highly unfavourable opinion" of him as a result. But once again Lamanskii was rescued from oblivion by the intervention of another highly placed official. General M.N. Muravev, the former vice-president of the Geographical Society, despite his reputation as a reactionary, recognized Lamanskii's talents and persuaded the tsar to reappoint him to the ministry.⁸⁹ The point to be emphasized here is that bureaucratic infighting was not always resolved on ideological issues; personal relations and patronage often counted as much as convictions.

Under Lamanskii's direction, the State Bank created the conditions under which the first private commercial banks were founded. But it proved necessary to depart from the recommendations of the commission on land (*zemskii*) banks. The obstacles foreseen by the commission proved too great to overcome. Instead of the initiative from below as desired by the commission, it required the intervention of Lamanskii,

acting as the deputy director of a state institution, to establish Russia's first private commercial institution, the St Petersburg Society of Mutual Credit, which opened its doors in 1863. Compounding the irony, Lamanskii assumed the position of head of the bank and soon converted it into a branch of the State Bank. By taking this step, as he probably expected that the public, being accustomed to a state guarantee of its investments, was reassured. The following year, the government participated in founding the Petersburg Private Commercial Bank as a joint stock company with a capital of 5 million rubles. Once again, the commission's preference for a partnership in hopes of tempering the speculative fever was ignored. Encouraged by the performance of its shares on the stock exchange, the Moscow merchants established a second private bank followed by twenty-one others from 1868 to 1871. However, the private banks continued to depend on the financial practices of the State Bank, which had branches in all the provincial centres. In order to attract capital for the needs of the Treasury, the State Bank maintained a high rate of interest on deposits (above 6 per cent on average and occasionally up to 10 per cent) compared to European banks; this forced up the interest on deposits paid by private banks and on loans to 8 and occasionally 10 per cent, hampering investment in industry well into the 1880s.⁹⁰

Kniazhevich also led the fight to regularize budget estimates, proposed an end to secret budgets, and successfully petitioned the tsar to permit free discussion of economic questions in the press.⁹¹ In a memo of 1860 he outlined his vision for an industrial policy based upon state credit. Its aim, he wrote, was to encourage the mining of iron ore and coal, the development of Russia's own manufacturing of machinery, and railroad building with all the means at the government's disposal. Foreshadowing Reutern's reforms, the memo ended on a strong political note, urging that the discussion and implementation of these proposals "should involve not only the Ministry of Finance but requires mutual participation and action by all the ministries and main administrations."⁹² Here then was a call at the very least for a coordination of state policies if not a unified government, which the autocrats had always opposed and continued to until the very end of the monarchy.

Fed by personal rivalries, the opposition within the government to Kniazhevich as a coordinator of a general policy of reform was already at work when he submitted the memo. Grand Duke Konstantin Nikolaevich nurtured his own high ambitions aimed at coordinating a general reform policy, including the abolition of serfdom and the reconstruction of

the economy. When in 1858 he attempted to split off from the ministry the departments of commerce and mining, he met stiff opposition from Kniazhevich, leading to a conflict between them despite their similarity of views on economic reform. Kniazhevich's reputation was undermined by rumours that he lacked decisiveness and a broad economic horizon. He was blamed for a failure to control inflation and the general deterioration of the economic situation. His resignation in 1860 cleared the way for Konstantin Nikolaevich to put forward his own man for the post – Mikhail Khristoforovich Reutern.

The Labour Question

The views of the economists on the labour question emerged from the discussions of the Shtakel'berg Commission meeting from 1859 to 1862. Chaired by A.F. Shtakel'berg, a Baltic German graduate of St Petersburg University and a specialist in statistics in the Ministry of Interior, the committee included several of the leading economists, including F.G. Terner. Taking the historical perspective on labour, the commission differed from the Manchester School by taking the position that Russia's unique socio-economic system would permit industrial legislation to protect industrial workers from the abuse of manufacturers. Russia's smaller urban population and fluid social structure opened the way for precautionary measures to avoid pauperization. Members of the commission were critical of the selfishness of industrialists, exemplified in their support for excessive tariff protection. But their main concern was to draft legislation that would create government supervision or tutelage by instituting an independent salaried inspectorate that had its parallel in the proposed land mediators appointed to protect the interests of the peasants. Following the lead of Terner, the commission endorsed the idea of authorizing voluntary associations of workers, or *arteli*, for the purpose of encouraging mutual aid and savings funds. Apparently, Reutern approved their recommendations, but resistance in the bureaucracy delayed implementation until the 1870s.⁹³

Political Limitations

In the crisis years after the Crimean War, the most ambitious attempt of the economists to create a public forum as a means of influencing state economic policy was the organization of the Political-Economic Committee of the Russian Geographical Society. In 1859, a group with

strong training and experience in statistics joined forces with a rising star in the imperial bureaucracy, P.A. Valuev, soon to become minister of interior, to launch an experiment in what today would be called a think-tank, but which had no precedent in Russian history. The list of nineteen original petitioners reads like an honour role of the leading advocates of the new political economy. V.P. Bezobrazov was one of the most active founders. He was joined, among others, by I.V. Vernadskii, F.G. Terner, Iu.A. Gagemeister, A.P. Zablotskii-Desiatovskii, A.I. Butovskii, E.I. Lamanskii, G.P. Nebolsin, and A.F. Shtakel'berg. Their aim was to initiate discuss questions of economic statistics as they applied to the national economy, seeking to prepare public opinion for broad and fundamental reform.⁹⁴ They also envisaged serving as a coordinating body to overcome the fragmentation of the bureaucracy and the absence of a cabinet system. To this end they sought to bring into their discussions of economic issues high officials from the central government, like Minister of Finance Kniazhevich, Grand Duke Konstantin Nikolaevich, head of the Main Administration of Transportation, K.V. Chevkin, and invited guests from the general public including journalists and representatives of the merchantry and nobility. As their reputation for informed discussion grew, the committee was joined by the future ministers of finance, Reutern and N.Kh. Bunge. Attendance became so popular that the members were limited to the invitation of one guest.

Their main concerns focused on increasing government income through taxation and land policy as well as banking and financial operations. As the discussions moved into the realm of practical recommendations, it became increasingly evident that the economists were moving towards influencing or implementing legislation. For example, the session on improving the credit system attracted the participation of the head of the recently established State Bank, Baron A.L. Shtiglitz. After the emancipation decree was promulgated, the committee sponsored a spirited discussion on a whole range of issues on the further development of the reform which were to preoccupy policymakers to the end of the empire. The discussion on *glasnost'* ranged beyond financial issues. Terner, for example, insisted that "by depriving public opinion of the opportunity to discuss several aspects of our political life ... the government deprives itself of a useful adviser and firm support."⁹⁵

Carried away by their enthusiasm, the committee leadership did not anticipate the growing opposition of powerful members of the bureaucracy who were displeased by what they considered encroachments on

their territory. Above all, they were incensed by the idea of full transparency being applied to their administrative activities. It was easy enough for them to persuade the tsar that it was *his* prerogatives which were being infringed upon. Initiating the attack, the reactionary minister of state domains, General M.N. Murav'ev, protested that the committee had no right to discuss matters within his jurisdiction. Alexander II unexpectedly raised the issue of the committee's activities at a meeting of the Council of Ministers. Murav'ev, Minister of Justice V.H. Panin, and Chevkin proposed to close down the committee. Foreign Minister Gorchakov and M.A. Korff suggested more moderate measures to bring the committee into line. Valuev, on the defensive, had to admit that the committee had allowed the discussions to go beyond its original purpose. Alexander II dryly noted that all public societies and committees should only be permitted to function within the limits set by the statutes and their programs expanded only after preliminary approval by the Council of Ministers.⁹⁶ When the government brought pressure on the committee to redefine its functions and moved to place it under the jurisdiction of the Ministry of Interior, the committee members voted themselves out of existence.⁹⁷ All the efforts of Konstantin Nikolaevich to prevent this outcome were in vain. The economists had learned the lesson of their political limitations. Another rudimentary organism of civil society had been extinguished. For the next forty years, the economists continued their discussions on an informal basis, meeting once a month in a popular St Petersburg restaurant where there were no controls on their freedom of expression. If they wished to influence policy, then they would have to continue to work inside the state bureaucracy. Their effectiveness as a bureaucratic interest group entered a new phase with the appointment of M.Kh. Reutern as minister of finance.

Chapter Seven

Origins of the Reutern System

Russian and Western historians alike have agreed that Russia's economic development cannot be studied outside the realm of high politics.¹ This approach has been widely adopted and applied in writing the economic history of the last two or three decades of the imperial regime. But it has not acquired the same explanatory power in analysing the period of the Great Reforms with the exception of the peasant question. The politics of industrialization in general and the construction of a national railroad network in particular have been oddly neglected subjects in the history of the Great Reforms.² This is in striking contrast to the central place that railroads occupy in all studies of the Witte system. Yet, thirty years before Witte launched his integrated plan for Russia's economic development, many of its particulars were foreshadowed in proposals drafted by another minister of finance, M.Kh. Reutern. Scholarly interest in Reutern has focused on his role in the reform of the state budget and especially his unsuccessful attempt to make the ruble convertible on the international market; in other words, to set Russia on the gold standard.³ But this failure has obscured Reutern's rather impressive achievements in financing railroad construction as part of a general plan to integrate all aspects of Russia's economic growth in the decade from 1866 to 1876. The aim of this chapter is to analyse the origins of this undertaking as it emerged from the politics of intra-bureaucratic struggles and public debates over railroad building during the early years of the Great Reforms.

The post-Crimean decade was a transitional period when the Russian government perceived the need for economic development, but hesitated to adopt a comprehensive economic policy. Building railroads was generally recognized not only as essential to the development of

the country's resources and commerce, but also to meeting its strategic requirements. Three models of construction vied for official approval and scarce capital resources: private, mixed, and state-sponsored lines. In the immediate post-war period, each of these models gained supporters among interest groups that regarded railroad building as a crucial instrument for reforming Russia in order to meet the economic and military challenge of the West.

In the backwash of the Crimean defeat, the tsarist government teetered on the edge of bankruptcy. Lacking confidence in its own technical personnel, it turned away from state construction that had produced the first major line between Moscow and St Petersburg, the Nikolaev railroad. In 1856, in its most dramatic concession to Western capitalists, the government negotiated an agreement with French banks to build an ambitious network of five trunk lines called *La Grande Société des chemins de fer russes* that placed their financing, construction, and management in the hands of foreigners. The experiment was only partially successful. The *Grande Société* completed only two lines, from Moscow to Nizhnyi Novgorod and St. Petersburg to Warsaw. More seriously for Russia, the European recession of 1857 dried up Western sources of capital and Russian investors ended up assuming the major share of the financing. This was not widely known outside the government.⁴ Meanwhile, the concession had aroused strong xenophobic feelings within the bureaucracy and throughout educated society. For the first time, accusations of "selling Russia to the foreigners" became an issue.

The financial difficulties of the *Grande Société* and the growing political opposition to its monopoly over Russian railroads spurred the government to encourage domestic entrepreneurs to apply for concessions. But it soon became clear that the private entrepreneurs could not fill the gap left by the defaulting *Grande Société*, which had to be bailed out by the government. By 1862, then, Russia had experimented with three models of construction: the first financed by the state with the help of foreign loans (St Petersburg – Moscow); the second built by foreigners, but with the support of Russian private capital (Moscow – Nizhnyi Novgorod); and the third, financed and built by Russian entrepreneurs, but often supplied with rails, rolling stock, and technical personnel from abroad and rescued from bankruptcy by the state (Moscow – Saratov). None of these combinations had provided the government with a financially sound basis, and all together they did not constitute a well-integrated network necessary for rational economic growth.

The Debut of M.Kh. Reutern

In the course of 1862 resignations by the minister of finance, A.M. Kniazhevich, and the head of the Main Administration of Transportation, K.V. Chevkin, gave Alexander II an unusual opportunity to coordinate economic policy by appointing two like-minded successors.⁵ Instead, the tsar chose two men who shared diametrically opposite views on railroads and economic growth. As the new minister of finance, he named Reutern, who immediately set about to reduce all state expenditures and to stabilize the exchange rate of the ruble by borrowing abroad with the aim of establishing free convertibility of Russia's currency. P.P. Mel'nikov, the new head of the Main Transportation Administration (soon to be raised to a ministry), was a professional engineer trained at the Institute of Transportation Engineers, a first-hand observer of American railroads but a believer in state-built lines. He promptly submitted a grandiose plan for an all-Russian railroad network to be financed and built by the state. They met head on. The rivalry between Reutern and Mel'nikov was not merely a clash of personalities. Each man also represented the two major bureaucratic interest groups contesting for supremacy in the construction of railroads.

Reutern came into office with two strong advantages. He was a protégé of Grand Duke Konstantin Nikolaevich, the tsar's younger brother, and he enjoyed an excellent reputation in the banking circles of Western Europe as a competent financial expert. In 1857, Konstantin Nikolaevich was already seeking his advice on the reasons for Russia's financial crisis. Reutern took the opportunity to review the Italian economist Molinari's article in *Le nord*, which was the West European outlet for the ideas of Konstantin Nikolaevich. Molinari was right, Reutern admitted, that the issue of credit notes was the most dangerous and deceptive of all financial measures. But "only the extremities of war could excuse us from resorting to such measures." Reutern further agreed with Molinari in deploring the absence of private credit facilities in Russia; but his strictures were too vague. In Reutern's view, the problem with his analysis was that Russia's financial affairs were secret, and it was necessary to rely on rumours in discussing them.⁶ In a more detailed report, Reutern identified three areas of concern for Russia: commerce, production in manufacturing and agriculture, and the monetary sector and finances. Investment in productive capacity that did not correspond to demand, like the railroad mania in England in 1844, tightened credit, which in turn reduced commerce and productive capacity.⁷ Konstantin Nikolaevich wanted more specific proposals.

Reutern responded with the most comprehensive of his memos analysing Russia's financial problems. He pulled no punches. It was not enough to state that the situation was difficult, he insisted. "We currently find ourselves at a turning point." The time for decision was now. "In a few years it will be impossible to remain on the present path and too late to change to another." More specifically than he had written before, he outlined three problems for special attention: the deficit, a state credit institution, and the monetary system. The deficit was much larger than the official accounts because of the extra-budgetary items including the Naval Ministry (!). "After the war the deficit has grown to almost unbelievable sums." Like other economists, he deplored the enormous sums of capital held passively in government banks as a restraint on credit. Progress had been made by lowering the interest rates. But this trend must be accelerated, he argued, in order to free additional capital for investment in productive enterprises and reduce the financial burden on the government of the high rates, which increased the deficit.

On the question of reorganizing the banking system, Reutern confined himself to advocating free discussion of economic questions in the press, the encouragement of private enterprise, and reliance on banks to cover yearly deficits. On monetary policy, he warned that in any other country a monetary system such as Russia's would create panic. But the faith of the public in the government was so great that the decline in the value of paper currency was only gradual. Nevertheless, he concluded, "I consider the restoration of our monetary system to be of the greatest urgency." Without energetic measures, he predicted, the continuation of the falling exchange rate would lead to more gold fleeing abroad; this was not theory, he declared, but an observable reality. The only solution had already been posed by an *ukaz* of the late tsar. But this must be accomplished gradually with extreme caution, a piece of advice that Reutern attempted to follow when he subsequently acted to put Russia on the gold standard, but with disastrous results. He came to what he regarded as the critical point. The loans necessary to redeem paper rubles could only come from the State Bank deposits, and this source would soon be exhausted. This could not continue. Either the development of private credit would have to be halted, perhaps leading to bankruptcy, or "every effort would have to be made to increase the productive forces by private enterprise and credit to ensure a favourable and solid future." The urgency of the situation, according to Reutern, was heightened by the need for a strong financial system

and a reorganization of the state administration during the liberation of the serfs, which he anticipated would provoke some disorders.⁸

Returning to specific proposals, Reutern emphasized the need to cut the budget, especially by reducing the military forces on land and at sea. He argued that the completion of the line from St Petersburg to Warsaw would increase security on the frontiers by making possible the rapid concentration of troops. As a second budget-cutting measure, he proposed the immediate cessation of all construction that did not promote a productive goal. In advancing these measures, he pointed out, the Ministry of Finance occupied a unique position as the only department which did not have in its interest an increase in expenditures. It could only refute the arguments of all the other ministries in favour of spending more money by ending the strict secrecy of the state budget and showing that more expenditures were not possible.⁹ Thus, for Reutern, *glasnost'* would be the chief weapon in the armory of the Ministry of Finance in the bureaucratic struggles he envisaged ahead.

In order to increase government revenue, Reutern played a decisive role in the final stages of the economists' campaign, encouraged by Grand Duke Konstantin Nicholaevich, to abolish the vodka tax farming system.¹⁰ Upon taking office, Reutern advised Alexander II to reject the proposal of an influential group of tax farmers to continue to collect the excise tax on liquor while promising to finance an extensive railroad network. Most of the tax farmers were merchants including, as we have seen, V.A. Kokorev, who opposed the reform, but also a few nobles like another member of the Moscow group, A.I. Koshelev. The excise tax had generated a large percentage of the state revenue, but its collection by tax farmers bred large-scale corruption. The new law was very complex, but it released a great deal of capital that had been tied up in the tax farming business. For all their complaining, tax farmers like Kokorev turned to new profitable investments in large-scale industrial enterprises, including railroads, steamships, and banking, as well as subsidizing the first great collections of Russian national art.

Under the grand duke's patronage, Reutern had acquired experience in railroads as well as financial affairs. In 1858, he had been appointed a member of the newly formed Railroad Committee chaired by Count K.V. Nesselrode, whose respect and affection he had won.¹¹ Two years later he moved over to the Finance Committee and joined the staff of the Editing Committee on Emancipation. At the same time, Konstantin Nikolaevich consulted closely with him in working out his positions on interest rates, the budget, and the formation of the Grande Société.¹²

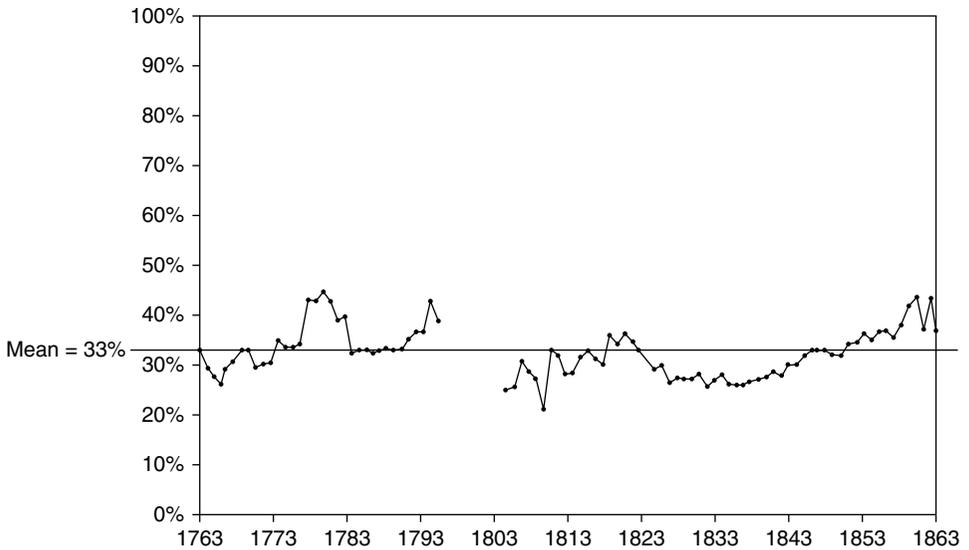


Figure 7.1 Gross liquor revenues as a proportion of Russian government's total revenues, 1763–1863

As chairman of the Finance Committee, Reutern worked out a proposal to provide full publicity for the state budget, a measure guaranteed to win confidence abroad.

Once Reutern was appointed minister of finance, he took his own recommendation to Konstantin Nikolaevich seriously. He was determined to reduce government spending as the only means of convincing West European bankers to grant additional loans to Russia. He took seriously the warning of the Pereire Brothers and Rothchilds: Russia “[has] to re-establish your credit by means of improving your financial system, then we will loan you money; otherwise you will conclude a loan at usurious interest which will cost a great deal and then will be insignificant.”¹³ In negotiating with Rothschild, Reutern insisted, in his presentation to the Finance Committee in March 1862, that a 5 per cent loan of ten to twenty million pounds sterling should be approved by the government only for the purpose of stabilizing the rate of exchange; “any other designation for the new loan would serve only to bring about the complete ruin of Russia’s finances.”¹⁴ At the same time, he attributed the shortcomings in state-built railroads to leadership in the

Main Administration. "They will not be corrected," he added, "until a person not belonging to the department is appointed head of it."¹⁵

Reutern's opposition to state-built lines failed to intimidate Mel'nikov. In October 1862, the new head of the Main Department, shortly to become minister, unveiled his ambitious plan to construct five great trunk lines that would span the empire. The network was designed to link the black earth region with its surplus of cattle and grain both with trade outlets on the Baltic and Black Sea and with the north-west provinces that were net importers of grain. It would fulfil the political and strategic aim of linking Kiev with the main centres of the empire and provide fuel from the Donets to supply the entire network. The same lines would satisfy Russia's strategic needs for the rapid movement of troops, especially on the sensitive south-west frontier along which Austria was beginning to build its own strategic line. Mel'nikov advocated construction be undertaken "primarily at the direction of the state or at least with the significant participation of the state." In a clear thrust at Reutern's preferences, he concluded: "Private lines only measure their success by profit and loss, but state lines judge their achievement by the advantages brought to the society as a whole."¹⁶

The opening skirmish in the battle between Reutern and Mel'nikov appeared to end in a draw. In December 1862 and January 1863, a special conference presided over by Alexander II approved a plan to entertain bids from private interests on separate sections of Mel'nikov's projected network. Concessions would enjoy a 5 per cent state guarantee on capital invested. Clearly, Reutern sought to attract foreign investors by offering them a choice on the most potentially profitable lines. Mel'nikov still clung to the hope that the state might still be obliged to start construction in the absence of interest abroad, or at least that Russian entrepreneurs working with Russian state engineers would finance and build one of the sections.

The Failure of the Convertibility Scheme

The success of the compromise depended upon the favourable outcome of Reutern's convertibility scheme and the maintenance of stability in the empire. In the event, neither condition was fulfilled. With the close collaboration of E.I. Lamanskii, Reutern planned to redeem all credit rubles on a carefully worked-out schedule. Unfortunately, the announcement of the exchange specified the dates by which the rates were to be redeemed at constantly rising prices. The speculators bought

paper rubles for gold at the lower prices and held them until they could redeem them for gold at the fixed higher prices. Not only did redemption prove more costly than expected, but the operation dried up the flow of hard currency.¹⁷

The Polish revolt delivered a second blow to Reutern's plans. Reutern's patron, Konstantin Nikolaevich, had become viceroy of the Kingdom of Poland with the aim of working closely with the moderate Poles, placating the European chancelleries, and thus enhancing Russia's international credit standing, not to speak of averting a major rebellion.¹⁸ Reutern had negotiated a 100 million ruble loan with Rothschild with the assurance that further loans would be forthcoming. Following the outbreak of the Polish revolt, the French government of Napoleon III, in sympathy with the rebels, put pressure on Rothschild's bank to block the loan. At the same time the government was saddled with huge expenses to repress the uprising, Reutern was forced to authorize the printing of new paper instead of retiring it. By August 1863, the government had to suspend payments. The run on gold threatened even more dire consequences, but Shtiglitz saved the Treasury by drawing on gold from his own reserves. Reutern never forgot the favour.¹⁹

The crippling effect of the failure to establish convertibility and obtain foreign capital left Russia with an officially approved railroad network and no one to finance or build it.²⁰ At the same time, the outbreak of the Polish revolt revived concern over the need to bind Ukraine more closely to Moscow and finally to make a rail connection between the centre and the Black Sea. For the following year and a half an intra-governmental and public debate over building the southern trunk line in Mel'nikov's network took on all the proportions of a major political struggle within the autocracy. The outcome would determine in large measure who would set priorities in economic policy: Reutern and the economists, Mel'nikov and the engineers, Russian entrepreneurs, or Miliutin and the military?

The Debate over the Southern Line

For the Moscow entrepreneurs a southern line linking Moscow to the site of Russia's humiliation, the Crimea, had acquired a large symbolic significance. Even as the government held discussions on plans for the new network, the Russian capitalist and tax farmer V.A. Kokorev made the rounds in St Petersburg drumming up support for a new company to build the Moscow – Sevastopol railroad. According to his plan, Russian

capitalists would provide the funding, Russian engineers would supervise the construction, and members of the state bureaucracy would serve in an official capacity on the company's administrative board. His candidate for liaison with the government was Baron V.I. Del'vig, the inspector general of Private Railroads and a strong sympathizer with the economic beliefs of the Moscow entrepreneurs. At first, Del'vig opposed this and similar schemes that would "combine the irresponsibility of a private company with the bureaucratic inertia of the Treasury."²¹

The initiative now passed to the main leader of the Moscow entrepreneurs, the editor and publicist F.V. Chizhov. Despite recent publishing disappointments, Chizhov, aroused by the concerns of his friend Del'vig, launched a press campaign to prevent the southern line from falling into the hands of foreigners.²² Can we forget," he wrote, "that only the absence of a southern railroad in the last war forced us to sue for a peace that every Russian remembers with shame?"²³ Like Kokorev he was convinced that without some kind of government intervention the line would be turned over to foreign capitalists, violating his most cherished ideals of Russia's material and spiritual independence. Or else it would not be built at all. He had learned from experience in helping to finance the Moscow – Iaroslavl line that Russian entrepreneurs could not by themselves raised sufficient capital for such a large undertaking. But rather than approve a new statute for a private southern railroad company that would include "one or two" mythical members of the government, Chizhov argued for outright government control, which meant in effect the control of Inspector Del'vig.²⁴

Chizhov was the first to warn against the dangers inherent in the plans of Polish bankers and landowners to finance a southern railroad that would link Warsaw to Kiev and Kiev to Odessa. The Polish revolt thrust the issue of railroad building into the forefront of Russia's strategic interests. Together with the Dunaburg line, which already connected the St Petersburg – Warsaw line to the Baltic port of Riga, the Polish project would, in Chizhov's words, "shift the locus of economic and political influence [in the country] away from Moscow. For this reason, "every effort should be made to link Moscow to Kiev."²⁵ Anticipating criticism from the economists, Chizhov dismissed the role of international finance in shoring up the Russian economy in general and constructing railroads in particular. "If we think only of the ruble rate," he wrote, "then we will forget the genuine needs of the people." He deplored the extremely high cost to Russia of "the artificial increase" in the exchange rate. If paper notes were no longer quoted on the stock

market, he argued, it would not be because they had been replaced by gold, but because of a crisis of confidence; no one would believe any longer in the value of paper. Only a real improvement in Russia's economic position would convince Europe of the stability and progress of the country. Only then, he predicted, would the value of the ruble increase on the market.²⁶

Not only was the southern line strategically vital from Chizhov's point of view, but it was a weapon in the struggle to overcome "our backwardness, our rotten, weak-willed indifference, somnolence and even total apathy." The construction was so important to him that he urged the government to "sell everything and build." He advocated raising 80 million rubles by a massive sale of state lands. In the long run the government would profit from the exchange, earning 4 per cent from its investment in railroads as opposed to 2 per cent from its landed holdings. Railroad construction, and not convertibility of the ruble, was for him the only means to improve Russia's economic position. He had not given up completely on private lines. But he now envisaged them as feeder lines financed with state-guaranteed capital from regional groups of nobility, while the trunk lines would be constructed by the state.²⁷

Throughout 1863, a chorus of influential voices rallied behind the idea of economic nationalism as opposed to the cosmopolitan, market-oriented views of the grand duke, Reutern, and the economists. One bizarre episode involved M.P. Pogodin, a long-time supporter of the Moscow entrepreneurs and the editor of *Moskovitianin*. He wrote to the British free trader, Richard Cobden, and the French utopian socialist, Pierre-Joseph Proudhon, in an attempt to get their support for his idea, similar to that of Chizhov, of financing Russian railroads through internal credit. Suppose the government were to print a special railroad issue of assignats, he suggested, guaranteed by the government and amortized as the lines were built. This would furnish perhaps 10 to 20 million rubles a year. Because of the people's faith in the government, the assignats would circulate like gold. The construction of the major trunk lines would, in turn, stimulate Russian industry, speeding the exchange of goods and movement of capital. If Pogodin expected that Western theorists would recognize Russia's special path and refute "our financial people [who] are raised on Western theories, copied from Western life [and] cannot free themselves from that yoke," then he was sorely disappointed. Cobden would have none of it. "You need to reform your fiscal system," he wrote back. "Your stock market must

not block foreign trade to the benefit of a few monopolists." Proudhon did not deign to reply at all. Cobden's condescending reply and Proudhon's silence appeared to confirm the deepest prejudices of the Slavophiles towards the West.

A second even more powerful voice issued from the pages of *Moskovskie vedomosti*. Katkov had been won over to the cause mainly for political reasons. Up to this time his interest in railroads had been slight and his economic views tended towards *laissez-faire* liberalism. But now he was aroused by the Polish threat. "There is no doubt," he wrote in a ringing editorial, "that the future fate of the Russian government is tied essentially to our south. Only there and from there can the Polish question be resolved." In vigorous opposition to a Warsaw – Kiev line he pressed for a Moscow – Kiev line that would unite Ukraine "with internal not external forces." He denounced rumours that an English firm would be granted the concession for the southern line. This would be nothing less than turning over the heroic port of Sevastopol to the victors of Inkerman and Alma.²⁸

Even before the Polish revolt, concern over the potentially political role of railroads in the western borderlands had already begun to trouble military administrators. Suddenly, their concern turned to very real fears. As early as December 1861, the governor general of the north-west provinces, General V.I. Nazimov, warned of "the ambivalent attitude of the administration of the newly opened [St Petersburg – Warsaw] railroad and of the personnel of the line, who are almost exclusively Poles and foreigners."²⁹ Soon after the outbreak of fighting in the north-west provinces, the rebels, with the connivance of Polish civil servants, cut the St Petersburg – Warsaw line below Vilna and disrupted the movement of Russian reinforcements to the Kingdom of Poland. According to the minister of war, D.A. Miliutin, Polish members of the railroad administration in Vilnius province supplied the rebels with information on scheduled troop movements. In Grodno the station master even commandeered a train, loaded it with rebels, and dispatched it to an assembly point in the forest. Miliutin and others in the War Ministry had long understood the strategic importance of railroads, but had paid little attention to question of financing and management. The Polish events jolted them into recognizing the inherent dangers of allowing foreigners to build and run the lines.³⁰

Despite their similar views, the imposing collection of interests in support of state-built lines was unable to form an effective political coalition. Maneuvering skilfully, Reutern succeeded in obtaining the concession of

the southern line for an English banking group. He had not allowed the public attacks on his position to go unanswered, publishing refutations in the pages of *Birzhivnye Vedomosti*. More important, he worked hard behind the scenes to outflank his colleagues, manoeuvring to overcome the objections of the military. Miliutin and General A.A. Zelenyi, the minister of state domains and a Sevastopol veteran, challenged the demand of the English company for substantial tracts of land along the Southern Bay which divides the port of Sevastopol in half. They argued that this would in effect “eliminate forever the possibility of re-establishing our naval forces on the Black Sea.” Alexander II was almost convinced. But Reutern’s combination of bureaucratic skill and success in frightening the tsar with scenarios of financial ruin won the day. In order to attract investors, the concession approved by the government granted a ninety-nine year lease, a very high capitalization (about 97,000 metallic rubles per verst), with a 5 per cent guarantee plus a prime of four shillings on each share. Additional inducements included the establishment of a free port at the termination of the line; and free land grants along the much disputed Southern Bay and in the Donets Basin, with exclusive coal mining rights also enjoying a 5 per cent guarantee on capital invested.³¹

Extravagantly attractive as these conditions were, they could not compensate for the growing anti-Russian sentiment in England over the Polish revolt. The London bankers were having trouble raising capital. Moreover, the press campaign in Russia led by Chizhov aimed at discrediting the concession and discouraging Russian investors from taking up the slack and assuming the major part of the financial burden, as they had done with the *Grande Société*.³² Working in tandem, the team of Chizhov and Del’vig, the outsider and the insider, kept alive the idea that the southern line could be built more cheaply in the national interest. Del’vig supplied the official statistics and other information and Chizhov turned these into an impressively documented press account that commanded attention in government offices and committee rooms, where officials who were overwhelmed by many problems and bewildered by the technical detail of railroad construction relied on him as an alternative, reliable source of information.³³ As hopes faded that the English company could raise the necessary capital to begin construction, the debate over the southern line took an unexpected turn. For the next year and a half, the political struggle over links between the centre and the south grew more intense. The outcome would shape the construction of Russian railroads and profoundly affect the development of the entire economy during the succeeding decade.

The problem of capitalizing the trunk lines of Mel'nikov's 1862 network revived the debate over not only who would finance and build Russia's railroads but also which line would take precedence in the schedule of construction. The collapse of negotiations over the southern line revived proposals to build the south-western line from Odessa through Balta to Kiev. Among several bids, the most original came from the office of the newly appointed governor general of Novorossiisk and Bessarabia, General, later Count, P.E. Kotsebue. It petitioned the tsar to begin immediate construction of the first part of the section from Odessa to Balta (up to Parkan) by employing the rank and file of punitive battalions of the Russian army under the direction of Baron K.K. Ungern-Shternberg. Ungern was a member of the Railroad Committee and a *kamenger* of the Imperial Court. He represented a new kind of railroad entrepreneur in Russia which included men like P.G. von Derviz and K.F. von Mekk. Like other members of the nobility of German origin – he was the marshal of the Estland nobility – who entered business, Ungern was hard-headed, profit-oriented, efficient, and well connected to German banking houses. Like the others too he became one of the major railroad entrepreneurs of the sixties and seventies.³⁴

Kotsebue's unusual proposal initially met a positive response from all quarters. To Reutern it meant saving money; to Mel'nikov, it represented a practical way of initiating state construction; to Miliutin it offered a rapid start on a strategic line along the Bessarabian frontier. Russian capitalists who had petitioned for the entire concession from Odessa to Kiev were also encouraged by the offer to turn over the completed section to them at cost if they could raise sufficient capital to build the remainder of the line.³⁵ When the Russian entrepreneurs had to concede their failure to raise capital for the rest of the line to Kiev, the tsar approved Kotsebue's application to continue building all the way to Balta. Mel'nikov now felt justified in taking the offensive.

The campaign of the engineers proceeded on two levels. First, Mel'nikov successfully opposed a second petition by English bankers and their Russian allies to gain the concession on the entire south-west (Odessa – Kiev) line. Second, he obtained the tsar's permission to survey the possibility of building the first section of the southern (Moscow – Sevastopol) line up to Orel with capital from the state treasury. He had learned to couch his arguments in financially attractive terms by assuring Alexander that the survey by his engineers would "shake the conviction which persists in the public mind concerning the high cost of the construction of railroads in Russia." He further asserted that the

concession of branch lines to Russian entrepreneurs would by virtue of their commercial opportunities “convince the public of the possibility of profits on Russian railroads when they linked the productive areas of the Empire to the main markets.”³⁶ Third, he moved to reorganize the budget of his department in order to divert all available funds to railroad building, particularly of the southern and south-western line, at the expense of any further development of a road system or inland waterways, which he proposed to turn over to the newly created zemstvos.³⁷

The keystone in Mel’nikov’s system was a transformation of the bureaucratic base for his vast plans for the economic development of Russia. He undertook a reform of the administrative structure of his department aimed at further rationalizing and professionalizing it. Following a functional consolidation of the central bureaux, he granted special status to two consultative committees, the council and the instruction committee. In this way he gave the engineers a more important role in making decisions and granted the directors of separate departments greater initiative and responsibility. The Department of Railroads was expanded with the creation in 1865 of the office of Inspector of State Railroads to match the Inspector of Private Railroads created in 1858 and occupied, as we have seen, by Baron Del’vig.³⁸

Administrative reorganization was accompanied by educational reform. The statutes of 1864 transformed the old caste-like and militarized Institute of the Corps of Engineers (Institut korpusa inzhinerov) into the Institute of Transportation Engineers (Institut inzhnerov putei soobshcheniia). The new structure established for the first time unlimited enrolment of all social classes and eliminated all military influence, whether in administrative procedures or dress. The curriculum laid much more emphasis than ever before on purely professional training and practical work. The appointment in 1864 of eight professional engineers as ordinary and extraordinary professors set new standards of instruction. Selection of the faculty was democratized. Many of the innovations reflected the general trend in Russia towards greater academic autonomy and an all-class character. But Mel’nikov’s emphasis on professionalism was his own. When in June 1865 the tsar recognized the growing activity and significance of the Main Administration by raising it to a ministry, Mel’nikov’s position appeared secure.³⁹ But at this point his railroad schemes began to unravel.

Mel’nikov was partially responsible for the decline of his influence; he was also a victim of circumstances. Although he was privately critical of Ungern-Shternberg’s lavish spending, he was willing to support

a continuation of the building towards Kiev at a rate of 25,000 rubles a verst and a guaranteed income to the builder for four years, after which the line would revert to the state. But already in November 1864, he began to envisage a realignment of his proposed 1862 network by combining the southern and south-western lines in hopes of further cutting costs. His idea was to shift the line from Moscow to the south farther to the west. It would pass through Orel and Briansk rather than Kursk and continue in a south-west direction to Kiev. He even toyed with the idea of granting a concession to Belgian capitalists to construct the centre section from Orel to Kiev as long as he could anchor the northern and southern sections with state-owned lines.⁴⁰ From Mel'nikov's point of view, the change might well have reflected his concern that the enormous expense of constructing the southern line as planned from Moscow to Sevastopol would delay its completion for many years, thus depriving the centre of its much needed connection with the Black Sea. But the plan left Mel'nikov vulnerable to other proposed changes in the original design of the network that were less acceptable to him.

Governor General Kotsebue, representing the regional interests of Odessa, took advantage of his growing reputation with the tsar to request in November 1864 that the Odessa – Balta line being constructed by Ungern be extended not to Kiev as had been planned but towards Elizavetgrad, Kremenchug, and beyond to Kharkov, where it would join the southern line as projected by Mel'nikov in his original 1862 design for a network. Kotsebue presented strong regional arguments for his alternative plan to shift the entire centre of gravity of the railroads in Ukraine. He pointed out that the extension of the Odessa – Balta section to Kiev would not appreciably increase access of the grain-surplus-producing regions to the Black Sea port. From an economic point of view, it was preferable to open up the rich areas of southern Podolia in the right bank Ukraine that already provided more than one half of Odessa's exports. By projecting the extension of the Odessa – Balta line to Kremenchug, the great mineral and coal deposits between the Dniepr and the Don could be exploited, reducing the dependence on coal imported from England necessary to run the railroad.⁴¹ Kotsebue's daring proposal posed a direct challenge to Mel'nikov. More important, it touched off another round in the great railroad debate that had implications for the economic development of the vast and largely unexploited wealth of Ukraine.

In the renewed debate, the alliance solidified between the engineers and Moscow entrepreneurs as the press campaign centred more and

more on nationalist and anti-foreign themes. Del'vig had doubts that Mel'nikov could win if the struggle were confined to bureaucratic infighting. He wrote Chizhov that Ungern and Kotsebue could only be held in check by an aroused public opinion designed to influence undecided or indifferent public officials within the inner circle of the tsar's advisers.⁴² He set out to rally all those who had earlier expressed opposition to the English concession on the southern line. What emerged from his semi-clandestine manoeuvres would have resembled the outlines of a nascent political party if Russia had a constitutional monarchy with some form of legislative or consultative assembly based on restricted suffrage. In the event, the coalition lasted only as long as the single issue of the railroad network was in doubt. When its effort failed to win official approval, it fell apart. Reutern ignored its scattered remnants as he triumphantly established the hegemony of his interest group over economic policy.

The Moscow Entrepreneurs Enter the Battle

The most important new recruit to the original coalition of Moscow entrepreneurs was the powerful Nizhnyi-Novgorod merchant family of the Shipovs. The two brothers, A.P. and D.P. Shipov, were already engaged in a controversy with "hostile forces," which meant "Germans and Poles," over foreign trade and tariffs. In Berlin in the summer of 1864 a German Commercial Congress had drafted a proposal for a new agreement between the Zollverein and Russia that Reutern circulated without comment among the *soslovie* organizations of the Russian merchantry. The response was immediate and indignant. The merchants feared their own government was already involved in negotiations without having consulted them.⁴³ When the mouthpiece of the minister of finance, *Birzhevye vedomosti*, published a favourable view of the draft as a step towards lowering trade barriers, Alexander Shipov sprang into action. He used various public forums to denounce the draft and wrote his Moscow friends to follow his lead.⁴⁴ Under his leadership, merchants gathered at the annual Nizhnyi fair authorized him to present an official protest to the governor general for transmittal to Reutern. According to Reutern's subordinate, Director of Foreign Trade D.A. Obolenskii, it was "a highly unpleasant document ... full of hurrah patriotism" that laid out Shipov's familiar critical views on the deplorable condition of trade, industry, and agriculture in Russia and the means to improve it. In vain, the ministry sought ways of placating Shipov.⁴⁵ But he was not an easy man to restrain.

Shipov regarded any indication of lowering rates as a general drift towards a pro-German tariff policy. He foresaw the need to reorganize the merchantry into a more effective pressure group. Out of this conviction grew the movement to create the merchant congresses (*kupecheskie s"ezdy*), formed from elective representatives of the stock exchange committees and the Moscow section of the manufacturing and commercial councils. According to one of the leaders of the Moscow Stock Exchange, this was the first example of collective, practical social activity undertaken by the merchantry outside their immediate business interests.⁴⁶ Like Mel'nikov and the engineers in the bureaucracy, the entrepreneurs in the public arena recognized the need to create new organizational forms in order to play the new political game in the era of reform.

Simultaneously, the Shipovs threw their weight behind Chizhov's campaign against what they called the pro-German clique on the southwestern railroad. In his newly founded journal, Alexander Shipov championed the cause of "building Russian railroads with our own means [which] will be surer and cheaper given the present situation of our trade balance."⁴⁷ He expressed concern that Russia's true interests had been sacrificed in early concessions such as that of the Grande Société which, he claimed, had ruined the infant Russian metallurgical industry by allowing the import of rails from abroad.⁴⁸ He similarly condemned Kotsebue's plan to extend the Odessa – Balta line to Kremenchug and accused the Odessa merchants of short-sightedness. The line to Kiev, he argued, would be just as profitable, but politically would have the added advantage of unifying the country. He followed Mel'nikov's idea that the government should build the trunk lines as a public service and allow private groups to build the commercially profitable ones.⁴⁹

In the meantime, Del'vig was making contact with the military group by encouraging General N.N. Obruchev of the general staff to prepare an article against "the hostile forces." The official organ of the Ministry of War, *Russkii invalid*, published a sharp criticism of Kotsebue's proposal, "a copy of which," Del'vig was confident, "will get to the tsar."⁵⁰ But Miliutin hesitated to throw his full weight behind the engineers and entrepreneurs. He was deeply involved in carrying out his military territorial reforms and battling Reutern on budget issues; he could ill afford to antagonize further the finance minister. So he opened the pages of *Russkii invalid* to all opinions in the debate. Moreover, Miliutin began to express concern that in case of war the Odessa – Kiev line would be

less important than the Moscow – Kiev line. Perhaps it would be better, he mused, to build the northern section (Moscow – Kiev) first and let Ungern have his line to Kremenchug.⁵¹

While Del'vig sought to keep the military interest group in line, he pressed hard to get Katkov more deeply involved. When that powerful voice responded, it was to refute an article in *St Peterburgskie vedomosti* that reflected Reutern's views. Katkov's articles extolling the virtues of economic nationalism made a strong impression on a number of influential officials at the highest levels of the bureaucracy, including the former director of the Main Administration and member of the Railroad Committee General Chevkin. Del'vig was delighted, assuring Chizhov that "they would produce an effect."⁵²

Del'vig was tireless in his daily orchestration of the campaign. He suggested topics, supplied information, urged quicker and more frequent responses, and circulated copies of articles by his collaborators among members of the all-important Railroad Committee. He insisted that every justification by the enemy had to be refuted promptly. He carried on the fight up to the day before the Committee of Ministers took its vote. His worst fears were confirmed when he learned from highly placed officials that because articles by Ungern went unanswered in the press, it was automatically assumed that "everyone regarded [them] as satisfactory."⁵³

The advocates of the Kremenchug line were equally active in mounting their own campaign in the public arena, publishing in the press and organizing banquets. From the pages of *St Peterburgskie vedomosti* and *Severnaia pochta* they accused their opponents of ignoring basic economics and focusing on "ephemeral" political issues. Kotsebue arrived in the capital, spreading rumours that Chevkin agreed with him and that Mel'nikov was wavering. He strengthened his ties with Valuev. The economists organized a banquet for Kotsebue and Ungern where the two men presented glowing reports of their progress on the Odessa – Parkan section.⁵⁴ In fact, Kotsebue was not far off the mark. There were signs that Mel'nikov was wavering.

Bureaucratic politics under Alexander II was a complex affair, and the lines were not always rigidly drawn between ministers. As we have seen from Miliutin's cautious stand, a minister, no matter how strongly he had consolidated control over his own department, would only clash openly with someone as powerful as Reutern under extreme provocation. At this point Mel'nikov showed signs of concern that the press campaign was placing him in a false position. Sensitive, aloof, and

moody, he ceased conversing with Del'vig about the southern line. For some time he had suspected, quite correctly, that his subordinate was leaking confidential information to Chizhov and thus compromising him in the eyes of his colleagues and the tsar.⁵⁵ Mel'nikov also began to have doubts that he could altogether eliminate his strong rivals, Kotsebue and Ungern, from building their line. Del'vig reported to Chizhov that his chief was increasingly apathetic and responded without enthusiasm to the suggestion that the engineers organize their own banquet as a response to the tactics of the economists.⁵⁶

Mel'nikov had not given up the fight. But he confined his activities to manoeuvring within the government bureaucracy. First he diverted Kotsebue's report from the Council of Ministers, where Reutern commanded a majority, to the Railroad Committee. Kotsebue countered by getting himself and Ungern appointed to the committee as voting members. Whereupon Mel'nikov responded by persuading the tsar to appoint General Zelenyi as a full member. As a result, Mel'nikov could be confident of a majority composed of himself, Zelenyi, the three engineer generals, E.I. Gerstfel'd, P.A. Iazykov, and Kerbedz (who no longer had a personal stake in the southern line), and Adjutant General N.N. Annenkov, the governor general of Kiev.⁵⁷ Annenkov was close to Miliutin on matters touching the Polish question and a strong believer in the political and strategic importance of the Moscow – Kiev – Odessa line.⁵⁸ At the Railroad Committee meeting on 15 December, Mel'nikov won a narrow majority of six to five. The majority placed the blame for the railroad crisis on the depressed money market and the failure of private lines to manage efficiently. Beyond the strategic question, they argued for the economic rationality of the original network. The minority, consisting of Reutern, Kotsebue, Ungern, General A.I. Verigin, and, surprisingly, General E.I. Totleben, interpreted the previous history of railroad building in Russia as a failure to pay sufficient attention to financial matters. As a result, all the existing lines showed a small profit, and foreign capital turned their backs on further investment. If the state continued to finance the building of the south-western railroad beyond the Odessa – Balta section, then it had to make certain that the line would earn sufficient hard currency through expanding exports in order to pay for the rails and rolling stock that had to be ordered abroad. This could only be done by selecting the Kremenchug – Kharkov trace and bypassing Kiev.⁵⁹

On the very evening of the vote in the Railroad Committee, a major conference of the Statistical Section of the Russian Geographical Society

provided a dramatic forum for one of the most vigorous public debates held in Russia up to that time over railroad policy and economic development. The speakers represented the cream of the new generation of reforming bureaucrats. They still harboured the illusion, so eloquently expressed by the chairman of the session, E.I. Lamanskii, that by virtue of their professional competence and objective examination of the issues their opinion would carry great weight with the policymakers responsible for making the final decision.⁶⁰

The supporters of the Kremenchug – Kharkov connection drew their main strength, as was to be expected, from the economists and the Odessa regional interests. On this occasion, Valuev's subordinates were among the most active participants. A characteristic representative of this group was A.B. von Bushen, who led off the discussion with an analysis of the commercial advantages of the connection with Kremenchug and Kharkov.⁶¹ At age thirty-three, he was already a well-known population expert, the editor of the bulletin of the Central Statistical Committee of the Ministry of Interior, and secretary of the statistical section of the Geographic Society. Supporting him was P.P. Semenov (later Tian-Shanskii), on his way to becoming one of Russia's foremost geographers and already secretary of the physical geography section of the Geographical Society. Like von Bushen, he had several years' experience abroad. Then as a member of the Editorial Commission he had served as a close collaborator, first, of Ia.I. Rostovtsev in the work of emancipation, and then of Grand Duke Konstantin Nikolaevich. In 1864 he became director of the Central Statistical Committee of the Ministry of Interior. Semenov invoked the authority of two very different sources, the English banker Thomas Baring and the Slavophil publicist Ivan Aksakov, in order to prove that the Kremenchug – Kharkov line would best serve the development of Russia's overland trade. He further argued that, by contrast, linking Kiev to Odessa ahead of Moscow would encourage the very "separatist" tendencies of the south-west that his opponents sought to avoid.⁶²

Kotsebue took the unexpected and clever tack of defending his patriotism from attacks in the press. He reminded his audience that he had served as chief of staff of the southern army in the Crimean War, and "knew from whence we received all our military supplies; not from Kiev, but from central Russia; men, uniforms, powder, shells, food – and what from Kiev?" He dismissed the most serious charge of his enemies. "Opponents of separatism say that a railroad to Kiev will end separatism. I know this area. No separatism exists."⁶³ The spokesman

for the Odessa merchants, G.R. Rafelovich, speaking French, returned to the theme of the great trade advantages that would accrue to his city from the Kremenchug – Kharkov connection. He was not at all embarrassed by criticism from the audience that six years earlier when he had been one of the founders of the abortive Odessa-Kiev company, he had sung a different tune. He freely admitted that despite their preference for Kremenchug over Kiev the Odessa merchants had no reason to object if foreign capitalists were willing to put up the money for a line to Kiev.⁶⁴ For his opponents, his waffling was a perfect illustration of the way in which foreign capital could dictate the direction of Russia's railroad lines.

Del'vig too had marshalled his forces well. The press campaign had its effect and the spirit of Katkov hung like an avenging angel over the meeting.⁶⁵ Like their opponents, the supporters of the Kiev line paid homage to the growing influence of the press by attempting to refute the most frequent public criticisms of their position. Del'vig himself emphasized the economic, if not financial, advantages of the Kiev line. Taking his cue from Lamanskii's opening remarks, he challenged the economists on their own grounds. Conclusions could be drawn from statistics "if they are precise, correct, systematically collected and evaluated." He reeled off a set of figures on comparative populations, the wool and grain trade, fuel, and famine relief in order to prove that the Kiev line would provide the greatest service to the greatest number.⁶⁶ General Obruchev followed by striking hard at the selfishness of the Odessa grain speculators. "To some Odessa merchants the calculation of private trade often takes precedence over everything else," he charged. The railroad to Kiev would cut into the abnormally high profits "which enable clever merchants to become millionaires." He reminded his audience that the state was building the railroad, not the merchants.

In his most forceful intervention, Obruchev restored the strategic issue to the centre of the debate. Backed up by Prince N.S. Golitsyn of the general staff, who was also the editor of *Russkii vestnik*, he argued that the Moscow – Kursk – Kiev line, when supplemented by a branch line to Brest, Warsaw, and Königsburg, would provide troops for the defence of the Kingdom of Poland and the whole south-west in addition to carrying the produce of central Russia to the West. Golitsyn hammered the point home: Kiev was "a first-class fortress and a unique bulwark of our defence of the south-west provinces."⁶⁷

As an effective counterweight to the Odessa regional interests, Del'vig and his allies had made certain that representatives from Kharkov,

Rostov-na-Donu, and Tagenrog were on hand to lobby on their own behalf. A member of the well-known Kharkov family of landowners and writers, General of the Engineers K.I. Marchenko, who had been a founder of the original Odessa Kiev company in 1858, also rebuked the Odessa merchants for their fickleness.⁶⁸ From Rostov, I.F. Fel'kner denounced Odessa as "an artificial port founded by a foreigner," in contrast to his city, "a real Russian port" in the heart of the country. Concluding that Russia's future lay to the east rather than the west, he declared that "from a Russian point of view Kharkov should be connected directly with Moscow in the north and Rostov to the south rather than to Odessa."⁶⁹ The spokesman from Tagenrog, N.T. Dzhurich, wondered, "What is Odessa to control all the trade of Central Russia?" He pointed out that the natural outlet for Kharkov was to the south, where commercial relations had long been established with Tagenrog. The products of Ukrainian markets were sent to the Sea of Azov and not to Odessa.⁷⁰ Other members of the Geographic Society took an even more explicit xenophobic stance, fearing that without a line from Odessa to Kiev the entire trade of the region would be "more tightly tied to the foreigners than ourselves."⁷¹

The pro-Kievan or more correctly as it turned out anti-Kremenchug forces were encouraged by the separate opinions of three outstanding economists who normally supported Reutern, V.P. Bezobrazov, I.V. Vernadskii, and the president himself, E.I. Lamanskii. Bezobrazov admitted being strongly influenced by Katkov, but denied that he had abandoned his European orientation. He took the subtle line of argumentation that the main object of the rail network was to expand Russia's strength in the western part of the country, that is, through Kiev, and thereby draw Russia closer to Europe. Professor Vernadskii also took the long-range view that to build towards Kremenchug from Odessa would distort the larger plan of two important southern lines from Moscow, one to Kiev and Odessa, the other to Kharkov and Tagenrog. As a self-confessed Kievlianin he, like Kotsebue but with a different aim in mind, refuted the charges of separatism, proudly asserting that Kiev had always resisted Polish influence. Lamanskii associated himself with General Obruchev's statement, proclaimed a majority in favour of the Kiev line, and closed the session.⁷²

The debate revealed the broad range of disagreement among the bureaucratic and regional interests over the role of railroads in addressing basic economic and political questions. But it did not resolve the specific question of the direction of the south-western and southern lines.

Valuev was quick to dismiss the outcome as a discussion “by dilettantes of words and deeds.”⁷³ But someone in the government was taking no chances that the discussion might be interpreted more seriously. The report of the Geographic Society session was not published until after the government’s decision was taken. Two weeks later the Committee of Ministers voted twelve to eight to confirm the Elizavetgrad – Kremenchug – Kharkov option. The tsar approved the majority opinion. In the minority were Mel’nikov, Chevkin, Zelenyi, Annenkov, Minister of Justice D.N. Zamiatin, president of the State Council Prince P.P. Gagarin, future Ober-Procurator of the Holy Synod D.A. Tolstoi, and State Controller V.A. Tatarinov. The majority was composed of Grand Duke Konstantin Nikolaevich, Grand Duke Nikolai Nikolaevich, Reutern, Valuev, Kotsebue, Golovnin, Count V.A. Bobrinskoi, Foreign Minister A.M. Gorchakov, Count A.V. Adlerberg, Admiral N.K. Krabbe, and Prince V.A. Dolgorukov. The terms of the concession for the Balta – Elizavetgrad section rewarded Ungern for his long wait. Nine thousand troops were put at his disposal and the cost was set at a generous 45,000 rubles a verst, with any savings on construction up to 3 per cent going to the builder, that is, Ungern.⁷⁴

The Struggle Widens

Simultaneously with the debate over the southern line, another controversy, this time over an extension of the Moscow – Saratov line, helped to shape Reutern’s thinking on the future design of a Russian network. Shortly after the original concession of the Moscow – Saratov line in 1859, the company ran into a series of problems: competition from the Grande Société, mismanagement by foreign directors, and the effects of the general financial crisis.⁷⁵ Disaster was narrowly averted by the vigorous intervention of the young secretary of the administrative council, P.G. von Derviz. Soon to become one of the most famous railroad entrepreneurs of the day, he began his meteoric career in 1857 when he participated in an economic survey of the proposed Moscow – Saratov line. Elected to the council when he owned only 250 shares, he took over management of the company during the crisis of 1860.⁷⁶ Having obtained the backing of Prussian bankers, he persuaded the government that he could complete the next section of the Saratov line from Kolomna to Riazan if the company’s statutes were revised to permit the flotation of a five million ruble bond issue and to increase the guaranteed capital per verst to 62,000 rubles at 5 per cent interest. His success

in placing the bonds in European banks was a milestone in Russian railroad history.⁷⁷

Having completed this section Von Derviz petitioned for similar state-guaranteed bonds to push on from Riazan to Kozlovsk. But it required three successive petitions and a bitter public debate before Reutern approved a concession that struck what he considered to be the proper balance between the needs of the government and the interests of private capital. Von Derviz's first proposal in December 1863 was designed to win over both Reutern and Mel'nikov. He offered to complete the entire second section of the Moscow – Saratov line from Riazan to Saratov, already approved as part of the network of 1862, at a cost below that of the first section. He claimed he could raise all the necessary capital from the English banker Lang, a reputable figure who had been finance minister in India. Once the line was completed it would be turned over to the government. The package appealed to Mel'nikov, who was willing to agree to private construction if he could be assured of public ownership. At least he reported favourably to the tsar on the concession from Riazan to Kozlovsk while reserving judgment on the rest of the line pending further technical surveys.⁷⁸ But Von Derviz then ran afoul of the Moscow entrepreneurs.

In his self-assigned capacity as watchdog, Del'vig campaigned behind the scenes to derail Von Derviz. His main concern was that Von Derviz intended to extend the Moscow – Saratov line, once it was completed, to Kharkov. Not only would this strengthen the arguments of Kotsebue and Ungern in their quest for the Kremenchug – Kharkov connection, but it would undercut plans for a direct southern line from Moscow to Sevastopol, "leaving the provinces of Tula, Orel, and Kursk forever unconnected with the capital."⁷⁹ Del'vig fed his inside information to Ivan Aksakov, who launched a public attack on the proposal. He revealed that Von Derviz's intermediary in dealing with Lang, the St Petersburg banker Kapger, had anticipated the concession by buying up 18,000 shares of the Moscow – Riazan line from bankrupt nobles. Then at a rigged meeting of the Moscow – Riazan joint stock company the entire unsavoury deal had been rammed down the throats of the majority stockholders. Aksakov also focused attention on the political cost of short-circuiting the direct line between Moscow and Sevastopol.⁸⁰ Mel'nikov was furious that these revelations would compromise him. Von Derviz counterattacked in the press. The furore alerted Reutern, who was entering the delicate final stages of his negotiations with an Anglo-Dutch consortium. The finance minister began to worry that by

accepting Lang's proposal to finance Von Derviz, which amounted in fact to a state loan, he would jeopardize the prospects for borrowing abroad on a much larger scale. His opposition doomed Von Derviz's proposal in the Railroad Committee.⁸¹

Undaunted, Von Derviz returned with a second draft proposal aimed at removing one objection, the foreign loan, by organizing a joint stock company rather than floating a bond issue. But he could not quiet fears over the second objection. A majority of the Railroad Committee reaffirmed the necessity for a direct southern line from Moscow to Sevastopol through Tula and Orel and rejected Von Derviz's alternative trace through Kozlovsk to Kharkov.⁸² The press campaign had done its work.

In his third draft Von Derviz retreated to a more modest offer to build only the Riazan – Kozlovsk section within a three-year period. But, as if to compensate for his disappointment, his financial terms were exorbitant and unacceptable to Mel'nikov. However, Von Derviz introduced an ingenious capitalization scheme that caught Reutern's attention. He proposed to raise the necessary capital together with unnamed colleagues by assuming full responsibility for placing state-guaranteed stocks and bonds in the money markets of London, Amsterdam, and Berlin on condition that he be permitted free use of the investment capital. Mel'nikov appointed a special commission of his most reliable subordinates to review the proposal. The engineers tore it apart. In their view the capital-raising scheme amounted to an unprecedented swindle. It would deprive the investors of any participation in or control over the costs of construction and absolve the builders of any responsibility for running the line once it had been built. The plan violated Russian laws on the formation of joint stock companies. Von Derviz's facile assurances about eager investors in the European money markets, they charged, flew in the face of all previous experience and ignored the prevailing tight money situation. They concluded by citing a number of technical problems in the plan that revealed the incompetence and dishonesty of the builders.⁸³ But Reutern was intrigued and authorized Von Derviz to try to raise the preliminary capital. Working his contacts in Berlin, Von Derviz succeeded in selling off the initial bond issue for 10.8 million Prussian thalers and deposited his earnest money in the Russian State Bank. He assured Reutern that the founders would raise the remaining one third of the construction capital in the form of shares, thus eliminating the need to establish a joint stock company abroad. An enthusiastic Reutern gave his stamp of approval and Mel'nikov's resistance collapsed.⁸⁴ Reutern was convinced that Von Derviz's financing

provided the long sought-for solution to the problem of raising foreign capital to build Russia's railroads.

At the time, even Von Derviz's sharpest critics failed to understand the full extent of his financial coup. By setting his estimates high and drastically trimming the real costs, he was able to build the line solely with the capital raised in Berlin. Then he and his associates appropriated the entire stock of the company, representing a third of the estimated cost of the line, simply by making a down payment of 10 per cent of its nominal value. The next step was to appoint themselves directors and sell their shares, which cost them virtually nothing, to unsuspecting investors at market value. As a result of these financial operations the founders pocketed from 44 to 49 per cent of the profits in the form of guaranteed interest on the stocks and capital gains.⁸⁵ Surely Reutern and the economists were aware of the windfall profits that the Riazan – Kozlovsk concession and those that followed were making at the expense of the government. How could they justify these abuses?

A complete defence by Reutern was included in his memo to Alexander II of 1866 to be discussed below. In the meantime, it was left to his subordinates to refute the public criticism of raising capital abroad to build Russian railroads. Foreshadowing Reutern's confidential memo to the tsar, one of his closest subordinates and subsequently deputy minister of finance, F. Ternier, took on the critics in a speech to the Geographic Society published in the war ministry newspaper, *Russkii invalid*. Like most subsequent defenders of forced economic development in Russia, Ternier framed his response in terms of short-term sacrifices for long-term gains. "To increase our future wealth," he argued, "it is necessary first to become poorer, that is, to attract part of our capital used for consumption to productive purposes." He explained that Russia suffered from a lack of capital because it was a latecomer in the race for economic and industrial development. Moreover, because of the peculiar financing of the emancipation, most of the working capital in Russia was tied up in the land. Ternier acknowledged the high cost of foreign capital, but insisted that the increase in Russia's productive capacity would more than compensate for the interest payments to Western Europe. Russia was simply following the European pattern of "the normal development of a country," obeying "general economic laws."⁸⁶ The argument would become familiar. But at the time it was a striking admission that the real cost of attracting foreign capital to Russia would exceed the returns from the investment for some time to come.

The two concessions to Ungern and Von Derviz were severe setbacks for Mel'nikov. To Del'vig the implications were disastrous. It appeared to him that the idea of a national network had been abandoned, opening the way for haphazard construction by irresponsible private interests and mortgaging Russia's future.⁸⁷ Del'vig's response was understandable but over-simplified. He failed to take into account Reutern's commitment to a rational economic order.⁸⁸ But there was no question that Reutern was now prepared to undermine Mel'nikov's position and replace him as minister.

Reutern Flexes His Muscles

The first step in Reutern's political campaign to bring down Mel'nikov was the establishment of a special commission approved by Alexander II in the spring of 1865 to examine the accounts of the Ministry of Transportation. Its charge was to determine the comparative advantages of private versus state-built railroads by examining Mel'nikov's budgets for the years 1862–3, when the ministry was most heavily engaged in railroad construction. The membership of the commission stacked the cards from the outset in favour of private building. The chairman, Chevkin, strongly favoured a return to his policy line of 1857–62 with more flexible financing. Valuev had recently been appointed to the Railroad Committee on Reutern's recommendation. V.P. Butkov was a state secretary and head of the State Chancellery, also a bulwark of the so-called liberal bureaucracy, in other words, a supporter of private enterprise. The minister of post and telegraph, I.M. Tolstoi, was close to Shuvalov but no friend of state-built lines. N.A. Miliutin, who could be expected to mirror the views of his brother, the war minister, was the only member primarily concerned with the construction of strategic lines. Reutern came to realize he could not ignore this aspect of railroad construction in light of the tsar's inclinations.⁸⁹ Mel'nikov was invited as a consultant. From Reutern's point of view, perhaps the most important member was the non-voting secretary, A.N. Kulomzin. By inclination and training Kulomzin was a model representative of the second generation of economists. Educated in France, a friend of the liberal St Simonian Michel Chevalier, he served from 1864 to 1868 as a member of the State Chancellery, where he struck up a life-long friendship with N.Kh. Bunge, whose policies he supported during the latter's term as minister of finance.⁹⁰ On Chevkin's instructions, he drew up a preliminary study of European railroad building to serve as the basic working paper for the commission.

The document, a copy of which fell into the hands of Katkov, hardly by accident it may be assumed, was soon after published in *Russkii vestnik*. Kulomzin's debt to the liberal St Simonians, Chevalier and the Pereire brothers is evident on every page.

Kulomzin's memo relied heavily on the French experience but adapted to Russian conditions. Railroads built exclusively by the state were neither completed on time nor managed successfully. But Russia badly needed rapid construction to increase its exports, develop a mobile labour force, raise the price of land, stimulate industry and enable the government to broaden its tax base. Like Austria, Kulomzin added, Russia could bind its nationalities together with railroad lines. Inspired by the French railroad law of 1842, Kulomzin proposed that the state should share part of the construction costs in order to encourage private companies, in Russia's case financed by foreign capital, to provide the remainder. The government could then establish a set of regulations applicable to all lines, including a specific guaranteed income.⁹¹ The memo reinforced Turner's views and marked a further step towards making railroads the keystone of a new system of state capitalism.

The final report of the commission was clearly calculated to win the approval of the tsar by giving the impression that equal weight had been apportioned to strategic and financial considerations. The commission recommended rapid construction of a network that closely followed that agreed upon in Chevkin's negotiations after the Crimean War with the Grande Société: a southern line from Moscow to Odessa with branches to the Crimea and Sea of Azov; a Moscow – Saratov line; another from Kiev on the main north – south line to Balta and the Galician frontier; another from Orel on the same line through Vitebsk with branches to Riga and Libau. The network appeared to be designed mainly for strategic purposes, but it had the added attraction of linking the grain-surplus regions of the south and centre with the ports of the Black and Baltic Seas. The key provisions of the report dealt with financing.

A large section of the report enumerated the many errors of the government in negotiating with private companies. There were recommendations to stiffen the lax supervision over private lines and to revise the careless financial procedures that permitted entrepreneurs like the Grande Société to issue large amounts of state-guaranteed shares. These recommendations served Reutern well in his continuing efforts to refute his critics and convince the tsar that the government was taking every precaution to protect the interests of the country against the

predatory attacks of entrepreneurs. He gradually introduced many of these safeguards into railroad legislation over the following three years. Finally, the commission specifically endorsed Reutern's warning not to overload the money market with railroad shares lest their value depreciate, thus increasing the difficulty of raising future capital. Alexander II was impressed, judging by his marginal comments. As Chevkin and Reutern no doubt anticipated, he sent instructions to the ministers of finance and transportation to present him with their detailed proposals on the formation of new private railroad companies. He also ordered the Committee of Ministers to take appropriate measures to implement the commission's recommendations.⁹² This flurry of activity culminated in the network of 1866.

The design for the new network was mainly Reutern's work. The key personnel in the Ministry of Transportation, like the deputy minister E.I. Gerstfel'd, knew nothing about it or who had drawn it up. When Del'vig sought to have one of his own recommendations included he was led to understand that "everything now depends on the Minister of Finance and that from our side there is nothing to be done."⁹³ The network of 1866 both altered and exceeded the recommendations of the commission. The strategic line to Sevastopol was placed in a second category of priorities without any convincing explanation. So was the Orel – Saratov line for the obvious financial reason that no capitalists could probably be found to undertake its construction until Orel was linked to Riga, thus providing a direct rail connection between the lower Volga and the Baltic. But Reutern's main aim was to expand the number of lines that would attract investors seeking high profits. All together nineteen lines were included in the network covering 7000 versts, or over half again as much track as had been laid over the previous twenty years.⁹⁴ Far more ambitious than Mel'nikov's network of 1862, it revealed Reutern's new optimism and determination to make railroad policy the driving force of his economic policy.

Up to this point, Reutern had been groping his way towards a comprehensive system through trial and error. The failure of his convertibility scheme and the depressing effects of the Polish revolt on the international money market sharply curtailed the ability of the state to borrow abroad and forced him to cast about for new methods to overcome Russia's economic backwardness. Railroads could provide the solution, but only if the financial risks to the Treasury could be minimized. Von Derviz's new financial scheme of having private

Russian entrepreneurs place state-guaranteed bonds, not shares, abroad freed the Treasury from the vagaries of stock market speculation in Europe. It provided enough capital to finance construction and left the entrepreneurs free to pocket the profits from selling shares in Russia. Several economists like Ternier and Kulomzin had outlined the principles behind such a system. But Reutern himself had not woven the various strands of his policy into a comprehensive statement. He may have thought this unnecessary as long as the tsar supported his separate proposals. But he was forced to reconsider his position when strong opposition to his policies arose from an unexpected quarter. The challenge came from a powerful faction within the bureaucracy headed by the new chief of gendarmes, P.A. Shuvalov.

Enter the Shuvalov Faction

Petr Andreevich Shuvalov was the scion of an old titled noble family. He filled a number of important posts in the security services, rising to become chief of gendarmes in 1866. Following the Karakozov attempt on the tsar's life, Shuvalov sought to exploit Alexander II's anxiety over internal security in order to gain control over the Committee of Ministers and, it appeared, over the entire government. Although he claimed to serve the interests of the nobility, he really represented the aristocratic oligarchy, which periodically in modern Russian history sought to share power with the tsar. Recruiting prominent officials into his faction, he set out to discredit the "liberal bureaucrats" who moved in the circle of Konstantin Nikolaevich.⁹⁵ He rapidly extended his control over ministries directly concerned with public order. Within two years, he succeeded in replacing the "eagles" of Grand Duke Konstantin Nikolaevich at Education and Justice with his own men, Count Dmitri Tolstoi and Count K.I. Pahlen. When Valuev resigned as minister of interior Shuvalov had one of his former deputies, the chief of staff of the Third Section, Count A.E. Timashev, appointed to replace him. Two of the three counts were large hereditary landowners; Tolstoi married great wealth. Men of independent means and high rank, they were not simply Shuvalov's creatures. They also shared his general views on law and order, even if for tactical reasons they did not always line up with him on every measure that came to a vote in the Committee of Ministers or State Council. In 1871, Shuvalov succeeded in adding to his faction a fourth count, A.P. Bobrinskoi, as minister of transportation. According to Valuev, who sympathized with many of their principles, the members

of "the conservative conclave," as he called them, were "well meaning but not very capable." When the conclave met, "it occupied itself less with state affairs and more with gossip about their enemies and idle talk about their principles."⁹⁶

In so far as the Shuvalov faction had an economic policy, it aimed at restoring the declining fortunes of the landowners by direct state assistance. This meant, first of all, slowing down the process of emancipation by delaying the peasants' redemption of land and otherwise softening its impact on the former serf owners. Second, it involved forming a Society of Mutual Landed Credit, a private bank originally conceived by Shuvalov and Count A.P. Bobrinskoi and including among its members a galaxy of the main opponents of the emancipation and other reforms.

The founding and fate of the bank illustrates the complex struggle of the interests for control over Russian financial policy and reveals once again Reutern's bureaucratic skills in outmanoeuvring the Shuvalov faction. The aristocratic founders rapidly gained the approval of the tsar, who was eager in the wake of the attempt on his life in 1866 to rally support among the elites. They presented the enterprise as a vehicle for transferring the ownership of vast estates by the Polish *szlachta* into the hands of Russian landowners. Enveloping their class interests in the cloak of patriotism, they petitioned for special privileges that immediately encountered Reutern's opposition. Then they sought to co-opt their critics by electing Konstantin Nikolaevich and Reutern as honorary members of the administrative board of the bank with voting rights, a tactical mistake. The aristocrats lacked the entrepreneurial skills and experience to compete with the minister of finance. Reutern was able to exploit his foreign contacts with Bleichroder in Berlin and Rothschild in London to take over control of the bank and use it for his own purposes, primarily to stabilize the ruble rate. In 1890–1 the bank was absorbed by the state-controlled Noble Bank, reversing a twenty-five-year policy of the ministry of finance which had denied loans guaranteed by land. But by this time, the nobility had lost any possibility of using their rapidly dwindling share of landed property as a base for building a political movement.⁹⁷

Reutern was high on Shuvalov's list of those to be removed from office.⁹⁸ The finance minister had generally supported the majority of the Main Committee chaired by Konstantin Nikolaevich, and including Chevkin, Zelenyi, and N.A. Miliutin and the liberal justices of the peace

like Iu.F. Samarin and V.A. Cherkasskii, in defending peasant interests during the post-emancipation period. Moreover, Reutern was less than enthusiastic about providing extensive credit to the debt-ridden nobility. He firmly opposed Valuev's proposals for a noble land bank, and he sought to reduce the sale of alcoholic beverages, cutting into a profitable trade by landowners.⁹⁹

Meanwhile, Shuvalov attempted to get some measure of control over Russia's finances. He submitted a highly secret report to the tsar proposing to broaden extensively the powers of the governors general, including authority over the provincial administrative departments of all the ministries. The report was leaked to Reutern, and together with his allies he prepared a stinging rebuttal. They argued that Shuvalov's plan would recreate the old system of the *voevodas* (the pre-Petrine regional administrators), reverse the centralizing tendencies of the prior half-century, and actually weaken the ability of the governors general to carry out their most important function, which was to maintain order, by overloading them with a mass of technical details that could be more efficiently handled by the provincial departments of the ministries. A special committee appointed by the tsar endorsed only those parts of Shuvalov's report that touched on the administrative and police powers of the governors general and rejected the sections that were opposed by Reutern and his allies.¹⁰⁰ Reutern knew his master's weaknesses; fears of real economic chaos could win over fears of alleged revolutionary agitation.

Reutern turned the campaign of Shuvalov and Valuev to replace him into an opportunity to launch a powerful counteroffensive that secured his position with the tsar for the following ten years. First, he feigned discouragement and talked of his imminent retirement. Then he stunned his enemies by recommending to the tsar that he be replaced by N.A. Miliutin, who enjoyed the reputation of a "red" among the landowning nobles. Shuvalov fell into the trap. He raised such a storm of protest that the tsar felt obliged to request that Reutern reconsider. Reutern agreed and lulled his opponents into inaction by persuading the tsar to appoint his long-time collaborator, S.A. Greig, as deputy minister and, it was assumed by Shuvalov, his immediate successor. Greig explained to everyone who would listen that Reutern needed time to work on a general review of the financial situation while he, Greig, ran the daily affairs of the ministry. Valuev was also taken in by this stratagem and expected Reutern "to fade from the scene."¹⁰¹

Reutern's Memo of 1866

Temporarily freed from his busy routine, Reutern drafted his memo of 1866, directed against, in his own words, the "pseudo-liberalism" of the Shuvalov faction.¹⁰² Sober, balanced, cautious, yet confident, the memo left a strong impression that no quick and decisive remedy existed for Russia's economic ills. Sacrifices were the lamentable but inevitable consequence of a basically sound policy. Reutern captured the underlying psychology of his master: progress is slow and painful and one must accept the heavy burden of hard decisions with stolid resignation.

Reutern's basic argument was that Russia was still in a transition period when the success of the great reforms depended upon the growth of private property and the increase in economic initiative. New institutions had not yet matured to the point where they could support, unaided, the society that was emerging. In his words, "the financial string can be stretched only so far." Not everything that was necessary could be achieved. What resources Russia possessed had to be allotted to those areas of economic life that would accelerate the general transformation of society already under way.

Russia's main problem was the scarcity of capital and restrictions on credit. But it was the growing capital demands of the new economy rather than the available money supply that constituted the real cause of the scarcity. Reutern warned that these demands would overwhelm the government unless it was prepared to save more than it spent. Otherwise, "the most hard working elements [will be] turned into revolution." If savings were invested productively, as for example in railroad construction, then domestic capital would increase and productivity would rise.¹⁰³

In analysing the credit system, Reutern struck hard at his unnamed aristocratic critics. Not only had credit institutions been primitive in pre-emancipation Russia, he declared, but capital borrowed from the state had been squandered in consumption rather than invested. He dismissed the complaints of the Shuvalov faction that the state had reduced its loans on the eve of the emancipation. Russia, not the banks, was insolvent. Between 1831 and 1865, he noted, the government and the landowners had borrowed two billion rubles. Only an insignificant part of this had been used productively. Avoiding naming names, Reutern nevertheless made it clear who was at fault. "If only one half of that sum had been invested productively," he concluded, "then Russia would be covered with a network of railroads, would possess

heavy industry, an active commerce, a rich population and flourishing finances."¹⁰⁴

In order to control the capital resources that were available, Reutern offered a three-point plan that was in essence highly political: (1) stop the flight of capital abroad by increasing confidence in the government "through the constant and rapid application in civil relations of the main principles of reform and through assurances that Russia had no intention of interfering in the political life of other powers; (2) reduce government spending so that free capital could find the most profitable investments; and (3) borrow only for productive purposes, "of which railroads occupy first place."¹⁰⁵ Aside from some peripheral savings, the government needed most of all to earn hard currency by increasing exports. In Reutern's view, this was the primary task of railroad construction, especially those lines that "lead from the sea and the frontiers to the most productive parts of the empire. On railroads," he continued, "depends not only the future of our exchange rate but in general the economic position of Russia, its finances, and its political importance."¹⁰⁶

Despite Reutern's rhapsodic hymn to railroads, he admitted that never in the past twenty years had there been greater financial obstacles to building them than at the present moment. Experience had discouraged many potential investors both abroad and in Russia. In a veiled reference to Russia's Polish policy, he noted that "in particular English capital would doubtlessly flow into Russia if it could anticipate adequate political as well as economic guarantees." As it was, Russian railroad shares were everywhere selling under par. As a result, only "the weak or the undeserving of trust" were willing to seek concessions.

For Reutern, state-built lines were henceforth out of the question. The government could not float two large foreign loans, one to cover the deficit and the other to build railroads. But in order to encourage private financing of railroads the government had to restrict sharply the amount of capital raised through selling shares so that if the public showed no interest in buying, the founder or several banking houses could absorb the issue, as had happened with Von Derviz's Riazan – Kozlovsk line. He emphasized that bonds offered the most reliable method of raising capital abroad because they did not fluctuate. He endorsed the combination of bonds and stock prepared by Von Derviz, "in agreement with me"; but he offered an important modification as a model for the future financing of private lines.

The government could reduce abuses and speculation by advancing one third of the necessary capital for each line to the entrepreneurs while reserving for itself all shares of stock until the railroad was completed. The remaining two thirds of the capital would be raised by bonds guaranteed by the government from the date of issue. When the line began operations the government could sell its shares, presumably above par, and reinvest the proceeds in another line. Reutern admitted that this scheme placed considerable trust in the entrepreneurs who would build the line, and he reaffirmed his faith in Von Derviz.¹⁰⁷

The plan had the advantage of restraining the free-wheeling operations of the entrepreneurs, but it committed the government to heavily subsidizing private capital. Reutern also found it politically expedient to avoid placing any additional financial burdens on the nobility. He did not follow up his own reasoning by attempting to reverse the levels of spending on foreign luxuries that had contributed since 1857 to noble indebtedness. He also opposed a land tax because the nobility had not recovered from the financial losses of the emancipation. Regretfully, he called for a fifty kopek increase in the poll tax that fell on the peasantry, who were suffering more than anyone else, as Reutern agreed. But for the moment they were politically inert and posed much less of an immediate danger than Shuvalov's aristocratic faction. Clearly, Reutern believed the monarchy still had time to reform itself. "History tells us," he concluded, "that what is in most cases achieved only by bloody revolutions can be done without violence from the eminence of the throne."¹⁰⁸

Reutern's memo completely won over Alexander II and restored his confidence in the finance minister. The tsar requested all ministries to submit proposals to Reutern on reducing expenses in their departments. This meant that Alexander not only approved of the general outlines of the memo, but signalled to his ministers that henceforth Reutern was to enjoy full control over financial matters. Valuev's sensitive antennae told him it was time to make peace with Reutern in order "to smooth the way for future relations with the Minister of Finance."¹⁰⁹ In the field of economic policy, at least for the time being, the Shuvalov faction had been checked if not yet checkmated.

With the tsar's trust in him restored, Reutern proceeded to develop his economic policy along two lines. First, he created a Railroad Fund to finance future lines. Second, he continued to experiment with various financial combinations in funding for private railroads. The Railroad Fund was built upon the proceeds of the sale of Alaska and the

sale of the Moscow – St Petersburg (Nikolaev) Railroad. The idea of selling Alaska had already been broached in 1856 by Reutern's patron, Grand Duke Konstantin Nikolaevich, and again the following year in letters to Foreign Minister Gorchakov.¹¹⁰ With the backing of the foreign ministry, Reutern could proceed with negotiations, albeit in great secrecy. To sell the Nikolaev was a different kind of proposition. The idea aroused strong opposition from the engineers and among the Moscow entrepreneurs, leading to another great railroad debate from which Reutern once again emerged triumphant.

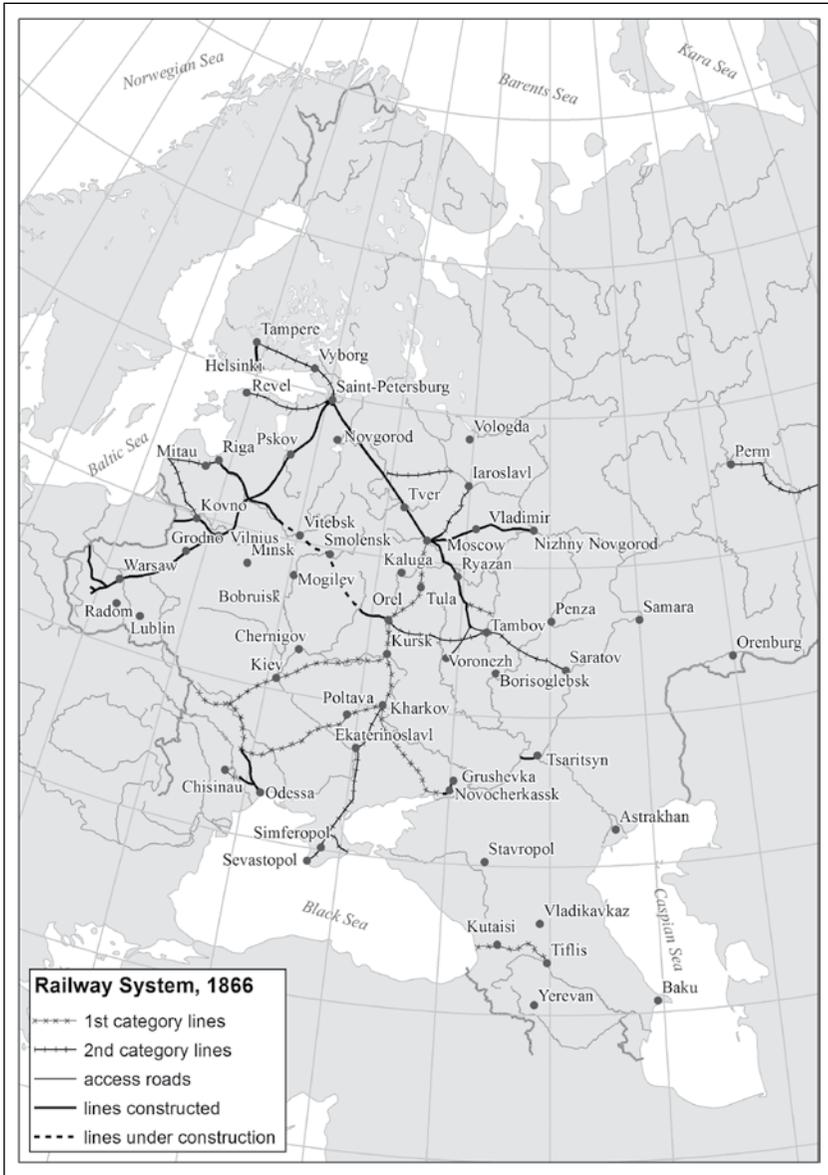
Chapter Eight

The Reutern System in Operation

By 1866 the minister of finance, M.Kh. Reutern, had withstood all attempts by his rivals within the bureaucracy to weaken his authority and reduce his control over the process of financing Russia's railroad lines. The key to his success was in persuading the tsar that he had a plan to construct a network without increasing state indebtedness by attracting foreign and domestic capital secured by the government's guarantee of a reasonable return on investment. Put into operation, the Reutern system touched off eight years of railroad fever, from 1866–74. It was an era of wild speculation, hasty construction, fierce bureaucratic infighting, and widespread corruption, spreading to the highest levels of government. For the first time in Russian history, individual capitalists working together with state officials acquired influence in the corridors of power and amassed great fortunes.

