The Russian Army and Foreign Wars 1859-1871

Gudrun Persson

Ph.D. London School of Economics and Political Science, 1999



1

UMI Number: U615742

All rights reserved

INFORMATION TO ALL USERS

The quality of this reproduction is dependent upon the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed, a note will indicate the deletion.



UMI U615742 Published by ProQuest LLC 2014. Copyright in the Dissertation held by the Author. Microform Edition © ProQuest LLC. All rights reserved. This work is protected against unauthorized copying under Title 17, United States Code.



ProQuest LLC 789 East Eisenhower Parkway P.O. Box 1346 Ann Arbor, MI 48106-1346



Abstract

The thesis examines how the Russian army interpreted and what lessons it learned from the wars in Europe between 1859 and 1871 and the American Civil War. This was a time marked by rapid change - political, social, economic and technological.

By raising the question of learning from foreign wars the thesis attempts to fill a gap in the historiography of the Russian army. The army was one of the pillars on which the Russian regime built its power, and it was crucial for the survival of the regime both in domestic and foreign affairs. The reactions and thinking of the military at a time of rapid social, political, economic, and technological change, therefore, tell a lot about the regime's ability to adjust, develop, and ultimately survive.

Furthermore, the influence of foreign wars on Russian strategic war planning is analysed with the use of the first Russian war plan of 1873 and the proceedings from the strategic conference, chaired by Alexander II, in 1873. The influence of foreign wars on the General Staff officer education is also investigated.

The thesis is largely based on extensive research in Russian archives. Special attention is given to the military attachés and, thus, the thesis fills a gap in the historiography of the Russian army. It uncovers the development of the military attaché institution with the use of new archival material. The Russian military attaché reports from the European Great Powers 1859-71 and the observer reports from the different war scenes are also examined. In addition, extensive use has been made of the military press and contemporary military literature with regard to the wars.

Table of Contents

Ackr	nowledge	ements	6	
Intro	duction		7	
1	The N			
	1.1	From Peace to War in Europe		
	1.2	Armies and Warfare in Transition	21	
	1.2.1	Civilians in Arms	22	
	1.2.2	The Rise of General Staffs and Officer Education		
	1.2.3	Technology and Tactics	31	
2	Refor	35		
	2.1	Lessons from the Crimea		
	2.2	Miliutin and the Military Reforms		
	2.2.1	The Importance of Education		
	2.2.2	The Call for a Common Cause		
	2.2.3	The Rise of the General Staff		
	2.2.4 2.2.5	Miliutin and Prussia Rifles and Guns		
3	The Eyes of the Tsar: The Russian Military Attachés3.1Gathering Intelligence through Attachés3.2Men in High Places		61	
	3.3	At the Prussian Court		
	3.4	The Observers		
4	Lessons From Foreign Wars - the Military Debate and the General Staff Academy			
	4.1	Military Reporting		
	4.2	Observing Foreign Wars		
	4.2.1	The Military System and Nationalism		
	4.2.2	Men Against Fire		
	4.2.3	The Cavalry Reconsidered		
	4.3	Studying Foreign Wars at the General Staff Academy		
	4.3.1	The Theory and Practice of Educating General Staff Officers		
	4.3.2	The Curriculum		
	4.3.3 4.3.4	The Library The Role of Military History and the General Staff		
	4.3.5	Staff Rides and War Games		
	4.4	Discussing War		
		-0		

5	Facing the Enemy - the Strategic Conference in 1873			
	5.1	Strategy and War Plans in Russia	129	
	5.2	Russia and Europe in 1870 - the View of the Army	132	
	5.3	Lessons from Prussia and America	139	
	5.3.1	Militia Contra Reserve - the American Connection	139	
	5.3.2	Military Expenses - the German Connection	141	
	5.4	Stand Firmly in the West - the War Plan of 1873		
	5.5	Between Victory and Defeat - the Strategic Conference	160	
Conclu	sions		173	
Appen	dix 1		181	
Bibliog	raphy		183	

List of Tables

TABLE 1	Reserve Forces in European Armies 1862	
TABLE 2	Russian Small Arms in 1877	
TABLE 3	Holdings of the General Staff Academy Library by Language 1866-	·1887
		112
TABLE 4	Library Holdings in Military History. Books in Russian/Total Hold	lings
	by Wars	113
TABLE 5	Strength of the Russian Army and European Armies in 1870	138

Acknowledgements

In writing this thesis I have had the opportunity to work in a number of archives and libraries and I owe gratitude to the staff at the following institutions: the Russian State Military History Archive, the State Archive of the Russian Federation, the Manuscript Department of the Russian State Library, the State History Museum, and the Foreign Policy Archive of the Russian Empire. All of these institutions are located in Moscow. Furthermore, I would like to thank the staff at the British Library, the British Library of Political and Economic Science, the Library of the School of Slavonic and East European Studies, the University of London Library, the Institute of Historical Research in London, and both the Slavonic Library and the National Defence College Library in Helsinki. I would also like to thank the Summer Research Laboratory at the University of Illinois for providing me with a housing grant which enabled me to spend some time in the Library of the University of Illinois.

In addition, I would like to thank a number of persons who have been important in helping me to see this project through: my supervisors at the LSE, Professor Dominic Lieven and Dr. Janet Hartley, who never stopped believing in me; Professor A. G. Kavtaradze, who provided helpful guidance and advice during my stay in Moscow; Professor Willis E. Brooks, who kindly placed important, additional material from the Manuscript Department of the Russian State Library on my desk; my husband, Staffan, who supported and encouraged me throughout - in spite of finding himself entangled in the intrigues of a time long gone for much longer than he expected. I would also like to mention the Gutnov family, who housed and fed me in Moscow, and Liisa Byckling and Margaret Haikola, who opened their homes to me during my visits to Helsinki. A special thanks goes to Marilyn Seney – a true friend.

There are many other persons to whom I am very grateful for advice and stimulation. Space does not allow them to be listed here, and they know that this in no way diminishes my gratitude to them.

Introduction

Aim

When the historian John Keep described the introduction of universal military service in Russia, he wrote that 'Sedan was almost a second Sevastopol for the Russian military establishment'.¹ This was one of the starting points for this thesis. If a foreign war, the Franco-Prussian War to be specific, made such an impression, how were other foreign wars interpreted and what other lessons were learned from them? The purpose here is to examine how the Russian army interpreted the European wars between 1859 and 1871; that is, the war of Austria with France and Piedmont 1859, the German wars of unification (the Danish War 1864, the Austro-Prussian War 1866, and the Franco-Prussian War 1870-71), and the American Civil War. The period is characterized by rapid change: political, economic, and technological. Therefore, it is an appropriate period for examining the attitude towards change. A number of technical innovations - rifled weapons, railways, the electric telegraph - were introduced, and they affected the way wars were fought and armies were trained. Large standing armies grew smaller as the use of reserves and the introduction of universal conscription spread across Europe after the Prussian example. At the same time, nationalism gained in strength as Germany and Italy became unified nation states. The Austrian Empire was shaken to its foundations and, in 1867, the Austro-Hungarian dual-monarchy was created. In a mere twelve years, France had lost its position as the leading military power in Europe to Prussia. How did the army of the Russian Empire perceive and interpret all of these changes?

^{1.} Keep, John L. H. Soldiers of the Tsar: Army and Society in Russia 1462-1874. (Oxford: Clarendon Press, 1985): 376.

The use of rifles, which made it possible to shoot with more speed and accuracy than with the old muskets, raised questions about tactics and education of both soldiers and officers. The use of railways, which made speed a crucial factor in mobilization, led to higher demands on advance war planning. The planning, in turn, required knowledge about the potential enemy; thus, the demands on military intelligence increased. The new military technology, while important, was only one aspect of change and – although expensive – was not the most difficult issue. Technology, after all, could be bought from abroad or copied at home.² The creation of a large reserve force that could be called up in the case of war required educated soldiers and officers who could train civilians in a relatively short period of time. Consequently, the questions of military education, organization, and advance war planning (involving strategy, transportation, and supply) posed a greater challenge to the Russian army.