The New Financing

Having gained the full confidence of the tsar, Reutern was free to explore a variety of combinations in his quest to bring together foreign capital with the Russian entrepreneurs whom he trusted. In December 1866 he overrode the objections of the minister of transportation, P.P. Mel'nikov, and awarded the Kiev – Kursk line to a group headed by Von Derviz, von Mekk, and S.A. Dolgorukov, the governor general of Moscow, at a price per verst that was higher than the estimates of the engineers, or the cost of the state-built Moscow – Kursk line or even than the initial bid of the investors. That the sponsors were two Protestant Russo-German entrepreneurs and an aristocrat was to become a familiar combination of investors in the Reutern system. In justifying



Map 8.1 The railroad network of 1866. N.A. Kislinskii, *Nasha zheleznodorozhnaia politika po dokumentam arkhiva Komiteta ministrov* (St Petersburg, 1902 edition), vol. 1.

his choice, Reutern explained that he knew and trusted Von Derviz, valued his experience, and welcomed his offer to operate the line after he had built it. Reutern's willingness to pay a premium for entrepreneurial talent enabled the three founders to keep one quarter of the stock issue for themselves, while the government ended up buying the remaining three quarters and all the bonds, which it placed on the market only in 1871 as a consolidated issue. For the first time the government offered a 5 per cent guarantee on all the securities, payable from the date of issue rather from the date of completion. The enormous profits reaped from this deal can be imagined (they have never been calculated). Setting aside the stock reserved for the founders, the government ended up providing a capital sum of 100,000 rubles per verst, more than it had invested in any other private line.¹

The collapse of the negotiations over the Vitebsk – Dunaburg line presented Reutern with another opportunity for creative financing. Since the early 1860s, the government had sought to promote a railroad joining the Baltic to the central provinces by extending the Riga – Dunaburg railroad to Vitebsk and Orel. If this could be accomplished, then direct traffic could be opened to the lower Volga by continuing the line from Orel to Saratov, thus circumventing the longer northern route through Moscow and avoiding the bottleneck there. Attracted by Reutern's attractive terms, a group of English bankers had undertaken to finance the Dunaburg – Vitebsk section, the only successful private concession awarded between 1860 and 1864, and seen it to completion in 1866. When Sir Morton Pinto attempted to extend the concession to Vitebsk and Orel, he found to his and Reutern's dismay that Baring Brothers refused to handle the bond issue, even though it was backed by a firm guarantee by the Russian government, on the pretext that the debt-ridden Russian Treasury could not cover its obligations.² Here was an ominous sign of what Reutern feared most, a crisis of confidence abroad in the fiscal stability of the Russian government. Baring's refusal could not be hushed up because the local Russian entrepreneurial interest negotiating with Pinto was the Orel provincial zemstvo. Once the news was out, the repercussions in Russia were bound to depress the market.

Reutern moved rapidly into the breach, devising a new formula in response to a fresh appeal from the zemstvo. He assured them that the Treasury would not only guarantee the bonds from the date of issue, but would also advance to the company sufficient capital (in credit rubles) to begin construction as soon as technical surveys had been approved by the minister of transportation. In return, the zemstvo

would be obliged to abide by the instructions of the minister of finance on the scheduling and par value of the bond issue and the size of the commission. The capital realized by the sale would then be deposited in the name of the government in either the State Bank or a foreign bank at the discretion of the minister, with the interest going to the company. This ingenious plan had a twofold advantage. On the one hand, it dispelled any doubt abroad that the enterprise would ever get under way. On the other hand, it provided the government with both control over technical and financial aspects of the construction and also a large sum of hard currency which could be used to strengthen its international credit standing. As long as the government supplied the company with credit rubles to defray the cost of labour and materials in Russia, it could retain the specie obtained from the sale of bonds deposited in its account.

Reutern further sweetened the package by consenting to set a high price per verst (amounting to a little more than that conceded to Von Derviz for the Riazan – Kozlovsk line). Under these conditions, the entire bond issue representing three quarters of the investment capital was quickly sold off on the London market. It appears that the remaining one quarter, in the form of stocks, passed into the hands of speculators, leaving the Orel zemstvo proud but poor.³

Reutern's system made it imperative for the government to dispose of large amounts of capital in order to subsidize the local entrepreneurs. He envisioned creating a railroad fund by selling off valuable state property, a political act that aroused passionate opposition among the rival interests. Whenever possible Reutern sought to manoeuvre discreetly with the help of a few highly placed accomplices in order to win over the tsar and present his rivals with a *fait accompli*. Such was the case with the sale of Alaska.

As early as 1856 Konstantin Nikolaevich had begun to press Foreign Minister Gorchakov on the desirability of selling Alaska to the Americans. He based his argument on several factors. First, Russia needed to concentrate its resources on "strengthening its centre in those solidly rooted Russian regions which by their nationality and faith constitute its actual and main strength." Second, the Americans would in the course of events sooner or later take over the colony, and at present would be willing and able to purchase it. Finally, the Russo-American Company, as a hybrid organization, combining commercial and administrative functions, was unsuitable to govern the native population.⁴ Once Reutern had persuaded Alexander to dispose of what he described as a remote, unproductive, and indefensible territory, the negotiations with

the United States were carried out in secret. With the exception of the foreign minister, Gorchakov, and Admiral Krabbe, the minister of the navy and a long-time friend of Grand Duke Konstantin Nikolaevich, and Reutern himself, none of the other ministers knew about the sale until they received the news several days after the convention had been signed in Washington.⁵ The entire purchase price of seven million dollars was placed in the railroad fund, immeasurably strengthening Reutern's hand at a time when he was engaged in a protracted debate over the sale of the Nikolaev Railroad. By contrast with the Alaska sale, this was an issue that could not be settled "out of court." His plan touched off a full-scale battle with the engineers and the Moscow entrepreneurs along by now well-established lines.

Selling the Nikolaev Line

Shortly after gaining the tsar's tacit endorsement of his memo of 1866, Reutern broached the question of selling the Nikolaev in order to help pay for the new network. Once again, it is worth pausing to examine his style of bureaucratic in-fighting. Having won approval in principle for creating a railroad fund, Reutern faced the more serious problem of persuading Alexander to take a decision to finance it. As was so often the case with the tsar, he was willing to approve proposals in principle without calculating the practical costs or consequences. The most successful of his advisers understood that it was often necessary to hammer away at a single theme, predicting dire consequences for the security of the state if their recommendations were not accepted and only a moderately successful outcome if they were. Thus, Reutern's memo on creating a railroad fund rehearsed familiar ideas with familiar urgency. He reminded the tsar that "the rapid construction of a general network of railroads in Russia is an incontrovertible need" not only to lighten the financial and economic burdens, but also because "the political strength of the state itself is directly dependent upon an urgent completion of railroad lines." In reiterating the advantages, he shrewdly placed at the top of his list of priorities the rapid movement of troops and the consequent savings gained by reducing the number of men under arms. To be sure, he did not neglect to forecast the financial gains to be obtained from the growth in industry, encouragement of labour, rise in exports, refinancing of debts, and increase in the circulating of money. Reutern admitted that in the previous six years railroad building had cost the government 120 million silver rubles, mainly in

the form of guarantees, subsidies, and tariff privileges. But he insisted that his system had placed fewer burdens on the Treasury than state construction, which would simply have increased state indebtedness. He pointed out that to complete even the state lines still under construction, like the Moscow – Kursk – Kiev and the Odessa – Kharkov, would require thirty million a year for the next three years. This was in addition to the thirty million already budgeted in 1867 to support private lines. Neither foreign nor domestic credit could supply such sums.

Only one source of capital remained, the alienation of state-owned railroads, in particular the Nikolaev, which “at present” was the only line, in Reutern’s words, “that can furnish a firm and broad base for creating ... a special fund for railroad construction.” Already in operation for fifteen years, earning a clear net profit, the Nikolaev “had achieved a leading position among all European railroads,” occupying second place on the continent in income per verst. With the capital earned by its sale, Reutern estimated, more than 1200 versts of new line, or twice its length, could be built. As a result, Russia would not need a new foreign railroad loan for three years. This would more than compensate for the “relatively small” loss of income from the line. Reutern was confident that within three to four years the important trunk lines would be completed and the subsequent rise in industrial and commercial activity would enable the government to meet its foreign payments “with little difficulty.”⁶

Forestalling criticism that such a vital artery should not fall into the hands of private, to say nothing of foreign, capitalists, Reutern asserted flatly: “It may be taken as an axiom that every railroad belonging to a private company serves in every capacity as effective an instrument of the government as does a state railroad.” Reutern reasserted his faith in the entrepreneurial abilities of private capitalists to cut operating expenses and increase net income while reducing the cost of tickets, thus demonstrating to European bankers that Russian railroads were a profitable business.⁷

The proposal stung Mel’nikov to the quick. Nothing was closer to his heart than the railroad he had built as a young engineer and operated as a minister – one he had always regarded as the key to Russia’s rail system, and the last bulwark of state interests against the profit-seekers. Reutern had gone too far this time. Mel’nikov dug in his heels for a long fight. It was his last and he lost it.

As was customary, the tsar requested Mel’nikov’s opinion. The minister of transportation lost no time in preparing a strong rebuttal. But he was

forced to meet some of Reutern's financial arguments, where the latter enjoyed a natural advantage. Mel'nikov began by recalling defeat of a similar proposal in 1860 which would have handed over the Nikolaev and with it dominant position in the Russian rail system to the foreign-dominated Grande Société. He went on to refute Reutern's calculations on profit and loss, but here he was obliged to tread cautiously. Documenting the enormous revenue-earning power of the line was almost as dangerous as showing that it was a losing proposition. Either way his rival could argue that the government could only profit by selling to get a high price, on the one hand, or to get rid of a costly burden, on the other.

Mel'nikov skilfully walked the tightrope. He pointed out that over the past five years gross income had increased almost 50 per cent and the value of goods transported almost doubled. In the same period, the net income was falling due to expensive repairs necessary after sixteen years of heavy traffic. As a state line, the Nikolaev bore social costs which private lines were spared, such as reduced rates for transporting building materials for other state and private railroads and for third-class passengers. Mel'nikov estimated that a transitional period required to repair and refit worn-out rails and equipment would last four years. After that, income would increase by 50 or 55 per cent to approximately eight million rubles a year.⁸

Mel'nikov was not satisfied to rest his case on financial considerations. "The income of the Nikolaev railroad," he wrote, "does not constitute the most significant aspect of the matter for the government and the nation." More import in his eyes were "high hopes for the influence of its future development upon an improved standard of living for [all] society." In the hands of private owners, especially foreigners seeking only to increase their net profits, freight prices would rise to the detriment of trade, industry, and the people's welfare," whereas by its own management [the state] can promote trade by reducing rates to the lowest level and even sacrifice if necessary income to the circulation of traffic when this can lead to an increase in the power of the state or its income in other sectors. Mel'nikov predicted that the sale to foreigners would produce "a painful impression in Russia" and even abroad, signifying a loss of status and credit standing. Yet he failed to come up with a viable alternative. Could not the government acquire the capital to finance its planned network by floating a loan with the income of the Nikolaev as security? Or even in dire emergency by selling the lines under state construction in the south of Russia? The memo ended on a

half-apologetic almost wistful note. While admitting that his hopes for the state construction of all railroads could probably not be realized, he found it unthinkable that the Nikolaev should be sold.⁹

A major showdown was in the offing. The economists lost no time in forcing their opponents on the defensive with a full-scale public assault upon the engineers. Within two days of Mel'nikov's reply to Reutern, a major press ally of the economists, *Birzhevye vedomosti*, came out with the first in a series of articles which aimed at discrediting the state administration of the Nikolaev line and blaming the shortcomings of certain private lines on the incompetency of the state regulatory agencies, especially the Inspectorate of Private Railroads headed by Baron Del'vig. The polemic was designed to arouse strong emotions among the public and ministers alike. Why was the price of beef so high in the capital? Because, the answer came, during the four or five days the rail lines required to transport cattle from the provinces the beasts were not fed and many died en route. The merchants constantly complained, according to *Birzhevye vedomosti*, that long delays and confusion at the stations incurred heavy losses. Again, could Russia rely on such shoddy service to rush troops to the frontiers in time of war, which now threatened all Europe? The paper did not pass up the chance to invoke the always popular xenophobic theme as well. The government had handed over the supply and repair of rolling stock to "that contemporary Varangian, Winans and Company, who thoroughly fleeced it." At bottom the cause of poor service, accidents, and financial losses was lodged in "the very soul of the railroad administration, characterized by its complete indifference to the public interest." The editors demanded a full-scale investigation that would exclude the representatives of the Ministry of Transportation.¹⁰

To further discomfit their opponents the economists took the risky step of leaking Reutern's "secret" memo to the press. Cleverly, they selected Valuev's organ, *Severnaia pochta* (*The Northern Post*), as their vehicle because as the official journal of the ministry of interior it was authoritative and promised protection to other papers like *Birzhevye vedomosti* who picked up the news item. The leak reproduced entire paragraphs from the original memo without attribution. The article concluded with the comforting reassurance that experience had already proven that "participation of foreigners under proper government control did not entail any serious consequences: the Warsaw and Nizhnyi Novgorod lines owned by the Grande Société, whose shares were in significant quantity held abroad, was managed without jeopardizing the political and economic interests of the government."¹¹

The economists broadened their attack by blaming the inspectors of private railroads, especially their chief, Baron Del'vig, for the recent scandals on the Riazan – Koslovsk line. If private railroads served the public, the argument went, then the government bore ultimate responsibility for their operation. Moreover, railroad legislation dating back to 1857 gave the inspectors wide-ranging authority to bring the erring companies into line. Yet, the editors of *Birzhevye vedomosti* complained, nothing had been done to oblige the management of Riazan – Kozlovsk to supply adequate rolling stock and provide storage facilities. Was it any wonder that the most serious derailment in Russian railroad history had just occurred on this very line? The first step in correcting abuses should be, they insisted, “the assignment of supervision over private railroads to a financially self-sufficient person of proven energy and independent outlook rather than a technician.”¹² As the campaign heated up, even this solution appeared to the critics to be only a palliative. They demanded that strict supervision over the railroads should be entrusted if not exclusively then mainly to those whose interests were most closely affected, namely, the *zemstvos*.¹³

At the time, Del'vig was fully aware of the possible consequences of these attacks both for the future administration of the Nikolaev and his own career. He feared that the proposals made by *Birzhevye vedomosti* were aimed at eliminating the engineers from all key positions in railroad affairs and handing over the state's responsibilities to “*chinovniks* from various ministries who know nothing about railroads.” Ever since his appointment as inspector he had searched out every opportunity to tighten government control, to correct abuses on private lines, to replace lax personnel, and to help revise projected concessions and statutes in favour of sound business practices. How ironic, he mused, that the champions of private enterprise now blamed him for the disappointing results of their own behaviour.¹⁴

While the engineers were occupied in defending their professional role, Reutern advanced his cause within the bureaucratic maze by persuading Alexander to submit the question of the sale of the Nikolaev to the Finance Committee rather than the Railroad Committee. It was a clever move because in the Council of Ministers only Valuev and, surprisingly, Shuvalov were known to support him.¹⁵ In June, the issue was settled on almost purely financial grounds. The government issued a bond series in the name of the Nikolaev which Reutern considered indivisibly linked with the proposed sale of the line. But even earlier, close observers of Reutern's tactics perceived that he could not

be stopped. The real question which remained was, who would buy the line, Russians or foreigners? The engineers and Moscow entrepreneurs revived their dormant alliance, determined as ever to block the Grande Société from securing control of the most important trunk line in Russia. Of the two, the engineers played the more passive role. They could not, after all, supply much capital, and it would have been awkward for them to accept a place among the founders of a private company, as Del'vig tried to explain when strongly pressed on the matter by Kokorev and Mamontov.¹⁶ At best, the engineers could consult with the prospective founders, advise them on technical details, and support their proposals within the chancelleries.¹⁷

For their part, the Moscow entrepreneurs displayed a great deal of enthusiasm and energy, but lacking an organizational centre they fell short of their goal, if only by a narrow margin. One of their leaders, D.P. Shipov, spoke of rallying the zemstvos of Moscow, Tver, and St Petersburg as well as the city dumas of the two capitals behind a proposal of his own provincial zemstvo in Nizhnyi Novgorod to purchase the line.¹⁸ But this collective appeal to patriotic sentiments and economic interests failed to shake the other zemstvos out of their parochialism. Only the Moscow city дума, a merchant stronghold, expressed an interest in forming a society to purchase the line.¹⁹ Shipov's efforts had come to naught. In retrospect, the inability of the zemstvos to pull together on this issue looks very much like another lost opportunity for building a national movement. Provincial cooperation on economic policy might have laid a foundation for subsequent political action on other issues. Moreover, once the question of private over public management had been resolved, and the engineers forced to retreat, some of the economists and the Moscow entrepreneurs occupied common ground in favouring the sale to a Russian company. Any sign of vigorous cooperation among the zemstvos might have encouraged more defections from the ranks of the economists, like that of Lamanskii, and the emergence of a broad coalition for a national economic policy based on Russian capitalists. Instead, the decision went against them. As a result, the government was ultimately forced to increase its intervention and control when faced by unscrupulous profit-seekers, and finally, under Witte, to buy back the private lines at great expense for the state. In the long run, the development of Russian capitalism was deflected.

While Shipov strove to rouse the zemstvos, Kokorev and Mamontov reached a decision to form a society by themselves. Mamontov was already deeply involved in their pet project of extending the Sergeevskii

line to Iaroslavl, a task which demanded much of his time.²⁰ Kokorev too was caught up in a number of schemes. Therefore, it was not until November that they recruited some friends and hastily put together a proposal to purchase the Nikolaev railroad under the name of the Russian Merchant Company. With a characteristic flourish they advertised their project as the first Russian experience in forming "a union of capitalists" organized "on a wide scale" to fulfil the great tasks laid out by the government.²¹ The founders boasted an impressive array of wealthy, Moscow, Old Believer capitalists: two Mamontovs, Kokorev, P.I. Gubonin, and N.V. Rukavishnikov. They won several early converts among the aristocratic elite including Shuvalov, who turned against Reutern, and the heir, Alexander Alexandrovich, whose nationalist outlook was already shaping most of his views.²² Mamontov was tireless in carrying his message into the Ministries of Transportation and even Finance, winning converts. He was convinced the public was with them, except, curiously for Katkov.²³

As the political struggle heated up, they picked up additional support among the ministers to the point where Reutern admitted that they were in a very strong position even though he opposed them.²⁴ This impressive array of forces showed a few soft spots. The entrepreneurs lacked a reliable mouthpiece in the press. Their natural allies, Ivan Aksakov and Katkov, had become deeply mired in a fruitless campaign against the Baltic Germans and the Poles.²⁵ Despite Del'vig's sympathy and the technical advice from V.A. Poletika, a mining engineer hostile to the economists, the proposal of the Moscow entrepreneurs was based on some serious misconceptions. Kokorev and Mamontov appeared to believe that for the time being the Nikolaev would not require any large expenditures on equipment and repairs.²⁶ Behind these technical misconceptions lay deeper problems. The Moscow entrepreneurs were victims of their own persistent illusions. They exaggerated their importance in European commercial markets. Wholly convinced that their cause was righteous and just, they believed that the moral factor would enhance their credit standing abroad if only the Russian government would show faith in them.²⁷

Still, for all the haste and confusion that appeared to weaken their campaign, they came remarkably close to succeeding. Although Reutern strongly endorsed the proposal of the Grande Société as early as 3 December 1867 in a report to the tsar, he did not win Alexander's approval until 9 June 1868. The opposition blocked a quick decision in the Council of Ministers and secured the appointment of a special five-man committee

to examine the conditions of the sale.²⁸ Reutern fought off Mel'nikov's attempt to have this committee set the specific financial terms, arguing that the resolution of such questions required discussion among a larger group of specialists. When the committee completed its deliberations, it met jointly with the Finance Committee, where two of the four petitioners, Winans and Poliakov, were eliminated. Then by a narrow vote of eight to six, the joint session approved the project of the Grande Société.²⁹ The opposing forces seemed evenly matched for the end game.

The full-scale debate in the Committee of Ministers centred on the question of which proposal offered the government the most attractive financial terms. This was a tribute to the Moscow entrepreneurs, who had scrambled to meet their adversary on its home grounds. But the final vote demonstrated even more conclusively that political factors also counted heavily in the outcome. Only six members rallied to the side of the Grande Société: Konstantin Nikolaevich, Reutern, P.G. Oldenburgskii, Adlerberg, Krabbe, and V.I. Vestman (deputy foreign minister, sitting in for Prince Gorchakov), while fourteen supported the Moscow Company: the tsarevich, Shuvalov, Miliutin (reversing himself), Mel'nikov, Chevkin, Prince Gagarin, Zelenyi, Palen, Tatarinov, Butkov, Nabokov, Prince Urusov, Delianov (deputy minister of education), and Prince Lobanov-Rostovskii (deputy minister of interior). It was an alliance of the engineers, the military, and the Shuvalov faction, all claiming to be inspired by patriotic sentiments. The majority could not refrain from adding to their opinion a strong reminder that allowing domestic Russian trade to fall into the hands of foreigners would constitute a serious threat to the progress of Russian industry.³⁰

The tsar hesitated to dismiss out of hand this overwhelming expression of support for the Moscow entrepreneurs. He resorted to his usual tactic of ordering another debate, this time in the Council of Ministers, where Reutern would be assured of stronger support. In a bureaucratic system where procedures and rules were flexible, the tsar enjoyed the advantage of shifting the venues for debate until the recommendation he favoured made a respectable show of strength. The council fell into line behind Reutern. His hard-earned victory was sweetened by the terms of the sale to the Grande Société, which brought over 100 million rubles into the Railroad Fund.³¹ But the struggle also intensified the deeply felt emotions which had generated it.

The energetic activities of the Moscow entrepreneurs touched off hostile reactions, at first glance rather surprising, among some of the leading advocates of private initiative in economic development.

Peevish remarks in the diaries of Konstantin Nikolaevich and Valuev condemned the merchants for the very same qualities which were frequently attributed to the emerging commercial classes in early capitalist societies: coarseness of behaviour, slyness, and dishonesty, with a dash of anti-Semitism to spice the brew. They implied that the entrepreneurial character of the Russian merchants and the source of their capital were tainted by the dirty business of vodka tax farming. "Pot house sages," Valuev called them; "liquor-dealers' Jew tricks," was the Grand Duke's verdict.³² On other occasions, to be sure, the grand duke complained about the absence of "the enterprising spirit" among Moscow merchants who were reluctant to take up one of his pet projects, the expansion of trade in Asia.³³ How can one explain the apparent paradox between an admiration for private enterprise in principle but contempt for its practitioners?

The Economists and the Baltic Entrepreneurs

Although there are overtones here of the aristocrats' disdain for the money grubber, it is also the case that both Konstantin Nikolaevich and Valuev had long encouraged and supported capitalists like von Derviz, Ungern, von Mekk, and, of course, the foreign administrators of the Grande Soci  t  . Is this not a classic case of the enlightened aristocrat torn between his outmoded feudal consciousness and his growing perception of the triumph of capitalism? The trouble with this explanation is its failure to explain the bias against the Moscow group that also found expression among the economists, professional bureaucrats like Kulomzin, whose scorn for the "arrogance" and corruption of certain entrepreneurs is a matter of record, or like Reutern himself, whose private feelings are veiled but who opposed the Moscow entrepreneurs even before they submitted their proposals.

What they all seem to have in common is an implicit but clear model of the entrepreneurial role in society, based primarily on an ideal image of the Western businessman, profit-oriented but honest and reliable, financially knowledgeable, enterprising but not reckless, well-educated and socially at ease in the chancelleries and drawing rooms of St Petersburg. Most important for the economists, the cosmopolitan lifestyle opened the way to participation in the European business community. Without these contacts they doubted whether sufficient capital could be raised for building Russia's railroads. One can imagine, then, how a European businessman might have greeted Gubonin, or Kokorev, or

Mamontov, unable to converse in German or French, dressed in their traditional merchant attire, looking as though they had just stepped out of pre-Petrine Muscovy.³⁴ This was why of all of the Moscow group Chizhov alone was acceptable to Reutern, who had the greatest respect for his financial abilities and his knowledge of Europe.³⁵ The economists were not happy about Russian-Jewish entrepreneurs like Varshavskii, though Poliakov fared much better. But the Russian-Germans like Von Derviz, Von Mekk, Ungern, and Shtiglits enjoyed Reutern's trust even when convincing evidence often showed how misplaced this was.

The trust was based ultimately on the proven ability to raise capital abroad, which, as it turned out, was as much a social as a financial achievement. Reutern's determination to teach the Moscow entrepreneurs the rules of civilized business behaviour grew as he increased control over granting concessions and demonstrated that railroads were profitable to build if not to operate. With completion of the 1866 network rapidly approaching, railroad fever mounted. Petitions poured into the ministry for lines not even included in the second category of Reutern's planned network. Now Reutern felt secure enough to encourage a freer competitive atmosphere among the concession seekers in order to force them to adopt more responsible and orderly procedures in their economic activities. Together with Mel'nikov, who still complained about the high cost of previous concessions, he drafted the "normal concession" of 1868, which became the model for competitive bidding for private lines built under government supervision.³⁶

The following year, Reutern capped the system by introducing a new set of financial terms for all concessionaires. Henceforth, the government would purchase the entire bond issue from the company, thus providing from two thirds to three quarters of the capital required for construction. But it would not guarantee any percentage return on the stock. With the help of the Railroad Fund, Reutern could avoid swamping the market with securities while at the same time tying the company's stock dividends to the energy and sobriety of its management.³⁷

Railroads and the Metallurgical Industry

While Reutern sought to train entrepreneurs in the practices of modern business, he also used railroad concessions as a means to stimulate the growth of Russia's metallurgical industry. Reflecting his concern over a more rational use of Russia's natural resources, as he had expressed it in his memo of 1866, he began to support Mel'nikov's policy of placing orders

for rails and rolling stock with Russian firms. Industries manufacturing both products were in critical condition. Having long survived on state orders under tariff protection, they had not modernized and were unable to compete with foreign firms which supplied the private lines in Russia. As Reutern moved the state out of the business of constructing railroads, he faced a choice of abandoning the non-competitive metallurgical industries or providing some kind of state support. He had already rejected another alternative, which was to raise tariffs again, because he was fully aware that the Russian metallurgical industry was in no condition to fulfil at any price the mass of new orders coming from private companies. Consequently, he agreed to provide working capital for existing factories in the form of state subsidies in order to stimulate production or plant conversion. But he categorically refused to supply capital for new factories on the assumption that this would only lead to the kind of speculation that had fed the stock boom in 1859–60. He was even willing to go so far as to authorize the Treasury to purchase more locomotives than was necessary to supply state lines, just as long as existing facilities were employed and the private companies retained an option to purchase rails and rolling stock abroad.³⁸

Reutern was desperate to avoid further drains on the Treasury by attempting to stimulate domestic industry. When rail deliveries from abroad fell short of the needs of the railroad boom, he contracted with a syndicate led by the engineer N.I. Putilov to purchase a rail-producing factory in St Petersburg which would receive operating advances based on the annual cost of government orders. The factory would also enjoy the advantage of importing duty-free foreign iron ore and scrap iron. There were problems at the beginning. For two years the factory produced faulty rails for which the Administration of Private Railroads, headed by Baron Del'vig, refused to pay.³⁹ But Putilov turned things around. It appeared as though he had solved the rail problem by producing them in sufficient quantity and quality to supply Russia's needs and avoid imports from abroad. He was determined to expand his enterprise into an international giant. In 1873 he appealed to Baron Del'vig to approach Chizhov for an immense loan.

Chizhov had formed a close friendship with Putilov when they were both students of mathematics and worked side by side in the physical-mathematical faculty of St Petersburg University. Their paths crossed again in the 1860s when Putilov supplied rails for Chizhov's railroad companies. To Chizhov and the Moscow group, Putilov represented the ideal Russian entrepreneur, having freed Russia from dependence on

foreign imports of rails. Moreover, Putilov could not raise capital from the Petersburg banks because his plans conflicted with their interests. Suspending his own principle of demanding full disclosure before investing, Chizhov agreed. He put together a consortium of powerful banks, the Moscow Merchants' Mutual Credit Bank, the Moscow Commercial Bank, and the Society of Commercial Credit, to underwrite Putilov. By this time the Moscow Merchants' bank had become (and remained to the end of the century) the largest private credit facility in the Russian Empire, formed as a company based on apportioning shares to the founders (*tovarishchestov na paiakh*), mainly Moscow textile giants, rather than issuing stock. Unfortunately, the European financial crisis of 1873 plunged the Putilov works into a crisis and threatened him with bankruptcy. The Moscow group was unable to bail him out. Chizhov was forced to turn to Reutern.⁴⁰ Putilov's desperate financial condition was only stabilized when Reutern took the unprecedented and extra-legal step of ordering the State Bank to pay all Putilov's debts in return for taking over the shares and property he had mortgaged to the Moscow banks. In addition, Reutern placed an order with Putilov of 3000 railroad cars.⁴¹

Putilov continued to be the main domestic supplier of rails. However, by 1875 only 9 per cent of the rails supplied to Russian lines was produced by Russian factories. Of that quantity, Russian iron ore and coal provided the raw material for only 10 per cent of the total. The government's attempts to develop the Donets coal and iron resources as an alternative centre of a metallurgical industry only became successful in the 1890s. In 1869 over 70 per cent of the coal mined was used in the region itself, with railroads taking only 5 per cent of the coal shipped from the Donbass.⁴² As for the production of rails, the New Russia company founded by the Scotsman, John James Hughes, provided only 6 per cent of the rails needed by Russia in the 1870s.⁴³ The Ural mining and metallurgical complex had still not been integrated into the rail system.

On another front, Reutern's bid to acquire a commanding position in setting economic policy for Russia had run into unexpected opposition. True, Shuvalov had been unable to shake his grip on finances, and Mel'nikov's days as minister were numbered. But across the frontier the rapid expansion of Prussian military and economic power threatened to upset all his calculations. The stunning Prussian victory over Austria in 1866 and the vigorous activity of the North German Customs Union renewed pressure on Russia's defences and foreign trade; it aroused fears among army officers, entrepreneurs, and nationalist

journalists that Russia's rail system had left them unprepared to meet the Prussian challenge.

External Security and the Military Interest Group

Although Russian military leaders acknowledged from time to time that railroads possessed strategic significance, they were hesitant to state their views publicly and even more reluctant to press for their acceptance in the inner councils of government. Between 1857 and 1866 the official organ of the engineering section of the military education committee of the general staff, *Inzhenernyi zhurnal*, published only two articles on military railroads.⁴⁴ In the immediate post-war years, the only general with a field command who pressed for the construction of military railroads was Field Marshall Prince A.I. Bariatinskii, who proposed as early as 1857 the construction of separate lines in the Caucasus and Central Asia in order to facilitate Russian expansion in those areas. Several years later, he attempted without success to interest Belgian entrepreneurs in his projects. Even though Miliutin in his capacity at the time of Bariatinskii's chief of staff was entrusted with presenting these plans to the tsar and the minister of war, he displayed no great enthusiasm for this part of his assignment.⁴⁵

Once having become minister of war, Miliutin's attitude changed only gradually. In 1861 he supported the construction of a short line from the Don River to Grushevsk and also acceded to the use of military penal battalions to build the Balta line. Yet neither of these undertakings can be considered evidence of a major commitment to military railroads, despite Miliutin's subsequent claims that he recognized their strategic importance.⁴⁶ In retrospect, again, Miliutin criticized Mel'nikov's proposed network of 1862 for lacking an overall plan and for seeking to satisfy "heterogeneous economic and military demands with the fewest possible lines and the shortest possible extension of the network as a whole," with the result that "all the lines turned out to be broken up into sections, their length increased and consequently their fares raised for no purpose."⁴⁷

Miliutin's accusation fails to convince on two counts. No contemporary evidence suggests that he offered a substitute at the time and his vague description of his own ideas does not differ substantially from Mel'nikov's. He took no further initiative on railroads until November 1863, when the tsar informed him through the Main Administration of Transportation that he desired to review the question of railroads at

a meeting with Miliutin, Chevkin, Bobrinskoi, and Reutern. The minister of war then authorized Obruchev to draw up plans for a strategic network. Obruchev, as we have seen, was already involved in the debate over the southern line. Of all Miliutin's staff he was the most well-informed partisan of strategic railroads. In a series of articles published in the organ of the ministry of war, *Russkii invalid*, Obruchev analysed the importance of railroads in broad strategic terms. He continued to argue that in a future war the most probable operational theatre would be the south and south-west. Reiterating his support for the Kiev – Odessa line he also proposed the construction of lines in directions different from those projected by Mel'nikov and his staff. But he supported the idea of state-built railroads of up to 5000 versts requiring an investment of over 200 million rubles, in part provided by the government and in part by the zemstvo organizations. He expressed his approval of the use of soldiers in the construction of the railroads with the argument that "external danger is a constant not a temporary thing."⁴⁸ But his proposed network got short shrift in the inter-ministerial discussions on financial grounds, and Miliutin does not seem to have fought hard or at all for their acceptance.

Miliutin's passive behaviour appears all the more surprising in light of his reputation as a military innovator and his experience in employing the St Petersburg – Warsaw line to repress the Polish revolt. A closer look at the attitude of the minister of war and his subordinates towards military reforms of the Russian army may help to explain their belated appearance on the battlefield of interest-group politics over the economic development of Russia. When Miliutin became minister of war, he surrounded himself with a new breed of political officers, graduates of the Nikolaev Military Academy and the engineering school rather than the elite guards or crack line regiments.⁴⁹ Even the few who had seen combat owed their careers more to administrative and diplomatic skills than command assignments. Theoreticians and planners, they formed the core of advisers who helped draft and carry out the reforms of the 1860s and 1870s, and then defended them in the 1880s. Except for Obruchev, the most talented of them all, their theoretical work focused on organization and tactics rather than grand strategy and reflected to a large degree their experience in colonial wars against the Caucasian tribesmen.⁵⁰ Even their conclusions on the lessons to be learned from the Crimean defeat were centred on tactical problems.⁵¹

In the first years of Miliutin's ministry, the energies of the reformers were almost totally absorbed by problems which they perceived as

crucial for the reconstruction of Russia as a first-class military power, namely, the reorganization of the central and local military administrations, creation of a standing reserve, and rearming and retraining troops for greater combat effectiveness.⁵² Moreover, the large financial outlay for these reforms could only have served further to restrain Miliutin from demanding strategic railroads which were to him of secondary importance for the time being. As long as the army could trade space for time, the notion of defense in depth was a viable option. In the area where their own experience had convinced them of the importance of tactical superiority, namely, the Caucasus and Central Asia, Miliutin and Von Kaufman, in particular, were partisans of a forward policy, in contrast to their strategically conservative stance in the European theatre.⁵³

The Russian military were shaken by the unexpected rapidity and decisiveness of the Prussian victory over Austria, which caused a real shrinkage in their defensive space. Though forced to reconsider their strategic options, their thinking about military railroads was largely predetermined by their tactical reliance on mass and firepower. If railroads were to be integrated effectively into defensive plans, they would have to function primarily as links between fortresses and other fixed defences rather than as jump-off points for offensive operations. Such at least was the idea of Russia's foremost military engineer, General E.I. Totleben, the defender of Sevastopol, whose fortress mentality dominated the training of military engineers in the post-Crimean period.⁵⁴ Once Miliutin was faced with the necessity of planning a strategic network in response to the Prussian challenge, he turned once again to the one expert in his own circle. In the fall of 1868, he ordered Obruchev to draft a memorandum on "the vital necessity of a strategic line of communication."⁵⁵ At the same time he appointed a committee on the transportation of troops by rail and waterways with Obruchev as chairman. Until then there was no separate department in the ministry of war which bore responsibility for studying the tactical deployment of troops by rails. The rapporteur for the committee, General N.N. Annenkov, was charge with a study of the carrying capacity, loading and deployment of trains during wartime. Twenty-three special military railroad units were assigned to guard various lines, operate Russian and captured railroads and disrupt those of the enemy.⁵⁶

Obruchev's previous study of railroads now served him in good stead. Attracted more by strategic planning than his colleagues, he had frequently allowed his lively imagination to float above practical

difficulties which covered the approaches to his lofty designs. He had always envisaged a more active policy along the western frontier than Miliutin, but, as we have seen, his main attention had been focused on the southwest theatre and Black Sea where he thought Russia was most vulnerable to attack. He had also argued the case for state built railroads more vigorously than his chief. But he had never abandoned his earlier democratic leanings which had brought him in contact with Chernyshevskii, and he reproached the engineers for allowing their technical interests to cut them off from sympathy with the masses.⁵⁷

Obruchev's memo in 1868 characteristically silhouetted strategic proposals against a broad political background. He was sensitive to the impact of the Polish revolt and the Italian and German wars of unification on the intensification of national feelings all along Russia's western frontiers. Henceforth, he predicted a war in the western theatre would trigger a Polish national revolution fanned by French and Austrian intrigues. For the Russians to yield one step to the enemy on the Vistula would mean a loss of the entire Kingdom of Poland, a collapse on both its flanks, and a rapid "shrinkage" of defence space on which the security of the empire rested.⁵⁸

Equally threatening in Obruchev's view was the double and triple belt of railroads ringing the Polish salient, built by Austria and Prussia, with branch lines radiating to the frontier. He judged it "impossible to calculate the enormous number of troops which could be massed in a few weeks' time" at the nodal points of each network and then hurled into combat.⁵⁹ Obruchev claimed that, by contrast, Russian lines had been designed to satisfy economic needs and interests. The most exposed locations along the western frontier remained unconnected to the Dvina – Dniepr line although movement to the west from the central provinces had been eased. Consequently, troops could not be massed quickly at key points on the frontier or be shifted from front to front. In order to correct these shortcomings, he outlined a strategic system of four primary lines to the west and a group of secondary lines to provide rear echelon support.⁶⁰ The tsar found his report "very judicious" and sent it for discussion to the Committee of Ministers. Miliutin had copies printed up and sent to every member.⁶¹ Coming at the very moment when the minister of finance was drafting his own response to Mel'nikov's proposed network of 1868, the army's bid for a controlling voice in railroad policy was a direct challenge to the Reutern system.

Once the tsar's opinion was known, no one in the Committee of Ministers, except for Prince Gorchakov, was willing to oppose the general

principle of strategic railroads or even to take issue with the specific lines proposed by the Miliutin-Obruchev memo. Reutern only succeeded in getting accepted his recommendation to add the Voronezh – Grushevsk line to the strategic network. It would connect the Donets coal fields with the Central Industrial Region, lift the Don Cossack Host out of indebtedness, and stimulate the metallurgical industry in the region. Knowing when to retreat, Reutern accepted with modifications four out of the five lines proposed by Miliutin, even though the network included two lines that he wanted eliminated completely.⁶²

The breach in the Reutern system exposed him to the old problem of how to attract capital to building railroad lines that he himself did not believe were economically viable. His entire policy since 1862 had rested on shoring up government credit by granting concessions to profitable lines. His achievement was now in jeopardy because the tsar shifted his priorities in the face of the new geopolitical situation in Eastern Europe from financial stability to military security. Reutern's solution to this conundrum was to make certain that the new lines made a profit even if this meant a revival of state intervention at a level that he had been determined to avoid.

A New Strategy

In order to make certain that the Kovno – Libau line would not fail, Reutern devised a financial operation in 1868 which became standard over the next five years. The government would provide two thirds of the investment capital by actually purchasing the entire bond issue rather than just guaranteeing a percentage return to investors, but it would not guarantee stock placed on the open market to raise the remaining one third. He also insisted that one third of the rails and rolling stock be purchased in Russia while permitting duty-free import of the remaining two thirds. In this way he both satisfied the demands of the indigenous metallurgical interests and assured the railroads of a reduced cost for most of the necessary equipment. As he had anticipated, the Kovno – Libau line did not turn out to be profitable once it opened in 1871, but the myth was preserved that Russian railroads were a sound investment.⁶³

The concession of every line from the 1868 network turned into a tug of war between the economists on one side and the engineers and military on the other, each proposing a track and conditions most closely conforming to their interests. Whether he won or lost, Reutern was obliged to assure the financial success of the enterprise. The steady drain of



Map 8.2 The railroad network of 1868. Kislinskii, *Nasha zheleznodorozhnaia politika*, vol. 1.

capital from the Railroad Fund and Miliutin's insistence that every year five hundred versts of strategic lines be constructed convinced Reutern that in order to keep his system intact he would have to have Mel'nikov replaced by one of his own men. Rumours began to circulate at court, soon reaching the ears of the tsar, that the minister of transportation had become a mystic and was holding seances at his home.⁶⁴ At the same time, several scandals related to the mismanagement of state lines received unusual publicity. Shaken by anonymous innuendo and open criticism, Mel'nikov sensed that the tsar no longer had confidence in him, and he resigned. Alexander retained Mel'nikov's service, in his characteristic way, by confirming his membership on the Railroad Committee, where he continued to remain a thorn in Reutern's side for years. But his former authority was gone.

The right to propose future lines now passed into the hands of the new acting minister, Count V.A. Bobrinskoi. An admirer of Reutern, he fervently disliked what he called "the narrow caste of transportation engineers."⁶⁵ He served from 1868 to 1871, when he was succeeded by his cousin A.P. Bobrinskoi from 1871 to 1874. The two Bobrinskoi were the only ministers of transportation in the nineteenth century who were not engineers. Both men came from an old aristocratic family. A.P. Bobrinskoi was related to Alexander II through his grandfather, an illegitimate son of Catherine II. They enjoyed the patronage of Count Peter Shuvalov, although they ended up taking different views on Reutern and the merits of private and state-built lines.⁶⁶ V.A. Bobrinskoi was completely ignorant of railroad matters, and if Baron Del'vig is to be believed, of practically everything else. He left the running of his ministry to Del'vig, who tried to maintain strict standards but found himself undermined repeatedly by his superior and Count Shuvalov.⁶⁷

Reutern allowed Bobrinskoi a great deal of leeway in granting concessions, regretting at times the result. But this enabled him to reduce the engineers and military to helpless complaining. From 1868 to 1870 state construction virtually came to a halt. With Del'vig's technical guidance, Bobrinskoi managed to produce a new network of eighteen lines, which submerged the network of 1868 in a sea of new petitions for the commercially more profitable railroads. Capitalizing on the steady improvement in Russia's financial and commercial position, Reutern launched his first big consolidated railroad bond issue on the European market. He and Bobrinskoi worked in tandem to manipulate the flaccid rules governing normal concessions in order to award lines to their favourite entrepreneurs, until they felt confident enough to substitute

a new set of regulations which gave the minister of finance rather than the Committee of Ministers as before the main role in negotiating contracts with the private companies.

Reutern began to lose faith in the idea that railroad stock could be easily placed on the international market. He had rejected the proposal of James Rothschild to undertake "a large financial operation," which meant issuing government bonds to finance new railroads. The finance minister had no desire to borrow money in order to leave it on deposit. The best he could offer Rothschild was a share in building the private line from Moscow to Odessa.⁶⁸ Reutern's alternative to state construction was to insist that all railroad shares issued by a private company should be guaranteed by the government, an innovation which he first introduced in granting the Old Believer capitalist and railroad baron P.I. Gubonin a concession for the Lozovo – Sevastopol line.⁶⁹

Reutern followed up this power play with a decision to sell off all the remaining state lines to private companies, thus driving home the lesson that he had been so fervently preaching, namely, that Russian railroads had such a brilliant future that the state no longer needed to own and operate them in the name of a vague national interest that excluded and transcended private enterprise.

The most successful example of Reutern's policy of transferring state lines into private hands was the sale of the Moscow – Kursk Railroad to Chizhov's group of Moscow entrepreneurs. Indeed, it was a unique case.⁷⁰ Chizhov led the negotiations, finding Reutern more sympathetic than Bobrinskoi, who thought more advantage terms could be found than those offered by the Moscow group. But Reutern prevailed. Bobrinskoi confined his support of the concession to the Committee of Ministers, by criticizing state-operated lines as too formalistic, bureaucratic, and harmful to industrial development.⁷¹ Once again, Mel'nikov's defence of state lines went down to defeat.

Even the fates seemed to smile on Reutern's policies. In 1871 the last check on his financial operations passed from the scene. The controller, General V.A. Tatarinov, died. A distinguished economist himself and one of the most honest men in the financial bureaucracy, Tatarinov had worked with Reutern to rationalize and centralize the budget under the ministry of finance. But he did not always agree with the minister and had voted against him on a number of occasions in the Committee of Ministers when it came to railroad concessions.⁷² With him gone, Reutern was able to fill the post with one of his close allies, A.A. Abaza, a future minister of finance. In the eyes of his contemporaries, Abaza

possessed all the attributes of an outstanding statesman. He became one of the dominant figures among the economists under both Alexander II and Alexander III. His ties with Reutern dated to their close association with Grand Duchess Elena Pavlovna and Abaza's participation as a trustee director of the Grande Société.⁷³ As controller general, he could be counted on to support Reutern down the line. But Reutern's complete triumph over the financial bureaucracy was marred by Bobrinskoi's carelessness. When the acting minister, already a sick man, supported an outrageous proposal of the Warsaw banker Epstein to secure a virtual monopoly over the Volga grain trade, he was exposed in a public scandal and forced to resign.⁷⁴

By trial and error, Reutern had evolved a procedure for awarding concessions which appeared to combine financial responsibility, entrepreneurial initiative, and foreign investment. The real price he paid only gradually became evident. It could not be measured solely in terms of the short-term drain on hard currency reserves, although that was part of it. The social and institutional damage, though less obvious at the time, proved to be more serious in the long run. For the first time since Alexander I established ministries, corruption reached a significant level within the highest councils of the autocracy, penetrating into the court. Bribery was no stranger to the Russian official. But up to the railroad boom, its effects were felt mainly at the provincial level and in the lower echelons of the central administration. Favouritism abounded, but a courtier or mistress seldom represented anyone else's interest and even more rarely influenced economic policy.⁷⁵ The reasons were clear enough. Most of the ministers were wealthy and large landowners; the stakes were not high enough to risk the dangers; the moral factor still counted for something in the reigns of Alexander I and Nicholas I, in the first case embedded in the zeal for reform – or counter reform – and in the second instilled by military discipline. By the late 1860s, however, the sums involved in railroad concessions reached into the millions; the zeal for reform had faltered and a new sense of civic morality in the bureaucracy had not yet taken hold. Moreover, the irregular, convoluted, and changing rules governing concessions left room for manipulation and bribery by just a few influential individuals.

Corruption

Although the "normal concession" of 1868 sought to prevent corruption and special pleading, it did not work that way, in part because, as we

have seen, Reutern himself made exceptions. The Committee of Ministers reserved the right to modify details of the concession even after it had been awarded. There were ample opportunities to extend favours when the statutes of the new companies were approved, a procedure normally delayed until the line had been completed and the stock held either by the government or the entrepreneur-founders was about to be placed on the open market. The memoirs of Baron Del'vig and the unpublished memoirs of A.N. Kulomzin, Reutern's son-in-law, provide much of the basis for specific accusations, but it is not always possible to corroborate their assertions. On the other hand, the general atmosphere of corruption was widely discussed by contemporaries, and there is little reason to doubt that it played a significant role in discrediting Reutern's policies, although his personal honesty was never in question, and in undermining confidence in the superiority of private enterprise in advancing the general welfare.

The titled aristocrats were most susceptible to bribes, while dedicated professional bureaucrats like Reutern, Chevkin, and Mel'nikov, in Kulomzin's words, "shone like diamonds of the clearest water."⁷⁶ The most notorious bribe-takers were Count E.T. Baranov, president of the Grande Société, governor general of Vilnius, and president of the Department of the State Economy, who was ironically appointed in 1876 to chair the commission investigating the growing railroad crisis; Count V. F. Adlerberg, minister of the court and a close friend of the tsar; and Prince S.A. Dolgorukov, state secretary for the acceptance of requests.⁷⁷ The situation deteriorated further under Mel'nikov's successor, Count V.A. Bobrinskoi. He had the reputation of being frivolous and lacked the technical knowledge to evaluate competitive bids. Some of his decisions smacked of collusion with aggressive entrepreneurs. When in early 1870 the government was considering the concession for the strategic Smolensk – Brest line, Bobrinskoi supported the proposal of the banker Varshavskii, director of the Moscow – Smolensk line, without allowing competitive bids, a clear violation of the rules of 1868. Skilful manoeuvring by Count Adlerberg and, this time, if Kulomzin is to be believed, even Prince Gagarin, won unanimous approval of Varshavskii's bid by the Committee of Ministers. The banker was kept closely informed by Gagarin's financial secretary of the ministerial discussions. Also passing on confidential information, Adlerberg tried to put pressure on the chief of the chancellery of the Committee of Ministers to hurry the formal paperwork so that the concessionaire could meet a deadline in negotiations with the subcontractors.⁷⁸

Just as egregious was Bobrinskoi's behaviour in the notorious affair of the Kiev – Brest railroad. Taking advantage of the new regulations drafted by Reutern, he granted the concession to a dubious cast of characters for an unreasonably low bid, arranged a financial deal costly to the government, including an expensive loan from the Berlin banker Bleichroder, and then agreed to a change in the direction of the line unauthorized by the Council of Ministers. Del'vig was forced to intervene to avoid the worst consequences.⁷⁹ The tenure of A.V. Bobrinskoi was if anything marred by even greater scandals.⁸⁰

Even the imperial family was tainted with corruption. The brother of the empress, Alexander of Hesse-Darmstadt, secretly participated in the no bid award of the Morshansk – Syzran railroad concession to the marshal of the Tula nobility, S.D. Bashmakov.⁸¹ Grand Duke Nikolai Nikolaevich, in need of funds, received 200,000 rubles for having arranged a deviation in the direction of the Minsk railroad.⁸² In a scenario worthy of a plot from a cheap thriller, von Mekk recruited the needy but titled ally Prince Anatol Bariatinskii to conduct negotiations with the agents of the tsar's mistress, Countess Ekaterina Dolgorukaia, over a concession for the "Konotopskii" line between Landvarovo and Romny. Bribes of 600,000 to 700,000 rubles were bandied about. Von Mekk won the bidding war, finally paying three million rubles for the concession. At the same time, he persuaded the tsar to grant the concession of the Sevastopol line to Gubonin and Dolgorukaia's brother Mikhail, for which she allegedly received 100,000 rubles.⁸³ An even more openly outrageous bribery case concerned the concession over the Caucasian line. The Committee of Ministers had unanimously awarded the concession to a little-known entrepreneur named Kal'kengagen, the candidate of V.A. Bobrinskoi, who had submitted the most favourable bid. The tsar, residing in Livadia with Dolgorukaia, returned the journal of the committee with instructions to review the concession and give it to Poliakov. When rumours circulated on the stock exchange that Poliakov had distributed seven million rubles in bribes in order to obtain the concession, Count Shuvalov called him in. As chief of the gendarmes he was in a position to threaten Poliakov with arrest unless he submitted in written form a list of the recipients of the bribes. Countess Dolgorukaia headed the list with a promise of three and a half million rubles. In agreement with Bobrinskoi, Shuvalov presented the list to Alexander II. The tsar was sufficiently embarrassed to order that neither Kal'kengagen nor Poliakov but a third person be granted the concession. Shortly thereafter, having consulted with Dolgorukaia, he

demanded a grant of 300,000 rubles be awarded to Dolgorukaia's chief negotiating agent.⁸⁴ According to Count Shuvalov, his friend, Count V.A. Bobrinskoi, concluding that he could not in good conscience continue as Minister of Transportation, resigned his office.⁸⁵ Miliutin was scandalized; "it is not possible to doubt the story and it remains only to marvel at how the autocratic leader of 80 million people can be to this extent a stranger to the most fundamental principles of honour and unselfishness."⁸⁶

Not even the professional economists were immune from temptation. Kulomzin accused Lamanskii of having "traded on his official position" as director of the State Bank to advance the interests of joint stock companies in which he owned shares.⁸⁷ Kulomzin also maintained that extensive bribes were taken in the ministry of transportation, especially before the regulations of 1868 went into effect. He feared that the only way entrepreneurs could recover the cost of their bribes was to build railroads at "ridiculously low cost" so that "within ten years they will have to be entirely reconstructed."⁸⁸ The subsequent history of the Riazan – Kozlovsk railroad confirmed his worst suspicions.

The construction of the Riazan – Kozlovsk line was shoddy despite the high nominal cost per verst of the concession. Poor-quality rails were laid carelessly, many having been damaged in the process; the ballast was almost smooth in many places so that the roadbed was dangerously uneven, especially after a heavy rainfall, and potted with holes in winter; the water supply was inadequate and the rolling stock insufficient. Adadurov, who later became president of the line, described the inaugural year of the line, when he served as deputy director of operations, as a "nightmare," culminating in the first serious derailment of a Russian passenger train.⁸⁹ Over the following decade, Adadurov claimed, "the line was almost completely rebuilt." The cost of rebuilding over the period from 1867 to 1883 was 8.6 million rubles. The government loaned the company an additional four million rubles to build a second track because Von Derviz refused to undertake the construction at his own expense.⁹⁰

Reutern, himself an honest man, and other ministers attempted to stem the tide of corruption without abandoning the concessionary system. Investors were offered new enticements in the form of an absolute guarantee of income on shares for the entire period of the concession from the moment it was granted and not, as before, only after the completion of the line. But new rules required the ministry of transportation to publish in advance the charter of a new stock company, and the technical conditions and financial estimates of its construction. A special

state commission comprised of members of the key ministries of Transportation and Finance and the state controller would be authorized to announce the opening of public subscriptions to four new companies to build the Orenburg, Ural, Fastov, and Privislinsk (Vistula region) lines. If the aim was to draw in a large number of new investors, the effort must be considered a failure. Following a flurry of stock-jobbing, the entire issue of shares ended up in the hands of four "railroad barons": the Orenburg and Fastov lines went to Varshavskii, Gubonin, and Poliakov; the Ural line to Gubonin and Poliakov; and the Privislinsk line to the Warsaw banker Kronenberg.⁹¹

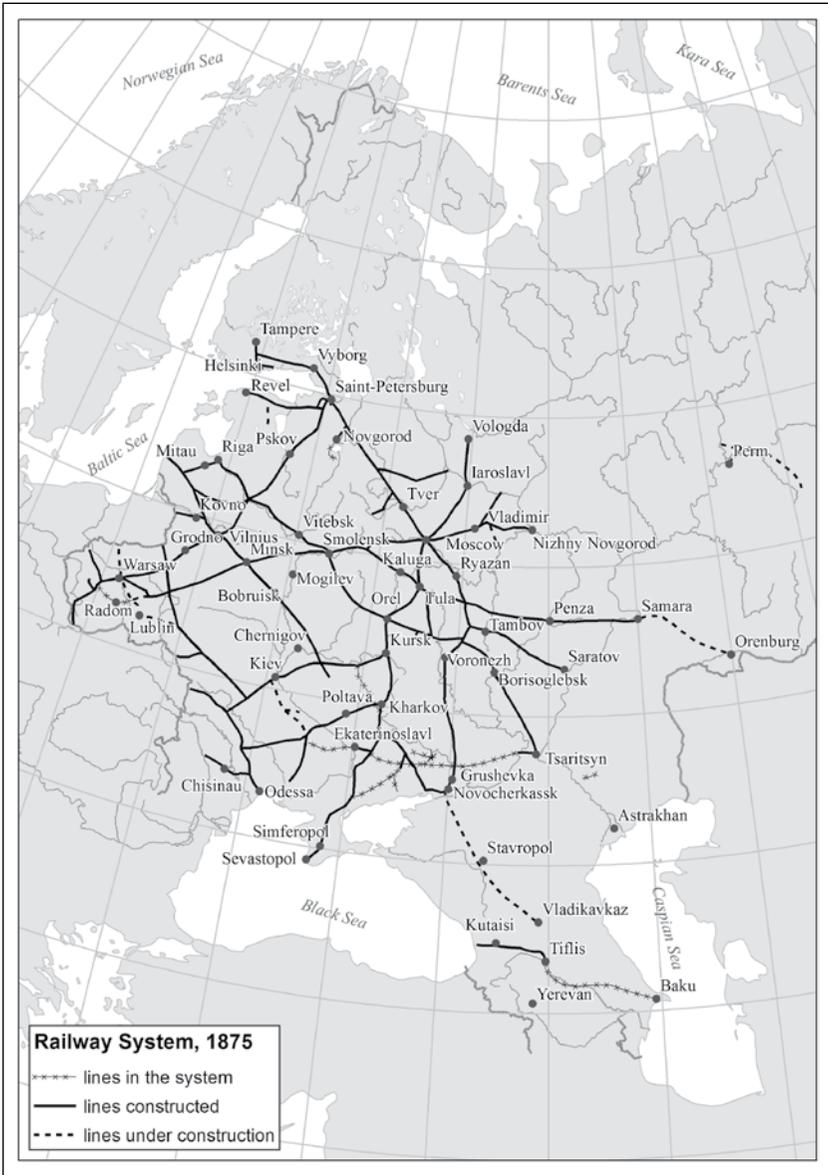
The railroad scandals provided Count Shuvalov with his last opportunity to undermine Reutern and secure his position as the tsar's grey eminence. He manoeuvred to get his protégé Count A.P. Bobrinskoi appointed acting and then full minister of transportation to succeed V.A. Bobrinskoi. The new minister gradually revealed his opposition to Reutern's system of concessions as contrary to the general interest. At the height of the speculative fever in 1874, he announced to the Committee of Ministers, "It will require a great deal of time and strong indication of the government's decisiveness to purge railroad affairs of the speculative grip and then to gain the public's trust and organize the construction of railroads on the basis which such an important state affair requires." The struggle between the two had broken into the open. Reutern showed himself again to be a master tactician. He refused to engage Bobrinskoi in a debate over the merits of private and state construction. Agreeing in principle with Bobrinskoi's ambitious plans to expand the network, he then used financial arguments to delay or defeat proposals for the state construction of each individual line as it came up for approval.⁹² The struggle was short lived. On 10 July 1874 Bobrinskoi was removed. At the same time, Count Shuvalov lost the confidence of the tsar, allegedly over his role in exposing the corruption of Countess Dolgorukaia; he was relieved of his post as chief of the gendarmes and appointed ambassador to London.⁹³

In his swan song, the disillusioned outgoing minister of transportation wrote in his final report to the tsar in February 1873 that the system of granting concessions provided no advantages to the state in the construction of railroads. Instead, it allowed the founders to announce the establishment of a company without in fact creating it and then ascribing all its shares to themselves and their friends without payment. Then they proceeded to run the company like a domestic household, exaggerating expenses and carelessly supervising the construction of the lines. As a

result, “the existence of many of our railroad companies is imaginary; the firms spurious; their management irregular, the shareholders figure heads; the shares inconvertible; and the ministry of transportation forced to remain a helpless observer of what is going on, veiled in legal form but opposed to the aims of the government, the enterprises, and the Treasury.” Once the irregularities were exposed to public scrutiny, he concluded, the government had to cover the financial losses and conceal the corruption in order to avoid compromising its credit.⁹⁴

Bobrinskoi was replaced by Admiral K.N. Pos’et. The new minister possessed no known expertise or experience in railroads. But he was favourably disposed towards Reutern, who dominated him for the next few years.⁹⁵ Despite his laxness or perhaps because of it, he survived the tempests of the Petersburg seas until 1888. On occasion Pos’et was willing to support Miliutin on the construction of a strategic line, such as Briansk to Brest. But Reutern’s motto had always been “no exclusively strategic line,” and he then successfully substituted financing the reconstruction of the Orel – Smolensk – Brest line. Pos’et remained true to his sympathies for the Moscow entrepreneurs. Here there was no need to part company from Reutern. They both supported the high bid of I.F. Mamontov’s group for the Don line, which fit well into the plans of the Moscow entrepreneurs to develop Russia’s natural resources with native capital. This was the only private concession granted from 1875 to 1880. Once again, however, rivalry among competing capitalists frustrated the developmental aims of the operation. Poliakov, the owner of the Kursk – Kharkov – Azov line, whose bid had been rejected, simply refused to transship the coal carried in the cars of his rival to the markets.⁹⁶

By this time, Reutern’s railroad fund had been exhausted and a more serious threat to his system was building up over the crisis in the Balkans. Pan-Slav agitation, led by Ivan Aksakov, inflamed public opinion and put pressure on the government, including the imperial court, to intervene against the Ottoman Empire in favour of the Bulgarians and Serbs. Reutern opposed a declaration of war, citing the financial cost. Having failed to check the wave of patriotic enthusiasm, culminating in the Russo-Turkish War of 1877–8, he resigned. During the war, only a short strategic line was built between Bender and Galtsk. S.S. Poliakov was granted the concession under highly favourable conditions. All the metal work for the line was imported duty-free and the rolling stock was funded by the State Bank. In a burst of patriotic fever, the line was completed in a record four months, earning it plaudits from an international jury at the Universal Exposition in Paris.⁹⁷



Map 8.3 The railroad network of 1875. Kislinskii, *Nasha zheleznodorozhnaia politika*, vol. 2.

Summing Up the Reutern System

The Reutern system had racked up a number of impressive achievements. The combination of private entrepreneurship, government subsidies, and foreign loans were responsible for the construction of over 14,000 versts of track in the 1860s and 1870s. Russia had overtaken Austria-Hungary in total railroad mileage and was fast catching up to France (see [table 8.1](#)).

Table 8.1 Comparative railroad construction in thousands of kilometres

Country	1850	1860	1870	1880	1889
Germany	5,856	11,088	18,450	33,411	41,793
France	2,996	9,439	17,462	26,191	36,348
Great Britain	10,660	16,797	24,383	28,872	32,088
Russia	601	1,589	11,243	23,857	30,140
Austria-Hungary	2,240	5,160	9,761	18,476	26,501

Moreover, a decade after Reutern's resignation, as construction costs continued to go down, the cost per kilometre for the construction of Russian railroads was far below that of Great Britain and France and close to that of Germany and Austria-Hungary (see [table 8.2](#)).

Table 8.2 Comparative cost in capital expended in German marks

Country	Capital	Year	Length	Cost per kilometre
Great Britain	17,531,903,000	end 1889	32,088 km	546,369
Germany	10,259,015,000	March 1890	40,891 km	252,268
France	11,189,610,000	end 1888	35,014 km	319,575
Russia	7,095,600,000	end 1887	26,969 km	263,100
Austria-Hungary	6,089,170,000	end 1887	24,456 km	249,922

Source: A. Chuprov and B. Brandt, "Zheleznye dorogi," in F.A. Brokgauz and I.A. Efron, eds., *Entsiklopedicheskii slovar'*, vol. 22 (St Petersburg, 1894), 784.

An integrated network had come into existence, featuring four interconnected nodes: the Moscow, Pribaltic, Azov – Black Sea, and Western. They linked the Moscow and Petersburg industrial centres with the main agricultural regions, sea ports, and regions of metallurgical production. The Poti-Tiflis and Orenburg lines to the Caucasus and

Trans-Caspia solidified Russian control over the western borderlands. High-level discussions had taken place and plans were under way for a Siberian railroad.⁹⁸

These gross statistics are somewhat misleading when compared to what Russian economists called the geometric scale of measuring the ability of the lines to satisfy the overall needs of the people based on the relationship of the length of railroads to the size of the country. Here Russia falls far below the standards of the major European powers and several of the minor ones (see [table 8.3](#)).

Table 8.3 Comparative geometric scale for providing needs of the country based on relationship of length of railroads to size of the country and to its population

Country	Geometric mean
Belgium	11.45
Great Britain and Ireland	9.21
Germany	8.53
France	7.85
Austria-Hungary	4.81
Italy	4.10
Rumania	2.96
Greece	1.82
Russia	1.27

Source: A. Chuprov and B. Brandt, "Zheleznnye dorogi," in F.A. Brokgauz and I.A. Efron, eds., *Entsiklopedicheskii slovar'*, vol. 22 (St Petersburg, 1894), 786.

Reutern's hopes that railroad construction combined with the expansion of credit facilities, government subsidies to industry, and tariff reform would jump-start Russia's industrial growth did not materialize. At the end of the seventies, the products of heavy industry shipped by rail amounted to only 12 per cent of the total turnover. The grain trade alone accounted for 32 per cent of the rail traffic. Light industry, in particular textiles, dominated by the Moscow entrepreneurs, was the main beneficiary in the manufacturing sector. Cotton spinning machines were concentrated in the Moscow and Central Industrial Region. In the older centres of Kostroma, Kazan, and Viatka, where no rail lines had yet been built, they were altogether absent, and textiles remained a handicraft. Heavy industry constituted only 2 per cent of the joint stock capital. The metallurgical centres in the Ural remained stagnant and were unable to satisfy the growing demand for rails and rolling stock. In an effort to stimulate domestic production, Alexander II

approved a decision of Council of Ministers to place all government orders for railroads with domestic producers, “whatever the difficulties and inconveniences these may incur in the short term.”⁹⁹ But this noble intention was immediately undercut when an emergency forced the ministry of transportation to order a million poods (thirty-six million pounds) of rails from England and Belgium in order to repair the aging Nikolaev line.¹⁰⁰ Once again, economics defied the autocratic will.

The performance of the railroads during the Russo-Turkish War of 1877–8 revealed serious weaknesses, failing to meet either the economic or strategic needs of the empire. The proliferation of railroad joint stock companies – there were 52 by 1876 – approved without conforming to the plan meant that there was no unified network and no uniform technical, financial, and administrative standards. The regulations for construction drafted in 1870 by the engineers of the ministry of transportation had been largely ignored. The railroad barons had scooped up millions of rubles by cheating on the construction of wooden bridges, supplying lightweight rails and insufficient ballast. Accidents were frequent, culminating in the famous disaster on the Odessa line in 1876, when a crash attributed to faulty construction incinerated a troop convoy. As early as 1868, the tsar responded to a flood of petitions from merchants, landowners, and industrialists complaining about delays in shipments and collisions by appointing V.A. Bobrinskoi to head an investigating commission on the grain trade. The report singled out the problem of transit from one line to another, giving as an example the six-month delay in the delivery of a grain shipment from Morshansk in Tambov Province to St Petersburg. Subsequent investigations revealed additional instances of massive spoilage of grain left to rot in the open at stations where no provision for storage had been made. Similar cases were documented concerning losses of fish, milk products, and other perishable goods.¹⁰¹

The situation with regard to passenger traffic was even worse. In the winter of 1875 the trip from Tsaritsyn to Rostov-na-Donu of under 400 kilometres required twenty-six days. A train carrying recent army recruits to the Caucasus took twenty-two days to cover the distance between Rostov-na-Donu and Vladikavkaz. To correct these shortcomings, a special commission in the ministry of transportation was appointed to draft a law on procedures for operating railroads. But the attempt of the engineers to correct the abuses was doomed in a culture of corruption and bribery.¹⁰² A second major problem surfaced

over passenger and freight rates, which were set arbitrarily by the administration of every railroad company. The chaotic effect on long-distance transportation and transit between lines was to undermine state policies on everything from protective tariffs to currency operations and crisis management during bad harvests. A tariff war at the end of the 1870s between the two main lines serving grain exports, the Libau-Romensk and the South-West, seriously disrupted commercial operations vital for the economic stability of the country. The sharp reduction of rates also reduced the income of the competing lines and increased state subsidies to cover the losses. Summing up the uneconomic construction of four major railroads, the contemporary economist A.I. Chuprov calculated that the percentage of investment capital actually employed in construction of these lines ranged between about 30 to 50 per cent.¹⁰³

By 1880, the state had provided 80 per cent of the capital for the construction of railroads. Part of these funds had come from the Railroad Fund, which by this time was completely exhausted. But, as Reutern acknowledged in his final report to the tsar, "Our [Russian] railroads were almost exclusively built by foreign capital." By 1880 the payment of interest alone on loans raised in the foreign money markets for railroad construction amounted to 350 million rubles. Railroad securities accounted for about 80 per cent of the governments' total foreign indebtedness.

Not surprisingly, then, Reutern concluded that foreign loans had become "difficult and dangerous, while the domestic market was overloaded with huge loans for unproductive purposes." Consequently, he wrote, "I am convinced that for the time being it is necessary to refrain from the construction of any significant railroad and to limit ourselves only to covering expenses on the existing lines."¹⁰⁴ This might well serve as the epitaph of the Reutern system.

The most serious, professional critique of the Reutern system came from the pen of Baron Del'vig, listing five shortcomings in his memoirs: (1) The government granted lines to a private entrepreneur with a guaranteed return on the cost, which, however, was not known to the government since it had made no preliminary surveys; (2) in granting the concession the minister of finance had full authority to make the award arbitrarily without even consulting the minister of transportation; (3) competitive bids had only to state the financial conditions of the construction, saying nothing about the technical aspect or the exploitation of the line; (4) an individual already authorized by

imperial command on the recommendation of the minister of finance to submit a bid was obliged to undergo a review in the committee of ministers, where the concession could be awarded to someone else who may have made a higher bid; (5) entrepreneurs were granted a concession with the obligation to complete the line within a specific period of time but without specifying a date for submitting the statutes; nothing was stated in the concession about the management of the line, opening the way for the concessionaires to appoint themselves and clients to run things and pocket large profits from financial deals. The only exception to these shortcomings, according to Del'vig, was the Moscow – Iaroslavl line with Chizhov as president financed by the Moscow entrepreneurs.¹⁰⁵

The most lasting achievement of the Reutern system was the construction of a rail network for European Russia of 14,083 versts of railroad, matching in length the great decade of state-built lines from 1891 to 1900. But the cost was staggering. As [table 8.4](#) indicates, the total expenditures on the cost of financing and constructing railroads in the period from 1866 to 1875 was almost equal to the costs of maintaining the army and navy. However, once the shift took place under Reutern's successors, when the state once again assumed the direct costs of construction, the financial burden increased exponentially, outstripping the military budget in the following two decades, and by 1895 costing the government almost as much as the total expenditures for all government departments (see [table 8.4](#)).

Table 8.4 State expenditures in millions of rubles

Period	Payments on railroad loans and bonds	Railroad expenses	War and naval ministries	Other depts.
1866–75	938	736	1,758	2,086
1875–85	3,478	787	3,333	2,634
1886–95	6,239	2,023	2,917	3,281
Total	10,655	3,546	8,008	8,001

Source: P. Saburov, *Materialy dlia russkikh finansov* (St Petersburg, 1899), appendix, 1–2.

What did the government gain in financial terms? In the decade 1865–75 income from the railroads was the relatively insignificant sum of about four per cent of the total (see [table 8.5](#)).

Table 8.5 State income in millions of rubles

Period	Direct taxes	Indirect taxes	Income from railroads	Income from state property and tariff	Internal and external loans
1866–75	1 015	2 505	239	1 176	730
1876–85	1 310	3 705	428	1 263	3 552
1886–95	1 798	5 324	1 295	1 419	4 861
Total for 30 Years	4 123	11 534	1 962	3 858	9 143

Source: P. Saburov, *Materialy dlia istoriii russkikh finansov* (St Petersburg, 1899), appendix, 1–3.

Yet, it is possible to argue that this is only a short-term calculation. The railroad network was a permanent asset connecting the main grain-producing regions, the ports of the Baltic and Black Seas, and the centres of industry in European Russia. Over the long run this network played an important part in the industrial spurt of the 1890s and beyond. There is even evidence that the breakdown in the supply of food and fuel during the last wartime years of the monarchy was not as much due to the inadequacies of the European network as it was to the severe winter weather of 1916–17 that seriously disrupted rail transport.¹⁰⁶

Economic development in the Russian empire was always hostage to the politics of autocracy: the lack of a unified government, a weakly developed rule of law, and the absence of a large and independent commercial-industrial class. Thus handicapped, even the most honest and conscientious state servants and private entrepreneurs found it difficult to overcome the structural obstacles to economic growth posed by vast spaces, widely separated resource bases, and harsh weather conditions. Progress was achieved but only at great expense in human and material terms.

Chapter Nine

Patronage and Professionalism: The Witte System

By focusing on the renewed rhythm of reform in an era too often dismissed as reactionary, this chapter sheds additional light on the relationship between the politics of economic development and the nature of imperial rule that has served as a leitmotif in this book. At the beginning of the twentieth century, the Ministry of Finance was one of the most highly professionalized bureaucratic departments in the tsarist government. Yet as soon as S.Iu. Witte was appointed minister in August 1892, he used his office as a base of patronage to colonize other bureaucratic agencies with loyal and pliant clients, managing appointments through his personal influence over Alexander III and the young Nicholas II. He applied the same tactics in order to gain control over important economic institutions outside the government such as the big investment banks. This chapter interprets his system as a combination of patronage and professionalism resembling that of Reutern, described in [chapters 7 and 8](#), but far exceeding it in the range, the ideological justification, and the results of its operations.¹

The art of combining two contradictory administrative styles did not originate with Witte or even Reutern. Its genesis may be traced back to the reforms of Peter the Great and the complex political struggle that pitted the new social elite – “Peter’s fledglings” – against the remnants of the old aristocratic elite. As illustrated in [chapter 11](#), there was never a sharp contradiction between merit and birth as the basis for service. Like most European bureaucracies in the eighteenth century, the rising meritocratic elites attempted to transform themselves and their families into a new hereditary nobility.²

In Russia, however, unlike with the development of modern bureaucracies in major European states, however, a tension persisted in

aggravated form between patronage in the form of clientele networks and professionalism based on specialized training. Among the many reasons underlying this problem were the low level of education in Russia, even among elites, the social antipathy of the nobility towards any form of specialized education aside from the military, the lack of social mobility among the non-noble urban groups, and the administrative problem of governing vast spatial distances with primitive transportation and communication facilities. Daniel Orlovsky has identified four criteria shaping the operation of patronage in imperial Russia: proximity to the monarch, kinship, geographic location, and institutional position.³ Up until the mid-nineteenth century, the first two factors played the predominant role in the selection of officials. The balance shifted slowly after the educational reforms of Alexander I and Nicholas I introduced a fifth factor: a shared intellectual experience in universities and lycées and specialized training in technical schools. But as long as the personal favour of the tsar remained the decisive element in the selection process, progress towards eliminating the contradiction could only take place gradually, partially, and incompletely. Although a professional bureaucracy continued to evolve, it could not establish its authority on a firm and permanent foundation. At any moment the entire formal structure of hierarchy, regularity of rules, and predictability of behaviour could be ignored or openly violated by those who enjoyed the favour of the autocrat. In the absence of a true cabinet system, well-defined political factions, or strong leadership from the tsar, an effective clientele network was indispensable to any high official seeking to carry out a comprehensive program of governance within the framework of the autocracy.⁴

Prior to Witte's ascendancy, there was considerable evidence that the professional bureaucracy had steadily strengthened its position within the central organs of government, particularly in the ministries of interior, justice, and finance. But there were setbacks as well. Indeed, it may be argued that the appointment of Ivan Vyshnegradskii as minister of finance and of Witte, his protégé and successor, represented blatant examples of personal favouritism and patronage. Two "outsiders" had been brought into an administrative agency that had built up a formidable professional reputation under the leadership of political economists like Reutern, N.Kh. Bunge, and A.A. Abaza. Not only had Vyshnegradskii been trained as an engineer and Witte as a mathematician, but both belonged to the free-wheeling world of private enterprise. They were tough, strong-minded, and unscrupulous

in their choice of political associates. Before their appointments they had also had close ties with extreme right-wing nationalists like Prince V.P. Meshcherskii and M.N. Katkov. What happened to them once they entered the bureaucratic ethos of the ministry of finance is an instructive study in the persistent coexistence of patronage and professionalization at the highest levels of the tsarist government. In Witte's case, at least, the result was a remarkable if precarious synthesis of the two. His administrative style possessed such unusual and distinctive features that it deserves as much attention and analysis as his economic policies.

The Professionalization of the Ministry of Finance

To comprehend fully the scope of Witte's system, it is first necessary to review three important stages in the professionalization of his ministry during the second half of the nineteenth century: the expansion of its functions and its technical competence, the evolution of an ideology of economic growth, and the emergence of a distinctive bureaucratic ethos. It is fair to say that by the turn of the century the ministry of finance possessed broader authority and engaged in more complex tasks than any other ministry concerned with the economic life of the empire. Ever since the 1860s, the ministry had encroached upon the prerogatives of the ministries of state domains and transportation. Even before Witte, it had effectively become the ministry of the national economy; its breadth of competence and range of activities far exceeded those of a finance ministry in any other European power.⁵ Within the tsarist government, its only serious rival among the civilian ministries was the ministry of interior, with which it competed for control over broad areas of national and local administration.

This struggle also reflected a long-standing structural conflict within the Russian bureaucracy between functional and territorial principles.⁶ Its origins were rooted in the peculiar character of Muscovite state building – the “gathering of the lands” that coincided with the “gathering of power.” It persisted because the state continued to expand its territorial boundaries in the nineteenth century and its political influence beyond those its borders in the twentieth. The ethnic and cultural variety of the acquired territories and the immense distances of the periphery from the centre kept the conflict alive. So did the pro-consular character of tsarist viceroys and governors general who enjoyed a great deal of autonomy in administering the borderlands, particularly in the Grand Duchy of Finland, the Kingdom of Poland,

the Caucasus, and Turkestan. There was always a lack of functional clarity about the Russian bureaucracy, an openness that an ambitious and talented individual could exploit for his own political ends.

The expansion of the functions of the ministry of finance in the nineteenth century introduced greater system and efficiency into government operations and also provided the ministry with powerful weapons to defend itself in bureaucratic in-fighting. The introduction of a comprehensive state budget by M.Kh. Reutern in the 1860s transformed the ministry into the single most important civil administrative organ of the government. The high level of technical competence required by the top officials responsible for drafting and implementing the budget strengthened the ministry against arbitrary interference in its affairs by the "free floaters," the personal favourites of the tsar. Technical expertise enabled it, time and again, to win political struggles, to balance the budget, to control railroad concessions, to obtain foreign loans with the aim, achieved only under Witte, of stabilizing the ruble and, finally, backing it with gold. In the generation before Witte, the ministry suffered only one major setback in its efforts to bring tsarist finances completely under its control, and that was the decision, taken against the advice of Minister of Finance Reutern, to declare war on Turkey in 1877.

In a broader sense the ministry's growing power over the economic life of Russia was most clearly apparent in the growth of administrative departments to deal with the private sector of the economy. The trend was well under way before Witte. In part, these developments reflected the social apathy and political impotence of the merchant *soslovie* (estate) and the slow emergence of new regional entrepreneurial groups. In the category of what might be called regulatory agencies, the ministry had trade and manufacturing councils (reorganized in 1872 and composed of representatives of private capital, but chaired by an official of the ministry) and the factory inspectorate, introduced in the 1880s.⁷

Throughout the nineteenth century, the ministry retained extensive discretionary power over the formation of corporate enterprises by insisting on its right to approve the formation of joint stock companies on an individual ad hoc basis, rather than introduce uniform rules of incorporation as had been done in the rest of Europe. The ministry also maintained very strict controls over the buying and selling of securities on the open market in order to prevent speculation.⁸ Within the ministry, the creation of the Department of Railroads (1889) and a separate section on the grain trade (within the Department of Trade and

Industry) enabled finance officials to intervene in the national market through their control over tariff rates for rail transportation.

Since the late 1860s, the State Bank – under the direction of the minister of finance – had secured a dominant position in the country's credit system. In the 1880s it began to acquire some of the characteristics of an industrial investment bank and gradually assumed greater and greater responsibility for rescuing from financial difficulty or outright bankruptcy those industries which the government regarded as vital to its national interests.⁹ The creation of the Peasant Land Bank in 1881 and the Noble Land Bank three years later enabled the ministerial officials who dominated their managerial boards to regulate the price of land and also to alter the character of social relationships in the countryside, particularly after 1905.¹⁰ The only area in trade and industry where the Ministry of Finance appeared to lose ground was in mining, where it relinquished its authority to the ministry of state domains. Yet even here the initiative came from officials of the Ministry of Finance as part of a plan to turn over as much of the ailing industry as possible to private hands.¹¹ The Ministry of Finance retained its control over the mining and minting of precious metals, and after 1905 it recovered its authority over the state mining enterprises as a whole.

As the ministry aggrandized itself, its officials also developed a well-defined ideology of economic growth. As we have seen in [chapter 6](#), the intellectual roots of their system of beliefs were eclectic. The main inspiration came from the British Smithians, as filtered through the their German interpreters like Heinrich Storch, but also from the latter-day St Simonians, particularly as articulated by Michael Chevalier in his stage of controlled free enterprise.¹² These various elements were blended by Reutern's time into a fairly consistent set of propositions that gave prominence to the role of the state not only in stimulating and guiding but also in restraining capitalism of the West European type. The economists were contemptuous of engineers who were indifferent to considerations of profitability and economic rationality in seeking to convert the Russian state into the engine of economic change. Nor did the economists show much respect for the Russian merchants as capitalist entrepreneurs, although Reutern had been willing to work with a new class of entrepreneurs, mainly of Baltic and Jewish background. Above all, the economists opposed the emergence of a genuine Russian middle class as the bearer of a capitalist transformation. Rather, they saw themselves as the midwives of a capitalism without parentage. They agreed on the need to create a sound monetary system as the

prerequisite for capitalist development. They also favoured a moderate policy of forced industrialization, beginning with railroads and leading into the metallurgical industry. Witte did not invent this program of economic development but, as Gindin and other Russian historians have shown, intensified its pace.¹³ The ideology of economic change closely supervised and monitored by the economists was very much the product of their education infused with a strong moral outlook similar to that which pervaded the radical intelligentsia. But those who entered state service clearly represented a different type of personality, one that accepted authority more readily and substituted meliorist for utopian ideals. In the case of the economists, this ideology flourished in a bureaucratic ethos that owed more to in-service training than to social origin or preparatory education.

Unlike the jurists who, according to Richard Wortman's analysis, were so markedly the product of their schooling, the economists were exposed for the most part to a much less technical form of preparatory training for their profession. To be sure, two institutions played a dominant role in shaping the lives of the top officials in the ministry from the time of Reutern to the end of the empire: the Alexander (formerly Tsarsko-Seloskoe) Lycée and St Petersburg University. Although the lycée was designed after the reforms of 1848 to prepare students for the ministry of Interior, its most distinguished graduates began their careers in the Ministry of Finance. These included three ministers (M.Kh. Reutern, I.P. Shipov, and V.N. Kokovtsov), a minister of state domains (later agriculture), A.S. Ermolov, the first minister of trade and industry, S.I. Timashev, and such other top officials as the first director of the State Bank, E.I. Lamanskii, and the director of both the chancellery and the department of direct taxation, D.F. Kobeko. It is clear from the memoirs of Lamanskii and Kokovtsov that attendance at the lycée was an asset to career advancement in several ways: first, as the source of an "old boy network" within the ministerial bureaucracy and, second, as a basis of training in statistics and political economy.¹⁴ But if we are to believe an eminent graduate, the academician V.P. Bezobrazov, who was also a high official in the ministry, the single most important formative influence of the lycée was its ideal of state service. In speaking to the graduating class of 1878, Bezobrazov warned against the two dangers of anti-intellectualism and over-specialization. The first led to either revolutionary nihilism or military imperialism and the second to "dead bureaucratic routine." To him the advantage of the lycée education was that it provided future servants of the state with "moral

aspirations" (*ideinye stremleniia*) and independent moral judgment as distinct from that professional specialization which sharply narrowed an official's vision.¹⁵ It remained for the experience of in-service training in the ministry to channel these moral aspirations along lines of economic reform.

One of the unique attributes of Ministry of Finance as a bureaucratic agency was its commitment to public accountability. The government's budget first became a public document in the 1860s. It was a statement of the ministry's projections and goals that could be measured against verifiable results. There was then an objective standard of performance for the Ministry of Finance that simply did not exist for any other agency except under crisis conditions.

Moreover, the level of the ministry's performance, its efficiency and dependability, were subject to international standards. From Reutern's ministry to the end of the empire, the Ministry of Finance was constantly and increasingly involved in international financial operations, particularly in floating large state and state-guaranteed loans. The obligation of the ministry to meet its payments, to maintain Russia's credit, and to stabilize the ruble exchange rate – all these matters were subject to the scrutiny and approval of institutions outside the control of the autocracy. The ministry's peer group was composed of European banking houses and finance ministries. This in turn meant that the ministry was as broadly exposed to the influences of Europe as any other ministry. It certainly enjoyed greater access to useful information outside the country than other government agencies. Its own periodicals were less subject to the restraints of censorship. There was a greater freedom of debate in Russia on economic issues than in any other field except perhaps pure science.

Consequently, the ministry enjoyed a reputation for a high level of competence, reliability, and homogeneity of outlook. There is no more convincing witness to the qualities of the ministry's personnel than P.A. Stolypin, the prime minister, who openly envied Kokovtsov his collaborators: "If I had such men, I too could work as well as you do in the ministry of finance."¹⁶ Additional proof of the ministry's thoroughgoing professionalism was the ease with which its officials adapted to parliamentary politics after 1905. The ministry was fully prepared to appear before the State Duma and the State Council to present and defend its estimates without reliance on evasive tactics or the protection of the crown. The same could not be said of most other ministries, almost every one of which was exposed to withering attacks upon its

competence as well as its policies during the Third-of-June Régime. At times the minister of finance even found himself obliged to defend other ministers, like the minister of transportation, who simply lacked the staff and the self-confidence to do it himself.

The ministerial personnel were in closer contact with their constituency than most other agencies. The ministry maintained close contact with commercial and industrial interests through the latter's representative organs, the trade and manufacturing councils, and the tariff commissions. The flow of information and influence moved in two directions between the ministry and society – not simply in one direction, as tended to be the case in other ministries. While strong elements of paternalism in the relationship are not to be gainsaid, there was a widespread belief among the ministry's officials that "society" should exercise its own initiative rather than constantly wait for instructions from above. One important result of this open relationship with society was the ministry's opportunity to penetrate successfully and permanently into non-governmental institutions. Unlike in Western Europe, it was the financial bureaucracy that colonized private interest groups, not vice versa.¹⁷ But that was a later development and belongs more properly to a discussion of the Witte system.

What has been delineated here for financial specialists was done in a much richer detail and analysis for the new legal officials who emerged from the reforms of the 1860s. There is the same sense of moral identity as experts, the same dedication to introducing science or special knowledge into life, and the same corporate pride in achieving mastery of problems.¹⁸ At just about the same time that the new legal officials were beginning to interpret and shape the law, the financial experts assumed power over moulding and directing the economy through an ambitious economic policy that they steadfastly had pursued ever since the 1860s. It is true that Witte led them to a dramatic breakthrough in their control over the economic life of the country. But he accomplished this by reintroducing elements of the traditional clientele network into the ministry and then using it as the basis for a further colonization of the entire state bureaucracy.

Witte's Rise to Power

Sergei Witte had risen rapidly in the world of officialdom. He entered the Petersburg bureaucracy at an unusually high level – as director of the department of railroads in the ministry of finance, an appointment

that required his promotion from rank nine to rank four, an almost unprecedented bureaucratic leap upwards. The department had just been created, and he was given virtually a free hand in organizing it. He drew on two sources to fill the vacant posts: engineers he knew personally from the South-west Railroad (for the most part, practical men), and experienced officials from the Petersburg bureaucracy.

The social milieu in the south-west, from which Witte's men and Witte himself emerged, displayed a number of peculiar regional features that they carried with them into the central administration. The entrepreneurial atmosphere was uniquely open and free-wheeling to the point where the business ethic, never very strong in Russia, was loosely defined, to say the least. Indeed, many of the most successful railroad kings had a very shady reputation. Another more attractive feature of the business community was its rich ethnic mix of Russians, Ukrainians, Jews, Germans, and Poles. Finally, in the region economic ties among heavy industry, railroads, and capitalist agriculture were closely interwoven.

Witte himself had been introduced into this world by his uncle, the famous Pan-Slav publicist and military authority R.A. Fadeev, who had excellent contacts in the higher administrative spheres in Odessa and Kiev. A friend of the family, the sugar magnate and minister of transportation V.A. Bobrinskii, persuaded the young Witte to pursue a career in business rather than the university, but opposed his becoming a state transport engineer because he considered it a caste of narrow specialists. Witte's mentors on the South-west Railroad were Vyshnegradskii, who was subsequently his patron in the central bureaucracy, and I.S. Bliokh, the Jewish railroad king, who had had a hand in advancing Vyshnegradskii's career. The three men played a key role in the Baranov commission, which had been established to revise the legislation on railroads, where they represented the interests of the private lines.¹⁹ Together Vyshnegradskii and Bliokh helped to overcome the opposition of the minister of transportation, Admiral K.N. Pos'et, and arrange for Witte's appointment as the first non-engineer to become director of the South-west Railroad.²⁰

Witte continued his rapid advance under the protection of Vyshnegradskii. As the head of the newly created Department of Railroads in the Ministry of Finance, he worked with his patron to introduce a uniform freight tariff on Russia's railroads based on diminishing rates over greater distances. By increasing government revenue and discriminating against entrepreneurs in the central provinces, Witte won public

praise for having subordinated the profits of “an influential group of industrialists” to the interests of the state. This did not mean Witte had turned against his former associates in the railroad business, but simply that they had to recognize that the interests of the state came first. At the same time, he used the pages of Katkov’s *Moskovskie vedomosti* to advertise his views and boost his reputation as a champion of Russian interests against the economic and autonomous claims of the German Baltic barons, supported by Giubbonet and the Finns, in what he referred to in print as “a titanic struggle between the ministries of finance and transportation.”²¹ Witte emerged from this struggle, once again on Vyshnegradskii’s recommendation, as minister of transportation, succeeding the defeated Giubbonet. Working in tandem, the two men overcame the last resistance of the economists to the establishment of a high protectionist tariff to bolster Russian national industry. With the retirement of Vyshnegradskii, Witte appeared to be his natural successor. Musing on the possibility, however, he confided that Vyshnegradskii had not fully understood what was necessary for Russia. He, Witte, already had “a complete plan. I’ll carry it out even though it breaks up everything (*vse lopnulo krugom*).”²²

Witte masterfully used the mass press to promote himself and his policies, beginning early in his rise to power and continuing throughout his career. At first, he relied upon the conservative papers of Katkov and Prince Meshcherskii. But by the 1890s he started to cultivate the more moderate organs like Suvorin’s *Novoe vremia*. But he never bought out a paper, preferring to place or inspire articles on specific projects in different papers in his campaigns against the landowning nobles and foreign critics who opposed his industrializing policies.²³ This tactic fit well into his grand strategy of selecting key personnel to staff the imperial bureaucracy.

Witte’s Initiatives

A striking indication of Witte’s determination to change the social composition of the bureaucracy was his cadres policy. From 1894 to 1899, he nearly tripled the personnel in the department of trade and manufacturing (from 58 to 152) and, during that same period, increased the number of sections in this department from six to sixteen. More important still, he expanded Vyshnegradskii’s policy of making talent and education the basis for promotion, insisting on the right to fill newly created posts with men irrespective of their rank (*chin*), or even those

who were not enrolled in the Table of Ranks. In other words, he wanted to recruit men like himself. He justified such appointments as necessary in order to “subordinate to [state] authority ever broader spheres of private economic activity.”²⁴ Consequently, Witte had a freer hand than anyone else in bringing fresh social elements into the bureaucracy.

Witte also became a leader in spreading technical education as part of his plan to have the ministry of finance set new and higher standards of performance for the business community. Dissatisfied with the inadequate organization of the school system under the ministry of education, Witte assembled his own team of leading experts, drawing on the experience and special training in engineering of members of the Pentagonal Society formed around Witte’s predecessor and sometime patron Vyshnegradskii and the Russian Technical Society. Their aim was to replace the ministerial model of Russian schools with the kind of training provided by the German polytechnic schools and the French *École central*. Witte pushed through a program of expansion that, in the span of seven years, created 184 new commercial schools and three new polytechnic institutes. At the same time, Witte encouraged the proliferation of consultative organizations of trade and industry in order to multiply direct contacts between the bureaucracy and the representatives of private industry. As a result, his efforts led to the formation of thirty-nine new exchange committees and the creation of a new type of representative entrepreneurial organization for industrialists. One of the most striking aspects of his innovations was the encouragement of local initiative and material involvement in return for considerable autonomy. As a corollary, his plan involved shifting the locus of the new educational institutes to the periphery of the empire, fostering the economic development of the most rapidly growing industrial regions.²⁵

Under Witte’s direction, the ministry introduced the state alcohol monopoly, thereby making its department of indirect taxation manager of the largest and most profitable business enterprise in the empire. By issuing licenses setting production quotas, the department (renamed the main administration) for indirect taxes and the state sale of alcohol was in a powerful position to protect the economic interests of financially troubled landlords. It could assure a steady and guaranteed income to those who were licensed to construct and operate distilleries. Meanwhile, Witte accelerated the penetration of ministerial officials into rural society, a process that had already begun in the 1880s with the appointment of tax inspectors at the district level. By 1905, the inspectors had taken over all fiscal responsibility from the Ministry of the Interior,

having introduced (in George Yaney's words) functional specialization into the countryside.²⁶ Thus, Witte made certain that his officials were in close touch at the local level with every important social group – workers, peasants, nobles, merchants, and entrepreneurs – in an effort to exercise an unprecedented control over the economic life of the country.

Further extending his commercial web, Witte revitalized the Institute of Commercial Agents Abroad. Originally established in 1848, the institute had long been starved for funds and was moribund. Witte reorganized it in 1893 and obtained the right to set the number of agents and to place them where he wanted. He immediately established agencies in Paris, London, Berlin, Washington, Constantinople, Brussels, and Yokohama. By 1898, when they became known as agents of the ministry of finance pure and simple, they were attached to dozens of Russian embassies and missions, where they enjoyed the same rights as the military and naval attachés. No wonder critics like Suvorin's *Novoe vremia* complained that the ministry of finance had become "a state within a state," with its own army, railroads, fleet, and diplomatic corps.²⁷

Witte continued to resist any encroachment on the ministry's activities even as he broadened its scope. For example, in a fierce bureaucratic battle, Witte vigorously opposed the proposed reforms of I.L. Goremykin to expand the organs of self-government (*zemstvos*) into the peripheral provinces, especially the western borderlands. He not only rejected the idea but went on to oppose any changes in the *zemstvo* administration of the local economy in provinces where the *zemstvos* already existed. He declared that "the *zemstvo* cannot be considered the model administration for the local economy and does not represent in the least the only suitable form."²⁸

Over a period of seventeen years from 1889 (when he was appointed director of the Department of Railroads in the Ministry of Finance) until 1906 (when he was forced to resign as chairman of the Council of Ministers), Witte continuously worked to enlarge his network of clients in the central bureaucracy. As a member of the State Council during the following decade, he continually sought to use the remnants of his network in order to intervene at the highest levels of the state bureaucracy. An analysis of his appointments to positions of administrative responsibility under his authority reveals a subtle and complex design.

Witte skilfully balanced a number of different and often conflicting social and personal factors in his quest to impose order and control over the administrative maze. He favoured officials who combined personal loyalty (even better, dependence) with expert knowledge.

When he had to obtain approval of the tsar or sought to influence the choice of a minister, he carefully considered the effect that his recommendation might make on members of the imperial family. Witte had much less of a problem in dealing with Alexander III, with whom he spoke frankly; with Nicholas II, by contrast, Witte felt the need to be more devious or, occasionally, more brutal.

Once in his new post, Witte recognized the need to surround himself with people who were at once highly qualified technical personnel but also men dependent upon his patronage and protection. Thus, at this point Witte already displayed skill and daring in the selection of subordinates on the basis of special talents despite – or perhaps because of – their questionable social or personal background. For example, he chose as his chief of maintenance and buildings the talented Jewish transport engineer A.A. Abragamson, who was distinguished by virtue of his having been trained in Germany rather than in the St Petersburg Institute of Transport Engineers. Like a number of Witte's appointees from Jewish and Polish backgrounds, Abragamson was removed from his post only years later during the reaction following the revolution of 1905 by one of Witte's arch-rivals, S.V. Rukhlov. Witte was also capable of picking an unstable and unscrupulous genius like N.A. Demchinskii, an engineer whose career on the Kursk line had been jeopardized by a personal scandal. Demchinskii had little interest in engineering but was a brilliant writer, and later a notorious pamphleteer, but Witte needed and used him for the talents he had.²⁹

During his years in St Petersburg, Witte continued to recruit key personnel from the south-west to staff his departments. Among them was V.V. Maksimov, who had served under Witte on the South-west Railroad as chief of commercial agents and city stations. After Witte was promoted Minister of Transportation, Vyshnegradskii, presumably on Witte's recommendation, put Maksimov in his place so there could be no conflict between the two ministries on railroad policy as there had been in the past. Later, Witte appointed as his deputy minister of finance "a Gogolian figure," A.Ia. Antonovich, professor of law at Kiev University. The odd thing about these appointments, at least on the surface, was that both men had been identified with the political rivals of Vyshnegradskii and Witte, first in Kiev and then in St Petersburg. Maksimov had been a favourite student of Bunge's at Kiev University; he and Antonovich had also been closely associated with another student and protégé of Bunge, the elusive and sinister D.I. Pikhno, a professor at Kiev, editor of the influential regional newspaper *Kievlianin*,

and a member of the council of railroad affairs in the ministry of finance under Bunge. Already in Kiev Witte lured Antonovich into his camp and made him the editor of a rival organ to *Kievljanin*. Presumably, Witte was convinced that his control over Antonovich was secure once his ties with his former patron had been cut, for surely no one would trust him again if he deserted yet a second time.³⁰

The promotion of Maksimov exemplified another devious Witte tactic that was not always successful. From time to time throughout his career, Witte appointed individuals who were clearly creatures of another powerful official. It appears that in these cases he was seeking to placate his rivals, or perhaps to build up credit with them to be drawn upon in other ways. This may help to explain how he was able to avoid excessive friction in working with opponents of his policies at the ministerial level. But if such an appointee let him down, he was not disposed to repeat the experiment a second time, at least not in the same post.

When Maksimov was implicated in the famous Mamontov railroad scandal in 1899 and forced to resign as director of the Railroad Department, Witte called in E.K. Tsigler von Shaufgauzen to replace him. Tsigler had served as an engineer on the South-west Railroad and had accompanied Witte to St Petersburg a decade before. Very much Witte's man, Tsigler continued to serve loyally in this post, even under Kokovtsov, until 1911.

Another one of Witte's recruits from the south-west was B.F. Malishevskii, a Polish mathematician whom Witte himself described as another of those brilliant but unpredictable types who bordered on the line between genius and madness. Malishevskii was one of Bliokh's men on the South-west Railroad when Witte first met him. Because of his Polish background and unstable personality, his appointment by Witte as director of the credit chancellery at the ministry of finance stunned the Petersburg bureaucracy.³¹

Soon after Witte became minister of finance, he sought to make certain that the ministry of transportation was also entrusted to an old railroad hand from the south-west. But first he had to suffer the consequences of having adopted a conciliatory attitude towards a powerful rival. When asked by the tsar to propose his successor at the ministry of transportation, he raised no objection to the nomination of A.K. Krivoshein, a friend and protégé of I.N. Durnovo, the minister of interior.³² Witte soon had cause to regret this neutrality, and two years later, following Krivoshein's resignation, he was determined not to repeat his mistake.

He vigorously opposed the appointment of M.I. Kazi, despite the fact that they had been friends and colleagues in Odessa, because Kazi was “an intriguer” and a protégé of Grand Duke Aleksander Mikhailovich. When asked for an alternative, Witte proposed A.P. Ivashchenkov, his former deputy at Transport and then deputy at Finance. The tsar demurred; it would appear that Ivashchenkov was in Witte’s pocket, and besides he was *persona non grata* with the dowager empress, Maria Fedorovna. Whereupon Witte countered with what was probably his preferred choice, Prince M.I. Khilkov, one of the most extraordinary figures in the railroads. A high-born but self-effacing noble, he had worked in America as a simple mechanic and returned to Russia to serve on the Kursk – Kiev line when Witte helped to advance his career. It was a stroke of genius to propose him as minister of transportation, not only because Khilkov was a very knowledgeable railroad man, but also because he had absolutely no political ambition and was personally intimate with the dowager empress. As minister of transportation from 1895 to 1905 he accepted Witte’s leadership in placing railroad construction at the centre of state economic policy. When Khilkov retired, Witte moved to replace him with K.S. Nemshaev, another engineer who had become manager of the South-west Railroad in 1896. Although Witte was barely acquainted with him, he trusted him as a solid technician and counted heavily on the fact that Nicholas II was personally fond of him. Nemshaev served briefly until Witte himself was forced to resign in 1906, bringing down with him most of his network outside the ministry.³³

In filling key posts in the Ministry of Finance with officials who had already served in the Petersburg bureaucracy, Witte ranged widely among three categories of individuals: talented veterans of the ministry, including some whose careers had been checked by political or personal scandals; promising young men who were just beginning their careers in the ministry; and experienced officials outside the ministry who were mainly able technicians. Among the talented veterans with a blot on their records were D.F. Kobeko and V.I. Kovalevskii. A graduate of the prestigious Aleksandrovskii Lycée, Kobeko was a gifted writer who became much later director of the Imperial Public Library. His promising career in the bureaucracy, where he served for many years as director of the chancery of the ministry of finance, was cut short by a scandal in his private life. Forced to resign his post, he remained in the ministry as its representative to the South-west Railroad. Vyshnegradskii, who, like Witte, had an eye for such men, appointed him as

his director of the Department of Direct Taxation. Once Witte took over, he named Kobeko a member of the council of the ministry and director of the Russian Society of Steamship and Trade; he also persuaded a reluctant Nicholas II to raise him to the State Council.

Kovalevskii represented an even more dramatic rescue operation. As a student he had been compromised in the Nechaev affair and was probably fated to serve out his life in the middle ranks of the bureaucracy until Witte, as minister of transportation, appointed him to the tariff commission of the Department of Railroads and subsequently brought him over to finance, promoting him to director of the Department of Trade and Industry and then deputy minister of finance in 1900, where he served for two years before a personal scandal forced Kovalevskii to resign even though Witte attempted to protect him from public exposure. An immensely talented figure, Kovalevskii subsequently became a successful businessman and president of the Russian Technological Society. In both these capacities he continued to give support to Witte's economic, and even in 1905 to his political, initiatives.³⁴ Kovalevskii paid tribute to Witte's skill in choosing subordinates when he wrote: "You were the central figure of this epoch ... Around you gathered bold activists who rejoiced in the new, the better and the future."³⁵ In selecting his subordinates without regard for the conventions of the day, Witte ran the risk of exposing himself to malicious gossip and backstairs intrigues launched by his enemies in the administration. On the other hand, it must have been reassuring for Witte to have intelligent subordinates who were deeply in his debt and unlikely to serve his rivals.

A State within a State

While building on the expansion of the ministry's activities, Witte shifted its ideological base to reflect his own intellectual evolution. In his early years as a state official, he was still enamoured of the Slavophil view that Russia should avoid the western path to economic development, which would expose the country to a renunciation of its traditional values. However, in the mid-eighties his views underwent a transformation when he embraced the teachings of Friedrich List, a scion of the German historical school. In his eyes, the application of List's doctrines in Germany had contributed to the country's greatness under Bismarck. He rejected what he called the cosmopolitanism of the Russian economists, which he blamed for the persistent economic

backwardness of Russia. Instead, he advocated a powerful interventionist policy in line with a national system of economic development.

It was in this spirit that he launched his most ambitious and spectacular achievements. The construction of the Trans-Siberian Railroad and the formation of foreign investment banks enormously expanded the role of the ministry of finance in the conduct of foreign policy and contributed to the expansion of Russian power in the Middle and Far East.³⁶ His career is a classic case of an effort by an ambitious individual to overcome the confusion and paralysis of government by transcending and taming conflicting interests, factions, and opinion groups. As minister of finance Witte had inherited a lengthy bureaucratic debate over the construction of a Siberian railroad. Since the mid-1870s, the Ministries of Finance and Transportation had been engaged in another classic face-off between interest groups over whether the railroad should be built at all, and if so along which route. The ministers of transportation, Admiral K.N. Pos'tet and A.I. Giubbonet, although not engineers, had adopted their professional ethos. They strongly advocated a state-built line that would first and foremost promote political ends by unifying European and Asiatic Russia through colonization while also serving the commercial interests of the region. The opposition represented a formidable if loose and ideologically diverse coalition of interest and opinion groups. The minister of finance, Vyshnegradskii, seconded by the chairman of the State Council of the State Economy, A.A. Abaza, the heirs apparent to Reutern as the leaders of the economists, regarded the project as potentially ruinous for the state and maneuvered to delay its approval. Within the bureaucracy they picked up support from the minister of state domains, M.N. Ostrovskii. They were backed by the powerful voice of Katkov in *Moskovskie vedomosti*, and the so-called arch-reactionaries of the period, K.P. Pobedonostsev and Prince Meshcherskii, who opposed the venture as socially disruptive. Initially, they were concerned that a flood of peasant migrants and the spread of capitalist enterprises would undermine the authority of the nobility.³⁷ Witte plunged into the controversy by reversing his earlier personal allegiances and opinions on Russia's economic development.

As soon as he was appointed minister of finance, Witte abandoned Vyshnegradskii's cautious approach to fiscal policy and launched a radically new enterprise to carry out the construction of the Trans-Siberian Railroad and the transformation of Russian policy in the Far East. By forming a Committee of the Siberian Railroad, he inaugurated an experiment in bureaucratic politics that was to serve him as a model

for a reconstruction of the entire Russian government. The committee was a centralized administrative organization, ironically prefigured by Giubbonet, with extensive powers designed not only to oversee the construction of a trans-Siberian railroad, but to extend its functions into numerous aspects of economic and social policy. Witte required the cooperation of the Ministries of State Domains and Transportation. He engineered the appointment of A.S. Ermolov, one of his subordinates in the ministry and a trained agronomist, as minister of state domains in order to manage the resettlement of peasant colonists in Siberia. More important he obtained the appointment of Prince M.I. Khilkov as minister of transportation, a colourless but competent engineer who, as a protégé of Witte, occupied the post for ten years. His master stroke was to persuade the tsar to appoint the heir, Nicholas Alexandrovich, the future Nicholas II, as chairman of the committee. Nicholas, having returned from his trip to the Far East as an enthusiast for Russia's expansion in Asia, was a willing supporter of the Siberian railroad. To cap his strategy, Witte exploited a financial scandal to force A.A. Abaza, the heir apparent of Reutern as a leader of the economists, to resign from his key position as chair of the Department of State Economy of the State Council. Alexander III considered appointing Vyshnegradskii in his place. But Witte had turned his back on his patron, whose cautious financial views stood in the path of a vast capital expenditure on the Trans-Siberian. Instead, he persuaded the tsar to name state councilor D.M. Sol'skii, another dutiful but unimaginative bureaucrat who was a pliant instrument in Witte's hands. Witte could now be assured that he could work through or bypass the influential Department of State Economy in pursuing his plans for the railroad and the penetration of the Far East. Although he recognized the need for capital-poor Russia to obtain foreign loans to finance the railroad's construction, he argued that Russia's great-power standing would protect it against foreign political influence. And he insisted on using Russian engineers, labour, and insofar as possible material to construct the line. He had gone far in merging the paths of the economists and engineers, and even the Slavophil entrepreneurs, into a broad highway of economic development.

Striving to forge links between the centre and periphery by rail and telegraph as part of his program of economic integration, Witte fell short of an economic integration of the empire. As Ekaterina Pravilova has reminded us, the problem, as ever, was the absence of an institution which could discuss all the financial and political aspects of economic regionalism. Even Witte at his best often reacted unsystematically and

sporadically. Government policy in the periphery reflected a short-term concern with specific regional questions, like the Finnish, Polish, Central Asian, or Siberian. As a result, whole regions were left to flounder behind the development of the rest of the country.³⁸ Russia was not only under-governed but under-institutionalized. Witte's efforts to bring the entire government under his control may be seen as a step towards correcting this fault. His efforts to expand his influence in the world of international finance suggest as much.

In his second major enterprise, Witte again took advantage of the opportunities offered in negotiating foreign loans to obtain capital for reinvestment abroad as a means of insinuating himself into the conduct of foreign policy. From 1895 to 1897 he organized three bi-national banks for the economic penetration of Asia. Nominally autonomous, they were controlled by the Ministry of Finance. On Witte's initiative, the Russo-Chinese Bank was founded with the assistance of the state-controlled St Petersburg International Bank and a group of French banks. The state controlled a major share of its equities; the ministry of finance appointed four members of the governing board; and its statutes permitted a range of financial operations far more extensive than the normal Russian bank. Within a few years it opened branches in all the major Chinese cities as well as Japan, India, Siberia and Turkestan.³⁹ The Russo-Korean Bank opened in 1897, with over 50 per cent of its shares controlled by the Russian government. The appointment of I.P. Shipov, director of the General Chancellery of the Ministry of Finance, to the board of directors required special permission from Nicholas II because it violated the rule forbidding state officials from holding positions in private banks. Again, the capital was raised from French loans as well as state funds. Although it served as an instrument of Russian penetration of Korea, the bank had a short life due to the deterioration of Russian – Korean relations and was abolished in 1901.⁴⁰ The creation of the Discount and Loan Bank of Persia was Witte's master stroke.

Shortly after his appointment as minister, Witte seized the opportunity provided by the collapse of the Persian Loan Society Bank, founded by the brother of the well-known Russian entrepreneur L.S. Poliakov, to acquire the bank as part of his ambitious plan to expand Russia's export market in Asia. He prepared the ground carefully by initiating the Special Committee on Trade with the Asian Countries, with representatives of the Ministries of Finance, War, and Foreign Affairs under the chairmanship of one of his trusted team on the Council of the Ministry of Finance, D.F. Kobeko. He coordinated his plans with his

close ally and protégé, General A.N. Kuropatkin, who had supported Witte's plans for the peaceful penetration of Iran and Manchuria after his extraordinary mission to Teheran in 1895. Witte took advantage of Iran's large external debt to Britain to design a strategy of extending loans in exchange from extensive commercial and financial concessions. Initially, Witte was willing to form a financial consortium with France and Britain to control Iran's finances, foreshadowing the alliance that only materialized in 1914. But this proved premature. Engaged then in a fierce rivalry with Britain, the Russians negotiated two big loans through the Discount Bank to the Shah of Iran in 1900 and 1902. In exchange Russia obtained a virtual monopoly over Iran's foreign trade and gained concessions for road building and railroad construction in the northern regions of the country. It was only under the umbrella of these agreements that the big Russian merchant firms, including members of the Moscow entrepreneurs like Saava Mamontov, were able to compete with British firms in Iran.⁴¹ These negotiations were carried out in close coordination with the Ministry of Foreign Affairs, where Witte had engineered the appointment of V.N. Lambsdorf as foreign minister. Lambsdorf had been a long-time supporter of Witte, but more important he was a cautious and retiring man who was above all a professional expert. Witte characterized him as honest and hard working, "not an eagle but a capable man." Unlike his predecessors, he had not risen from the ranks of the ambassadors who had close connections with foreign courts and the aristocratic world in Petersburg. Witte was very much his patron.⁴² Under Witte's skilful ministrations, the Ministry of Finance had become a virtual partner with the Ministry of Foreign Affairs in making policy in the Middle and Far East. This amounted to an extraordinary breach in the heretofore entirely separate and sacrosanct conduct of foreign policy by the tsar and his foreign minister to the exclusion of all other branches of government.

The Apogee of Power

On the eve of the revolution of 1905, Witte's colonization of the top ranks of the bureaucracy reached its apogee. By mastering the art of bureaucratic in-fighting and exercising his influence over Alexander III, and for a while over Nicholas II, he succeeded in advancing six former subordinates in the Ministry of Finance to ministerial rank, thereby creating a kind of invisible cabinet. They included A.S. Ermolov, minister of agriculture, I.P. Shipov, minister of finance, V.I. Timiriachev, minister of

trade and industry, M.M. Fedorov, also minister of trade and industry, and N.N. Kutler, minister of agriculture (actually chief of the Administration of Land Management and Agriculture). He attempted to have another of his ministerial officials, P.A. Romanov, succeed him in 1905, but the appointment was blocked by opposition within the bureaucracy. V.N. Kokovtsov was named instead. Kokovtsov had also been patronized by Witte, who brought him over from the Imperial Chancellery to become his deputy minister from 1896 to 1902. It appears, however, that Witte thought him too independent minded. His judgment was borne out in later years when Kokovtsov resisted Witte's effort to influence him, turning the embittered patron into a formidable foe.

As for the others, Witte was brutally frank about their character in his memoirs: Ermolov was "without character"; Shipov "did not have a statesmanlike outlook"; Timiriazev "lacked initiative"; and even Romanov was "soft."⁴³ Others have testified to the malleability of Kutler, who changed from a ministerial bureaucrat to an oppositionist Kadet deputy, later becoming a member of the board of the State Bank of the USSR in 1922–4. Only Fedorov, who was something of an intellectual, a Kadet after 1905, and "an honest and knowledgeable" man won and held Witte's admiration. To be sure, Witte was making retrospective judgments in his memoirs reflecting his bitterness over betrayals by his former protégés. Ermolov in particular was a thorn in his side, and Witte finally tried to pressure him by withholding funds from the Agriculture Ministry until Ermolov admitted how he intended to spend them. Several others were members together with Witte of the State Council after 1907, yet failed to support him in his efforts to control state financial policy from his position within that body. These included Shipov, Romanov, and Timiriazev.⁴⁴

Witte showed much less reluctance to admire and trust talented and ambitious men among the young generation of officials at the ministry of finance. He also appears to have adopted a conscious policy of training them in the field of banking and credit and appointing them to head state credit institutions. From these positions they were able to help carry out his policies of promoting certain industries, particularly railroads, and encouraging the formation of big monopolies. After they left office following his resignation, they simply moved over to the big private banks where they had cultivated high-level contacts during their tenure in the ministry. It was they who pioneered and established the personal ties between the bureaucracy and big industry.

Among the most prominent of these men were A.I. Vyshnegradskii, A.I. Putilov, and P.L. Bark. Vyshnegradskii was a classic case of family

patronage. The son of Witte's patron, the former minister of finance Ivan Vyshnegradskii, Aleksander Ivanovich was one of Witte's most trusted agents. In 1893 Witte brought him into the credit chancellery of the ministry from the imperial chancellery and soon made him director, a post that he held until 1905.

"He knew the whole financial side of things (*finansovaia kukhnia*) in [international] loans and in general the credit part to perfection," Witte later wrote in justifying his decision to send Vyshnegradskii along with Kokovtsov to negotiate the big French loan of 1905.⁴⁵ Vyshnegradskii's close friend and associate, A.I. Putilov, was a member of the famous family of industrialists who had a long history of close ties to the State Bank that had bailed them out on several occasions. Soon after Putilov began service in the ministry in 1890, Witte made him secretary of his chancellery, and then in 1902 director. In 1905, Witte appointed him manager of the Peasant and Noble Bank. But he too, like Vyshnegradskii, resigned when Witte was dismissed and entered the business world. Together, Vyshnegradskii and Putilov became two of the most powerful figures in the industrial and banking world, controlling vast enterprises in machine production, steamships, and railroads. In all these enterprises they benefited enormously in obtaining credits and contracts from their old ties with colleagues in the ministry of finance.⁴⁶

A third representative of Witte's younger protégés was P.L. Bark, who, like Vyshnegradskii and Putilov, came straight from Petersburg University into the Ministry of Finance. Witte immediately sent him to Berlin to study banking and establish ties with the German banking house of Mendelssohn. After a long apprenticeship in the State Bank he rose to become manager of the St Petersburg branch and then assistant manager of the central administration. He also was a member of the administration of the Russian-Chinese Bank. He too left service when Witte was dismissed to become managing director of the Volga-Kama Commercial Bank. But he was called back into government service in 1911 as Deputy Minister of Trade and Industry, and finally as minister of finance from 1914 to the end of the empire. Witte claimed credit for having Bark appointed minister, though the claim has been disputed by others.⁴⁷ In any case, Bark was one of Witte's standard bearers in the campaign to bring down Kokovtsov as minister of finance.

These men were exceptional only in the magnitude of their achievements. But there were others about whom less biographical information is available but who followed similar career patterns, moving from the bureaucracy into the world of high finance and sometimes back again.

The precise role that Witte played in advancing these men's careers in private industry has yet to be determined. But it is clear enough that he favoured the interpenetration of the bureaucracy and private banking firms, especially of the largest Petersburg investment banks that were beginning after 1909 to dictate the flow of investment capital and replace the large foreign investors.

They were a different breed of bureaucrats, more adventurous and enterprising than the narrow and limited technicians of the previous generation. They very much fitted Witte's model of the imaginative civil servant who could hold his own in the rough-and-tumble world of capitalist enterprise. For Witte saw himself, it is fair to say, as the prototype of this new bureaucrat. Only the fusion of government power and private enterprise could bring about the transformation of Russia's economy in the way that Witte wanted. He had no respect for the routine bureaucrats waiting their turn for promotions and decorations; still less did he have confidence in the majority of the Russian merchantry with their family firms and patriarchal business practices.

The new Witte men were university trained, skilled in international banking and investment policies, and fully prepared to encourage and use the latest Western techniques of finance capital and business monopolies for a greater concentration of industry in their hands. No doubt Witte had dreams of orchestrating this massive transformation even after his forced retirement as chairman of the Council of Ministers, when he became chairman of the Finance Committee of the State Council. But he was never able to dominate Kokovtsov, his successor as minister. To be sure, Kokovtsov generally followed Witte's policies and worked with the men whom Witte had put in place. But it was not enough for Witte that others should defend his policies. He still wanted to exercise real power in financial matters. He became querulous, attacking Kokovtsov for failing to be bold. Lacking the authority of a patron, he failed to inspire subordinate officials in the ministry. Without his direct control over them, they reverted to the routinization of their tasks, which eminently suited their mentality. The real expansion of the economy took place in the private sector under the leadership of the banks, where the new Witte men, driven out of the bureaucracy but maintaining ties with it, fulfilled many of his hopes.

Witte's attempt to combine the advantages of patronage and professionalism in the imperial bureaucracy was only partially and temporarily successful. Unlike the clientele networks of the late eighteenth and early nineteenth centuries, Witte's system lacked any kinship ties.

The bonds were tenuous at best, their strength depending upon a number of personal factors that – for the most part – proved unpredictable assurances of continuous loyalty. To be sure, there were those who associated themselves with Witte’s economic system. But these ideological loyalties survived Witte’s departure from the ministry because they had become part of the professional ethos and were no longer dependent upon his presence in order to exist. The financial officials now looked to a new chief for rewards and advancement.

Witte’s clientele network depended heavily upon his enjoying the favour of the supreme patron – the tsar.⁴⁸ That favour was secure under Alexander III, but not under Nicholas II. As the young tsar matured in his role, he became suspicious of Witte’s influence and turned to other figures for advice. The problem was that without an official cabinet system, the way remained open for other powerful figures in the bureaucracy or at court to duplicate Witte’s tactics by gaining access to the tsar. Those most hostile to Witte were either centered at court or embedded in rival ministries, particular interior, where Witte’s arch rival V.K. Pleve held sway, engineering Witte’s dismissal in 1903.

The Final Phase

The revolution of 1905 gave Witte a second chance to construct a unified government, this time as chairman of the Council of Ministers. As redefined, the position allowed him for the first time in Russian history to take part in the appointment of a cabinet, though with several notable exceptions: the tsar reserved the right to name the ministers of the imperial court, foreign affairs, war, and navy. The “Witte cabinet” included a few holdovers like A.F. Rediger at War, A.A. Birilev at Navy, S.S. Manukhin at Justice, and V.B. Frederiks at the Imperial Court, the only ministers who were not dependent on Witte, and Witte’s client Lamsdorf in Foreign Affairs. Witte packed the rest of the cabinet with his former clients. The post of overprocurator of the Holy Synod went to A.D. Obolenskii, a former deputy minister of finance who had worked frequently with Witte on a number of government commissions; as state controller, D.A. Filosfov replaced Witte’s fierce opponent General P.L. Lobko; all the remaining portfolios went to former subordinates of Witte in the Ministry of Finance, including Minister of Transportation K.S. Nemeshaev, Minister of Trade and Industry V.I. Timiriazev, Minister of Finance I.P. Shipov, and Director of Land Management and Agriculture N.N. Kutler. Once again he failed to control the Ministry

of Interior (which went to Durnovo). The extent to which Witte may be said to have governed the Russian Empire is open to dispute.⁴⁹ For six turbulent months Witte forced through a series of reforms, often in the face of the tsar's displeasure. But in the end his system failed to win the endorsement of either the tsar or educated opinion, to say nothing of the popular masses.⁵⁰ It remained a clientele network at war with other clientele networks, suspended in the void between the ultimate patron and an emerging mass politics.

PART THREE

Social Structures in a Divided Polity

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Chapter Ten

Social Identity and Political Will: The Russian Nobility from Peter I, “The Great,” to 1861

In modern history, the problem of defining large social collectivities has become increasingly complex due to the difficulty of locating an individual's primary loyalty outside of himself or herself. The individual is constantly bombarded by demands for allegiance from a variety of institutions and is forced to assume a number of social roles. The result is often a set of tensions or paradoxes that when kept in balance enable the individual to function effectively in the midst of multiple and conflicting demands upon his or her loyalties.¹ The multiplicity of social identities has evolved rapidly over the past several hundred years as part of a process called, for want of a better word, modernization. But evolutionary patterns have taken different turns in different societies, defying attempts of historians and sociologists to find universal or even large-scale patterns of development. Even within a single society it has proved impossible for historians to find common agreement on social terminology. The history of Russia is no exception.²

The more intensively a social category, such as *sostoianie*, *soslovie*, *zvanie*, *chin*, or class, is subjected to scholarly scrutiny, the more ephemeral and elusive its defining characteristics appear to the observer.³ The honest historian will admit this on the basis of empirical data without the assistance or provocation of theories on the social construction of collectivities (and everything else). Admittedly, the most penetrating insights of those theories have reminded us of the need to re-examine, yet again, our assumptions about social identities in order to avoid overly rigid, facile, and universal definitions. Yet there are dangers too in giving in too readily to the temptations of fluidity in social relations, of arriving at a point where all social boundaries are blurred to the point of vanishing. It is not the purpose of this chapter to attempt yet another

reconceptualization of Russian social groupings. Rather it is to address a specific and familiar historical question that requires a re-examination of the issue of social identity as it relates to the leading or “ruling” class in Imperial Russia; namely, why was it that at certain crucial points in its history, most specifically the emancipation of the serfs, a critical mass of the *dvorianstvo* was unable to act collectively and decisively in order to defend a vital interest that was the source of its status, wealth, and authority in society?

Who Was a Noble? What Was the *Dvorianstvo*?

The history of the Russian *dvorianstvo* from Peter I to the emancipation of the serfs may be characterized as a series of unsuccessful and often contradictory attempts by the state and the well-born (*blagorodnye*) elements in the population to create an institutional framework, corporate identity, and shared cultural values that would form the underpinnings of a stable, loyal, and efficient ruling class. During this period the closest approach to the ideal was made under Catherine II, in particular at the end of her reign.⁴ Whatever the merits of the argument that it is possible to speak of a ruling class at the end of the eighteenth century, the fact remains that on the eve of the emancipation, the *dvorianstvo* was in complete disarray and utterly incapable of preventing the loss at one fell blow of half its property and many of its social privileges. It had become, in the words of Daniel Field, “inept, disorganized and submissive.”⁵ The *dvorianstvo* or, more accurately, the top stratum, had not always been passive in the face of real or perceived threats to its material or political interests. There was a history of noble frondes going back to 1730; there had been incidents of recourse to assassination (1763 and 1801) and even outright rebellion (December 1825), to say nothing of other forms of effective resistance to encroachment of the autocrat’s power upon the privileges of the nobility.⁶ The question remains, then, what had happened to the ruling class that led it to accept passively the single largest legal expropriation of noble property in Europe up to that time? Is it possible that historians exaggerated its cohesion and consciousness to begin with? Or did changes in its composition and function take place between the end of the eighteenth and the mid-nineteenth century that undermined its corporate spirit and blurred its legal identification? Heretofore the answers to these questions have focused on two allegedly unique characteristics of the Russian nobility: the absolute and arbitrary power of the ruler and the primacy of

service over birth as the criterion for privileged status.⁷ To be sure, from the early years of the Muscovite state noble status and the privilege of landholding had been dependent upon state service. However, this argument does not account for the incidents of noble resistance and opposition to the autocracy. Moreover, recently, the unique character of the Russian nobility as a service class in comparison to those of France, England, and Prussia has been seriously challenged.⁸

Still, one is left with the puzzle of the Russian nobility's passivity in the face of a massive assault from above upon its privileges. In Western Europe the alternative sources of authority in the feudal world and the weak central power enabled the nobility to establish its own traditions and institutions that survived and tempered the rise of absolutist monarchies. There is enough evidence to suggest that the potential for the emergence of a noble service class with its own corporate ethos and values might, over time, have succeeded in limiting the power of the autocrat. But the potential was never fully realized. Once we move away from the assumption that a nobility must have a power base outside the central government in order to create a sense of corporate identity, then it becomes possible to examine other aspects of the political and social structure that contributed to the lack of cohesion among the nobility. This chapter proposes an alternative explanation for the passivity and disorganization of the nobility on the eve of the reforms, namely, its lack of a unified *Weltanschauung* caused in large measure by a badly splintered social identity.

Throughout Russian history, the social identity of a noble had often been a much vexed question. In eighteenth-century Russia the process of the formation and consolidation of the *dvorianstvo* as a ruling class was uneven, often contradictory, and finally incomplete. Its juridical capstone was the Charter of the Nobility in 1785. But behind the façade of the formal recognition of the *dvorianstvo's* corporate rights and privileges lay deep, unresolved social and economic fissures that belied the appearance of unity and cohesion. Moreover, the charter itself, having been promulgated by imperial decree, had no independent standing outside the authority of the autocrat. Like any other law, it could be revised or even revoked by the same method that had brought it into existence. Within fifteen years, Paul I would violate several of its guarantees. In 1861, the emancipation of the serfs would destroy its central support and deprive the *dvorianstvo* of its primary justification as a ruling class. So much for the solemn assurances contained within the charter that it stood "for all time." In the three quarters of a century

between the promulgation of the charter and the abolition of serfdom, the state and the *dvorianstvo* each sought in its own different way to move beyond purely juridical definitions, to fill the empty legal categories with social and cultural content, and to create a *dvorianstvo* ethos. But the search for a social identity for the *dvoriantsvo* was to prove inconclusive. Leading historians of all persuasions agree that on the eve of the emancipation the *dvorianstvo*, faced with the greatest threat to its status and the potential loss of half its property, was too deeply divided to mount a coordinated effort in defence of its interests, even though a clear majority opposed the emancipation.⁹

The failure of a cohesive ruling class to develop in Russia after Catherine's death is due as much to the contradictory policies of the state as the internal divisions within the *dvorianstvo*. In one sense the rulers set themselves an impossible task. They sought to create a social entity with a strong, self-regulating code of ethics and behaviour while at the same time ensuring its complete loyalty and unswerving obedience to the autocrat. This assumed a complete concordance between the two interests. The *dvorianstvo*, on the other hand, believed that no other nobility had so selflessly and consistently served the state, not from fear but from a sense of duty and desire to avoid shame. Moreover, the *dvorianstvo* had given incontrovertible proof of its devotion to the idea of autocracy without which it was not possible to reconcile the warring interests of society.¹⁰ Yet it insisted upon the right to define itself and its privileges in a way that the state could not accept. But there also developed differences of opinion within the state bureaucracy and among the ranks of the nobility over the definition of the nobility and its privileges.

Following Catherine's death, there were three persistent problems that continued to defy solution and actually intensified the crisis of identity within the *dvorianstvo*. First, the state and the privileged groups in society were unable to establish a firm and lasting system of service that was mutually satisfactory. Second, the prolonged process of building the state constantly absorbed new ethnic groups with their own privileged elites that brought with them their own traditions and social awareness that could not always be rapidly or completely assimilated into the Russian nobility. Third, in part as a consequence of both these problems, the state and the nobility were engaged in another lengthy struggle over who was or should be considered a member of the nobility. It is necessary then to analyse both the legacy of unresolved conflicts inherited from Muscovite times that continued to resist Catherine's best efforts to

reconcile them and also the renewed struggle after her death between the autocracy and the *doorianstvo* over the issue of social identity and responsibility. From the creation of the Muscovite state in the fifteenth century to the Great Reforms, three systems of state service were devised to resolve these problems and all were found wanting. The first was *mestnichestvo*, the second was the Petrine obligatory service class, and the third was the mixed obligatory-voluntarist system from 1762 to the reforms. A fourth period followed the abolition of serfdom.

The elaborate scaffolding of the *mestnichestvo* system already showed signs of structural wear before it collapsed in 1682. Created in the early sixteenth century, it had served well for a hundred years before it proved too rigid to accommodate the military revolution of the mid-seventeenth century. Its proper functioning depended upon a precise knowledge of the relative positions that families occupied in the service hierarchy. Consequently, as early as the first half of the sixteenth century genealogical lists (*rodoslovnnye rospisi*) were generated. The Department of Ranks (*Razriadyi prikaz*) was authorized to maintain these records based upon official documents and private genealogical trees in the hands of the service families. They continued to be revised during times of crises, especially at the end of the sixteenth century and again during the Troubles, but by the second quarter of the seventeenth century the lines were well established, it appeared, and there was little revision until the end of the century.¹¹

With the end of *mestnichestvo* and the abolition of the Department of Ranks, there was an attempt by the state to create a noble corporation (*rodoslovnnoe soslovie*) modelled on the Polish *szlachta* and based upon a new compilation of the genealogies of all the service families.¹² One result was the printing of the so-called Velvet Book, which, however, included only the most distinguished families, that is, the descendants of Riurik and the Grand Duke of Lithuania, Gedimin. Peter's introduction of the Table of Ranks did not interrupt the compilation of the genealogical books. On the contrary, Peter created a new office, the Master of Heraldry, attached to the Senate, in order to inscribe and keep track of all the nobility in the realm so that no one would escape his service obligations. At the same time, he ordered a purge of the nobility in order to eliminate many lower ranks from the old Muscovy service lists. But for political reasons he did not extend the purge to the borderlands, that is, Lithuania, Belorussia, and Ukraine.¹³ Subsequent attempts in the late eighteenth and early decades of the nineteenth century to continue the purge in these regions on the periphery caused widespread confusion.

As work progressed in the mid-eighteenth century on the complex task of inscribing the nobility, it soon became clear that provisions had to be made for the addition of new families and the elimination of those which had died out. Clerks poured over the records – boyar genealogical books and boyar service lists, chronicles, monastic and church documents – in order to sort the chaff from the grain. Elizabeth Petrovna ordered a major revision in the genealogical books. Catherine II took a personal interest in the compilation, considering the affair “the verification of history and chronology.” Thus, the task of examining the credentials of the noble families became a continuous process; it involved a permanent department of the Senate, required an immense investment in time and effort and on numerous occasions led to disputes and quarrels between the officials in charge and service families as well as within families. There were cases in which the most distinguished families (*znatnye rody*) refused to recognize their blood ties with distant relatives who had come down in the world. Prince Shcherbatov deplored this splintering of the old clan feelings in the eighteenth century.¹⁴ From the late seventeenth century, government officials expressed disappointment that the compilation of the genealogical books failed to establish clearly and incontrovertibly the family blood ties of the nobility and bring to an end the endless bickering over rank and place that had infected the entire system of *mestnichestvo*. Moreover, in another way the new system proved to be less effective than *mestnichestvo*. The family or clan ties established through research and sanctified in the books represented nothing more than “abstract interest,” whereas family relationships within *mestnichestvo*, for all the shortcomings of the system, represented real interests. It may have been that the government counted on duplicating another aspect of the Polish *szlachta*, namely, the close ties among the same members of the family recognized by the common coat of arms. Possibly this is why Peter instructed the master of heraldry to draw up coats of arms for the nobility. But the Polish precedent was rooted in the traditions of medieval chivalry, and in Russia in the eighteenth century its appearance was artificial.¹⁵ Scholars working under Catherine on the history of the nobility in Russia uncovered only eighteen coats of arms, and all of these belonged to families of Polish origin; though even these were of doubtful authenticity.¹⁶

After a confused transition period during which Polish models of nobility were halfheartedly emulated, Peter the Great began to construct a new system which he perfected only in 1722 on the eve of his death.

The Table of Ranks rested upon a simple idea. Service to the state was obligatory for the nobility. It determined rank in a hierarchical social system. Rank, in turn, defined the social identity of the person: his obligations, salary, the style of his carriage, and livery of his servants. The original plan was to force all nobles to enter service at the bottom, that is, rank fourteen, and work up the service ladder on the basis of merit, acquiring nobility along the way. Peter defined two kinds of nobility: "personal," to be awarded at rank ten, and "hereditary," at rank eight. But the descendants of hereditary nobles had to earn their privileges as nobles through service to the state. The process has often been called the "democratization" of the nobility. But this is something of a misnomer. In many ways, it was not even a completely fresh start. The old ranks of boyar and *okol'nich'i* were not formally abolished, although they fell into disuse. But the prestige of the distinguished families remained, even if they meant nothing in the official scheme of things. By creating the office of master of heraldry, Peter diluted his democratization by offering the most distinguished families the opportunity to display a coat of arms as a visible sign of their superior status.

It proved difficult to banish the last remnants of the mentality that had developed under the *mestnichestvo* system. Well into the eighteenth century there were cases of individuals who refused to accept a post that placed them under the authority of an individual whose forefather had been subordinated to a member of their family.¹⁷ Peter's system proved more short-lived than *mestnichestvo*. Almost from the moment of his death, the nobility chipped away at its base. They eased their burden of service, strengthened their monopoly over certain privileges like owning serfs and distilling vodka, and gained earlier and quicker access to higher rungs in the Table of Ranks through special schools for their sons. The abolition of obligatory state service was merely the logical outcome of their efforts.

Russian historians have defined this brief period of reconstructing juridical norms as a process of class consolidation in contrast to the previous process of class formation that was sometimes conflated with it in the scholarly literature. According to one version, consolidation means a series of judicial acts that redefined the nobility in relation to other social groups, eliminated social distinctions within the nobility and between the Russian and non-Russian nobles, and finally engendered a class consciousness that was distinctive if still incomplete by the Legislative Commission in 1767.¹⁸ The emphasis on juridical norms in defining social processes, a throwback to nineteenth-century historiography,

tends to underestimate the deep socio-economic divisions that were only papered over by imperial decrees and in many cases widened under the superficial cover of legal homogenization. Running parallel to a process of juridical consolidation, a process of social fragmentation was taking place.

One major fault line that lay below the surface of a consolidated nobility was the long-standing distinction between the aristocracy (*znatnoe dvorianstvo*) and the rank and file, between blood and service as the emblems of the ruling class. In the eighteenth century, two major incidents illustrate the point. The first and most dramatic erupted in 1730 when the aristocratic oligarchy launched an attempted coup. Only the combined resistance of the rank-and-file nobles and the determination of the new ruler, Anna Ioannovna, blocked the oligarchs.¹⁹ The second took a more moderate form, occurring shortly after the death of Peter III during the debates at the Legislative Commission, when Catherine II sought to consolidate her shaky seat on the throne. The nobles' petition of 1767, as Robert Jones has suggested, "indicate[s] that the provincial nobility saw itself as a marginal class threatened with the loss of its economic and social status."²⁰ During the debates, a split opened up between the majority of the nobles and the aristocrats. The spokesman for the aristocrats, Prince M.M. Shcherbatov, led the attack on the Table of Ranks for having eliminated the boundaries between separate estates. The proliferation of nobles with small landed estates had, in his mind, depreciated the nobility's dignity and diluted the "well-born" with inferior blood. But the majority defended the Table of Ranks; one deputy even argued that most of the old nobility had originated in the lower orders of the population and had also gained noble status through state service.²¹ The demand of the aristocrats to divide the nobility into categories (*razriady*) by origin met equally strong opposition by the rank and file, who insisted that the only differences that should be retained were titles. Catherine accepted a compromise proposal, almost unanimously adopted by the commission, to draw up new genealogical books. But it was not for many years after that the charter of 1785 confirmed a new set of criteria for categorizing the nobility. The more difficult question of defining who was a noble preoccupied the government for decades longer.

A second major fissure at the commission ran along regional lines. The Siberian nobility was of relatively recent origin, dating from the late seventeenth century, and was not in its overwhelming majority "well born." Shcherbatov considered them inferior to the Russian

nobility and favoured the creation of a separate “corps of Siberian nobles” appointed by the governor general. This proposal met with little sympathy. The Baltic nobles clamoured for a confirmation of the rights accorded them by the Polish and Swedish kings, but an aroused Russian nobility rejected their claims, as did Catherine. The Ukrainian nobility, or Little Russian *szlachetstvo* as they were known, openly demanded the re-establishment of the Hetmanate and the election of their own Hetman. But like the Siberians, they had few proofs of their noble origins, and even the elections to the commission had created endless quarrels and disputes over whose origins were pure and whose were “sullied” (*podlyi*). Even the Smolensk nobles claimed special privileges dating back to the sixteenth century.²² All the attempts to force regional distinctions on legal grounds were turned aside, but regional sentiments remained strong. They were reinforced when new imperial conquests in Poland, the Caucasus, and Central Asia raised the same questions of different cultural standards for nobles outside the old Petrine empire.

A third major fissure in the commission pitted the old nobility against the *odnodvortsy*, who demanded admission into the *dvoorianstvo* on the grounds that they had long ago served the state honourably and had been unjustly expropriated by predatory big landowners who, with the help of *voevody* and other state officials, had seized their properties in the course of imperial expansion to the south. The *odnodvortsy* delegates from the Black Earth provinces still retained a collective memory of the *pomestnye pravyyi*, including the right to own peasants. In the passionate debates at the commission, the *odnodvortsy* pressed their claims for ennoblement mainly on the basis of state service but also on the basis of blood. They declared that the old nobility originally came out of the same social roots as they did, “*meshchan'e* or landowners, not inferior in virtue and service.” The old nobility haughtily rejected this argument mainly on the basis of blood, countering that the *odnodvortsy* “are rooted in the humble origins of ancient Russian families.”²³ During the following century, the conflicting appeals to service or blood were a leitmotif in the debates over the social identity of the nobility in the nineteenth century.

The formal end of Peter’s system in 1762 did not eradicate all its traces any more than Peter’s system had destroyed the patchwork of old Muscovite service groups. But it did raise a fundamental question about who was or could become a noble. If service was no longer obligatory, was it still necessary to serve in order to retain and pass on

noble standing? After a generation of uncertainty, the Charter of the Nobility in 1785 purported to set the issue to rest. But the attempt to impose uniform rules on social chaos created new problems. A struggle unfolded on three levels. From above, the state attempted through legislation to regulate, control, and systematize the standards of admission and exclusion from the noble ranks. From below, a mass of individuals pressed hard to squeeze through the closing gates of privilege. In the middle, the nobles themselves squabbled over distinctions in rank and status within an ill-defined social space. The privileges granted by the charter were extensive and highly prized. The state, the core nobility, and the claimants all had compelling though different reasons for having their definition of nobility become the accepted norm.

From 1785 to 1857 the Russian Empire underwent its greatest expansion to the west and south-west. Conquest and annexation brought Finland, parts of Poland, and the Transcaucasus under Russian control. Although already an integral part of the empire, Ukraine and the Baltic provinces were administratively reorganized in ways that affected the status of the local elites. During this period the controversy over the social identity of the nobility centred on four separate but overlapping issues: incorporation of nobles from territories newly annexed to the empire; verification of proofs of noble status; consolidation of noble privilege; and regularization of access to noble standing.

A larger number of newcomers were admitted to the ranks of the Russian nobility under Catherine the Great than in any other reign. During the entire period between 1782 and 1852, when the empire expanded at its greatest rate, its noble population more than quadrupled, becoming twice as large as any other segment of the population. As a result, the bulk of the nobility lived in the western and south-west provinces, constituting 66 per cent of the total in 1795 and 63.68 per cent in 1816.²⁴ They were, first of all, the *szlachta* of the Polish lands incorporated into the empire by the three partitions. Catherine ordered that the governor general of the western provinces should determine, on the basis of written proofs of noble birth, who should be granted the privileges of the Russian nobility. This proved to be a massive undertaking, which, as subsequent legislation made clear, required decades to carry out. Aside from the sheer number of nobles involved, the whole question of incorporation was complicated during the Napoleonic Wars when thousands of Polish nobles went over to the French. At the same time, the *szlachta* continued their efforts to convert the Russian nobles in the western provinces to their own or the West European tradition

of resistance to royal power.²⁵ It was not until seven years after the end of the fighting that Alexander I reconfirmed the right of Polish nobles to enter military service on the same terms as Russians. At the same time, he instructed the government of the Kingdom of Poland, that is, in effect his brother, the viceroy, Konstantin Pavlovich, to confirm the patents of nobility.²⁶ The Polish revolt of 1830 required additional legislation to replace the Lithuanian Statute, normalize the privileges of the Polish nobles in the western provinces, and ease the terms of military service for Polish nobles in the Kingdom of Poland.²⁷ That none of these concessions secured the loyalty of the *szlachta* was rudely brought home to the tsarist government by the third great Polish revolt of 1863.

Questions of noble identity in south-west Russia were immensely complicated by the culture clash between Poles and Russians. By the time of the first partition of Poland most, but not all, of the old Russian-speaking, Orthodox nobility dating back to the Grand Duchy of Lithuania had been polonized and Latinized. This was largely the work of the Jesuits in the late sixteenth and early seventeenth centuries. In the south-west, the Polish *szlachta* had eagerly admitted to its ranks a mass of service men attached to the old Russian magnates in order to strengthen their political weight in the *Sejm* and consequently throughout the *Rzeczpospolita*. The newcomers even included a few wealthy Jewish families who, according to Polish law of the eighteenth century, could upon conversion be accepted into the nobility.

Resistance to the polonization of the old Russian nobility had been centered in a group of petty nobles who lived in separate settlements, the so-called *okolichnaia szlachta*. They lived in compact, socially homogeneous settlements in what had still been in the sixteenth century a frontier region. They owned no serfs and there were few peasants among them. They lived simply, almost at the level of the peasantry, but they traditionally enjoyed the status of free men. Their juridical standing was based on patents of service from the Grand Duke of Lithuania and, in a few cases, from earlier service records dating back to appanage Rus. The top ranks were absorbed into the Polish *szlachta* after the Union of Lublin in 1569. The remainder struggled to retain their free status and their Orthodox faith, a struggle that lasted for over two centuries. They participated in the elections of the Metropolitan of Kiev and they joined in Khmel'nitskii's revolt. But their ties with co-religionists gradually weakened. Under the pressure of the Polish administration, most of the Orthodox clergy were forced out of the region. By the second half of the eighteenth century, the majority of the *okolichnye* had been converted to the Uniate faith.²⁸

In the period after the Polish rebellion of 1831, there was a movement among the *okolichnye*, supported by the government, to return to their religious and ethnic origins. The commission to examine and verify noble patents in Kiev claimed that only one tenth of the *szlachta* living in south-west Russia were of Polish origin and the remainder was of "pure Russian origin." It deplored the fact that the final stages of polonization were actually carried out after the partitions and all during the period down to 1830. By the time of the Polish rebellion in 1863 almost all of them had been reclaimed for Orthodoxy.²⁹

Problems of a different sort arose in Ukraine. The Ukrainian elite emerged from two traditions: the Polish *szlachta* and the Cossack tradition. Its political outlook derived from the belief that it had a contractual relationship with the Russian tsars. The Russian government denied the existence of a contract and resisted the demands of the Ukrainian elite for the political and social rights of a *szlachta* based on the Polish model. The dispute reached a climax in the 1760s when Catherine rudely ended Ukraine's claims for autonomy and took steps to incorporate the Ukrainian elite into the Russian nobility. The government reversed its long-standing policy of insisting, in the words of the Senate, that "there were no nobles in Little Russia." If only to staff the new provincial administration, Catherine was obliged to bring a major part of the Ukrainian elite into the *dvorianstvo*; this also meant the imposition of serfdom in Ukraine.³⁰

The sorting out of claims, however, proved a difficult and lengthy process. Catherine ordered the governors to appoint a commission of the nobility to verify additional claims and draw up genealogical books. The government's vague criteria opened the door to massive abuses. A lively commerce sprang up in the sale of false papers. Many simple Cossacks and even peasant landholders dealing through Jewish middlemen with complaisant Polish *szlachta* acquired proof that they had descended from Polish noble lines. It has been estimated that 100,000 putative nobles suddenly appeared in Ukraine, but only about a tenth of them could trace their lineage back to the days of Khmel'nitskii. By the end of the 1790s only a fifth of these had been confirmed.³¹

The integration of the Ukrainian elites proceeded slowly. The government of Nicholas I was still trying to sort out the confusion arising from the dubious claims of Ukrainian elites. Fifty years after the introduction of Russian provincial administration in Ukraine, new guidelines were provided to identify the offices and conditions of landholding that would confer nobility.³² In Ukraine, part of the new nobility fought a

hopeless rearguard action to defend elements of the old traditions of autonomy. In the long run, the attractions of assimilation proved too strong. But by keeping alive historic memories and creating new myths about the past, the traditionalists provided the Ukrainian nationalists of the second half of the nineteenth century with a rich legacy on which to build a modern political movement.³³

Statistics speak more eloquently than the law on the outcome of the contest over noble standing in the western borderlands. On the eve of the reforms, a majority of the nobility of the Russian empire were inscribed in the genealogical books of ten western provinces and the Kingdom of Poland. No less than 58 per cent of the nobility of the Russian empire resided in areas that had been under the Polish Crown at the time of the First Partition.³⁴

In both the Kingdom of Poland and the province of Kovno there were more nobles enrolled than in the province of St Petersburg. There were more nobles in each one of the eight provinces of the western borderlands and in the Kingdom of Poland than in Moscow province. But the number of nobles in the western provinces declined drastically after the Polish revolt in 1830–1. The government appointed a special commission to verify noble patents in Right-bank Ukraine in the five-year period between 1845 and 1850, approved the credentials of only 581 families, referred 22,000 to further study, and rejected outright 81,000 claims.³⁵

The process of incorporating the high-born of other ethnic groups was less dramatic, but it also contributed to the mixed character of the imperial Russian nobility. Under Catherine, a small but select number of Armenian nobles were granted the rank of *dvorianstvo*. There was little difficulty in admitting the nobility of the Grand Duchy of Finland into Russian military service on the same terms as the Russian nobility. But Georgia proved more troublesome. In 1822, almost a generation after the formal annexation of Georgia, Alexander I established an assembly of noble deputies in Tiflis in order to continue the process of verifying proofs. Initially, only a few obvious candidates, mainly princes, were confirmed, but documentary evidence for a majority of claimants was found to be incomplete. Another generation passed before Nicholas I established two commissions in Tiflis and Kutais to continue the painstaking work of sorting through the questionable evidence. Over time things improved. In 1844, for example, the investigative commission rejected as fabricated or dubious only 10 or 15 per cent of the applications.³⁶ Finally, in 1850 the nobility of both regions were given permission to elect their noble assemblies.

Alexander established similar commissions for the Muslim and Greek nobility of Tauride Province. Among the nomadic tribes, where written evidence was hard to come by, the government insisted that only special charters or the holding of high office would be recognized as proof of noble standing. It grudgingly recognized, for example, the force of customary law and tribal rank in determining noble rank among the Siberian Kirghiz, but insisted upon the need for careful regulation. As a result, an assembly of noble deputies in Ufa agreed in 1814 to recognize the noble rights of only sixty-four Tatar *murzy*.³⁷ In Bessarabia, the process of drawing up the genealogical books required a generation of careful sifting through the records of the previous century. As serfdom had never existed in the region, the Russian government forbade the Bessarabian nobility to own serfs except for gypsies or to settle domestic servants on the land.³⁸

Throughout the nineteenth century there was evidence of deep and bitter antagonism between the Russian and non-Russian nobles. Russian nobles accused their counterparts in the west, east, and extreme south of never having shared the truly noble sentiments of service to the state and society, of feathering their own nests, and of instilling hostile feelings towards the state in successive generations. For example, Count Pashkevich-Erivanskii's petition to establish a cadet corps in Tiflis was denied on the grounds that the Georgians were alien to Russian modes of behaviour, customs, and language and suffered from limited access to education.³⁹ There was a widespread belief among Russian nobles that Polish kings and Muslim khans had awarded patents of nobility wholesale to entire villages of peasants who afterward remained peasant in outlook. These pseudo-nobles were dishonest and parasitical; there was a higher percentage of horse thieves among Polish *szlachta* and Tatar *murzy* than among peasants, or so it was claimed. Russian nobles regretted that regulations on ennoblement were repeatedly violated, especially by Polish assemblies of noble deputies, who granted patents merely to increase their numbers.⁴⁰

By the end of the reign of Nicholas I, the process of creating a uniform and stable all-Russian nobility whose members enjoyed the same fundamental privileges was closer to realization than ever before or after. Yet probably less than half of the nobles spoke Russian as their native language, and there was a substantial Polish minority of at least one third of the total that still could not be considered entirely loyal or dependable, a suspicion more than borne out by the revolt of 1863. Moreover, the achievement of decades of bureaucratic pressure was

about to be largely undone by the emancipation which would deprive the all-Russian nobility of the basic privileges that gave them their strongest bonds of unity.

The verification of proofs of nobility was not confined to the elites of the newly acquired territories. There were also prolonged disputes over the confirmation of Russian nobles. The charter of 1785 listed fifteen specific criteria for ennoblement, which remained in effect throughout the following century. The procedures for confirming nobility were also unambiguous: the central government revised the genealogical books on the basis of historical proofs of noble standing. Yet these proofs were often elusive at best. An additional source of verification came from the nobles themselves. The noble assemblies issued patents on the basis of documents submitted to them and entered the family into genealogical books that were compiled for every province. Despite the double verification, abuses crept in almost at once. For example, in Kharkov Province the marshal of the nobility, Brigadier D.I. Khorvat, repeatedly complained to the assembly of the nobility that the local nobility was in a state of great disorder. Aside from the quarrels, lawsuits, and outright fisticuffs that marked their relations, there was the endemic problem of falsification of noble documents by individuals who did not even own land.⁴¹

Catherine's passion for order and system in government as a matter of principle was in this case reinforced by the desire to enhance the prestige and strengthen the social cohesion of the nobility. Her legislation preserved or restored the balance between birth and merit that had guided Peter's vision of a nobility that would be high-born but open to fresh talents from below. At the same time, she pursued a policy of sealing the porous social boundaries that delimited the nobility from the lowest orders of the population. The last escape hatch for peasants and *meshchane* from their miserable existence was to enter state service at the lowest rank and hope that by the second or even third generation their family would gradually ascend the service ladder to reach rank eight or seven, which granted personal and hereditary nobility respectively. But as Catherine increased the subjugation of the peasantry to the nobility, she ordered government departments to deny entry into service of anyone enrolled in the taxpaying categories of the population. But this prohibition no longer was possible after the provincial reform which created a large number of service positions in the countryside that the nobility alone could not fill. The situation was aggravated after the ministerial reform in 1801, when another raft of service

positions was created. New barriers had to be erected to prevent the low-born servitors from rising too high through the ranks. The only recourse was to delay promotion from rank nine or freeze the servitor in that rank, a device which was resented by those long in service.⁴²

The empress was equally concerned over unlawful social mobility in the opposite direction. Throughout the eighteenth century and even earlier, there had been a slow hemorrhage of the lower stratum of the nobility. In 1784 Catherine alerted the Senate that certain Tatar *murzy* who remained under the jurisdiction of Muslim law but whose ancestors had received lands from the crown had fallen into the taxpaying population. She welcomed their petitions to receive noble patents that would confer full noble privileges with the exception of owning Christian peasants. A few years later, she attempted to rescue "whole villages of noble families" in Novgorod and Tver province who were living in poverty and tilling the land by offering them places in the Guards Regiments to fight against Sweden as a means of restoring their noble privilege to serve the state. She made different arrangements to enable the "polonized boyars" (*panntsyrynye boiary*) of Polotsk province, whose socio-economic situation resembled that of *odnodvortsy*, to submit proofs of their standing as ancient service people who had been settled on state lands.⁴³ In 1789, she broadened the search for derogated nobles by ordering the provincial and vice-regal authorities to inform the Senate of any nobles who had allowed themselves to fall into the taxpaying population.⁴⁴

Verifying noble status in all cases, whether normal or exceptional, continued to preoccupy the government offices of Heraldry and the Senate as well as the entire noble order throughout the first half of the nineteenth century. But it was no easy matter to penetrate the tangled thicket of claims. Behind the dry language of the imperial decrees it is possible to discern the prolonged drama lived out by thousands of individuals struggling to cross the border into gentility that would guarantee them and their families the coveted, privileged status of Russian nobility.

Despite the best efforts of the government, massive abuses had crept into the enrolment of nobles in the genealogical books. Documents were forged; claims on the basis of non-existent landed estates were regularly submitted. Soon after assuming the throne, Nicholas I ordered a special commission of the Senate to propose methods for revising the procedures of the Assemblies of Noble Deputies. Over the following decade the bureaucratic machine cranked out another elaborate series of

regulations for controlling the activities of the assemblies that involved greater surveillance and intervention by central and provincial officials.⁴⁵ In sum, the contours of the Russian nobility were still ill defined on the eve of the reforms. Great if incalculable energies were expended by government officials, by individual nobles, and by aspirants to nobility in preparing (or inventing), defending, and investigating claims. The phantom of doubtful authenticity hovered over the lower stratum of the noble order right down to the emancipation.

If the question of who was a noble was never entirely resolved, neither was a clear definition of noble privileges ever firmly established. To be sure, the two main privileges, that of owning serfs and exercising police and judicial powers over the countryside, remained intact from Catherine to Alexander II. But it is also true that these two bulwarks of noble identity existed for little more than a century from the prohibition on owning serfs imposed on non-nobles in 1746 to the emancipation in 1861. Moreover, during this period the extent of noble control over the peasantry varied considerably, reaching its apogee under Catherine II and then declining under successive reigns. Under Catherine the peasant-serf was reduced to little more than a chattel of the noble, or as one authority has put it, he was turned into some kind of "turnover capital." In order to remove any hint of ambiguity in the nobility's control over the peasantry, a decree of 1775 forbade freed peasants (*vol'nootpushchennyi*) from enrolling in the peasant community or entering the service of a noble without losing his/their freedom.⁴⁶

Questions of Service and Status

Freeing the noble from obligatory state service did not fix or clarify once and for all the relationship between the noble and service. Within a year of the emancipation of the nobles, the irascible Peter III virtually suspended its effect by depriving the noble of the right to enter or leave service at will.⁴⁷ When Catherine ascended the throne she did not immediately confirm the manifesto. Instead, she appointed a commission of high officials to re-examine the question of noble rights and the state's need for servitors. The work of the commission revealed a familiar three-way division among the nobles among those who favoured a Western-style nobility based solely on birth and rank independent of service, those who adhered to the Petrine ideal of a service nobility, and finally the mass of the middling nobility who was most concerned with a monopoly of their land-owning and service privileges, while at the

same time vigorously opposing as they traditionally had done the aristocratic pretensions of the first group.⁴⁸

In the years before she granted the Charter of the Nobility, Catherine's policies gave further evidence of her concern that a grant of absolute freedom from state service would create serious problems of governance. For example, the sons of nobles were still recruited for garrison schools and enrolled upon graduation in state service.⁴⁹ These and other inconsistencies were eliminated only by the Charter of the Nobility in 1785, when nobles were allowed to enter and leave service at will. Even then, there were exceptions for categories of social groups that were being admitted for the first time or whose origins were doubtful or suspected. For example, Paul I issued instructions that forbade *odnodvortsy* with *pomestie* patents to petition for noble status. Alexander I modified this decision by requiring *odnodvortsy* to enter military service before their patents could be approved. There was a great rush to enrol their sons in military schools in order to confirm or restore their noble status.⁵⁰

The Charter of the Nobility represented the most important attempt by the government to create a permanent privileged noble corporation and endow it with a collective ethos. But even here the government acknowledged and reinforced existing differences of status and wealth that separated the nobility into distinctive strata. This showed up most clearly in the establishment of property and rank qualifications for elections to corporate bodies. The Russian nobility had elected representatives to serve in various capacities from the time of Ivan IV, a tradition that was carried on by Peter the Great in such institutions as the *landrat* and the *landrichter*. But the exact contours of the nobility as a juridical person were not defined until the charter of 1785. The rules for elections of deputies to the Legislative Commission were a major step in this direction, but the discussions at the commissions made it clear that the ruler could only ignore at her own peril the existence of social distinctions within corporate groups.

To begin with, Catherine's legislation preserved the vast social gulf that separated the hereditary and personal nobles. According to Peter's design, personal nobility could be acquired through service, by achieving rank – or by receiving certain decorations or by imperial command. But the title did not confer the privilege of owning serfs or participating in the noble assemblies, which were the social centre of the *soslovie*. Personal nobility was usually conferred in middle age or towards the end of a career after long service in the civil or military bureaucracy.

The title exempted a noble from certain taxes, spared him corporal punishment, and allowed him to wear a sword and be received at court, but it could not be passed on to his descendants. As a mark of honour, it came too late in life, carried too few privileges, and was too ephemeral to create strong feelings of identity with the noble ethos. Nor was it any guarantee of social acceptance by the hereditary nobility. About half of the Russian nobles were personal.

In the charter, rules for election to the noble assemblies and administrative positions held by nobles took into account the considerable differences in wealth, status, and education among the nobility. The charter also limited the participation of low-status, impoverished hereditary nobles in the central activities of the noble corporation. The franchise was limited to nobles whose income exceeded 100 rubles annually. It is impossible to say with any certainty how many nobles were disenfranchised. Some indication might be gained from the fact that by the end of the eighteenth century 40 per cent of the nobles owned between one and twenty serfs. Many of these nobles had to cultivate the land themselves, making it highly unlikely that they earned the required minimal income. Candidates for elections to administrative offices of the noble *soslovie* were required to hold the rank of superior officer, that is, a colonel in the army or the equivalent rank in the civil service.

The government's attempt to draw the most prestigious and wealthy nobles into provincial service was a complete failure. The big landowners were able to manipulate the elections of whomever they wanted. But they themselves were reluctant to serve. The Russian nobility had traditionally shunned service in local government. The most ambitious and energetic men sought a career in the army or the capitals, where there were ample opportunities for rewards and promotion. In the countryside, there were none of these attractions and provincial society was virtually non-existent until the second half of the nineteenth century.⁵¹ As foreign observers like Baron von Haxthausen noted, there was none of the attachment to family estates that existed in Western Europe. Russian nobles were absent from their estates for years at a time. The governor general of Nizhnyi Novgorod told Baron von Haxthausen that in the entire province there were only five wealthy and educated families who lived regularly on their estates. Half a century after the abolition of obligatory service, the Russian provincial nobility was deprived of its national leaders.⁵²

Up until the emancipation, a great gap existed between the top stratum of nobles, the so-called *znatnoe dvorianstvo*, and the remainder. Most of the

elected representatives of the nobility after 1785 were retired officers and officials who had, for the most part, married into wealth and thus acquired the required property qualifications to serve. They had no organic connection to the land, felt no local patriotism, lacked a good education, and were indifferent to social or economic change. The magnates even refused to serve as marshals of the nobility. From 1825 to 1853, only 18 out of 249 provincial marshals carried aristocratic names. There were many more that appeared in the upper ranks of the provincial civil and military bureaucracy, the governors, and the commanders of divisions. Nicholas I himself despaired that “the best nobles either decline to serve or do not participate in the elections or agree with indifference to the election of people who do not have the necessary qualities to fulfil the obligations placed upon them.”⁵³

Catherine gave further proof of her determination to secure for nobles enrolled in service pride of place in the social hierarchy by endowing them with visible status symbols based on rank. In a series of three decrees in 1775 she laid down strict rules for the use of horse and carriage and the wearing of livery by noble servants. So, for example, only the two highest classes in the Table of Ranks could enter towns in carriages drawn by six horses and provided with two footmen; lesser ranks were allowed fewer horses and no footmen. Nobles who did not hold superior officer rank, no matter how wealthy or distinguished their lineage, could enter town only on horseback or in a carriage drawn by one horse. The quality and brilliance of servants' livery was also strictly regulated according to the service rank of their lord.⁵⁴ The explicit purpose of the decrees was to limit the excessive display of luxury, but the method of regulating it revealed its deeper meaning.

Concern over the financial position of the nobility and the costs of Westernization led Catherine to expand the activities of the Nobles Bank, first created by Elizabeth in 1754. But this proved a mixed blessing. By facilitating mortgages, the government unwittingly tempted the nobility into greater debt. Heavy borrowing and high living impoverished later generations and cast a long and dark shadow on the financial terms of the emancipation settlement. At first loans were limited to the Great Russian nobility, then extended to the Baltic nobility, and finally, with the establishment of the State Loan Bank, to the nobility in the European part of the empire except for the Tauride region. The conversion of the St Petersburg Bank for the Nobility into the State Loan Bank for Nobility and Towns provided 22 million rubles for the nobility (and only half as much for the towns) for mortgage loans over a twenty-year

period at 8 per cent.⁵⁵ Catherine he also used the bank as a conduit for disaster relief for nobles devastated by the Pugachev rising (1773–5). Finally, the government supported a program of redeeming on favourable terms noble properties that had been sold or foreclosed in order to stem the loss of landed estates.⁵⁶

The granting of the charter, despite its promise, did not fix for all time the definition of social privilege or the social distinctions among the nobility. Given the absence of any constitutional or legal restrictions on the autocrat, it could not be otherwise. Paul I began almost immediately upon ascending the throne to make changes in the structure of noble privilege. This was in part a personal reaction to the policies of his mother. But more important, Paul was determined to limit privilege, instil the nobility with a new sense of purpose, and arm it with a militant anti-revolutionary ideology. In the course of his erratic, arbitrary, and occasionally brutal intervention in the lives of his nobles, he demonstrated just how fragile were the foundations upon which rested the “eternal privileges” of the nobility. In the end, like his putative father, Peter III, he succeeded only in antagonizing the nobles who, as the famous phrase goes, tempered his tyranny with assassination.

Paul’s policies undermined three of the four basic privileges of the *dvorianstvo*: its freedom from obligatory service, freedom from taxes and obligations, and personal inviolability.⁵⁷ His first steps were aimed at the corporate privileges of the nobility. He abolished the noble assemblies at the provincial level, allowing them to exist only at the district level, and deprived them of the privilege of electing local police and judicial officials. By permitting the governors to attend district assembly meetings, he further demonstrated his intention of undercutting the autonomy of noble institutions. He also imposed restrictions on electoral qualifications for the district assemblies. He collapsed the three Little Russian provinces into one, and reduced the number of elected nobles in judicial and administrative positions, transferring their appointment to the Heraldry Office. He even set limits, albeit of a minor sort, on the power of landowners over their serfs; it was more of a statement of his power to set conditions than of improving the plight of the peasantry. Most humiliating of all, he deprived the nobility of the privilege of exemption from corporal punishment. He followed this with a mass of petty regulations on the conditions of noble service.⁵⁸

The pattern of legislation suggested that Paul intended to reverse the direction set by his mother of turning the nobility into a self-regulating body that would gradually assume through its autonomous institutions

a major share of responsibility for governing the Russian countryside. Instead, he laid the groundwork for an antagonism between the state bureaucracy and the provincial nobility, or, to put it differently, between nobles whose primary loyalty was to state service and nobles whose primary loyalty was to their corporate privilege.

Yet Paul can hardly be considered an anti-noble tsar. He showered individual nobles with gifts and rewards. He also sought to reform the credit system for nobles and place the landowning *dvorianstvo* on a firm financial footing.⁵⁹ Most importantly, he envisaged a new social mission for them to fulfil. Along with his tentative efforts to professionalize the state administration, which appeared to challenge them as a ruling class, Paul sought to imbue the nobility with a lofty moral goal. His fondest dream was to transform the Russian nobility into a late-eighteenth-century version of a medieval order. He was horrified by the godless regicides of the French revolution, yet offended by the scramble for office, leisure, and wealth that characterized the French aristocracy on the eve of its demise. The success of the revolution fed on the moral bankruptcy of the nobility; the lesson was clear for Russia. The solution he proposed was to revive the spiritual discipline and moral fervour of a mythical past. In the words of Roderick E. McGrew, he embarked on “what may have been the first systematic conservative response to the Revolutionary era.”⁶⁰

Paul chose the Maltese order as a model for his chimerical enterprise. He spent huge sums of money to obtain the title of Grand Master of the Order and the right to create a Russian branch in the form of the order of St John of Jerusalem. He abolished the orders of St George and St Vladimir created by Catherine; they represented to him merely another decoration. In order to endow the members of the new order with the high purpose and significance of their new role, he distributed hundreds of thousands of *desiatina* of populated state lands, thus increasing substantially the number of private serfs in Russia.