To what degree was the army aware of and concerned with these questions? The Russian army makes an interesting case to study since the conventional view of armies in general and, perhaps, the Russian in particular is that the armies are bastions of conservatism, unwilling to respond to any change. It should be underlined that the object of this study is, largely, a peacetime army, and it excludes the conquest of the Caucasus that ended in 1864, and the suppression of the Polish rebellion in 1863. Some may argue that the lessons drawn from foreign wars can never be as instructive as those learned from one's own wars. Nevertheless, one of the consequences of the wars of 1859-71, with larger armies and shorter mobilization times, was that advanced war planning became increasingly important. It was no coincidence that General Staff officers studied military history in depth to seek out the truths of warfare. During this period, the study of military history became an increasingly important subject at war academies in Europe.³ The Russian military historian, N. P. Glinoetskii, was acutely aware of this and wrote in the military journal *Voennyi sbornik*:

It is often said that war is the best school to gain military experience for the training of the army. This view – entirely correct in the past when the wars were protracted and lasted for months, even years – has completely lost its validity in our times, when putting the army on a war footing and the very conduct of military operations happen very quickly, at a speed incomprehensible in the past. ...In our days, war is rather the examination or the test ... the lessons of wars only become tangible for others, for those who do not take part in the war; that is, the lessons are gained through the study of great wars.⁴

^{2.} Pintner, Walter. 'Russian Military Thought: The Western Model and the Shadow of Suvorov', in *Makers of Modern Strategy from Machiavelli to the Nuclear Age*, edited by P. Paret. (Oxford: Clarendon Press, 1986): 360.

^{3.} Bucholz, Arden. *Moltke, Schlieffen, and Prussian War Planning*. (New York: Berg Publishers, Inc., 1991): 55-56.

^{4.} 'Inostrannoe voennoe obozrenie', *Voennyi sbornik* (7, 1871): 57-58.

The purpose of this study is straightforward: to examine what lessons the Russian army learned from the wars in Europe between 1859 and 1871 and the American Civil War. For this purpose, four different areas of the army have been chosen:

- the military attachés and observers, who were physically close to the war scenes and provided first-hand information to the War Ministry;
- 2. the military press and other military writings, to examine how the foreign wars were perceived by Russian military thinkers, and to what degree the lessons of the wars were discussed in public;
- **3.** the curriculum of the Nicholas Academy of the General Staff, a vital institution in educating new generations of staff officers;
- 4. the first Russian war plan of 1873, to trace the thoughts behind it, and to demonstrate how the plan was influenced by foreign wars.

Each of these parts is central to any analysis that attempts to understand how receptive the army was to change. And, together, they provide a good picture of the level of awareness of the changes within the army.

By paying special attention to the military attachés the thesis fills a gap in the historiography of the Russian army.⁵ In scholarship, the Russian military attachés have stood in the shadow of their European – above all German – colleagues.⁶ This thesis takes a step to rectify this situation, using new archival material to expose and examine the military attaché institution in Russia. Futhermore, the thesis attempts to answer the question of what role the attachés and their reports played in the early days of Russian war planning during the period of 1859-73.

One lesson of the Prussian victories in 1866 and 1870-71, widely recognized by historians, was the introduction of universal conscription in Russia in 1874. This is valid only up to a point. As will become evident from this thesis, the need to make the standing army smaller and to create a large reserve force was a lesson learned previously in the Crimean War. How-ever, universal conscription was not introduced in Russia until 1874 and then the domestic political debate, which eventually broke down all resistance, used the Prussian example as its key argument.

^{5.} Fuller treats the period 1905-1914 in Fuller, William C. Jr. 'The Russian Empire', in *Knowing One's Enemies: Intelligence Assessment before the Two World Wars*, edited by E. May. (Princeton, N.J.: Princeton University Press, 1984): 98-126.

^{6.} Craig, Gordon A. 'Military Diplomats in the Prussian and German Service: the Attachés, 1816-1914', Political Science Quarterly 64 (1, 1949): 65-94; Lambsdorff, Gustav von. Die Militärbevollmächtigten Kaiser Wilhelms II. am Zarenhofe 1904-1914. (Berlin: Schliffen Verlag, 1937); Meisner, Hans Otto. Militärattachés und Militärbevollmächtigte in Preußen und im Deutschen Reich. (Berlin: Rütten und Loening, 1957); Vagts, Alfred. The Military Attaché. (Princeton, N.J., 1967).

The thesis makes an attempt to differentiate the view of what the Russian army learned from foreign wars and to demonstrate that the military debate and the domestic political debate were closely connected. The lessons from foreign wars not only had military implications but put the entire military system under pressure by calling its fundamental values into question. The lessons were not only observed and debated but directly influenced the education of the General Staff officers and the first Russian war plan of 1873.

By raising the question of learning from foreign wars, the thesis attempts to fill a gap in the historiography of the Russian army. From this vantage point, it is possible to contribute to our knowledge of the intellectual climate and strategic thinking of the army, and shed light on the question of the army's attitude towards change. The army was one of the pillars on which the Russian regime built its power, and it was crucial for the survival of the regime both at home and abroad. Therefore, the reactions and thinking of the army during times of rapid social, political, and economic change tell us a lot about the regime's ability to adjust, develop, and ultimately survive.

Sources

A diplomatic historian once noted that 'all sources are suspect', when he wanted to illustrate the difficulties in using both published and unpublished diplomatic material.⁷ The published material could be tendentious and the archival material incomplete. These problems are known to every historian, and this one is not an exception. Nevertheless, this study makes extensive use of both published sources and archival material, some of which has been used for the first time. A few words need to be said about the primary sources.

The main body of archival material, used in this study, is found in the Russian State Military History Archive (*Rossiiskii Gosudarstvennyi Voenno-Istoricheskii Arkhiv*, hereafter RGVIA) in Moscow and includes documents related to the development of the military attaché-institution of the Russian army (which have not been used previously to describe this development), the reports from the military attachés in Berlin, Paris, Vienna, London and Florence between 1859 and 1872, the records of the Military Scientific Committee 1863-76, and the proceedings from the strategic conference in 1873 (which contain the first Russian war plan).⁸ The material regarding this conference is examined in Chapter 5 and, for the first time since the Soviet historian P. A. Zaionchkovskii used it in his book about the military reforms in 1952, it is used here in its entirety.⁹

^{7.} Taylor, A.J.P. *The Struggle for Mastery in Europe 1848-1914.* (Oxford: Oxford University Press, 1954): 569.

^{8.} See the Bibliography for a complete list of all the archival *fondy* (collections) used in this thesis.

Working in the Military History Archive is a rewarding experience, provided one is equipped with a great deal of persistence and patience. Material regarding the military attachés can be pieced together from a number of different *fondy* (collections). Due to the reforms in the 1860s, old institutions were abolished and new created – a development that can be followed in the archive. This partially explains why seemingly related material can be found in several different fondy. One practice – as unfortunate as it is frustrating – was the habit of removing material from files, sometimes leaving a small note stating which documents have been taken out. Even more unfortunate for this study, however, was the missing material that 'ought' to have been there. This is the case with the reports relating to the American Civil War. Even though it is clear, as we shall see in Chapter 3, that there were at least two Russian officers in America during that war, RGVIA seemed only to contain a four page copy of one report from 1861. Consequently, I have relied primarily on published material for the interpretations of the American Civil Wa whereas, in the case of the European wars, both archival and published sources have been used.

A few words need to be said about the most important collections of RGVIA used in this thesis. Material regarding the development of the military attaché as an institution was found in fond 29 (Chancellery of the War Ministry), fond 38 (Department of the General Staff), fond 410 (Material about the History of the People of the USSR), fond 413 (Material Relating to the Theory of Military Science and Military Economy), and fond VUA (Military Scientific Archive). The reports from the military attachés were concentrated in the collections of the Military Scientific Archive, not to be confused with the separate VUA-fond, and the reports were divided according to country: 428 (Austria-Hungary), 453 (America), 431 (Great Britain), 432 (Germany), 435 (Denmark), 437 (Italy), 440 (France) and 488 (Foreign Wars). It should be noted that the special fond of the Military Scientific Archive, fond 846, only contained military attaché reports from 1876 onwards. The lists of the military attachés were located in fond 38 and 401 (Military Scientific Committee), and the latter also contained the journals of the Military Scientific Committee. Fond 401 was also the source of the material relating to the strategic conference in 1873. In addition, fond 868 (Main Committee on the Organization and Education of Troops) proved to contain some useful reports from England and France, as well as the reports on tactics from 1873-75, written by the observer to the Franco-Prussian war, L. L. Zeddeler. Fond 544 (the Nicholas Academy of the General Staff) contained material regarding sending General Staff officers abroad and other documents about the life at the Academy. Missing, however, are copies of contemporary lectures held at the Academy about the wars in 1859-71. This is not so serious for the European wars since a lot of material regarding these

^{9.} Zaionchkovskii, P. A. *Voennye reformy 1860-70 godov v Rossii*. (Moscow: Izdatel'stvo Moskovskogo Universiteta, 1952): 280-304.

wars was published. However, exactly what A. E Stankevich, Professor of Military History, said in his lectures about the American Civil War that began in 1867 remains a secret.