Paul’s policies hardly survived his death. In another sharp reaction, Alexander I overturned all of his father’s discriminatory decrees against noble privilege. During most of his reign, he actually enlarged the scope of noble privilege. When he permitted the nobles once again to elect local police and judicial officials, he extended the privilege to the Kingdom of Poland and Belorussia. By making the marshal of the nobility an *ex officio* member of a number of provincial commissions, he reversed Paul’s tilt towards bureaucratization of the provincial nobility in favour of gentrifying the bureaucracy.

In the same spirit of noble restoration, Alexander responded to noble complaints about open access to their *soslovie* by replacing automatic promotion through seniority to the eighth rank in the service bureaucracy with an imperial decree. The change was aimed in particular at upwardly mobile members of the merchant estate. But other limitations were imposed on military officers. Those who had not seen combat, even though they held the rank of superior officers, were not permitted to buy serfs or acquire noble standing.⁶¹ Yet Alexander, like his predecessors, firmly resisted surrendering the government to the nobility. He continued to balance, although in different proportions than his predecessor, the increasingly contradictory interests of a professional bureaucracy and a privileged nobility. In an effort to reconcile the differences by introducing educational reforms, Alexander unwittingly gave birth to yet a third tendency within the nobility, an educated political opposition to the institution of the autocracy itself.

Schooling

Perhaps the most significant change in the corporate privileges of the nobility under Alexander I was the readjustment of the relationship between schooling and service. The burst of educational activity in the early years of his reign left profound effects on all free social groups in the empire, but the nobility was the main beneficiary. Inspired by his grandmother's example, as was so often the case, Alexander aspired not only to raise the cultural level of the noble elite but also to overcome the isolation and provincialism of the rural mass of nobility. But in order to engage the interest of the nobility, who had not flocked to Catherine's provincial schools, Alexander proposed instead the establishment of seventeen military schools that would prepare the sons of nobles for entry into the Cadet Corps and university. He understood the appeal that this would have for provincial nobles who would regard such schools as the most promising path to a career in state service. He invited the nobility to contribute financially to the support of the schools, and they responded in many provinces by raising the money for the schools themselves.⁶² In the exalted spirit of self-sacrifice and patriotism that swept the upper ranks of the nobility in the years of Alexander's reign, several of these schools, most notably Tula, Olonets, and Tver, established scholarships for the sons of poor nobles or orphans. The most prestigious of the new military schools was the Nobleman's Regiment, which enrolled two thousand students shortly after it was established in 1807.

The example of privately endowed institutions led to the founding of a number of important secondary schools (lycées) on the French model, including the Iaroslavl School of Higher Sciences, later renamed the Demidov Lycée in honour of its main patron, and the Nezhin Gymnasium, established with the largesse of Count Bezborodko in Ukraine. On the initiative of the distinguished French émigré and governor of the south-east region, the Duc de Richelieu, a lycée bearing his name was founded in Odessa. The most famous of all lycées in Russia and the cradle of future statesmen, the Tsarsko Selskoe Lycée, opened its doors in 1817. All the secondary schools were designed to train students for state service, and students enjoyed the privilege of receiving a rank upon graduation based on class standing that ranged from fourteen to nine, that is, only one rank below the status of hereditary noble. University graduates enjoyed even greater privileges. A graduate who entered military service and was promoted after six months to officer rank was granted noble status; a doctor of science automatically conferred the eighth rank and noble status.⁶³

Alexander's initiatives in the field of education had a profound effect upon the social identity of the *dvorianstvo*. By creating a new set of institutions to promote the Westernization of the *dvorianstvo*, he exposed a larger number of nobles to ideas that in one way or another undermined the basic principles of autocracy and serfdom. In the first two decades of the nineteenth century, the educated *dvorianstvo* began to break up into three categories based on their respective primary social or institutional loyalties. There were those who increasingly identified themselves with the bureaucracy as a professional calling that separated them from the traditional role of army service and landowning. A second group deviated more radically from the established norms of social behaviour by raising fundamental questions about the moral and ethical foundations of Russian society; they were the forerunners of the intelligentsia. The third group remained attached to the patriarchal state and the idea of the *dvorianstvo* as the hereditary ruling class. They pursued careers in the army, although they were often appointed to the middle and top ranks of officialdom, and retained their landed estates. The first two groups, the emerging bureaucracy and intelligentsia, have been the subject of numerous studies.⁶⁴ Their growing estrangement from the traditional loyalties of the *dvorianstvo* severely weakened the social cohesion of the ruling class. The third group, which is the subject of the remainder of this chapter, were unable during the last decades of pre-reform Russia to forge the group identity and develop a

self-conscious ideology necessary to defend the material interests of the *dvorianstvo* as a whole. It was a failure in which the autocracy and the traditional elements in the *dvorianstvo* shared equal blame.

A Wager on the Strong

It was left to the last "*dvorianstvo* tsar," Nicholas I, to undertake a systematic reconstruction of the noble *soslovie* in order to eliminate the anachronisms, irregularities, abuses, and corruption in custom and the law that had been allowed to creep in over the previous decades. The mass of legislation dealing with the nobility under Nicholas I had three aims: first, to tighten further access to the ranks of the nobility; second, to confirm and enhance the corporate and individual privileges of the nobility; and finally, to oblige the nobility to take greater responsibility for fulfilling its administrative functions. As a result of his efforts, the nobility came closer to becoming, at least in the eyes of the law, a homogeneous, corporate, hereditary, and privileged body than at any time in its history. It was one of the several great ironies of the reign of Nicholas I that this perfectibility of form was achieved on the very eve of the most serious challenge to the nobility's wealth and status.

Complaints by the nobility concerning the dilution of their ranks by commoners promoted in state service had first been heard in the Legislative Commission. Restrictions on automatic promotion had already been imposed by Alexander I. In 1832 the government created another social category to honour distinguished citizens without allowing them to become nobles. A new *soslovie*, the "honoured citizen," offered certain privileges theretofore enjoyed only by nobles: freedom from the poll tax, from conscription, and from corporal punishment. In characteristically hierarchical fashion, there were two categories of honoured citizen: personal and hereditary. The first was reserved for students and those studying for advanced degrees (*kandidaty*), artists receiving a certificate from the Academy of Sciences, foreign scholars and artists, and factory owners. To the hereditary category belonged the legal offspring of that category and of personal nobles, merchants who received the title commercial or manufacturing counsellor or certain decorations, or who were inscribed in the first merchant guild for ten or the second for twenty years. By creating a new social status the government effectively closed the main access road for non-nobles to reach noble status.⁶⁵

Nicholas I also narrowed the opportunities for non-nobles to work their way into the ranks of the privileged through military or civil

service by a series of limitations on acquiring the necessary rank. Similar restrictions were placed upon the acquisition of noble rank through winning decorations. They were aimed particularly at members of the merchant *soslovie* who never found favour in the eyes of the high-born.⁶⁶ As part of its efforts to defend noble status against encroachments, the government resisted persistent efforts by non-nobles to secure certain noble privileges by illegal means, such as the acquisition of inhabited estates. As late as 1850, a decree forbade such acquisitions, acknowledging that previous legislation had not deterred the illegal purchase of inhabited estates, and declared that violators would have their properties confiscated by the state.⁶⁷

By the end of the reign of Nicholas I, the majority of the hereditary nobles were concentrated in the traditional heartland of the Russian *dvorianstvo* – the provinces of the Central Agricultural Region, the Middle Volga, the South Ural, and Smolensk guberniia, where their large estates were located. Not surprisingly, it was in these regions where the lowest percentage of personal nobles, who made up the bulk of the bureaucracy, could also be found. The predominance of personal nobles in the Central Industrial (Moscow), North-west (St Petersburg), and North reflected the strong presence of officials. From 1820 to 1858, the absolute and relative increase in the number of personal nobles living in the Lower Volga, North Caucasus, and New Russia was a consequence of state policies of colonization. Although the personal nobles were eager to acquire estates, the decline of mass land grants at the end of the eighteenth century and their growing dependence on salaries slowed the bureaucrats' rate of gentrification.⁶⁸

The Cadet Corps

Although the hereditary nobles of the heartland constituted only a minority of the *dvorianstvo* in the empire, they were the main reservoir of recruits for the one institution that might have served to defend the corporate interests of the ruling class. This was the officer corps. The higher military educational institutions (*voennye VUZy*) came closer than any other institution in pre-reform Russia to being the nursery of a noble ethos. The assemblies of the nobility surely did not serve the purpose. They excluded the poorest nobles, met infrequently or, in the case of the sparsely populated provinces, not at all, and functioned primarily as social gatherings. The Page Corps, Cadet Corps, and regiment of the nobility (*Dvorianskii polk*) were the moulders of noble youth. In the

backwash of the Decembrist uprising, Nicholas I understood better than anyone the need to reshape the values and loyalties of the officer cadres. He fully intended to make military education and army service the filters through which all his high-level officials would have to pass. From his perspective, the faulty education of the noble youth had allowed the circulation of pernicious ideas and had exposed them to foreign models of behaviour. He was determined to extirpate potential subversion by introducing a series of educational reforms, or counter-reforms as the case may be. Once in place, his program standardized the secondary school system, militarized the technical institutes, expanded and reorganized the Cadet Corps and other military schools. The reorganization of the higher military educational institutions was entrusted to the committee of 11 May 1826, presided over by General K.I. Opperman, Nicholas's sometime tutor in engineering, and included a galaxy of high-ranking generals and admirals.

Following four years of deliberations, a new statute approved by the tsar divided the higher military institutions into three categories: the provincial cadet corps and the *Dvorianskii polk*, the Page Corps, and the two cadet corps of the capitals, the Artillery and Engineering Schools and the Naval Cadet Corps. The first category represented an ambitious attempt to replace the decaying provincial noble schools of European Russia and Siberia with a network of cadet corps that would give the sons of provincial nobles a chance to be educated for military service in towns close to the family nest. The earliest to be established were in Novgorod, Tula, Tambov, Polotsk, Poltava, and Elizavetgrad, each one enrolling 400 cadets chosen by the nobles of the province and adjoining provinces who had made contributions to the capital fund of the corps. By the end of Nicholas's reign, ten new provincial corps had been created.

The guiding principle of the Cadet Corps was to perfect the moral code of the young nobles and, through military service, make them capable of serving the emperor in the assurance that "their entire well-being was predicated on their unshakable devotion to the throne."⁶⁹ The emphasis on moral and spiritual qualities over intellectual development pervaded the military regulations that governed the administration of the schools. "Christian, devoted to the faith, Russian, a good son, a reliable comrade, a modest and well-educated youth, a skilled, patient and efficient officer, such are the qualities which the graduate of the military educational institutions should transfer from the school desk to the ranks of the Imperial army inspired by the pure desire to

repay the Emperor for his generosity with the honour of service, the honour of life and the honour of death."⁷⁰

As an indication of the high importance that Nicholas attributed to the Cadet Corps, he appointed his brother Grand Duke Konstantin Pavlovich the head of the administrative council and after his death named his second brother, Grand Duke Mikhail Pavlovich, to the post as well as naming him chief of the Second Cadet Corps; at the same time, he named his son and heir Alexander Nikolaevich chief of the First Cadet Corps in St Petersburg. In the reorganization of 1836, he made the higher military institutions virtually independent of the war ministry as an additional sign of his favour. It was Mikhail Pavlovich, however, who set the tone for the corps. Its spirit, conduct, and reputation preoccupied him to the point of obsession. He saw himself as the pater familias of the cadets and considered it his duty to interfere in every aspect of their lives. A strict sometimes spiteful martinet, he also enjoyed visiting the cadets informally, joking and chatting with them and even on occasion overlooking their youthful indiscretions, although he could never forgive a breach of discipline. The anecdotes about him are legion. When he resigned his command he delivered to the cadets an address, "Farewell to my children of the Military Educational Institution," which deeply moved those who heard it. He ended with an apology for any harm he had brought to those under his command.⁷¹

The nobility responded enthusiastically to the new opportunities for advancement in service. Within two years after the new statutes had been approved, the number of applicants to the Cadet Corps more than doubled from 600 to 1500. The marshals of the nobility assumed the responsibility for making the selection with preference given to sons of corps officers or any of the staff attached to the corps and finally to sons of the disabled or orphans. But the pressure for admittance mounted steadily, and by 1845 there were 7000 applicants a year, more than the total number enrolled in the corps. The selection criteria were tightened; the bureaucracy ground out a document containing twenty-six categories based on service records of the fathers, with orphans again having preference. Well-to-do nobles could pay a tuition fee of 200 rubles and have their sons accepted outside the normal categories.⁷² Not all who gained admission graduated; there was an attrition rate of about 10 per cent. In the last decade of Nicholas's reign, 5563 officers came out of the Cadet Corps, but only a minority graduated with the equivalent of honours and entered the elite guards and engineering

and artillery units. The total number of officers produced by the higher military institutions under Nicholas was 17,000, and they occupied the majority of command and top administrative positions in the Russian armed forces at the end of the reign of Alexander II.⁷³ How much of a corporate spirit existed in the officer ranks? The place to begin answering that question is in the Cadet Corps.

The changes introduced under Nicholas I in the military education of the *dvorianstvo* followed two contradictory paths. Side by side with the structural-institutional reforms, he imposed cultural counter-reforms. The result was a dramatic increase in the number of officers who passed through a formal, standardized system of military education but who emerged with a narrow, rigid outlook that, as one historian has put it, "made men function in a ritualistic rather than efficient manner."⁷⁴ The effect was felt in particular in the Cadet Corps, which were deprived of much of their enlightened heritage from the eighteenth century even as their numbers were increasing. Among the various special military schools for the *dvorianstvo*, the Cadet Corps took pride of place in the minds of the nobles themselves. It was the only means by which a poor, provincial noble could obtain an education and pursue a career. Before Catherine's time, most of the sons of poor nobles who could not afford the schools in St Petersburg were obliged to enter the army as common soldiers and then, under harsh conditions, make their way painfully through the ranks.⁷⁵ Successive generations of rulers from Elizabeth to Nicholas sought repeatedly to create an esprit de corps that would serve as the foundation for a noble ethos. Tradition had it that Count Münnich, the first chief of the noble corps of the land forces (*sukhoputnyi shliakhskii kors*), as it was originally called, attempted to imbue the cadets with "sacred rules of religion, knightly honour and strict morality."⁷⁶

It was not until Catherine's time that these lofty ideals began to assume institutional forms. Much of the credit goes to I.I. Betskoi, her brilliant and innovative, if impractical, chief educational adviser, who also became the director of the Cadet Corps. In the new statutes that Betskoi drafted for the corps in 1766, he included a provision for setting up children's sections in order to provide access to a sound preparatory education for the sons of poor nobles and to remove the children from the brutal environment of provincial life. Six years later he also tried, less successfully, to introduce annually a small number of *meshchane* into the corps to prepare them as teachers. This was consistent with his and Catherine's views on creating a new, educated middle class sharing

the same cultural values with the *dvoriantstvo*. But the class exclusivity of the *dvorianstvo* defeated the plan. The *meshchane* were harassed by their fellow cadets and lived in terror of the commanding officers.⁷⁷

In general, however, Betskoi's enlightened views were ably implemented by the legendary chief of the First Cadet Corps, Count Anhalt. Under his paternalistic, but gentle and wise tutorship, the First Corps acquired a reputation as being one of the leading military educational institutions in Europe, with a humanist curriculum aimed at training responsible citizens as much as field officers. After his death, the general reaction to the French Revolution resonated within the Cadet Corps, and strict discipline was reimposed on the indignant cadets. The enlightened esprit de corps underwent an unanticipated and distorted evolution.

Distrustful of the martinets set over them, the older students took the lead in forging their own moral code and imposing it on the incoming cadets. According to the unwritten rules, the cadets should be bound together by blood and toil, rely exclusively on merit for advancement, never court favour with the administration, and still less betray a comrade, whatever the circumstances, under pain of spiritual banishment from the community. The initial result of this self-imposed, self-regulating code was to graduate what one memoirist has called "an outstanding military type, without external gloss, a bit coarse, never self-seeking, ready for any sacrifice for the sake of comradeship, a sincere patriot," and indifferent to distinctions in wealth and social standing among fellow officers.⁷⁸

During the tumultuous years of the Napoleonic Wars, the unwritten code of the Cadet Corp worked its way deeper into the consciousness of the cadets, but also acquired under external pressure of the administration a more rigid and confining cast. Paul I, who saw no merit in his mother's earlier reforming zeal, placed even greater emphasis on the disciplinary aspects of education in general and military education in particular. Matters did not improve under Alexander I when he appointed his brother, Grand Duke Konstantin Pavlovich, a strict disciplinarian, chief of the Military Educational Establishment. During the Napoleonic wars, he left things in the hands of the corps directors, of whom the most notorious was Lt. General Klinger of the First Cadet Corps. For twenty years (1801–20) Klinger reigned with unmitigated severity, doing nothing to improve the physical, intellectual, or moral life of the cadets. As a foreigner who did not know Russian, he could speak to the cadets only in French. It was characteristic of the man that the only Russian words he ever learned were "to the jail house!

(*na tiur'ma ego*).” He even abolished elevating customs introduced by Anhalt, such as the famous “speaking wall” (*govoriashchaia stena*), a kind of officially sanctioned graffiti of maxims that inspired the students to exclaim, “Count Anhalt knows how to order the walls of the corps itself to speak.”⁷⁹

Despite the deadening routine of Klinger and his counterparts elsewhere in the military-educational establishment, the unwritten code and the relatively high level of instruction continued to produce good officers who nourished a subculture of their own. Each regiment had its informal officers’ society (*obshchestvo*) and its respected regimental intelligentsia. Much depended on the regimental commander in setting the tone of “the military family” and softening the often barbaric mores of regimental life. But the “male bonding” of the years passed in the cadet schools maintained a high level of solidarity among the officers. Both these elements – remnants of the Catherinian humanistic education and the bonds of comradeship – must be counted as important ingredients in the formation of the secret societies after 1816 and the evolution of the Decembrist movement. Moreover, towards the end of Alexander I’s reign there was a brief revival of the earlier enlightened tradition when the much beloved General P.P. Konovitsyn took over command of the Page Corps, the two cadet corps, and the *Dvorianskii polk*.

Although Klinger resisted being subordinated to a “Russian chief,” he soon retired and Konovitsyn took over the First Cadet Corps. The return to the old days of Anhalt was greeted by the cadets with enthusiasm, but within three years Konovitsyn was dead and the Decembrist revolt terminated the Indian summer of reform.⁸⁰ Nicholas I dealt the final blow to the eighteenth-century ideals which had survived in the military schools and especially the Cadet Corps, where an enlightened noble ethos combined a high level of technical military training with a first-rate civic education.

The Decembrist and Polish revolts reinforced the imperial brothers’ suspicions regarding military intellectuals. Nicholas I had taken careful notice of the fact that many of the plotters had come from the general staff, the nursery of the “scholars” that he suspected were still secretly critical of his reign. He frequently alluded to the need for devoted executioners of his will and not clever men.⁸¹ Grand Duke Mikhail Pavlovich, the director of the Administration of Higher Military Schools, had so little confidence in the faculty that he did not select any of his twelve adjutants from their ranks; the adjutants were all appointed from field commands.

The signals were clear: talented officers preferred to serve in the regiments rather than the educational institutions, where training was left mainly in the hands of the mediocre and narrow-minded, or else those burdened with large families or incapacitated by poor health.⁸²

Moreover, Nicholas, with the zealous support of his brother, imposed draconian discipline upon the cadet schools in an effort to stamp out independent thought and intellectual curiosity. That harsh corporal punishment, verging at times on the sadistic, constituted the main unifying element in the corps is attested to by almost all the memoirists. In the internal life of certain corps where the director was a martinet, there were two hostile camps – the cadets and their chiefs – engaged in a fierce, albeit mute, struggle. The unjust and excessive punishments left the deepest scars on the younger cadets, many of whom were still in their pre-teens when they experienced their first beating.⁸³ Confronted by institutional violence, the cadets toughened their own code of collective protection, which on occasion forced even a top official to compromise.

In the famous mutiny (“*bunt*”) of 1846, when an officer of the day attempted unsuccessfully to interrupt singing at prayers of the First Cadet Corps, no less a figure than Ia.I. Rostovtsev, then deputy to Mikhail Pavlovich, intervened to demand a collective apology from the cadets in the form of “on your knees.” When no one moved, Rostovtsev announced that they would all pray for forgiveness and sank to his knees, followed by the rest.⁸⁴ Although cherished by the graduates of the corps, the comradely code was diluted upon entry into the army and resembled, in any case, the customs of a fraternity of adolescents rather than serving as a foundation for civic responsibility.

The only other element of social cohesion within the corps was the deep, personal loyalty of the cadets to Nicholas I and Mikhail Pavlovich. The imperial brothers actively sought to cultivate a worshipful attitude by the cadets. They frequently attended ceremonies, visited field bivouacs, and even on occasion supped with cadets in their mess halls. And each occasion was a celebratory moment often marked by scenes of “mobbing” the tsar and his brother. According to one memoirist, the death of Nicholas I struck them like a thunderbolt. They believed themselves orphaned, wept openly, and physically drove out an instructor who dared to question their adulation of Nicholas as “Great.”⁸⁵ But neither the informal honour code of the cadets nor their emotional identification with the tsar was sufficient to create a sense of social responsibility and civic values that Catherine and Betskii had

envisaged as a necessary foundation for the autocracy. When the new minister of war under Alexander II, Dmitri Miliutin, solicited comments on the need for reform from all departments of his ministry and other leading military figures, he received 400 responses, none of which had a good word for the pedagogical value of the Cadet Corps.⁸⁶

The introduction of a standard academic plan for all military schools in 1836 and the uniform disciplinary code did not overcome the social and status divisions that prevented the army from developing a cohesive noble officer corps. At the regimental level, a clear division opened up between the graduates of the military schools, who were for the most part intelligent and well educated, and those who had come up through the ranks, whose intellectual horizons were limited and whose speech and manners were considered coarse and vulgar by the former students. Characteristic of the know-nothing attitude was the artillery general who told incoming graduates of the Artillery School, "Remember that your head has been given to you so that you can wear a helmet and not in order to reason."⁸⁷

There were even finer distinctions among the graduates of the Artillery School, Pages Corps, and Junker Schools, who were mostly drawn from the well-to-do nobles, and those from the Cadet Corps, who were most often from the poorer noble families who could not afford tutors and often did not speak French. The latter were often an object of scorn and derision because of their inability to maintain an "elegant table" or to move easily in female society.⁸⁸ In the 1820s, the two questions asked by the regimental commander of the Pavlovsk Regiment to newly reporting officers were "What is your family and does it have ranking (*sostoianie*)?" When it turned out that all the young officers could pronounce their names but none could claim ranking, the general was depressed, knowing full well that during a field campaign they would end up asking him for loans because the army pay was by itself inadequate to maintain an officer's social standing.⁸⁹

The feelings of solidarity among cadets, puerile as they may have been, quickly dissipated in the service. The deadening routine, daily brutalities, and petty corruption associated with most military assignments in the provinces had a demoralizing effect on young officers. In the years before Nicholas I's reign, the tradition of "the military family" had mitigated the worst of these influences. But Nicholas opposed the close personal community of officers gathered around the regimental commander because he thought it bred unhealthy familiarity.

Grand Duke Konstantin Pavlovich was also suspicious of the intellectual activities of the regimental officers who were engaged in reading, study, and exchanges of views on politics. He spied on Russian officers of the Lithuanian Regiment more than the Polish regiments under his command.

The influence of the regimental commanders suffered another blow when they lost their discretionary funds, which were used to assist impecunious officers in need and to provide occasional entertainment. Under Nicholas, the entire provisioning system was changed to eliminate direct purchases from the peasantry. By centralizing supply in the quartermaster's office, the way was opened to corruption in the course of dealing with middlemen, the regiments lost their direct access to fresh provisions, and the authority of the regimental commander underwent further decline.⁹⁰

An exception to this dismal picture was the elite Preobrazhenskii Regiment, officered by graduates of the Cadet Corps. Already enjoying special privileges under Peter I, its reputation as a seedbed of high-ranking tsarist officials, including governors general and diplomats, reached its apogee under Alexander I and Nicholas I when its officers enjoyed access to high Petersburg society. Although the self-discipline of its officers was legendary, the regiment was not free from factions. In the 1840s a cohort of graduates of the Page Corps was particularly remembered for its combination of "dandyism," strict fulfilment of their duties, and tactful relations with their fellow officers. But this too was exceptional. In general, the all-too-frequent arrogant behaviour of the Preobrazhenskii officers did not endear them to their counterparts in the regular army regiments.⁹¹

When officers retired from the army to take up their duties as landlords on their estates, they faced the challenge of adapting themselves to a provincial noble society, or, in certain cases, of creating one where none existed. Some succeeded better than others. The father of the memoirist G.I. Filipson retired after the Napoleonic Wars to take up residence on his wife's estate in Penza province. The manor house was a dilapidated, six-room wooden construction that had been empty for several years. The former officer threw himself into the task of reviving the estate economy, often taking up tools himself: "Of the service grandeur of a colonel and regimental commander nothing remained in him." He managed a comfortable but simple existence, making his own white linen frock coat and squandering whatever monetary income earned by the estate on hospitality, dogs, and carousing. His neighbour,

a former officer in the militia of 1812, owned only one peasant family, but a remarkably hardworking one which earned enough by renting out its labour (*obrok*) to allow his owner to lend money at usurious rates. He spent most of his time engaged in lawsuits, earning enough additional income to buy thirty souls. The local nobles so hated him that they refused to allow him to vote in the noble assembly, and the provincial administration forbade him to represent clients in court. The peasants and local intelligentsia believed he was a wizard and a black magician. Married for a second time at the age of 80, he sired two more sons before dying at 106. The peasants later dug up his body and impaled it with a wooden stake.⁹²

From a later generation, a young veteran of the Caucasus campaigns retired in the 1840s to his estate in the Central Agricultural Region only to face a litigious society engaged in endless quarrels involving nobles, *odnodvortsy*, and peasants. But he was able to find like-minded, well-educated neighbours from the “new generation” who joined to bring order into the boundary disputes and to establish a kind of “civilized society” not based upon hunting, cards, and orgies, but on subscriptions to thick journals, musical soirées, and dances. But the legal conflicts with the “blood sucking” (*miroedy*) *odnodvortsy* went on, sapping the energy of the reformers.⁹³ On the eve of the emancipation, an anonymous *dvorianin* memoirist deplored the low level of culture and education among nobles in the Central Agricultural Region. Life was monotonous, nobles were widely scattered and isolated from one another, and there was widespread ignorance and superstition. Bribery was endemic among the nobles as well as the clerks, especially those involved in the administration of justice. Often retired military men having no knowledge of the law, the judges were completely at the mercy of the clerks, who could twist the rules a dozen different ways depending on their own interests.⁹⁴ These few examples provide only anecdotal evidence, but they suggest some of the problems of building a civil society in the Russian countryside. Whatever remained of the traditions of the military schools after years of service in the regiments could not easily survive in the vast and often primitive conditions of rural Russia.

Economic Divergences

Despite the landed nobility’s common interest in maintaining and even intensifying the exploitation of servile labour, their economic interests

continued to diverge under the pressures of capitalist development. In the second quarter of the nineteenth century, the great landed families like the Sheremetevs, Orlov-Davydovs, Golitsyns, Iusupovs, and Vorontsovs pressed their serfs ever harder to engage in entrepreneurial activities and in *otkhod* (seasonal work for wages). They also leased out peasant labour to various entrepreneurs, including state contractors for railroad construction. They developed their own entrepreneurial activities in tanning, distilling, and milling. They became big money lenders, mainly to peasants. They also borrowed heavily to maintain their quasi-European, quasi-Oriental lifestyle. Most of them were absentee owners, spending their time in the two capitals or abroad. They belonged to the 1 per cent of Russia's serf owners (1453 individuals) who owned one third of "revision souls" (privately owned male serfs). The great mass of serf owners continued to own fewer than twenty revision souls. Their way of life and dependence on their own physical labour to cultivate their land often made them indistinguishable from state peasants or *odnodvortsy*. Alongside socio-economic differences along horizontal lines, there were great vertical variations in regional economic patterns, reflecting the existence of several well-defined micro-regions: pure trade and industry, trade and agriculture, and pure agriculture.⁹⁵

The great variety of economic interests within the *dvorianstvo* hampered the development of a national organization to promote agricultural interests. With the exception of the Free Economic Society, the twenty-nine agricultural societies that had come into existence by the mid-nineteenth century were provincial or regional. Most landlords were completely indifferent to the possibilities of improving agricultural techniques on their estates.⁹⁶ In the face of this indifference, the agricultural societies bravely propagated scientific methods and attempted to educate their benighted fellow nobles. But their membership was small, their continuity often depended upon a few activists, and they operated under the constant threat of government intervention. The Imperial Free Economic Society, which not so incidentally was dominated until 1800 by nobles with Germanic family names, conducted a series of inquiries into the economic life of a number of regions during three intense periods, 1765–74, 1790–6, and 1801–13, separated, however, by periods of complete inactivity. The society was repeatedly obliged to resort to the organs of the state to carry out its research, revealing, according to its historian, a "collective psychology incapable of conceiving public action autonomous of the state."⁹⁷

The Imperial Moscow Society of Agriculture, officially founded in 1820, had been the subject of discussion for eight years previously and suspended its informal meetings for two years (1818–20) when its leader and main inspiration, Prince D.V. Golitsyn, went off to take command of the Horse Guards. Its initial membership consisted of forty-four landowners from Moscow province.⁹⁸ The society later included many of the leading landowners and Slavophil intellectuals of the region. But it never became a vehicle for the expression of *dvorianstvo* interests. The one time it attempted to do so, the government ruled it out of order. In 1858 the president of the society petitioned the ministry of state domains for permission to present its views on emancipation and to publish an article in its journal on the subject, only to be informed that “consideration of purely political and administrative subjects would not correspond to the intended aim of the Statute of the said Society which is purely agricultural.”⁹⁹

Nobility and the Emancipation

By the end of the 1850s, the nobility faced a threat to its major source of status and income, the abolition of serfdom, without a national or, in many cases, even a provincial leadership, divided over fundamental social and economic issues, split along ethnic lines, and politically paralysed by decades of repression and militarization under Nicholas I.¹⁰⁰ The majority of the *dvorianstvo* resisted Alexander II’s initial appeal for assistance in drafting legislation to emancipate the serfs. A small group of “constitutional aristocrats” drafted a series of proposals to include representatives of the noble *soslovie* in the governance of the empire. Most of them were not solely engaged in managing their estates, but occupied important positions in government service, and a few enjoyed direct access to the court. Although not as well organized as the Slavophil circle, most of them were acquainted with one another, regularly exchanging opinions about their views and propaganda activities. But there were many issues that divided them, and on the eve of the emancipation they had not won over the rest of the nobility.¹⁰¹ When they finally accepted the end of serfdom under pressure, they devoted their energies to squabbling over the terms that would guarantee them the best conditions under which to reorganize their properties in the post-emancipation period. As one Russian historian concluded, “Of course, the abolition of serfdom in Russia was achieved without any moral impulse. In our society almost exclusively materialistic factors figured

in the question of the freedom of the peasantry.”¹⁰² The scramble for advantage accelerated the social decomposition of the “ruling class” into loosely defined occupational and interest groups of bureaucrats, intelligentsia, and landowner-rentiers whose primary loyalties were to vastly different ideals and institutions. The remainder of the century was a history of their three-way struggle to determine the future course of Russia.

Chapter Eleven

The Sedimentary Society

The great historian V.O. Kliuchevskii found the key to Russian society in the relative simplicity of its social forms in comparison with Western Europe's. But in writing his magisterial *Course in Russian History* he revealed a degree of complexity that belied his disarming formula. The apparent contradiction stems from the standard of comparison. There were elements of complexity in Russian society that had no counterparts in the experience of the West. Moreover, the definition of society in nineteenth-century social history may have been too confining. If we make the effort to explore the unique features of Russian history and at the same time expand the boundaries of social history, we may arrive at a more comprehensive picture of Russia's social structure on the eve of revolution.

Boundaries and Boundary Crossings

Social history ought to resemble a mobilization centre for intellectual forces on the march rather than a field so narrowly defined that it discourages boundary crossings. At its core lie questions about the definition, function, cohesion, collective action, and interaction of human conglomerations assembled into classes, estates, elites, status, and interest groups. But social historians ought not to restrict themselves to examining the activity of those groups solely within the socio-economic sphere. The dynamics of social groups penetrate political institutions, for example, filling them with social content, profoundly affecting their formal, legal-administrative structures, and often transforming them beyond the intentions of their original architects.

To be sure, social groups are not impervious to changes in their encounters with institutions; there is always a reciprocal though hardly

ever equal influence of one upon the other. In Imperial Russia the institutional structures outside the autocratic power tended to be fragile and vulnerable to social pressures over long periods of time. Most administrative departments were short lived or changed their functions. After a hundred years of experience with collegial rule, colleges gave way to ten ministries. The nature of ministries changed radically over the following hundred years, gradually accumulating most if not all the trappings of modern bureaucracies. A plethora of committees and commissions were created to deal with specific problems and then faded away.¹ The Senate changed from the highest administrative to the highest judicial body. The powers of governors general waxed and waned. Constitutional experiments proliferated in the borderlands: the Kingdom of Poland, the Grand Duchy of Finland, the Baltic provinces, the Viceroyalty of the Caucasus, the Siberian Committee, protectorates in Central Asia. Overall the empire was a hodgepodge of conflicting jurisdictions distinguished by no guiding principle of government. Rather, the ruling elite responded reluctantly and sluggishly to acute social problems as they accumulated. The social ferment from below seemed to run its own course regardless of the attempts by state officials to control and direct it. Yet there was a marked contrast between the accelerating pace of changes in urban, educated Russia and the much slower but stronger pressures exerted on the body politic from the countryside. The small elites were forming into new groups and combinations while the overwhelming mass of peasants was more resistant to change. Yet it was the action of both that forced the state to respond in its erratic fashion. To many the perspective of social movements moulding state institutions is still a heretical one. But the heresy is becoming orthodoxy.

Challenges have been raised to the once prevailing view that endowed the state with awesome power and self-awareness as it shaped and reshaped society, much as a sculptor might pummel an inert lump of clay into a pleasing form. It is now clear that throughout the nineteenth century extensive changes were taking place in the top strata of society that profoundly altered the institutions of government. The changing social composition and educational level of personnel within the central administrative organs had far-reaching effects on the attitudes, values, and behavioural patterns of officials and on the formation of policy as well. The middle and upper ranks of the bureaucracy, both civil and by the end of the century military, were shedding their aristocratic cast and acquiring a more plebeian outlook. Traditional forms of politics based on court factions and clientele networks were giving way to

occupational and opinion interest groups. The growth of literacy and the emergence of a mass press in mid-century further broke down the artificial wall between the state and society. There was a two-way flow of information and influence. But the heavier volume of ideas was surely coming into the government from the outside.

The professions, struggling to free themselves from state tutelage, especially law, medicine, and engineering, began to acquire some attributes of autonomy by the second half of the nineteenth century. The ethos of state service was very powerful, but there were signs that a different loyalty, equally demanding and involving greater self-sacrifice, was taking its place: service to the *narod*. The growth of new economic interests clustered around more vigorous capitalist enterprises produced another kind of social group. As the government relied more and more on their entrepreneurial skills to stimulate productivity and to mobilize foreign capital, it was obliged to surrender some of its control over the economy. By the end of the century the interpenetration of capitalist entrepreneurs and the financial bureaucracy engendered ambiguous loyalties. It became difficult to determine, at least in the economics ministries, whether state policies were shaping social values or vice versa. In light of the cross-currents within the bureaucracy and external social pressures upon it, to what extent can we speak of the state as a cohesive organism with a unified outlook by the end of the imperial period?

The state had legislated for centuries to define a social organization for the peasantry. But it was dealing with an elusive substance. Konstantin Kavelin described it as "Kaluga dough," malleable enough in form but possessing its own weight, texture, mass, and resistance, above all resistance.² Composed of elements that do not change readily under pressure alone, Kaluga dough can be shaped and moulded, but it also seeps through cracks or spills over edges or simply bursts out of confining partitions. No society is a water-tight container, least of all one spread out "over the thinly settled Russian plain."³ The state had virtually no effect on peasant culture; it left intact peasant customary law right down to the end of the old regime; it did not attempt to run the *skhody*, the rough and ready assemblies that settled internal peasant affairs. The state fixed the amount of taxes and the number of recruits that the peasants apportioned and gathered for it. It punished disobedience and rebellion. Beyond that the state had little to do with the peasants in ordinary times; it was a kind of absentee government.

Despite the legislation that constrained peasant movements both before and after emancipation, there were always large numbers of

peasants on the move. There were wanderers and pilgrims, *otkhody* (peasants seeking wage labour), and colonists, both legal and illegal. Even before the abolition of serfdom, small but significant numbers drifted into the cities and penetrated other social categories, the *meshchanstvo*, the merchantry, and the working class.⁴ The government did not encourage these movements; to an extent it even feared them as signs of erosion of the peasant commune. But it could not stop them. As the government struggled to increase peasant productivity while maintaining stability, it ended up conceding more and more to the egalitarian and collectivist features of peasant life. In the end the state appeared to have been more arbitrary than powerful, as even historians of the state school admitted. Early in his distinguished career, Paul Miliukov described the Russian state as having “an enormous influence on social organization” so that in contrast with the West “Russian history was locked in by a strong state power.” After the revolution, a sadder and wiser man, he lamented in his post-mortem of the old regime that on “the plasma-like quality of the people the marks of history are only weakly and fragmentarily printed.”⁵

If social historians are bold enough to cross boundaries into institutional and legal history, they should also march in the opposite direction towards culture defined in its broadest anthropological sense to include institutional norms and material artefacts as well as values, belief systems, and attitudes. The social historian has two objectives here. The first is to analyse the ideology of the specific reference group, that is, class, estate, elite, and so on, and the second is to identify those common elements of a national culture that transcend social divisions and provide a network of shared social values. Until recently, historians of imperial and early Soviet Russia permitted the Russian intelligentsia to speak for the nation and also, to the limited extent that they were permitted to speak at all, the non-Russian intelligentsia for their separate peoples. But the voices of the inarticulate are beginning to be heard.⁶ It is becoming clear that there were numerous subcultures in Russian life associated in the first place with the *soslovie*, but also with certain regions and religious sects. The formal organizations of the *soslovie* were creations of the state; but their cultural content preceded structure and evolved autonomously. This was true of the peasantry above all. Peasant monarchism, popular religion, customary law – the entire elusive peasant mentality frustrated and bewildered officials and intellectuals alike. Perhaps it was the artists who came closest to understanding, but they too translated the peasant culture into their own aesthetic vocabulary.

The peasantry was not simply a primitive society awaiting enlightenment, but a complex culture with a self-awareness of its interests that shaped attitudes towards God, nature, authority, land use, and education.

This is not to argue that the peasants possessed a uniform, monolithic culture. There were striking regional and ethnic differences. There was, for example, a very distinctive regional culture of the North (Sever'), where in the absence of serfdom and large estates strong local traditions survived into the late twentieth century. It was here that much of the ancient, oral culture of the peasantry survived, as exemplified by the *byliny* of Onega Province, and where wooden architecture flourished with its challenge to official Orthodoxy, as in the fantastic multi-dome Cathedral of the Intercession of Kizhi. The North was one of the great refuges of the Old Belief. It produced many of the original colonists of Siberia who, transplanted to their new homes, carried on the independent traditions of their ancestral lands.⁷

In the cities and provincial towns there were also a variety of subcultures clustered around the merchantry, *meshchanstvo*, and the emerging proletariat that had no *soslovie* tradition behind it. The insular life of the merchantry with its patriarchal family structure, traditional religious outlook, and conservative business methods was only beginning to break down at the end of the imperial period, and then only among a few elite families.

The *meshchanstvo* remains a less well-known urban subculture, but surprising in its association with the radical left in the revolutionary years of the twentieth century.⁸ Surprising in the sense that its counterparts in Western Europe were associating more with movements of the radical right during the same period. The rediscovery of the worker-intellectuals and the many shades of cultural difference among the workers, distinctions of craft, skills, lifestyles, introduce large and important differences of outlook and values into an urban landscape that has been for far too long rendered flat and featureless.⁹

The relationship between the subcultures of groups and *soslovie* and the national culture is bound to be a complex one. At each level there will be one cluster of values that are conscious and codified, while another cluster will remain unconscious, inarticulate but deeply imbedded in the behaviour of individuals and collectives. In exploring the dimensions of subcultures and national culture, the social historian must overcome the temptation of drawing too sharp a line between high culture or "the great tradition" and popular culture or "the little tradition." In Russian society the constant interpenetration of the two kinds

of cultural expression makes such a radical distinction highly arbitrary and misleading. The social distance between the upper classes and the peasant masses was never so great in Russia as in Western Europe.

At all periods in Russian history, mediators abounded between the two cultures. Up to the sixteenth century, there were the wandering minstrels (*skomorokhi*). Household serfs on rural estates and even in town houses played a remarkably consistent role in transmitting the tales and songs of peasant Russia to their young charges from Pushkin to Vladimir Nabokov and Glinka to Stravinsky. In the nineteenth century the “natural amateur” (*samorodok*) could be met in all walks of life in the towns, performing for friends, occasionally making a career in the theatre, but always mediating between popular and high culture, between the peasants and lower-class urban masses. Critics noted the subtle graduations of mixed styles in choral music from the oral tradition throughout the accompanied folk song, the romance, and the art song with folk overtones to the conservatory culture. Similarly graduations could be found in architecture. In all forms of cultural expression, the exchange of influences was reciprocal. High culture penetrated into the world of the folk song and epos, even into the design of the peasant wooden hut (*izba*). The idea that peasant culture was “horizontal” can no longer be maintained.¹⁰

Elements of Cohesion in the National Culture

Once these interactions have been clarified, the social historian faces additional tasks in evaluating the relative strength of subcultures and the national culture as a measure of social cohesion and social fragmentation. There are, it seems to me, three powerful strands in the culture of the dominant elites that percolated down irregularly and unevenly into the mass of the population. They were the imperial idea, the ethic of social service, and the commitment to industrialization. They constitute what might be called the Petrine legacy. There was first of all *Rossiiskaia imperiia*, the unique imperial idea that combined three interrelated imperatives: in order to be a great power, Russia had to be a multicultural power; the Russians had a civilizing mission in Asia similar to that of Western Europe, but one which accepted the mingling of races; the dominant Great Russian culture had to tolerate a degree of cultural pluralism under the umbrella of Orthodoxy, but occasionally outside it, as in the case of the Lutheran Baltic Germans, Jews, and some Muslim people of the Caucasus and Central Asia. The idea of the multicultural empire was rooted in the very early history

of the Muscovite state, in the legacy of steppe politics, and the struggle for succession over the Mongol Empire. Without abandoning this tradition, Peter reoriented its main thrust to the West. Absorption of the Baltic territories and domination of Poland became a cardinal principle of state policy that acquired a mass base in the nineteenth century during the surge of Great Russian nationalism that confronted the Polish rising in 1863. It acquired a popular literary veneer in the worlds of Dostoevskii. The belief that the loss of any significant part of the empire would be the prelude to dismemberment and the loss of great-power status as well was widespread among the ruling elites and the nationalist right. It is difficult to estimate how deeply this attitude seeped into the popular consciousness. Yet the opposition to a separate peace in the spring and summer of 1917 by the liberals and most of the socialist left is eloquent testimony to the persistence of the imperial idea even among self-appointed and elected spokesmen of the majority of the population.

The Russian civilizing mission in Asia was first popularized by the old Caucasus hands in the first half of the nineteenth century and carried on by the proconsuls in Central Asia in the second half of the century. Russia's imperial heroes – Ermolov, Bariatinskii, Cherniaev, and Skobelev – never quite attained the celebrity of their British counterparts, but they were certainly more than a match in fame and flamboyance for their counterparts in France and the rest of the Continent.

The civilizing mission was taken up by the Russian officer corps and celebrated in the mass press and popular literature in the second half of the nineteenth century. Russian belles-lettres were enormously influential in capturing the mystery and excitement of imperial expansion into the Caucasus. They virtually apotheosized the spectacular beauty of the region. Pushkin, Lermontov, Tolstoi, and lesser figures like Bestuzhev-Marlinskii treated the conquest in an ambiguous fashion. They sympathetically portrayed the resistance of the wild mountaineers, the noble savage, against the civilized Russian. But the overall effect of their work was to enshrine the Caucasus in the popular imagination as part of the imperial heritage.¹¹ In Central Asia the descriptive medium was more prosaic. For the most part, interest in the region was spread through the travel literature of explorers and adventurers like M.N. Przhevalskii and Petr Semenov-Tian-Shanskii. But the stirring realistic painting of Vereshchagin, the Russian Remington, especially the more than 100 canvases in his Turkestan series, created a sensation among the Russian public. Among others, two military figures who captured popular enthusiasm were “the Lion of Tashkent,” General M.G. Cherniaev,

and the “white general” M.D. Skobelev, whose achievements were memorialized in popular songs. Under the influence of European models, and of rivalry with Great Britain, Russian army officers in Central Asia like General M.T. Veniukov offered a more systematic rationale for their mission in the East that somehow managed to accommodate Social Darwinism and racial tolerance.¹²

The attraction in the opposite direction, of subject peoples who took advantage of opportunities to assimilate and rise in the tsarist service, is largely an unexplored subject in the modern period. The co-optation of native elites into the Russian nobility in the early years of conquest is the best known part of the story. Beginning with the acceptance of Tatar princes into the highest ranks of the nobility in the fifteenth and sixteenth centuries, the process was extended to the Cossack *starshina* in the seventeenth century, the Baltic nobility in the eighteenth, and the Georgian and Armenian nobles and Kazakh-Kirghiz khans in the nineteenth. In the late imperial period there were never a large number of non-Russians in the army, but in the eighteenth century Kalmyk and Bashkir cavalry units were used as irregular troops. In times of crisis special units were raised from the tribes (*inorodtsy*); Caucasian tribesmen were particularly highly valued. During the Russo-Turkish War, the creation of new formations increased their number to 24,000. Although concerns over internal security discouraged recruitment of draftees from Central Asia into regular army units, there were individual cases of Kirghiz and Kazakhs who entered the military and served with distinction. The Omsk Cadet Corps, for example, was an important source of Russification and education for sons of Siberian and Central Asian khans and begs. The most famous graduate from the tribes was the distinguished explorer, naturalist, and military officer, and son of a Kirghiz khan, Ch.Ch. Valikhanov, who sought to assimilate elements of European (Russian) civilization while preserving essential elements of his own culture.¹³

By the turn of the twentieth century, these fragile ties had begun to fray, and then in 1905 most of them snapped under the pressure of anti-Russian urban movements led by native intelligentsia. But it is well to recall that the policy of co-opting non-Russian elites probably delayed the emergence of ethnic consciousness and then restricted it mainly to the cities with the result that autonomous movements in 1905 and again during the Russian civil war found little resonance, and then mainly outside the urban centres.

A second theme of the Petrine legacy may be called the imperative of social service. Repeated efforts by the state to reconstruct political and

social institutions, a veritable tradition of reform, alternated with repression and rebellion in the political culture of imperial Russia. Initially, the Petrine concept of service was resolutely tied to the state as opposed to society. Yet there were latent possibilities for the evolution of this relationship towards broader social aims. Although Peter's views on education were primarily practical, even technological, in orientation, he was also concerned with manners and attitudes, dress and deportment, thus opening the way for the penetration into the mentality of the educated elite of a nonmaterial culture from the West. Western thought introduced secular ideas of ethical restraint on arbitrariness to replace the weakened moral authority of the Orthodox Church. Peter's administrative scheme also combined hierarchy and mobility. The social system of service classes and the Table of Ranks favoured the social and political hegemony of the *dvorianstvo*, but did not exclude other social groups from acquiring education, rank, and status.

A great political struggle over access to service and education lasted throughout the life of the monarchy. In the nineteenth century, for example, the educational reforms of 1803–9 oscillated between greater social openness, favoured by reformers like Speranskii, and a socially restrictive system of education and state service, favoured by the aristocracy. In the 1840s Nicholas virtually militarized the institutions of higher learning and the bureaucracy. But the Great Reforms opened up both. In the post-reform decades conflicts continued over classical versus real schools, Sunday schools for the lower classes, technical education, and the relative importance of knowledge and skill as opposed to seniority as the basis for promotion in the bureaucracy. The main result of this see-saw contest was the slow, uneven but inevitable penetration of humanistic ideals, a scientific outlook, and a variety of social types into the bureaucratic ethos. As early as the mid-eighteenth century, a "*raznochintsy intelligentsia*" flourished briefly in the face of a noble reaction.¹⁴ After the church school reforms in 1808, a steady stream of sons of clergy entered the secular world of the universities and state service. Formal schooling assumed greater importance than private tutoring among the landless nobles' sons who began to enter state service in increasing numbers in the early decades of the nineteenth century.

By the 1860s, the Russian education system was unusual if not unique in Europe. While it may be going too far to call it, as Leikina-Sverskaia does, "democratic" and "impoverished," the university student body was, nevertheless, more critical in its attitudes towards authority and the social order and more socially variegated than anywhere else on the

continent.¹⁵ In this way, Russian universities resembled those of the Third World in the second half of the twentieth century rather than the elite class institutions of nineteenth-century Europe. In the Russian lyceés and gymnasia, in the universities and higher technical schools, future bureaucrats and radicals rubbed shoulders. It would be a mistake to perceive them as representing two sharply defined antagonistic camps. There were not a few who dared to cross the line dividing them, and there were many gradations of belief between one pole and the other. They were exposed to the ideas of the same teachers, and the professorate itself was scarcely uniform in its ideological composition, though the spectrum of belief was assuredly narrower than that of their students. Students of different or as yet unformed beliefs gathered in the scores of *kruzhki* that offered an informal but passionate setting for the free exchange of ideas and the reading of illegal literature.

How many bureaucrats concealed a radical past, or who at the very least harboured sympathies for ideas that they had absorbed as youths? Three dramatic examples come to mind. Count S.S. Lanskoï, Alexander II's minister of interior who helped prepare the emancipation had been an ardent Mason and a member of the Union of Welfare, although he quit before it plotted the Decembrist uprising. The military reformer and chief of staff and of the army, General N.N. Obruchev, was an associate of Nikolai Chernyshevskii on the editorial board of *Voennyi sbornik*, a fact which probably prevented him from ever becoming minister of war. V.I. Kovalevskii, Witte's deputy minister of finance, had been arrested as a student for having harboured, albeit unwittingly, the terrorist Nechaev.¹⁶

Socially mixed, Russian educated society was also among the most cosmopolitan in Europe, if only because it was multilingual. Lacking strong secular traditions in the arts and sciences before the early nineteenth century, Russian culture relied heavily in its formative period on European models, or rather on adapting them to the needs of Russian life. The role of the English nanny, the French governess, and the German tutor in the upbringing of the Russian nobility had no precedent in Europe. European belles lettres and technical literature in the original languages penetrated deeply into the consciousness of educated society. With the exception of the emancipation, no major reform in Russia was undertaken, no important technological innovation launched without a thorough, often exhaustive investigation of the European (and even American) experience. This may have delayed at times the process of borrowing. Whatever the case, Russian

xenophobia was always tempered and often balanced, at least in the imperial period, by the influences of European culture.

In this socially and culturally diverse society imbued with a strong service ethic, elements of the educated elite were able to sustain the reforming impulse even in periods of repression. During the early 1830s and 1840s the first generation of “enlightened bureaucrats” began to move up the service ladder into the middle ranks of the state administration. They were the main architects of the Great Reforms of the sixties. Adopting a more distinctive ethos, setting their own professional standards, the reformers displayed their own form of moral, if paternalistic earnestness towards the people. It would not be an exaggeration to speak of a bureaucratic populism lurking behind the mask of *opeka*. The official defence of the peasant commune reflected not simply the fiscal, military, and internal security needs of the state, but also a moral concern over the fate of the peasantry exposed to the ravages of individualism, the free market, and proletarianization. Similarly, the concern of the local and central governments over the education of the peasantry, though also shot through with misguided paternalism, was profoundly informed by ethical concerns.¹⁷

If the service ethic was pronounced among bureaucrats, how much more deeply did it sink into the mentality of the professions? The emergence of the legal, medical, and engineering professions as autonomous bodies standing outside the bureaucratic hierarchy was a slow and gradual process that only began in the second half of the nineteenth century. But the professions represented by the end of the century a kind of intermediate stratum between the radical intelligentsia and the bureaucracy, blurring the edges of its boundaries with both groups. They shared the same social and educational origins, the same cultural and intellectual heritage. The history of their dedication to social service, particularly in local government, still lies buried in the massive documentation of the local and provincial *zemstvos*. But their political activism clothed in moral outrage during the early months of the revolution of 1905 demonstrated a deep commitment to social justice. The willingness of Russian professional organizations to take a strong political stance in 1905 was not confined to lawyers and teachers, but included doctors, and engineers as well.¹⁸ Their association with radical social causes provides a striking contrast with their Western European counterparts in the same period.

The third strand in the Petrine legacy was state intervention in economic development. Peter’s massive and ruthless mobilization of human and material resources in order to bring Russia into the

European great-power system built on an earlier tradition of state intervention in the economy. His efforts were more comprehensive, purposeful, and effective. Following his death the crisis atmosphere evaporated and the forced pace diminished, but the state maintained its direct interest in and control over key sectors of the economy, in particular mining, metallurgy, and woollen cloth, all connected with the army. A parallel growth of private industry by merchants, nobles, and peasant entrepreneurs gained ground, particularly under the reign of Catherine II. Yet the vigorous participation and common interest of these groups in private enterprise never overcame their profound social differences. They failed to unify in defence of their common interests and none of them was sufficiently strong to overcome the competition from the other. Moreover, the state economic bureaucracy was unwilling to surrender the economy into private hands. A middle class that in the Western European sense unified the propertied, educated society never materialized in Russia. A capitalist economy under state tutelage did.

In the first decade of the nineteenth century tsarist officials engaged in the first of many great industrialization debates that occurred throughout modern Russian history. It was ignited by Russian domestic problems combined with transformations in the global economy. Beginning with Catherine, a fiscal crisis caused by excessive printing of paper money (*assignats*) and the pressures of the steam and mechanical revolution in manufacturing taking place in the West seriously threatened Russia's economic well-being. The debate over industrialization centred on two issues: first, should Russia seek to industrialize at all or remain basically an agricultural country, and second, what should be the role of the state in promoting, encouraging, and actively developing industry. A secondary economic question, but one of cardinal political importance was which agency of government would preside over an industrial policy if it were to be approved and implemented. The debate was interrupted by the war of the Third Coalition against Napoleon, the wave of post-war xenophobia that attacked Western ideas and innovations, and the shock of the Decembrist uprising. During most of Nicholas's reign the government adopted a policy of drift, presided over by Count E.F. Kankrin, minister of finance, who worried about the socially disruptive effects of industrialization. The state ownership of industry in the pre-reform period declined to a small share of the total productive forces, and it was confined mainly to stagnant metallurgical and woollen industries for armaments and uniforms. Yet the state revived the building of canals, financed and built the first railroad trunk

line between Moscow and St Petersburg, and maintained a supervisory role over the organization and development of private industry.¹⁹

A second major industrialization debate opened up in the 1860s over similar sets of questions. By this time the supporters of a more vigorous state-directed industrial policy within the bureaucracy had substantially increased; the lesson of the Crimean defeat was too sobering to ignore. The major opponents of industrialization among the landed nobility could no longer block changes required for the financial and military stability of the state, although from their entrenched position within the bureaucracy they could delay them. But the proponents of industrialization could not agree on the means. Interest groups centered on competing ministries of state had independently evolved distinctive ideological positions. The economists in the Ministry of Finance favoured a mixed economy in which the government and private entrepreneurs would share risks and apportion functions in order to achieve fiscal and budgetary stability; the engineers in the Ministry of Transportation supported state investment and organization of the economy for developmental aims; the military bureaucrats also favoured state control of industry, but mainly for strategic aims. The lack of coordination among state agencies imposed a stop-and-start pattern of industrialization, but the government persisted in its efforts to avoid falling too far behind the West. It possessed several powerful instruments to bring this about, including the creation of a central State Bank, control over railroad concessions, subsidies and state orders for armaments, and a gradually rising protective tariff.²⁰

Sergius Witte was able to build on the policy of his predecessors, Reutern, Bunge, and Vyshnegradskii in Finance and the engineers in Transportation, and draw together in his hands the various threads of fiscal, tariff, and railroad policy in order to draft a comprehensive industrial policy. Yet there is now evidence that Russia's industrial growth in the 1890s was as much a continuation of previous trends in both its aims and pace as a radical departure from the past. Interrupted by the Russo-Japanese War, revolution of 1905, and post-war depression, industrial growth revived after 1909 and expanded rapidly after 1912 right up to the eve of the war. Towards the end of Witte's tenure, a third industrialization debate broke out. The landed interests mobilized for the last time to decry the effects of forced industrialization on the agricultural sector. Witte fell victim to political opposition within the bureaucracy and among the provincial nobles. But his policies were carried on by his successors. The government's commitment to industrial growth was never in serious doubt.

The industrialization of Russia, carried out in an unfavourable geographical environment by a relatively poor country with underdeveloped infrastructure on the periphery of the main global trade routes, was, for all its fits and starts, a remarkable achievement. The successors of Peter were not, with a few exceptions, particularly intelligent or perceptive. Yet all of them recognized in one fashion or another that Peter's vision of Russia as a great power was inextricably linked to Russia's sustained economic growth, and that in the face of its peculiar social structure, the state had to take a prime responsibility for that undertaking. Dedication to that vision held together the most progressive elements of the bureaucracy, army, and commercial and industrial groups. Financial stability and military parity with the most advanced countries were the only guarantees against economic subjugation or political subordination in an age of imperialism. The examples of China and the Ottoman Empire were evident for all who wished to see.

So the Petrine legacy of the imperial idea, the ethic of social service, and the commitment to industrialization provided the mainstay of the dominant political culture that held the empire together as long as it did. At certain critical or symbolic moments these shared beliefs and values provided a valuable social cement binding the various groups and classes together, if only briefly. Such moments at the end of the imperial period included the Russo-Turkish War, response to the famine of 1891, the death of Leo Tolstoy, and the outbreak of the First World War. But clearly the cohesive power of these combined elements was insufficient in the long run to survive the strains of social conflict and external war.

Elements of Social Fragmentation

The countervailing trends of social fragmentation were growing stronger within Russian society at the end of the imperial period. The particularism of the peasantry had not been overcome; its desire for the land was unsatisfied, its integration into civic society incomplete. The proletariat had developed a particularism of its own; it had never been accepted as a distinctive social group, never even recognized as a *soslovie*; it was deprived of the most fundamental right to organize. The vast splintered middle of Russian society – merchants, professionals, clerks, petty shopkeepers, and craftsmen – had no sense of class consciousness and no ability to unify politically. The nobility was steadily losing its landed properties, as well as its domination of the higher

ranks in the civil and military bureaucracies. Perhaps even more ominous for the stability of the empire, the very top stratum of Russian society, Tsar Nicholas II, the imperial family, and elements of the court and church hierarchy, were turning away from the Petrine legacy. They were looking back towards the seventeenth century, readapting rituals and symbols in which to clothe the monarchy that represented a social, cultural, and psychological rejection of the modern, secular state.²¹

Older forms of social identification such as estates (*soslovie*), status (*sostoianie*), and rank (*chin*) were growing weaker among broad sections of the population, yet they had by no means disappeared. There were in fact belated attempts to revive them. More important, however, as contemporaries noted, they were not entirely replaced by socio-economic classes.²² *Soslovie* forms survived because they performed useful functions for both the state and social groups. Government officials perceived them as valuable self-regulating administrative units in preparing legislation, regulating social mobility, maintaining public order, and apportioning rights and privileges in relationship to state service. In defining the franchise in 1864 and 1870 for local bodies, *zemstvos* and town *dumas*, and in 1905 for the proposed consultative (Bulygin) *duma*, *soslovie* was employed in combination with property qualification.²³ The uneasy coexistence of legal status and wealth as criteria for exercising civil responsibilities demonstrated the ambiguity of social valuation in imperial Russia.

Beyond administrative convenience, *soslovie* symbolized to its members and supporters an attachment to a particular social order that embodied strong sentiments about the role of social honour and occupational status. There were still vital signs of life within the *soslovie* organizations themselves. They were not held together merely by the will and determination of the state. Most of the social life of the merchants continued to revolve around *soslovie* organizations. The revival of the landed gentry as a political force in the post-1905 period owed much to its use of *soslovie* organizations, the assemblies, and marshals of the nobility. There were plenty of signs of socio-economic decay in peasant *soslovie* organization even before the Stolypin reforms. But their internal dynamism re-emerged with great vigour during the revolution and civil war, sweeping away external influences and reaffirming the principles of self-regulating of land usage and customary law.

At the same time, it cannot be denied that new social fissures were opening up along class lines under the uneven and irregular development of the capitalist sector; uneven not only in Trotsky's meaning of the contrasting dichotomies of conflict within urban and rural Russia,

but also in terms of the vast regional disparities in economic growth that were often reinforced by ethnic antagonism. The expansion of trade and industry drew more and more peasants, *raznochintsy*, and nobles into a widening circle of capitalist activities. Merchants joined with entrepreneurs from other social categories in order to found regional associations that acted like pressure groups on the government. But the persistent social and legal distinctions imposed by *soslovie*, status, regional, and ethnic identities prevented the coalescence of these groups into a self-conscious middle class.

In the second half of the nineteenth century, the Russian nobility split into several sections under the impact of the Great Reforms and commercialization of agriculture. The emancipation had proved financially ruinous for many who sold off their land and drifted into the cities. The educational reforms ended their monopoly of state service, which had already been eroded, and the military reforms brought non-nobles into the officer corps in increasing numbers. The distinction between a hereditary and a personal noble became more pronounced as the old families attempted to defend their concept of honour and status against upstarts who could not pass on their ennobled status to the next generation. There were four main social groups that emerged from the old *dворянство*: the nobles in government service, mainly landless except at the very top of the service ladder, educated in schools rather than at home, identifying themselves with the bureaucratic ethos; the professional men who entered law, medicine, engineering, and teaching and adapted the particular outlook of their calling; the commercial industrial entrepreneurs, the wealthiest nobles, who can be subdivided into the passive investors or rentiers with capital placed in private railroads, metallurgical industry in the Urals and the south, oil, machinery, and ship building and the landlords who were occupied with distilling, sugar refining, milling, and beer making; and finally the bulk of the landowners who produced grain, cattle, and some industrial crops for the market.

These were not mutually exclusive groups. But the nobles themselves recognized the difficulty of reconciling the distinctive interests and outlook that lodged at the core of each. In 1897 the Novgorod marshal of the nobility admitted that "our Russian nobility includes people of such varied religions, nation, economic and regional character that to unite them at the present time is impossible: the interests of each noble is more fully expressed by the interest of the occupation to which he belongs than to the interests of his estate [*soslovie*]." The same

sentiment was expressed at the Sixth Congress of the United Nobility in 1910 by N.A. Pavlov in his report "*Ob ob"edinenii dvorianstva na pochve ekonomicheskoi.*"²⁴

The social particularism of these groups is most dramatically demonstrated in the coalescence of the provincial landed gentry at the turn of the century. The government's commitment to industrialization and the greater bureaucratic intrusion into the countryside for administrative and fiscal reasons stimulated a strong reaction there. Drawn back to the land by a dual threat to their financial well-being and their psychological attachment to their estates, the landowners began, in Leopold Haimson's words, "to create for the first time in Russian history a provincial society."²⁵ At first they accepted the liberal leadership of a minority which acted through the zemstvos to defend the rural way of life against the tax and tariff policies of the bureaucratic industrializers. Then, after the revolution of 1905 had demonstrated the complete bankruptcy of their paternalistic patronage of the peasantry, they rejected constitutional reform. Turning in on themselves, they became increasingly isolated from the rest of the nobility and indeed from Russian society in general.

The emergence of a bureaucratic ethos based on the professionalization of the civil service did not prevent the appearance of social fissures within this group. All bureaucratic systems exhibit signs of departmental rivalries and infighting. But the absence in imperial Russia of a cabinet system and a prime minister until the last decade of the monarchy intensified the fissiparous tendencies. Each minister enjoyed virtual autonomy under the direct authority and supervision of the tsar. From mid-nineteenth century the individual ministers were no longer drawn from the small elite of court aristocrats and personal favourites of the autocrat. They were, by and large, professionally trained and career oriented. They gathered around them similar men whose personal and professional loyalties powerfully reinforced one another. The ministries became the core of bureaucratic interest groups.

The broader the functions of a ministry, the larger its claims of centrality in the administrative machinery, the greater its temptations became to set the general tone for state policy. In the late imperial period the main contenders for hegemony in the government were Finance, Interior, the security services, War, and Transportation. In addition to defending their own departmental turf, the ministers attempted to colonize or subordinate lesser ministries or occasionally other major ministries. The most ambitious efforts aimed at nothing less than a de facto

unified government dominated by a single energetic minister who had successfully gained ascendancy over the all others. Such attempts were made most notably by Peter Shuvalov in the 1860s and 1870s, and Sergius Witte in the 1890s. The intensity of the bureaucratic infighting grew as the field of debate widened into the public arena. The emergence of a mass press in the 1860s, the moderation of censorship, and the growing complexity of issues, particularly in areas like economic development and educational policy, broke down the insularity of government. The wider the debates over state policy, the greater the tendency of government officials to argue their case in public.

The autocrat did not discourage bureaucratic infighting, unless it threatened to become openly disruptive. Inter-ministerial rivalries served the purpose of keeping power in the hands of the tsar. Moreover, the selection of ministers was frequently not based on ideological considerations, but on personal contact and recommendations, service records, and evidence of loyalty to the throne. The tsar himself did not seek to create a unified government under his own leadership. It was no longer a question of his direct personal rule. The massive flow of state documents and complexities of administering had grown far beyond the capacity of one man to manage, let alone understand. Thus, the tsar became an arbiter of the contrasting interests; a managerial tsar, he made no sustained effort to overcome the fragmentation at the very apex of Russian politics.²⁶

At the other end of the social spectrum, the growth of capitalist relations in the countryside accelerated the economic differentiation among the peasantry. But the extent and meaning of the process was, and remains, a matter of dispute. Despite its many ties to urban and even to educated society, the peasantry remained strongly particularistic in its outlook and customs. Overall, the peasant mentality remained dominated by the land question to the exclusion of larger civil and political issues, although there were regional exceptions, especially in the Baltic littoral and Siberia, where peasants began to take a broader view of politics at the end of the imperial period.²⁷

There were exceptional reasons for the exceptional conditions: higher literacy and the nationalities question in the Baltic; the absence of a landlord class and the influence of sectarians in Siberia. In the succession of great social crises that shattered Russian society from 1905 through the civil war, the mass of the Great Russian peasantry concentrated in the Central Agricultural provinces and radiating outwards along their lines of migration and settlement consistently ignored the

blandishments of the political parties, yet it was totally incapable of forming a party of its own. Unwilling to accept leadership from outside its ranks, it was unable to provide it from within. It was a classic example of Marx's contemptuous description: a sack of potatoes, jumbled together but lacking any real unity.

By contrast, the factory workers constituted undoubtedly the most socially cohesive and highly conscious class in later imperial Russia. For one thing they had no archaic past to combat; there had never been a workers' *soslovie*. The older crafts' (*remeslennaia*) tradition, to be sure, had a distinctive social organization dating back to Peter's time and an acquired *soslovie* form from 1802. But this was declining by the end of the nineteenth century. However, it would be an error to perceive the factory workers as an undifferentiated mass. Differences in skill, education, and ties to the countryside created subgroups among the workers, even within some of the largest plants. The more highly skilled, better educated workers who no longer retained any ties to the countryside flaunted their own lifestyle and considered themselves much superior to their less fortunate brethren who worked at unskilled manual labour for smaller wages and who kept a peasant passport, sent remittances to the village, and still held communal strips. These distinctions showed up dramatically in the greater willingness of the skilled worker to join unions and participate in political or revolutionary activities in the decades preceding the revolutions of 1917.²⁸

Yet the government did not even try, as it had with the peasantry in the case of the Stolypin reforms, to take advantage of potential divisions among the working class by extending the basic rights to organize as a means of winning over the top strata to peaceful methods of social action. Forced to do so in 1905 under revolutionary pressure at a moment of weakness, it diluted and virtually crippled that right in the years of reaction that followed. Thus, for different reasons, the great mass of the Russian population, the *nizy* in both the cities and the countryside, were forced into taking more active, coordinated, and violent social action than they might otherwise have done.

It is tempting to tidy up this picture of social fragmentation of imperial Russia by introducing that delightfully disarming panacea known as the transitional period. The argument here is that Russia was passing through a prolonged phase of a transformation from a traditional to a modern society, or some such variation of that theme. All the contradictions, anomalies, archaisms, and irregularities can thus be explained or explained away as epiphenomena that accompanied the main process of

social change or as the residue, survivals (*perezhitki*) of a decaying social formation. At this point, however, it is worth raising an objection as to whether the “transition” period was not so prolonged, incomplete, and abortive that it began to acquire qualities of its own, qualities so marked and persistent that they refused to wither away. Indeed, they periodically rose to the surface again, particularly at moments of economic decline, political reaction, or social disruption. In other words, there may be conditions in which what appears to be a transition ceases in fact to become an intermediate stage between two well-defined types of society, asserts its own stubborn character, and takes on a life of its own.

The Sedimentary Society

Fresh perspectives on the nature of late imperial Russian society might gain inspiration from some kind of synthesis between the two major Russian (and Soviet) historical schools, the juridical and the sociological. If the analytical categories of state and society now appear somewhat artificial, then perhaps the choice between the state and society as the major driving force of Russian history might also appear arbitrary. Still, it is necessary to offer more of an explanation than irregular or unpredictable interplay between the two. There was some peculiar historical quality, one hesitates to use the term regularity, in their interrelationship. The state pursued an active interventionist course in its attempts to organize and direct the social groups. It is hardly necessary to rehearse the many major and minor instances of this: Peter’s introduction of a wholly new kind of social stratification, Catherine’s attempts to create an urban society and to homogenize the administration of a multinational empire, Alexander’s emancipation of the serfs (and confiscation of noble property), the greatest single peaceful liberation in modern European history, the launching of an industrial revolution from above. In witnessing these great historical moments, the important thing is to give equal time to what they did not do, to the resistance they encountered, to the partial changes they effected. There is no question that each of these transformations created new social conditions. But at the same time, they did not doom or obliterate the social conditions they were designed to replace. The result of this process was what might be termed a sedimentary society. Although metaphors in history may be dangerous when abused, they may be highly effective in providing a dramatic shift in perspective. In this case, the image suggests that throughout modern Russian history a successive series of social forms

accumulated, each constituting a layer that covered all or most of society without altering the older forms lying under the surface.

The state was constantly attempting to impose order on the social flux and not succeeding. The territory it governed was too vast, its servitors too few, the opportunities for flight too great and the differences too numerous to resolve in neat compartments of duties and obligations. Thus, the first major codification, the *Ulozhenie* of 1649, imposed strict categories on the multiplicity of Muscovite social groupings but left many of the smaller urban ones like the *iamshchiki* and *remeslenniki* intact with their own particular organs that evolved slowly over the centuries. Peter's service classes provided another overlay, and after his death a privileged social stratum which violated his service ethic, the *dvorianstvo*, silted in to cover the whole. Yet under the impact of the emancipation that stratum also broke up into smaller components while retaining its *soslovie* character down to the end of the empire. Additional irregular layers took shape. Some emerged from the breakdown of the older structures, like the *raznochintsy*; others had a special *soslovie* created for them, like the Cossacks; still others retained their general identification with a *soslovie* but were given important rights that in fact separated them from it, like the state peasantry. On top of all this, the uneven course of capitalism created new fault lines, created protoclasses like the working class that had no place in the older juridical structure of *soslovie* but were denied any civic standing until 1905. There was no lack of effort to reform the social structure, but the nature of the reforms themselves helped frustrate their intention.

In Russia, reforms demanding rapid and radical social change have almost invariably been initiated from above not below. They have come most often in response to a systemic crisis that threatened the body politic. They were launched without a great deal of preparation and without any consultation with the population. Their course was irregular, depending on the unity and determination of the ruling elite, the resistance or indifference of the population, and the distraction of foreign wars or the sudden death of the ruler. Given the arbitrary nature of the autocracy, it was always possible to flood the country with new legislation, to advance the most radical kind of innovation. But the very arbitrariness of power deprived it of a means to make it permanent, in other words, to institutionalize the changes by means of a constitution, the rule of law, or even a dominant ideology. Everything that was done could be just as easily undone. Or at least it could be covered over. At the same time, the population was likely to ignore or evade the

changes, accepting their form but not their intention unless the changes corresponded to its immediate needs. It was a situation in which the impermanence of things prevailed on the surface and deep continuities lay below it.

Nothing demonstrates more vividly the permanent impermanence of change in Russia than the drafting of the law codes. To turn once again to the historians of the juridical school for instruction, the law was, in their eyes, the essence of the state principle, the most powerful instrument of social control wielded by the state in its efforts to tame a restless and often rebellious population. Yet it was K.D. Kavelin, one of the leading exponents of the school, who presented in his *Nachala russkogo sudoustroistva* an extended argument that the autonomous development of Muscovite juridical principles stemmed "directly from popular custom." The first codification of 1649 (*Ulozhenie*) was simply a systematic arrangement of what Kavelin called "the ancient juridical way of life" (*byt*), that is, the customs of those regions which subsequently became a part of the Great Russian state. According to him, these origins explained why the *Ulozhenie* and all subsequent Muscovite legislation possessed a "casuistic character." That is to say, the law code did not explicitly state the juridical principles upon which the mass of legislation that had been collected and arranged within its pages was based. As social relations governed by civil law became more complex in the latter half of the seventeenth century, it became more difficult to apply customary law to individual cases as in the past. At the same time, the *Ulozhenie* did not contain a set of abstract legal definitions upon which individual cases could be adjudicated. The confusion over the interpretation of the law did not originate with the introduction of foreign legal principles, as Slavophil publicists insisted. Instead, when customary law was applied to new situations the results sometimes contradicted previous decisions. Kavelin maintained, nevertheless, that throughout this process of resolving conflicts "the entire juridical way of life constituted a single, organic, harmonious whole." Clearly, then, Kavelin concluded, it was baseless to claim that no abstract concept of the law and no understanding of rights existed in Russia before Peter the Great and that he bestowed both on the Russian people.²⁹

The idea that the law emanated from society rather than having been imposed upon it from above or outside it may sound strange coming from a leading representative of the juridical school and a notorious "Westerner" to boot, but there are stranger things to come. In Kavelin's mind Peter's achievements did not rest upon creating the law or even

substituting a new set of juridical principles for an old one. Instead, he extracted concrete legal principles from customary law, gave them explicit expression, and based his legislation upon them. While this gave precedence to the letter of the law over its spirit, it did not in any significant way weaken the organic, historical development of the law. That is to say, the law remained responsive to changes in social life. Moreover, although Peter's legislation was characterized by a greater degree of legal precision and self-consciousness, it did not culminate in a comprehensive, systematic digest of laws. Paradoxically, the very absence of an abstract body of legal principles may well have served as the surest guarantee that much of Peter's legislation survived him. For, as Pavlov-Silvanskii remarked, the persistence and vitality of Peter's reforms after his death demonstrated the extent to which his reforms embodied and fulfilled the needs of society, or at least its ruling stratum. The results would have been different if he had imposed upon that society a set of alien legal norms borrowed from other societies with different historical experiences.³⁰

If we pursue this insight of Kavelin's, it leads to a remarkable conclusion about the continuity in the relationship between law and society throughout the imperial period and into the early Soviet period as well. The very persistence of customary law as the basis for legal principles prevented a codification of law as understood in countries whose legal systems were founded on Roman law. The *Svod Zakonov* of 1832 was much like its predecessor, the *Ulozhenie* of 1649, a compilation of laws which had not fallen into disuse. Among other things, it clarified and systematized the *soslovie* system. This had its ironic side. For the code was published just a generation before the emancipation and great reforms fractured the *soslovie*, leaving only a crumbling residue in place. Aside from eliminating repetition and prolixity, the code made no attempt to tamper with the letter of the law. When the codifiers encountered contradictory edicts they simply selected the most recent, whether or not it was considered the best. As Richard Wortman has observed, Nicholas I "adopted historical and nationalist views ... [which] banished the notion that the law had to conform to universal natural norms."³¹ The monarch's resistance to a rule of law was a long-standing defence of his monopoly of authority but, paradoxically, it was also a means of preserving the influence of custom upon law, particularly in the largely unexamined mass of petty legislation and regulations which had nothing to do with the direct exercise of power in imperial Russian society, but which profoundly affected the daily life

of millions of its inhabitants. It is at this level, perhaps, that it would be most fruitful to begin to study the ways in which customs became legal norms through the state's acceptance of existing social realities rather than to assume that legislation reflected the abstract ideas of order and system which inspired reforming bureaucrats.

The potential usefulness of this method does not end in 1917. E.H. Carr was perhaps the first to point out that legal principles did not fare well in the early days of the Soviet regime. Extreme suspicion of any legal system during the civil war yielded to the establishment of law codes in 1922 based mainly on the emerging property relations of the New Economic Policy. In neither period was much attention paid to "the far-fetched constructions of intellectuals," in other words, to theories of either proletarian or bourgeois law. The result was the gradual reintroduction of previous legal norms and practices which themselves had grown earlier out of customary law. One dramatic illustration of this process was the harshness of rural as compared to city courts in dealing with crimes against property and individuals; in these years the peasantry in general shared the view that sentencing was far too lenient.³² In Soviet as in autocratic Russia, the problem was how to instill the values of the dominant culture in the deeper layers of society that rested underneath the accumulation of superficial social and institutional forms erected from above.

Without wishing to force the sedimentary metaphor, it might be taken one step farther by examining a transverse section of the accumulated social layers as they appeared at the end of the monarchy. What emerges from this perspective is the much larger number of layers that have accumulated within the top strata of society than at the bottom. This may be attributed to the greater vulnerability of the elites to the three major instruments of social change: state legislation, external cultural influences, and market capitalism. The multiplication of social identities was politically debilitating in an autocratic state that was forced to make a rapid transition under the pressure of revolution in 1905 to a parliamentary or constitutional government. The fragmentation of elites was reflected in the proliferation of political parties in 1905 and afterwards, their highly unstable character, and the absence of a strong political centre on the eve of the revolution.

At the other end of the social spectrum, the peasantry remained relatively more homogeneous in its social organization than the elites. There were, as we have seen, regional differences; the impact of a national market and forced industrialization on the *dyor*, the commune,

and the village was highly disruptive; the Stolypin reforms administered another blow to communal life. Yet the revolution and civil war blew away the fragile state institutions, broke the urban-rural nexus, and wrecked the market economy. The peasants almost everywhere in the core provinces of the empire reacted against the most recent socio-economic trends. They plunged back into an archaic social form, redistributed the land according to the oldest customs of social justice, and emerged more homogeneous than they had ever been before. They even absorbed much of the urban working class that fled famine and the breakdown of social services in the cities. In the case of the peasantry, the accumulated layer of social changes that affected its fundamental values was much thinner than that of the elites.³³ Thus, it was spared the excessive fragmentation that weakened and ultimately destroyed the elites in Russia from 1917 to 1920. To bring about a transformation of the peasantry required either a long period of gradual absorption into the cultural life and economic system dominated by the cities or a violent, coercive, and sustained attack by the state. This was the choice that the new rulers, like the old, faced in the young Soviet republic.

Chapter Twelve

Social and Political Fragmentation in Imperial Russia on the Eve of the First World War

That the strains and trauma of the First World War contributed to the collapse of the tsarist monarchy is a truism that leaves unanswered several interrelated questions. Why did the collapse of the old regime occur so suddenly in the capital and then spread so rapidly throughout the rest of the country? And why did it fail to generate any visible measure of support from its erstwhile defenders to restore it? Finally, why did the Provisional Government collapse so rapidly in its turn, giving way to a complex *smuta* (civil war) among multiple political contenders for power? This chapter seeks to address these questions by examining the particular characteristics of change in the deep structures of imperial Russian society and politics in the decades leading up to 1914.

In the two centuries from Peter the Great to the First World War, the autocratic rulers and the ruling elites displayed a remarkable flexibility in responding to the foreign and domestic challenges to the security and stability of the state. In constructing a multicultural empire, they experimented in creative ways in attempting to assimilate newly conquered territories on the periphery of the centre of their power. The great bursts of domestic reform under Catherine II, Alexander I, and Alexander II were connected by a thin membrane of smaller changes and preparatory activities, especially in the field of the education of the social elites. Thus, the process of reform was continuous, although its rhythms were irregular and the work as envisaged by the reformers often frustrated by entrenched interests. Nor did the innovations abolish existing institutions and long-established practices. Instead, they were accretions, increasingly weighing heavily on the body politic and social structure. Consequently, the process of state building was interrupted and incomplete to the very end of the old regime. It was the

underdeveloped institutions of the empire and the arbitrary, centralized nature of the reforms, combined with the limited resources of the autocracy to implement them, that produced an effect similar to that of laying down sedimentary strata, imposing new social and political forms on the old. At the same time, the pressures exerted by rapid economic change and the shock of military defeat in 1905 had the simultaneous and cumulative effect of intensifying fragmentation within these separate layers of society and state administration. By 1914 the social and political forces of the empire were deeply divided and ill prepared to withstand the trauma of modern war.

This chapter seeks to explore four aspects of the layering of the archaic and the modern and the fragmentation of society and politics in the evolution of the Russian state and society as a consequence of the belated and uneven appearance in the course of Russian history of four great transformations experienced by all the major European powers during the previous century. The first of these was the industrial revolution and the formation of an integrated capitalist economy; the second was a political revolution which overturned absolutist rule in England, the Netherlands, France, and much of the rest of Europe west of Prussia and the Habsburg lands by the mid-nineteenth century; the third was the national state-building project which culminated in the unification of the fragmented German and Italian states, the independence and fusion of Moldavia and Wallachia into a Rumanian state, the fusion of Eastern Rumelia with Bulgaria, and the enlargement of Greece; the fourth was the rapid growth of urban society, where intermediate social groupings, traditionally but misleadingly reified into the bourgeoisie and proletariat, challenged the political and cultural pre-eminence of the landed nobility.

Historians continue to debate the extent to which these transformations weakened or destroyed the institutions of the old regime throughout Europe. Arguably, every state retained pockets of "feudal survivals." Industrialization began as a regional phenomenon and penetrated slowly from urban to remote rural and mountain areas; representative institutions and responsible ministries were slow to evolve towards liberal democracies; national integration proceeded gradually even in France. The landed nobilities of Europe continued to occupy high positions in government and commanded the armies of all the major powers; their social values and cultural standards continued to serve as models for much of the rest of society down to 1914. It might be said that every European state was following its "special path"

(*Sonderweg* or *osbyi put'*). Or, contrariwise, that all of them were "normal." But that would be to bait a deadly historiographical trap. At a certain level of analysis, every European society was "special" and by 1914 all of them contained (and often shared) similar social, political, and cultural features that might characterize them as normal. Moreover, the idea of a path carries teleological implications that should be resisted. The only solution to the problem lies in comparative history. But there is insufficient space for that in this chapter. All that can be done is to assert and then attempt to document that the Russian Empire participated in all these four major transformations, but that the rhythm of change was sufficiently different from that of the other major belligerent powers to help explain why it collapsed so suddenly in the midst of the war before its armies had been decisively defeated on the battlefield, unlike what happened to the German, Habsburg, and Ottoman Empires. This chapter argues that four phenomena defined the peculiarities of Russia's historical experience before 1914: (1) a multiplicity of social identifications; (2) the uneven and belated development of Russian capitalism; (3) the fragmentation and particularism of the big social aggregations; and (4) the fragmentation of politics.

The Multiplicity of Social Identifications

Ever since the reign of Peter I ("the Great"), the tsar and the ruler and his/her closest advisers had sought unsuccessfully to impose order from above on the variety of social identifications inherited from Muscovite Russia. Peter's introduction of service ranking, Catherine's attempt to create an intermediate urban class, Nicholas I's belated codification of the *soslovie* system, and the steps towards a common citizenship advanced by the reformers under Alexander II and again after the revolution of 1905 were, at best, only partial successes. From below people resisted or, as the large "floating" population testified, evaded the categories invented or imposed from above. Moreover, agents of autocracy often failed to implement or openly contradicted imperial legislation aimed at fixing the social order. Within the population there was abundant evidence of an insufficient awareness of one's assigned place in society, a lack of self-consciously belonging to a group that was externally defined by its socio-economic condition (as a class) or its ethno-linguistic characteristics (as a nationality).

By the end of the old regime, social identification and hence social cohesion rested upon two not always compatible perceptions first

proposed by the historian of the Russian peasantry, V.I. Semevskii, more than a century ago when he drew the distinction between two compartments of peasant life: the customary (*bytovyi*) and the juridical (*iuridicheskii*).¹ Behind this analytical distinction looms an important social reality. On the one hand, there existed the inner conviction of the individual or group, often shifting according to circumstances, and on the other, an external juridical definition inscribed in a passport, a guild, an estate (*soslovie*), a corporate body, or a testament of nobility (*Rodoslavaia kniga*). But even on the juridical level, imperial officials could not always agree over the most appropriate descriptive term in making distinctions among social groups or individuals. The evolution of the juridical category of *inorodtsy* (aliens) is a case in point. Originally applied to the nomadic tribes of Siberia for tax and legal purposes, it had been gradually expanded to include, anachronistically, the Jews and then the peoples of Central Asia. By the early twentieth century, it had acquired a number of informal and formal meanings "which did not obliterate earlier usages." It was used by the extreme right and the left opposition as well as the government to justify their radically different policies towards all the nationalities.² The *inorodtsy* were divided into thirteen categories, with obligations and privileges assigned on a "descending scale of level of citizenship," excepting the Jews, who were placed in a separate legal category.³ Similarly, the meaning and social composition of the *soslovie* of the *meshchanstvo* (lower middle class of tradesmen and craftsmen) underwent a transformation in the latter decades of the tsarist regime without shedding its juridical character. Originally designed under Catherine II as an urban status group (*sostoianie*), it evolved into something resembling a "lower middle stratum including white collar workers, employees, technical, managerial and professional personnel." By 1917 its members were by and large more radicalized than the urban property owners and an important element in the revolutionary movements.⁴

The tropes of social identification were always in dispute; for example, with respect to the peasantry. Before the emancipation the bonded peasantry referred to themselves as *muzhiki* or *pravoslaonye* (Orthodox believers). The term serf (*krepostnik*) only entered their speech after the abolition of serfdom! Official correspondence used terms like the taxable population (*podatnoe naselenie*), while educated society most frequently preferred more abstract expressions like rural inhabitant (*sel'skoe obyvatel'*) In petitions to the government during the 1905 revolution, peasants and workers employed a variety of terms ranging from *narod* (popular

masses) and *trudovyi narod* (toiling masses) to *trudiashchikhsia* (toilers) terms that, when embraced by the radical intelligentsia, evoked strong emotional responses.⁵ There was more at stake here than mere forms of address. The peasants conceived of their social role and defining characteristics in ways that state officials and even the intelligentsia could not fully grasp. The state defined the peasantry or toiling population along functional lines. It derived its terminology from the nature of the obligations it imposed upon the peasants; the peasants employed words that expressed their sense of worth and dignity.

The introduction of the great reforms (1861–74) and the growth of capitalist relations obliged the government to modify its social vocabulary, but it retained the distinctions of rank (*chin*), estate (*soslovie*), and status group (*sostoianie*) because they continued to serve vital fiscal and administrative purposes in the well-established hierarchical service order.⁶ Lacking the financial and human resources to administer the country, the state assigned important functions to the *soslovie* in order to maintain order and guarantee the fulfilment of obligations among various social groupings. Up until the local government reforms of 1864 and 1870 the state had relied on the corporate bodies of the *soslovie* to manage internal affairs, exercise police functions, and allocate service duties in the town administrations and rural districts. But even after those reforms the state did not abolish *soslovie* categories as the basis for election to local government primarily in order to guarantee the dominance of the nobility in the countryside. The zemstvo counter-reform of 1892 not only increased property and educational requirements but also assigned greater weight to immovable property (land), then to movable property (capital). Landed nobles continued to be overrepresented.⁷ Thus, the introduction of property qualifications for voting in local elections or educational requirements for military service masked the underlying *soslovie* principle. Universal military service based upon the “all-estate” principle was something of a fiction. Higher education, a preserve of the nobility reduced service to six months. Elementary education, the most a peasant could normally aspire to, increased service to six years; the *inorodtsy* were exempt.

During the revolution of 1905 state officials continued to experiment with different electoral systems. In the draft legislation for the first national consultative assembly, the so-called Bulygin Duma, and also in the drafts for a legislative duma, they relied heavily on the estate structure as the basis for suffrage. When in 1904 the minister of interior, Prince Sviatopolk Mirsky, gave instructions to prepare a special regulation

(*Osoboe polozhenie*) on the principles of reform, he insisted that “it was not to touch except under extreme necessity the *soslovie* structure and the nobility in particular.”⁸ Even the county electoral system devised by Prime Minister P.A. Stolypin in December 1906 created a curia system that he represented as a compromise between estate and property qualifications.⁹ The distinction between the taxpaying and non-taxpaying population survived to the end of the monarchy.

Juridical definitions failed to fill all the gaps in the social fabric. To accommodate the sons and daughters of members of a hereditary estate who did not chose to follow in their father’s footsteps, such as sons of soldiers, priests, landless nobles, and government clerks who entered the professions or arts, the term *raznochintsy* was coined. Widespread as its use became, it was never institutionalized as a legal estate. Even its meaning was obscure. Literally meaning “those of various ranks,” the word really signified those who belonged to no *soslovie*; it was their escape or exclusion from the *soslovie* system rather than their absence from the Table of Ranks that characterized their social being.¹⁰ Similarly, industrial workers did not fit into the traditional *soslovie* categories, and the state refused to create an autonomous social space for them, relegating them to a subgroup of the peasantry. In brief, as Gregory Freeze has written, there was “a high degree of ambiguity and flux in social identities, oscillating between legal estate, economic status and occupation.”¹¹

Another compelling reason for the attachment of state officials to the estate system was their fear that industrialization would redefine the population into classes based on socio-economic criteria. The long shadows of class warfare cast by the experience of Western and Central Europe frightened the ruling elites into an antiquated defence of the traditional agrarian structure of society. Many officials took hope from the “peasantized” character of the industrial workers, at least up to 1905–6. The belief that workers holding peasant passports, retaining a parcel of land in the villages and sending back cash payments to the village, would stave off the formation of a proletarian working class stimulated the government to introduce a parcel of legislation on tax policy that reinforced the socio-economic ties between the peasant-workers in the towns and their rural communities.¹² At the same time, the state opposed the creation of organizations that would facilitate the social cohesion and promote the economic interests of the commercial industrial class, as it was sometimes called. Even the Ministry of Finance blocked the creation of chambers of commerce in Russia down to the outbreak of the First World War.¹³ Sergius Witte himself feared

that unless the nobility could be liberated from its exclusive dependence upon land and service for their sustenance and attracted into pursuing capitalist enterprises, “not more than fifty years will pass when in our century another rich class will advance to primacy, one similar to that which decided the fate for France, the bourgeoisie.”¹⁴

State officials were not alone in defending the estate structure. The landed nobility acknowledged that by keeping it in place they could best protect their privileges and social status. By the end of the nineteenth century, nobles were campaigning vigorously to restrict further access to ennoblement. They opposed the dilution of their exclusive position in society as strongly as Witte opposed it; yet both ended up defending the estate system. Similarly, the merchantry also embraced the system of estates and guilds because it separated them from the mass of shopkeepers and tradesmen whom they considered their social inferiors. Even the professional intelligentsia saw advantages in adopting for themselves the model of the *soslovie* organization of the nobility and merchantry.¹⁵

Among the peasantry strong sentiments existed for preserving the social institutions of their estate insofar as these afforded them protection against the ravages of natural disasters, in other words, by retaining the commune as a social insurance system. The commune shared an interest with the state in maintaining the ties linking the peasant worker in the towns and their home villages. Only the income from *otkhod* (hired labour) averted extreme poverty in many villages. Yet the outmigration of peasants and their exposure to life in the towns and factories weakened their identification with village life. Many workers who carried peasant passports found it difficult to identify with the interest of the commune.¹⁶ Statistical evidence compiled in 1905 indicates that the majority of individuals still chose *soslovie* as their primary reference group, although others selected ethnicity, occupation, or property ownership as their main social identity.¹⁷

The official criteria for defining nationality also underwent a significant change, reflecting the shifting perceptions of the bureaucracy on questions of social identification. Before the first modern census in 1897, the periodic tax revisions categorized nationality by religion; after 1897, by language. This shift was accompanied by the renewal of attempts to impose different forms of cultural and administrative Russification on the nationalities in the borderlands.¹⁸ Although the combination of tactics varied in Finland, the Baltic provinces, the kingdom of Poland, Ukraine, the Caucasus, and Central Asia, the object remained constant: to intensify the

process of integrating the nationalities into a Russian imperial mould through acculturation or assimilation. More often these Russifications antagonized the target population, with the result that the revolutionary outbreaks in 1905–6 were more pronounced in the borderlands, where ethnic and economic issues were deeply entangled.¹⁹ Fearful of the growing opposition of nationalist elements within the empire, the government systematically whittled down their representation in the Third and Fourth Dumas, further reducing the status of the nationalities to that of second-class citizens. Obsessed by suspicions of disloyalty among the nationalities, tsarist bureaucrats and the army command launched a massive deportation at the outset of the war of hundreds of thousands of Germans and Jews in the western borderlands.²⁰ Fears over the rise of a Polish independence movement prevented the government from formulating a coherent Polish policy. Even those scholars who have argued for the evolution of juridical processes in contributing to the concept of a differentiated citizenship in the Russian context concede its partial, arbitrary, and fragile existence.²¹

Uneven Capitalist Development

Russian capitalism proceeded over irregular and uneven ground, giving rise to a multiplicity of social and economic anachronisms. As late as 1921 Lenin was still able to identify four different forms (*klady*) of capitalist activity after four years of civil war and war communism. He listed them as the patriarchal-capitalist character of village Russia; the petty bourgeois, including the small trader or “bagman,” the independent artisan, the individual stall, or shopkeeper; the big capitalist possessing stocks of goods or cash reserves engaged in trading or selling wholesale, enjoying a crude form of credit, and possibly engaging in lending money; and the state capitalist, a former merchant, entrepreneur, or economic specialist who ran a large enterprise leased to him by the state but who enjoyed wide latitude in price fixing and control of the production process.²² These four types represented distinct social categories competing with one another. Lenin’s multiform capitalism (*mnogoukladnost’*) was only a slightly different variation on their pre-revolutionary progenitors.

In most West and Central European societies at the turn of the century, the varieties of capitalism occupied a more narrow range of activities and social types. Perhaps only in Spain could a rough parallel be drawn with the Russian case. The reasons for the coexistence of different layers

of capitalist activities in Russia are sufficiently well known to require anything more than a brief enumeration: the slow growth of the private sector under serfdom, mainly in textiles, bearing the imprint of its serf-capitalist origins; the late and only partial emancipation of the peasantry, with the entrenched tradition of state-owned and operated industry for defence in woollen cloth and metallurgy; the belated decision to launch a major industrial campaign from above nurtured by artificially protected markets and subsidies for inefficient enterprises; and the large role of foreign investment and foreign technology transfer.²³ Side by side with the vertical lines there were equally sharply etched horizontal divisions.

The commercial development and industrialization of the empire took place within a number of regional economies that spawned their own capitalist cultures. Even in the predominantly Russian regions, sharp contrasts existed between the most dynamic and technologically advanced, like the Donbas, and the archaic sections, like the Urals. In St Petersburg the capitalists relied heavily on state orders; in Moscow a division opened up between the more entrepreneurial group and the traditionalists of the older generation in the Moscow Exchange Committee; in Western Siberia there was a long tradition of autonomous development free from the legacy of serfdom. Another fault line divided capitalists in the predominantly Russian provinces from the borderlands of the empire, where the majority of commercial and industrial enterprises were in the hands of the nationalities: Jewish, Armenian, German, and Polish. In the case of the non-Russian capitalists, integration into the national market was balanced and even offset by ties with foreign capital and links with the global economy. Differences among capitalists split their ranks over tariff and labour policies, development of internal communications, especially railroads, and investment priorities which prevented them from forging a common political front during periods of revolutionary crises in 1905–6 and 1917 when their basic material interests were at stake.²⁴

Among educated society, strong anti-capitalist sentiments echoed Herzen's invocation, "God save us from the bourgeois!" down to the end of the old regime. They were shared by many in the professions, the radical intelligentsia, and government officials alike. For the *narodniki* industrialization conjured up images of impoverishment and the culturally debased proletariat of Western Europe; for officials it foreshadowed the barricades. Both regarded the Russian capitalist in his traditional merchant guise as a representative of a benighted and

hide-bound caste. The *samodur* (boor) made a frequent appearance in Russian belles-lettres.

Perhaps the strongest anti-capitalist voices came from the countryside. Conservative landowners and self-appointed guardians of peasant *byt'* in the zemstvo movement equally feared that industrialization was destroying the traditional values and social arrangements in the villages and spawning a class of self-interested property owners who lacked both culture and ethical restraint.²⁵ Evidence of how widespread these attitudes had become surfaced in the discussion within the local and provincial committees appointed by Witte in 1902 to investigate the deteriorating conditions of the agricultural sector. Representatives from the Central Agricultural Region were particularly incensed over the devastating effects of manufactured goods on peasant handicrafts, which during the long winters provided an important source of income for the impoverished villages.²⁶

The close relationship between state officials and industry dating back to Peter the Great continued to develop, while substantial elements within the bureaucracy regarded capitalists with suspicion and disdain to the end of the old regime. The Ministry of Finance, and its long-delayed progeny, the Ministry of Trade and Industry, as well as the defence ministries formed an embryonic "military-industrial complex" in the post-1905 years. State orders, subsidies, financial operations to assist heavy industry in particular, and the back and forth movement of personnel between the big banks and government offices bolstered the state-capitalist sector of the economy.²⁷ But several ministries were hostile to the growth of private enterprise. For example, bureaucrats in the Ministry of Agriculture and especially the powerful Ministry of Interior perceived industrial development as a threat to the landed order in the countryside and the hegemony of the nobility in Russian society. It was these interests which fought Witte so bitterly and contributed in no small measure to his downfall in 1904.

Among the professions, particularly medicine and engineering, but also law and teaching, Russian merchants and industrialists were also objects of disdain or outright hostility. The state program of factory inspectorates introduced large numbers of physicians into the factories, where they encountered appalling sanitary conditions. In 1905 and again in 1917 the major organizations of engineers expressed their sympathy with the plight of the working classes, and criticized the representatives of trade and industry for their class selfishness. Most of the legal profession joined the parties of the centre left and left after 1906.

Not a single prominent lawyer (if one excepts Lenin!) joined a party to the left of the Kadets. This phenomenon is still begging for a historical explanation. Whatever the reasons, one should not underestimate the powerful effects of the moral and ethical beliefs rooted in Russian popular and high culture as expressed in folklore and *belles lettres* that contributed to shaping these attitudes.²⁸

Social Particularism

The big social aggregations – one hesitates to call them classes even *en formation* – were fragmented, particularist, and divided from one another by deep social and psychological differences. These features reflected in part the confusion over social identifications and the uneven development of capitalism. But they were also conditioned by the slow growth of a mass educational system, low levels of literacy, the underdeveloped state of communications and transportation, and contradictory government policies. The result was a permanent condition of social flux. The larger social aggregates – the landed nobility, the commercial-industrial stratum, the peasantry, *meshchanstvo*, clergy, intelligentsia, and bureaucracy – were in the process of breaking up during the last decade of imperial rule into smaller groups, forming subcultures. This social fragmentation was not a source of strength and stability. The process was not accompanied by an equally rapid rise in social mobility. Nor did it seem to presage the reorganization of society along class lines. The belated introduction of a representative all-Russian State Duma and the arbitrary changes in the electoral laws contributed to the difficulties of overcoming long-standing intra-group differences. The subcultures became more self-contained and particularistic.

The double process of fragmentation and particularism took different forms at every level of society. After the abolition of the redemption dues in 1906, a mass of legislation remained on the books that imposed financial and natural obligations on the peasantry that were not shared by any other social group. Customary-law rituals, popular religion, and patriarchal customs created an insular world view that broke down slowly even among the *otkhodniki* living in the towns.²⁹ The peasants developed their own moral economy, which gave rise to distinctive forms of resistance to pressures from landlords and government officials. They carved out an independent social space in adapting to the market economy. In the migratory hiring markets, for example, they worked out their own strategies for dealing with capitalists without

surrendering their personal autonomy.³⁰ Among the peasantry at least two contradictory processes were at work, giving rise to sharp disagreements among contemporary observers and scholars alike.

On the one hand, there was evidence of increasing economic differentiation among the peasants, an involvement in the cash nexus, and an erosion of cultural life driven by labour migration and the spread of literacy, particularly affecting a younger generation on the eve of 1905. On the other hand, the smaller communes and older generation seemed still fixed in a semi-feudal world where the mutually dependent relationship with the landlord precluded them from taking direct action against their former masters. The peasantry did not act as a cohesive social force on the eve of the war.³¹ The peasantry as a whole nourished a set of aspirations that was not fully represented by any of the political parties after 1905. Among the peasantry ideas of political power were vaguely understood and oscillated between the two extremes of peasant monarchism and the spontaneous uprising (*buntarstvo*). The former may have weakened after Bloody Sunday in January 1905, but it did not entirely disappear, and briefly revived with the outbreak of war in 1914. Yet neither the conservative right nor the radical left were successful in mobilizing the peasants by appealing to either of these opposing traditions. Loyalty to the throne meant hostility to the nobility; peasant uprisings were an expression of indifference to or suspicion of "normal" politics. The acquisition of land without compensation stood at the head of peasant demands; but this did not exhaust the list. In the Peasants Union of 1905, the First and Second Dumas, and through the remaining years of the old regime, the peasants expressed in various contexts their demands for civil rights and local governance. An essential part of the "peasants' dream" was to regulate their own affairs free from external interference.³²

To be sure, the peasantry was being drawn into the external world, so that their isolation was never complete. In response to the growth of an all-Russian market, peasant migration increased from a total of about 1.2 million in the decade 1861–70 to over 8.77 million in the period 1906–10. A significant proportion of the able-bodied male population, especially in the Central Agricultural Provinces (CAP), was enmeshed in the cash nexus. But there was also evidence of regional differentiation among the peasantry. Different patterns of land tenure, land management, crop variations, and marketing techniques flourished in the North, the CAP, the south-west, the Baltic Provinces, and the Far East.³³ At the beginning of the twentieth century the spread of reading

through the popular genre of the peasant woodcut (*lubok*) brought new ideas into the countryside, but they were often absorbed into the older values without replacing them.³⁴

Countering the thesis that peasant isolation was eroding under the pressure of outside forces, there was evidence that the very process contributing to this trend was producing the opposite effect. The Stolypin reforms had a dual effect on the countryside. About half the peasant households were in some form of transition between the traditional communal and hereditary tenure. But only 10 per cent had actually achieved the end product of the reform, the individual detached farmstead with its house standing on a separate plot (*khutor*). The reforms not only initiated a movement towards separation of individual households, but also reinforced the surviving communes. As the bolder, more enterprising peasants left or petitioned to leave, those remaining behind strengthened communal institutions in order to preserve their collectivist life against disintegration and the loss of their livelihood. How deeply rooted the traditional peasant culture and collectivist traditions remained was dramatically demonstrated by the effects of the First World War, the Revolution, and Civil War. Between 1917 and 1921, one by one the peasants took direct action in order to fulfil their dream of egalitarian redistribution, wiping out Stolypin's strong individual homesteads as well as seizing state, church, and landlord properties. In defence of their archaic way of life, the peasantry engaged in a civil war of its own against all forms of superordinate authority. Following the defeat of their primary enemy, the White armies, they turned against the Bolsheviks. From 1920 to 1923 several large-scale peasant uprisings broke out in the Central Agricultural, Volga, and West Siberian provinces, each of which massed over 100,000 men against the Soviet power.³⁵ The process of integrating the peasantry into a civil society before the war had not proceeded far enough to prevent a massive reversion in times of crisis to the older traditions of the repartition of the land (*chernyi peredel*) and *buntarstvo*.

The changes taking place in the countryside, above all the great increase in migration to the cities, had a profound effect on the social cohesion of an urban working class. The formation of a Russian working class was a late development, the result of the lifting of the twenty-year period of temporary obligations imposed on the peasants by the terms of the emancipation in 1861 and the surge in industrial growth after 1891. Some of the migration was seasonal. Increasingly after 1900 a permanent workforce developed rapidly among those holding skilled

jobs in the large metallurgical and chemical factories in St Petersburg and Moscow. These better-educated younger workers differed in style and consciousness from the countrified workers and played a key role in organizing labour disturbances. But the tensions between the two groups remained even after their joint collective action in the revolution of 1905. Within a few years a further development of this social distinction among workers became evident. A new generation of workers, far more literate, rejected the tutelage of their elders and regarded with contempt the passivity and slavishness of the country bumpkins.³⁶ Workers of this type in both artisanal crafts and industrial plants formed the majority of the union movement on the eve of the war. But unionized workers in different occupations affiliated themselves with different political parties, not only Mensheviks and Bolsheviks but also Social Revolutionaries. In the borderlands, the workers associated themselves with ethnic parties, the Social Democracy of the Kingdom of Poland and Lithuania, the Jewish Bund in the Pale of Settlement, Hummet for the Azerbaizhan workers in Baku. These distinctions meant less in the revolutions of 1905 and February 1917 than they did subsequently in the disintegration of the Russian Empire and Civil War.

At the other end of the social spectrum, the nobility was also passing through a social transformation. Up to the revolution of 1905 there were strong indications that elements of the nobility were abandoning their *soslovie* mentality. The nobility was gradually losing its control over the land, having disposed of about one half their holdings between 1860 and 1905. Landless nobles had long been entering the bureaucracy and the professions. With profits from the sale of their lands, the economically more enterprising nobles moved into the towns, investing in capitalist enterprises and activities. They gradually accommodated to their new social identifications without wholly abandoning their noble status.³⁷ The lure of moving up the Table of Ranks had lost much of its charm and the old service mentality was withering away. By 1905 it was possible to distinguish three socio-economic layers and numerous occupational categories within the nobility.³⁸

The refusal of the autocracy to reform the archaic institutions of the Orthodox Church allowed the old wounds of schism and sectarianism to fester in the last half-century of the old regime. The belated introduction of religious toleration after 1905 raised the lid of the roiling world of heterodoxy. As early as the 1850s the Slavophil publicist and amateur ethnographer Ivan Aksakov began to uncover the deep layers of the Old Believer (*starovertsy*) culture in Central Russia.³⁹ The government

had attempted to win back the allegiance of the Old Believers by a combination of pressure and compromise through the agency of *edinnoverie*, a movement launched in 1800 which allowed its members to use the old Nikonian liturgy of the pre-schism period so long as they recognized the canonical authority of the Holy Synod and the official Orthodox Church. Many took the oath and then ignored it, continuing to maintain their secret chapels and their own priesthoods.⁴⁰ After 1905 the underground Old Belief broke to the surface. A vigorous press emerged, assuming more and more a stance of loyal opposition. Old Believer merchant-entrepreneurs took a leading role in the War Industries Committee and spearheaded criticism of the government for its inefficient conduct of the war and the failure to accept a cabinet responsible to the State Duma.

Similarly, the autocracy failed to overcome the particularism and opposition of the members of the Uniate Church who had been forced in 1839 and again in 1875 to renounce their faith and enter the official church. When religious toleration was introduced after the 1905 revolution, over 100,000 former Uniates rejected official Orthodoxy and returned to their faith. Orthodox religious leaders were appalled, regarding the defections as a seditious campaign by Polish Catholics.⁴¹ Up to the edict on religious toleration in 1905, confessions outside the dominant Russian Orthodox Church were divided into a hierarchy of three groups: those legally tolerated and acknowledged (including most Christian churches, Islam, Buddhism, and Lamaism); those tolerated in practice but not recognized juridically (Old Believers and some Protestant groups like the Mennonites); and those deemed “most pernicious” and punishable by law (the “spiritual” Christians, and deviant Protestant sects such as Stundists and Tolstoyans). Although the reform edicts established “toleration” for all confessions, this did not mean freedom of conscience or the abolition of discriminatory legislation standing in the way of equal civil rights. The political parties in the four Dumas were at loggerheads with the government and divided among themselves over the degree of religious freedom to be enshrined in the law.⁴² The idea of sectarians as revolutionaries has been dispelled as a myth, but their activities contributed to a “general undermining of respect for authority.”⁴³

In the waning years of the old regime, the Orthodox Church was plunged into “a genuine crisis in corporate self-understanding.” Controversies over many aspects of ecclesiastical life pitting ideas of hierarchy against community opened up deep fault lines among the faithful.⁴⁴ During the reign of Nicholas II profound disagreements arose between

the imperial family, the Holy Synod, and the mass of peasant believers over the true meaning of *pravoslavnyi*. The religious obscurantism of the imperial couple led to a series of controversies over canonization that opened up the concealed fissures dividing the faith of the common people from the bureaucratic structure of the Church. The tsar's misguided enthusiasm for creating new objects of religious piety offended high church officials who believed that they alone had the right to define what was saintly. These controversies spurred a reform movement within the Church aimed at re-establishing the Patriarchate that further divided the faithful.⁴⁵ The maximalists, like Dmitri Merezhkovskii, V.V. Rozanov, and V.A. Ternavtsev, sought a reconciliation of Orthodoxy and the intelligentsia, insisting that the Church find a solution to the problem of property and achieve a synthesis of God's justice and the justice of humanity.⁴⁶

Political Fragmentation in the old Regime

Political life in the Russian Empire on the eve of war was undergoing a similar process of fragmentation at all levels, from the institutions of governance to the organization of political parties. The autocracy exhibited three dangerous symptoms that at a time of external crisis proved life-threatening: a new invention of the autocratic principle, a divided bureaucracy, and the absence of a united government. At the heart of imperial rule, in theory, stood the certainty of the ruler that he embodied the concept of the state (*gosudarstvennost'*) as it had evolved over the centuries. But the self-image of the ruler had undergone repeated transformations which, according to Richard Wortman, "repeated the Petrine cadence, opening with energetic demonstrative change and discrediting, explicit or implicit, of the predecessor."⁴⁷ The rituals and myths that served to give formal legitimacy to the autocrat and to evoke deep-seated emotional responses from the people underwent another sharp reversal in the 1880s. In place of the godlike exemplification of Western values and the embodiment of the secular state, Alexander III surrounded his person with religious-nationalistic symbols.⁴⁸ At some basic level the autocrat turned away from the rational, secular, and technological values upon which Russia's status as a great power rested. As a counterweight to the growing influence of the specialized state and the more dynamic sector of the economy, which the last two tsars misunderstood and even suspected of undermining their authority, the artificial revival of religious-nationalist myths confused the bureaucratic reformers without winning the affection and loyalty of

the masses. This turning away was more pronounced with the accession of Nicholas II. Together with his wife, Alexandra, he desperately sought to nourish the illusion that his power, derived from God, also rested upon a mystic bond with the people. Nicholas II and Alexandra fostered a historic-religious myth by fusing two archaic objects of veneration: the resplendent Muscovite tsar enveloped in the hieratic Byzantine ritual, and the humble *starets* (spiritual elder) embedded in popular culture.⁴⁹ Inherently contradictory, confusing, and divisive, this attempted reinvention of Russia's pre-Petrine past was not readily accepted outside court circles.⁵⁰ The revival of the belief in a mystical bond of the throne with the people opened the way for the "dark forces" to penetrate the citadel of autocracy. As State Secretary V.I. Gurko observed, the Empress was drawn in part to Rasputin because "she took him to be the embodiment of the national popular idea."⁵¹

In the absence of any formal check or successful challenge to his authority, the autocrat continued to regard his power as his personal possession, albeit expressed by different scenarios. The post-reform tsars resisted the idea of forming a united government. The one exception that proved the rule was the brief experience of the Stolypin government; it proved the rule because once Stolypin was assassinated the old system, or lack thereof, was reintroduced, adding another layer of political practice. A united government meant first and foremost the creation of a cabinet headed by a powerful prime minister who would have exclusive access to the tsar. Second, it meant that the cabinet would be composed of individuals who enjoyed the confidence of the prime minister and were appointed by him.⁵² Up to the revolution of 1905 the ministers had been appointed by the tsar and they reported to him individually. Ministers were appointed and enjoyed their tenure as long as they enjoyed the favour of the tsar. Once in the chair they ran their departments like a clientele network, relying on favouritism and personal loyalty.⁵³ Even the Ministry of Finance, the most professionalized ministry, was not exceptional in this regard. In a premature effort to create a de facto united government, Witte organized the ministry as a clientele network and then used it as a springboard to colonize other ministries.⁵⁴ His efforts were only defeated by the equally powerful Ministry of Interior, the traditional bureaucratic opponent of Finance.

The creation of ministries under Alexander I was accompanied by the creation of a Committee of Ministers. The creation of a personal chancellery under Nicholas I was superimposed and largely replaced the committee without leading to its abolition. In 1857 another layer

was added by the Council of Ministers without again leading to the abolition of the previous organs. Presided over by the tsar, they met irregularly and infrequently. Meanwhile, the Senate, created by Peter the Great, continued to serve as another layer of administration, undergoing several shifts in its functions. The State Council, its members appointed by the tsar from a pool of superannuated state servitors, discussed, drafted, and voted their opinion on draft laws; but the tsar could approve the minority opinion when it suited him or ignore the entire formal structure and issue decrees from the throne or through individual ministers. There was no regularized procedure for passing legislation, and the various state institutions overlapped and duplicated one another. As a means to filling the administrative gaps in a divided government, specialized "supreme committees" were created, comprising "branch committees" for special tasks and territorial committees to bring unity to the regions where the authority of the governors general and the central ministries overlapped.⁵⁵

When the revolution of 1905 forced Nicholas II to accept a prime minister, he continued to subvert the idea of a united government. Those who tried to introduce it, like Witte and Stolypin, lost his confidence. Despite their best efforts, or perhaps because of them, Nicholas II allowed "interdepartmental warfare" to rage unabated. Ministers undermined one another, and dragged their quarrels into the public arena and the pages of the press.⁵⁶ Stolypin's successors, V.N. Kokovtsov and I.L. Goremykin, never made the effort to stem the disintegration of a united government.

A striking example of the overlaying of political concepts defining the state was the Fundamental Law of April 1906, which dropped the word "unlimited" from the old formula of the tsar's power but retained the word "autocratic." At the same time, the new law confirmed the exclusive right of the State Duma to pass legislation.⁵⁷ Frustrated by his lack of managerial skills, Nicholas increasingly perceived the bureaucracy as a limitation rather than an extension of his power.⁵⁸ In the last decade of the old regime, the governing institutions declined in influence and the personal role of the tsar grew accordingly. "The significance of the government really existed only in the most intimate circles of the tsar, and the personal character of government by the tsar emerged more clearly and sharply."⁵⁹ The opportunities multiplied for the court camarilla and for adventurers and charlatans to acquire influence over the tsar and the entire range of state policies.⁶⁰

By 1914 the lack of orderly procedures in the ministerial bureaucracies led to confusion and a decline of morale. As described by State

Secretary S.E. Kryzhanovskii, the process by which the draft law on the creation of the State Duma was drawn up within the bureaucracy may serve as a striking example of the administrative chaos. Discussions at the highest level revealed that the participants did not understand the complexities of the law, argued at length over minor points, and proposed corrections that violated their previous decisions. The government entered the electoral campaign without having introduced any political organization at the local level. As Kryzhanovskii lamented: "We had nothing like the European *landrat* or sub-prefecture." As a result, the government had to rely on the *soslovie* institutions of the nobility, primarily the marshals, who had by this time lost most of their administrative importance and their status among the rural population.⁶¹ During the war, the tsar's studied disregard of the bureaucracy increased and contributed to a demoralization of the central administration. The minister of finance, A.V. Krivoshein, was appalled that the departmental offices were half empty during the normal working day. Officials complained that they no longer received instructions from their superiors, including the Department of the Police. The rapid replacement of appointed officials in the provinces broke the chain of command. In the course of one year during the war, 87 out of 117 governors and vice-governors were sacked. A year before the February Revolution, the conservative paper *Novaia Vremiia* concluded that "the bureaucracy, isolated from the people, is no longer able to carry the entire burden of state power."⁶² Many officials abandoned any pretense of loyalty to their departments or the abstract concept of state order and made private deals to save their careers. Kryzhanovskii was advised to do the same and then ridiculed because he clung to the outmoded concepts of service and honour.

In the absence of an all-Russian representative assembly before 1905, there were no opportunities to form national political organizations. The zemstvo meetings often reflected the separation of rural Russia into two worlds. Ensnared behind the green baize table a small group of electors, close acquaintances or even relations, smoked and discussed local affairs while the peasant electors, ranged against the wall, sat in silence unless addressed by one of the notables who sought to invoke the voice of the people on his side. The political culture of the small circles of students and intelligentsia found its counterpart in the "circle-centred" life (*kruzhkovshchina*) of the zemstvos.⁶³ In the period before 1905 involvement in local affairs, particularly education, agricultural improvements, and public works, attracted the more forward-looking

nobles who came to dominate the zemstvo boards. Their meliorist outlook and personal participation in civic activities laid the foundations for Russian liberalism in the last quarter of the nineteenth century. But the majority of the nobility remained politically passive.

To the end of the nineteenth century, the nobility lacked an all-Russian *soslovie* structure, being organized only at the provincial level into noble assemblies (*dvorianskie sobraniia*). This corresponded to the policy of the autocracy aimed at keeping social groups fragmented and without political representation. Beginning in 1896 with the creation of the Special Conference of the Noble Estate (*Osoboe soveshchanie po dvorianskogo sosloviia*), representatives of the nobles began to discuss problems of concern to the nobility, as a whole limited, however, to the narrow concerns of the *soslovie*. The nobility was slow to react to the revolutionary events of 1905 and their activity was initially restricted to "small numbers of the salon type, circles and clubs."⁶⁴ Throughout the revolutionary years of 1905–6 nobles struggled to find a common voice, dividing into distinctive factions with respect to the basic questions of state order and the agrarian question. Despite bitter disputes, the contending groups agreed to form a Union of the United Nobility (*Ob'edinennoe dvorianstvo*), which contrary to its name was anything but united. Up to the outbreak of war it was dominated by a nucleus of conservative land-owning types who opposed any contact or cooperation with other political groups and failed to transform itself into a mass organization. Deeply divided politically, the nobility apportioned their votes in the Duma and loyalties to at least five groups, the monarchist right, the Nationalists, the Octobrists, the Kadets, and the Party of Peaceful Renewal. After a brief association with the Kadets, the nobles among the nationalities of the borderlands created their own national parties, like the Polish Kolo and Muslim Party.

Aroused by the threat of peasant rebellion in 1906, the formerly passive conservative majority of the landed nobility rallied to take control over the provincial zemstvos.⁶⁵ The new conservative majorities blocked the local government reforms proposed by Stolypin to introduce representative government at the lowest administrative level (*volost'*) in the countryside. They also fiercely resisted the idea that property as distinct from status should serve as the basis for zemstvo representation. "We are mainly distinguished from one another and united with one another by those cultural conditions which from time immemorial have unified us in establishing estates (*soslovie*)."⁶⁶ Invoking the archaic agrarian order of pre-Petrine Russia, they asserted that they represented

a socio-economic group (*bytovaia kul'turnaia grupp*a) that encompassed the entire countryside from the big landowner to the small peasant householder. They self-consciously referred to the sixteenth-century concept of *zemshchina*, the organic union of the two landed *soslovie*, nobility and peasantry, which had shared authority with the tsar's servitors. Rejecting two centuries of the bureaucratic state, the Union of the United Nobility challenged the entire ideological underpinning of the reforming bureaucrats under Stolypin's leadership who were proposing to complete the reforms of the 1860s by creating an all-class, civil society.⁶⁷ Their activities contributed to defeating the last systematic effort of the government to overcome the deep fault line separating the peasantry and landed nobility on the eve of war and revolution.

The organization of the United Nobility split wide open during the war. While the opposition noble assemblies demanded a responsible ministry, denouncing the mismanagement of the economy and the influence of the "dark forces," the traditionalists attacked the idea and even called for the dissolution of the State Duma. At the end of 1916, the growing liberal majority was turning against its own executive bureau (*Postoiannyi sovet*).⁶⁸ By this time, the nobility had surrendered any claim to be the ruling class of the tsarist monarchy.

The same splintering phenomenon characterized the political behaviour of the elite representatives of the nobility and bureaucracy sitting in the State Council, the reformed upper house of the new governing structure after 1906. The leading historian of this body has identified three major subgroups within the membership, representing three political tendencies: the centre, right, and left. After 1911, a fourth subgroup, the right centre, emerged. Yet the cohesion of these subgroups was problematic and the lines of separation among them were often blurred. The political views of many members were simply unknown. The floating membership on the flanks of the subgroups gave rise to the phenomenon of "the swamp," a term borrowed from the history of the Constituent Assembly during the early years of the French Revolution. They were often responsible for rejecting important pieces of legislation by voting first with one and then with another of the major political tendencies.⁶⁹ The general malaise and sense of hopelessness is vividly illuminated in the volume of letters of members of the ruling elite collected by the Department of Police in the course of their systematic reading of mail: "We live at the time of the Convention," wrote the prominent Kadet, L.A. Velikhov, in May 1914, recalling the traumatic days of the French Revolution.⁷⁰

Because there was no all-Russian political forum before 1906, many members of the political parties of the centre and right had gained their political experience in the local government institutions, the *zemstvos* and town *dumas*. Mainly drawn from the landed nobility, they carried with them into national politics the personal relationships, language, psychology, and practices characteristic of the student circles (*kruzhki*). Caught in the tension between structure and anti-structure, they were inspired by high ideals but opposed to a realization of their aims through a disciplined organization; suspicious of politics as practised in the bureaucracy, they found themselves forced to engage in it.⁷¹ During the halcyon days of revolution in 1905–6, they were flooded with new members and then just as suddenly deserted by them, fearful of police repression and disillusioned with conspiratorial tactics.

The parties of the right, more than two dozen of which briefly flowered after 1905, were more a collection of notables than political organizations. The sole exception was the Union of the Russian People. It had pretensions to become an All-Russian Party, but it too was made up of virtually independent local groupings. Indicative of the fragmented quality even of the right-wing parties, a split opened up between the Union of the Russian People and the All Russian Nationalist Party, created in 1908, which the former regarded as insufficiently wedded to the defence of the inviolability of Orthodoxy and unlimited autocracy. Other rightist parties attempted to form loosely organized “congresses” (*s"ezdy*), but could not agree to create a central bureau until 1915 and then failed to organize an effective executive. Both within and outside these parties, a multiplicity of terms were used to identify them: “genuinely Russian people,” “monarchists,” “reactionaries,” “black hundreds.” Seeking a more precise identification for themselves, the rightists had recourse to a variety of vague modifiers such as “extreme,” “moderate,” “orthodox” (*pravovernyye*). Unlike their ideologically related friends in the United Nobility, the parties of the right drew upon a wide variety of *soslovie* and professional groups, clergy, even a sprinkling of *meshane* and peasants. During the war, fearing an overthrow of the government, they opposed the civil activities of the liberal groups in the War Industries Committee and advocated a virtual dictatorship over society.⁷²

By 1914 the heirs of the liberal *Osvobozhdenie* movement, the Octobrists, Kadets, and Party of Peaceful Renewal, barely existed outside the two capitals. In preparations for elections to the Fourth Duma two years earlier, leaders in the Octobrists deplored the splits which were

paralyzing their party.⁷³ The central committee of the Kadet Party meeting on 22 March 1914 lamented that “the Kadet Party as an organization virtually does not exist.”⁷⁴ The central committee found itself on the verge of a split over such fundamental questions as the redistribution of land between the adherents of V.A. Maklakov and P.N. Miliukov. The smaller parties that sprang up in 1905–6 between the Kadets and the Octobrists, like the Party of Democratic Reform, the Party of Peaceful Renewal, and the Progressives, were elitist organizations, sharing the characteristics of both a political discussion club and a parliamentary faction without any aspirations to transform themselves into a mass party.⁷⁵ That the leadership of the *Progressisty* were mainly Old Believer capitalists who were strongly anti-Semitic, was another indication of the ideological splits in Russian liberal organizations.⁷⁶

On the left the burden of the past took the form of conspiratorial activities necessary to survive in illegality and on occasion the practice of terror, a tradition going back to the Populist movement (*narodniki*) of the 1870s which infected its successor the Socialist Revolutionary Party and the Marxist parties as well. Soon after its founding in 1902, the SR Party fragmented along the old fault lines between Maximalists preaching terror and moderates seeking to renew agitational work among the peasantry. Unable to reconcile the differences, the centre of the party failed to chart a new course.⁷⁷ The war merely intensified the factional differences among them. In November 1917 the left definitively broke away to form its own party of Left Socialist Revolutionaries.⁷⁸

Marxists owed much to the populist tradition even as they turned away from it to embrace the proletariat as the mass base for their revolutionary movement. Differences on matters of tactics that divided the “economists” from the “revolutionaries” emerged early in the movement, and the question of terror was never entirely resolved.⁷⁹ The major split between Bolsheviks and Mensheviks did not signify the emergence of two unified and disciplined parties. Factionalism among the Bolsheviks first emerged in the conflict between Lenin and Alexander Bogdanov over the issue of Duma representation, in which Lenin briefly found himself in the minority.⁸⁰ Lenin briefly rallied the party in 1917. As a phenomenon still underappreciated, the civil war accelerated factionalism within the party, swollen to mass proportions for the first time as the institutions collapsed and society was torn apart. By the end of the Russian civil war, the splintering of the Bolshevik Party, a phenomenon still not fully appreciated, helps explain the ban on factionalism instituted at the Tenth Party Congress in 1921.⁸¹

Within Menshevism, four distinct groups (*kruzhki*) were operative on the eve of the war. They did not join together until February 1917, and then split again over the issue of the war between defensists and internationalists.⁸²

Illustrative of vertical faults in Russia's political culture, the explosive expansion of national movements in the revolution of 1905 gave rise to a proliferation of national parties throughout the borderlands.⁸³ Many of these parties were short-lived, fading away during the years of reaction. But the stronger ones emerged from the shadows again in 1917. While these parties shared many programmatic concerns of the socialist and non-socialist parties, their national aspirations, still couched to be sure in the language of autonomy rather than independence, nevertheless set them apart from the parties of the centre and right, which were almost entirely dominated by Russians. The Polish "Kolo" was exceptional in its mass appeal, its steadfastness, and its demands for broad autonomy for Catholic Poles and its assimilationist policy aimed at Jews, Belorussians, and Lithuanians.⁸⁴ More loosely organized and less nationalistic than religiously oriented, the All Russian Muslim Party (Ittifaka) associated itself with the Kadets in the First and Second Duma. But it differed from them on the agrarian and national question. From the outset it was plagued with the problem of reconciling conflicting ideological positions within the Muslim intelligentsia. Although these differences were never resolved, the party reemerged at the outbreak of the First World War, illustrating the gap that continued to exist between the national and Russian parties.⁸⁵ In the South Caucasus, out of dozens of mainly splinter parties, three emerged as dominant, the Georgian Mensheviks, the Armenian Dashnaktsutun (Dashnaks), and the Muslim Himmet. All combined to a lesser or greater degree national and socialist planks in their platforms in ways that set them apart from the major Russian-oriented socialist parties.⁸⁶ In the Western borderlands another fragmented picture emerged. Two Polish socialist parties and the Jewish Bund, vied with one another for the same constituency of workers, yet each one divided internally over whether to embrace either internationalist or nationalist goals.⁸⁷

In sum, it is possible to single out three major factors contributing to the absence of a common political culture in the Russian Empire on the eve of the First World War. Russia's rulers chose repeatedly to layer over rather than abolish previous institutions established by their predecessors. In part, this was an acknowledgment by the tsar of his predecessor as the representative of the divine will whose decrees were

sacred. Perhaps even more important, the maintenance of a measure of administrative chaos was a conscious strategy to prevent the emergence of a rational, law-governed system that would limit the absolute power of the tsar. The result was a confusion of overlapping administrative lines which the tsar could manipulate at will. At the same time, the autocrats opposed the creation of alternative political organizations and retarded the development of a unified citizenship, once again in the interest of maintaining absolute power, but at the price of confusing social identifications and hampering constructive social action.⁸⁸

The economic life of the country evolved in irregular rhythms, developing unevenly, reflecting strong regional traditions, a slow growth of urbanization except in St Petersburg and Moscow, and poor communications over great distances. Consequently, linkages among groups of similar socio-economic interest were tenuous and easily frayed. Finally, the late appearance of organized political groups, most of which could not free themselves from their intellectual origins as small circles of intellectuals, many existing in a clandestine and hence conspiratorial milieu, which were hardly suitable for the give and take of parliamentary life, which, it must be stressed, lasted barely a decade.

In sum, Russian politics and social life were deeply split along both horizontal and vertical lines; the socio-economic and ethno-territorial categories of identification were blurred and unstable. There was no agreement among the multiplicities of political groups over the nature of power and the very form of the state. Exceptionally and in the face of government incompetence, the coming together of representatives of the centrist political parties into a Progressive bloc during the war was of short duration, and it fell apart after the February Revolution. The absence of social cohesion meant that a severe external trauma such as that provided by a major modern war would break apart the ramshackle edifice of the state with little prospect of its reconstruction on firmer ground without an intervening period of violence among the fragmented elements out of which only the most disciplined and determined, sharing common values, would emerge triumphant.⁸⁹

Notes

Foreword

- 1 In print for almost 35 years, it is a classic of the field: *Merchants and Entrepreneurs in Imperial Russia* (Chapel Hill, 1982).
- 2 Rieber, *The Struggle for the Eurasian Borderlands from the Rise of Early Modern Empires to the End of the First World War* (New York, 2014); and *Stalin and the Struggle for Supremacy in Eurasia* (New York, 2015).

Introduction

- 1 The terms backwardness and West are equally open to debate. Backwardness implies inferiority, and was challenged by the great Russian historian S.M. Solov'ev, who suggested as a replacement the term "retardation," implying a delay in time that could be overcome, an interpretation one might suggest was rephrased by the Bolsheviks as "catching up with the West." Similarly, "the West" too is much too vague a term and meant different countries at different times. But the terms are so embedded in the historical literature that with these caveats in mind, they will be retained here.
- 2 The Hegelian foundations of this view were already foreshadowed as early as 1847 by Fedor Chizhov, who later became the archetypical Slavophil entrepreneur, in a statement during his interrogation by the Gendarmes of the Third Section. "The new rising race [Slavs] were not more clever than their [German] predecessors, but in their nature carried a principle of something hostile to them, that then impelled them forward and ... in its fulfillment becomes more highly developed than in the previous period." Tsentralnyi gosudarstvennyi arkhiv oktiabr'skoi revoliutsii, f. 109, d. 81, ch. 15, list 77, as quoted in Iu. Ianovskii, *Patriarkhal'no-dvorianskaia utopia* (Moscow, 1981).

- 3 For the Moscow entrepreneurial group, see my *Merchants and Entrepreneurs in Imperial Russia* (Chapel Hill, NC, 1983), esp. chaps. 4 and 5, and Thomas Owen, *Capitalism and Politics in Russia* (Cambridge, MA, 1981), esp. chaps. 2 and 3.
- 4 Similar bureaucratic interest groups continued to form in imperial Russia into the twentieth century. See, for example, Peter Holquist, “‘In Accord with State Interest and the People’s Wishes’: The Technocratic Ideology of Imperial Russia’s Resettlement Administration,” *Slavic Review* 69, no. 1 (Spring 2010), 151–79.
- 5 Cf. Marion Fourcade, *Economists and Societies: Discipline and Profession in the United States, Britain and France, 1890 to 1990s* (Princeton, 2009), 28–9.
- 6 For the cameralists see Marc Raeff, *The Well-Ordered Police State: Social and Intellectual Change through Law in the Germanies and Russia, 1600–1800* (New Haven, 1983); for the physiocrats, see John M. Letiche, ed., *A History of Russian Economic Thought from the Ninth to the Nineteenth Century* (Berkeley, 1964).
- 7 Alfred J. Rieber, “Dmitrii Miliutin and the Military Group in the Era of the Great Reforms,” in Albina Krymskaia, ed., *Istoriia, Vremia, Obshchestvo: Sbornik 90 letiiu chlen-korrespondenta RAN, Rafaila Sholomovicha Ganelina (1926–2014)* (St Petersburg, 2017), 255–93.
- 8 P.A. Zaionchkovskii, ed., *Dnevnik P.A. Valueva. Ministra vnutrennikh del*, 2 vols. (Moscow, 1961), vol. 1 (1861–1864), 99.
- 9 *Ibid.*, 115.
- 10 Alfred J. Rieber, *The Politics of Autocracy* (The Hague, 1966), 15–58.
- 11 *Dnevnik Valueva*, vol. 1, 81.
- 12 L.A. Zakharova, ed., *Vospominaniia D.A. Miliutina*, vol. 1 (Moscow, 1999), 111.
- 13 Alfred J. Rieber, “Alexander II: A Revisionist View,” *Journal of Modern History*, vol. 43, no. 1 (March 1971), esp. 42–58 and Rieber, “Interest-Group Politics in the Era of the Great Reforms,” in John Bushnell, Ben Eklof and Larissa Zakharova, eds., *The Great Reforms* (Bloomington, 1994), 78–80.
- 14 Paul Bushkovitch, *Peter the Great: The Struggle for Power, 1671–1725* (Cambridge, 2001), 26–45, 137, 184–6, and *passim*.
- 15 David Ransel, *The Politics of Catherinian Russia: The Panin Party* (New Haven, 1975).
- 16 Barbara Meehan-Waters, *Autocracy and Aristocracy: The Russian Service Elite of 1730* (Rutgers, NJ, 1982); R.E. Jones, *The Emancipation of the Russian Nobility, 1762–1785* (Princeton, 1973).
- 17 No study exists of private organizations before the Great Reforms, but a useful starting point is the article “Obshchestvo,” in F.A. Brokgauz and I.A. Efron, eds., *Entsiklopedicheskii slovar’*, 82 vols. (St Petersburg, 1895–1904),

- vol. 42, 607–28. On the law regulating the Free Economic Society see *Polnoe sobranie zakonov rossiiskoi imperii*, series I, 8 April 1792, no. 15356; for testimonials from the major scientific and scholarly societies in the empire see *Bulletin de la Société impériale des naturalistes de Moscou. Séance extraordinaire solonelle du 28 décembre 1855 à l'occasion du jubilé semiseculaire, supplément*, vol. 29 (Moscow, 1856); for the law of December 1836 on joint stock companies, see L.E. Shepelev, *Aksionernye kompanii v Rossii* (Leningrad, 1973), 46–54; for the Geographical Society, see L.S. Berg, *Vsesoiuznoe geograficheskoe obshchestvo za sto let* (Moscow, 1946), 180–2; for charitable societies, see Adele Lindenmeyr, “Voluntary Associations and the Russian Autocracy: The Case of Private Charity,” *Carl Beck Papers*, no. 807, Pittsburgh (June 1990); for a more general argument, see Jonathan Bradley, *Voluntary Associations in Tsarist Russia: Science, Patriotism and Civil Society* (Cambridge, MA, 2009).
- 18 Alfred J. Rieber, “Bureaucratic Politics in Imperial Russia,” *Social Science History* 2, no. 4 (Summer 1978), 407–8; Marc Raeff, “The Russian Autocracy and Its Officials,” in *Harvard Slavic Studies, Russian Thought and Politics* (Cambridge, MA, 1957), vol. 5, 77–91; Daniel T. Orlovsky, *Limits of Reform: The Ministry of Internal Affairs in Imperial Russia, 1802–1881* (Cambridge, MA, 1981), 21, 24, 32, and 123.
- 19 W. Bruce Lincoln, *In the Vanguard of Reform: Russia’s Enlightened Bureaucrats, 1825–1861* (DeKalb, IL, 1982).
- 20 Rieber, *Merchants*, chapters 6 and 8.
- 21 See, for example, Alfred J. Rieber, “The Debate over the Southern Line: Economic Integration or National Security?” *Journal of Ukrainian Studies*, (Summer – Winter 2004), 371–97.
- 22 For the rise of the periodical press in the 1840s see Nicholas V. Riasanovsky, *A Parting of Ways: Government and the Educated Public in Russia, 1801–1855* (Oxford, 1976), 280–1.
- 23 A.M. Skabichevskii, *Ocherki istorii russkoi tsenzury (1700–1863)* (St Petersburg, 1892), 398–407, 421–43, 490; Mikhail Lemke, *Epokha tsenzurnykh reform, 1859–1865 godov* (St Petersburg, 1904), 202; Ministerstvo vnutrennikh del, *Sobranie materialov o napravlenii razlichnykh otraslei russkoi slovestnosti za poslednee desiatiletie i otechestvennye zhurnalistiki za 1863 i 1864 g.* (St Petersburg, 1865), 216–17, 244–5; Charles A. Ruud, *Fighting Words: Imperial Censorship and the Russian Press, 1894–1906* (Toronto, 1982), chaps. 7 and 8; V.A. Tvardovskaia, *Ideologiia poreformennogo samodержaviiia (M.N. Katkov i ego izdaniia)* (Moscow, 1978).
- 24 For insights into how these particularist elements played out in 1917 in the provinces see Donald J. Raleigh, “The Revolution of 1917 and the

Establishment of Soviet Power in Saratov,” in Rex A. Wade and Scott J. Seregny, eds., *Politics and Society in Provincial Russia* (Columbus, OH, 1989), 277–306 and Sarah Badcock, *Politics and the People in Revolutionary Russia: A Provincial History* (Cambridge, 2007), 30–55 and 238–9.

1 The Petrine Vision and Its Fate

- 1 For Peter as a reforming tsar who enshrined duty as the dominant moral constituent of his secular and progressive project see Cynthia H. Whittaker, “The Reforming Tsar: The Redefinition of Autocratic Duty in Eighteenth Century Russia,” *Slavic Review* 51, no. 1 (Spring 1992), 77–98. For the ideological foundations of his concept of power see James Cracraft, “Empire versus Nation: Russian Political Theory under Peter I,” *Harvard Ukrainian Studies* 10, nos. 3–4 (1986), 524–41.
- 2 Jacques Ellul, *The Technological Society* (New York, 1973) defines a society based on technique as one in which technology and social organization are combined to maximize production. Cf. Alexander Gerschenkron, *Economic Backwardness in Historical Perspective: A Book of Essays* (Cambridge, MA, 1962), 18, who defines Peter’s aims: “to adopt Western techniques, to raise the output and skills of the population more closely approaching those of the west” in order “to support effectively the power aspirations of the government” without, however, altering the social structure. Marc Raeff, *The Well-Ordered Police State: Social and Institutional Change through Law in the Germanies and Russia, 1600–1800* (New Haven, 1983), 204 defines Peter’s reform within the context of the Aufklärung as having “attempted to turn the imperial government into an agency for the direction and organization of a dynamic, production-oriented society.”
- 3 M.M. Bogoslovskii, *Peter I. Materialy dlia biografii*, vol. 2, pt. 1 (Moscow, 1941), 398–9.
- 4 *Ibid.*, 304–10; L.G. Beskrovnyi, “Voennye shkoly v pervoi polovine XVIII v., *Istoricheskie zapiski*, vol. 42 (1953), 295.
- 5 John Perry, *The State of Russia under the Present Czar* (London, 1716), 2, 4–8, 28, 41; K.A. Oppenheim, *Rossia v dorozhnom otnoshenii* (Moscow, 1920), 8.
- 6 André Maistre, *Le canal des deux mers: Canal royal du Languedoc, 1766–1810* (Toulouse, 1968), 31–5; Charles Hadfield, *British Canals* (Devon, 1966); J.R. Ward, *The Finances of Canal Building in Eighteenth Century England* (Oxford, 1974).
- 7 R.A. French, “Canals in Pre-revolutionary Russia,” in J.H. Bate and R.A. French, eds., *Studies in Russian Historical Geography* (London, 1983), 451–79.
- 8 Roger Portal, *L’Oural au dix-huitième siècle* (Paris, 1950), 65–88.

- 9 Dmitrii Baburin, *Ocherki po istorii manufakturnoi kollegii* (Moscow, 1939), 77–90.
- 10 Herbert Kaplan, “Russia’s Impact on the Industrial Revolution in Great Britain during the Second Half of the Eighteenth Century: The Significance of International Commerce,” *Forschungen zur Osteuropaischen Geschichte* 29 (1981), 1–35; Arcadius Kahan, *The Plow, the Hammer and the Knout: An Economic History of Eighteenth-Century Russia* (Chicago, 1985), esp. chaps. 2 and 3.
- 11 François Blondel, “L’art de jeter les bombes” [1683], in René Dugas, *Mechanics in the Seventeenth Century* (New York, 1958), 537–43; E.G.R. Taylor, *The Mathematical Practitioners of Tudor and Stuart England* (Cambridge, 1954), esp. chap. 8; Michael Roberts, “The Military Revolution, 1560–1660,” in Michael Roberts, ed., *Essays in Swedish History* (London, 1967), 211. Cf. A.R. Hall, “Military Technology,” in S. Singer, *A History of Technology* (Oxford, 1957) and G.P.B. Naish, “Ships and Shipbuilding,” *ibid.*, which stress the empirical side of weapons technology.
- 12 Beskrovnyi, “Voennye shkoly,” 285–90, 294–300.
- 13 Letter to Thomas Burnett cited in Markku Roinila, “Leibniz in Russia,” <http://www.helsinki.fi/~mroinila/russia.htm>.
- 14 Oleg Nemirov, “His Majesty’s Cabinet and Peter I’s Kunstkammer,” in Oliver Impy and Arthur MacGregor, eds., *The Origins of Museums: The Cabinet of Curiosities in 16th and 17th Century Europe* (Oxford, 1985), 54–61; and T.V. Staniukovich, *Kunstkamera Peterburgskoi akademii nauk* (Moscow, 1963).
- 15 P.P. Pekarskii, *Vvedenie istoriiu prosveshcheniia v Rossii XVIII stoletii* (St Petersburg, 1862), 26–7.
- 16 “On an Academy of Arts and Sciences” (Letter to Peter the Great, 1716), in Philip P. Wiener, ed., *Leibniz. Selections* (New York, 1951), 594–9.
- 17 *Ibid.*, xx–xxii.
- 18 “Towards a Universal Characteristic” (1677), *ibid.*, 17.
- 19 V. Ger’e, *Sbornik pisem i memorialov Leibniza otnosiashchikhsia k Rossii i Petremu Velikommu* (St Petersburg, 1873), 348–60.
- 20 These ideas are most easily accessible in the original in G.W. Leibniz, *Essais de Théodicée ...*, ed. J. Jalabert (Paris, 1962), especially the “Preface” and G.W. Leibniz, *The Monadology and Other Philosophical Writings*, ed. R. Latta (London, 1898). The interpretive literature is vast.
- 21 On Wolff’s correspondence see Akademiia Nauk, *Briefe von Christian Wolff aus den Jahren 1719–1753* (St Petersburg, 1860).
- 22 Gregory Freeze, *The Russian Levites: Parish Clergy in the Eighteenth Century* (Cambridge, MA, 1977), 35.

- 23 In his otherwise thorough work on Prokopovich, James Cracraft barely acknowledges Prokopovich's interest in promoting scientific and mathematical studies. *The Church Reform of Peter the Great* (London, 1971), 52, 54, and 59 n. 2.
- 24 J.M. Hussey, *Church and Learning in the Byzantine Empire, 867–1185* (New York, [1937] 1963), 63, 64, 74, 81.
- 25 Feofan Prokopovich, *Slova i rechi* (St Petersburg, 1760), vol. 1, 241–8; Petr Morozov, *Feofan Prokopovich kak pisatel'* (St Petersburg, 1880), 116, 129, 140; Makarii Bulgakov, *Istoriia kievskoi akademii* (St Petersburg, 1843), 113, 194–6.
- 26 P.V. Znamenskii, *Dukhovnye shkoly v Rossii do reformy 1808 goda* (Kazan, 1881), 53–4, 64–5.
- 27 Hussey, *Church and Learning*, 179 and chaps. 9 and 10.
- 28 Iuri F. Samarin, "Stefan Iavorskii i Feofan Prokopovich," in *Sochineniia I. F. Samarina* (St Petersburg, 1880), vol. 5, 310 and 318.
- 29 Feofan Prokopovich, *Sochineniia* (Moscow, 1861?), pp. 66, 105, 107, 114, 121–6, 136.
- 30 P.V. Verkhovskoi, *Uchrezhdenie dukhovnoi kollegii dukhovnoi reglamenta* (Rostov on the Don, 1916), vol. 2, 57.
- 31 Marc Raeff, "Western Thought in Eighteenth Century Russian Culture," in *The Eighteenth Century in Russia*, ed. J. Garrard (Oxford, 1973).
- 32 K.V. Kharlampovich, *Malorossiiskoe vliianie na velikoruskuiu tserkovnuiu zhizn'* (Kazan, 1914; repr. at The Hague, 1968), 459–60, 636.
- 33 Based on data in L.F. Zmeev, *Russkie vrachi-pisateli* (St Petersburg, 1886), vol. 1, 1, and P. Tikhov, "Meditsina v Rossii v epokhu napoleonovskikh vojn," in *Zhurnal Ministerstva narodnogo prosveshcheniia* 46, no. 4 (1913), 8 and 74.
- 34 P.E. Zabludovskii, *Istoriia otechestvennoi meditsiny* (Moscow, 1960), vol. 1, 49–51. Peter brought back 150 doctors from Europe after his Great Embassy.
- 35 M.M. Shtrange, *Demokraticheskaia intelligentsia* (Moscow, 1965), 30, 37, 47, 57, 60.
- 36 A.S. Lebedev, "Kharkovskii kollegium kak prosvetitel'nyi tsentr Slobodskoi Ukrainy," in *Chtenie v Imperatorskom obshchestve istorii i drevnostei rossiiskikh* (October – December 1885), 9–12.
- 37 T.I. Vozdvizhenskii, *Istoricheskoe obozrenie Riazanskoi ierarkhii* (Moscow, 1820), 247–8; K.V. Kartashev, *Ocherki po istorii russkoi tserkvi*, 2 vols. (Paris, 1959), vol. 2, 547–9.
- 38 P.P. Pekarskii, *Istoriia imperatorskoi Akademii nauk v Petersburge*, 2 vols. (St Petersburg, 1873), vol. 2, 265–90.
- 39 *Ibid.*, vol. 1, xiv–lii.
- 40 Alexander Vucinich, *Science in Russian Culture: A History to 1860*, 2 vols. (Stanford, 1963), vol. 1, 82–9, 104–13.

- 41 Pekarskii, *Istoriia Akademiia*, vol. 2, 341–2, 471.
- 42 Henry M. Leicester, “Mikhail Lomonosov and the Manufacturing of Glass and Mosaics,” *Journal of Chemical Education* 46 (May 1969), 295–8.
- 43 G.D. Komkov, B.V. Levshin, and P.K. Semenov, *Akademiia nauk SSSR. Kratkii istoricheskii ocherk* (Moscow, 1974), 79.
- 44 K.N. Bestuzhev-Riumen, *Biografii i kharakteristiki* (St Petersburg, 1882), pp. 9–140; A. M. Lazarevskii, “Vasili Nikitich Tatishchev,” in F.A. Brokgaus and I.A. Efron, eds., *Entsiklopedicheski slovar’* (St Petersburg, 1901), vol. 64, 672–5; henceforth B/E.
- 45 Beskrovnyi, “Voennye shkoly, 298.
- 46 Alfred J. Rieber, *Merchants and Entrepreneurs in Imperial Russia* (Chapel Hill, 1982), 40–1.
- 47 Arcadius Kahan, “The Costs of Westernization: The Gentry and the Russian Economy in the Eighteenth Century,” *Slavic Review* 25, no. 1 (March 1966), 60–6.
- 48 Michel Confino, *Domaines et seigneurs en Russie vers la fin du XVIIIe siècle* (Paris, 1963), 54.
- 49 M.S. Maksimovskii, *Istoricheskii ocherk razvoitiia Glavnogo inzhenerenogo uchilishcha, 1819–1869* (St Petersburg, 1869), 9–10, 20–1; Pierre Bazaine, “Rech’ proiznosennaia direktorom Instituta korpusa soobshcheniia” *Zhurnal putei soobshcheniia* 23 (1831), 1–5.
- 50 Oppengeim, *Rossia*, 7–17.
- 51 Joseph Schumpeter, *History of Economic Analysis* (New York, 1954), 228.
- 52 The basic work, by N.N. Firsov, *Pravitel’stvo i obshchestvo v ikh otnosheniiaakh k vneshnei torgovle Rossii v tsarstvovanie Imperatritsy Ekateriny II* (Kazan, 1902), emphasizes the physiocratic element. David Ransel, *The Politics of Catherinian Russia: The Panin Party* (New Haven, 1975), 147, detects a strong dose of German cameralism while correctly attributing the “anonymous memo” in Firsov to Teplov. Wallace Daniel finds it impossible to attribute the document to either cameralist or physiocratic influence. Wallace Daniel, “The Merchantry and the Problem of Social Order on the Russian State: Catherine II’s Commission of Commerce,” *Slavic and East European Review* 55, no. 2 (April 1977), 85–203.
- 53 The influence of physiocratic doctrine on the tariff policy is supported by all the main pre-revolutionary Russian authorities. Firsov, *Pravitel’stvo i obshchestvo*, 210–15; Konstantin Lodyzhenskii, *Istoriia russkogo tamozhennogo tarifa* (St Petersburg, 1886), 140; V.S. Ikonnikov, *Znachenie tsarstvovaniia Ekateriny II* (Kiev, 1897), p. 37. It is difficult to understand how the historian Paul Miliukov could write in 1902, “In Russian society the idea of the physiocrats as a well known political-economic doctrine, had no kind of

- noticeable influence," merely on the basis of some hostile remarks of Catherine about economists. P. Miliukov, "Fisiokraty v Rossii," B/E, vol. 70, 695.
- 54 Firsov, *Pravitel'stvo i obshchestvo*, 217–23.
- 55 A.I. Khodnev, *Istoriia Imperatorskogo Volnogo Ekonomicheskogo Obshchestva s 1765–1865 goda* (St Petersburg, 1865).
- 56 Paul Dukes, ed., *Catherine the Great's Instruction to the Legislative Commission, 1767* (Newtonville, MA, 1977), 81–2, 83. I have slightly modified the translation, which is in general preferable to that in W.F. Reddaway, ed., *Documents of Catherine the Great* (Cambridge, 1931), 313. Catherine's remarks in the 1780s are summarized in Lodyzhenskii, *Istoriia tarifa*, 107–8.
- 57 Confino, *Domaines et seigneurs*, 203–8 and throughout.
- 58 P.N. Berkov, "Histoire de l'Encyclopédie dans la Russie du XVIIIe siècle," *Revue des études slaves* 42 (1965), 47–58.
- 59 V.S. Virginskii, *Tvoitsy novoi tekhniki v krepostnoi Rossii*, 2nd ed. (Moscow, 1962), chaps. 2 and 4; Komkov et al., *Akademiia nauk*, 80, 118.
- 60 I.L. Znachko-Iavorskii, *Ocherki istorii viazhushchikh veshchestv ot drevneishikh vremen do serediny XIX veka* (Leningrad, 1963). I am grateful to the author for bringing this work to my attention and discussing its significance.
- 61 Joseph Laurence Black, *Citizens for the Fatherland: Education, Educators and Pedagogical Ideals in Eighteenth Century Russia* (Boulder, CO, 1979); Max J. Okenfuss, "Education and Empire: School Reform in Enlightened Russia" *Jahrbucher für Geschichte Osteuropas* 27, no. 1 (1979), 41–68; Isabel de Madariaga, *Russia in the Age of Catherine the Great* (New Haven, 1981), 488–502.
- 62 Rozhdestvenskii, *Istoricheskii obzor*, 19, 24, 26, 68.
- 63 G.M. Soldatov, *Arsenii Matseevich, mitropolit Rostovskii, 1696–1772* (St Paul, MN, 1971), 112–30.
- 64 Kharlampovich, *Malorossiiskoe vliianie*, 461, 465, 468–9, 486, 489.
- 65 Smirnov, *Istoriia Moskovskoi*, 301, 311–12; Kartashev, *Ocherki po istorii russkoi tserkvi*, vol. 1, 549.
- 66 M.I. Demkov, *Istoriia russkoi pedagogii* (St Petersburg, 1897), 116, 129, 345–8, quotation on 348.
- 67 In a muted debate, Marc Raeff, *The Well Ordered Police State*, 222–3 emphasizes Catherine's debt to the rhetoric of Central European cameralism in her pragmatic approach to administrative and legal reform; while Isabella de Madariaga, *Russia in the Age of Catherine*, 162, 194, 283, 335–41, 553, gives precedence to the influence of the French *illuminés*.
- 68 Claus Scharf, *Katharina II: Deutschland und die Deutsche* (Mainz, 1995), 130–47, which incorporates a large literature in English, German, and Russian. From 1783–96, 43,000 copies in seven editions made this the most widely disseminated book in Catherine's reign. *Ibid.*, 143.

- 69 Ibid., 145; M. Vladimir-Budanov, *Gosudarstvo i narodnoe obrazovanie v Rossii XVIII veka* (Iaroslavl, 1874), 323–4.
- 70 *Izobrazhenie zhizni pokoinogo inzhenera-generala F.V. Bauer* (St Petersburg, 1785); *Kratkii istoricheskii ocherk razvitiia i deiatel'nosti vedomstva putei soobshcheniia za sto let ego suchestvovaniia* (St Petersburg, 1898), 6.
- 71 A.M. Loranskii, *Kratkii istoricheskii ocherk administrativnykh uchrezhdenii gornogo vedomstva v Rossii 1700–1900 gg.* (St Petersburg, 1900), 27–9.
- 72 L.V. Kamosko, “Izmeneniia soslovnogo sostava uchashchikhsia srednei i vyshei shkoly Rossii (30–80e gody XIX v.),” *Voprosy istorii*, no. 10 (1970), 204.
- 73 D.I. Rostislav, “Zapiski,” *Russkaia starina* 5, no. 27 (1880), 114–18.
- 74 Rieber, *Merchants*, 8–31; Paul Bushkovitch, “Towns, Trade and Artisans in Seventeenth Century Russia: The View from Eastern Europe,” *Forschungen zur osteuropaischen Geschichte* 27 (1980), 215–32; and J.M. Hittle, *The Service City: State and Townspeople in Russia, 1600–1800* (Cambridge, MA, 1979).
- 75 Ludvig Bakmeister, *Topograficheskaia izvestiia sluzhashchiia dlia polnago geograficheskago opisaniia Rossiiskoi imperii* (St Petersburg, 1771–3), vol. 1, 125–6; vol. 3, 219–23; vol. 4, 292–304.
- 76 V.N. Frolov et al., eds., *Dorogi Rossii: Stranitsy istorii dorozhnogo dela* (Moscow – St Petersburg, 1996), written by scholars for a popular audience, contains evocative visual images and citations from literary sources on the role of roads in Russian culture.
- 77 Oppenheim, *Rossia*, 39.
- 78 D.P. Ilyinskii and B.P. Ivanitskii, *Ocherk istorii russkoi parovozostroitel'noi i vagonostroitel'noi promyshlennosti* (Moscow, 1929), 11.
- 79 Manfred Hildermeir, *Burgertum und Stadt in Russland, 1760–1870* (Cologne, 1986), 166 and P.G. Ryndziunskii, *Gorodskoe grazhdanstvo doreformennoi Rossii* (Moscow, 1958), 34.
- 80 A. Korsak, *O formakh promyshlennosti voobshche i o znachenii domashnego proizvodstva v zapadnoi Evropy i Rossii* (Moscow, 1861), 109.
- 81 B.M. Mironov, *Russkii gorod v 1740–1860e gody* (Leningrad, 1990), 225–36, quotation on 236.

2 From Aufklärung to Romantic Idealism

- 1 Nicholas Jardine, “Naturphilosophie and the Kingdoms of Nature,” in Nicholas Jardine, J.A. Secord, and Emma C. Spary, eds., *Cultures of Natural History* (Cambridge, 1996), 232–3, and Peter Hanns Reill, “The Legacy of the ‘Scientific Revolution’: Science and the Enlightenment,” in Roy Porter, ed., *The Cambridge History of Science*, vol. 4 *Eighteenth Century Science* (Cambridge, 2003), 32–43.

- 2 This has led to differing interpretations among scholars on the relative importance of reason and empiricism, on the one hand, and the aesthetic and speculative, on the other. Timothy Lenoir, "The Göttingen School and the Development of Transcendental Naturphilosophie in the Romantic Era," in *Studies in the History of Science* (Baltimore, 1981), col. 5, 111–15 advances the proposition that there was a sharp distinction between what he calls the biologist-mystics, who followed Schelling, and teleomechanists, who were thoroughly empirical but at the same time proponents of a teleology driven not by religion but by an adherence to that which was philosophically justifiable, i.e., "good science." Lenoir has been criticized by Leeann Hansen, "From Enlightenment to Naturphilosophie: Marcus Herz, Johann Christian Reil and the Problem of Border Crossings," *Journal of the History of Biology* 26, no. 1 (Spring 1993), 39–64 on the grounds that many of his teleomechanists had adopted modes of analysis developed by Schelling. For a more comprehensive critique see the fundamental work of Robert J. Richards, *The Romantic Conception of a Life: Science and Philosophy in the Age of Goethe* (Chicago, 2002), 3–4, 227–35 and throughout.
- 3 Of the many appreciations of both Göttingen and Blumenbach in German academic life, see especially Luigi Marino, *Praeceptores Germaniae: Göttingen, 1770–1820* (Göttingen, 1995), translated from the Italian original of 1975, chaps. 1 and 2. There is little here on the Russian students. Ironically, the anti-Slavic views of the precursors of "race theory" were represented on the faculty. *Ibid.*, 110–20.
- 4 Blumenbach's basic textbooks were translated into Russian by his disciples. Among his students, Johann Peter and Joseph Frank helped found the medical faculties at Vilnius and St Petersburg and, most importantly, K.F. Fuchs became rector of Kazan University.
- 5 Marino, *Praeceptores*, 136, citing *Handbuch der Naturgeschichte* (Göttingen, 1780), also translated into Russian in 1796.
- 6 Reill, "The Legacy of the 'Scientific Revolution,'" 32–43.
- 7 Richards, *The Romantic Conception*, 242–4. Cf. Lenoir, "Developments," 168–70. See also A.E. Gaisinovich, *K.F. Vol'fi uchenie o razvitiu organizmov* (Moscow, 1961), 374–97.
- 8 For the relationship of Blumenbach to Kiemayer and hence to Schelling see Richards, *The Romantic Conception*, 245–8.
- 9 F.W.J. Schelling, *Sammtliche Werke* (Stuttgart and Augsburg, 1857), vol. 1, pt. 2, "Von der Weltseele: Eine Hypothese der höheren Physik zur Erklärung des allgemeinen Organismus," (1798), 350–1, 565.
- 10 Eric Mendelsohn has argued that Schelling should be absolved of the sin of abstract speculation because he recognized the value of observation

and experience in scientific work. "The Biological Sciences in the 19th Century," *History of Science*, no. 3 (1964), 39–59. For a major interpretation of this view see Richards, *The Romantic Conception*. Many of Schelling's critics and supporters slighted the empirical dimension of his writing. His Russian disciples appear to have paid it more attention than his own countrymen.

- 11 See for example Martin Malia, *Alexander Herzen and the Birth of Russian Socialism* (Cambridge, Mass. 1961), 78–81, 88–92 and passim and Abbott Gleason, *European and Muscovite: Ivan Kireevsky and the Origins of Slavophilism* (Cambridge, Mass. 1972), 28–35, 106–7. The exception is the brilliant work of Alexandre Koyré, *La philosophie et le problème national en Russie au début du XIXe siècle* (Paris, 1929).
- 12 For Goethe's scientific activities see Rudolph Magnus, *Goethe as Scientist* (New York, 1949), translated from the German original published in Leipzig in 1906; René Berthelot, *Science et philosophie chez Goethe* (Paris, 1932) and Ernest Cassirer, *The Problem of Knowledge* (New Haven, 1950). For Goethe's relations with Schelling see Richards, *The Romantic Conception*, 164–5 and 463–71. For the influence of Goethe's scientific ideas in Russia see André von Gronicka, *The Russian Image of Goethe* (Philadelphia, 1968), 23, 26, 115–16, 243, 244–5.
- 13 For general surveys of the teaching of science at Russian universities see William L. Blackwell, *The Beginnings of Russian Industrialization, 1800–1860* (Princeton, 1968), vol. 1, chap. 15, and Alexander Vucinich, *Science in Russian Culture: A History to 1860*, vol. 1 (Stanford, 1963).
- 14 See [chapter 5](#), "The Engineers," in this volume. The lycée at Tsarskoe Selo became a centre for a group of economists who combined the teaching of Academician Storch, Jean-Baptist Say, and others with a liberal cameralism. See Dimitri Kobeko, *Imperatorskii Tsarskosel'skii Litsei: Nastavniki i pitomtsy, 1811–1843* (St Petersburg, 1911), 71–2, 80–1, 100–1. But even here there were a scattering of Göttingen graduates. I. Sleznev, *Istoricheskii ocherk Imperatorskogo byvshago tsarskosel'skogo nyne Aleksandrovsikogo Litsea za pervoe ego piatidesiatiletie s 1811 po 1861 godu* (St. Petersburg, 1861), 116, 119, 130. The unifying element in all the new institutions remained the tradition of a socially motivated and community-oriented educational system. The earlier Petrine plans for education by social estate (*soslovno-professional'noe*) were fused with the "enlightened" model of all class (*veseslovnoe*) education without weakening the rationale of training for state service. See S.V. Rozhdstvenskii, "Soslovnyi vopros v russkikh universitetakh v pervoi chetverti xix v.," *Zhurnal Ministerstva Narodnogo Prosveshcheniia (ZhMNP)*, vol. 9 (1907), 83–5. The price of

- political compromise was an ungainly hybrid of German-inspired university autonomy and French-inspired centralized control.
- 15 For the Senatorial opposition see G.G. Tel'berg, *Pravitel'stvoiuushchii Senat i samoderzhavnaia vlast' v nachale XIX veka* (Moscow, 1914) and David Christian, "The 'Senatorial Party' and the Theory of Collegial Government, 1801–1803," *The Russian Review* 38, no. 3 (July 1979), 298–322. For the political role of German universities see Charles McClelland, *State, Society and University Reform in Germany* (New Haven, 1980) The general influence of Göttingen in Russian intellectual life is best known through the works of E. Winter, ed., *August Ludwig Schlözer und Russland* (Berlin, 1961) and *Lomonosov-Schlözer-Pallas. Deutsche-russische Wissenschaftsbeziehungen in 18. Jahrhundert* (Berlin, 1962); see also, Gotz von Selle, *Die Georg-August-Universität zu Göttingen* (Göttingen, 1937), esp. 119–28.
- 16 N.K. Koliupanov, *Biografiia A. K. Kosheleva*, 2 vols. (Moscow, 1889), vol. 1, 137–40, 283.
- 17 N. Barsukov, *Zhizn' i trudy M.P. Pogodina*, 22 vols. (St Petersburg, 1888–1910), vol. 9, 338–9.
- 18 Koliupanov, *Biografiia Kosheleva*, vol. 1, 159–60.
- 19 S.P. Shevyrev, ed., *Biograficheskii slovar' professorov i prepodavatelei imperatorskogo Moskovskogo universiteta*, 2 vols. (Moscow, 1855), vol. 2, 463.
- 20 For the university ethos see James T. Flynn, *The University Reform of Alexander I, 1802–1835* (Washington, DC, 1988), 30–9 and N.A. Penchko, *Osnovanie Moskovskogo universiteta* (Moscow, 1953); for the more general picture of Moscow see B.N. Mironov, *Sotsial'naia istoriia Rossii perioda imperii (XVIII–nachalo XX v.). Genezis lichnosti, demograficheskoi sem'i, grazhdanskogo obshchestva i pravogo gosudarstva*, 2 vols. (St Petersburg, 2000), vol. 1, 134–5.
- 21 Unfortunately, no biography of this remarkable man exists, and materials on his activities are widely scattered. For his efforts to protect factory workers against the abuses of their employers see M.I. Tugan-Baranovsky, *The Russian Factory in the 19th Century*, trans. Arthur and Clara S. Levin (Homewood, IL, 1970), 87–8, 122–4, 134–6. For Golitsyn as one of the earliest champions of railroad building see Richard M. Haywood, *The Beginnings of Railway Development in Russia in the Reign of Nicholas I, 1835–1842* (Durham, NC, 1969), 23, 153–4, and 164–5. For his initiative in establishing the Society for Manufacturing Industry see N.S. Kiniapina, *Politika russkogo samoderzhavnaia v oblasti promyshlennosti (2050-e gody XIX v.)* (Moscow, 1968), 247–50, 260. Golitsyn also served as president of the Moscow Society for Agriculture and took an active role in its promotion of scientific agriculture. N.P. Gorbunov, *Kratkii obzor piatidesiatiletnei deiatel'nosti Imperatorskogo Moskovskogo obshchestva sel'skogo khozaistva s 1820 po 1870 god* (Moscow, 1871), 1–11.