Neither the fondy of the Artillery Administration, 503 and 504, nor the *fondy* of the Main Engineering Administration, 802 and 803, seemed to contain any reports from the military attachés or observers. However, fond 506 (The Technical Part of the Main Artillery Administration) held copies of Artillery Captain K. G. Doppelmaier's reports from the Franco-Prussian War.

The military attaché reports from Berlin, Paris, Vienna, London, and Florence between 1859 and 1872 require some qualification as a historical source. First, how complete is the material? It seems that a surprisingly large **binemat** of the reports has survived in the archives. Nevertheless, some material is conspicuously missing. One example is the reports from Count Vasilii Pavlovich Golenishchev-Kutuzov, the military plenipotentiary in Berlin 1866-73. The actual material he sent can be found in RGVIA, fond 432, but this does not include his reports - or letters - to the Tsar. Only a handful of these letters are located in the State Archive of the Russian Federation (*Gosudarstvennyi Arkhiv Rossiiskoi Federatsii*, hereafter GARF), fond 678 (Alexander II). The material sent by his predecessor, Count N. V. Adlerberg, is also located in the RGVIA, fond 432, but there were no traces of Adlerberg's reports to Alexander II.

Another example of missing material is the reports by L. L. Zeddeler from the theatre of war in 1870-71. According to Zeddeler himself, he wrote thirty-two extensive reports. A note in the archive of the Military Scientific Committee listed eleven different titles of Zeddeler's writings from the war.¹⁰ He published five of them in the military newspaper *Russkii invalid*, and two copies of the reports (about the Prussian military organization and tactical and strategic preparations including the military education of officers) can be found in Grand Duke Konstantin's fond in GARF. A note by the War Minister, D. A. Miliutin, gave Zeddeler permission to take his reports out of the archive after the war, and it is doubtful that Zeddeler ever returned them.¹¹ Twenty five years later, he wrote in his memoirs that he no longer had the strength to prepare the thirty-two reports for publication.¹²

Another observation about the attaché reports is that they vary a great deal in quality. Some of them are very good, full of details, and the author's own thoughts about developments; others consist of newspaper clippings and do not contain a single line of comment.¹³ In gen-

^{10.} Zeddeler, L.L. 'Dvadtsat' piat' let nazad. Otryvok iz dnevnika', *Istoricheskii vestnik* (4, 1896): 115.
RGVIA, 1871, F. 401, op. 2, d. 64, f. 13. 'About the Entry of Officers Into the Service Record, Officers Sent to the Theatre of War During the Franco-German War and Taking Part in Military Operations'. 1871.
^{11.} RGVIA, F. VUA, d. 1328, ff. 1-2. 'About Information From the Military Attachés During the Franco-Prussian War'.

^{12.} Zeddler, 'Dvadtsat' piat' let': 115.

eral, the material from the military attachés that has survived the archives reveals a great deal about what kind of information the War Ministry received from abroad, what the attachés tasks were, and so on. However, when it comes to analyses of the different developments the material varies a lot, depending simply on what has survived and who wrote it.

Tracing the biographies of the individual attachés was not easy, and the archive proved less helpful. The appropriate fond in RGVIA, fond 409, which holds many service records, unfortunately did not contain any for the attachés. Instead, a few were found in fond 1 (Chancellery of the War Ministry), and on occasion in other fondy. With the help of published material, however, it was possible to get an almost complete picture.¹⁴

The Foreign Policy Archive (*Arkhiv vneshnei politiki Rossiiskii Imperii*, hereafter AVPRI) keeps the reports from heads of missions. As an exception, an occasional report from a military observer showed up, as, for instance, the copy of the report by Colonel Romanov from North America in 1861. The Foreign Ministry functioned as the mail distributor between the War Ministry and the military attachés stationed abroad, but it does not seem that the Foreign Ministry was a regular reader of military reports.

Another significant source for this study was the fond of D. A. Miliutin (fond 169) in the Manuscript Department of the Russian State Library (*Rosskiiskaia Gosudarstvennaia Biblioteka, Otdel rukopisi*, hereafter RGB OR). Miliutin, War Minister between 1861 and 1881, was blessed with a long life and good health and he spent much of his retirement writing his memoirs and organizing his archive. When he died in 1912, he left an extremely rich source, containing not only his memoirs, diaries, and letters, but also significant numbers of documents from his whole working life, most importantly memoranda and notes related to different aspects of the military reforms. Furthermore, several documents from the strategic conference in 1873 can be found here. Extensive use has been made of Miliutin's memoirs written between 1883 and 1892. They are based on documents and often contain substantial quotes from letters and reports. Each year contains a large section devoted to the activities of the War Ministry, based on the yearly reports of the War Ministry to the Tsar. A complete set of these reports (*vsepoddanneishii doklad*) from 1862 until 1900 is also located in the fond. No doubt, the holdings of

^{13.} A personal conversation with the historian Oleg Airapetov at the Moscow State University, who has written a biography about N. N. Obruchev, revealed that some of the attaché reports were presumably lost during the Civil War 1918-21. I have not been able to verify this or whether it applies to material from the 1860s, but it might explain some of the gaps in the material.

^{14.} Some of the most helpful sources were Spisok general'nogo shtaba. (St. Petersburg: Voennaia tipografiia, 1875); Glinoetskii, N. P. Istoricheskii ocherk Nikolaevskoi Akademii General'nogo shtaba. (St. Petersburg: Shtab voisk gvardii i Peterburgskogo voennogo okruga, 1882); Ikonnikov, N. La Noblesse de Russie. 2nd ed. vols. A1-Z2. (Paris, 1958-66); Miloradovich, G. A. Spisok lits Svity Ikh Velichestv s tsarstvovaniia Imperatora Petra I-go po 1886 g. (Kiev: S.V. Kul'zhenko, 1886).

the fond reflect the history as Miliutin saw it.¹⁵Still, the collections remain an important source of information.

At least some of Miliutin's accounts of events can be compared with the diaries of Grand Duke Konstantin Nikolaevich, held in the collections of GARF. The diaries are located in the personal fond of Konstantin Nikolaevich, the Marble Palace, fond 722. He kept diaries from the age of nine, 1836, until 1889, three years before he died. In addition, the personal fond of Alexander II, in GARF, harbours the diaries of Alexander II, but unfortunately they were inaccessible due to restoration work, when I was in Moscow.

Although relying heavily on archival sources, this thesis is not marked by a *fureur de l'inédit*. In answering the question of the army's interpretation of the wars of 1859-71, it would be insufficent to rely exclusively on the archives. The archival material tells the truth but not the whole truth. Therefore, contemporary published material, namely the military press and the military literature from this period, has been examined. The military press – the newspaper *Russkii invalid*, and the journals *Voennyi sbornik*, *Artilleriiskii zhurnal*, *Inzhenernyi zhurnal*, *Oruzheinyi sbornik*, and *Pedagogicheskii sbornik* – contain a sometimes lively debate about the changes in warfare. The regular column in *Voennyi sbornik*, Foreign Military Review, contains a wealth of information useful for this study. In general, *Russkii invalid* and *Voennyi sbornik* played an important role in shaping and reflecting military attitudes of the Russian army. The military press proved to be a rich source, sometimes overlooked in the historiography of the Russian army. In addition, a number of printed memoirs and diaries have been used.

Historiography

The Russian Imperial Army's defeats in the Russo-Japanese War 1904-05 and the First World War lowered its status in the eyes of both former officers and scholars. A number of emigré officers had much to criticize the army for when they sought an explanation to the subsequent events of revolution and civil war.¹⁶ This negative image of the Imperial Army was echoed by Soviet historiography, which was interested in discrediting the Imperial regime and depicting the revolution as inevitable according to Marxist laws of evolution.

For a long time, Western scholars – with a few notable exceptions¹⁷ – were only marginally interested in the Russian army. However, over the years, particularly in recent times, both Soviet/Russian and Western scholarship has produced a number of valuable studies, without which this thesis would not have reached its current scope.

^{15.} For instance, he destroyed the letters to his father.

^{16.} Denikin, A. I. Staraia armiia. 2 vols. (Paris: Rodnik, 1929, 1931); Kersnovskii, A.A. Istoriia russkoi armii. 4 vols. (Reprint ed. Moscow: Golos, 1992-94); Sukhomlinov, V. A. Vospominaniia. (Berlin, 1924).

The military reforms under D. A. Miliutin have been thoroughly described by P. A. Zaionchkovskii.¹⁸ L. G. Beskrovnyi, another Soviet specialist on the Russian army, compiled a lot of facts – but not always in a consistent manner, which sometimes make the material difficult to use.¹⁹ There is no complete biography on D. A. Miliutin, but his early career is covered by Brooks,²⁰ and Zaionchkovskii wrote a useful - although short - biographical essay as an introduction to Miliutin's diaries.²¹Miller's book is more about the reforms than Miliutin.²² Prerevolutionary Russian military history is largely hagiographic, but works by N. P. Glinoetskii²³ and M. Bogdanovich contain many facts that make them useful for references.²⁴ And

^{18.} Zaionchkovskii, *Voennye reformy*. This book remains the standard work on the military reforms. In English, the military reforms are treated by Miller, Forrestt A. *Dmitrii Miliutin and the Reform Era in Russia*. (Charlotte, North Carolina: Vanderbilt University Press, 1968). The introduction of universal military service has been examined by Baumann, Robert Fred. 'The Debates over Universal Military Service in Russia 1870-74'. Ph.D, Yale University, 1982. Civil-military relations in pre-revolutionary Russia has been the topic of Beyrau, Dietrich. *Militär und Gesellschaft im Vorrevolutionären Russland*. Beiträge zur Geschichte Osteuropas. Bd 15. (Köln: Böhlau Verlag, 1984) and Fuller, William. *Civil-Military Conflict in Imperial Russia 1881-1914*. (Princeton, N.J.: Princeton University Press, 1985).

^{19.} Beskrovnyi, L. G. Russkaia armiia i flot v XIX veke. Voenno-ekonomicheskii potentsial Rossii. (Moscow: Nauka, 1973). His Ocherki po istochnikovedeniiu voennoi istorii Rossii. (Moscow: Izdatel'stvo Akademii nauk SSSR, 1957) is a good starting point for Russian military historical source material.

^{20.} Brooks, Edwin Willis. 'D.A. Miliutin: Life and Activity to 1856'. Ph.D, Stanford University, 1970.

^{21.} Zaionchkovskii, P. A. 'D. A. Miliutin. Biograficheskii ocherk', in *Dnevnik D. A. Miliutina* 4 vols. (Moscow: Gosudarstvennaia ordena Lenina Biblioteka SSSR imeni V. I. Lenina. Otdel rukopisei., 1947-50), vol. 1: 5-72.

^{22.} Miller, Dmitrii Miliutin.

^{23.} Glinoetskii, Istoricheskii ocherk; Glinoetskii, N. P. Istoriia russkogo general'nogo shtaba. 2 vols. (St. Petersburg: Shtab voisk gvardii i Peterburgskogo voennogo okruga, Voennaia tipografiia, 1883, 1894).

^{24.} Bogdanovich, M. Istoricheskii ocherk deiatel'nosti voennogo upravleniia v Rossii v pervoe dvadtsati-piatiletie blagopoluchnogo tsarstvovaniia Gosudaria Imperatora Aleksandra Nikolaevicha (1855-1880 gg). 6 vols. (St. Petersburg: M. Stasiulevich, 1879-1881). A classical pro-reform account of the reform era, including introduction of universal conscription, was written by Dzhanshiev, G. Epokha velikikh reform. (St. Petersburg, 1907).

^{17.} The most important are Keep, Soldiers of the Tsar; Wirtschafter, Elise Kimerling. From Serf to Russian Soldier. (Princeton, N.J.: Princeton University Press, 1990), both of whom write mainly from the perspective of the soldier. Beyrau in his valuable study investigates the army's position within the Russian autcracy. Beyrau, Dietrich. Militär und Gesellschaft im Vorrevolutionären Kussland. (Köln: Böhlau Verlag, 1984). The Russian officer corps has been treated in several studies: Kenez, Peter. 'A Profile of the Prerevolutionary Officer Corps', California Slavic Studies 7 (1973): 121-158; Bushnell, John. 'The Tsarist Officer Corps 1881-1914', American Historical Review 86 (3, 1981): 753-80; Mayzel, Matitiahu. 'The Formation of the Russian General Staff 1880-1917, A Social Study', Cahiers du monde russe et soviétique XVI (3-4, 1975): 297-321; Mayzel, Matitiahu. Generals and Revolutionaries: The Russian General Staff During the Revolution: A Study in the Transformation of Military Elite. (Osnabrück: Biblio Verlag, 1979); Stein, Hans-Peter. 'Der Offizer der russischen Heeres im Zeitabschnitt zwischen Reform und Revolution', Forschungen zur osteuropäischen Geschichte 13 (1967): 346-507; Zaionchkovskii, P. A. Samoderzhavie i russkaia armiia na rubezhe XIX-XX stoletii, 1881-1903. (Moscow: Mysl', 1973): 168-248. A recent study treats the higher military education in Russia, Mashkin, N. A. Vysshaia voennaia shkola Rossiiskoi imperii XIX-nachala XX veka. (Moscow: Akademiia, 1997). On officer education and the Russian army in Finland, see Luntinen, Pertti. The Imperial Russian Army and Navy in Finland 1808-1918, Studia Historica 56. (Helsinki: Societas Historica Finlandiae, 1997); Screen, J. E. O. 'The Entry of Finnish Officers into Russian Military Service'. Ph.D, School of Slavonic and East European Studies, University of London, London, 1976; Screen, J. E. O. The Helsinki Yunker School 1846-1879: A Case Study of Officer Training in the Russian Army, Studia Historica 22. (Helsinki: Societas Historica Finlandiae, 1986). The role of the army in the turbulent years of revolutionary events has been treated in Bushnell, John. Mutiny amid Repression: Russian Soldiers in the Revolution of 1905-06. (Bloomington: Indiana University Press, 1985); Wildman, Allan K. The End of the Russian Imperial Army: the Old Army and the Soldier's Revolt (March-April 1917). (Princeton, N.J.: Princeton University Press, 1980). The army during the Crimean War and under the regin of Nicholas I was the topic of J. S. Curtiss. See his The Russian Army under Nicholas I, 1825-55. (Durham, N.C.: Duke University Press, 1965) and Russia's Crimean War. (Durham, N.C.: Duke University Press, 1979).

the official history of the War Ministry *Stoletie voennogo ministerstva*, 1802-1902 contains some important documents; most important is Miliutin's first report to Alexander II, outlining the entire reform program.²⁵

Russian military theory has been a subject of several scholarly works, both Soviet and Western.²⁶ Common to these works - despite the differences in outlook - is that military theory has been treated in isolation, as largely an intellectual practice, with little or no concern for strategic factors. However, several recent studies have highlighted the importance of strategy in Russian war planning.²⁷ Inspired by the relatively easy access to newly opened archives, these scholars explore not only what the Russian General Staff thought, but also try to explain why it thought the way it did. However, they are largely silent on the issue of the interpretations of foreign wars.

I have relied on the secondary literature only up to a point. When it proved insufficient, I turned to the original sources to dig out additional information. If others had mined the archives before me on an issue related to the set of problems examined here, I searched the documents to see if something was missing in earlier interpretatations.

The German historian, Leopold von Ranke, once remarked that an historian has two choices: either to convey new material or to write about an old problem from a new angle.²⁸This study set out to achieve the second alternative and, in the process new material is presented.

Chapter 1 is devoted to military developments during the period 1859-1871. It briefly outlines the international context of the European wars and describes some of the pressing issues regarding changes in warfare that all European armies faced. Chapter 2 describes the state of

^{25.} Skalon, D. A., ed. *Stoletie voennogo ministerstva*, 1802-1902. 13 vols. (St. Petersburg: P.F. Panteleev, 1902-1914): vol. 1. Appendix 11.

^{26.} Beskrovnyi, L. G. *Russkaia armiia i flot v XIX veke*. (Moscow: Nauka, 1973); Erickson, John. *The Russian Imperial/Soviet General Staff*. The College Station Papers. (College Station, TX: The Center for Strategic Technology, 1981); Meshcheriakov, G. P. *Russkaia voennaia mysl' v XIX-om veke*. (Moscow: Nauka, 1973); Steinberg, John W. 'The Education and Training of the Russian General Staff: A History of the Imperial Nicholas Military Academy 1832-1914'. Ph.D, Ohio State University, 1990; Wahlde, Peter von. 'Military Thought in Imperial Russia'. Ph.D, Indiana University, 1966. van Dyke, Carl. *Russian Imperial Military Doctrine and Education 1832-1914*. (Westport, CT: Greenwood Press, 1990); Zhilin, P. A. *Russkaia voennaia mysl' konets XIX-nachalo XX v*. (Moscow: Nauka, 1982).