- 22 P.N. Sakulin, *Iz istorii russkogo idealizma. Kniaz' V.F. Odoevskii, myslitel'-pisatel'*, 2 vols. (Moscow, 1913), vol. 1, 24–5, 56–68. Davydov's dissertation was "O preobrazovanii v naukakh proizvedennom Bakonom."
- 23 Malia, *Herzen*, 84.
- 24 On the role of Strasbourg in Russian intellectual life see M.I. Sukhomlinov, *Istoriia rossiiskoi akademii*, 2 pts. (St Petersburg, 1875), pt. 2, 171–6. According to data drawn from L.F. Zmeev, *Russkie vrachi-pisateli*, pts. 1 and 2 (St Petersburg, 1886), sixteen Russians received their medical degree from Strasbourg between 1750 and 1790. Twenty-three Russians did their work in medicine in Göttingen between 1780 and 1805 according to M. Wischnitzer, *Die Universität Göttingen und die Entwicklung der liberalen Ideen in Russland im erst viertel 19. Jahrhundert* (Berlin, 1907), 200–4.
- 25 During the first two decades of the nineteenth century the most important university textbooks published in Russia, in addition to Blumenbach's works, were Friedrich Uhden, *Akademicheskie ucheniia o khronicheskikh bolezniakh*, 7 pts. (St Petersburg, 1816–22), I.F. Busch, *Rukovodstvo k prepoddavaniiu khirurgii*, 3 pts. (St Petersburg, 1807), and E.O. Mukhin, *Kurs anatomii dlia vospitannikov obuchaiushchikhsia mediko-khirurgicheskoi nauke*, 7 pts. (Moscow, 1815). Busch and Mukhin were born in Russia, studied under German professors at the Medical-Surgical Academy and Kharkov Kollegium, and at Moscow University, respectively. Mukhin's dissertation, written in Latin, was published in Göttingen. The works of both men were summaries of European, mainly German, scholarship. The first history of medicine in Russia was written by a German who was educated at Göttingen and Erlangen Universities, V.M. Rikhter; *Geschichte der Medizin in Russland*, 2 pts. (Moscow, 1817). A Russian translation soon followed. For biographical information on these men see Ia. Chistovich, *Istoriia pervykh meditsinskikh shkol v Rossii* (St Petersburg, 1883), appendix; Zmeev, *Russkie vrachi-pisateli*, vol. 1, 23–5; individual entries in F.A. Brokhaus and I.A. Efron, eds., *Entsiklopedicheskii slovar' (B/E)*, 83 vols. (St Petersburg, 1895–1904) and A.A. Polovtsov (ed.), *Russkii biograficheskii slovar'* (Moscow, 1992–2002, reprint of 1896 edition), 28 vols. (RBS). For an unsuccessful attempt to revise the view of German preponderance in medicine see S.M. Grombakh, *Russkaia meditsinskaia literatura XVIII* (Moscow, 1953), esp. chap. 2. The informative appendix listing medical books published in Russia during the eighteenth century does not support the argument, *ibid.*, 273–80.
- 26 Lorenz Oken, "Lehrbuch der Naturphilosophie" (excerpts), in Christoph Bernoulli and Hans Korn, eds., *Romantische Naturphilosophie* (Jena, 1926), 1–31; B.E. Raikov, *Germanskii biologii-evoliutsionisty do Darvina* (Leningrad, 1969), 130–52, for Oken's influence in Russia. The Russian historian M.P.

- Pogodin once told the surprised Oken how widespread his influence had become among Russian scientists and intellectuals at Moscow University. Barsukov, *Zhizn' Pogodina*, vol. 5, 315.
- 27 Olaf Breidenbach and Michael T. Ghiselin, "Lorenz Oken and naturphilosophie in Jena, Paris and London," *History and Philosophy of the Life Sciences* 24 (2002), 219–22.
- 28 Charles Rosenberg, "Roles and Professions," *Science* 5 (15 October 1971), 174. For Peter's interest in all forms of medicine and public health see P.E. Zabludovskii, *Istoriia otechestvennoi meditsiny*, 2 vols. (Moscow, 1960), vol. 1, 50–2.
- 29 The first two professors of the Moscow University Faculty of Medicine, Johann Christian Kerstens and Johann Friederick Erasmus came from Jena and Leipzig Universities. They attempted to block the appointment of the first two Russian physicians to the faculty despite the fact that they had been trained at Konigsberg and Leyden. G.A. Novicky, "L'Enseignement supérieur en Russie," in *Les universités européennes du XIVE siècle: Aspects et problèmes. Actes du colloque international à l'occasion du VI centenaire de l'université Jagellone de Cracovie* (Geneva, 1967), 65–6. The Medical-Surgical Institute established in St Petersburg by Catherine II taught all its courses in German until 1808. The majority of students were recruited from church schools, but there were a large number of foreign students as well. Two German physicians managed the first clinic built in the capital in 1806. At Dorpat (Derpt) University Germans held a majority of the six chairs in medicine during the first twenty-five years of its existence. Eighty per cent of students in all medical fields were non-Russian. At Kazan from 1806–14, 74 per cent of the medical professors were foreign, mostly German. The figures slipped to 42 per cent from 1814–21, but until the 1830s the dominant intellectual force was Karl Theodore Fuchs from Göttingen. At Kharkov University between 1805 and 1835, half the medical professors were foreign, primarily German. Lectures were given in Russian only after 1811. Although there is little statistical data on Vilnius University, the intellectual leaders there were J.J. and J.P. Frank from Göttingen. In 1819 Germans founded the first professional organization of doctors in Russia. A German physician, Professor Friederick Uhden, petitioned for the first medical journal in 1792. When in 1805 a collection of medical articles was published in St Petersburg, only twelve of the fifty entries were written by Russians. P. Tikhov, "Meditsina v Rossii v epokhu napoleonovskikh voin," *ZhMNP* 146, no. 8, pt. 4 (1869), 74–84.
- 30 With respect to the other two Russian universities, St Petersburg did not open its doors until 1819. In the meantime the training of physicians

was carried on in the St Petersburg Medical-Surgical Academy headed by the Scottish doctor Ia.V. Villie (Villiers?), who encouraged Russians to study at his alma mater, the University of Edinburgh. However, even here Naturphilosophie gained a foothold as a result of the activities of J.F. Frank and the Russian Schellingians D.M. Vellanskii and Ia.K. Kaidenov. At Kharkov University, the contingent of German professors did not produce an outstanding figure, but at least one of them, G.G. Koritari, enthusiastically endorsed Schelling's ideas in his work *De neu studii medicinae cum studio philosophiae* (Kharkov, 1807). See Z.A. Kamenskii, *Filosofskie idei russkogo prosveshcheniia (deistechesko-materialisticheskaiia shkola)* (Moscow, 1971), 241, and *RBS*, vol. 10, 254. Other Russian physicians at Kharkov, like A.S. Venediktov, veered off into the Schelling's mystical realms. I.P. Skvortsov and D.I. Baglagei, eds., *Meditiskii fakultet Kharkovskogo universiteta za pervyi sto let ego sushchestvovaniia (1805–1905)* (Kharkov, 1905–6), 18–19. In Kharkov, as in St Petersburg, the main dispenser of Schelling's views was a philosopher, J.-B. Schad.

- 31 V. and D. Korsakov, "K.F. Fuchs," *RBS*, vol. 25, 314–17.
- 32 M.K. Korbut, *Kazanskii gosudarstvennyi universitet imeni V. I. Ulianova-Lenina za 125 let (1804–05–1929–30)*, 2 vols. (Kazan, 1930), vol. 1, 16–19, 42, 45. The distinguished visitors included M.M. Speranskii, Alexander von Humbolt, August von Haxthausen, and Alexander Pushkin, who asked Fuchs to collect material for his study of the Pugachev rebellion. The original German group at Kazan was decimated by M.L. Magnitsii's purge in 1819. A second group brought in the following year specialized in mathematics, a discipline that was both non-controversial and most easily taught by German-speaking professors to native Russians.
- 33 Raikov, *Germanskii biologii-evoliutsionisty*, 153–63.
- 34 K.M. Baer, *Avtobiografiia* (Leningrad, 1950), 133.
- 35 Raikov, *Germanskii biologii-evoliutsionisty*, 170–2, 188–9.
- 36 Baer, *Avtobiografiia*, 182–3, 199. A balanced discussion of the literature in Russian can be found in Gaisinovich, *Vol'f*, 483ff. A.W. Meyer, *Human Generation: Conclusions of Burdach, Döllinger and von Baer* (Stanford, 1956) denies that there was any positive influence of Naturphilosophie on Baer and suggests that Baer probably never heard of Schelling or Oken. See esp. [chapter 6](#). Surely this is going too far. In my view the question of influence is treated most sensitively in its historical context by Elizabeth Gasking, *Investigations into Generation, 1651–1828* (London, 1967), who points out that the absence of a general theory of biology helps to explain the influence of Romantic ideas on growth and development. The article on Baer in S.V. Vavilov, ed., *Bol'shaia sovetskaia entsiklopediia*, 50 vols., 2nd

- ed. (Moscow, 1950–8), vol. 6, 446–47, unintentionally reveals a great deal by criticizing Baer’s “vitalism” and “idealist” position.
- 37 As a scientist Nees von Esenbeck had been trained in medicine at Jena, but was best known for his botanical studies. His *System der spekulativen Philosophie* (1841) demonstrated his debt to Schelling. For his relations with Lorenz Oken see J. Bohley, “Gemeinsam Interessen – wissenschaftliche Divergenzen? Die politischen Naturforscher Lorenz Oken und Christian-Gottfried Nees von Esenbeck,” in O. Breidbach, H.J. Fliedner, and J. Ries, eds., *Lorenz Oken (1779–1851): Ein politischer Naturphilosoph* (Weimar, 2001), 183–209.
- 38 Alexander Vucinich, *Darwin in Russian Thought* (Berkeley, 1988), 92–5.
- 39 *RBS*, vol. 13, 175.
- 40 L.Ia. Bliakher, *Istoriia embriologii v Rossii* (Moscow, 1955), 128–34, and *RBS*, vol. 3, 315–16.
- 41 S. R. Mikulinskii, *Razvitie obshchikh problem biologii v Rossii, pervaiia polovina XIX veka* (Moscow, 1961), 300–20, gives comprehensive summaries of Eikhwald’s work. For a complete list see entry in *B/E*, vol. 73, 210.
- 42 When Loder returned to Russia in 1810, he brought with him Goethe’s gift, a collection of abnormal ivory growths demonstrating the vitalist regenerative process. Magnus, *Goethe*, 5, 18, 25.
- 43 “Iz bumag kniazia V.F. Odoevskogo,” *Russkii arkhiv* 12, no. 1 (1874), 317–18.
- 44 Barsukov, *Zhizn’ Pogodina*, vol. 2, 158.
- 45 Gunther Wytzens, *Dmitriy Vladimirovic Venevitinov als dichter der russischen romantik* (Graz, 1962), 59. Herzen too regarded Loder as “one of the Pleiade of free and vigorous thinkers who have raised Germany to the height of which she never dreamed,” although Herzen presents a negative picture of the “German domination” of his university. A.I. Herzen, *My Past and Thoughts*, rev. ed., 4 vols. (New York, 1968), vol. 1, 108; vol. 2, 602–3.
- 46 Two brief biographies are Johannes W.E. Buttner, *Fischer von Waldheim* (Berlin, 1956) and B.M. Zhitkov, *G.I. Fisher fon Val’dgeim* (Moscow, 1940).
- 47 *Polnoe sobranie zakonov rossiiskoi imperii*, series 2 (25 July 1805).
- 48 S.Iu. Lipshits, *Moskovskoe Obshchestvo Ispitatelei prirody za 135 let ego sushchestvovaniia, 1805–1940* (Moscow, 1940), 8–9. Lipshits presents a strongly positive picture of the achievements of the society, especially with respect to its practical work in locating and analysing mineral deposits, mineral waters, and flora suitable for commercial exploitation. *Ibid.*, 47–8. He is critical of Herzen’s lighthearted sport with its German orientation and the amateur character of the society. *Ibid.*, 17. His interpretation contrasts sharply with that of D.N. Anuchin, *O liudakh russkoi nauki i kul’tury* (Moscow, 1950), who adopts Herzen’s view. No doubt the contrasting positions reflect at least in part the times in which they were written.

- 49 Lipshits, *Moskovskoe*, 12–16.
- 50 Séance extraordinaire, solennelle du 28 décembre 1855 à l'occasion du jubilé semiseculaire de la Société imperiale des naturalistes de Moscou. Société impériale des naturalistes de Moscou, *Bulletin* 29 (1855), 1–43. Such encomiums were normal on such occasions, but several letters go well beyond polite civilities. From the Scientific Committee of the Mining Corps came praise for “discoveries valuable to a society which is, so to speak, its sister, the Mining Corps.” The Society of Russian Physicians, in a letter written by I.T. Glebov, a student of the German Naturphilosopher physicians J. Meckel and J. Muller, pointed out that the works of the society were important not only for natural science but also for “all scientific branches of the practical activities of man ... although the results were not always readily apparent to the eye.” Finally, the Economic Society of Kazan expressed its appreciation for the contributions of the society to “the development of the agricultural economy and manufacturing industry.” *Ibid.*
- 51 A.D. Galakhov, “Estestvennaia istoriia ryb, sochinenie gg. Kiuv'e i Valas'ens,” *Novyi magazin natural'noi istorii, fiziki i khimii*, 1830, pt. 3, no. 2, 92, and Galakhov, “Chetiryre vozrasta estestvennoi istorii,” *Moskovskii vestnik*, 1827. It is unlikely that Galakhov would publish against the views of his professor and patron. Clearly, Fisher, “the Russian Cuvier,” harboured mixed feelings about his own teacher’s views and allowed his students to indulge in flights of Romantic speculation within limits.
- 52 A. El'nitskii, “Aleksei Dmitrievich Galakhov,” *RBS*, vol. 4, 137. As late as 1843 Galakhov wrote a long article, “The Philosophy of Anatomy,” in which, according to the Soviet scholar S.R. Mikulinskii, “the first developed description of the teaching of Étienne Geoffroy St.-Hilaire was given in Russia.” Mikulinskii, *Razvitie* 75, no. 14. Sometime later Galakhov became a positivist, a conversion that was not unusual in his generation.
- 53 Kamenskii, *Filosofskie idei*, 241–3 identifies seven of these students. Among them was the colourful Gustave Adolf Hess Calvé, a Habsburg citizen who had studied medicine in Prague and Pavia before serving in the Russian army. He took a degree in philosophy at Kharkov, writing a dissertation critical of Kant, and ended up managing the famous Lugansk Iron Factory, founded by Catherine II to supply the Black Sea Fleet. He wrote numerous articles on medicine, music, and superstition for *Ukrainskii Vestnik* and composed a double piano concerto. N. Chulkov, “Gess de Kal've,” *RBS*, vol. 5, 158–9. Such were the polymaths of German Romanticism.
- 54 Cited in Koyré, *La philosophie*, 62, who gives an excellent summary of the affair.

- 55 Kamenskii, *Filosofskie idei*, 341–2, citing Dudorovich’s article “O zhitovnom magnetizme,” *Ukrainskii Vestnik*, (Feb.–March 1818), 126–7, 129–30. Dudorovich then denounced Schad’s denunciator, the mathematician T.F. Osipovskii, who was subsequently removed from his post. This purge, like many others taking place in these years, were often motivated by personal as well as ideological concerns.
- 56 A.V. Nikitenko, “Aleksandr Ivanovich Galich, byvshii professor filosofii v SPB Universitete,” *ZhMNP*, vol. 146, pt. 2 (1869), 73–5. Fessler’s own account can be found in his bizarre autobiography, Ignatius Fessler, *Rückblicke auf meine siebzigerjährige Pilgerschaft*, (Vienna, 1824). See also Peter F. Barton, *Romantiker, Religionstheoretiker, Romanschreiber: Ein Beitrag zur Kultur- und Geistesgeschichte Deutschlands, 1802–1809, Fessler in Brandenburg* (Vienna, 1983)
- 57 Magnitskii showed every sign of being a careerist and opportunist, but was shrewd enough to identify targets that were vulnerable to accusations of “free thought.” Runich acted with similar motivations but was more vicious. See Flynn, *The University Reform*, 90–105, 109–11, 135–6, 162–7, and Koyré, *La philosophie*, 70–5, 81–2.
- 58 V.M. Bokova, *Epokha tainykh obshchestvo* (Moscow, 2003), 49–57.
- 59 Koyré, *La philosophie*, 139–49, is the most thorough treatment of Venevitinov’s debt to German Romantic thinking, giving greater emphasis to Schelling’s disciples like Oken and Franz Baader than to the great man himself, but all the same insisting on the development of science as an analogue to the development of the individual.
- 60 An analysis of the careers of the twenty-three members of the three circles who can be identified reveals that eight continued to show a strong interest in science, technology, and economic activity: V.P. Androssov (statistics and livestock breeding), P.I. Koshelev (scientific agriculture), A.I. Koshelev (scientific agriculture and railroads), M.A. Maksimovich (botany, popular science, archaeology, and ethnography), I.S. Maltsov (industry), V.F. Odoevskii (scientific agriculture, popular science, and science fiction), M.P. Pogodin (railroads), S.A. Sobolevskii (industry). In addition, three writers of *belles lettres* acknowledged the influence of Romantic science in their work (D.P. Oznobshin, S.P. Shevyrev, and D.V. Venevitinov). For all of them the linkage between science, economic growth, and national maturity was paramount, although individually they expressed this relationship differently.
- 61 A.G. Dement’ev, A.V. Zapadov, and M.S. Cherepakhov, eds., *Russkaia periodicheskaiia pechat’ (1702–1894). Spravochnik*. (Moscow, 1959), 100–89.
- 62 *Ibid.*, pp. 185–6; N.K. Kuzmin, “Nikolai Alekseevich Polevoi,” *RBS*, vol. 14, 295–8.

- 63 For the great significance of this journalistic coup for the Moscovites see Barsukov, *Zhizn' Pogodina*, vol. 5, 145–55. “Moscow of the white stones (*belokamennaia Moskva*) remains utterly without a journal,” was Pogodin’s *cri de coeur*, *ibid.*, 154.
- 64 On these intellectual exchanges in general see Randall Collins, *The Sociology of Philosophies* (Cambridge, MA, 1998), esp. chaps. 2 and 12.
- 65 Since the publication of Jürgen Habermas’s *The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois Society*, trans. Thomas Burger (Cambridge, MA, 1989) an enormous literature has challenged and revised the original concept, sometimes stretching it to the breaking point. For its application to Russia in the nineteenth century and beyond see Joseph Bradley, “Subjects into Citizens: Societies, Civil Society and Autocracy in Tsarist Russia,” *American Historical Review* 107, no. 4 (October 2002), 1094–123 and the articles in *Kritika* 7, no. 3 (Summer 2006). See also [chapter 12](#) below.
- 66 Such was the warning given in 1808 to a small group of students carefully screened by the St Petersburg Pedagogical Institute for study abroad and subsequent admission to the projected university to be established in the capital (an event that did not occur until 1819). Nikitenko, “Galich,” pt. 2, 7.
- 67 G. Shpet, *Ocherk razvitiia russkoi filosofii* (Petrograd, 1922), 132ff. is very harsh on Vellanskii and Galich. Koyré, *La philosophie*, 90ff. is less doctrinaire but no less flattering. Like many Russian scholars he seriously questions whether any of them were truly Schellingians, a point worth debating only if one is interested in the pure history of ideas. D.I. Chizhevskii, *Gegel v Rossii* (Paris, 1939), 8–9 dismisses Vellanskii as without influence. For the most part, Soviet historians treated Vellanskii, Galich, and Kaidenov as obscurantists and Pavlov as tainted by idealism. See, for example, Mikulinskii, *Razvitiie*, which is nonetheless more moderate than Raikov, *Russkie biologii*. Koyré, *La philosophie*, chap. 3 is, as usual, more balanced and discriminating.
- 68 Malia, *Herzen*, esp. [chapter 5](#), remains a valuable analysis of Schelling’s influence in the literary and philosophical realm, but especially on Herzen. Herzen’s early life exemplified the dilemma of a Russian intellectual torn between admiration for scientific activity and deep feelings of psychological alienation. Herzen’s oscillation between two social roles explains why he was one of the few Russians who appreciated both the scientific and poetic sides of Goethe and both the utopian and technological sides of Saint-Simon.
- 69 Koyré, *La philosophie*, chap. 2.
- 70 For example, in the inorganic world the various stages of this dynamic were, for Vellanskii, magnetism, electricity, and chemism (*sic*). Magnetism

expressed the presence of the passive element which corresponds to weight. By contrast, electricity expresses the presence of the active element which corresponds to light. Their interaction produces chemism, an amalgam of both. In nature the products of magnetic activity are the properties of heavy bodies, of electricity – gases – and of chemism – liquidity. These served as the foundations for Vellanskii's concept of physics. In the organic world, a parallel structure defined the passive element as vegetative and the active element as animal. Every organism contained both elements, but man represented the highest level of the active element and crowned the entire structure of the organic world. These ideas receive their fullest expression in D.M. Vellanskii, *Biologicheskoe issledovanie prirody v tvoriashchem i trovimom ee kachestve ...* (St Petersburg, 1812) and *Obozrenie glavnykh sodержanii filosoficheskogo estestvoznaniia* (St Petersburg, 1815).

- 71 N. Rozanov, "Vospominaniia o Daniele Mikhailoviche Vellanskom," *Russkii vestnik*, 1867, no. 72, 107, 119, 124. By the 1830s it was fashionable for many who read Vellanskii avidly in their youth to laugh at his metaphysical excesses. A.I. Koshelev, ed., *Polnoe sobranie sochineniia Ivana Vasil'evicha Kireevskogo*, 2 vols. (Moscow, 1911), vol. 2, 214. The point is, however, that he was read. In 1830 another Slavophil, A.I. Koshelev, admitted that Vellanskii was "a perfect propagandist for philosophical ideas" even if he was "too narrow." In his biography of Koshelev, Koliupanov recalls finding copies of Vellanskii's *Biologicheskoe issledovanie* in the libraries of many provincial nobles, including that of his father in Kostroma. He expressed his astonishment at how Vellanskii's ideas were instilled in the minds of a single generation. He also claimed that Ivan Kireevskii was first introduced to Schelling's work through Vellanskii. Koliupanov, *Biografiia Kosheleva*, vol. 1, 444; vol. 2, 9. Galakhov recalled that despite what was taught in the universities, the most popular book among students in the 1820s was Vellanskii's *Biologicheskoe issledovanie*. Galakhov, "Vremiia," 197. Perhaps Prince Odoevskii was alone in retaining a great affection for Vellanskii long after he realized that the grand old man of Russian Naturphilosophie had been overtaken by scientific advances in biology while growing old and blind, a forgotten, half-comic, half-tragic figure. Odoevskii, "Iz bumagi," 317.
- 72 A.A. Elagin married Ivan Kireevskii's sister and was a friend of Vellanskii, who inspired him to translate Schelling's *Philosophical Letters on Dogmatism and Criticism*. Gleason, *European and Muscovite*, 23, 154–5.
- 73 Rozanov, "Vospominaniia," 105, 124–34, where the author relates in detail his activities as a member of the Manufacturing and Commercial Council, his participation in opening the Lugansk coal fields, and his contributions

- on science and technology to journals like N.A. Polevoi's *Telegraf* and N.I. Grech's *Severnaia Pchela*. It is illustrative of the wide appeal of Vellanskii's teaching that work inspired by him could also find a place in journals edited by the subsequent supporters of Official Nationality.
- 74 Mikulinskii, *Razvitiia*, 294–5, and B.E. Raikov, *Ocherki po istorii evoliutsionnoi idei v Rossii do Darvina* (Moscow-Leningrad, 1947), which makes clear Kaidenov's debt to Kielmayer (170–8) and his relations with Burdach (181–2). Raikov ignores Kaidenov's extensive influence in Russia.
- 75 *RBS*, vol. 8, 387.
- 76 A.V. Nikitenko, *Dnevnik*, 3 vols. (Moscow, 1956), vol. 1, 66 and 139. Nikitenko's biography "Aleksandr Ivanovich Galich," 1–82, contains long excerpts from his work as well as a useful summary of Schelling's influence in the teaching of Russian philosophy.
- 77 These activities are alluded to briefly in I. Aizanstok's biographical introduction to Nikitenko, *Dnevnik*, vol. 1, x–xi and illustrated in entries throughout the three volumes.
- 78 The main source for Pavlov's life is *Biograficheskii slovar' professorov i prepodavatelei Imperatorskogo Moskovskogo Universiteta* (BSP), 2 vols. in 1 (Moscow, 1855), vol. 2, 183–99.
- 79 Sakulin, *Iz istoriit*, vol. 1, 118–19, citing generous excerpts from Pavlov's most influential article, "O sposobakh issledovaniia prirody," *Mnemozina*, pt. 4 (1825), which though written anonymously was immediately recognized as Pavlov's. This was the same brilliant but short-lived journal in which Odoevskii first published his views on Schelling. For Pavlov's views on the interplay between theory and practice in agriculture, see excerpts from his unpublished lectures "Kurs sel'skogo khozaistva" in *BSP*, vol. 2, 187–9.
- 80 Mikulinskii, *Razvitiie*, 81–124; Malia, *Herzen*, 71–2; Chizhevskii, *Gegel'*, 38–40; Koliupanov, *Biografiia Kosheleva*, vol. 1, 472–6; and Raoul Labry, *Alexandre Ivanovic Herzen* (Paris, 1928), 95–106. According to one of his students, A.D. Galakhov, Pavlov won over the youth with his insistence on the search for the essential, the subordination of the particular to the whole, "in short all that without which there is not and cannot be rational knowledge." Galakhov, "Vremiia," 198.
- 81 M.G. Pavlov, "O fizicheskikh sochineniiakh Lomonosova," *Atenei*, January 1829, no. 2, 109–20. Pavlov rejected as incorrect the definition of Naturphilosophie as "a collection of metaphysical fantasies about nature." This article, together with another, *ibid.*, March 1826, no. 3, 474–88 on Lomonosov as the real discoverer of the origin of heat, challenges the frequent contention that Lomonosov's scientific achievements were all

but forgotten in Russia between his death and the end of the nineteenth century.

- 82 Pavel Miliukov, *Glavnye techeniia russkoi istoriografii* (St Petersburg, 1913), 312–13, and F. Engels, “Shelling i otkrovenie kritika noveishego reaktionnogo pokusheniia na svobodnuiu filosofiiu” (1842), in K. Marx and F. Engels, *Sochineniia* (Moscow, 1931), vol. 3, 163–4.

3 The Biogenetic Model and the Slavophil Entrepreneurs

- 1 Nicholas Riasanovsky, *Nicholas I and Official Nationality in Russia, 1825–1855* (Berkeley, 1961) identifies Pogodin with the program of Official Nationality but does not discuss his economic views.
- 2 Edward Thaden, “The Beginnings of Romantic Nationalism in Russia,” *American Slavic and East European Review* 13 (1954), 517–18.
- 3 M.P. Pogodin, “Petre Velikii,” *Moskvitianin*, 1841, no. 1, 12, 15, 19. Pogodin like Pavlov regarded Lomonosov as the embodiment of the Petrine tradition in Russian science. *Ibid.*, 26–8. He followed up this article with two more comparing railroads in the United States and Great Britain in order to prove their feasibility under different conditions. “Zheleznye dorogi v Ameriki,” *ibid.*, 1841, no. 2, 64 and “Zheleznye dorogi v Anglii,” *ibid.*, 1841, no. 8, 510–15.
- 4 M.P. Pogodin, “Krest’ianin Ivan Pososhkov, gosudarstvennyi muzh vremen Petra Velikogo,” *ibid.*, 1841, no. 3, 103. It was Pogodin who rediscovered and published Pososhkov’s long-lost manuscript “Kniga o skudnosti i bogatstvo,” which he found “timely,” taking every occasion to propagandize Pososhkov’s ideas. Nikolai Barsukov, *Zhizn’ i trudy M.P. Pogodina*, 22 vols. (St Petersburg, 1888–1910), vol. 6, 314–16.
- 5 M.P. Pogodin, “Moskovskie izvestiia M.I. Krashennnikov,” *Moskvitianin*, 1851, no. 1, 38–65.
- 6 M.P. Pogodin, “Fizionomiia Nizhegorodskoi iarmaki,” *ibid.*, 1851, no. 4, 223–63; “O manufakturnoi promyshlennosti Rossii v otnosheniakh ei k obshchei proizvoditel’nosti i k bytu nizhnikh klassov naroda,” *ibid.*, 1845, no. 2, 47–70; P. Veretiannikaia, “O fabrichnykh masterov i ikh otnosheniakh k semeistvam i fabrikantam,” *ibid.*, 1841, no. 5, 208–16. *Moskvitianin* also supported a pro-merchant inflationary policy as a Russian, in contrast to a European, fiscal instrument for reducing prices and increasing the circulation of money. I. Gorlov, “Politicheskaia ekonomia. Filosofia lazha (‘agiotage’),” *ibid.*, 1841, no. 2, 506.
- 7 M.N. Pogodin, “Shelling,” *ibid.*, 1854, no. 5, 99. In his laudatory obituary Pogodin defended Schelling against both Hegel and the positivists. Throughout the 1840s, Pogodin provided ample space for the disciples of

Schelling in the pages of *Moskvitianin*. See, for example, “Smes’,” *ibid.*, 1841, no. 1, 306–11, which contained the commemorative speech of D.V. Golitsin on Pavlov on the twentieth anniversary of the founding of the Moscow Agricultural Society, and M. Spasskii, “O vzaimnon otnoshenii razlichnykh fizicheskikh deiatelei ili sil,” *ibid.*, 1848, no. 1, sec. 3, “Nauka,” 8, 9, 10, 11, and “Rech’ v pamiat’ ob Okena,” *ibid.*, 1852, no. 1, 36–52. After the government’s decision to ban the teaching of German philosophy in the universities, it took a bit of daring to print these articles. However, Pogodin covered himself by publishing one or two timely criticisms of Schelling couched in the language of the Leibniz-Wolf cosmology, which remained acceptable in the eyes of the autocracy and Orthodox Church. See, for example, I.F., “O namereniakh v prirode,” *ibid.*, 1850, no. 3, 65–88, which criticizes Schelling’s claim that nature creates out of itself rather than, as the author insists, that natural laws are the rational creation of a supreme creator-God. Similarly, in the article “Razbor filosofii Bakona Verulamskogo,” *ibid.*, 1852, no. 6, sec. 3, “Nauka,” 35–76, the author draws a sharp distinction between Bacon, who recognized nature as a realization of the idea of God, as opposed to the materialism of Locke and the Encyclopedists.

8 *Moskvitianin*, 1852, no. 6, sec. 3, “Nauka,” 88, 130.

9 V.F. Odoevsky, *Russian Nights*, trans. Olga Koshanski-Olienikov and Ralph Matlaw (New York, 1965), 227.

10 P.N. Sakulin, *Iz istorii russkogo idealizma* (Moscow, 1913), 575–6.

11 V.F. Odoevskii, *Povesti i rasskazy* (Moscow, 1959), 417, 422.

12 Odoevsky, *Russian Nights*, 66–9. Odoevskii feared foreign control over Russian railroads would weaken this moral imperative. When the Austrian entrepreneur and engineer Franz Anton von Gerstner sought to gain a concession from Nicholas I that would have given him in effect a virtual monopoly over the construction and operation of railroad lines in Russia, Odoevskii attempted to discredit him. Odoevskii encouraged Pushkin to publish in *Sovremennik* an article by the young Russian engineer M.S. Volkhov attacking Gerstner’s proposals. Although Pushkin claimed that he too favored railroads he rejected the article. A.S. Pushkin to V.F. Odoevskii, end November – early December 1836 in A.S. Pushkin, *Polnoe sobranie sochinenii*, 10 vols. (Moscow, 1961), vol.10, *Pis’ma*, 615. Nadezhdin criticized Gerstner on the same grounds, namely, that a monopoly of railroads in foreign hands could only be detrimental to Russia. *Teleskop*, 1836, no. 10, 278. Odoevskii also foresaw the great potential inherent in technological change for broadening men’s horizons: “Locomotives, all kinds of machines independent of their specific usefulness ... further the education of a people by their very existence, for ... they demand a kind

- of intellectual gymnastics that were not at all necessary in the era of the spade and the crowbar.” Odoevskii, *Povesti*, 444.
- 13 Sakulin, *Iz istorii*, 89.
 - 14 Dimitri Bayuk, “Literature, Music, and Science in Nineteenth Century Russian Culture: Prince Odoevsky’s Quest for a Natural Enharmonic Scale,” *Science in Context* 15, no. 2 (2002), 195. I am grateful to Karl Hall for bringing this article my attention.
 - 15 N.M. Druzhinin, *Gosudarstvennye krest’iane i reform P.D. Kiseleva*, 2 vols. (Moscow, 1958), vol. 2, 89. The government’s plan in 1841 to establish small model farms on which to train private serfs and state peasants in modern agricultural methods bore a striking resemblance to Pavlov’s earlier experiments; *ibid.*, vol. 2, 52–7.
 - 16 *Ibid.*, vol. 2, 551–2; W. Bruce Lincoln, *In the Vanguard of Reform: Russia’s Enlightened Bureaucrats, 1825–1861* (De Kalb, IL, 1982), 50; A.G. Dement’ev, A.V. Zapadov, and M.S. Chereplakhov, eds., *Russkaia periodicheskaiia pechat’ (1702–1894), Spravochnik* (Moscow, 1959), 307. Articles in *Sel’skoe chteniia* included information on public health, medicine, superstition, barometers, gas illumination, steam engines, locomotives, and at a very basic level, physics and astronomy. I. Kubasov, “V.F. Odoevskii,” *Russkii Biograficheskii Slovar’* (RBS), vol. 12, 139.
 - 17 “Tekushchaia khronika i osobyi proisshestviia. Dnevnik V.F. Odoevskogo, 1859–1869 gg,” *Literaturnoe nasledstvo* (1935), books 22–4, 110–11, n. 263.
 - 18 Kubasov, “Odoevskii,” 132. For an even earlier though unsuccessful attempt by Odoevskii and other enlightened landlords to form a joint stock company for the improvement of private farming see E.N. Kusheva, “Proekt uchrezhdeniia aktsionernogo obshchestva ulucheniia chastnogo sel’skogo khozaistva’ 30 godov XIX v.,” *Istoricheskii arkhiv*, 1951, no. 7, 46–56.
 - 19 K.V.O. [V.F. Odoevskii], *Publichnye lektsii professora Liubimova* (Moscow, 1863), pp. 21–2.
 - 20 V.F. Odoevskii, “Iz bumag,” *Russkii arkhiv*, 12 (1874), part 1, 295–6, 333–4, 339. These remarks were originally made in a lecture in 1860.
 - 21 V. Androssov, “Zamechaniia na pribavlenie k stat’e o filosofii,” *Vestnik Evropy*, 1823, no. 6, 85–92. I have accepted the spelling Androssov as correct on the basis of his signed articles.
 - 22 For statistics see Harold Westergaard, *Contributions to the History of Statistics* (London, 1932), 14–15, and M.V. Ptukha, *Ocherki po istorii statistiki v SSSR do kontsa XVIII v.* (Moscow, 1955), 11–14, 24–8. For Pogodin’s review and the reaction, see Barsukov, *Zhizn’ Pogodina*, vol. 4, 63–5.
 - 23 V. Androssov, “Proizvodimost’ i zhivye sily,” *Moskovskii nabliudatel’*, 1835, no. 1, part 1, 36.

- 24 Androssov, "Kritika," *ibid.*, 1836, no. 6, 177. This was a review of G.P. Nebol'sin *Statisticheskie zapiski vneshnei torgovli Rossii* (St Petersburg, 1835). Like Pogodin, Androssov favoured private railroad construction and looked to England and to French spokesmen like Adolph Thiers for private capital as models to emulate. "Chugunnye dorogi," *Moskovskii nabliudatel'*, 1835, no. 2, "Smes'," 463–5 (note the Russianization of the word "railroad" instead of the literal translation from the German "Eisenbahn"); and "Mnenie frantsuzskogo ministra vnutrennykh del g. T'era ob ustroistve zheleznnykh dorog vo Frantsii," *ibid.*, 1835, no. 4, 808–18.
- 25 Barsukov, *Zhizn' Pogodina*, vol. 2, 39, 46, 59, 104–5; vol. 3, 357–8.
- 26 N. Barsukov, ed., "Vypiski iz pisem I.S. Mal'tsova k S.A. Sobolevskomu," in *Starina i novizina* (St Petersburg, 1904), vol. 7, 164–5.
- 27 *Ibid.*, 168–9, 190.
- 28 "S.A. Sobolevskii," *RBS*, vol. 19, 36
- 29 Alfred J. Rieber, *Merchants and Entrepreneurs in Imperial Russia* (Chapel Hill, 1982), chap. 2.
- 30 Gleason, *European and Muscovite*, 43, 64.
- 31 *Moskovskii Telegraf*, September 1828, no. 18, "Smes'," p. 246.
- 32 "O vospitanii voobshche i osobenno kuptsov," *ibid.*, October 1829, no. 19, 362; see also "O kupecheskoi zvani," *ibid.*, 1832, no. 12.
- 33 For England see, for example, "K chitateliam *Telegrafa*," *ibid.*, January 1829, no. 1, 509–10; "Obozrenie deistvii promyshlennosti v Anglii za 1828 god," *ibid.*, February 1829, no. 3; "Ozakonnakh o torgovle," *ibid.*, March 1829, no. 6, 362–89. A useful introduction to the contents of the journal is L.E. Tatarinov, *Zhurnal "Moskovskii telegraf" (1825–1834)* (Moscow, 1959) esp. 16–18 on industrial policy.
- 34 P.N. Miliukov, *Glavnye techeniia russkoi istoricheskoi mysli* (Moscow, 1897), 44, and N.L. Rubinshtein, *Russkaia istoriografiia* (Moscow, 1941), 244–53.
- 35 His idiosyncratic opinions, especially on literature, exposed him to attacks from the radical intelligentsia as well, and he died in 1846 an isolated figure. B. Botsianovskii, "Nikolai Alekseevich Polevoi," in F.A. Brokhaus and I.A. Efron, eds., *Entsiklopedicheskii slovar' (B/E)*, 83 vols. (St Petersburg, 1895–1904), vol. 47, 264–7.
- 36 S.N. Ponomarev, "Mikhail Aleksandrovich Maksimovicha," *ZhMNP*, vol. 157 (1871), pt. 2, 175, 180–1, 197; "Aftobiografiia M.A. Maksimovicha," *Kievskaiia starina*, vol. 86 (1904), 327–31.
- 37 S.R. Mikulinskii, "M.A. Maksimovich kak estestvoispytatel'," *Trudy Instituta istorii estestvoznaniia AN SSSR* 5 (1953), 191–210, and Mikulinskii, *Razvitiia*, 98–100, 124–30, and 323–31.

- 38 M.A. Maksimovich, "O russkom prosveshchenii," *Teleskop* (1832), book 1, 167–90.
- 39 Ponomarov, "Maksimovich," 200–1.
- 40 A.N. Pypin, *Istoriia russkoi etnografii*, 4 vols. (St Petersburg, 1891), vol. 3, 17–24.
- 41 "O malorusskikh pesnakh," in M.A. Maksimovich, *Sobranie sochinenii* (Kiev, 1875–80), vol. 2, 439–45.
- 42 Pypin, *Istoriia russkoi etnografii*, vol. 3, 34.
- 43 A.S. Khomiakov, "Kiev," *Moskvitianin*, 1841, no. 5, 34–6.
- 44 For somewhat different interpretations of the debate see Alexei Miller, *The Ukrainian Question* (Budapest, 2003), 66–7, and Aleksei Tolochko, *Kievskaiia Rus' i Malorossiiia v XIX veke* (Kiev, 2012), 207–23.
- 45 Ponomarev, "Maksimovich," 239; for his personal relations with Pogodin see Barsukov, *Zhizn' Pogodina*, vol. 4, 200–10.
- 46 A number of authors have pointed out that individual Slavophiles engaged in commercial and scientific activities. See, for example, Alexander Vucinich, *Science in Russian Culture: A History to 1860* (Stanford, 1963), 280ff. and William L. Blackwell, *The Beginnings of Russian Industrialization* (Princeton, 1968), vol. 1, 146–8, who do not, however, make the connection between nationalism, science, technology, and industrialism; E.A. Dudzinskaia, *Slavianofily v obshchestvennoi bor'be* (Moscow, 1983) devotes a chapter to their economic and social activities, but deals almost exclusively with their views on resolving the land question. N.I. Tsimbaev *Slavianofilstvo. Iz istorii russkoi obshchestvenno-politicheskoi mysli XIX veka* (Moscow, 1986) is devoted to demonstrating that the Slavophiles were moderate liberals opposing the autocratic state. Laura Engelstein, *Slavophil Empire: Imperial Russia's Illiberal Path* (Ithaca, 2007) comes to the opposite conclusion, also based on the cultural values of the Slavophiles. Neither author discusses in any detail their views on the economy or technology.
- 47 The crucial distinctions between the Slavophiles and official nationalists are clearly presented in Nicholas Riasanovsky, "Pogodin and Shevyrev in Russian Intellectual History," in Hugh McLean, Martin E. Malia, and George Fischer, eds., *Russian Thought and Politics*, Harvard Slavic Studies (Cambridge, MA, 1971), vol. 4, 165.
- 48 Cf. Peter Christoff, "A.S. Khomiakov on the Agricultural and Industrial Problem in Russia," in Adam D. Ferguson and A. Levin, eds., *Essays in Russian History* (Hamdon, CT), 141–9; Alexander Gerschenkron, "Economic Backwardness in Historical Perspective," in *Economic Backwardness in Historical Perspective* (Cambridge, MA, 1962), 170; B.S. Zavitnevich, *Aleksei Stepanovich Khomiakov*, 2 vols. (Kiev, 1902), vol. 1, 243.

- 49 A.S. Khomiakov, "Pis'mo v Peterburge po povodu zheleznoi dorogi," *Polnoe sobranie sochineniia* (Moscow, 1900), vol. 3, 105, 109. The article originally appeared in *Moskvitianin*, 1845, no. 2.
- 50 *Ibid.*, 107, 108, 109.
- 51 *Ibid.*, 112–13, 115.
- 52 *Ibid.*, 118 Although Khomiakov confined his practical business activities to his own estates, he occasionally drafted an entrepreneurial scheme for his friends in government service, such as his plan to raise capital for agricultural improvements and to establish industrial communes; see his memorandum to Ia.I. Rostovtsev in 1859 on a plan to sell state mining properties to foreign entrepreneurs, though only to individuals and not to firms, in order to acquire Western know-how. See Peter Christoff, *An Introduction to Nineteenth Century Slavophilism: A.S. Xomjakov* (The Hague, 1961), 241–2, who presents much material on Khomiakov's scientific interests but puzzles over his endorsement of apparently contradictory values. He suggests, as have others, that the Russian Orthodox Church is not really hostile to science, but does not develop the point.
- 53 *Zapiski Aleksandra Ivanovicha Kosheleva (1812–1883 gody)* (Berlin, 1884), 83; for the Slavophil position and the official reaction see I.N. Kovaleva, "Slavianofily i zapadniki v period krymskoi voini (1853–1856)," *Istoricheskie zapiski* 80 (1967), 181–95.
- 54 For details on this incident see Mikhail Lemke, *Ocherki po istorii russkoi tsenzury i zhurnalistiki XIX stoletia* (St Petersburg, 1904), 284–6, and Stephen Lukashovich, *Ivan Aksakov* (Cambridge, MA, 1965), 34–6. The contents of the objectionable articles reflected more the antiquarian than the economic interests of the Slavophiles. During the war several Slavophiles sought relief from their sense of frustration and helplessness in religious works and meditation. But once the reality of defeat was brought home to them, they re-entered the public arena with renewed dedication to reform. In a letter of 25 May 1854 Koshelev wrote to Ivan Aksakov, "How can we do business and read our Orthodox books now?! No, only Germans can do that." A.I. Koshelev, "Iz perepiski moskovskikh slavianofilov – A.I. Koshelev, I.S. Aksakov," *Golos minuvshevo*, nos. 1–3 (Moscow, 1918), 244–5.
- 55 Iu. Samarin, "Dva slova o narodnosti v nauke," *Russkaia beseda*, 1856, no. 1, "Nauka," 35, 46–7.
- 56 A.I. Koshelev, "Soobrazheniia kasatel'no ustroistve zheleznykh dorog v Rossii," *ibid.*, 148–57. This was a reply to an anonymous article by D.I. Zhuravskii, the distinguished railroad engineer, in *Sovremennik*. Koshelev, like other Slavophiles tried to popularize a Russian word for railroads, "chugunka" or "chugunochka." Koshelev's contemporary, the

- Slavophil ethnographer V.I. Dal', uses both Slavic variants in his famous etymological dictionary, *Tolkovnyi slovar'*, 4 vols. (Moscow, 1880–2), vol. 1, 1324; vol. 4, 1370. For additional articles advocating a Moscow-centred network see "Soovshcheniia o pol'ze ustroistva zheleznykh dorog ot Dunaburga v Kurskuiu guberniiu," *Russkaia beseda*, 1856, no. 1, 157–8 and Koshelev's renewal of his polemic with Zhuravskii, "Pis'mo k izdateliu A. I. Koshelevu," *ibid.*, 1857, no. 1, 85, in which he rebukes his opponent for suggesting that the population and productive centres of Russia are shifting to the south: "Is the Caspian then the centre of Russia?" he asked sarcastically. *Russkaia beseda* honours the south of Gogol, Koshelev proclaimed, and it was unjust for Zhuravskii to suggest that they were ready to "sacrifice the interests of the people to this [Muscovite] heart."
- 57 Letter of Iu.F. Samarin to V.A. Cherkasskii, 18 November 1857, in O. Trubetskaia, ed., *Materialy dlia biografii kn. V.A. Cherkasskogo* (Moscow, 1901), vol. 1, book 1, pt. 1, 85.
- 58 K. Aksakov, "Zheleznye-dorogi sostavliaiut odno iz vazhneishikh otkrytii nashego veka," *Molva*, no. 19 (17 August 1857), 217–18.
- 59 Letter dated 15/16 February 1856, Bessarabia, in *Ivan Sergeevich Aksakov v ego pis'makh*, 4 vols. (Moscow, 1892), vol. 3, 236. For Aksakov as a "reluctant Slavophil," see Lukashovich, *Aksakov*, esp. chap. 2.
- 60 I.S. Aksakov, "Vvedenie k Ukraininskim iarmakam," *Sochineniia*, 7 vols. (Moscow, 1886–7), vol. 6, 38–9, 71.
- 61 Letter of 6 December 1856 in *Aksakov v ego pis'makh*, vol. 3, 308.
- 62 Trubetskaia, *Materialy*, vol. 1, p. 82; Barsukov, *Zhizn' Pogodina*, vol. 14, 350, where Aksakov is quoted as saying that *Russkaia beseda* "was written in such a way as to create bewilderment, alienate the support of the young people and gain the sympathy of archbishops, monks and the Holy Synod." This was not altogether fair. The journal had a good-sized subscription list of 1206 in 1858 according to Trubetskaia, *Materialy*, vol. 1 82, n. 1, and on at least one occasion Aksakov himself helped supply the journal with an article on railroads by the big Ukrainian capitalist landowner M.P. Pozen. See his letter to A.I. Koshelev in *Aksakov v ego pis'makh*, vol. 3, 248. Much later Aksakov continued to denounce the older generation of Slavophiles, mainly Ivan Kireevskii, for "opposing railroads and emancipation." P.N. Sakulin, "Russkaia literatura vo vtoroi chetverti veka," in A. and I. Granat, eds., *Istoriia Rossiii v XIX veka*, 9 vols. (St Petersburg, 1907–11), vol. 2, 472.
- 63 The participation of the Slavophiles in the movement for emancipation is a very large subject and cannot be treated here. However, in the present context it must be remembered that their opposition to serfdom was based

- upon economic as well as moral considerations. As early as 1847 Koshelev had argued for the superiority of free hired labour over serf labour in both agriculture and industry. His view deeply influenced a number of Slavophil memoranda on emancipation after the Crimean War. See V.Ia. Ulanov and V.P. Baturinskii, "Slavianofily i zapadniki o krepostnom prave," in A.K. Dzhivelegov, S.P. Mel'gunov, and V.I. Picheta, eds., *Velikaia reforma*, 6 vols. (Moscow, 1911), vol. 3, 183–4, and Tsimbaev, *Slavianofilstvo*, passim.
- 64 A.I. Koshelev, "Poezdka russkogo zemlede'l'tsa v Angliiu na vsemirnuiu vystavku," *Moskovskii sbornik* 1 (Moscow, 1852), 145–244. The article occupied one quarter of the only volume of this periodical published that year, testifying to the growing importance that the subject had assumed in the eyes of the Slavophiles.
- 65 *Ibid.*, 219–21, 231. In contrast, Koshelev also remarked on the inferior quality of Russian agricultural equipment and semi-finished goods.
- 66 *Ibid.*, 236, 242–3.
- 67 Koshelev, "Iz perepiski," 241, note.
- 68 Trubetskaia, *Materialy*, vol. 1, book 1, app. 2, "Zapiski kn. V.A. Cherkasskogo: 'O luchshikh sredstvakh k postepennomy iskhodu iz krepostnogo sostoianiia k kontse 1856 goda,'" 21. Cherkasskii tried to reassure his Slavophil colleagues that breaking up the commune gradually would lead to a slow migration of peasants into the cities over ten years, bringing Russia's urban population to a total of 11 per cent in contrast to 33 per cent in France and 66 per cent in England. At such a level, he argued, "a proletariat one can say with the utmost confidence is not only not harmful but positively necessary for Russia"; without an urban labour force, "there will never be in Russia factories capable of competing with Western Europe and satisfying our national needs in case of a rupture with the West," *ibid.*, 23–4, 64. Even Samarin, who favoured communal tenure for the liberated serfs, frankly admitted the economic disadvantages of such a settlement, so that his opponents could find no better arguments than his own to use against him. Ulanov, "Slavianofily," 187.
- 69 For example, in 1860 Koshelev and Fedor Chizhov, the Slavophil entrepreneurs par excellence, helped to revise the statutes of the Moscow Agricultural Society in order to broaden its functions. The government soon caught on to their game and required all agricultural societies to obtain permission from the Minister of State Domains before creating any subsections or permanent committees. Koshelev petitioned for approval of the new statutes drafted by Chizhov and himself, but was sharply rebuked by the minister. In a fit of pique, Koshelev resigned as president of the society. The government grudgingly backed down

following Chizhov's spirited attack on the colourless former secretary of the society, S.A. Maslov; Koshelev was unanimously re-elected. Both sides recognized that expanding the society's sections and committees would provide a kind of training ground for the activities of the zemstvo and town boards. *Zapiski Kosheleva*, 135–8. The use of agricultural societies as political springboards into local governments needs further analysis. It is ignored in the literature. Cf. V.V. Garmiza, *Podgotovka zemskoi reformy 1864 goda* (Moscow, 1957); V.N. Rozentel', "Programma russkogo liberalizma dvorianstva v gody revoliutsionnoi situatsii," *Revoliutsionnaia situatsiia v Rossii v 1959–61 gg.*, 1961, no. 70; N.G. Sladkevich, *Oppozitsionnoe dvizhenie Rossii v 1859–61 gg.* (Moscow, 1962), all of which stress plans and projects rather than political action. Even S. Frederick Starr, *Decentralization and Self-Government in Russia, 1830–1870* (Princeton, 1972), which alone seeks to come to grips with the real politics of interest groups, ignores the agricultural committees.

70 Blackwell, *The Beginnings of Russian Industrialization*, vol. 1, 348; Lincoln, *In the Vanguard of Reform*, 130–3.

71 Trubetskaia, *Materialy*, vol. 1, book 2, 341–4, 349, and Aksakov, *Sochineniia*, vol. 5, 220–9. The latter are editorials from *Den'*, 16 and 23 February 1862.

72 Ia.I. Linovskii, "Ob okonchatel'nom otnoshenii khlebnykh zakonov v Anglii," *Moskovskii literaturnyi i uchebnyi sbornik* (Moscow, 1846), 527–8. This journal was an exclusively Slavophil organ. Linovskii was an influential spokesman for the economic transformation of Russia by means of technical education, moderate tariffs, "the spirit of comradeship and enterprise," and self-sacrifice among the landed nobility. *Ibid.*, 530, 532–5. Professor Druzhinin described Linovskii as "close to Slavophil circles" who participated in establishing links between agronomists and state peasant villages. N.M. Druzhinin, *Gosudarstvennye krest'iane i reforma P.D. Kiseleva*, 2 vols. (Moscow, 1946–58), vol. 2, 238. See also *Moskovitianin*, 1845, no. 3, 27–45. Linovskii was trained in philosophy at Moscow University and in botany and zoology at St Vladimir University in Kiev under Maksimovich. Another "potato philosopher" in the Pavlov tradition, he was a great popularizer of scientific agriculture, especially in his public lectures published in the form of "simple but lively conversations." *Biograficheskii slovar' professorov i prepodavatelei Imperatorskogo Moskovskogo Universiteta* (Moscow, 1855), pt. 1, 458–62.

73 See especially S. Bel'skii, "O vlianii razvitiia fabrichnoi promyshlennosti na zemledelie," *Russkaia beseda*, 1856, no. 4, 102–28, which cites such authorities as Adam Smith and Michel Chevalier as well as the respected Russian statisticians G.P. Nebolsin, L.V. Tengoborskii, K.A. Arsen'ev,

- and I.V. Saburov. See also “Obozrenie sveklosakharnogo proizvodstva v Rossii,” *ibid.*, 1956, no. 5, 20–36.
- 74 A.S. Ershov, “Obozrenie vyshago mekhanicheskogo obrazovaniia v Zapadnoi Evropy,” *ibid.*, 1857, 32, 36, 52–3. The article was expressly endorsed by the editors as an appeal to free Russia from dependence on foreign specialists whom they regarded as rejects from their own countries, *ibid.*, 60–1. Ershov taught practical mechanics at Moscow University and later organized the Moscow Higher Technical School. In his publications, he stressed the theoretical importance of machine construction as a means of rescuing manufacturing from “blind empiricism.” N.A. Figurowskii, *Istoriia estestvoznaniia v Rossii*, 2 vols. (Moscow, 1957), vol. 1, pt. 2, 102–3.
- 75 Letter of 30 May 1856, in Trubetskaia, *Materialy*, vol. 1, book 1, pt. 1, 73–4. Koshelev was especially concerned about the visit of Isaac Pereire to St Petersburg, which preceded the government’s concession to a consortium of West European bankers to construct Russia’s first railroad network.
- 76 I.V. Koliupanov, *Biografiia Aleksandra Ivanovicha Kosheleva*, 2 vols. (Moscow, 1889–92), vol. 2, app. 2, 127–39, dated December 1854.
- 77 Among those associated with Slavophil circles who were nobles and held bureaucratic appointments, Bruce Lincoln identified Samarin, Cherkasskii, P.A. Bulgakov, and A.N. Popov. Lincoln, *In the Vanguard*, 250, n. 134; see also *B/E*, vol. 22, 755–6. Koshelev was not invited because the chairman, Rostovtsev, opposed appointing a vodka tax farmer to the commission. Khomiakov was outraged. Barsukov, *Zhizn’ Pogodina*, vol. 17, 80–1.
- 78 Iu.F. Samarin, “Stefan Iavorskii and Feofan Prokopovich,” in D. Samarin et al., eds., *Sobranie sochinenii*, vols. 1–10 and 12 (Moscow, 1877–1911), vol. 5, 305–24.

4 The Moscow Entrepreneurial Group

- 1 An exceptional figure among Soviet historians was B.V. Anan’ich, whose work on Russian capitalism included sketches of leading capitalists and their interconnection with one another. See Ekaterina Pravilova, “In Memoriam,” *Ab Imperio*, no. 2 (2015), 396–400, and Alfred J. Rieber, “Boris Vasilevich Anan’ich, 1931–2015,” *Jahrbücher für Geschichte Osteuropas* 64, no. 1 (2016), 170–6.
- 2 A pioneer among Soviet historians in analysing bureaucratic politics and publishing important documentary collections was P.A. Zaionchkovskii. For an appreciation of his work see L.G. Zakharova, “Petr Andreevich Zaionchkovskii – uchenyi i uchitel’,” in P.A. *Zaionchkovskii, 1904–1983 gg. Stat’i, publikatsii i vospominaniia o nem* (Moscow, 1998), 5–20 and Alfred J.

- Rieber, "Petr Andreevic Zaionchkovskii, d. 1983," *Jahrbücher für Geschichte Osteuropas* 33, no. 2 (1985), 313–16.
- 3 Cf. James L. West and Iurii A. Petrov, eds., *Merchant Moscow: Images of Russia's Vanished Bourgeoisie* (Princeton, 1998), which accomplishes this task but continues to employ the term "bourgeoisie," which I consider inappropriate for the merchants, even their most "enlightened" group.
- 4 See the essays in Gregory Guroff and Fred V. Carstensen, eds., *Entrepreneurship in Imperial Russia and the Soviet Union* (Princeton, 1983), especially part 1 on the tsarist period.
- 5 For the second generation see Thomas C. Owen, *Capitalism and Politics in Russia: A Social History of the Moscow Merchants, 1855–1905* (Cambridge, 1981), chaps. 5, 6, and 7, and Alfred J. Rieber, *Merchants and Entrepreneurs in Imperial Russia* (Chapel Hill, 1982), pt. 3, which takes the analysis to 1917.
- 6 For the general problem of the government's inability to collect its own taxes see S. Frederick Starr, *Decentralization and Self-Government in Russia, 1830–1870* (Princeton, 1972), 17–18, 34–44. For Kankrin's reluctant decision to re-establish vodka tax farming in 1827, transferring its collection from state officials to private entrepreneurs, see Walter MacKenzie Pintner, *Russian Economic Policy under Nicholas I* (Ithaca, 1967), 76–81. The following figures are taken from p. 77.

The vodka tax in thousands of paper rubles

Year	Direct taxes and rents	Alcohol revenue	Customs revenue	Total ordinary revenue
1844	163,506	200,718	111,611	651,595
1856	163,110	309,291	104,538	811,072

For the entire question see Baron E.F. Nolde, *Piteinoe delo i aktsiznaia sistema*, 2 vols. (St Petersburg 1882–3).

- 7 L.E. Shepelev, *Tsarizm i burzhuaziia vo vtoroi polovine XIX veka. Problemy tovgovo-promyshlennoi politiki* (Leningrad, 1981), 56–7.
- 8 For Chizhov's early entrepreneurial activities see Otdel rukopisei: Russkaia gosudarstvennaia biblioteka (henceforth OR RGB), f. 332 (Chizhov), box 78, no. 11, "Perepiska o ssude ot Ministerstva gosudarstvennogo imushchestva dlia razvitiia selkovodstva v Kievskoi gubernii," listy 1–2; spisak predpisaniia Departamenta sel'skogo khozaistva Ministerstva gosudarstvennogo imushchestva ... 9 apreliia, 1859, listy 3–4; Spisak predstavleniia Upravliaiushchego Kievskogo Palate gosudarstvennogo imushchestva ... ot 21 apreliia, 1859; box 78, no. 17: "Ob uchilishhe selkovodstva programma." The most complete biographies of Chizhov are

- Thomas Owen, *Dilemmas of Russian Capitalism: Fedor Chizhov and Corporate Enterprise in the Railway Age* (Cambridge, MA, 2005) and Inna A. Simonova, *Fedor Chizhov* (Moscow, 2002), which complement one another.
- 9 OR RGB, f. 332, box 24, no. 1, Del'vig to Chizhov, 27 January 1861; box 38, no. 1, pp. 17 and 18, letters of I.F. Mamontov to Chizhov (undated, January–February 1862?); Baron A.I. Del'vig, *Moi vospomianiia*, 5 vols. (St Petersburg, 1913), vol. 3, 29–35.
 - 10 *Ibid.*, f. 332, box 2, no. 10, “Dnevnik Chizhova,” 25 January, 10 April, 21 May 1871, 29, 33, 35.
 - 11 Owen, *Dilemmas of Russian Capitalism*, 207.
 - 12 S.P. Shipov, “Vospomianiia Sergeia Pavlovicha Shipova,” in *Russkii arkhiv* (henceforth RA) 16, no. 2 (1878), 144–202.
 - 13 A. P. Shipov, *Khlopchato-bumazhnaia promyslennost' i vazhnost' eia znacheniiia v Rossii* (Moscow 1857).
 - 14 Anne Lincoln Fitzpatrick, *The Great Russian Fair: Nizhnyi Novgorod, 1840–90* (London, 1990), 153–60 and 191–2.
 - 15 K.A. Skal'kovskii, *Nashi gosudarstvennye i obshchestvennye deiateli* (St Petersburg 1891), 165–6, based mainly on Skal'kovskii's personal recollections; OR RGB, f. 231 (Pogodin), vol. 3, box 6, no. 9, letter of V.A. Kokorev to Prince Orlov.
 - 16 OR RGB, f. 231 (Pogodin), vol. 3, box 6, no. 5: V.A. Kokorev, “Beseda s samim soboiu,” 9 January 1859, list 4.
 - 17 Skal'kovskii, *Nashi deiateli*, 169–72. Kokorev's lobbying influenced the viceroy of the Caucasus to exchange the oil tax farming system for an excise tax which increased the flow of oil and benefitted Kokorev's refining operations. Tsentralnyi gosudarstvennyi istoricheskii archive, Leningrad (henceforth TsGIAL), f. 1639, opis 1, delo 87, “Zapiski Bakinskogo gubernatora i otvet emu Kokoreva o deiatelnosti kerosinogo zavoda v Surazanach (1869), list 108. Up to 1864 the Ministry of Finance supplied Kokorev's Trans-Caspian Trading Co. with iron at factory prices in order to enable him to engage in favourable trade with Persia. *Ibid.*, delo 59, “Zapiski departamenta manufaktury i torgovlia (1861), listy 4–5; Pis'mo departamentu manufaktury i torgovlia, 27 iunია 1864, listy 9–10. For the government's help in bailing out Kokorev from his financial disasters see I.F. Gindin, *Gosudarstvennyi bank i ekonomicheskaiia politika tsarskogo pravitelstva (1861–1892 gody)* (Moscow, 1960), 277–9, which, nevertheless, underestimates the risks and losses of the entrepreneurs in order to demonstrate their dependence on the state.
 - 18 V.A. Kokorev, *Ekonomicheskie provaly. Po vospominaniiam s 1837 goda* (St Petersburg, 1887), 33–57 and 79–89.

- 19 N.M. Iuksimovich, *Manufakturnaia promyshlennost' v proshlom i nastoiashchem*, 2 vols. (Moscow, 1915), vol. 1, 1–17, is the most complete source for the Morozov family enterprises. See also, however, G.S. Isaev, *Rol' tekstilnoi promyshlennosti v genezise i razvitiu kapitalizma v Rossii 1760–1860* (Leningrad, 1970), 162, 197; P.I. Liashchenko, *Istoriia narodnogo khozaistva SSSR*, 3rd ed., 3 vols. (Moscow, 1952–6), vol. 2, 444; V.T. Bill, “The Morozovs,” *The Russian Review* 14, no. 2 (1955), 109–16; *Zapiski Imperatorskogo russkogo tekhnicheskogo Obshchestva* 1 (1871), 25–7, 70–1.
- 20 Nikolai P. Barsukov, *Zhizn' i trudy M.P. Pogodina*, 22 vols. (St Petersburg, 1888–1910), vol. 14, 177, 285, 573–4; vol. 15, 52, 54–7; P.A. Buryshkin, *Moscow kupecheskaia* (New York, 1954), 168. When in 1869 Ivan Fedorovich died, Dmitrii Shipov wrote Chizhov how saddened he was by the passing of “our good comrade I.F. Mamontov. I was genuinely fond of him and respected him, and always enjoyed the most straightforward business relations with him and the most cordial reception from him.” OR RGB, f. 332, box 61, no. 8, letter of D. Shipov to Chizhov, 18 July 1869. Shipov extended the same friendship to Savva Ivanovich, inviting him to become a partner in several railroad ventures, including the Iaroslavl-Kostroma and the Donets lines. *Ibid.*, box 61, no. 9, letters of D. Shipov to Chizhov, 5 April [1871?]; no. 10, 27 January 1876.
- 21 G. Fon Schulze-Gevernits [von Schulze-Gavernitz], *Krupnoe proizvodstvo v Rossii*. (trans. from German by B.A. Avilov) (Moscow, 1899), 39; Isaev, *Rol' tekstilnoi promyshlennosti*, p. 220; M.K. Rozhkova, *Ekonomicheskie sviazi Rossii so Srednei Azii* (Moscow, 1963), 154–6.
- 22 Isaev, *Rol' tekstilnoi promyshlennosti*, p. 162. The Tret'iakovs also founded in 1866 the Great Kostroma Works, which housed under one roof a larger number of spindles than anywhere else in Europe. Iuksimovich, *Manufakturnaia promyshlennost'*, vol. 2, 2.
- 23 B.F. Brandt, *Inostrannye kapitaly. Ikh vliianie na razvitie strany*, 5 vols. (St Petersburg, 1901), vol. 3, 44; P.I. Shchukin, “Iz vospominanii P. I. Shchukina,” *RA* 50, no. 2 (1912), 99–100. The Giubner investment was one of the rare occasions when one of the Moscow group cooperated with foreign capitalists. “25-letie Tovarishchestva sitstepechatnoi manufaktury E. Tsindel v Moskve (1874–1899),” in *Istoriostatisticheskii ocherk* (Moscow, 1899), 7.
- 24 Alfred J. Rieber, *Merchants and Entrepreneurs in Imperial Russia* (Chapel Hill, 1983).
- 25 V.V. Andreev, *Raskol i ego znachenie v narodnoi russkoi istorii. Istoricheskii ocherk* (St Petersburg, 1870), 211, 219, 225; P.G. Ryndzinskii, “Starobriadcheskaia organizatsiia v usloviakh razvitiia promyshlennogo kapitalizma,” *Voprosy istorii religii i ateizma* 1 (1950), 192–208, 217–18.

- 26 Shchukin, “*Iz vospominanii*,” 101.
- 27 T.S. Grits, M. S. Shchepkin. *Letopis' zhizni i tvorchestva* (Moscow 1966), 574, 609; Barsukov, *Zhizn' Pogodina*, vol. 12, 410–13.
- 28 V.O. Kliuchevskii, “*Chtenie o G. F. Karpove v chrezvychainom zasedanii Imp. Obshchestva istorii i drevnostei rossiiskikh pri Moskovskom universitete 18 noiabrii 1890 g.*,” in *Chteniia Obshchestva istorii i drevnostei rossiiskikh* (henceforth COIDR) (1892), book 1, “*Protokoly*,” 41–5; Buryshkin, *Moscow kupecheskaia*, 114–18.
- 29 V.S. Markov, “*K istorii raskola-starobriadchestva vtoroi poloviny XIX stoletia: Perepiska prof. N. I. Subbotina*,” in COIDR, book 1 (1915), 51–3, 125, 184, 238; A.I. Popov, comp., *Opisanie rukopisei i katalog knig tserkovnoi pechati biblioteki A. I. Khludova* (Moscow, 1872), preface (no pagination). The list of works occupies 664 pages; N. Subbotin, *V pamiat' ob A. I. Khludove* (Moscow, 1882); [P.M. Treť'iakov], *Perepiska P. M. Treť'iakova i V. V. Stasova, 1874–1897. Pisma podgotovleny k pečati i primečaniia k nim sostavleny ... N. Galkinoi i M. N. Grigorevoi* (Moscow/Leningrad, 1949), 55.
- 30 A.P. Botkina, *Pavel Mikhailovich Treť'iakov v zhizni i iskusstve* (Moscow, 1951), 24, 27, 36, 52–4; V.V. Stasov, “*Pavel Mikhailovich Treť'iakov i ego gallereia*,” in RA 80, no. 24 (1893), 573, 581, 597–9. For the important and convincing argument that the Peredvizhniki represented a Russian national school rather than a radical critique of Russian society see Elizabeth Kridl Valkenier, “*The Peredvizhniki and the Spirit of the 1860s*,” *The Russian Review* 34, no. 3 (1975), 247–65.
- 31 Vera P. Siloti, *V dome Treť'iakova* (New York, 1956), 18–19, 83–7, 251–63. Another member of the group, A.S. Vishniakov, studied with Siloti and later became a patron of Sergei Rachmaninoff. Sergei Bertensson and Jay Leyda, *Sergei Rachmaninoff: A Lifetime in Music* (New York, 1954 [Moscow, 1998]), 4.
- 32 V.S. Mamontov, *Vospominaniia o russkikh khudozhnikakh. Abramitsevskii khudozhestvennyi kruzhok* (Moscow, 1950), 25; see also *Abramtsevo, Vospominaniia N. V. Polenova* (Moscow, 1922).
- 33 “*V.A. Gartman*,” in RBS, vol. 4, 242–3; A.P. Novitskii, *Istoriia russkago iskusstva s drevneshikh vremen* (Moscow, 1903), 2, 189; Treť'iakov, *Perepiska*, 38, 226.
- 34 “*Vospominaniia F. V. Chizhova*,” *Istoricheskii vestnik* 3 (1883), 243–8, 253–7. According to the editor this was probably an excerpt from the draft of answers given by Chizhov to the Third Section after his arrest in 1847 upon crossing the Russian frontier. As early as 1845, Chizhov considered the possibility of returning to Russia and editing a journal devoted to combating Western materialist influences in Russia. I. Rozanov, “*Iz*

- perepiski N. M. Iazykova s F. V. Chizhovym, 1843–1845,” *Literaturnoe nasledstvo* (1935), 19–20, 105–42. Only in 1857 was this hope realized when Chizhov became editor of *Vestnik promyshlennosti*. Meanwhile, Chizov wrote for the Slavophil press, including an article on the Russian artists whom the merchants were beginning to patronize, “O rabotakh russkikh khudoznikov v Rime,” *Moskovskii sbornik* (1846). Still, Chizhov declined Koshelev’s proposal to become the editor of the last real Slavophil journal, *Russkaia beseda*, whose tendency would be “pure Russian and Orthodox,” but he agreed to write regularly for it. OR RGB, f. 332, box 35, no. 29, letters A.I. Koshelev to Chizhov, 25 April, 24 May, 20 June, 23 July, and 2 September 1856.
- 35 OR RGB, f. 332, box 2, no. 9, “Dnevnik,” entry for 22 March 1857.
- 36 On the southern line see the series of his articles in *Aktsioner*, 17 and 24 August, 26 November, 7 and 21 December 1863, and later on the southwest line in *Den*, 28 November, 5 and 12 December 1864, and 23 January 1865, in which he attacks the “yid-contractors” for causing poverty in the south. Chizhov tried to recruit Russian shareholders in a joint stock company for the development of trade and industry in Dalmatia in which Bishop Strossmayer, the ardent champion of Yugoslavism, was the major shareholder. OR RGB, f. 332, box 79, no. 3, “Obrashchenie k russkim predprinimateliam,” 1 October 1869.
- 37 Shipov, *Vospominaniia*, 189–90; *RBS*, vol. 23, 297–8.
- 38 OR RGB, f. 332, box 6, no. 10, “Rech’ o slavianskom s’ezde 1867 goda (mai),” draft copy in Chizhov’s hand. For Aksakov’s role see S.A. Nikitin, “Slavianskie s’ezdy shestidesiatnykh godov XIX veka,” in *Slavianskii sbornik: Slavianskii vopros i russkoe obshchestvo v 1867–1878 godakh* (Moscow, 1948), 16–29.
- 39 D.A. Miliutin, *Dnevnik*, ed. P.A. Zaionchkovskii, 4 vols. (Moscow, 1947–50), vol. 2, 108, entry for 31 October 1876.
- 40 For a thoughtful study of Aksakov’s painful and slow conversion to militant Pan-Slavism see Stephen Lukashevich, *Ivan Aksakov 1823–1886: A Study in Russian Thought and Politics* (Cambridge, MA, 1965), esp. 21–42, and also Nicholas V. Riasanovsky, *Russia and the West in the Teaching of the Slavophiles* (Cambridge, MA, 1952), 52–5.
- 41 “Incidentally,” Aksakov wrote Chizhov, “the Mutual Credit Society has been turned into some kind of political centre; here in my name and the name of the Slavonic Committees telegrams and letters are sent from the theatre of the uprising, from the Slavic countries – volunteers for the rising are recruited and money is received on current accounts especially opened by me for this affair.” OR RGB, f. 332, box 15, no. 10, Aksakov to Chizhov, 26 May 1876.

- 42 Kokorev, *Ekonomicheskie provaly*, 102–18.
- 43 Baron A.I. Del'vig, *Moi vospominaniia*, 4 vols. (Moscow, 1912–13), vol. 2, 207–8, 233–6, 288, 340–1, 345.
- 44 I.K. Babst, "RBS, vol. 2, 387; Babst, *O nekotorykh usloviakh, sposobstvuiushchikh umnozheniiu narodnogo kapitala* (Kazan, 1856) comes very close to Kokorev's views; Babst, "Teoriia i praktika," *Ekonomicheskii ukazatel'*, 1857, no. 5, 108–15, defends the merchants against noble criticism that they were to blame for high grain prices and advocates a railroad system and gradual reduction of tariffs; Babst, "Istoricheskii metod v politicheskoi ekonomii," *Russkii vestnik*, 1856, no. 3, 94–142, is a review of Wilhelm Roscher's *System der Volkswirtschaft*; Babst, "Obozrenie promyshlennosti i torgovli v Rossii," *Vestnik promyshlennosti*, 1860, no. 10, 73–104, begins his shift away from faith in foreign loans and foreign technology; Barsukov, *Zhizn' Pogodina*, vol. 14, 278; vol. 15, 315; vol. 16, 136, 213, 216, 489; vol. 17, 406, 414, 417, 437, 452; vol. 18, 11–12; vol. 21, 1–2 and 64. OR RGB, f. 332, letters I.K. Babst to F.V. Chizhov, box 16, no. 2, 3 March 1857, 19 November 1859, undated (1860?).
- 45 Barsukov, *Zhizn' Pogodina*, vol. 6, 393.
- 46 *Ibid.*, vol. 17, pp. 39–40. Kokorev was placed under police surveillance because he displayed a "provocative sign" on his house, supported needy students, and was rumoured to be "a Red." Kokorev complained that surveillance ruined a man's credit and wondered how a man who invested all his capital in enterprises of national importance could be so characterized. OR RGB, f. 231, vol. 3, box 6, no. 5, listy 1–3. Soldatenkov was secretly investigated by the Third Section because it was rumoured that he and Shchepkin had sent articles to Herzen for publication in *Kolokol*. A thorough report on all members of Soldatenkov's circle revealed no evidence to corroborate the charge. Grits, *Shchepkin*, 660–5.
- 47 Shipov, *Vospominaniia*, p.163 and V.P. Alekseev, V.P. Kozmin, eds., *Politicheskie processy 60-kh gg.* (Moscow/Petrograd, 1923), 103.
- 48 F. Chizhov, "Novopodniaty vopros ob unichtozhenii privilegii," *Vestnik promyshlennosti* 9, no. 2 (1861), 95–6. See also L.B. Genkin, "Obshchestvenno-politicheskaia programma russkoi burzhuazii v gody pervoi revoliutsionnoi situatsii (1859–1861 gg.) (Po materialam Zhurnala *Vestnik promyshlennosti*)," in *Problemy sotsialno-ekonomicheskoi istorii Rossii. Sbornik statei* (Moscow, 1971), 98, which softens the strong anti-bureaucratic tone of *Vestnik promyshlennosti*.
- 49 OR RGB, f. 332, box 61, no. 6, letter of Dmitrii Shipov to Chizhov, undated (1857?).
- 50 *Ibid.*, box 1, no. 1, "Dnevnik," entry for 22 August 1826, where Chizhov calls the Decembrists "scoundrels" and suggests that Nicholas I was merciful in hanging "only five" of them. Shipov, *Vospominaniia*, 164,

where Shipov reports his efforts to talk his friend Pestel out of a rebellion. Later in 1829 the Shipovs tried to get pardons for the exiled Decembrists. Kokorev, *Ekonomicheskie provali*, 8.

- 51 Nikolai Naidenov, *Vospominaniia o vidennom, slyshannom i ispytannom*, 2 vols. (Moscow, 1903–5), vol. 2, 17–18. The submissiveness of the merchants was graphically demonstrated by the humiliating resignation of Liamin as head of the Moscow дума following an insulting remark by the governor general, P.P. Durnovo, concerning his sartorial appearance on an official visit. *Ibid.*, vol. 2, 33.
- 52 Sergei Shipov, *O gosudarstvennom ustroistve v Rossii* (Moscow, 1870), 3, 21–2.

5 The Engineers

- 1 Robert K. Merton, *Social Theory and Social Structure* (New York, 1968), chap. 7.
- 2 For a detailed survey of the administrative and organizational aspects of the engineering profession from Peter the Great to Alexander see Dmitrii Gouzévitch and Irina Gouzévitch, “Les corps d’ingénieurs comme forme d’organisation professionnelle en russie: Genèse, évolution, spécificité (XIIIe et XIXe siècles),” *Cahiers du Monde russe* 41, no. 4 (October – December 2000), 569–95.
- 3 Terence Johnson, *Professions and Power* (London, 1972), 38; Magali Larson, *The Rise of Professionalism: A Sociological Analysis* (Berkeley, 1977), 28; Thomas L. Haskell, “Professionalism versus Capitalism: R.H. Tawney, Emile Durkheim and C.S. Pierce on the disinterestedness of professional communities,” in Haskell, ed., *The Authority of Experts: Studies in History and Theory* (Bloomington, 1984), 196.
- 4 M.O. Klochkov, *Ocherki pravitel’svennoi deiatel’nosti vremeni Pavla I* (Petrograd, 1916), was for many years the sole dissenting voice among the older historians. Much of his argument has been sustained in a modified version in Hugh Ragsdale, ed., *Paul I: A Reassessment of His Life and Reign* (Pittsburgh, 1979).
- 5 Robert E. Jones, “Getting the Goods to St. Petersburg: Water Transport from the Interior, 1703–1811,” *Slavic Review* 43, no. 3 (August 1984), 432.
- 6 A.M. Loranskii, *Istoricheskii ocherk Gornogo instituta* (St Petersburg, 1873), 33–6; Klochkov, *Ocherki*, 318–27.
- 7 A.M. Larionov, *Istoriia Instituta inzhenerov putei soobshcheniia imperatora Aleksandra I-go za pervoe stoletie ego sushchestvovaniia, 1810–1910* (St Petersburg, 1910), 17–18.
- 8 Modest Korf, “Rozhdenie i pervye 20 let zhizni (1796–1817). Materialy i cherty k biografii Imperatora Nikolaia I i k istorii ego tsarstvovaniia,” in

- Sbornik imperatorskogo russkogo istoricheskogo obshchestva* (henceforth *SIRIO*), vol. 98 (1896), 62–3.
- 9 Maksimovskii, *Istoricheskii ocherk*, 9–13, 16–21, 38–48; I. Artamanov, “Baron Fridrikh Gottlib fon El’sner,” in *Russkii biograficheskii slovar’* (henceforth *RBS*), vol. 24, 220–2.
 - 10 Larionov, *Istoriia Instituta inzhenerov*, 9.
 - 11 F.B. Artz, *The Development of Technical Education in France, 1500–1800* (Cambridge, 1966), 81.
 - 12 Velikii kniaz’ Nikolai Mikhailovich, *Graf P.A. Stroganov*, 2 vols. (St Petersburg, 1903), vol. 1, 67–8; I.S. Listovskii, “Graf Petr Vasil’evich Zavadovskii,” *Russkii arkhiv* (henceforth *RA*), 1883, no. 3, 153.
 - 13 D. Levshin, *Pazheskii ego imperatorskogo velichestva korpus za sto let*, 2 vols. (St Petersburg, 1902), vol. 1, 324–30, 342, 364, 367, 376, 398–400, 517; N.K. Imeretskii, “Pazheskii korpus v 1843–1848 gg. Zapiski starogo pazha,” *Russkii vestnik* 190, no. 8 (1887), 663–703; no. 9, 221–54.
 - 14 S. Zhitkov, “Konstantin Vladimirovich Chevkin, Biograficheskii ocherk,” *Russkaia starina* (henceforth *RS*), vol. 19 (1877), 1–22; vol. 22 (1877), 1–14 (repr. in *RBS*, vol. 22, 89–113).
 - 15 A. Loranskii, *Istoricheskii ocherk ural’ skikh gornyykh zavodov* (St Petersburg, 1896), chap. 2; A. Skal’kovskii, “O znachenii tsarstvovaniia Aleksandra I dlia russkogo gornogo dela,” *Gornyi zhurnal*, 1878, no. 1, 240–5; V. Vlasov, “Andrei Fedorovich Deriabin,” in *RBS*, vol. 6, 327–9.
 - 16 Loranskii, *Istoricheskii ocherk Gornogo instituta*, 40, 59.
 - 17 *Polnoe sobranie zakonov rossiiskoi imperii* (henceforth *PSZ*), ser. 2, no. 23996 (20 November 1809).
 - 18 *Ibid.*, no. 23559 (3 April 1809); no. 23781 (10 August 1809); “Zapiski F.F. Vigel,” *RA* 30, no. 1 (1892), 66–7.
 - 19 Terry Shinn, *L’école polytechnique* (Paris, 1980), 24–7.
 - 20 Gouzévitch and Gouzévitch, “Le corps,” 598–600.
 - 21 *Ibid.*, 604–5.
 - 22 Larionov, *Istoriia instituta inzhenerov*, 24.
 - 23 *Ibid.*, 28–9 provides a list with sketchy biographical data. My estimate is based on family names, institutions of secondary education, and, for a few, specific *soslovie* identification.
 - 24 *Ibid.*, 44–7.
 - 25 *Ibid.*, 56–9.
 - 26 *Kratkii istoricheskii ocherk razvitiia i deiatel’nosti Vedomstva putei soobshcheniia za sto let ego sushchestvovaniia (1798–1898)* (henceforth *KIORD*) (St Petersburg, 1898), 44–51.

- 27 “Rech’ proiznesennaia direktorom Instituta korpusa putei soobscheniia G. General Leitenantom Bazenom na publicnom ispitanii 2-ogo maia 1831 goda,” *Zhurnal putei soobshcheniia* (henceforth *ZhPS*) 23 (1831), 1–8.
- 28 *Ibid.*, 8–12.
- 29 *Ibid.*, 14–16; cf. John H. Weiss, “The French Engineering Profession 1800–1850,” in Gerald L. Geison, ed., *Professions and the French State, 1700–1900* (Philadelphia, 1984), 2–30.
- 30 *Journal des Voies de Communication* (St Petersburg, 1826–34); see esp. 1826, no. 9; 1826, no. 6, 48–65; 1827, no. 1, 1–20; 1829, no. 13, 1–21. See also Joseph Bertrand, *Éloges académiques* (Paris, 1890), 137–42 on Lamé’s life in Russia; P.D. Bazaine, *Mémoires sur les machines à vapeur en général, sur l’évaluation de la force expansive de la vapeur et les avantages qu’on peut tirer* (St Petersburg, 1833); Jean-Antoine Maurice Destrem, *Mémoires sur divers objets relatifs à la science de l’ingénieur* (St Petersburg, 1833); Lt. Colonel Antoine Raucourt, *Traité sur l’art de faire de bons mortiers, et les notions pratiques pour en bien diriger l’emploi, précédé de l’expérience récente faite sur les chaux de France et de Russie* (Paris, 1826); Stephen P. Timoshenko, *History of the Strength of Materials* (New York, 1953), 84–7, 114–16.
- 31 Maurice Wallon, “Les Saint-Simoniens et les chemins de fer,” *Annales des Sciences Politiques*, 1908, 522–3.
- 32 Jean Petot, *Histoire de l’administration des ponts et chaussées, 1599–1815* (Paris, 1958), 73–92.
- 33 Rondo Cameron, *France and the Economic Development of Europe* (Princeton, 1961).
- 34 In 1829 Enfantin wrote: “Clayperon and Lamé have not ceased to nurture the Saint-Simonian sparks with which I have imbued them”; cited in Margaret Bradley, “Franco-Russian Engineering Links: The Careers of Lamé and Clapeyron, 1820–1830,” *Annals of Science* 38 (1981), 302.
- 35 Henry René d’Allemagne, *Les Saint-Simoniens, 1827–1837* (Paris, 1930), 28.
- 36 His best-known work, *Expédition nocturne autour de ma chambre* (Paris, 1825), enjoyed a European vogue. See Alfred Berthier, *Xavier de Maistre* (Lyon-Paris, 1918), xxii–xxiii for a complete list of de Maistre’s scientific works.
- 37 Jean-Pierre Callot, *Histoire de l’École polytechnique* (Paris, 1958), 65.
- 38 C. Bougie, Elie Halévy, *Doctrine de Saint Simon: Exposition. Première année, 1829* (Paris, 1924), 7–8; G. Pinet, “L’École polytechnique et les Saint-Simoniens,” *Revue de Paris*, 15 May 1894, 77–8.
- 39 Gaston Pinet, *Écrivains et penseurs polytechniciens* (Paris, 1902), 140. The letters cited here date from 1829.