^{27.} Fuller, William C., Jr. Strategy and Power in Russia 1600-1914. (New York: Free Press, 1992); Menning, Bruce W. Bayonets before Bullets. (Bloomington: Indiana University Press, 1992); Rich, David. 'Imperialism, Reform and Strategy: Russian Military Statistics, 1840-1880', *The Slavonic and East European Review* 74 (4, 1996): 621-639; Rich, David. 'The Tsar's Colonels: Military Professionals and the Remaking of Russian Strategy, Foreign Policy, and Autocracy, 1840-1895', Manuscript, 1997, due to be published in 1998, based on his dissertation. See Rich, David A. 'The Professionalization of Russia's General Staff 1870-1895: Ideas, Strategy, and Foreign Policy'. Ph.D, Georgetown University, 1993. In exploring the career of N. N. Obruchev, O. R. Airapetov also touches on this question. Airapetov, Oleg Rudol'fovich. 'N. N. Obruchev. Zabytaia kar'era "russkogo Mol'tke"', Manuscript, 1996. While waiting for the manuscript to find a publisher with enough money, see the brief article O. R. Airapetov. 'Nikolai Nikolaevich Obruchev', *Voprosy istorii* (7, 1996): 49-69.

^{28.} Ranke, Leopold. Englische Geschichte vornehmlich im sechszehnten und siebzehnten Jahrhundert. 7 vols. (Berlin: Duncker und Humblot, 1859-68): Vol. 1: xvi.

the Russian army after the Crimean War. The military reforms - including the changes in the military educational system, the rise of the General Staff, and the introduction of universal military service - are outlined. Chapter 3 treats the development of the military attachés in Russia. Chapter 4 analyses the interpretation of foreign wars by both the attachés, observers, and other military thinkers, and examines how foreign wars affected the Nicholas Academy of the General Staff. Chapter 5 examines the Russian war plan of 1873 - treated at a special conference under the chairmanship of Alexander II - and demonstrates the influence of foreign wars on Russian war planning.

Transliteration

Transliteration follows a modified version of the system of Library of Congress. In some cases, most notably surnames of foreign origin, I have chosen their original form; for instance, Wittgenstein rather than Vitgenshtein. Archival references follow the *Slavonic and East European Review* style of using folio and verso instead of *listy*. Unless otherwise indicated, dates are in the Julian calendar, used in the Russian Empire, which was twelve days behind the Gregorian calendar in the nineteenth century.

1 The Nation in Arms - Military Development 1859-1871

1.1 From Peace to War in Europe

The Crimean War of 1854-56 broke a forty year long period of relative peace in Europe. The war was only the first in a series of wars that would transform not only the map of Europe but also the armies and, consequently, the societies that fought them.¹ The traditional, standing professional army was replaced by mass forces, citizen armies recruited by conscription. At the time of the Crimean war none of the European powers, except Prussia, had a recruiting system based on universal conscription. After the Franco-Prussian war in 1870-71, conscription was the dominating recruiting system in Europe. This was the period when the modern, industrialized nation states took shape, while nationalism and demands for liberalism in the political sphere both grew. In science, positivism was the current trend. Charles Darwin published *The Origin of Species* (1859) and the first volume of *Das Kapital* appeared in 1867. In the arts, realism gained power over romanticism. In Russia, Dostoevsky wrote *Crime and Punishment* (1866) and Tolstoy completed *War and Peace* (1865-1869).

^{1.} The most concise book on this topic is written by Howard, Michael. *War in European History*. (Oxford: Oxford University Press, 1976). I found Kennedy, Paul. *The Rise and Fall of the Great Powers: Economic Change and Military Conflict from 1550 to 2000*. (London: Fontana Press, 1988), especially Chapter 4, use-ful as a general introduction to the period. See also Pearton, Maurice. *The Knowledgeable State: Diplomacy, War and Technology since 1830*. (London: Burnett Books, 1982): Chapters 3 and 4. The diplomatic story is told by Taylor, A. J. P. *The Struggle for Mastery in Europe 1848-1914*. (Oxford: Oxford University Press, 1954), Chapters 5 through 10. See also Holsti, Kaveli J. *Peace and War: Armed Conflicts and International Order 1648-1989*. (Cambridge: Cambridge University Press, 1991); Mosse, W. E. *The European Powers and the German Question 1848-1871*. (Cambridge: Cambridge University Press, 1958); and Mosse, W. E. *Liberal Europe: The Age of Bourgeois Realism 1848-1875*. (London: Thames and Hudson, 1974).

On the European political scene, Russia turned to domestic political reform, in the famous phrase of Foreign Minister A. M. Gorchakov: *La Russie ne boude pas, mais se recueille*. Plans to form an alliance with France, the former enemy, came to a halt when France sided with the Poles in the rebellion of 1863. Meanwhile, four wars dramatically altered the European balance of power that had been established in 1815 in Vienna. The war of 1859 between Piedmont - the Kingdom of Sardinia which was supported by French troops - and Austria was the first war that led to Italian unification. It resulted in the Austrian loss of Lombardy to Piedmont. However, Austria was still in control of Venetia and the Quadrilateral, the forts that protected Austria on the Po and Mincio rivers. France was indisputably at the height of its status as a great power when the war was over. Within eleven years, Napoleon III would see his empire crumble and find himself a prisoner of war of the Germans.

German unification was accomplished with the political skill of Bismarck and the military power of the Prussian army.² In 1859, 'Germany' consisted of thirty-nine states loosely connected in the German Bund or Confederation. The German federal diet was situated in Frankfurt and, although votes were weighted in favour of Austria and Prussia, the Bund was dominated by Austria. This was a construction conceived by Austria's Foreign Minister, Prince Klemens Metternich, at the Congress of Vienna and agreed on by England, France, Russia, Austria, and Prussia. From 1848, mounting tensions between Austria and Prussia were evident, and in 1850 Prussia made a failed attempt to threaten Austria with the use of force in an effort to establish a German federation without Austria.³ In the 1860s, however, the time was ripe for change. After far-reaching military reforms in Prussia - as we will see later - Bismarck saw an opportunity for a step towards unification in the long-disputed question of Schleswig-Holstein. The duchies belonged to Denmark, but their legal ties to Denmark were complex and a matter of dispute.⁴ After a formal dispute over succession, Austria and Prussia invaded Denmark in 1864 and Denmark was forced to give up the duchies to the joint rule by Austria and Prussia. According to the agreement reached in Gastein in 1865 Prussia was to rule Schleswig and Austria Holstein but this arrangement did not last long. The war against Austria in 1866 finally established Prussian supremacy in Germany. The old Bund

^{2.} For some useful surveys on German unification, see Craig, Gordon A. *Germany:* 1866-1945. (Oxford: Oxford University Press, 1981): Chapters 1 and 2. Pflanze, Otto. *Bismarck and the Development of Germany: The Period of Unification,* 1815-1871. Vol. 1. (Princeton, N.J.: Princeton University Press, 1963). The role of the army is dealt with by Craig, Gordon A. *The Politics of the Prussian Army* 1640-1945. (Oxford: Oxford University Press, 1964): Chapters 4 and 5; Ritter, Gerhard. *Staatskunst und Kriegshandwerk: Das Problem des "Militarismus" in Deutschland.* 4 vols. (München: Verlag R. Oldenbourg, 1959-1968): Vol. 1, Chapters 6-8.

^{3.} Taylor, The Struggle: 40-42; Carr, William. The Origins of the Wars of German Unification. (London: Longman, 1991): 91-100.

^{4.} Holstein, ethnically German, had been a member of the Holy Roman Empire and was represented at the German diet by a delegate appointed by the Danish king. Schleswig, where half the population was Danish, had never been a member of the Holy Roman Empire. Schleswig was considered of strategic importance to Denmark. Carr, Origins: 34-38; Wawro, Geoffrey. *The Austro-Prussian War. Austria's War with Prussia and Italy in 1866.* (Cambridge: Cambridge University Press, 1996):40-41.

ceased to exist; instead Prussia created the North German Federation. A South German Confederation (consisting of Bavaria, Württemberg, Hessia-Darmstadt, and Baden) was created and nominally protected by France but was - in reality - bound to Prussia by mutual defence treaties.⁵ In addition, Italy secured the annexation of Venetia as a result of the war in 1866, in spite of the military failure against the Austrian army. The Austrian empire was shaken and, in 1867, the Austrian-Hungarian dual-monarchy was created.

In order finally to establish German unification, Bismarck felt that a war against France was necessary. France was provoked and declared war against Prussia over the succession dispute on the Spanish throne. All of the German forces were united under Prussian command. Within a month of fighting at the battle of Sedan 83 000 men surrendered to Prussia and Napoleon III became a prisoner of war of the Prussian King. France, however, continued to fight for another five months under the leadership of the newly declared Third Republic. As a result of the German victory, Alsace and Lorraine were occupied by German forces. On 18 January 1871at Versailles, King Wilhelm I of Prussia was proclaimed Emperor of Germany. The Italians seized the opportunity to occupy Rome. On 2 October 1870, the people of Rome voted for a union with Italy.

Neither Britain nor Russia intervened during this process, mainly because the threat from a united Germany was not perceived as very great. The danger to peace and stability in Europe appeared to come from France under Napoleon III. ⁶ However, in 1870 Russia took the chance to denounce the clauses of the Treaty of Paris, which prohibited Russia from keeping war ships in the Black Sea. At that time it was largely a symbolic gesture and when the Russo-Turkish War broke out in 1877 Russia had not yet built up a navy in the Black Sea.

^{5.} Craig, Germany: 6-12; Wawro, Austro-Prussian War:277-78; Pflanze, Otto. Bismarck, Vol. 1: 369-71, 406-411.

^{6.} Russian foreign policy during the unification of Germany has been the subject of many studies. The diplomatic issue is treated by Narochnitskaia, L. I. Rossiia i voiny Prussii v 60-kh godakh XIX v. za ob'edinenie Germanii "sverkhu". (Moscow: Gosudarstvennoe izdatel'stvo politicheskoi literatury, 1960); Shneerson, L. M. Avstro-prusskaia voina 1866 g. i diplomatiia velikikh evropeiskikh derzhav. (Minsk: Ministerstvo vysshego, srednego spetsial'nogo i professional'nogo obrazovaniia SSSR, 1962); Shneerson, L.M. Franko-prusskaia voina i Rossiia. (Minsk: Izdatel'stvo BGU im. V.I. Lenina, 1976). The reactions of the Russian press is described Obolenskaia, S. V. Franko-prusskaia voina i obshchestvennoe mnenie Germanii i Rossii. (Moscow: Nauka, 1977) and Shneerson, L. M. Otkliki v Rossii na avstro-prusskuiu voinu 1866 g. Uchebnye zapiski Belorusskogo gosudarstvennogo universiteta (10, 1950): 157-182. See also Beyrau, Dietrich. 'Der deutsche Komplex: Rußland zur Zeit der Reichsgründung', Historische Zeitschrift (6, 1980): 63-107; Beyrau, Dietrich. 'Russische Interessenzonen und europäisches Gleichgewicht 1860-70', in Europa vor dem Krieg von 1870, edited by E. Kolb. (München: R. Oldenbourg Verlag, 1987): 65-76; Jelavich, Barbara. Sankt Petersburg and Moscow: Tsarist and Soviet Foreign Policy 1814-1974. (Bloomington and London: Indiana University Press, 1974): 147-157. Kiniapina, Nina. Vneshiaia politika Rossii vtoroi poloviny deviatnadtsatogo veka. (Moscow, 1974): 41-50, 83-118; Mosse, European Powers: 359-374. On the issue of Russian denouncement of the Black Sea clauses of the Treaty of Paris, see Narochnitskaia, L. I. Rossiia i otmena neitralizatsii Chernogo moria 1856-1871 gg. (Moscow: Nauka, 1989): esp. Chapter 6. and Mosse, W. E. The Rise and Fall of the Crimean System 1855-71: The Story of a Peace Settlement. (London: Macmillan and Co, 1963).

1.2 Armies and Warfare in Transition

If events on the political scene were eventful, the military development was no less significant. The 1860s was the period when - according to most military historians - warfare became 'modern'; that is, technological and industrial. Three factors are particularly significant: (1) the appearance of conscript armies and trained reserves, (2) the growing importance of officer education and the rise of general staffs, and (3) the technological development, including the military application of the steam railway, the electromagnetic telegraph, and the rifling of muskets and cannons. The emphasis on which of these factors is the most important to determine the 'modernity' of warfare varies somewhat.⁷ Nevertheless, one feature that made this period distinct from the Napoleonic era was the unprecedented peacetime involvement of all sectors of society in military efforts.⁸

In the mid-nineteenth century, technological and scientific advances in conjunction with political, economic, and social change affected the armed forces. Industrialization and technological development led to specialization and division of labour.⁹ New machinery in the

^{7.} The American Civil War has often been called the 'first modern war'. Dupuy, Ernest R. & Dupuy, Trevor N. *The Encyclopedia of Military History from 3500 B.C. to the Present*. 4th ed. (London: BCA, 1993): 898; Hagerman, Edward. *The American Civil War and the Origins of Modern Warfare*. (Bloomington: Indiana University Press, 1988): xi. Paddy Griffith disputed the notion that the Civil War was the 'first modern war' and placed it firmly in the Napoleonic era of warfare. Robert Epstein on the other hand argued that modern wars started with Napoleon. Epstein, Robert M. *Napoleon's Last Victory and the Emergence of Modern War*. (Lawrence, KS: University Press of Kansas, 1994); Griffith, Paddy. *Rally Once Again: Battle Tactics of the American Civil War*. (Ramsbury: The Crowood Press, 1987).

^{8.} On the Prussian wars see Craig, Gordon A. *The Battle of Königgrätz*. (Philadelphia and New York: J. B. Lippincott Co, 1964); Howard, Michael. The Franco-Prussian War: the German Invasion of France, 1870-1871. Reprint of 1961 ed. (London: Routledge, 1991); Wawro, Austro-Prussian War. The role of technological changes in the German wars of unification is discussed in Showalter, Dennis. Railroads and Rifles: Soldiers, Technology and the Unification of Germany. (Hamden, Conn.: Archon Books, 1975) and Showalter, Dennis. 'Prussia, Technology and War: Artillery from 1815 to 1914', in Men, Machines and War, edited by R. Haycock and K. Neilson. (Waterloo, Ontario: Wilfrid Laurier University Press, 1988): 115-151. For flaws in the Prussian command and supply systems during the wars against Austria and France, see Creveld, Martin van. Supplying War: Logistics from Wallenstein to Patton. (Cambridge, Massachusetts: Harvard University Press, 1977): 75-108; Creveld, Martin van. Command in War. (Cambridge, Massachusetts: Harvard University Press, 1985): 132-147. The European (except for the Russian) reactions to the American Civil War is examined in Luvaas, Jay. The Military Legacy of the Civil War: the European Inheritance. Reprint of 1959 ed. (Lawrence, Kansas: University Press of Kansas, 1988). The literature on the American Civil War is immense. For useful surveys see for instance Addington, Larry H. The Patterns of War since the Eighteenth Century. 2nd ed. (Bloomington: Indiana University Press, 1994): 68-94; Jones, Archer. The Art of War in the Western World. (Chicago: University of Illinois Press, 1987): 409-418; McElw-ee, William. The Art of War Waterloo to Mons. (London: Weidenfeld and Nicolson, 1974): 147-183; Ropp, Theodore. War in the Modern World. (Durham, N.C: Duke University Press, 1959): 157-176. I also found the single volume work Hattaway, Herman, and Archer Jones. How the North Won: A Military History of the Civil War. (Urbana: University of Illinois Press, 1983) valuable as an introduction to this war. Useful general surveys on the development of warfare are McNeill, William H. The Pursuit of Power: Technology, Armed Force, and Society since A.D. 1000. (Oxford: Basil Blackwell, 1982); Gooch, John. Armies in Europe. (London: Routledge & Kegan Paul, 1980); Howard, War; Strachan, Hew. European Armies and the Conduct of War. (London: Unwin Hyman, 1983) and - in Swedish - Johansson, Alf W. Europas krig. Militärt tänkande, strategi och politik från Napoleontiden till andra världskrigets slut. (Stockholm: Tidens förlag, 1988).