- 40 C.P. Marielle, *Répertoire de l'École impériale polytechnique (Renseignements sur les élèves qui ont fait partie de l'institution depuis l'époque de sa création en 1794 jusqu'en 1853 inclusivement)* (Paris, 1855).
- 41 The reasons for his departure are not clear, but may have had something to do with his political views. In any case, he was embittered, for he had expected to burnish his already promising career in Russia. His clash with his colleague Bazaine was not due to their common positivist philosophical views of the polytechnicians. See Irina Gouzévitch and Dmitri Gouzévitch, "Note de l'ingénieur, Colonel Raucourt de Charleville concernant les voies de communication en Russie," in *Cahiers du Monde russe* 37, no. 4 (October – December 1996), 499.
- 42 Colonel A. Raucourt, *Physique philosophique de l'homme applicable à tous les besoins individuels et collectifs de l'humanité, particulièrement destinée à la jeunesse instruite* (Paris, n.d. [1830]); Raucourt, *Cours de philosophie pratique de la petite industrie. Première partie* (Paris, 1831); Raucourt, *Manuel d'éducation positive indispensable à tout le monde* (Paris, 1833); Raucourt, *Cours normal de philosophie positive. Première partie* (Paris, 1834); Raucourt, ed., *L'éducation. Journal de l'institut de la morale universelle* (Paris, 1834–41), esp. November – December 1837, no. 1, 41–2, on the relationship between positivism and phrenology. This periodical was known in Russia beyond the circle of engineers. Prince V.F. Odoevskii used it as the basis for the viewpoint of Victor in debate with Faust in the Sixth Night of his philosophical novel *Russian Nights*. P.N. Sakulin, *Iz istorii russkogo idealizma. Kniaz' V.F. Odoevskii*, 2 vols. (Moscow, 1913), vol. 2, 211, n. 1. Cf. V.F. Odoevsky, *Russian Nights*, trans. Olga Koshansky-Olienikov and Ralph E. Matlaw (New York, 1965), 131, where Colonel Raucourt is erroneously identified as Rocour.
- 43 M.S. Volkov, *Otryvki iz zagranichnykh pisem* (St Petersburg, 1857), 5–6, entry dated 31 January 1844. Significantly, publication had to await the censorship reforms after the death of Nicholas and the end of the Crimean War. For Volkov's interest in phrenology see his *Pis'ma o fiziologii chelovecheskogo mozga* (St Petersburg, 1848). These letters to Balandin, unlike those identifying Christianity and railroads, were published at the height of Nicolaevan reaction. Who in the Third Section could object to a search for moral improvement through the study of self? See also Alfred A. Skerpan, "M.S. Volkov: An Explorer of the Borderlands of Science in 19th-Century Russia," *Russian Review* 26, no. 3 (July 1967).
- 44 Institut Inzhenerov Putei Soobshcheniia, Rukopisnyi otdel, fond. M. Volkov, "Peterburgo-Sevastopol'skaia zheleznaia doroga," n.d. (1857?), 1–2 (sent to Baron Del'vig); fond. P.P. Mel'nikov, "O zhelenykh dorogakh," (1856), 9–10; fond N.I. Lipin, "O stroenii zheleznykh dorog v Rossii," n.d. (1857?), 1; *Odesskii*

- vestnik*, 25 October 1858. See also Mathieu Wolkoff, *Lectures d'économie politique rationnelle* (Paris, 1861).
- 45 Larionov, *Istoriia Instituta inzhenerov*, 90, 93.
- 46 A. Fourcy, *Histoire de l'École polytechnique* (Paris, 1827), 146 and 387; A.I. Del'vig, *Moi Vospominaniia*, 4 vols. in 2 (Moscow, 1912–13), vol. 1, 87, 170, 263; Larionov, *Istoriia instituta inzhenerov*, 92; Raucourt, *Physique philosophique*, 47.
- 47 Biographical information drawn from S.M. Zhitkov, *Biografii inzhenerov putei soobshcheniia*, 2 vols. (St Petersburg, 1893).
- 48 See Frank E. Manuel, *The Prophets of Paris* (Cambridge, MA 1962), 160–1.
- 49 A.I. Volodin, "O nachale sotsialisticheskoi mysli v Rossii," in *Akademiia Nauk, Istoriia sotsialisticheskikh uchenii pamiati akademika V.P.Volgina* (Moscow, 1964), 343–4.
- 50 *Teleskop*, 1836, no. 5, 101–3, 116; "Kritika," *Moskovskii nabliudatel'*, 1835, no. 3, 115; Volodin, "O nachale," 350–1; Martin Malia, *Alexander Herzen and the Birth of Russian Socialism* (Cambridge MA, 1961), 111–12, *passim*. It was only later in the 1850s that Herzen grasped the industrial and technological insights of St Simon. See *Golos iz Rossii* (London, 1856), 201.
- 51 *Obshchii alfavitnyi listok knig na frantsuzskom iazyke zapreshchennykh inostranoi tsenzuroi s 1845–1853 gg. (vkluchitel'no)* (St Petersburg, 1855), 95.
- 52 Nicholas V. Riasanovsky, *Nicholas I and Official Nationality, 1825–1865* (Berkeley, 1961), and Riasanovsky, *A Parting of the Ways* (Berkeley, 1984); Walter M. Pintner, *Russian Economic Policy under Nicholas I* (Ithaca, 1967).
- 53 Jean-Baptiste Duroselle, "Michel Chevalier, saint-simonien," *Revue historique* 215, no. 26 (1956), 63–6.
- 54 Maurice Wallon, "Les saint-simoniens et les chemins de fer," *Annales des Sciences politiques*, 1908, 522–3.
- 55 M. Chevalier, *Lettres sur l'Amérique du Nord*, 2 vols. (Paris, 1837), vol. 2, 98, 421.
- 56 *Ibid.*, 3.
- 57 M. Chevalier, *Des intérêts matériels en France* (Bruxelles, 1838), 11.
- 58 *Ibid.*, 280 and 339.
- 59 Gabriel Lamé, B.P.E. Clapeyron, and Stéphane and Eugène Flachet, *Vues politiques et pratiques sur travaux publics de France* (Paris, 1832), 30. This book was the result of a meeting at Infantin's house in St Petersburg where Flachet introduced them to Émile Pereire.
- 60 The Pereire brothers represented what might be called the industrialists' wing as opposed to the engineers' wing of the St Simonian vision.
- 61 Lamé, Clapeyron, and Flachet, *Vues politiques*, 100–3.
- 62 *Ibid.*, 236–8, 259–63 and 270–5.

- 63 D. Renouard, *Le transport de la marchandise par fer, route et eau depuis 1850* (Paris, 1960); A.J. Rieber, "The Formation of la Grande Société des chemins de fer russes," *Jarbücher für Geschichte Osteuropas* 21, no. 3 (1973), 375–91.
- 64 G. Lamé and B.P.E. Clapeyron, *Mémoires sur les chemins de fer considérés sous le point de vue de la défense des territoires* (Paris, 1832); Lamé and Clapeyron, *Plan d'écoles générales et spéciales pour l'agriculture, l'industrie-manufacture, le commerce et l'administration* (Paris, 1833).
- 65 *Ibid.*, 3–4 and 16–19.
- 66 *Ibid.*, 66–7.
- 67 Larionov, *Istoriia Instituta inzhenerov*, 83; V.E. Virginskii, *Voznikovenie zheleznykh dorog v Rossii do nachala 40-kh godov XIX veka* (Moscow, 1949), 93–5, 98, 101.
- 68 The story of the construction of the first Russian railroad has often been told. See Pintner, *Russian Economic Policy*, 131–52; the older Soviet work, V. Virginskii, *Voznikovenie*, is based on extensive archival material but marred by its overt xenophobia; Richard Haywood, *The Beginnings of Railway Development in Russia in the Reign of Nicholas I, 1835–1842* (Durham, NC, 1969) adds a wealth of technical detail.
- 69 P.P. Mel'nikov, "Svedeniia o russkikh zheleznykh dorogakh," *Krasnyi arkhiv* (henceforth KA) 99 (1940), 144, 161, 164. Mel'nikov defensively responded that this was "a distortion of Chevalier's views."
- 70 Pushkin to V.F. Odoevskii, end of November or December 1836, in A.S. Pushkin, *Polnoe sobranie sochinenii*, 10 vols. (Moscow, 1966), vol. 10 (*Pis'ma*), nos. 770 and 615. Pushkin later changed his mind, but died before he could print his revision. One of the trustees of his estate, the writer N.I. Tarasenko-Otreshkov, took offence at Volkov's criticism of him and the article was never published in *Sovremennik*. Tarasenko praised railroads in Western Europe, but campaigned against them in Russia for practical reasons. N.J. Tarasenko-Otreshkov, *Ob ustroenii zheleznykh dorog v Rossii* (Moscow, 1835), 3–4 and *passim*.
- 71 *Teleskop*, 1836, no. 10, 278. There have been several misguided attempts to identify both Pushkin and Nadezhdin with St Simonian doctrines. See Leonid Grossman, "Pushkin i sensimonizm," *Krasnaia nov'* 6 (1936), 157–68; L. Piper, *Mirovozzrenie Gertsena* (Moscow-Leningrad, 1935), 30–3. The arguments are based mainly on preferences for private enterprise and the social good. For a refutation see Volodin, "O nachale," 348–49.
- 72 "Chugunnye dorogi v Amerike," *Biblioteka dlia chteniia* 6, no. 7 (1834), 23–8; 8, no. 3 (1835), 106–20. The quaint use of the Russian terminology *chugunnye* instead of the literal transliteration from the German *Eisenbahn* (*zheleznodorozhnye*) was also a curious concession to "national" opinion.

- 73 “Rech’ proiznesennaia korpusa inzhenerov putei soobshcheniia kapitanom Balandinym na publichnom ispytanii ... 3 maia 1838 g,” *ZhPS*, 1838, no. 2, 81–98; Lieutenant Komarov, “O Belgiiskikh zheleznykh dorogakh,” *ibid.*, no. 3, 252–3; M.S. Volkov, “O paravozakh na obyknovennykh gorodakh,” *ibid.*, no. 4, 282–9; “O putiakh soobshcheniia v Soedinennykh Shtatakh,” *ibid.*, 328–41; Colonel Iazykov, “O dorogakh sostavliaiushchikh strategicheskie linii,” *ibid.*, 1841, no. 3, 141–59.
- 74 Mel’nikov, “Svedeniia,” 155.
- 75 *Ibid.*, 146–7; *KIORD*, 32–3.
- 76 Mel’nikov, “Svedenie,” 165.
- 77 Rieber, “La Grande Société,” 381.
- 78 Colonel P.P. Mel’nikov, “Zheleznye dorogi v Bel’gii (Izvlacheno iz otcheta puteshestviia podpolkovnika Mel’nikova i kapitana Kerbedza, sostavlennogo v 1838 godu),” *ZhPS*, 1841, no. 1, 1–28.
- 79 Mel’nikov, “Svedeniia,” p. 165.
- 80 P.P. Mel’nikov “Opisanie v tekhnicheskoi otnoshenii zhelenykh dorog Severo-Amerikanskikh shtatov,” *ZhPS*, 1842, no. 1, 19–85 and 95–197; no. 2, 85–156 ; no. 3, 1–70 ; no. 4, 285–374. Unquestionably, the Russian engineers had to fight an uphill battle against hostile or indifferent high-ranking bureaucrats, but Mel’nikov was not above overdramatizing his lonely struggle when in later years he looked back on his early career.
- 81 Mel’nikov, “Svedeniia,” 167. Since Mel’nikov must have known that Bobrinskoi favoured private construction and had already submitted one railroad proposal of his own to Nicholas, he probably counted on his ability to persuade the tsar of the virtues of state construction once the feasibility and real costs of the line could be established in the course of an official study. In any case this is what happened.
- 82 “Imperator Nikolai v soveshchatel’nykh sobraniiaakh iz sovremennykh zapisok shtats-sekretaria barona Korfa,” in *SIRIO*, vol. 98 (1896), 125–7; “Iz zapisok barona (vposledstvii graf) M.A. Korf,” *RS* 103 (1900), 48.
- 83 Evgenii Sokolovskii, *Piatidesiatiletie Instituta korpusa inzhenerov putei soobshcheniia* (St Petersburg, 1859), 135.
- 84 M.A. Korf, “Imperator Nikolai,” 127.
- 85 I.I. Borichevskii, “Predpolozheniia chastnykh lits ob ustroistve zheleznykh dorog postupivshie v Glavnoe upravlenie putei soobshcheniia i publichnykh zdaniia do 1860 goda,” *ZhPS*, 1863, no. 1, 1–43. See also S.A. Urodkov, *Peterburgo-Moskovskaia zheleznaia doroga: Istoriia stroitel’sтва (1842–1851)* (Leningrad, 1951), chap. 3.
- 86 For detailed analysis see Haywood, *The Beginnings of Railway Development*, 164–9, 207.

- 87 “Donosenie Nikolaiu I komissii po ustroistvu zheleznoi dorogi mezhdru Peterburgom i Moskvoi, 15 sentiabria 1841 g.,” *KA* 126 (1936), 140–4.
- 88 *Ibid.*, 127–30, 133–40. See also the detailed summary in Haywood, *The Beginnings of Railway Development*, 213–22.
- 89 “Zhurnal osobogo soveshchaniia komiteta ministrov, ianvariia 1842 g.,” *KA* 126 (1936), 145–7; Benkendorff was chairman and the members included Destrem, who had shifted over to support the line, the Duke of Leuchtenberg, the tsar’s son-in-law who was a proponent of railroads, Chevkin, Mel’nikov, and Kraft. Subsequent staff appointments brought in three additional communications engineers, N. Lipin, A.I. Shtukenberg, and Krutikov; *KIORD*, 56.
- 90 Haywood, *The Beginnings of Railway Development*, 229–30.
- 91 L.A. Bulkakova, “Sotsial’nyi status inzhenera v doreformennoi Rossii,” in *Problemy sotsial’no-ekonomicheskoi istorii Rossii. K 100-letiiu so dnia rozhdeniia Borisa Aleksandrovicha Romanova* (St Petersburg, 1991), 163–5. I am grateful to Harley Balzer for bringing this article to my attention.
- 92 A curious dissenter from this view was Baron Del’vig, who remarked in his memoirs that “the comradeship which exists among students who completed courses in higher education does not at all exist among former students of the Institute of Transportation Engineers.” Del’vig, *Moi vospominaniia*, vol. 3, 41.

6 The Economists

- 1 Soviet historians have pointed out that official documents avoided using the term “capitalist” until the 1990s, preferring to speak of economic development. I.F. Gindin, *Gosudarstvennyi bank i ekonomicheskaiia politika tsarskogo pravitel’sтва (1861–1892 gody)* (Moscow, 1960), 18; L.E. Shepelev, *Tsarizm i burzhuaziia vo vtoroi polovine XIX veka. Problemy torgovo-promyshlennoi politiki* (Leningrad, 1981), 23.
- 2 Marc Raeff, *Michael Speransky, Statesman of Imperial Russia, 1772–1839*, 2nd rev. ed. (The Hague, 1969), 101.
- 3 M. Polievktov, “Osip Petrovich Kozodavlev,” in *Russkii biograficheskii slovar’* (RBS), vol. 3, 8–9; A.V. Predtechenskii, *Ocherki obshchestvenno-politicheskoi istorii Rossii v pervoi chetverti XIX veka* (Moscow, 1957), 295–322. In the autonomous Kingdom of Poland, the finance minister from 1821–31, F-S. Drutskii-Łubetskii, had earlier drafted the first plan for the economic development of a region of the Russian Empire. He launched a mini-industrial revolution in textiles and mining, and established a state investment bank that had no parallel in the rest of the empire until the 1890s.

- O.A. Przhetslavskii, “Kniaz’ Kseverii Drutskoi-Liubetskii,” *Russkaia starina* (RS) (1878), vol. 21, 75–6; *RBS*, vol. 6, 697–701.
- 4 William L. Blackwell, *The Beginnings of Russian Industrialization, 1800–1860* (Princeton, 1968), 132–8. Mordvinov’s sole practical undertaking was to submit to the state council a financial project to reduce expenses by reorganizing the army, cutting the length of military service, and granting half the soldiers a year’s leave. But this too was rejected as impractical. A.P. Pogrebinskii, *Ocherki istorii finansov dorevoliutsionnoi Rossii* (Moscow, 1954), 22.
 - 5 Walter MacKenzie Pintner, *Russian Economic Policy under Nicholas I* (Ithaca, 1967), 29, 43, and passim. Up to the Crimean War the few existing private banks were closely associated with the court and the Treasury and played a very small role in financing industrial enterprises. S.Ia. Borovoi, *Kredit i banki Rossii* (Moscow, 1958), 228–34, 241–4; Pogrebinskii, *Ocherki istorii finansov*, 40–1.
 - 6 A leading economist and director of the State Bank from 1867–81, E.I. Lamanskii despised both men. He described Vronchenko as “an orangutan” and “jester” of Kankrin’s wife who sought to cultivate the favour of the high born by forgiving their debts; his “most outrageous” act was to appoint Brok, who “had not the slightest knowledge of financial affairs” as his deputy and later successor. E.I. Lamanskii, *Vospominaniia 1840–1890 gg.* (Penza, 1995), 17–18.
 - 7 B. Lebedev, “Aleksandr Maksimovich Kniazhevich,” *RBS*, vol. 9, 5–7. When Kniazhevich reported to Alexander that he had increased the income from the sale of spirits the tsar replied, “It saddens me to rejoice at this.”
 - 8 A.V. Nikitenko, *Dnevnik*, 3 vols. (Moscow, 1956), vol. 2, 19, 37.
 - 9 W. Bruce Lincoln, *In the Vanguard of Reform: Russia’s Enlightened Bureaucrats, 1825–1861* (De Kalb, IL, 1982). See also L.G. Zakharova, “Samoderzhavie, biurokратиia i reform 60-kh godov XIX veka v Rossii,” *Voprosy istorii*, 1989, no. 10, 3–24 and Shepelev, *Tsarizm i burzhuaзиia*, 50–1.
 - 10 Wilhelm Georg Friedrich Roscher, *Grundlagen der Nationalokonomie* (1854), the first in a five volume work, *System der Volkswirtschaft*. It was translated into Russian by I.K. Babst in 1860; but see also Roscher, *Ansichten der Volkswirtschaft aus dem geschichtlichen Standpunkte* (1861).
 - 11 For a highly critical view of the Smithians see Ester Kingston-Mann, “In the Light and Shadow of the West: The Impact of Western Economics in Pre-Emancipation Russia,” *Comparative Studies in Society and History* 33, no.1 (January 1991), 86–105. Her study does not draw a distinction between the Smithians and the Göttingen historical school of economists.

- 12 Jean Baptiste Say, *Traité d'économie politique* (Paris, 1815), Russian trans. 1816; Say, *De l'Angleterre et des Anglais*, 3rd ed. (Paris, 1816), Russian trans. 1817; Say, *Catéchisme d'économie politique* (Paris, 1815), Russian trans. 1833. M.G. and E.G. Ternner, eds., *Vospominaniia zhizni F. G. Ternera* (St Petersburg, 1910), 76.
- 13 Alain Desrosières, *The Politics of Large Numbers: A History of Statistical Reasoning* (Cambridge, MA, 1998), 16–20; and Silvana Patriarca, *Numbers and Nationhood: Writing Statistics in Nineteenth-Century Italy* (Cambridge, 1996), 64–7.
- 14 H.F. Storch, *Historische-statistisches Gemälde des russischen Reiches am Ende des achtzehnten Jahrhunderts*, 6 vols. (Riga/Leipzig, 1794). The most comprehensive study of Storch's influence in Russia is Roderick E. McGrew, "Dilemmas of Development: Baron Heinrich Friedrich Storch (1766–1835) on the Growth of Imperial Russia," *Jahrbücher für Geschichte Osteuropas* 24, no. 1 (1976), 31–71, upon which I have heavily relied. The standard Soviet treatment is I.G. Blumen, *Ocherki ekonomicheskoi mysli Rossii v pervoi polovine XIX veka* (Moscow, 1940), 173–94.
- 15 McGrew, "Storch," 40.
- 16 *Ibid.*, 50, n. 65.
- 17 August-Ludwig Schlözer, *Theorie Statistik* (Göttingen, 1804) Schlözer also edited Achenwald's *Staatsverfassung der europäischen Reiche im Grundrisse* (Göttingen, 1784). A Soviet work, M.V. Ptukha, *Ocherki po istorii statistiki v SSSR*, vol. 1 (*do kontsa xviii v.*) (Moscow, 1955), attempted to dismiss Schlözer's influence and distance the Russian economists from the Göttingen school.
- 18 A. Nikitenko, "Vospominaniia o Karle Fedoroviche Germane," *Sankt Peterburskie vedomosti*, 1839, no. 217.
- 19 Karl Fedorovich German, *Kratkoe rukovodstvo k vseobshei istorii statistiki* (St Petersburg, 1808) and *Vseobshchaia teoriia statistiki* (St Petersburg, 1809).
- 20 P. Pekarskii, "O zhizni i uchenykh trudakh Akademika K.I. Arsen'eva," *Sbornik otdeleniia russkogo iazyka i slovesnosti Imperatorskoigo Akademiia Nauk*, vol. 9 (St Petersburg, 1872), 21–2.
- 21 I. Seleznev, *Istoricheskii ocherk Imperatorskogo byoshago tsarskosel'skogo nyne Aleksandrovsckogo Litseia za pervoe ego piatidesiatiletie s 1811 po 1861* (St Petersburg, 1861).
- 22 Susan Smith-Peter, "Defining the Russian People: Konstantin Arsen'ev and Russian Statistics before 1861," *History of Science* 45, no. 1 (2007), 47–64, stresses Arsen'ev's Smithian background and his contribution to the emancipation of the serfs.
- 23 Julia Berest, *The Emergence of Russian Liberalism: Alexander Kunitsyn in Context, 1783–1840* (Houndmills, Basingstoke, 2011).

- 24 Seleznev, *Istoricheskii ocherk*, 8–10, 23–4, 29–35, 109, 118–19; Dmitri Kobeko, *Imperatorskii Tsarskosel'skii Litsei: Nastavniki i pitomtsy, 1811–1843* (St Petersburg, 1911), 3–9, 71–2, 79, 93, 101.
- 25 Schlözer's work was highly critical of arbitrary rule, serfdom, and corruption, and endorsed the application of the English Habeus corpus act, arousing fears among the German princes that he sought to undermine their medieval order. His study of agriculture written in 1795 was forbidden in Russia because it allegedly discovered a connection between ancient Rus' and the French Revolution. German' found it a useful but extremely rare book. *Ibid.*, 20–1; G. Luchinskii, "Avgust-Liudovik f-Schlozer," in F.A. Brokgaus and I.A. Efron, eds., *Entsiklopedicheskii slovar' (B/E)*, 83 vols. (St Petersburg, 1895–1904), vol. 78, 701.
- 26 Pekarskii, "O zhizni Arsen'eva," p. 27.
- 27 *Ibid.*, 38. A sample of Magnitskii's prosecution style is his marginal comments on excerpts from Arsen'ev (*ibid.*, 70–1):

Arsen'ev	Magnitskii
"all faiths tolerated in Russia have equal rights"	"wrong and pernicious"
"the absence of a middle class is the main reason that the Slavic people lag behind the Germans"	"Thank God, if German influence means including the clergy among unproductive class."
"Complete civil freedom is the greatest incentive to productivity"	"Revolution!"
"Serf agriculture is the greatest obstacle to bettering agriculture."	"The European peasant is unhappier than the Russian serf."

- 28 N.M. Druzhinin, *Gosudarstvennye kresti'iane i reforma P.D. Kiseleva*, 2 vols. (Moscow, 1958), vol. 2, 88, 246. The widespread penetration of *Statistik* into all branches of the Russian administration may be judged by the introduction in the 1840s of "military statistics" as a mainstay of training at the Imperial General Staff Academy under the inspired leadership of the newly appointed Dmitri Miliutin, subsequently minister of war. The subject occupied a major place in the curriculum. Miliutin had been influenced by his study of the Prussian army and the role of statistics in the training of the officer corps. Carl Van Dyke, *Russian Imperial Doctrine and Education* (New York, 1990), 20–2, 25. The course in military statistics was later taken over by General N.N. Obruchev, another important military reformer. *Ibid.*, 45, 60. See also the broader implications in Peter Holquist, "To Count, to Extract, and to Exterminate: Population Statistics

- and Population Politics in Late Imperial and Soviet Russia,” in Ronald Grigor Suny and Terry Martin, eds., *A State of Nations: Empire and Nation-Making in the Age of Lenin and Stalin* (Oxford, 2001), 113–15.
- 29 E.Sh, “Andrei Parfen’evich Zablottkii-Desiatovskii,” *RBS*, vol. 7, 128–30; Lincoln, *In the Vanguard*, 43–51, 60, 61, 74–6, 88–90, 196–7.
- 30 Kobeko, *Tsarskosel’skii litsei*, 274–5.
- 31 Lincoln, *In the Vanguard*, 71–2; Richard Wortman, *The Development of a Russian Legal Consciousness* (Princeton, 1976), 49–50, 206–12.
- 32 Quoted in Kobeko, *Tsarskosel’skii litsei*, 332.
- 33 “Ivan Vasil’evich Vernadskii,” *B/E*, vol. 11, 38–9; A.G. Demen’tev et al., eds. *Russkaia periodicheskaia pechat’ (1702–1894). Spravochnik* (Moscow, 1959), 341, 353, 372, 394; V.L. Stepanov, *N.Kh. Bunge. Sud’ba reformatora* (Moscow, 1998), 21.
- 34 Alfred J. Rieber, *Merchants and Entrepreneurs in Imperial Russia* (Chapel Hill, 1982), 174; “Babsty,” *B/E*, vol. 4, 613; Pashkov, *Istoriia russkoi ekonomicheskoi mysli*, vol. 1, pt. 2, 457–8.
- 35 Evgenii Tarle, *Krymskaia voina* (2nd ed.) (Moscow, 1950), vol. 2, 546–50, based on the Foreign Ministry archives; A.P. Zablotskii-Desiatovskii, *Graf P.D. Kiselev i ego vremia*, 4 vols. (St Petersburg, 1883), vol. 4, 3–5, with verbatim extracts from Kiselev’s diary.
- 36 “Iz istorii krymskoi voiny 1853–1856 gg.,” *Istoricheskii arkhiv*, January – February 1959, 1. It is important to recall these well-established facts in order to refute the contention of some historians that “the Crimean defeat posed no threat to Russia’s territorial integrity and it raised no unusual concern about national security in the minds of Russian policy makers.” Lincoln, *In the Vanguard*, xii.
- 37 Paul W. Schroeder, *Austria, Great Britain and the Crimean War: The Destruction of the European Concert* (Ithaca, 1972), 150–2, 197–8, 202, 250, 268, 315, 321, 323, 325; M.I. Bogdanovich, *Vostochnaia voina, 1853–1856 godov*, 4 vols. (St Petersburg, 1876), vol. 4, 422–3; C.M. Runeberg, *Sverges Politik under Krimkriget. Neutralitetsforklaringen* (Ekenas, 1934), 137–47; Tarle, *Krymskaia voina*, vol. 2, 74–94.
- 38 Alexander II to Grand Duke Konstantin Nikolaevich, 18/30 June 1862, “Perepiska imperatora Aleksandra II-go s velikim kniazem Konstantinom Nikolaevichem za vremia prebivaniia ego v dolzhnosti namestnika Tsarstva Pol’skogo v 1862–1863 gg.,” *Dela i dni* 1–3 (1920–2), 123–4. Alexander said virtually the same thing to Bismarck, who was taking his leave as ambassador to St Petersburg a few months earlier: “The Poles, His Majesty declared, aimed at Kiev [*sic*] itself.” PRO, F.O. 65/602 Napier to Russell, 11 April 1862, as quoted in R.F. Leslie, *Reform and Insurrection in Russian Poland, 1856–1865* (London, 1963), 139.

- 39 August Perdonnet, *Traité élémentaire des chemins de fer*, 2 vols. (Paris, 1858–60), quoted by D.I. Zhuravskii, “O zheleznykh dorog v Rossii,” *Russkii vestnik*, vol. 3 (1856), 444. Perdonnet was a distinguished graduate of the École polytechnique and major figure in the construction of the French national railroad network. See François Caron, *Histoire des chemins de fer en France*, 2 vols. (Paris, 1997), vol. 2, 1740–1883, 94 and passim. Zhuravskii, one of Russia’s most outstanding railroad engineers, had worked on the St Petersburg – Moscow line.
- 40 Bogdanovich, *Vostochnaia voina*, vol. 4, 156–8.
- 41 *Zhurnal glavnogo upravleniia putei soobscheniia* (St Petersburg, 1863), vol. 41, 290–1. Of the ten proposals submitted to the Main Administration of Transportation between January 1854 and January 1856, nine included a railroad terminating at the Black Sea. As early as January 1854, Mal’tsov himself had proposed a line from Kharkov to Perekop, but the head of the Main Administration, the conservative-minded Count P.A. Kleinmikhel, saw no sense to it. *Ibid.*, 283, and N.A. Kislinskii, *Nasha zheleznodorozhnaia politika po dokumentam arkhiva Komiteta ministrov*, 4 vols. (St Petersburg, 1899), vol. 1, 39–40. See also Baron A.I. Del’vig, *Moi Vospominaniia*, 4 vols. in 2 (Moscow, 1912–13), vol. 2, 36.
- 42 V.D. Belov, *Istoricheskii ocherk ural’ skikh gornyykh zavodov* (St Petersburg, 1896), 44–59, 66–7; D.P. Ilynskii and V.P. Ivanitskii, *Ocherk istorii russkoi parvoostroitel’ noi i vagonostroitel’ noi promyshlennosti* (Moscow, 1929), 9–17.
- 43 *Ministerstvo finansov, 1802–1902* (St Petersburg, 1902), vol. 1, 624–7, 628–9; P.A. Khromov, *Ekonomicheskoe razvitie Rossii v XIX–XX vekakh* (Moscow, 1950), 437–8, 440–2.
- 44 Jan Bloch (I.S. Bliokh), *Finansy Rossii XIX stoletii: Istoriia, statistika* (St Petersburg, 1882), 49–51.
- 45 L.E. Shepelev, *Aktsionernye kompanii v Rossii* (Leningrad, 1973), 63–6; Bloch, *Finansy Rossii*, 49–56; Pogrebenskii, *Ocherki istorii finansov*, 40–4; Borovoi, *Kredit i banki*, 276–9.
- 46 *Ministerstvo finansov*, vol.1, 574.
- 47 For an analysis of the interconnection of these factors see Alfred J. Rieber, “Persistent Factors in Russian Foreign Policy. An Interpretive Essay,” in Hugh Ragsdale, ed., *Imperial Russian Foreign Policy* (Cambridge, 1993), 315–59.
- 48 Terence Emmons, *The Russian Landed Gentry and the Peasant Emancipation of 1861* (Cambridge, 1968); Daniel Field, *The End of Serfdom: Nobility and Bureaucracy in Russia, 1855–1861* (Cambridge, MA, 1976); L.G. Sakharova, *Samoderzhavie i otmena krepostnogo prava v Rossii, 1856–1861* (Moscow, 1984).
- 49 Lincoln, *In the Vanguard*, 148–62.

- 50 For a review of some of his activities see *ibid.*, 161, 165, 192–3, which does not include his role in the Finance Committee; see also V.G. Chernukha, “Velikie reformy. Popytka preodoleniia krizisa,” in B.V. Anan’ich, R.Sh. Ganelin, and V.M. Paneiakh, eds., *Vlast’ i reform. Ot samoderzhaivnoi k sovetskoi Rossii* (St Petersburg, 1996), 298–300, 302, 307, 311, 315, and V.G. Chernukha, “Iz istorii gosudarstvennykh uchrezhdenii: Glavnyi komitet ob ustroistve sel’skogo sostoianiia, 1861–1882,” in *Vspomogatel’nye istoricheskie ditsipliny* (Leningrad, 1982), vol. 13, 223–49.
- 51 Lincoln, *In the Vanguard*, 100.
- 52 *Ibid.*, esp. 107, 115, 134–5, 183–92, and 203; Wortman, *The Development of a Legal Consciousness*.
- 53 Mikhail Lemke, *Epokha tsenzurnykh reform, 1859–1865 godov* (St Petersburg, 1904), 15–16.
- 54 *Sbornik postanovlenii i rasporiashchenii po tsenzure s 1720 po 1862* (St Petersburg, 1862), 250.
- 55 Vladimir Rozenberg and V. Iakushkin, *Russkaia pechat’ i tsenzura v proshlom i nastoiashchem* (Moscow, 1905), 76.
- 56 Chernukha, “Velikie reform,” in Anan’ich et al, *Vlast’ i reform*, 304. Turner relates a telling anecdote: At a public debate on economic questions, the discussion spun out of control, dissolving into shouting and prompting Lamanskii, who was presiding, to close the meeting, declaring, “No we are not yet mature enough!” *Vospominaniia F.G. Ternera*, 164.
- 57 *Russkaia periodicheskaia pechat’*, 324, 325, 327, 329, 331.
- 58 *Ibid.*, 344, 353, 365, 398, and 408.
- 59 Lincoln, *In the Vanguard*, 88–90.
- 60 GARF, f. 722, op. 1, ed. kh. 98, p. 46.
- 61 See, for example, E.E. Kartavtsov, “Nikolai Khristianovich Bunge. Biograficheskii ocherk,” *Vestnik Evropy* 5 (1897), 11, 12.
- 62 Kulomzin, *Reutern*.
- 63 *Essai sur les forces productives de la Russie* (Paris, 1852–5); in Russian, *O proizvoditel’nykh silakh Rossii* (Moscow and St Petersburg, 1854–8). For a detailed analysis of Tengoborskii’s role in the tariff of 1850 see Pintner, *Russian Economic Policy*, 237–49.
- 64 A number of entrepreneurs were also appointed such as Baron Meiendorf and I.S. Mal’tsev, but although they were more protectionist, they also supported lowering duties. Konstantin Lodyzhenskii, *Istoriia russkogo tamozhennogo tarifa* (St Petersburg, 1886), 264–5; M.N. Sobolev, *Tamozhennaia politika Rossii vo vtoroi polovine XIX veka* (Tomsk, 1911), 167–74.
- 65 *Otchet o deiatel’nosti vysochaishhe utverzhdenogo Obschestva dlia sodeistviia russkoi promyshlennosti i torgovli s 1867 po 1892 g.* (St Petersburg, 1892), 11.

- 66 Insisting on the need for common action in the discussions relating to the future of Europe, Morny sought to win over Russia to France's plan for a peaceful reorganization of Germany. He ardently supported the Russian position in the post-war dispute over the disposition of Serpent's Island in the Black Sea as a means of winning Russian confidence in France. There was nothing to fear from Russia, he argued; "its main goal is to develop internally, to build railroads and stimulate industry. The instincts of the country are less military than is thought. If we need not fear her, then neither should we disdain her. This is the basis for my policy." Morny to Walewski, 3 September 1856, Archives du Ministère des affaires étrangères (AMAE), Correspondance politique, Russie, vol. 212, 174–8, and Morny to Walewski, 6 October 1856, *ibid.*, vol. 213, 22–5.
- 67 "My treaty is finished," he wrote in June 1857, "[and] I do not doubt that French commerce will derive great advantages from the new conditions." Morny to Walewski, 12 June 1857, AMAE, Papiers d'agent Walewskii, Dossier Morny, vol. 21, 233; Morny to Walewski, 10 November 1856, Archives nationales, Correspondance commerciale: chemins de fer: Russie, Statistique, 1850–89 (AN/CC). At the same time, Morny was pressing Napoleon to permit the sale of shares of La Grande Société des chemins de fer russes on the Paris Bourse. Morny to Walewski, 23 May 1857, AMAE, vol. 214, 228–30. Duc de Morny, *Une ambassade en Russie, 1856* (Paris, 1892) is a carefully edited account of this mission which does not mention the course of these negotiations.
- 68 De Vallat to Walewski, 18 October 1856, AMAE, Correspondance commerciale, vol. 30, 42 and 9 May 1857, *ibid.*, vol. 31, 183, and annex to dispatch no. 275, 187. Zakrevskii was removed from office in 1859 as a concession to the winds of change. But his removal sharply divided the population of Moscow. Nikitenko, *Dnevnik*, vol. 2, 86–7, 575–6.
- 69 De Vallat to Walewski, 3 December 1856, AMAE, Correspondance commerciale, vol. 30, 212–13.
- 70 S. Bel'skii, "O vliianii rasvitiia fabrichnoi promyshlennosti na zemledelie," *Russkaia beseda*, 1856, no. 4, 107, 109, 115, 119, 127. The author was not above citing Storch, Chevalier, and the statistical work of Nebolsin, Tengoborskii, and Arsen'ev to document his case against them.
- 71 A.S. Ershov, "Obozrenie vyshogo tekhnicheskogo obrazovaniia v Zapadnoi Evrope," *Russkaia beseda*, 1857, no. 2, 32–3 and 60–1, specifically endorsed by the editors.
- 72 *Ibid.*, 31, 36, 37, 53. However, individual Slavophil entrepreneurs scrambled to protect their own industries, breaking their united front against free trade. For example, the textile manufacturers, Morozovs and Shipovs,

- petitioned the government to maintain high duties on finished goods but lower rates on thread and to permit free import of spinning machines. Lodyzhenskii, *Istoriia*, 263, and Sobolev, *Tamozhennaia politika*, 175.
- 73 Alfred J. Rieber, "The Formation of La Grande Société des Chemins de fer russes," *Jahrbücher für Geschichte Osteuropas* 21, no. 3 (1973), 375–91.
- 74 Lodyzhenskii, *Istoriia*, 306–7. Tengoborskii had argued for this position in the 1840s, but could not prevail against the iron producers and Nizhnyi Novgorod merchants. Ludvig Tengoborskii, *Études sur les forces productifs de la Russie*, 2 vols. (Paris, 1852), vol. 2, 121–2, 131–2.
- 75 Ilynitskii and Ivanitskii, *Ocherk istorii russkoi parovozostroitel'noi i vagonostroitel'noi promyshlennosti*, 21–6.
- 76 Iu. Gagemeister, "Vzgliad na promyshlennosti i torgovliu Rossii," *Russkii vestnik*, 1857, no. 7, 5, 14–15, 22, 26–7, 48–50. See also his long analysis of the tariff revision of 1867, "Mysli o, znachenii okhranitel'nykh poshlin po povodu peresmotra russkogo tamozhennogo tarifa," *Birzhevie vedomosti*, 21 May 1867, esp. 1–7.
- 77 Borovoi, *Kredit i banki*, 229–31, 233.
- 78 Stepanov, *Bunge* (Moscow, 1998), 44–7.
- 79 GARF, f. 722 (Mramornyi dvorets), op. 1, ed. kh. 453, 1–10.
- 80 V.P. Bezobrazov, *Otchet o deistviakh kommissii dlia ustroistva zemskikh bankov* (St Petersburg, 1861), 2–3.
- 81 *Vospominaniia zhizni Ternera*, 187–8.
- 82 See the essays by M.G. Pokidchenko, "Vladimir Bezobrazov – Uchenyi i chelovek," in Iu.M. Osipov, et al. eds., *V.P. Bezobrazov. Izbrannye trudy* (Moscow, 2001), 3–14, and K. Mondei (Monday), "V.P. Bezobrazov i russkii liberalism," *ibid.*, 15–25.
- 83 "Without exaggeration," writes Monday, "it is possible to say that the main task of Bezobrazov was to work out a method of calculating state income based on the cardinal principles of the German school and directed (aimed) at its practical application not only within the concrete historical conditions of Russia, but also of the countries of Western Europe." Mondei, "Bezobrazov," 27.
- 84 "To break with state credit institutions and open a competitive field for private banks to which the entire civilized world – Western Europe and North America – is indebted for the colossal success of its industry and trade was for the Commission a matter of first rate state importance." Bezobrazov, *Otchet*, 9–11, quotation on 14.
- 85 *Ibid.*, 15–18, 103–26.
- 86 See especially Steven L. Hoch, "The Banking Crisis, Peasant Reform, and Economic Development in Russia, 1857–1861," *American Historical Review*

96, no. 3 (June 1991), 803–8. Hoch describes the young economists as “men of narrow vision who saw solutions to Russia’s problems largely in fiscal terms.”

87 Gindin, *Gosudarstvennyi bank*, 121–3; Shepelev, *Tsarizm i burzhuaziia*, 51.

88 P.V. Lizgunov, “Shtiglitsy – ‘nekoronvannye koroli Rossiiskikh finansov,” *Voprosy istorii*, (1999), no. 10, 39–45.

89 “Iz vospominanii Lamanskogo,” *RS* 161 (1915), 368–73, 576–89.

90 V. Sudeikin, *Gosudarstvennyi bank. Issledovanie ego ustroistva, ekonomicheskogo i finansogo znachenii* (St Petersburg, 1891) gives the following figures (compiled from pp. 494–6):

Period	London	Paris	Vienna	St Petersburg
1841–50	3.8%	4.1%	5.37%	–
1861–70	4.3%	3.9%	5.18%	6.6%
1871–5	3.53%	4.78%	4.35%	6.16%
1885	2.5%	3%	4%	6%

91 V. Sudeikin, “Kniazhevich,” *RS* 76 (1892), 425. The author of the final draft in 1862 on a public itemized budget and centralization of all sources of income under the Ministry of Finance was Tatarinov. See Pogrebenskii, *Ocherki istorii finansov*, 58–61.

92 “O nastoiashchem polozhenii gosudarstvennikh finansov” (November 1860), *TsGIAL*, f. 583, op. 4, d. 266, listy 247–58. For analysis see Gindin, *Gosudarstvennyi bank*, 28–9, and Shepelev, *Tsarizm i burzhuaziia*, 59–60.

93 Reginald Zelnik, *Labor and Society in Tsarist Russia* (Stanford, 1971), 83–8, 133–4, 142–5, 157.

94 V.G. Chernukha, “Politiko-ekonomicheskii komitet Russkogo-Geograficheskogo Obshchestva (28 fevralia 1859 – 26 noiabria 1862 g.),” in *Vspomogatel’nye istoricheskie ditsipliny* (Leningrad, 1989), vol. 20, 92–4.

95 V.G. Chernukha, “Deiatel’nost’ politiko-ekonomicheskogo komiteta Russkogo-Geograficheskogo Obshchestva (28 fevralia 1859 – 26 noiabria 1862 g.),” *ibid.*, vol. 21, 74–80, citation on 80.

96 *Dnevnik P.A. Valueva. Ministra vnutrennikh del*, 2 vols. (Moscow, 1961), vol. 1, 134–5. It was at this point that Valuev found himself in a difficult position, inclined toward the reformers but not sharing all their aspirations and regarding Reutern as a man of limited abilities. *Ibid.*, 135 and 141.

97 Chernukha, “Deiatel’nost’,” 82–7.

7 Origins of the Reutern System

- 1 B.V. Anan'ich and R.Sh. Ganelin, *Sergei Iul'evich Vitte i ego vremia* (St Petersburg, 1999), 3 and passim; A. Gerschenkron, "Problems and Patterns of Russian Economic Development," in C.E. Black, ed., *The Transformation of Russian Society* (Cambridge, MA, 1960), 71.
- 2 See, for example, Peter Gatrell, "The Meaning of the Great Reforms in Russian Economic History," in Ben Ekloff, John Bushnell, and Larissa Zakharova, eds., *Russia's Great Reforms, 1855–1881* (Bloomington, 1994), 84–101; A.M. Solov'eva, *Zheleznodorozhnyi transport Rossii vo vtoroi polovine XIX v.* (Moscow, 1975), 2–12, reviews the Soviet and some Western literature; J. Westwood, "The Railways," in R.W. Davies, ed., *From Tsarism to the New Economic Policy* (London, 1990), 169–88, is a brief survey.
- 3 See, for example, V.G. Chernukha, "Aktivnoe zakonotvorchestvo, 1859–1866," in B.V. Anan'ich, R.Sh. Ganelin, and V.M. Paneiakh, eds., *Vlast' i reformy* (St Petersburg, 1996), 323–7.
- 4 Alfred J. Rieber, "The Formation of La Grande Société des Chemins de fer russes," *Jahrbücher für Geschichte Osteuropas* 21, no. 3 (1973), 375–91.
- 5 Chevkin followed an unusual career pattern for a bureaucrat of the era of Nicholas I. His education in the Page Corps and military service were conventional enough. But subsequently, he was appointed chief of staff of the mining engineers and sent on a number of missions abroad to study mining and railroad construction. From 1853–62 he served as the main administrator of the Department of Transportation. Afterwards he continued to play an important role in railroad politics.
- 6 GARF, f. 722, op. 1, ed. kh. 457, "Dokladnye zapiski M. Kh. Reuterna v v.k. Kontantinu Nikolaevichu po finansovym voprosam, no. 1 (12/24 October 1857)." The grand duke was seeking advice anywhere he could get it. From the Minister of Foreign Affairs, Count Nesselrode, he received a prescient memo on the need to reduce the expenses of the standing army, as the European governments had shown huge armed forces could not be maintained during peacetime. He proposed the establishment of a committee to review the military budget. *Ibid.*, ed. kh. 454 (dated 15 February 1857).
- 7 *Ibid.*, Reutern to Konstantin Nikolaevich, no. 2 (undated, October – November 1857?).
- 8 *Ibid.*, Reutern to Konstantin Nikolaevich, no. 4 (8/20 November 1857), listy 12–23.
- 9 *Ibid.*, listy 24–33.

- 10 The following is based on the comprehensive analysis of the reform by David Christian, “A Neglected Great Reform: The Abolition of Tax Farming in Russia,” in Ekloff et al., eds., *Russia's Great Reforms*, 102–14.
- 11 A.M. Kulomzin and A.N. Reutern-Nol'ken, *M.Kh. Reutern, Biograficheskii ocherk* (St Petersburg, 1910), 7.
- 12 GARF, f. 722, op. 1, d. ed. kh. 91, “Dnevnik V.Kn. Konstantin Nikolaevich, 1858–1859,” listy 61, 83, 89, 98; 1860, listy 5, 45–6.
- 13 Excerpt from diary of P.D. Kiselev, 1 November 1861, as cited in A.P. Zablotskii-Desiatovskii, *Graf P.D. Kiselev i ego vremia*, 4 vols. (St Petersburg, 1882), vol. 3, 255.
- 14 P.N. Valuev, *Dnevnik P.A. Valueva. Ministr vnutrennikh del*, 2 vols. (Moscow, 1961), vol. 1, 155 and 383, n. 135.
- 15 *Ibid.*, vol. 1, 163.
- 16 N.A. Kislinskii, *Nasha zheleznodorozhnaia politika po dokumentam arkhiva Komiteta ministrov*, 4 vols. (St Petersburg, 1899), vol. 1, 124–5, 127.
- 17 Kulomzin, *Biograficheskii ocherk*, 13.
- 18 A.V. Golovin to D.A. Miliutin, 21 June 1866, cited in OR RGB, Miliutin, “Vospominaniia,” f. 169, box 14, no. 2, 71–2. Miliutin could not understand how the grand duke could sympathize with the “ultra-clerical aristocratic tendencies” of the Marquis Wielopolskii, *ibid.*, p. 41. Valuev too was mildly surprised that the grand duke “acted and spoke like a Westernizer (*zapadnik*).” Valuev, *Dnevnik*, vol. 1, 165, entry for 7 May 1862. Both men were puzzled by the apparent inconsistency in the grand duke’s opposition to noble constitutionalism in Russia and his willingness to encourage it in Warsaw. What they failed to perceive was the underlying rationale of his and Reutern’s economic system based on securing European financial support.
- 19 M.G. and E.G. Ternera, eds., *Vospominaniia zhizni F.G. Ternera* (St Petersburg, 1910), 205–10.
- 20 A small exception to this generalization was the concession of a section of the proposed Riga – Dunaburg Line to a group of English bankers, but a higher cost to the government (in effect a 6 per cent state guarantee) than Reutern originally considered appropriate. Kislinskii, *Zheleznodorozhnaia politika*, vol. 1, p.130; *Aksioner*, no. 50, 21 December 1863, 205.
- 21 OR RGB, f. 332, box 24, no. 3, Del'vig to Chizhov, 4, 12 January 1863.
- 22 Since 1857 Chizhov had struggled to make his newspaper *Vestnik promyshlennosti* the mouthpiece of the Moscow entrepreneurial interests. But financial reasons forced him to close it down, although he continued to edit *Aksioner*, its supplement since 1860. Increasingly, he felt a sense of isolation. Deeply discouraged, he was prepared in the summer of 1863 to give up

- the project altogether; OR RGB, f. 332, box 2, no. 10, "Dnevnik," 7 August 1863. Soon after this, however, Ivan Aksakov invited him to join forces. *Aktsioner* became a supplement to *Den'* at the very time when Aksakov's paper enjoyed its greatest popularity; in 1862 it had 4000 subscribers and a circulation of over 7000. A.G. Demen'tev et al., eds., *Russkaia periodicheskaia pechat' (1702–1894)*. *Spravochnik* (Moscow, 1959), 398, 414.
- 23 "Krainaia neobkhodimost' zheleznykh dorog v Rossii," *Aktsioner*, 9 March 1863, nos. 9–10. The draft of this article in Chizhov's papers shows that it had been written already in 1862. OR RGB, f. 332, box 4, no. 1.
- 24 "Neskol'ko slov o novykh proektakh ustavov zheleznykh dorog," *Aktsioner*, 26 January, no. 4, 23 March 1863, no. 12.
- 25 *Ibid.*, 28 March 1863, no. 13.
- 26 *Ibid.*, 9 March 1863, nos. 9–10.
- 27 *Ibid.*, and 23 March 1863, no. 12.
- 28 M.N. Katkov, *Sobranie peredovykh statei Moskovskiykh vedomostiakh* (Moscow, 1897), 25 July 1863, no. 164, 409–13.
- 29 OR RGB, f. 169, box 14, no. 2, 56.
- 30 *Ibid.*, f. 169, box 14, no. 2, 45, 97, and 123. Once again, as during the Crimean War, officials, like Miliutin, feared that Russia faced the danger of foreign intervention in support of the Poles leading to the re-establishment of a great Poland extending to the Dniepr. *Ibid.*, box 14, no. 2, 175.
- 31 Valuev, *Dnevnik*, vol. 1, 237, 238, 11, 15 July 1863; 405–6, n. 242. Kislinkii, *Zheleznodorozhnaia politika*, vol. 1, 132. Valuev complained that the entire discussion so vital to Russia's future was carried on without a map of Sevastopol and was terminated so abruptly that he had no chance to speak.
- 32 *Aktsioner*, 17, 24 August 1863, nos. 33, 34.
- 33 *Ibid.*, 26 October, 26 November, 7, 14 December 1863; OR RGB f. 332, box 24, no. 4, Del'vig to Chizhov, 27 October 1863, and 6 April 1864.
- 34 Anan'ich and Ganelin, *S.Iu. Vitte*, 47; A.M. Solov'eva, "Zheleznodorozhnye 'koroli' Rossii P.G. von Derviz i S.S. Poliakov," in *Predprinimatel'stvo i predprinimateli Rossii ot istokov do nachale XX veka* (Moscow, 1997), 266–85.
- 35 Kislinkii, *Nasha zheleznodorozhnaia politika*, vol.1, 134–5. The Russian entrepreneurs included high government officials like Count Baranov and General Kerbedz as well as several landowners from Podolsk and Volynia. *ZhMPS*, May – June 1863, bk. 3, 124–5, 135.
- 36 *Kratkii istoricheskii ocherk razvitiia i deiatel'nosti vedomstva putei soobshcheniia za sto let ego sushchestvovaniia (1789–1898)* (St Petersburg, 1898), 112.
- 37 OR RGB, f. 332, box 24, no. 5, Del'vig to Chizhov, 29 October 1864. Del'vig's skepticism on this plan was later born out. As part of the plan

- Mel'nikov also proposed to improve the port of Odessa as a logical extension of the south-west railroad. Zhitkov, *Biografii*, pt. 1, 64, 68.
- 38 *Kratkii istoricheskii ocherk*, 122–6.
- 39 *Ibid.*, 129; A.M. Larionov, *Istoriia Instituta inzhenerov putei soobshcheniia impertora Aleksandra I-go za pervoe stoletie ego sushchestvovaniia, 1810–1910* (St Petersburg, 1910), 144–52.
- 40 OR RGB, f. 332, box 24, no. 5, Del'vig to Chizhov, 29 October 1864. For Del'vig, the scheme had the earmarks of an ill-conceived and hasty improvisation.
- 41 Kislinskii, *Nasha zheleznodorozhnaia politika*, vol. 1, 140–1. Del'vig viewed Kotsebue's report as a masterpiece of dissimulation designed to confuse the tsar. OR RGB, f. 332, box 24, no. 6, 21 November 1864.
- 42 OR RGB, f. 332, box 24, no. 5, Del'vig to Chizhov, 29 October 1864.
- 43 *Ibid.*, box 43, no. 7, Prince D.A. Obolenskii, director of foreign trade, Ministry of Finance, to A.I. Khludov, 10 September 1864.
- 44 *Ibid.*, box 61, no. 2, A.P. Shipov to Chizhov, 6 September 1864.
- 45 Obolenskii sought to enlist Chizhov's assistance. "You handle the affair as best you think," he concluded in an impressive tribute to Chizhov's reputation for fair-mindedness. *Ibid.*, box 43, no. 7, Obolenskii to Chizhov, 6 October 1864.
- 46 N. Naidenov, *Moskovskaia birzha, 1839–1889* (Moscow, 1889), 17. This group subsequently played a leading role in drafting the tariff revision of 1868.
- 47 *Torgovyi sbornik*, 19 October 1864, no. 37. The journal had been founded in February as an organ of commercial interests and opinion. Its program stressed the practical and nationalist aspects of political economy. *Ibid.*, Editorial, February 1864, no. 1.
- 48 *Ibid.*, 7 November 1864, no. 41.
- 49 *Ibid.*, 19 December 1864, no. 47.
- 50 OR RGB, f. 332, box 24, no. 6, Del'vig to Chizhov, 7 November 1864.
- 51 *Ibid.*, Del'vig to Chizhov, 21 December 1864.
- 52 *Ibid.*, Del'vig to Chizhov, 26 November, 18 December 1864.
- 53 *Ibid.*, Del'vig to Chizhov, 30 November 1864; no. 7, 1 January 1865.
- 54 *Ibid.*, Del'vig to Chizhov, no. 6, 22 November, 9 December 1864; Valuev, *Dnevnik*, vol.1, 302, 304, entries for 12, 19, 25 November and 3 December. Valuev's position did not surprise Del'vig, who wrote: "He is always on the side of the Germans, Poles and other national minorities." Valuev also appears to have been influenced by a report of the Central Statistical Committee, staffed by Reutern's economists, "O napravlenii zheleznykh dorog v iugozapadnoi Rossii," issued at the beginning of 1864.
- 55 *Ibid.*, Del'vig to Chizhov, no. 5, 6 April, 9 May, 1 June, 23 October 1864. Del'vig urged Chizhov to include confidential data only if it could be

- obtained from another source and did not embarrass Mel'nikov. *Ibid.*, 30 November 1864.
- 56 *Ibid.*, Del'vig to Chizhov, no. 6, 9 December 1864.
- 57 *Ibid.*, Del'vig to Chizhov, no. 6, 21 November 1864.
- 58 *Ibid.*, f. 169, box 14, no. 3, "Vospominaniia Miliutina," 1863, 106 [57].
Valuev, as might be expected, had not favoured Annenkov's appointment as governor general and grew to dislike him. Valuev, *Dnevnik*, vol. 1, 146, 305, entries for 13 February 1862 and 13 December 1863.
- 59 Kislinskii, *Nasha zheleznodorozhnaia politika*, vol. 1, 142–4.
- 60 *Izvestiia imperatorskogo russkogo geograficheskogo obshchestva. Zhurnal zasedanii otдел statistiki imperatorskogo russkogo geograficheskogo obshchestva*, 3 December 1864, p. 44.
- 61 *Ibid.*, 45–6.
- 62 *Ibid.*, 64, 70, 99–101. Here Semenov cited Aksakov's "important study" sponsored by the Geographical Society on Ukrainian markets.
- 63 *Ibid.*, 57–8.
- 64 *Ibid.*, 94, 107.
- 65 In his opening remarks Lamanskii had already singled out Katkov's contribution to the debate and regretted his absence. Several other members echoed this sentiment. *Ibid.*, pp.44, 59, 64. Katkov, riding the crest of his popularity, had just publicly humiliated an important client of the grand duke and an ally of Reutern, Minister of Education A.V. Golovnin, and was about to descend upon the capital with the aim of convincing the government that his newspaper should enjoy a special status in Russia. Valuev, *Dnevnik*, vol. 1, 307, entry of 28 December 1864, and 359–63, n. 97, with additional comments dated August 1868; M. Lemke, *Epokha tsenzurnykh reform, 1859–1865* (St Petersburg, 1904), 52–7, 374–5.
- 66 *Izvestiia zasedaniia*, 83–4.
- 67 *Ibid.*, 59–60 and 108–9.
- 68 *Ibid.*, 106–7.
- 69 *Ibid.*, 115.
- 70 *Ibid.*, 92–3. Dzhurich had already written a long article in *Otechestvennye zapiski*, nos. 11 and 12, 1862, promoting Tagenrog as the natural port on the Sea of Azov.
- 71 Such was the comment of A.L. Savitskii, a popular writer whose book on the Volga grain trade had just been published; *O dostavke v Peterburg khleba po Volzhskomu vodianomu soobshcheniiu. Izvestiia zasedaniia*, 71–2.
- 72 *Ibid.*, 68, 111, 112; OR RGB, f. 322, box 24, no. 6, Del'vig to Chizhov, 9 December 1864.
- 73 Valuev, *Dnevnik*, vol. 1, 304, entry of 7 December 1864.

- 74 Kislinskii, *Nasha zheleznodorozhnaia politika*, vol. 1, 145. Biographical details of the majority reveal a number of personal and economic interests at work. For example, Count V.A. Bobrinskoi was Reutern's candidate to succeed Mel'nikov as minister of transportation in 1868. His family had extensive sugar beet and other agricultural interests in the vicinity of Smyla, a town that was about 50 versts north-west of the proposed Elizavetgrad – Kremenchug section. Later Bobrinskoi in his ministerial capacity oversaw the construction of the Faustov line that bore his name, connecting the town with the major trunk line from Odessa to Kharkov. The Bobrinskoi's were also related by marriage to the Ungern-Shternbergs.
- 75 TsGIAL, f. 207, op. 1, d. 23, no. 636, "Otchet predstavlenyi sovetom upravleniia glavnoi obshchestva rossiiskikh zheleznykh dorog," June 1858; "Saratovskaia zheleznaia doroga," *Vestnik promyshlennosti*, 1861, vol. 12, 4, 33–52; "Ot pravleniia obshchestva Saratovskoi zheleznoi dorogi, ibid., vol. 5, 127–60; V.A. Panaev, "Vospominaniia Panaeva," *Russkaia starina* (1902), vol. 3, 421; *Aksioner*, 26 October 1863, no. 43.
- 76 V.M. Liakhovskii, "K voprosu o fiktivnykh atskionernykh kompaniakh v Rossii v 1860–1870-kh gg. (Kapitaly Riazansko-Kozlovskoi zh. d.)," *Istoricheskie zapiski*, vol. 82 (Moscow, 1966), 277.
- 77 A.A. Golovachev, *Istoriia zheleznodorozhnykh dela v Rossii* (St Petersburg, 1881), 34–53.
- 78 OR RGB, f. 332, box 24, no. 5, Del'vig to Chizhov, 11 March 1864; P.G. von Derviz, "Po povodu stat'i 'Novaia zheleznaia doroga pomeshchennoi v nomere 12 gazeti Den,'" *Birzheve vedomosti*, 7 April 1864, no. 95; Kislinskii, *Nasha zheleznodorozhnaia politika*, vol. 1, 160–1.
- 79 OR RGB, f. 332, box 24, no. 5, Del'vig to Chizhov, 11, 18 March 1864.
- 80 *Den'*, April 1864, no. 12.
- 81 OR RGB, f. 332, box 24, no. 5, Del'vig to Chizhov, 6, 12 April 1864; *Birzheve vedomosti*, 7 April 1864.
- 82 Liakhovskii, "K voprosu," 278–9, quoting minutes of the Railroad Committee of 29 April and 3 May 1864.
- 83 OR RGB, f. 332, box 73, no. 221, "Dokladnaia zapiska k ministeru putei soobshcheniia Mel'nikovu, P.P. po voprosu o kontsessii Riazano-Kozlovskoi zheleznoi dorogi fon Dervizom" (undated).
- 84 Liakhovskii, "K voprosu," 280–1.
- 85 Golovachev, *Voprosy*, 130–4; Liakhovskii, "K voprosu," 288 calculated a higher profit rate, but accepted General Golovachev's financial analysis, which was the first public revelation of the widespread corruption that characterized this period of the railroad boom.

- 86 F. Terner, “Est’ li u nas svobodnyi kapital na postroiiki zheleznykh dorog?” *Russkii invalid*, 9 December 1865, no. 271.
- 87 OR RGB, f. 332, box 24, no. 7, Del’vig to Chizhov, 1 January 1866.
- 88 Shortly after the Kremenchug concession Kotsebue submitted another proposal to construct a line from Odessa to Czernowitz. But Reutern rejected it as financially unacceptable. He expressed fears that approving such concessions would clutter the European money market with securities for lines of secondary importance. But an overwhelming majority of the Council of Ministers supported Kotsebue, leaving only Reutern, Mel’nikov, Chevkin, and Prince Dolgorukov in the opposition. For the tsar Reutern’s shift made all the difference. Visibly agitated, Alexander II hotly defended the integrity of Reutern and Mel’nikov. He not only confirmed the minority position, but took the unusual step of requesting his ministers not to complain to him personally about his decision. Kislinskii, *Nasha zheleznodorozhnaia politika*, vol. 1, 147–52; Valuev, *Dnevnik*, vol. 2, 104–5; OR RGB, f. Katkov, box 29, no. 4, Markevich to Katkov, 14 January 1866.
- 89 Valuev, *Dnevnik*, vol. 1, 72; vol. 2, 447, n. 51; OR RGB, f. 169, Miliutin, “Vospominaniia,” box 14, no. 3 (first half of 1863), listy 27, 53, and 66; no. 4, list 4.
- 90 OR RGB, f. 178, Kulomzin, “Vospominaniia,” no. 1, listy 42–3, 60; no. 3, listy 4–6. For Kulomzin’s subsequent career see P.A. Zaionchkovskii, *Rossiiskoe samoderzhavie v kontse XIX stoletia* (Moscow, 1970), 60, 78, 79, 83, 184–89. Kulomzin’s admiration for Reutern comes through clearly in his biography of the Finance Minister which he co-authored with V.G. Reutern, *M. Kh. Reutern*, (St Petersburg, 1910) and in Kislinskii, *Nasha zheleznodorozhnaia politika*, which he edited.
- 91 A.N. Kulomzin, “Postroiika zhelezno-dorozhki v Rossii i na Zapad,” *Russkii vestnik*, November 1865, nos. 11–12, 297–321.
- 92 Kislinskii, *Nasha zheleznodorozhnaia politika*, vol. 1, 179, 183; OR RGB, f. 178, Kulomzin, no. 3, list 7.
- 93 OR RGB, f. 332, box 25, no. 1, Del’vig to Chizhov, 20 January 1866.
- 94 Kislinskii, *Nasha zheleznodorozhnaia politika*, vol. 1, 187–90.
- 95 V.G. Chernukha, “Zamedlenie reform. Usilenie konservativnoi oppositsii,” in Anan’ch et al., *Vlast’ i reform*, 342–6, which does not, however, address the conflict with Reutern.
- 96 Valuev, *Dnevnik*, vol. 2, 284–5. Shuvalov’s faction clashed frequently with Miliutin and strove mightily but failed to replace him at the Ministry of War. *Dnevnik Miliutina*, vol. 1, 47, 110–13, 116, 140–1.

- 97 V.G. Chernukha, “Sozdanie Obshchestva vzaimnogo pozemel’nogo kredita,” in Akademiia nauk, *Monopolii i ekonomicheskaiia politika tsarizma v kontse XIX–nachale XX v. K problem istoricheskikh predposylok Velikoi oktiabr’skoi sotsialisticheskoi revoliutsii. Sbornik statei* (Leningrad, 1987), 182–200 and I.A. Khristoforov, “Aristokraticheskaia” *Oppositsiia Velikim reformam. Konets 1850-seredina 1870-x gg.* (Moscow, 2002), 182–5. Khristoforov’s work is now the most comprehensive treatment of Shuvalov’s overall domestic policies.
- 98 As early as 29 April, three weeks after the Karakozov attempt, Prince Dolgurukov told Valuev that Reutern had to go and asked whether he, Valuev, would accept the post of minister of finance. Valuev, *Dnevnik*, vol. 2, 121. Although Valuev saw eye to eye with Shuvalov on many questions and even considered himself a member of the unofficial group he called “the committee of public safety,” he maintained a certain critical distance and never became one of Shuvalov’s “creatures.”
- 99 Valuev regarded Reutern’s peasant policy as a “shocking ignorance of the rights of the landowners.” *Ibid.*, vol. 1, 329, n. 32; vol. 2, 23, 49, 67, entries of 17 February, 9 June, and 14 September 1865. See also Olga N. Trubetskaia, *Materialy dlia biografii kniazia V. A. Cherkasskogo*, 2 vols. (Moscow, 1901–4), vol. 1, pt. 2, chaps. 5–6.
- 100 S.M. Seredonin, *Istoricheskii obzor Komiteta Ministrov*, 5 vols. (St Petersburg, 1902), vol. 1, 130–43; Valuev, *Dnevnik*, vol. 2, 137, entry of 14 June 1866. Dmitrii Miliutin, who was firmly in the anti-Shuvalov camp, later recalled: “Our position was delicate; great caution was necessary given the prevailing general mood and especially those views that were inspired by the Emperor himself. It was impossible to meet these views head on. Palliatives were adopted in order to prevent the passage of more harmful measures.” OR RGB, f. 169, box 15, no. 3, “Vospominaniia, 1866,” I, pp. 42–3.
- 101 Valuev, *Dnevnik*, vol. 2, 122, 127, 129, 135, entries of 7, 21, 27, and 28 May, and 27 June 1866. Valuev subsequently suspected he had been fooled. *Ibid.*, 409, additional note dated 1/13 September 1868. Perhaps he never realized how badly!
- 102 Reutern states this clearly in his brief introduction. Kulomzin, *Biograficheskii ocherk*, 64.
- 103 *Ibid.*, 71.
- 104 *Ibid.*, 76.
- 105 *Ibid.*, 82.
- 106 *Ibid.*, 98.
- 107 *Ibid.*, 107–8.
- 108 *Ibid.*, 40.

- 109 Valuev, *Dnevnik*, vol. 2, 149, 153, 154, entries of 16, 29 September and 6 October 1866. Valuev submitted his reduced estimates to the minister of finance the same day they were requested, a departure from his previous more casual practice.
- 110 GARF, f. 722 (Mramornyi dvorets), op. 1, ed. kh. 448, listy 1–2.

8 The Reutern System in Operation

- 1 A.A. Golovachev, *Istoriia zheleznodorozhnogo dela v Rossii* (St Petersburg, 1881), 138–40, very critical; N.A. Kislinskii, ed., *Nasha zheleznodorozhnaia politika*, 4 vols. (St Petersburg, 1899), vol. 1, 200–7, more apologetic.
- 2 I.S. Bliokh, *Vliianie zheleznodorozhnoi politiki na ekonomicheskoe sostoianie Rossii*, 5 vols. (St Petersburg, 1882), vol. 1, 21
- 3 Golovachev, *Istoriia*, 135, 137.
- 4 GARF, f. 722 (Mramornyi dvorets), op. 1, ed. kh. 448, “Zapiski Konstantina Nikolaevicha – A.M. Gorchakovu,” 7 December 1857.
- 5 *Dnevnik P.A. Valueva. Ministra vnutrennikh del*, 2 vols. (Moscow, 1961), vol. 2, 95, 22 March 1867. The convention was signed on 18 March.
- 6 OR RGB, f. 169, box 37, no. 12, 1–5. M.Kh. Reutern, “O sredsvakh k obrazovaniiu fonda sooruzheniia zheleznykh dorog” (St Petersburg, 3 February 1867), stamped “secret.”
- 7 *Ibid.*, 7–8.
- 8 OR RGB, f. 169, box 37, no. 13, untitled memo by P.P. Mel’nikov dated 17 February 1867, 1–4.
- 9 *Ibid.*, 5–6.
- 10 *Birzhevye vedomosti*, 19 February 1867, no. 49, in a 6-column, front-page editorial.
- 11 *Ibid.*, 27 March 1867.
- 12 *Ibid.*, 1 March 1867, no. 57.
- 13 *Ibid.*, 31 March 1867, no. 86. This proposal could only have appealed to the local nobility.
- 14 OR RGB, f. 332, box 25, no. 4, Del’vig to Chizhov, 2 and 9 March 1867. Del’vig also claimed that he had already done everything within his authority to improve the admittedly deplorable situation at Kozlovsk. He supplied Chizhov with evidence to correct the misleading impression left by the two articles in *Birzhevye vedomosti*. Reluctant, as always, to become involved in a public squabble, he hoped Chizhov would take up the cudgel in his defence. Chizhov rose to the occasion like an old soldier, unleashing a counterattack in *Molva*. To be sure, the editors of *Birzhevye vedomosti* had not spared Von Derviz, but the details of the scandal first

made public in other papers gave them no choice but to attribute part of the blame to the private owners. They did not recommend, however, either his replacement or a fundamental change in the practice of granting concessions. They also printed his long letter replying to their charges without accepting any of his explanations. *Birzhevoe vedomosti*, 9 March 1867, no. 65, and 21 March 1867, no. 77. As we have seen their scepticism was well grounded.

- 15 *Dnevnik Valueva*, vol. 2, 191, 2 March 1867.
- 16 OR RGB, f. 332, box 25, no. 5, Del'vig to Chizhov, 24 December 1867.
- 17 In a surprise move, Lamanskii joined the effort to retain the railroad for Russian interests by hosting a meeting of the leading engineers at his home in order to plan a campaign to support the purchase of the line by local entrepreneurs. *Ibid.*, 27 March 1867.
- 18 *Ibid.*, 6 May 1867.
- 19 General A.A. Zelenyi, the minister of state domains, was in close touch with events there and sought to advise the Moscow group on the proper bureaucratic application procedures for a concession. *Ibid.*, 27 May 1867.
- 20 See his correspondence with Chizhov, *ibid.*, box 38, nos. 17 and 18 (1867).
- 21 *Ibid.*, box 73, no. 8, "Kompaniia po pokupke Nikolaevskoi zheleznoi dorogi. Zapiska k Del'vigu, A.I.," December 1867, with pencilled corrections by Chizhov. In the memo Mamontov formally requested Del'vig to join them as a founder. Del'vig, who met Kokorev in St Petersburg about this time, regarded their project with scepticism. He regretted that no one had advised Kokorev beforehand and feared that, as a result, it would not be treated seriously in government circles. *Ibid.*, box 25, no. 5, Del'vig to Chizhov, 6 December 1867. See also the discussion in Thomas C. Owen, *Capitalism and Politics in Russia: A Social History of the Moscow Merchants, 1855–1905* (Cambridge, MA, 1981), 55–64.
- 22 Valuev, *Dnevnik*, vol. 2, 228, 21 December 1867; 263, 14 April 1868.
- 23 OR RGB, f. 332, box 38, no. 16, Mamontov to Chizhov, 29 January 1868.
- 24 *Ibid.*, no. 18, Mamontov to Chizhov, 22 June 1868.
- 25 Del'vig deplored the silence of both champions of the Russian national cause at a time when other papers like *Moskovskie vedomosti* were defending competing proposals. He was convinced as late as December 1867 that "a skilful artist could still have an effect upon members of the Council of Ministers." OR RGB, f. 332, box 25, no. 5, Del'vig to Chizhov, 14 December 1867. Still, it is difficult to tell how playing the xenophobic card might have influenced the ministers.
- 26 *Ibid.*, Del'vig to Chizhov, 17 December 1868. Del'vig had warned that approximately fifteen million rubles would be required for improvements

- over the following two years. When the entrepreneurs implored Del'vig to join them, they realized how desperately they needed his "practical knowledge of railroad affairs." Ibid., box 73, no. 8, "Zapiska k Del'vigu." But once he declined, they ignored his advice.
- 27 Ibid., box 73, no. 10, "Tovarishchestvo po preobretanii Nikolaevskoi zheleznoi dorogi. Zapiska po imia Ministersvta M. Kh. Reuterna (otvet po voprosu)," January 1868.
- 28 Valuev, *Dnevnik*, vol. 2, 228; Kislinskii, *Nasha zheleznodorozhnaia politika*, vol. 1, 305.
- 29 The vote produced only a few surprises. Those in favour of the Grande Soci t  were Konstantin Nikolaevich, Reutern, Stroganov, Brok, Valuev, Greig, Shtiglits, and Miliutin (!); for the Moscow company, Chevkin, Mel'nikov, Kniazhevich, Palen, A.P. Zablotskii, and Tatarinov. An imperial toothache prevented the tsarevich from attending. Undoubtedly he would have voted for the Moscow company. Valuev, *Dnevnik*, vol. 2, 264, 15 April 1868; Kislinskii, *Nasha zheleznodorozhnaia politika*, vol. 1, 312–15. The closeness of the vote may be explained in part by the ability of the entrepreneurs to answer Reutern's stream of inquiries on financial details and to reassure members like Kniazhevich and Tatarinov that they were prepared to deposit the guarantee immediately and pay the full purchase price over three years. Mamontov bore the brunt of replying to Reutern, but Kokorev and Poletika joined him in making the formal presentation to the joint committee. OR RGB, f. 332, box 38, no. 19, Mamontov to Chizhov, 16, 22 January and 13 April 1868.
- 30 Kislinskii, *Nasha zheleznodorozhnaia politika*, vol. 1, 320.
- 31 Ibid., 321.
- 32 Valuev, *Dnevnik*, vol. 2, 263, 14 April 1868 decried Count Stroganov's incensed reaction to the "drinking receptions" given by the entrepreneurs to win over wavering ministers. He then copied out in full S.A. Sovolevskii's satirical ditty entitled "The Coryphaei of the Moscow Slavophiles," which poked fun at the alcoholic atmosphere surrounding Kokorev, Koshelev, and Bernardaki. For Konstantin Nikolaevich's comment, see GARF, f. 722, opis 1, ed. kh. 94, "Dnevnik Konstantin Nikolaevich," entry of 8 April 1868, p. 41. The grand duke made this comment in response to a note from Reutern, relaying an answer of the Moscow group to one of the finance minister's questions. Konstantin Nikolaevich had already told the representatives of the company to their faces that he resented their "pretension to be the exclusive spokesmen for Russian interests and the resulting intrigues." Ibid., 20 March 1868, 33.
- 33 Ibid., ed. kh. 98, 5 June 1870.

- 34 Cf. S.Iu. Witte, *Vospominaniia*, 3 vols. (Moscow, 1960), vol. 1, 343 for some amusing comments on the dress and behaviour of the Moscow merchants.
- 35 This helps to explain why the Moscow entrepreneurs tried at every opportunity to recruit Chizhov or Del'vig into their schemes, whether railroads, the mutual credit banks, or tariff lobbying. Although Del'vig shared some of the doubts of the economists about the technical expertise of the entrepreneurs, he deplored their social biases. "Our high society raised on the French language, including unfortunately our Chancellor [Prince Gorchakov], are certain that without the Germans (or the French who for Russians are the same) we will not know how to run our railroads ... When will we believe more in ourselves?" OR RGB, f. 332, box 25, no. 6, Del'vig to Chizhov, 5 January 1868. The outburst was prompted by Del'vig's learning that Reutern favoured the Grande Société as the buyer for the Nikolaev line.
- 36 Approved by the tsar on 18 October 1868, the new regulations stipulated that (1) all petitions had first to be reviewed in the Committee of Ministers to determine whether or not the concessionaires should be required to submit competitive bids; (2) the minister of finance would then solicit the bids; (3) the bids would be submitted to the minister in sealed envelopes and opened at a meeting of the Council of Ministers to which the concessionaires would be invited; (4) the concessionaires would be told which agency they would have to pay for the preliminary surveys; and (5) the Committee of Ministers would recommend to the tsar final action on the bids. Kislinskii, *Nasha zheleznodorozhnaia politika*, vol. 1, 303.
- 37 Ibid., vol.2, 10.
- 38 A.B. Bushen, *Sbornik svedenii po voprosam o snabzhenii russkikh zheleznykh dorog rel'sami, podvizhnym sostavom i prochimi prinaldzhnostiami*, 3 vols. (St Petersburg, 1876), vol. 2, 32–8; vol. 3, 39–48.
- 39 Ibid., vol. 1, 41.
- 40 Inna Simonova, *Fedor Chizhov* (Moscow, 2002), 212–17.
- 41 OR RGB, f. 332, box 26, no. 7, letters of Del'vig to Chizhov, September – December 1873; f. 332, box 27, no. 2, letter of Del'vig to Chizhov, 26 July 1874. For a full analysis of the financial relations of the Moscow entrepreneurs with Putilov see Owen, *Dilemmas*, 120–2 and Simonova, *Chizhov*, 211–17.
- 42 Theodore H. Friedgut, *Iuzovka and Revolution*, 2 vols. (Princeton, 1989), vol. 1, *Life and Work in Russia's Donbass, 1869–1924*, 31–2.
- 43 A.M. Solov'eva, *Zheleznodorozhnyi transport Rossii vo vtoroi polovine XIX v.* (Moscow, 1975), 132–4.
- 44 *Inzhenernyi zhurnal*, 1857, no. 4, 337–8, and 1865, no. 4, 424–5.

- 45 A.L. Zisserman, *Fel'dmarshal' kniaz' Aleksandr Ivanovich Bariatinskii, 1815–1879*, 3 vols. (Moscow, 1890), vol. 1, 64, 171–2.
- 46 He wrote in his memoirs that “the War Minister already fully understood the strategic significance of the future railroad network,” but that financial considerations often took precedence in the selection of lines. More specifically, Miliutin blamed Chevkin among others who blocked the construction of such lines. According to Miliutin, the Don – Grushevskii line, undertaken “at the initiative of the War Minister and at the expense of the Don Host,” was proof of his own farsightedness. OR RGB, f. 169, box 13, no. 4, 83–4.
- 47 *Ibid.*, box 14, no. 3, 66.
- 48 P.A. Zaionchkovskii, *Voennye reformy 1860–1870 godov v Rossii* (Moscow, 1952), 119–20; O.P. Airapetov, *Zabytaia kar'era “russkogo Mol'tke”*. Nikolai Nikolaevich Obruchev (1830–1904) (St Petersburg, 1998), 114–16. The articles were collected into a volume, *Set' russkikh zheleznykh dorog, uchastie v nikh zemstva i voiska* (St Petersburg, 1864).
- 49 They included V.M. Anichkov, professor of military economy at the Nikolaev Academy from 1859–73 and author of *Military Economy*; M.I. Dragomirov, the outstanding tactical theoretician of the period, professor of tactics at the academy, author of the standard textbook on strategy (1872) and of *Avstro-Prusskaia Voina* (1866); P.L. Lobko, a graduate and professor of the academy and member of the committee on rearming the military forces; P.K. Men'kov, graduate of the academy, editor of the two major organs of the ministry of War, *Voennyi sbornik* (1859–67) and *Russkii invalid* (1867–72) whose chatty memoirs, *Zapiski*, 3 vols. (St Petersburg, 1898), is useful mainly in illuminating the interpersonal relationships within the military group; Count F.L. Geiden, commander of the Domestic Watch (*Dezhurnyi general*), whose career from age eighteen was built on staff work in various army corps; and K.P. von Kaufman (later governor general of Turkistan), Miliutin's director of chancellery (1861–5). A key figure in the reform of the military districts, although a line officer, Kaufman had gained national attention for his negotiation of the surrender of Kars in 1856. Both Geiden and Kaufman first saw service as young officers with Miliutin in the Caucasus in the 1840s. In the military group, Obruchev was exceptional because of his strategic thinking and enthusiasm for railroads, but he too was a graduate and professor of military tactics at the academy, director of the military educational committee of the ministry of war from 1881–93, and author of many works on military history and statistics, most notably the 4-volume *Voennyi-statisticheskii sbornik* (St Petersburg, 1868–74).