^{9.} For a good survey on this development, McNeill, *The Pursuit*: 206-261. Useful is also Kennedy, *The Rise and Fall*: 183-193 and Huntington, Samuel P. *The Soldier and the State: The Theory and Politics of Civil-Military Relations*. Reprint of 1957 ed. (London: The Belknap Press of Cambridge University Press, 1995): 32.

factories, steam engine trains, and new production methods increasingly required specialists. The armies were no different, being as one historian put it 'not an independent section of the social system, but an aspect of it in its totality'.¹⁰ Larger than ever and with a growing sophistication in weaponry, command, control and supply systems, the armies of the mid-nine-teenth century became increasingly complex organizations in need of specially trained specialists. A growing armaments industry took shape, spurred by the wars and scientific discoveries such as the Bessemer steel-making process and modern manufacturing processes in producing metal cartridges. The days were over when the soldier was responsible for making his paper cartridges. Armouries faced increasing difficulties in keeping up with the latest developments in rifle and cannon models and production methods.

The social and military implications were far-reaching. Soldiers as well as officers needed to be educated, and officers needed skills to educate civilians in a comparatively short period of time. At the same time, shorter mobilization times – through the use of railways – made de-tailed, advance war planning more important.

Furthermore, the period saw several international agreements related to the conduct of war. They were designed to protect both soldiers and civilians by imposing limitations on the use of military force. The Red Cross was brought into existence by the agreement signed by 26 nations in Geneva in 1864. It was influenced by a Swiss observer who had witnessed the effect of the new rifled cannon used by the French at Solferino in 1859 and wrote a famous book *Un Souvenir de Solferino*. The Declaration of St. Petersburg in 1868 prohibited the use of explosive charges in projectiles under fourteen ounces. The intent was to prevent the development of an explosive bullet following the cannon shell. At the 1874 conference in Brussels, following the Prussian siege of Paris 1870/71, it was agreed to prohibit the bombardment of cities.¹¹

1.2.1 Civilians in Arms

The conscript army was not a new phenomenon in Western warfare. The use of conscript soldiers had been practised in large scale at the beginning of the century when the armies of Napoleon fought on the battlefields of Europe. During the French Revolutionary and Napoleonic Wars, masses of people were put under arms, but this was a temporary situation and the practice was largely abandoned after the Wars.¹² The system did not become permanent in Europe, with the exception of Prussia. Conscription had become associated with revolutionary politics, and, after 1815, the European states concentrated on restoring the old, pre-

^{10.} Howard, Franco-Prussian War: 1.

^{11.} See for instance Preston, R.A., S.F. Wise, and H.O Werner. *Men in Arms: A History of Warfare and its Interrelationships with Western Society.* (London: Atlantic Press, 1956): 207-15.

^{12.} Rothenberg, Gunther. *The Art of Warfare in the Age of Napoleon*. Reprint ed. (Staplehurst: Spellmount, 1997): 98-102, 134-135.

revolutionary order. Domestic concerns became dominant and the armies in Europe were used primarily for internal affairs. The prospect of arming and training large parts of the population for military service was not only expensive but could prove to be politically dangerous.¹³

There were also a number of reasons for the military establishments to be sceptical towards conscript armies. The professional, long-service armies functioned well, and allowed for plenty of time to train the troops and cultivate *ésprit de corps*. There were doubts about the effectiveness of civilians in arms.¹⁴ For instance, how could civilians – with only a relatively short period of service – be trusted to stay in a battle and fight? After all, desertion was a big enough problem in the long-service armies. During the Revolutionary wars of the mid 1790s, the French army had suffered yearly desertions of around eight per cent of the total strength. In the war of 1859, it has been estimated that around 15,000 Austrian troops deserted.¹⁵ In Russia, the rates of desertion were lower than in other European armies, although the official figures are not very reliable.¹⁶

The Prussian victories against Austria in 1866 and France in 1870-71 finally convinced the rulers of Europe of the benefits of conscripting all social groups into military service. Thus arose a system where civilians were trained in peacetime, only to be called up in the case of war. This was a fundamental change compared to the 'nation in arms' of the Napoleonic era. In 1813, at the battle of Leipzig over 400,000 troops had fought. In the mid-nineteenth century, such numbers had become the norm on the battlefield. In 1870-71 Germany put almost 1,200,000 men in the field.¹⁷ What were the reasons behind this development?

One of the underlying factors for the size of armies must be population size.¹⁸ During the first half of the nineteenth century, Europe had experienced a period of relative prosperity. From 1750 to 1800, Europe's population increased from 140 million to 187 million. In the next fifty years, it rose to 266 million.¹⁹ Furthermore, industrial development – not least the mass production process – played a role in facilitating the growth of armies and giving impetus to

^{17.} Howard, Franco-Prussian War: 22-23.

^{13.} Howard, War: 94-95; Howard, Franco-Prussian War: 15; McNeill, The Pursuit: 219-221.

^{14.} Challener, Richard D. *The French Theory of the Nation in Arms*, 1866-1939. (New York: Columbia University Press, 1955): 15.

^{15.} Strachan, *European Armies*: 39. Rothenberg, Gunther. *The Army of Francis Joseph*. (West Lafayette, Ind.: Purdue University Press, 1976): 54-55.

^{16.} Wirtschafter, Elise Kimerling. From Serf to Russian Soldier. (Princeton, N.J.: Princeton University Press, 1990): 110-115. See also Duffy, Christopher. Russia's Military Way to the West: Origins and Nature of Russian Military Power 1700-1800. (London: Routledge & Kegan Paul, 1981): 46, 133; Fuller, William C., Jr. Strategy and Power in Russia 1600-1914. (New York: Free Press, 1992): 48-49, 167-168; Keep, John L.H. Soldiers of the Tsar: Army and Society in Russia 1462-1874. (Oxford: Clarendon Press, 1985): 222-223.

^{18.} Strachan, European Armies: 108-109.

^{19.} Kennedy, *The Rise and Fall*: 187.

large-scale arms manufacturing. Weapons production became an increasingly faster and cheaper process. For instance, when the Prussian army had decided to rearm its infantry with needle guns in the 1840s, it took twenty-six years to complete. Between 1841 and 1847, the production capacity was about 7,500 rifles a year compared to the 300,000 needed for the army and its reserves in case of war. By 1851, the yearly production reached 22,000, a figure which constantly increased with the availability of machines and skilled workers.²⁰ When, in the wake of the Prussian victory at Königgrätz, France decided to rearm its infantry with the new rifle, the *chassepot*, it managed to produce one million rifles in time for the outbreak of the war of 1870.²¹In Russia, the production of the newly adopted rifled breech-loader, *Berdan* 2, increased from 4,430 in 1872 to 123,718 three years later.²²

Moreover, the use of railways had made it possible to rush large numbers of troops to the front. The first successful military use of railways was demonstrated by France in 1859, when they moved 250,000 men by rail to Piedmont in the war against Austria.²³ It took eleven days - instead of two months of marching - for 120,000 men to reach the theatre of war.²⁴ In 1866, Prussia was faster to mobilize and concentrate its forces than was the Austrian army.²⁵ The military use of railways was further demonstrated in the American Civil War, something that was not ignored, as we shall see, by the Russian General Staff Academy.²⁶

However important these factors may have been, they only provided the potential for mass armies. The political determination varied from country to country. Prussia was the only country to have kept universal conscription after 1815. It had ben introduced as a consequence of the restrictions on the size of the Prussian peacetime army, 42 000 men, imposed by Napoleon at Tilsit.²⁷ Every male Prussian at the age of twenty was required to serve five years in the standing army, three on active service, two in the reserve, and fourteen years in the *Landwehr*, the territorial militia. The whole military organization of Prussia had undergone profound change as a consequence of the defeat at Jena 1806. The Prussian reformers of the

^{20.} Showalter, Railroads and Rifles: 91; McNeill, The Pursuit: 235-236.

^{21.} Howard, Franco-Prussian War: 35.

^{22.} Zaionchkovskii, P. A. *Voennye reformy 1860-70 godov v Rossii*. (Moscow: Izdatel'stvo Moskovskogo Universiteta, 1952): 178. See also Beskrovnyi, L. G. *Russkaia armiia i flot v XIX veke*. (Moscow: Nauka, 1973): 307-309.

^{23.} Showalter, *Railroads and Rifles:* 40; van Creveld, Martin. *Technology and War from* 2000 B.C. to the *Present*. (London: Brassey's, 1991): 158.

^{24.} Howard, War: 97.