- 50 These conclusions are based on the works cited above and the analysis of Zaionchkovskii, *Voennye reformy*, 236–8; and I.V. Bestuzhev, “Russkaia voennaia mysl’ nakanune voennoi reformy, 1862–1874 gg.,” *Istoricheskie zapiski* 52 (1955), 267–304. Miliutin’s admiration for Suvorov’s tactics, which became one of the pillars of his reforms in officer training courses, dated from his articles in *Otechestvennye zapiski*, especially “Suvorov kak polkovodets,” 1839, nos. 4–5. See Miliutin, *Dnevnik*, vol. 1, 9. In 1858, when *Voennyi sbornik* was an unofficial military journal free of censorship and edited by Anichkov, Obruchev, and N.G. Chernyshevskii, the association with the future radical critic seriously affected Obruchev’s career, preventing him from ever becoming minister of war.
- 51 See, for example, “Vzgliad na sostoianie russkikh voisk v minushuii voinu,” *Voennyi sbornik*, no.1 (May 1858), 1–15, which argued that the Crimean defeat was due to “the superiority of the [enemy’s] military organization, weapons and even the less important details of order of battle in which they differ from us.” *Ibid.*, 2; N.N. Obruchev, “O vooruzhennoi sile i ee ustroistve,” *ibid.*, 16–56, which takes a somewhat broader view; V.Ia. (*sic*), “Frantsuzskaia konskriptsia,” *ibid.*, no. 3 (July 1858), 57–79, endorsing the idea of a mass army; Karpov, “Obuchenie rekrut vo Frantsii,” *ibid.*, no. 4 (August 1858), 483–6, emphasizing physical fitness and gymnastics; V. Anichkov, “O sposobakh snabzheniia voisk obmandirovaniem,” *ibid.*, no. 5 (September 1858), 1–34, urging the reorganization of the supply commissariat; L.K., “Soldat i ofitser,” *ibid.*, no. 6 (October 1858), 333–46, on the brotherhood of all ranks; and Kh. Okerblom, “Mysli o khozaistve voisk,” *ibid.*, no. 7 (November 1858), 57–88, critical of long-term service for peasant recruits. See also L.G. Beskrovnyi, *Ocherki po istochnikovedeniiu voennoi istorii Rossii* (Moscow, 1957), 430–4. Occasionally, the enthusiasm for the moral factor and cold steel à la Suvorov went too far for Miliutin’s taste, as when Dragomirov opposed his old friend on the issue of supplying the army with more artillery. A.V. Fedorov, *Russkaia armia v 50–70-kh godakh XIX veka. Ocherki* (Leningrad, 1959), 170.
- 52 The major debates among the military even after the Franco-Prussian War were focused on weapons technology. Robert F. Baumann, “Technology versus the Moral Element: Emerging Views on the Russian Office Corps, 1870-1904,” in Robert B. McKean (ed.), *New Perspectives in Modern Russian History* (New York, 1992), 43-64.
- 53 For example, in 1867 Miliutin advised the tsar that the army could not protect the exposed western frontier in the event of a general European war and urged a cautious foreign policy in view of Russia’s military unpreparedness. Fedorov, *Russkaia armia*, 36. At the same time, Kaufman

- with Miliutin's support had been appointed governor general of Turkistan with orders to open "a broad and easily accessible way for our trade into the depths of Central Asia." N.A. Khalfin, *Politika Rossii v Srednei Azii, 1857–1868* (Moscow, 1960), 26–7.
- 54 N.N. Shilder, *Graf E. I. Totleben, ego zhizn' i deiatel'nost'*, 2 vols. (St Petersburg, 1885–6), vol. 2, 665–7, 687, and 689–90. See also E.I. Totleben, "Zapiska k proektam vooruzhneiia sukhoputnykh kreposti," and other works summarized in "Totleben, Graf Eduard Ivanovich, 1818–1884," *B/E*, vol. 66, 663–5. The files of *Inzhenernyi zhurnal* reveal an overwhelming preoccupation with fortresses.
- 55 OR RGB, f. 169, box 11, no. 5, "Zheleznodorozhnoe delo," 206.
- 56 *Ibid.*, 209. That these innovations were given short shrift in the standard account of the Miliutin reforms by P.A. Zaionchkovskii, *Voennye reformy*, 119–24 and ignored by Forrestt A. Miller, *Dmitrii Miliutin and the Reform Era in Russia* (Nashville, 1968) may signify their relative unimportance in comparison with other reforms or else a failure to see them as the beginning, however, belated of a slow realization even by scholars of the technological impact of railroads on warfare in Russia.
- 57 N.N. Obruchev, *Set' russkikh zheleznykh dorog ... Uchastie v nei zemstva i voiska* (Moscow, 1864), 38–9.
- 58 OR RGB, f. 169, box 37, no. 14, 1–3, "Voennoe ministerstvo: Glavnyi shtab. O zheleznykh dorogakh neobkhodimykh v voennom otnoshenii," 12 November 1868. Stamped confidential, edited by General N.N. Obruchev.
- 59 *Ibid.*, 4–5.
- 60 These included (1) a Crimean line from Lozovoi to Sevastopol and Kerch; (2) Smolensk to Brest through Mogilev and Minsk; (3) a Volynia line from Kiev to Brest through Zhitomir and Rovno with a branch to Brody; (4) Kiev or Nezhin to Vilno through Mogilev, Vitebsk, or Vilnius; and (5) Brest or Kobrin to Grodno linking up with the St Petersburg – Warsaw railroad; *ibid.*, 6–17. See also discussion in Zaionchkovskii, *Voennye reformy*, 20–3. But as Airapetov points out, Zaionchkovskii underestimated Obruchev's continued interest in the south and south-west; he was merely responding to the immediate problems on the western frontier. Airapetov, *Obruchev*, 127.
- 61 OR RGB, box 11, no. 5, 206, and Kislinskii, *Nasha zheleznodorozhnaia politika*, vol. 1, 334.
- 62 Kislinskii, *Nasha zheleznodorozhnaia politika*, vol. 1, 333–7. One of the lines Reutern proposed to eliminate from Miliutin's list was Kovno – Libau. But the press, led by Katkov, blew up a storm to break Prussia's commercial dominance over the transit trade from the Baltic ports to the western provinces. A.I. Shneerson, *Franko-pruskaia voina i Rossiia: Iz istorii*

- russko-frantsuzskikh otnoshenii v 1867–1871 gg.* (Minsk, 1976), 238. Reutern was in no better position to defy anti-Prussian sentiment on commercial than on strategic grounds.
- 63 Kislinskii, *Nasha zheleznodorozhnaia politika*, vol. 2, 15–16.
- 64 OR RGB, f. 169, box 16, no. 3, 93.
- 65 Valuev, *Dnevnik*, vol. 1, 198.
- 66 Miliutin, *Dnevnik*, vol. 1, 159–60. Chizhov was contemptuous of both for their arrogance and lack of competence in railroad matters. Owen, *Dilemmas*, 182.
- 67 Baron Del'vig, *Vospominaniia*, vol. 4, 156, 158, 225–33, and *passim*.
- 68 Niall Ferguson, *The House of Rothschild: The World's Banker 1849–1999*, 2 vols. (New York, 1998–9), vol. 2, 184. Later that year Reutern had second thoughts and negotiated with the London Rothschilds the first of five big loans to Russia. Highly successful, the series came to an end with the Eastern Crisis leading to war with Turkey. This ended the relationship for decades. *Ibid.*, vol. 2, 185–6 and 306–7.
- 69 Kislinskii, *Nasha zheleznodorozhnaia politika*, vol. 2, 86–7, 114.
- 70 Chizhov's petition to Reutern set out the basic philosophy of the Moscow entrepreneurs: "For a long time, many representatives of the Moscow merchants have energetically sought to have in their hands major railroad lines by which to ship their goods. The Moscow-Kursk Railroad now serves as the main conduit of raw materials from central Russia to the north, where our largest factories are located. In turn it brings manufactured goods of our factories to central and southern Russia. Naturally, the management of its operations is one of the strongest wishes of our commercial class." Cited in Owen, *Dilemmas*, 125.
- 71 Simonova, *Chizhov*, 224; Kislinskii, *Nasha zheleznodorozhnaia politika*, vol. 2, 91–6. Chizhov had to borrow abroad to finance the purchase. But no bribes were distributed to obtain the concession, and the line was operated efficiently and profitably. See also Owen, *Dilemmas*, 126–34.
- 72 Ivan Bliokh, *Ustroistvo finansovogo upravlenie i kontrolia v Rossii v istoricheskom ikh razvitiu* (St Petersburg, 1896) and V. Tal'berg, *Gosudarstvennyi fakticheskii i predvaritelnyi kontrol v zhelezno-dorozhnom khozaistve* (Kiev, 1897).
- 73 For testimonies to Abaza's talents in contemporary memoirs see Shepelev, *Tsarizm i burzhuaziia*, 77–82.
- 74 OR RGB, Museum collection, f. Kulomzin, 9803, chap. 4, 107 (63). In his published version, Kulomzin attributed Bobrinskoi's resignation to the more respectable cause of ill health. Kislinskii, *Nasha Zheleznodorozhnaia politika*, vol. 2, 89.

- 75 An exception was the role of Prince Orlov in granting concessions to the vodka tax farmers. OR RGB, f. Kulomzin, 9803, chap. 4, 1.
- 76 *Ibid.*, chap. 8, 25.
- 77 Kulomzin claimed that Von Derviz told him that he gave 200,000 rubles to Prince Dolgorukov for services rendered in helping him obtain the concession on the Kursk – Kiev line. *Ibid.*, 26–8.
- 78 *Ibid.*, 40–2. The economists in the chancellery resented this pressure most of all, and thought it necessary to break “the impudence” of such “yid-entrepreneurs” like Varshavskii. In his manuscript Kulomzin crossed out “yid (*zhid*) banker,” substituted “Jew (*evrei*) banker” and then eliminated the slur altogether. On another occasion Adlerberg persuaded the tsar to reverse a decision taken by the Committee of Ministers, but Bobrinskoi’s genuine outrage embarrassed the tsar and he reversed himself again, *ibid.*, 31–4.
- 79 Del’vig, *Vospominaniia*, vol. 4, 249–58.
- 80 *Ibid.*, 411–21.
- 81 A. I. Del’vig, *Polveka russkoi zhizni*, 2 vols. (Moscow, 2014), vol. 2, 339, 460.
- 82 “Romanovy i zheleznodorozhnye kontsessii v 70-x gg. XIX v.,” *Krasnyi arkhiv* 56 (1933), 146.
- 83 E.M. Feoktistov, *Za kulisami politiki i literatury 1848–1896*, intro. A.S. Presniakov (Leningrad, 1929), 306–10, 323. Usually well informed, Feoktistov attributed the story to Al’bidenskii, “truthful in all matters not concerning himself,” who had “just heard it” from Anatol Bariatinskii.
- 84 “Romanovy,” 146–8. In this extraordinary exchange, Alexander II implied that Shuvalov did not have clean hands because his friend Anatol Bariatinskii had accepted a huge bribe.
- 85 Shuvalov was dissimulating to promote his own interests. Actually, a heart attack forced Bobrinskoi to resign.
- 86 Miliutin, *Dnevnik*, vol. 1, 162, entry of July 1874. A few years later, in 1880, after Alexander II’s wife died and he married his mistress, Countess Dolgorukaia (renamed Princess Iurevskaia), he deposited three and a half million rubles in an account in the State Bank in her name.
- 87 Conflict of interest was not at all clearly defined in Russian law. When, for example, the statutes of one projected railroad company carried the names of five high officials of the ministry of finance, including Lamanskii, the only member of the Committee of Ministers who voted against the concession for this very reason was Prince Gagarin. *Ibid.*, 31, 34.
- 88 *Ibid.*, 35.

- 89 I. Adadurov, *K istorii Riazansko-Kozlovskoi zheleznoi dorogi, 1865–1884* (Moscow, 1887), 17–19, 22, 25–6. The author cites correspondence with railroad personnel from his own files. The breakdown in service became a national scandal widely discussed in the press. See *Golos*, nos. 19, 43, 46, 61, and 64 (1867) and nos. 70 and 117 (1868); *Birzhevye vedomosti*, no. 57 (1867) and *Moskva*, no. 45 (1867), which claimed that accidents were so frequent on a single trip that the passengers finally gave up and hired horses to continue the journey.
- 90 Adadurov, *K istorii*, 28, 36–7.
- 91 Kislinkii, *Nasha zheleznodorozhnaia politika*, vol. 2, 166–78.
- 92 Bobrinskoi argued that the failure to approve state-built lines revealed an undeserved lack of trust in railroad engineers trained by the state but not employed to build railroads. In vain, he asserted that the state was paying for railroads in any case, but the profits were going to private individuals. *Ibid.*, 185.
- 93 The dismissal of Shuvalov gave rise to rumours that he had fallen out of favour with the tsar because of his intrigues and was being honourably exiled to London. See Miliutin, *Dnevnik*, vol. 1, 159.
- 94 Kislinkii, *Nasha zheleznodorozhnaia politika*, vol. 2, 130.
- 95 Pos'tet was considered a well-meaning but rather ineffectual figure. Miliutin, *Dnevnik*, vol. 1, 189, 196. Valuev dubbed him a “dull and difficult tool”; Valuev, *Dnevnik*, vol. 2, 312. Aksakov was enthusiastic, calling him a “wonderful German [a mistake; he was of French descent], a pious man, raves about Russian nationalism (*narodnost'*), was always a sincere supporter of the Slavophil [newspaper] *Den'* in Moscow.” But he wondered whether Admiral Pos'tet had the strength and influence to survive the stormy seas in Petersburg. At least, he concluded, the tsar respected him for his personal virtues. ORBL RGB, f. 332, box 15, ed. kh. 9, list 11, Aksakov to Chizhov, 18 July 1974.
- 96 A.A. Auerbakh, “Vospomianiia o nachale razvitiia kamennougol'noi promyshlennosti v Rossii,” *Russkaia starina*, vol. 138 (1909), 455–6; for the bidding war see Kislinkii, *Nasha zheleznodorozhnaia politika*, vol. 2, 235–7.
- 97 G.N. Karaev, *Vozniknovenie sluzhby voennykh soobshchenii na zheleznykh dorogakh Rossii (1851–1878)* (Moscow, 1949), 104. In the long run, the line was extremely costly. In addition to a large monetary “reward” paid to Poliakov for his patriotic effort, the line required extensive reconstruction after the war.
- 98 Steven G. Marks, *Road to Power: The Trans-Siberian Railroad and the Colonization of Asian Russia, 1850–1917* (London, 1991).
- 99 Kislinkii, *Nasha zheleznodorozhnaia politika*, vol. 4, 228.

- 100 A.A. Keppen, *Materialy dlia istorii rel' sovogo proizvodstva v Rossii* (St Petersburg, 1899).
- 101 *Trudy vysochaishe uchrezhdennoi Komissii dlia issledovaniia zheleznodorozhnogo dela Rossii* (St Petersburg, 1879), vol. 1, pt. 1, 6–8, 10.
- 102 *Ibid.*, 31, 39, 46–7.
- 103 Solov'eva, *Zheleznodorozhnyi transport*, 120.
- 104 M.Kh. Reutern, *Biograficheskii ocherk* (St Petersburg, 1910), 155.
- 105 Del'vig, *Vospominaniia*, vol. 4, 246–47.
- 106 Anthony John Heywood, "Friend or Foe? 'General Winter' and Tsarist Russia's War Effort, 1914–1917," paper delivered at the international conference on Russia in the First World War, Moscow, 3 June 2014.

9 Patronage and Professionalism: The Witte System

- 1 For a theoretical introduction to the problem see S.N. Eisenstadt and L. Ronégel, *Patrons, Clients and Friends: Interpersonal Relations and the Structure of Trust in Society* (Cambridge, 1984), esp. 48–9.
- 2 Brenda Meehan-Waters, *Autocracy and Aristocracy: The Russian Service Elite of 1730* (New Brunswick, NJ, 1982).
- 3 Daniel Orlovsky, "Political Clientism in Russia: The Historical Perspective," in T.H. Rigby and Bohan Harasymiew, eds., *Leadership Selection and Patron – Client Relations in the USSR and Yugoslavia* (London, 1983), 177–80.
- 4 The persistence of patronage or clientele networks in modern Russian administration has been curiously neglected. In a pioneering work on the Russian bureaucracy edited by Walter M. Pintner and Donald Karl Rowney, *Russian Officialdom: The Bureaucratization of Russian Society from the Seventeenth to the Twentieth Century* (Chapel Hill, 1980), patronage is mentioned only once and in a footnote at that (p. 34n). There are some suggestive if random comments on patronage in Dominic Lieven, *Russia's Rulers under the Old Regime* (New Haven, 1989), 129–35. The role of personal favouritism at the provincial level has attracted more attention. W.E. Mosse, "Russian Provincial Governors at the End of the Nineteenth Century," *Historical Journal* 27 (1984), 225–39; and Richard G. Robbins, Jr, "Choosing the Russian Governors: The Professionalization of the Gubernatorial Corps," *Slavic and East European Review* 28 (1980), 41–60, although he does not develop these insights in his subsequent monograph, *The Tsar's Viceroys: Russian Provincial Governors in the Last Years of the Empire* (Ithaca, 1987), 21–3.
- 5 A.G.K. "Ministerstvo finansov," in F.A. Brokgaus and I.A. Efron, eds., *Entsiklopedicheskii slovar'*, 83 vols. (St Petersburg, 1890–1906), vol. 37, 367.

- 6 H. Torke, "Das russische Beamtentum in der ersten Hälfte des 19. Jahrhunderts," *Forschungen zur osteuropaischen Geschichte* 13 (1967), 2.
- 7 Theodor von Laue, "Factory Inspection under the 'Witte System,' 1892–1903," *American Slavic and East European Review* 19 (1960), 347–62.
- 8 Alfred J. Rieber, *Merchants and Entrepreneurs in Imperial Russia* (Chapel Hill, 1982), 105.
- 9 I.F. Gindin, *Gosudarstvennyi bank i ekonomicheskaiia politika tsarskogo pravitel'stva (1861–1892 gg.)* (Moscow, 1960), chaps. 4–6.
- 10 *Ibid.*, 104–10.
- 11 V.P. Bezobrazov, *Ural'skoe gornoe khoziaistvo* (St Petersburg, 1867), 9.
- 12 Roderick McGrew, "Dilemmas of Development: Baron Heinrich Friedrich Storch (1766–1835) on the Growth of Imperial Russia," *Jahrbücher für Geschichte Osteuropas* 24, no. 1 (1976), 37–67; Jacob W. Kipp, "M. Kh. Reutern on the Russian State and Economy: A Liberal Bureaucrat on the Crimean War," *Journal of Modern History* 47, no. 3 (1975), 439–69.
- 13 See, in particular, I.F. Gindin, "Russia's Industrialization under Capitalism as Seen by Theodore von Laue," *Soviet Studies in History*, (1972), no. 2, 6ff.
- 14 E.I. Lamanskii, "Iz vospominanii Evgeniia Ivanovicha Lamanskogo, 1840–1890," *Russkaia starina* 161 (1915), 74–5.
- 15 V.P. Bezobrazov, *O znachenii nauki dlia obrazovaniia dolzhnostnykh lits v gosudarstvennom upravleniakh* (St. Petersburg, 1878), 4–8.
- 16 V.N. Kokovtsov, *Iz moego proshlogo*, 2 vols. (Paris, 1933), vol. 1, 191.
- 17 Cf. Henry Ehrmann, "Interest Groups and the Bureaucracy in Western Democracies," in Reinhard Bendix, ed., *State and Society* (Berkeley, 1968).
- 18 Richard Wortman, *The Development of Russian Legal Consciousness* (Chicago, 1976), 234.
- 19 *Trudy Obshchago s"ezda, sozvoannago Predsedatelem Kommissii v dekabre 1881 goda dlia obsuzhdeniia proekta "Obshchago Ustava Rossiiskikh zheleznykh dorog,"* 6 vols. (St Petersburg, 1882), illustrates how the three men dominated the discussions, intervening frequently to propose amendments to the draft legislation that favoured private railroad administration. See, for example, vol. 1, 19–20, 22, 23, 29–31, 32, 41, 43, 62, 82, 93–7, 105, (Vyshnegradskii); 17, 18–19, 21–2, 26–8, 34, 35, 36, 38, 42, 44–5, 49, 50, 63, 97 (Bliokh); 22, 23, 24, 32, 33, 41, 61–2, 76, 102, 103, 119, 123–4, 150–1 (Witte).
- 20 *Ibid.*, vol. 1, 17–24, 84–7.
- 21 B.V. Anan'ich and R.Sh. Ganelin, *Sergei Iul'evich Vitte i ego vremia* (St Petersburg, 1999), 47–54, quotation on 54.
- 22 *Ibid.*, 60.

- 23 Anton Fedyashin, "Witte and the Press: A Study in Careerism and Statecraft," *Kritika. Explorations in Russian and Eurasian History* 14, no. 3 (Summer 2013), 507–34.
- 24 P.A. Zaionchkovskii, *Pravitel' stvennyi apparat samoderzhavnoi Rossii v XIX v.* (Moscow, 1978), 103–04; L.E. Shepelev, *Tsarizm i burzhuaziia vo vtoroi polovine XIX v.* (Leningrad, 1981), 211–12.
- 25 Harley D. Balzer, "The Engineering Profession in Imperial Russia," in Balzer, ed., *Russia's Missing Middle Class: The Professions in Russian History* (Armonk, NY, 1996), 55–61, and Harley D. Balzer "Public-Private Partnership in Russian Education: Historical Models and Lessons," in Marsha Siefert, ed., *Extending the Borders of Russian history: Essays in Honor of Alfred J. Rieber* (Budapest, 2003), 458–70.
- 26 George Yaney, *The Systematization of Russian Government* (Champaign, IL, 1973), 364–5.
- 27 B.V. Anan'ich, *Rossia i mezhdunarodnyi kapital, 1897–1914* (Leningrad, 1970), 27–8.
- 28 S.Iu. Vitte [Witte], *Vospominaniia*, 3 vols. (Moscow, 1960), vol. 1, 103–4.
- 29 *Ibid.*, 55–6.
- 30 Witte was correct about the first point but wrong about the second. Antonovich and he quarrelled over a personal matter and the embittered "old professor" returned to Kiev, where he slowly sank into obscurity. See A.V. Sidorov, "V Kieve. Iz vospominanii byvshego tsenzora," *Golos minuvshogo* 7–8 (1918), 134–40.
- 31 Vitte, *Vospominaniia*, vol. 1, 167–73, 211–12.
- 32 *Ibid.*, 540–41, n. 76.
- 33 *Ibid.*, 256–7, 259; vol. 2, 24–7.
- 34 Shepelev, *Tsarizm*, 201.
- 35 Frank Wcislo, *Tales of Imperial Russia: The Life and Times of Sergius Witte, 1849–1915* (Oxford, 2011), 146.
- 36 David M. McDonald, *United Government and Foreign Policy in Russia* (Cambridge, MA, 1992), 19–30, 78–92, limits his analysis to Witte's "Kingdom in the Far East."
- 37 Steven G. Marks, *Road to Power: The Trans-Siberian Railroad and the Colonization of Asian Russia, 1850–1917* (London, 1991), 80–1, 92, 96, and 101–3; and A.V. Remnëv, *Samoderzhaonoe pravitel' stvo. Komitet ministrov v sistme vyshego upravleniia Rossiiskoi imperii (vtoraia polovina XIX-nachalo XX veka)* (Moscow, 2010), 293–318 provides additional archival material.
- 38 Ekaterina Pravilova, *Finansy imperii. Dengi i vlast' v politika Rossii na natsional' nakh okrainov, 1801–1917* (Moscow, 2006), esp. 368–9.

- 39 B.A. Romanov, *Rossia v Man'chzhurii (1892–1906)* (Leningrad, 1928), 13–14, 90–4; and A.L. Narochnitskii, *Kolonial'naia politika kapitalisticheskikh derzhav na Dal'nem Vostoke, 1880–1895* (Moscow, 1956), 791–2.
- 40 B.V. Anan'ich, *Rossiiskoe samoderzhavie i vyvoz kapitalov, 1895–1914* (Leningrad, 1975), 8–9.
- 41 *Ibid.*, 14–28.
- 42 Vitte, *Vospominaniia*, vol. 2, 112–13, 281. Witte claimed credit for having Lamzdorf appointed minister; *ibid.*, 177 and his memoirs frequently mention their close relations. For their cooperation in designing a Far Eastern policy in 1900 see B.A. Romanov, *Ocherki diplomaticheskoi istorii russko-iaponskoi voiny, 1895–1907* (Moscow-Leningrad, 1955), 120–33. Lamzdorf's diaries are by contrast disappointingly sparse in revealing his personal relations with Witte. V.N. Lamzdorf, *Dnevnik, 1894–1896*, trans. and ed. V.I. Bovykin (Moscow, 1991), but see 397–8.
- 43 Vitte, *Vospominaniia*, vol.1, 210, 348, 365; vol. 3, 121.
- 44 Kokovtsov, *Iz moego proshlogo*, vol. 1, 207–9.
- 45 Vitte, *Vospominaniia*, vol. 3, 246.
- 46 I.F. Gindin, "Bankovskie monopoli v Rossii nakanune velikoi otkiabr'skoi sotsialisticheskoi revoliutsii," *Istoricheskie zapiski* (Moscow 1966), vol. 66, 49ff.
- 47 V.I. Gurko, *Facts and Figures of the Past* (Stanford, 1939), 531.
- 48 As Sharon Kettering has noted, "clientelism does not have to develop in an evolutionary continuum." Kettering, "The Historical Development of Political Clientelism," *Journal of Interdisciplinary History* 18, no. 3 (Winter 1988), 423. It remained an operative form of political life in Russia down to the fall of the monarchy.
- 49 Anan'ich and Ganelin, *Sergei Iul'evich Vitte*, contains detailed biographies, but see esp. 134, 238–45.
- 50 For surveys of the second Witte experiment, see David M. McDonald, "United Government and the Crisis of Autocracy, 1905–1914," in Theodore Taranovski, ed., *Reform in Modern Russian History* (Cambridge, 1995), 190–211; Anan'ich and Ganelin, *Sergei Iul'evich Vitte*, pt. 4, and Remnëv, *Samoderzhaevnoe pravitel'stvo*, 438–86.

10 Social Identity and Political Will

- 1 For suggestive insights into paradoxes and social identity, see Kenwyn K. Smith and David N. Berg, *Paradoxes of Group Life* (San Francisco, 1987).
- 2 For a review of the problem that is sensitive to the varieties of the historical literature, see Daniel Field, "Sotsial'nye predstavleniia v

- dorevoliutsionnoi Rossii,” in V.S. Diakin et al. eds., *Reformy ili revoliutsiia? Rossiia 1861–1917* (St Petersburg, 1992), 67–78.
- 3 For a stimulating examination of the “indeterminate social structure” of imperial Russia, see Elise Kimerling Wirtschafter, *Structures of Society: Imperial Russia’s ‘People of Various Ranks’* (DeKalb, IL, 1994).
 - 4 John Le Donne, *Ruling Russia: Politics and Administration in the Age of Absolutism, 1762–1796* (Princeton, 1984), esp. chap. 1. Le Donne himself admits that “the ruling class was not, then, a completely homogeneous body, socially, culturally or materially.” But he insists that its monopoly of political functions and its exclusive ownership of peasant labour justifies the use of the term ruling class. See also Le Donne, “The Russian Nobility as Ruling Class,” *Cahiers du monde russe et soviétique* 34 (January – June 1993), 1–2. The existence of a noble ruling class was unanimously endorsed by Soviet historians, but they were not in agreement over its dominant characteristics. The most sophisticated analysis was S.M. Troitskii, *Russkii absolutizm i dvorianstvo XVIII v.* (Moscow, 1974), which argued that the evolution of a ruling class involved two parallel and complementary processes: first, the embourgeoisement of the high nobility under the influence of serving in salaried offices and engaging in various forms of trade and industry, and, second, the ennoblement of the lower service ranks rising into the *dvorianstvo* on the basis of merit as personal or even hereditary nobles. He implies that an approximate balance had been reached in the contribution of each process to the formation of a new ruling class by the end of Catherine’s reign.
 - 5 Daniel Field, *The End of Serfdom: Nobility and Bureaucracy in Russia, 1855–1861* (Cambridge, MA, 1974), 40. Cf. P.A. Zaionchkovskii, *Otmena krepostnogo pravo v Rossii* 2nd ed. (Moscow, 1960), who first demonstrated in detail the divisions and confusion in the ranks of the *dvoriantsvo*, the majority of whom were so disoriented by the threat of reforms that they failed to understand that “reform was necessary for maintaining the rule of the *dvorianstvo* although in somewhat different form” (89).
 - 6 M.M. Safonov has noted that Alexander I was not secure on his throne until he gave up his initial plans for reform that would have infringed on the privileges of the *dvorianstvo*. *Problema reform v pravitel’svennoi politike Rossii na rubezhe XVIII i XIX vv.* (Leningrad, 1988).
 - 7 Marc Raeff, “The Russian Nobility in the 18th and 19th Centuries: Trends and Comparisons,” in Ivo Banac and Paul Bushkovitch, eds., *The Nobility in Russia and Eastern Europe* (New Haven, 1983). The absence in Russia of an autonomous feudal social structure has long been recognized as a serious hindrance to the development of the Russian nobility as an independent political force.

- 8 Michael Confino, "À propos de la notion de service dans la noblesse russe aux XVIIIe et XIXe siècles," *Cahiers du monde russe et soviétique*, 34 (January – June 1993), 1–2, 47–58.
- 9 Cf. Zaionchkovskii, *Otmena krepostnogo prava*, 88–99, and Field, *The End of Serfdom*, 9–21.
- 10 *Kratkii opyt' istoricheskogo izvestiia o Rossiiskom dvorianstve, izvoleden i sochenen iz Stepennykh, stateinykh chinovnykh i drugikh raznykh Rossiisko-istoricheskikh knig, s pokazaniem Rodonachal'nikov nekotorykh, v rodoslovnoi, Barkhatnoi nazvvaemoi, knigi pokazannykh rodov* (Moscow, 1804), 14–15.
- 11 M.E. Bychkova, *Rodoslovnye knigi XVI–XVII vv. kak istoricheskii istochnik* (Moscow, 1975), 177–8.
- 12 When Peter I attempted for the first time to bring together into a single social group all the fragmented social categories of Muscovite Russia, he gave them the name *shliakhestvo*, a polonized term mentioned for the first time in an *ukaz* of 1712. I.A. Porai-Kochits, *Ocherk istorii russkogo dvorianstva ot polovinykh IX do kontsa XVIII veka*, 862–1796 (St Petersburg, 1874), 119–20.
- 13 V.M. Kazbuzan, "Izmeneniia v chislennosti, udel'nom vese i razmeshchenii dvorianstva v Rossii v 1782–1858 gg.," *Istoriia SSR* 4 (1971), 158.
- 14 Prince M.M. Shcherbatov, *On the Corruption of Morals in Russia* (ed. and trans., with intro. and notes by A. Lentin) (Cambridge, 1969), 16–37 and 119–29.
- 15 A.I. Markevich, *Istoriia mestnichestva v Moskovskom gosudarstve v XV–XVII veke* (Odessa, 1888), 586–90.
- 16 N. Barsukov, "A. T. Kniazev. Trudoliubets proshlogo veka," *Russkii arkhiv* 23, no. 2 (1885), 473.
- 17 M.T. Iablochkov, *Istoriia dvorianskogo sosloviia v Rossii* (St Petersburg, 1876), 608.
- 18 A.B. Kamenskii, "Rossiiskoe dvorianstvo v 1767 godu (k probleme konsolidatsii)," *Istoriia SSSR*, 1990, no. 1, 58–77.
- 19 Brenda Meehan-Waters, *Autocracy and Aristocracy: The Russian Service Elite of 1730* (New Brunswick, NJ, 1982).
- 20 Robert E. Jones, *The Emancipation of the Russian Nobility, 1762–1785* (Princeton, 1973), 89.
- 21 Kamenskii, "Rossiiskoe dvorianstvo," 60–4. This interpretation infuriated Prince Shcherbatov; see Jones, *The Emancipation*, 150.
- 22 Kamenskii, "Rossiiskoe dvorianstvo," 66–8.
- 23 M.T. Beliavskii, *Odnodvortsy chernozemia: Po ikh nakazam v Ulozhennuiu komissiiu, 1767–1768 gg.* (Moscow, 1984), 32–3, 70–4, 112–14.
- 24 Kazbuzan, "Izmeneniia," 158.

- 25 Count Strojnowski, *Obusloviakh pomeshchikov s krest'ianami. Sochinenie Grafa Valeriana Streshemena Stroinovskogo, Grafstva Gorokhovskago Pomeshchika i Pol'skikh ordenov belago Orla i Sv. Stanislava Kavelera*, trans. V. Anastavich (Vilna, 1809).
- 26 *Polnoe sobranie zakonov Rossiiskoi imperii* (PSZ), series 1, 28936, 18 February 1822.
- 27 *Ibid.*, series 2, 4233, 1 January 1831; 5124, 30 January 1832; 9340, 25 June 1836; 16617, 15 March 1843.
- 28 B. Antonovich "Soderzhanie aktov ob okolichnoi shliakhte," in *O proiskhozhdenii shliakhetskikh rodov v iugo-zapadnoi Rossii. Izvoledcheno iz 1-go toma IV chasti Arkhiva Iugo-zapadnoi Rossii, izdannago Kievskoiu Kommissieiu dlia razbora drevnikh aktov* (Kiev, 1867), 1–4, 21, 41, 62.
- 29 M. Iuzefovich, "Predislovie," *ibid.*, vi–xii.
- 30 Zenon E. Kohut, "The Ukrainian Elite," in Ivo Banac and Paul Bushkovitch, eds., *The Nobility in Russia and Eastern Europe* (New Haven, 1983), 65–73.
- 31 A. Romanovich-Slavatinskii, *Dvorianstvo v Rossii ot nachala XVIII veka do otmeny krepostnogo prava*, 2nd ed. (Kiev, 1912), 108. He accepts the figure of 100,000, but it is convincingly challenged by Kohut, "The Ukrainian Elite," 86, n. 12. See also Iablochkov, *Istoriia*, 531–2.
- 32 PSZ, series 2, 7977, 20 March 1835.
- 33 Kohut, "The Ukrainian Elite," 84–5.
- 34 *Statisticheskie tablitsy Rossiiskoi imperii* (St Petersburg, 1863), vyp. 2, 267 and *Statisticheskii vremennik Rossiiskoi imperii* (St Petersburg, 1866), ser.1, vyp. 1, 40.
- 35 P.I. Savvaitov, "Obozrenie Kievskogo, Podolskogo, i Volynskogo gubernii, 1830–1850," *Russkii Arkhiv* 5 (1884), 13–15. See also Gary Hamburg, *Politics of the Russian Nobility, 1881–1905* (New Brunswick, NJ, 1984), 12.
- 36 Iablochkov, *Istoriia*, 618.
- 37 *Ibid.*, 582–3.
- 38 PSZ, series 2, 1834, 29 February 1828.
- 39 M.S. Lalaev, *Istoriicheskii ocherk voenno-uchebnykh zavedenii povedomstvennykh Glavnomu ikh upravleniiu. Ot osnovaniia v Rossii voennykh shkol do iskhoda pervogo dvadtsatiletiia tsarstvovaniia imperatora Aleksandra Nikolaevicha* (St Petersburg, 1880), 49.
- 40 A.A. Planson, *O dvorianstve v Rossii* (St Petersburg, 1893), 9–12.
- 41 L.V. Illiashevich, *Kratkii ocherk istorii Kharkovskogo dvorianstva* (Kharkov, 1885), 56, 59.
- 42 M.F. Rumiantseva, "Gosudarstvennaia sluzhba v period stanovleniia Rossiiskoi imperii," in T.G. Arkhipova, M.F. Rumiansteva, and A.S. Senin, eds., *Istoriia gosudarstvennoi sluzhby v Rossii, XVIII–XX veka* (Moscow 2000),

- 94–6, and A.S. Senin, “Gosudarstvennaia sluzhba v zolotoi veke Rossiiskoi imperii,” *ibid.*, 102–4.
- 43 PSZ, series 1, 16,611, 21 January 1788.
- 44 Iablochkov, *Istoriia*, 531.
- 45 *Ibid.*, 629–30.
- 46 *Ibid.*, 525.
- 47 PSZ, series 1, 11,751, 11 February 1763.
- 48 Isabel de Madariaga, *Russia in the Age of Catherine the Great* (New Haven, 1981), 87–8.
- 49 PSZ, series 1, 14,130, 24 February 1774.
- 50 “Vospominaniia Grigoriia Ivanovicha Filipsona,” *Russkaia Starina* 1883, no. 3, 86.
- 51 Romanovich-Slavatinskii, *Dvorianstvo*, 419–25, 433–5.
- 52 August von Haxthausen, *Studies on the Interior of Russia*, ed., with intro., S. Frederick Starr (Chicago, 1972), 206, 238–9, 254–7.
- 53 Romanovich-Slavatinskii, *Dvorianstvo*, 493–4, 499.
- 54 Iablochkov, *Istoriia*, 562.
- 55 PSZ, series 1, 409, 28 June 1786.
- 56 PSZ, series 1, 783, 13 November 1766. Coverage was extended to the Little Russian Provinces by the decree of 3 May 1783; PSZ, series 1, 15,724.
- 57 The most thorough treatment of Paul’s *dvorianstvo* policies remains the classic work of M.V. Klochkov, *Ocherki pravitel’svennoi deiatel’nosti vremeni Pavla I* (Petrograd, 1916), 481–500. However, see the criticisms of A. Korf, “Pavel I i dvorianstvo,” *Golos minuvshogo* 7 (1913), 5–18. Western literature has stressed the endeavours of Paul to challenge, though cautiously, the noble monopoly of state service by granting commoners a larger place in the state administration. Walter Pintner, “Social Characteristics of the Early Nineteenth Century Russian Bureaucracy,” *Slavic Review* 29 (September 1970), 429–43; John L.H. Keep, “Paul I and the Militarization of Government,” in Hugh Ragsdale, ed., *Paul I: A Reassessment of His Life and Reign* (Pittsburgh, 1979), 91–103.
- 58 Iablochkov, *Istoriia*, 568–72.
- 59 S.Ia. Borovoi, “Vospomogatel’nyi bank,” *Istoricheskie zapiski* 44 (1953), 206–30, overemphasizes the exploitative class character of the bank. Cf. Roderick McGrew, “The Politics of Absolutism: Paul I and the Bank of Assistance for the Nobility,” in Ragsdale, ed., *Paul I*, 104–24.
- 60 Roderick E. McGrew, “Paul I and the Knights of Malta,” in Ragsdale, ed., *Paul I*, 44.
- 61 Iablochkov, *Istoriia*, 596.
- 62 PSZ, series 1, 980, 15 August 1801.

- 63 Iablochkov, *Istoriia*, 596, 602–5.
- 64 See, for example, Hans-Joachim Torke, “Das russische Beamtentum in der ersten Hälfte des 19. Jahrhunderts,” *Forschungen zur osteuropäischen Geschichte*, 13 (1967), esp. 101–32; Walter M. Pintner and Don Karl Rowney, eds., *Russian Officialdom: The Bureaucratization of Russian Society from the Seventeenth to the Twentieth Century* (Chapel Hill, 1980); W. Bruce Lincoln, *In the Vanguard of Reform: Russia’s Enlightened Bureaucrats, 1825–1861* (De Kalb, IL, 1982); John A. Armstrong, *The European Administrative Elite* (Princeton, 1973); V.R. Leikina-Svirskaiia, “Formirovanie raznochinskoi intelligentsiia v Rossii v 40-kh godakh XIX v. *Istoriia SSSR*, 1958, 83–104; N.N. Efremova, *Ministerstvo iustitsii rossiiskoi imperii, 1802–1917* (Moscow, 1983), esp. 20–63; Marc Raeff, *Michael Speransky: Statesman of Imperial Russia, 1772–1839* (The Hague, 1957); Raeff, *Origins of the Russian Intelligentsia: The Eighteenth Century Nobility* (New York, 1966) and the critique in Michael Confino, “Histoire et psychologie: À propos de la noblesse russe au XVIIIe siècle,” in Confino, *Société et mentalités collective en Russie sous l’ancien régime* (Paris, 1991); George L. Yaney, *The Systematization of Russian Government: Social Evolution in the Domestic Administration of Imperial Russia, 1711–1905* (Urbana, 1978); P.A. Zaionchkovskii, *Pravitel’svoennyi apparat samoderzhavnoi Rossii v XIX v.* (Moscow, 1978).
- 65 PSZ, series 2, 5285, 10 April 1832.
- 66 Alfred J. Rieber, *Merchants and Entrepreneurs in Imperial Russia* (Chapel Hill, 1983), 36–7.
- 67 PSZ, series 2, 209, 5 June 1850.
- 68 Kabuzan, *Izmeneniia*, 160–1.
- 69 PSZ, series 2, 3598, 19 April 1830; 3615, 20 April 1830.
- 70 *Istoricheskii ocherk voenno-uchebnykh zavedenii*, 53–4.
- 71 *Ibid.*, 18–19.
- 72 *Ibid.*, 58–9.
- 73 *Ibid.*, 88–9.
- 74 Dietrich Beyrau, “La formation du corps des officiers russes au XIXe siècle: De la ‘militarisation à la professionnalisation,’” *Cahiers du monde russe et soviétique* 19, no. 3 (1978), 309.
- 75 M.D. Kurmacheva, “Problemy obrazovaniia i ulozhennoi kommissii 1767 g. Dvorianstvo i krepostnoi stroi Rossii XVI–XVIII vv.,” in *Sbornik posviashchennyi pamiati A.A. Novosel’skogo* (Moscow, 1975), 240–64.
- 76 K. Zendengorst, “Pervyi Kadetskii korpus v 1813–1825,” *Russkaia Starina* (RS) 24, no. 2 (1879), 305.
- 77 V. von Bool, “Vospominaniia pedogoga,” *RS*, no. 2 (1904), 224.
- 78 “Posmertnye zapiski Alekseia Alekseevicha Odintsova,” *RS*, 64, no. 2 (1889), 295.

- 79 Zendengorst, "Pervyi Kadetskii Korpus," 306; "Posmertnye Zapiski Odintsova," 302–3.
- 80 Zendengorst, "Pervyi Kadetskii Korpus," 312–13.
- 81 "Vospominaniia G. I. Filipsona," *Russkii arkhiv* (RA), 1883, no. 3, 105–6.
- 82 G.D. Shcherbachev, *Idealy moei zhizni, Vospominaniia iz vremen tsarstvoovaniia imperatora Nikolaia I-go i Aleksandra II-go*. (Moscow, 1895), 11–12.
- 83 Zendengorst, "Pervyi Kadetskii," 310–11; "Posmertnye Zapiski Odintsova," 302; von Bool, "Vospominaniia," 620–7; A.F. Petrushevskii, "Iz moikh vospominanii v kadetskom korpuse," *RS* 129, no. 1 (1907), 136ff.; G.D. Shcherbachev, "Dvenatsat' let molodosti. Vospominaniia," *RA*, 1890, no. 1, 87–8.
- 84 Von Bool, "Vospominaniia," 629–30.
- 85 *Ibid.*, 214–15. See also M.M. Rot, "Iz vospominanii starogo kadeta o Gosudare Imperatore Nikolae Pavloviche," *RS* 151, no. 8 (1912), 255–49, and "Vospominaniia byvshago vospitanika 2-go Kadetskago korpusa," *Voennyi sbornik*, 20, no. 7, (August 1892), 162–4.
- 86 Shcherbachev, *Idealy*, 271–2. To be sure, there were also those who deplored the decline in traditions and discipline that followed the educational reforms introduced by Miliutin. Von Bool, "Vospominaniia," 296–7, 302.
- 87 Shcherbachev, *Idealy*, 62. See also Von Bool, "Vospominaniia," 290–2.
- 88 Shcherbachev, "Dvenadtsat' let molodosti," 85.
- 89 M.A. Markov, "Vospominaniia starogo invalida," *RS* 68, no. 1 (1890), 99.
- 90 "Vospominaniia Filipsona," 109.
- 91 Prince N.K. Imeretinskii, "Iz zapisk starogo preobrazhentsa," *RS* 70, no. 4 (1893), 22–3; no. 5, 43–48; 77, no. 3 (1901), 560–9.
- 92 "Vospominaniia Filipsona," 75–81.
- 93 *Byt' russkogo dvorianina v raznykh epokhakh i obstoiatel'stvakh ego zhizni: Iz Avtorov semeistvo Kholmsskikh* (Moscow, 1851), 190–1.
- 94 A.S.Z. *Sovremennye voprosy: Sobranie statei pomeshchika A.S.Z.* (St Petersburg, 1858), 1–7, 117–18.
- 95 For statistics on serf owners, see A.G. Troinitskii, *Krepostnoe naselenie v Rossii po 10-ii narodnoi perepisi* (St Petersburg, 1861), 67; another 2 per cent owned an additional 14 per cent of revision souls. On economic activities see V.A. Fedorov, *Pomeshchich'i krest'iane tsentral'no-promyshlennogo raiona Rossii kontsa XVIII-pervoi polovine XIX v.* (Moscow, 1974), 186–90.
- 96 Michael Confino, *Systèmes agraires et progrès agricoles. L'assolement triennal en Russie aux XVIIIe–XIXe siècles* (Paris, 1969), 275, 302–29.
- 97 Michael Confino, "Les enquêtes économiques de la société libre d'économie de St. Petersburg (1765–1820)," in Confino, *Société et mentalités*, 257–8. The society ceased publishing its *Trudy* in 1820.

- 98 A.P. Perepelkin, comp., *Istoricheskaia zapiska ob uchrezhdenii imperatorskogo Moskovskogo sel'skogo khozaistva i vospominaniia o deistviakh i deiateliakh obshchestva za istekshee semidesiatipiatiletie s 20-go dekabria 1820 goda po 20-e dekabria 1895 goda* (Moscow, 1895), 4–6.
- 99 *Ibid.*, 69.
- 100 Cf. I.A. Khristoforov, “Aristokraticheskaia” *oppozitsiia Velikim Reformam, konets 1850-seredina 1870-x gg.* (Moscow, 2002), 35: “The passive role of the nobility [on the eve of the reforms] was predetermined as much by the socio-economic diversity of the *soslovie* and the absence of a unified ideological platform as by the impossibility of self-organization under conditions when the ruling power could decisively change the announced principles of reform.”
- 101 M.D. Dolbilov, “Soslovnaia programma dvorianskikh ‘oligarkhov’ v 1850–1860-x godakh,” *Voprosy istorii* 6 (2000), 32–52.
- 102 E.A. Efimova, “Aleksei Mikhailovich Unkovskii,” in *Velikaia reforma: Russkoe obshchestvo i krestian'skii vopros v proshlom i nastoiashchem*, 6 vols. (Moscow, 1911); see also Michael Confino, “Les projets de réforme de la noblesse (1855–1858),” in Confino, *Société et mentalités*, 35.

11 The Sedimentary Society

- 1 A.V. Remnev, *Samoderzhavnoe pravitel'stvo: Komitet ministrov i sisteme vysshego upravleniia Rossiiskoi imperii (vtoraia polovina XIX-nachalo XX veka)* (Moscow, 2010).
- 2 D.A. Korsakov, “Pervye gody moego znakomstva s K. D. Kavelinom, 1861–1864 gg.,” *Vestnik Evropy*, 1886, no. 10, 745–6.
- 3 The phrase and the concept, both enormously influential in Russian historiography, belong to S.M. Solov'ev. See especially his *Istoriia Rossii s drevneishikh vremen*, 2nd ed., 29 vols. (St Petersburg, n.d.), vol. 1, 762–91.
- 4 Alison K. Smith, *For the Common Good and Their Own Well-Being* (New York, 2014), 2–3, 14–15, 30–2, 64–70, 101–2, and *passim*.
- 5 P.N. Miliukov, *Ocherki po istorii russkoi kultury*, 5th ed., 4 vols. (St Petersburg, 1904), vol. 1, 133–4; Miliukov, *Istoriia vtoroi russkoi revoliutsii*, 2 vols. (Sofia, 1921), vol. 1, 12–17.
- 6 For example, Jane Burbank, *Russian Peasants Go to Court: Legal Culture and Citizenship in the Russian Empire* (Bloomington, IN, 2004); Elise Kimerling Wirtschafter, “Social Misfits: Veterans and Soldier Families in Servile Russia,” *Journal of Military History* 59, no. 2 (April 1995), 15–35; Christine Worobec, *Possessed: Women Witches and Demons in Imperial Russia* (De Kalb, IL, 2001).

- 7 Yanni Kotsonis, "Regionalism and Revolution in North Russia, 1917–1918," (unpublished M.A. thesis, Columbia University, 1988), 4, 10; A.F. Gilferding, *Onezhskie byliny* (St Petersburg, 1871), xi–xiii, xviii, xxiii, xlii; I. Bartenev and B. Fedorov, *Arkhiteturnye pamiatniki russkogo severa* (Leningrad/Moscow, 1968).
- 8 But see Elise Kimerling Wirtschafter, *Structures of Society: Imperial Russia's "People of Various Ranks"* (DeKalb, IL, 1994), 7, 21, 25–32, 79–83, 86–9, 100–4; Daniel Orlovsky, "The Lower Middle Strata in Revolutionary Russia," in Edith Clowes et al., eds., *Between Tsar and People: Educated Society and the Quest for Public Identity in Late Imperial Russia* (Princeton, 1991), 248–70; and Manfred Hildermeir, "Was war das Mescanstvo?" *Forschungen zur osteuropäischen Geschichte* 36 (1985), 15–53.
- 9 A vivid portrait of these differences emerges in Reginald E. Zelnik, ed., *A Radical Worker in Tsarist Russia: The Autobiography of Semon Ivanovich Kanatchikov* (Stanford, 1986).
- 10 E.A. Borisova and T.P. Kazhdan, *Russkaia arkhitektura kontsa XIX-nachala XX veka* (Moscow, 1971), 29–30, 102–3, and passim; A.L. Nekrasov, *Russkoe narodnoe iskusstvo* (Moscow, 1924); B.V. Asafev (Igor Glebov), *Russian Music from the Beginning of the Nineteenth Century* (1930), trans. Alfred Swann (Ann Arbor, 1955), 78; Appolon Grigor'ev, "Russkie narodnye pesni s ikh poeticheskoi i muzykal'noi storony," in *Sochineniia* (New York, 1970), vol. 1, 359–64; Anthony Netting, "Images and Ideas in Russian Art," *Slavic Review* 35, no. 1 (March 1976), 52; cf. Wladimir Weidlé, *Russia, Absent and Present* (London, 1952), 20–1.
- 11 Paul M. Austin, "The Exotic Prisoner in Russian Romanticism," *Russian Literature* no. 16 (1984), 217–74; Susan Layton, "The Creation of an Imaginative Caucasian Geography," *Slavic Review* 45, no. 3 (Fall 1986), 470–85; Thomas M. Barrett, "The Limits of Radicalism: Imperialism, National Identity and the Journalism of the Left under Alexander II," paper delivered at conference on pre-modern and modern national identity (University of London, 1988).
- 12 L.V. Evdokimov, "Belyi general M.D. Skobelev v narodnykh skazaniakh," *Voенно-istoricheskii sbornik* 2 (1911), 33–60; David Mackenzie, *The Lion of Tashkent* (Athens, GA, 1974), 240; Donald Rayfield, *The Dream of Lhasa: The Life of Nikolay Przhevalsky (1839–1888), Explorer of Central Asia* (London, 1976) is a popular biography but captures the imperialist flavour; W. Bruce Lincoln, *Petr Petrovich Semenov Tian-Shanskii: The Life of a Russian Geographer* (Newtonville, MA, 1980), esp. 24–7.
- 13 D.A. Skalon, ed., *Stoletie voennago ministerstva. 1802–1902. Konspekty istoricheskikh ocherkov* (St Petersburg, 1906), 964; A. Margulan, "Ocherk

- zhizni i deiatel'nosti Ch. Ch. Valikhanova," in Ch.Ch. Valikhanov, *Sobranie sochinenii v piati tomakh* (Alma-Ata, 1984), vol. 1, 22–4, 29, 72–6.
- 14 M.M. Shtrange, *Demokraticheskaia intelligentsiia Rossii v XVIII veke* (Moscow, 1965).
- 15 V.P. Leikina-Svirskaiia, *Intelligentsiia v Rossii vo vtoroi polovine XIX veka* (Moscow, 1971), 27ff.
- 16 "S. S. Lanskoii," in *Russkii biograficheskii slovar'* 28 vols. (St Petersburg, 1914), vol. 10, 71; E.M. Feoktistov, *Za kulissimi po politiki i literatury, 1848–1896* (Leningrad, 1929), 358, n. 13; S.Iu. Witte, *Vospominaniia*, 3 vols. (Moscow, 1960), vol. 1, 211.
- 17 David Macey, *Government and Peasant in Russia, 1861–1906* (De Kalb, IL, 1987); Ben Ekloff, *Russian Peasant Schools: Officialdom, Village Culture and Popular Pedagogy, 1861–1914* (Berkeley, 1986), esp. chap. 5.
- 18 The attitudes of professional groups can best be savoured in the petitions published by the liberal law journal *Pravo* in the first half of 1905. For physicians, see Nancy M. Frieden, *Russian Physicians in an Era of Reform and Revolution* (Princeton, 1981); for doctors and lawyers, Elisa M. Becker, *Medicine, Law, and the State in Imperial Russia* (Budapest, 2010); for the technical intelligentsia, Kendall Bailes, *Technology and Society under Lenin and Stalin: Origins of the Soviet Technical Intelligentsia, 1917–1941* (Princeton, 1978), chap. 1. See also N.M. Pirumova, *Zemskaiia intelligentsiia i ee rol' v obshchestvennoi bor'be do nachala XX v.* (Moscow, 1986); and the studies in Harley M. Balzer, ed., *Russia's Missing Middle Class: The Professions in Russian History* (Armonk, NY, 1996).
- 19 A.V. Predtechenskii, *Ocherki obshchestvenno-politicheskoi istorii Rossii v pervoi chetverti XIX veka* (Moscow / Leningrad, 1957), chap. 8; N.S. Kiniapina, *Politika russkogo samoderzhaviiia v oblasti promyshlenosti (20-50-e gody XIX v.)* (Moscow, 1968); Walter MacKenzie Pintner, *Russian Economic Policy under Nicholas I* (Ithaca, NY, 1967).
- 20 I.F. Gindin and L.E. Shepelev each in his own way have stressed the continuity of economic policy and industrial growth from the 1860s forward. See I.F. Gindin, *Gosudarstvennyi bank i ekonomicheskaiia politika tsarskogo pravitel'stva (1861–1892 gody)* (Moscow, 1960) and L.E. Shepelev, *Tsarizm i burzhuaziia vo vtoroi polovine XIX veka* (Leningrad, 1981).
- 21 Richard Wortman, "Invisible Threads: The Historical Imagery of the Romanov Tercentenary," *Russian History* 16, nos. 2–4 (1989), 389–408.
- 22 A leading Octobrist deputy of the Duma, N.V. Savich, confided to a correspondent in June 1913 the reasons for his support of a reform of voting procedures in the provincial zemstvos: "The State Duma has not sunk firm roots in the localities by way of social institutions and

- organizations which reflect the genuine aspirations and interests of those classes of the population which nominate and elect its deputies. It is necessary to reconstruct the zemstvos on the basis of class [as opposed to *soslovie*] representing true material interests." This meant, he continued, "to eliminate the indication of *soslovie* for dividing electoral curia." Letter of N.V. Savich to K.E. Lindeman, 5 June 1913, in V.V. Shelokhaev, ed., *Predstavitel'nye uchrezhdeniia Rossiiskoi imperii v 1906–1917 gg. Materialy perliustratsii Departamenta politsii* (Moscow, 2014), 371–2.
- 23 Gregory L. Freeze, "The *Soslovie* (Estate) Paradigm and Russian Social History," *American Historical Review* 91, no. 1 (February 1986), 11–36; Frank Wcislo, *Reforming Rural Russia: State, Local Society and National Politics, 1855–1914* (Princeton, 1990).
- 24 A.P. Korelin, "Dvorianstvo v preformennoi Rossii (1861–1904 gg.)," *Istoricheskii zapiski* 87 (1971), 172; A.M. Anfimov, *Krupnoe pomeshchich'e khozaistvo Evropeiskoi Rossii (konets XIX-nachalo XX veka)* (Moscow, 1969), 285.
- 25 Leopold H. Haimson, "Conclusion: Observations on the Politics of the Russian Countryside (1905–14)," in Haimson, ed., *The Politics of Rural Russia, 1905–1914* (Bloomington, 1979), 263.
- 26 Alfred J. Rieber, "Alexander II: A Revisionist View," *Journal of Modern History* 13, no. 1 (March 1971), 42–58.
- 27 Eugene D. Vinogradoff, "The Russian Peasantry and ad hoc Elections to the Fourth Duma," in Haimson, *Politics*, 245–6.
- 28 Victoria Bonnell, *Roots of Rebellion* (Berkeley, 1984); Tim McDaniel, *Autocracy, Capitalism and Revolution in Russia* (Berkeley, 1988), esp. chaps. 8, 11.
- 29 K.D. Kavelin, "Osnovnye nachala russkago sudoustroistva i grazhdanskago sudoustroistva v period vremeni ot Ulozheniia do uchrezhdeniia o guberniiaxh," in *Sobranie Sochinenii. Etnografiia i pravovovedenie*, 4 vols. (St Petersburg, 1900), vol. 4, 209–10, 350–1.
- 30 N.P. Pavlov-Silvanskii, "Mneniia verkhovnikov o reformakh Petra Velikogo," *Sochineniia*, 2 vols. (St Petersburg, 1909–10), vol. 1, 375–9.
- 31 Richard Wortman, *The Development of a Russian Legal Consciousness* (Chicago, 1976), 43; see also Marc Raeff, *Michael Speransky, Statesman of Imperial Russia*, 2nd ed. (The Hague, 1969), 324.
- 32 E.H. Carr, *Socialism in One Country, 1924–1926*, 2 vols. (New York, 1958), vol. 1, 78–9.
- 33 Moshe Lewin, *The Making of the Soviet System* (New York, 1985), 49–56, 81–7.

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- 1 V.I. Semevskii, *Krest'iane v tsarstvovanie imperatritsy Ekateriny II*, 2 vols. (St Petersburg, 1881), vol. 1.
- 2 John W. Slocum, "Who and When, Were the *Inorodtsy*? The Evolution of the Category of 'Aliens' in Imperial Russia," *The Russian Review* 57 (April 1998), 173–90, quotation on 175; Andreas Kappeler, *La Russie: Empire multiethnique* (Paris, 1994), 149–50.
- 3 A.M. Iakovi, "Inorodtsy," in F.A. Brokhaus and I.A. Efron, eds., *Entisklopedicheskii slovar'*, 83 vols. (St Petersburg, 1894), vol. 25, 224–5.
- 4 Daniel Orlovsky, "The Lower Middle Strata in Prerevolutionary Russia," in Edith W. Clowes, Samuel D. Kassov, and James L. West, *Between Tsar and People: Educated Society and the Quest for Public Identity in Late Imperial Russia* (Princeton, 1991), esp. 248–55. See also Manfred Hildermeir, "Was war das Mescanstvo?" *Forschungen zur osteuropäischen Geschichte*, 36 (Berlin, 1985), 15–53.
- 5 Daniel Field, "Sotsialnoe predstavlenie v dorevoliutsionnoi Rossii," in V.S. Diakin et al., eds., *Reformy ili revoliutsiia? Rossiia 1861–1917: Materialy mezhdunarodnogo kollokviuma istorikov* (St Petersburg, 1992), 67–78.
- 6 Gregory L. Freeze, "The *Soslovie* (Estate) Paradigm and Russian Social History," *American Historical Review* 91, no. 1 (1986), 11–36; Helju Aulik Bennett, "Chiny, Ordena i Officialdom," in Walter McKenzie Pintner and Don Karl Rowney, *Russian Officialdom: The Bureaucratization of Russian Society from the Seventeenth to the Twentieth Century* (Chapel Hill, NC, 1980), 162–89. Cf. Michel Confino, "The *Soslovie* (Estate) Paradigm : Reflections on Some Open Questions," *Cahiers du monde russe* 49, no. 4 (2008), 681–704, for a critique. For a broad interpretation that illuminates the effects of the *soslovie* system on individuals see Alison K. Smith, *For the Common Good and Their Own Well-Being: Social Estates in Imperial Russia* (New York, 2014), esp. chap. 4.
- 7 V.A. Nardova, "Organy gorodskogo samoupravleniia v sisteme samoderzhavnogo apparata vlasti v kontse XIX-nachale XX veka," in Diakin et al., *Reformy ili revoliutsiia?* 55–66.
- 8 S.E. Kryzhanovskii, *Vospominaniia. Iz bumagi S.E. Kryzhanovskogo, posledniago gosudarstvennogo sekretaria Rossiiskoi imperii* (Berlin, [1929?]), 18.
- 9 Boris Mironov with Ben Ekloff, *A Social History of Imperial Russia, 1700–1917*, 2 vols. (Boulder, CO, 2000), vol. 1, 272.
- 10 Elise Kimmerling Wirtschafter, *Structures of Society: Imperial Russia's 'People of Various Ranks'* (DeKalb, IL, 1994), 15–16 and *passim*.
- 11 Freeze, "The *Soslovie* Paradigm," 28, 33. See also Smith, *For the Common Good*, chap. 5.

- 12 Jeffrey Burds, “The Social Control of Peasant Labor in Russia and the Response of Village Communities to Labor Migration in the Central Industrial Region, 1861–1905,” in Esther Kingston-Mann and Timothy Mixter, *Peasant Economy, Culture and Politics of European Russia, 1800–1921* (Princeton, 1991), 85–6, and Yanni Kotsonis, *States of Obligation: Taxes and Citizenship in the Russian Empire and Early Soviet Republic* (Toronto, 2014), chap. 8.
- 13 Alfred J. Rieber, *Merchants and Entrepreneurs in Imperial Russia* (Chapel Hill, NC, 1982), 360–3.
- 14 Iu.B. Solov'ev, *Samoderzhavie i dvorianstvo v 1907–1914 gg.* (Leningrad, 1990), 276–82.
- 15 See, for example, I.V. Gessen and M.N. Gernet, *Istoriia russkoi advokatury*, 2 vols. (Moscow, 1916), vol. 1, *Soslovnaia organiatsiia advokatury*, 58–114, 179–250.
- 16 There is a large and disputatious literature on the proletarianization of peasants and peasantization of proletarians. But the mutual effects were obviously complex and varied greatly region by region and between generations.
- 17 Terence Emmons, *The Formation of Political Parties and the First National Elections in Russia* (Cambridge, MA, 1983), 173–4.
- 18 Andreas Kappeler, “The Ambiguities of Russification,” *Kritika. Explorations in Russian and Eurasian History* 5, no. 2 (Spring 2004), 291–8; Alexei Miller, “Russification or Russifications,” in Miller, *The Romanov Empire and Nationalism* (Budapest, 2008), 45–66.
- 19 Abraham Ascher, *The Revolution of 1905*, 2 vols. (Stanford, 1988–92), vol. 1, 152–62.
- 20 Peter Gattrell, *A Whole Empire Walking: Refugees in Russia during World War I* (Bloomington, 1999); Eric Lohr, *Nationalizing the Russian Empire: The Campaign against Enemy Aliens during World War I* (Cambridge, MA, 2003), 2, 24.
- 21 Eric Lohr, “The Ideal Citizen and Real Subject in Late Imperial Russia,” *Kritika* 7, no. 4 (Spring 2006), 173–94, and Elise Kimerling Wirtschafter, “Russian Legal Culture and the Rule of Law,” *Kritika* 7, no. 1 (Winter 2006), 61–70.
- 22 V.I. Lenin, *Polnoe sobranie sochineniia*, 3rd ed., 30 vols. (Moscow, 1936), vol. 16, 14. This concept was widely used by Soviet historians. See, for example, K.N. Tarnovskii, *Melkia promyshlennost' Rossii v kontse XIX – nachale XX veka* (Moscow, 1995). But it was also the centre of a long dispute in Soviet historical circles.
- 23 Alexander Gerschenkron, *Economic Backwardness in Historical Perspective: A Book of Essays* (Cambridge, MA, 1962), 5 and 16–21; John P. McKay,

- Pioneers for Profit: Foreign Entrepreneurship and Russian Industrialization 1885–1913* (Chicago, 1970); Daniel Chirot, *The Origins of Backwardness in Eastern Europe: Economics and Politics from the Middle Ages until the Early Twentieth Century* (Berkeley, 1991); Boris V. Anan'ich, "The Economic Policy of the Tsarist Government and Enterprise in Russia from the End of the Nineteenth through the Beginning of the Twentieth Century," in Gregory Guroff and Fred V. Carstensen, eds., *Entrepreneurship in Imperial Russia and the Soviet Union* (Princeton, 1983), 125–58.
- 24 Rieber, *Merchants*; Theodore H. Friedgut, *Iuzovka and Revolution*, 2 vols. (Princeton, 1989).
- 25 V.S. Diakin, *Burzhuaizii, dvorianstvo i tsarism: Razlozhenie tret'eiuskoi sistemy* (Leningrad, 1988).
- 26 *Trudy mestnykh komitetov o nuzhdakh sel'skokhozaistvennoi promyshlennosti*, vol. 33, *Moskovskaia guberniia* (St Petersburg, 1903), 9–11, 210–13, 227–33.
- 27 Peter Gatrell, *Government, Industry and Rearmament in Russia, 1900–1914: The Last Argument of Tsarism* (Cambridge, 1994).
- 28 Mark D. Steinberg, "Melancholy and Modernity: Emotions and Social Life in Russia between the Revolutions," *Journal of Social History* 4 (Summer 2008), 813–41, explores specific Russian features of the European-wide spiritual emotional crisis of modernity expressed in the public media, memoir literature, and *belles lettres*, assuming the proportions of a dangerous epidemic.
- 29 Moshe Lewin, *Russia/USSR/Russia: The Drive and Drift of a Superstate* (New York, 1995), chap. 2. Lewin illuminates the complexity of the social organization of the peasantry by noting three different types of communes, the wide variety of exposure to outside influences, and the stubborn persistence of cultural practices.
- 30 Kingston-Mann and Mixter, *Peasant Economy*, pt. 3.
- 31 For a regional example of this process see Burton Richard Miller, *Rural Unrest during the First Russian Revolution: Kursk Province, 1905–1906* (Budapest, 2013).
- 32 Teodor Shanin, *Roots of Otherness: Russia's Turn of Century*, 2 vols. (New Haven, 1985–6), vol. 2, *Russia, 1905–07, Revolution as a Moment of Truth*; Moshe Lewin, *The Making of the Soviet System: Essays in the Social History of Interwar Russia* (New York, 1985), 18, 43, 50, 268–9.
- 33 Eugene Vinogradov, "The Russian Peasant and the Elections to the Fourth Duma," in Leopold Haimson, ed., *The Politics of Rural Russia, 1905–1914* (Bloomington, 1979), 39–60.
- 34 Jeffrey Brooks, *When Russia Learned to Read: Literacy and Popular Literature 1861–1917* (Princeton, 1988).

- 35 Oliver Radkey, *The Unknown Civil War in Russia: A Study of the Green Movement in the Tambov Region, 1920–1921* (Stanford, 1976); V.I. Shishkin, *Siberskaia vandeï. Sibirskoe protivlenie kommunisticheskomy rezhimu 1920* (Novosibirsk, 1997); Orlando Figes, *Peasant Russia, Civil War: The Volga Countryside in Revolution, 1917–1921* (Oxford, 1989).
- 36 Victoria E. Bonnell, *Roots of Rebellion: Workers' Politics and Organizations in St Petersburg and Moscow, 1900–1914* (Berkeley, 1983), Leopold Haimson, *Russia's Revolutionary Experience, 1905. Two Essays* (New York, 2005), esp. 202–5, 226–7.
- 37 Seymour Becker, *Nobility and Privilege in Late Imperial Russia* (DeKalb, IL, 1985).
- 38 A.P. Korelin, *Dvorianstvo v poreformennoi Rossii, 1861–1904 gg.* (Moscow, 1979), 94–8, and A.M. Anfimov, *Krupnoe pomeschich'e khozaïstvo evropeiskoi Rossii* (Moscow, 1969).
- 39 Ivan Aksakov, *Sochinenie*, 6 vols. (Moscow, 1986–7), vol. 4, 34–45, 103–10.
- 40 K.A. Pappmehl, *Metropolitan Platon of Moscow (Peter Levshin, 1737–1812): The Enlightened Prelate, Scholar and Educator* (Newtownville, MA, 1983), 60, 76. In the 1880s, the reforming Orthodox priest I.S. Beliustin noted that the Old Belief was not declining as government statistics indicated, but on the contrary was rapidly spreading. *Description of the Clergy in Rural Russia: The Memoir of a Nineteenth Century Parish Priest, I.S. Beliustin*, trans., with an interpretive essay, Gregory Freeze (Ithaca, 1985). Konstantin Pobedonostsev feared that the Old Believer merchants planned to use their growing economic power to subvert the state; Robert Byrnes, *Pobedonostsev: His Life and Thought* (Bloomington, 1972), 323.
- 41 Theodore Weeks, *Nation and State in Late Imperial Russia: Nationalism and Russification on the Western Frontier, 1863–1914* (De Kalb, IL, 1996), chap. 9.
- 42 Aleksandr A. Safonov, "The Right of Freedom of Conscience and of Confession in Late Imperial Russian Public Discourse," *Russian Studies in History* 53, no. 1 (Winter 2012–13), 20–55; see also Peter Waldron, "Religious Toleration in Late Imperial Russia," in Olga Crisp and Linda Edmonson, eds., *Civil Rights in Late Imperial Russia* (Oxford, 1989), 118–19; Paul W. Werth, "Toward 'Freedom of Conscience': Catholicism, Law and the Contours of Religious Freedom in Late Imperial Russia," *Kritika: Explorations in Russian and Eurasian History* 7, no. 4 (Fall 2006), 843–63. For the sects, see A.I. Klibanov, *History of Russian Sectarianism in Russia (1860s–1917)* (Oxford, 1982).
- 43 G.P. Camfield, "The Pavlovtsy of Khar'kov Province, 1866–1905: Harmless Sectarians or Dangerous Rebels?" *Slavic and East European Review* 68, no. 4 (October 1990), 692–717, quotation on 716; Vatro Murvar, "Messianism

- in Russia: Religious and Revolutionary," *Journal for the Scientific Study of Religion* 10 (Winter 1971), 299–300, cites V. Bonch-Bruevich's estimate of 200 messianic sects in Russia. See also David G. Rowley, "'Redeemer Empire': Russian Millenarianism," *American Historical Review* 104, no. 5 (December 1999), 1582–1602.
- 44 Vera Shevzov, *Russian Orthodoxy on the Eve of Revolution* (Oxford, 2004), 258–9.
- 45 Gregory Freeze, "Church and Politics in Late Imperial Russia: Crisis and Radicalization of the Clergy," in Anna Geifman, ed., *Russia under the Last Tsar: Opposition and Subversion, 1897–1917* (Malden, MA, 1999), 269–97, and Freeze, "'Pious Folk?' Religious Observance in the Vladimir Diocese, 1900–1914," *Jahrbücher für Geschichte Osteuropas* 52 (2004), 323–40.
- 46 Paul R. Vallière, "The Idea of a Council in Russian Orthodoxy in 1905," in Robert Nichols and Theofanis George Stavrou, eds., *Russian Orthodoxy under the Old Regime* (Minneapolis, 1978), 192–3.
- 47 Richard Wortman, "The Invention of Tradition and the Representation of Russian Monarchy," *Harvard Ukrainian Studies* 28, nos. 1–4 (2006), 654.
- 48 Richard Wortman, *Scenarios of Power. Myth and Ceremony in Russian Monarchy*, 2 vols. (Princeton, 1995–2000), vol. 2, *From Alexander II to the Abdication of Nicholas II*, 236–37.
- 49 For the deviant role of the *starets* and the failure to integrate this tradition in the official Orthodox Church see Irina Paert, *Spiritual Elders: Charisma and Tradition in Russian Orthodoxy* (De Kalb, IL, 2010), esp. 16 and 76.
- 50 R. Uortman (Richard Wortman), "Nikolai II i obraz samoderzhavii," in *Reformy ili revoliutsiia?* 18–30.
- 51 Cited in Averekh, *Tzarism*, 45. See also V.I. Gurko, *Features and Figures of the Russian Past* (Stanford, 1939), 551, 560.
- 52 David MacLaren McDonald, *United Government and Foreign Policy in Russia, 1900–1914* (Cambridge, MA, 1992).
- 53 Mironov, *A Social History*, vol. 2, 31, notes that "state administration revealed an ever growing *vedomstvoennost'* – a self-serving preoccupation of each ministry with its own interests and needs."
- 54 See above, [chapter 10](#).
- 55 A.V. Remnev, *Samoderzhavnoe pravitel'stvo: Komitet ministrov i sisteme vysshego upravleniia Rossiiskoi imperii (vtoraia polovina XIX-nachalo XX veka)* (Moscow, 2010).
- 56 Kryzhanovskii, *Vospominaniia*, 205.
- 57 See the discussion in Andrew Verner, *The Crisis of Russian Autocracy: Nicholas II and the 1905 Revolution* (Princeton, 1990) and Richard Wortman, "The 'Integrity (*Tselost'*) of the State in Imperial Russian Representation," *Ab Imperio*, (2011), no. 2, 34–6.

- 58 Contemporary observers within and outside the bureaucracy agreed. Cf. member of the State Council A.A. Polovtsov, “Iz dnevnika A.A. Polovtsova,” *Krasnyi arkhiv* 3 (1929), 99, and Peter Holquist, “Dilemmas of a Progressive Administrator: Baron Boris Nolde,” *Kritika* 7, no. 2 (Spring 2006), 260, 262.
- 59 Quoted in A.Ia. Avrekh, *Tsarizm nakanune svozheniia* (Moscow, 1989), 83.
- 60 G. Shavel'skii, *Vospominaniia poslednogo protopresvitera russkoi armii i flota* (New York, 1954) gives a vivid portrait of this aspect of imperial rule.
- 61 Kryzhanovskii, *Vospominaniia*, 98–9.
- 62 Quoted in Avrekh, *Tsarizm*, 168–9.
- 63 Erzerskii, “Zadachi,” *Samoupravlenie*, (13 January 1907), no. 4.
- 64 A.P. Korelin, “Vvedenie,” *Osobnoe dvorianstvo. S"ezdy upolnomochennykh gubernskikh dvorianskikh obshchest*, 2 vols. (Moscow, 2001), vol. 1, 1906–1908 gg., 6.
- 65 For an analysis of the shift and the argument that the zemstvos were indifferent or hostile to the creation of a national Duma, see Robert Thompson Manning, “The Zemstvo and Politics, 1864–1914,” in Terence Emmons and Wayne Vucinich, eds., *The Zemstvo in Russia* (Cambridge, 1982), 133–76.
- 66 Francis William Wcislo, *Reforming Rural Russia: State, Local Society and National Politics, 1855–1914* (Princeton, 1990), 23, citing TsGIA, f. 1288, d. 9, l. 14.
- 67 Leopold Haimson, “Conclusion: Politics of the Countryside,” in Haimson, ed., *The Politics of Rural Russia* (Bloomington, 1979), 276, and Geoffrey A. Hosking and Roberta Thompson Manning, “What Was the United Nobility?” *ibid.*, 129–32 and 159–65.
- 68 Korelin, “Vvedenie,” 18–19.
- 69 V.A. Demin, *Verkhniaia palata Rossiiskoi imperii, 1906–1917* (Moscow, 2006), 129–31, 148–9, 156–7, 172, 176–9 and 184–6. The author concludes that State Secretary S.E. Kryzhanovskii had attempted to make of the State Council an independent and authoritative representative of the upper strata of the population. “However, the different elites of imperial Russian society (bureaucratic, agrarian, commercial-industrial, intellectual, religious) were splintered [*raobsheny*], at times even hostile to one another and most importantly their governance lacked full legitimacy in the eyes of the population. Therefore, the Russian landowners, distinctive from the British, were not recognized by the broad strata of the population as the natural ruling class. *Ibid.*, 249.
- 70 Letter of L.A. Velikhov to B.A. Velikhov, 15 May 1914 in V.V. Shelokhaev, ed., *Predstavleniye uchrezhdeniia Rossiiskoi imperii v 1906–1917 gg. Materialy perliustratsii Departamenta politzii* (Moscow, 2014), 400. Prince E.N. Trubetskoi shared with his Kadet colleague, M.V. Chelnokov, his fear of “anarchism” in the villages and the “serious danger” of nihilism promoted by the clergy

- in the Moscow region, while he noted mere “indifference” reigned in the deep countryside. Letter of Prince E.N. Trubetskoi to M.V. Chelnokov, 3 January 1914, *ibid.*, 378.
- 71 Leopold Haimson, “The Russian Peasantry and the Elections to the Fourth Duma,” in Haimson, ed., *The Politics of Rural Russia*, 219–60. Cf. Barbara Walker, *Maximilian Voloshin and the Russian Literary Circle: Culture and Survival in Revolutionary Times* (Bloomington, IN, 2005), 10–12, for suggestive comments drawing on the work of Victor Turner, *The Ritual Process: Structure and Anti-Structure* (Chicago, 1968).
- 72 Iu.I. Kir’ianov, “Vvedenie,” in V.V. Shelokhaev et al., eds., *Pravye partii. Dokumenty i materialy*, 2 vols. (Moscow, 1998), vol. 1 (1905–1910), 5–20, 26, 30–1; D.A. Kotsiubinskiĭ, *Russkii natsionalizm v nachale xx stoletii. Rozhdenie i gibel ideologii vserossiiskogo natsional’nogo soiuza* (Moscow, 2001), esp. 62–8; Robert Edelman, *Gentry Politics on the Eve of the Russian Revolution: The Nationalist Party, 1907–1917* (New Brunswick, NJ, 1980), esp. 220–34.
- 73 See, for example, letters of M.I. Aref’ev to A.I. Guchkov, 15 September 1912, and letter of K.E. Lindeman to A.K. Ershov, 17 September 1912, Shelokhaev, ed., *Predstavleniye uchrezhdeniia*, 277–8 and 279–80. The mood lifted briefly, but by 1914 gloom descended over the party and throughout the Duma. Letters of G.A. Alekseev (a permanent official in the Duma chancellery and the zemstvo organization) to A.S. Alekseev, 22 January 1914, noting “complete decay in all the parties,” and L.A. Velikhov to B.A. Velikov, 23 January 1914: “The State Duma is a dram shop (*kabak*),” *ibid.*, 386.
- 74 *Protokoly tsentral’nogo komiteta konstitutsionno-demokraticheskoi partii, 1912–1914 gg.*, 6 vols. (Moscow, 1997), vol. 2, doc. 226, p. 289. Melissa Kirschko Stockdale, *Paul Miliukov and the Quest for a Liberal Russia, 1880–1918* (Ithaca, 1996), 198–207, concludes that in the last years of the monarchy the Kadet Party was “demoralized and divided.”
- 75 V.V. Shelokhaev, *Ideologiya i politicheskaia organizatsiia rossiiskoi liberal’noi burzhuzii, 1907–1914* (Moscow, 1991).
- 76 *Partii demokraticheskikh reform, mirnogo obnoveniia, progressistov. Dokumentyi materialy, 1906–1916 gg.* (Moscow, 2002), 16; S. Melgunov, *Starobriadchestvo i osvobodhiteal’noe dvizhenie* (Moscow, 1906), 24; Alfred J. Rieber, “The Moscow Entrepreneurial Group: The Emergence of a New Form in Autocratic Politics,” *Jahrbücher für Geschichte Osteuropas* 25, no. 1 (1977), 9–13. For the anti-Semitism see *Starobriadchskaia mysl’* (Kiev), January 1915, no. 1, 79–83; February 1915, no. 2, 124–30.
- 77 Manfred Hildermeir, *The Russian Socialist Revolutionary Party before the First World War* (New York, 2000) and K.N. Morozov, *Partiia sotsialistov-revoliutsionerov v 1907–1914 gg.* (Moscow, 1998).

- 78 Oliver Radkey, *Agrarian Foes of Bolshevism: Promise and Default of the Socialist Revolutionaries, February to October 1917* (New York, 1958) is harshly condemnatory. More apologetic are V.M. Chernov, *The Great Russian Revolution* (New Haven, 1936; new edition New York, 1966); Chernov, *Pered burei* (New York, 1953) and M. Melcancon, *The Socialist Revolutionaries and the Russian Anti-War Movement, 1914–1917* (Columbus, OH, 1990).
- 79 Norman M. Naimark, *Terrorism and Social Democrats: The Russian Revolutionary Movement under Alexander III* (Cambridge, MA, 1983), 82, 212, 224–5; Allan K. Wildman, *The Making of a Workers' Revolution: Russian Social Democracy, 1891–1903* (Chicago, 1967); Jonathan Frankel, ed., *Vladimir Akimov on the Dilemmas of Russian Marxism, 1895–1903* (Cambridge, 1989).
- 80 Avrahan Yassou, "Lenin and Bogdanov: Protagonists in the 'Bolshevik Center,'" *Studies in Soviet Thought* 22, no. 1 (February 1981), 1–32 and Yassou, "Bogdanov-Malinovsky on Party and Revolution," *ibid.*, 27, no. 3 (April 1984), 225–36.
- 81 Moshe Lewin, "Leninism and Bolshevism," in Lewin, *The Making of the Soviet System* (New York, 1985), 192.
- 82 Ziva Galili, "Ot gruppy kruzhkov do zenita politicheskogo vlianiia," in Galili, A. Nenarokov, and L. Khaimson (Haimson), eds., *Men' sheviki v 1917 gody*, 2 vols. (Moscow, 1994), vol. 1, 72–7.
- 83 Of the 280 parties formed in the Russian Empire between 1904 and 1917, 220 were founded by representatives of the non-Russian nationalities in the borderlands. V.V. Shelokhaev, "Fenomen mnogopartiinosti v Rossii," in *Istoriia national'nykh politicheskikh partii Rossii. Materialy mezhdunarodnoi konferentsii Moskva, 21–22 maia 1996* (Moscow, 1997), 11.
- 84 A.Iu. Bakhturina, *Okrainy rossiiskoi imperii: Gosudarstvennoe upravlenie i national'naia politika v gody Pervoi mirovoi voiny (1914–1917)* (Moscow, 2004), 15–22.
- 85 S.M. Iskhakov, "Obshcherossiikaia Partiiia Musil'man," in *Istoriia national'nykh politicheskikh partii* (Moscow, 2003), 214–39, dispels many misconceptions.
- 86 Stephen F. Jones, *Socialism in Georgian Colors: The European Road to Social Democracy, 1883–1917* (Cambridge, MA, 2005); Louise Nalbandian, *The Armenian Revolutionary Movement: The Development of Political Parties throughout the Nineteenth Century* (Berkeley, 1963); Tadeus Swietochowski, *Russia and Azerbaijan: Borderland in Transit* (New York, 1995).
- 87 Henry J. Tobias, *The Jewish Bund in Russia: From Its Origins to 1905* (Stanford, 1972); Jonathan Frankel, *Prophecy and Politics: Socialism, Nationalism, and the Russian Jews, 1862–1917* (Cambridge, 1981); and Robert Blobaum, *Feliks Dzierzynski and the SDKPiL: A Study of the Origins of Russian Communism* (Boulder, CO, 1984).

- 88 The main fear of tsarist officials in their perception of the voluntary organizations was that the demands of the intelligentsia would create “a revolutionary mood and school youth in mass protests.” K.F. Shatsilo, *Russkii liberalism nakanune revoliutsii, 1905–1907* (Moscow, 1985), 46. Recent Western literature on the allegedly emerging civil society acknowledges that the granting of rights was parceled out to discrete groups, illustrating the fragmented character of the entire enterprise. The leading exponent of an emerging civil society in Russia, Joseph Bradley, has concluded that “Although civil associations, along with the press, were among the strongest components of Russian civil society, by themselves they could not create a strong enduring civil society. The balance between associational autonomy and state control was never guaranteed in rights, and, as a result, was perpetually negotiated.” *Voluntary Associations in Tsarist Russia: Science, Patriotism, and Civil Society* (Cambridge, MA, 2009), 264. See also the discussion in *Kritika, Explorations in Russian and Eurasian History*, 7, no. 3 (Summer 2006).
- 89 Cf. Haimson, *Russia's Revolutionary Experience*, summing up his long exploration of Russian social history by suggesting that the tension between particularism and universality within the Russian working class was in the process of being resolved in favour of the latter during the last pre-war years, when the “new labour unrest” blended economic grievances and psychological disorientation arising from a sense of the violation of human dignity.

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