^{25.} Wawro, Austro-Prussian War: 51-60.

^{26.} On other European reactions to the use of railways in the Civil War, see Luvaas, *Military Legacy*: 122; Showalter, *Railroads and Rifles*: 48; McElwee, *Art of War*: 153. See also Jones, *The Art of War*: 409-413 and the early study on the military importance of railways Pratt, Edwin A. *The Rise of Rail-Power in War and Conquest 1833-1914.* (London: P.S. King & Son, 1915).

^{27.} McNeill, *The Pursuit*: 219. On the Prussian military reforms at this time see for instance Craig, *The Politics*: 38-75 and Delbrück, Hans. *Geschichte der Kriegskunst im Rahmen der politischen Geschichte*. (Berlin: Georg Stilke, 1900-36).): Vol. 4: Chapter 4.

early nineteenth century firmly believed that it was significant to involve all sectors of society in the defence of the nation. In the words of War Minister Herman von Boyen (1771-1846):

The old school wishes to consider military questions without the participation of the public; the new school holds the defence of the state is impossible without the material and moral cooperation of the entire nation.²⁸

The *Landwehr*-system was not without complications, and the events of 1848 and 1850 showed that Prussia was in a precarious situation: its military power was based on mobilization of the *Landwehr* forces which had proved to be neither politically reliable, nor military efficient.²⁹ The failed mobilization in 1859 in support of Austria again illustrated the poor state of the *Landwehr*.³⁰ The reforms of the 1860s were aimed at addressing the problems.³¹ It was decided to increase the size of the army by drafting a larger proportion of the population without exemptions. Conscripts served for three years in the standing army and four years in the reserves before passing on to the *Landwehr*. The decision to put the *Landwehr* under the supervision of the regular army was significant because, although mandatory service in the *Landwehr* was reduced to five years, it was tied more closely to the regular army.

In France, the principle of universal conscription existed on paper only. The army recruited by voluntary service plus an annual intake by lot.³² The exemption rules were generous, and there was always the possibility of escaping service by finding a substitute or (from 1855) by paying directly to the state. The idea of universal conscription in France was very unpopular with both the military and populace in general. The military maintained that it took at least six years to train a soldier and generally thought that little good could be expected from a short-term conscript force. Those liable for conscription rejected any change in the recruiting system because there was always a chance of escaping service by drawing a 'good' number. This had severe repercussions for the French army in that the number of trained reserves was not sufficient. The reform efforts in 1868 proposed to increase the annual intake and - more importantly - to create a trained reserve force, *garde mobile*, of 500,000 men. However, the law was never implemented and France did not introduce a conscription system, based on the principle of universal service, until 1872.³³

^{28.} Ropp, War in the Modern World: 153.

^{29.} Craig, The Politics: 74-75, 131; Howard, Franco-Prussian War: 12.

^{30.} Wawro, Austro-Prussian War: 12.

^{31.} On the Prussian army reform in the beginning of the 1860s, see Craig, *The Politics*: 138-179; Ritter, *Staatskunst*: Vol. 1: 159-206; Howard, *Franco-Prussian War*: 18-29.

^{32.} Howard, Franco-Prussian War: 13; Griffith, Paddy. Military thought in the French army, 1815-51. (Manchester: Manchester University Press, 1989): 7-11.

^{33.} Howard, *Franco-Prussian War*: 29-35; Challener, Richard D. *French Theory*: 10-45. For a detailed study of the German influence on the French army, see Mitchell, Allan. *Victors and Vanquished: the German Influence on Army and Church in France after 1870.* (Chapel Hill: University of North Carolina Press, 1984): Chapters 1 through 5.

Austria had a rather complex recruiting system, although the law of 1852 aimed at introducing a coherent system throughout the whole empire.³⁴ Following the defeat in 1866, Austria introduced legislation according to which all male subjects of the Empire should serve twelve years; three in the army, seven years in the reserves, and two in the *Landwehr*. Exemptions for clergy, theological students, and certain other social categories were allowed.

In Russia, the recruiting system was based on selective conscription, affecting the poll-tax paying population. There were many exemptions and, in peacetime during the reign of Nicholas I, two to three soldiers per 100 liable for service were conscripted.³⁵ Universal military conscription was introduced in 1874, stipulating obligatory service for all males for fifteen years; six in the line, nine in the reserves. Britain did not introduce conscription but continued to rely on its volunteer service.³⁶

The wars of the 1860s demonstrated that mobilization and deployment of large armies had become more dependent on the systems that raised them. The ability of a country to train, arm, and deploy the large army involved larger sections of society than ever before in the history of warfare. This is not to suggest an absolute link between economic power and military power. An economically poor country can choose to organize society in such a way as to give it military power, and an economically strong state can choose not to create a strong military system. Nevertheless, it remains true that during this period, but more particularly in the 1880s and 1890s, the link between economic and military power was becoming stronger.³⁷

1.2.2 The Rise of General Staffs and Officer Education

As the armies increasingly consisted of amateurs, the officer corps became more professional; that is, more specially trained.³⁸ Larger armies and faster mobilization times increasingly required educated (rather than well connected) officers. At the same time, the aristocratic percentage of the officer corps in the European armies started to decline. In 1865, almost half of the Prussian officer corps was noble; in the highest ranks of the army – generals and colonels – over 80 per cent were noble. In 1913, 70 per cent of the officer corps was middle class and the percentage of noble generals and colonels had shrunk to 52 per cent.³⁹ In the Austrian ar-

^{34.} Rothenberg, *The Army:* 61-62, 74-81.

^{35.} On problems with the recruiting system during Nicholas I, see Wirtschafter: *From Serf*: 22-23; Keep: *Soldiers*: 325-330; Curtiss, John Shelton. *The Russian Army under Nicholas I, 1825-55*. (Durham, N.C.: Duke University Press, 1965): 234; Fuller, *Strategy*: 254-257.

^{36.} Spiers, Edward. The Army and Society 1815-1914. (London: Longman, 1980): 35-52, 168-169; Strachan, European Armies: 110.

^{37.} For an illuminating discussion on this, see Kennedy, *The Rise and Fall*: Chapter 5.

^{38.} Amateur here is not used in any negative sense, but as opposed to the professional long-service soldiers. For three views on the 'professionalization' of the officer corps during the second half of the nineteenth century, see Creveld, *Technology and War*: Chapter 10; Huntington, *Soldier and the State*: Chapter 2; and Finer, S. E. *The Man on Horseback: The Role of the Military in Politics*. (London: The Pall Mall Press, 1962): 23-25.

my, the non-nobles increased their percentage among the generals from 20 per cent in 1866 (in 1848, it was three per cent) to 58 per cent in 1878.⁴⁰ The Russian army was no exception and from the time after the Crimean War to 1911 the nobility's share of the officer corps shrank from around 90 per cent to around 50 percent.⁴¹ This is not to suggest that aristocratic officers were not educated - quite the contrary was often the case - but it is clear that old bonds, where patronage and birth played an important role, were slowly breaking up.

The rise of the general staff as the brain of the army and a more specialist educated body of officers was a process underpinned by several factors. The increasing pace of technological invention and the increasing complexity of warfare played an important role.⁴²The military use of trains made advance planning both necessary and feasible. Trains ran on certain tracks, at certain times, with certain amounts of men and supplies - all which could be planned in advance. The electric telegraph facilitated quick communications between headquarters.⁴³ If mobilization and concentration⁴⁴ of large armies and their supply were to work in the case of war, the planning and organization had to take place before the outbreak of war. Moreover, all this greatly increased the demand for more detailed intelligence about foreign armies. During the second half of the nineteenth century the use of military attachés became more widespread. Whereas the major European powers had two to five military attachés in 1860, their numbers had grown to between fifteen and twenty in 1913.⁴⁵

Through the resounding victories over Austria and France, Prussia had demonstrated such superiority that the Prussian military organization drew the attention of all the major armies

^{39.} Craig, *The Politics*: 233-235; Demeter, Karl. *Das deutsche Offizierkorps in Gesellschaft und Staat* 1650-1945. 4th ed. (Frankfurt am Main: Bernard & Graefe Verlag für Wehrwesen, 1965): 29-33.

^{40.} Rothenberg, *The Army*: 62, 81.

^{41.} For studies of the Russian officer corps, see Bushnell, John. 'The Tsarist Officer Corps 1881-1914', *American Historical Review* 86 (3, 1981): 753-80; Kenez, Peter. 'A Profile of the Prerevolutionary Officer Corps', *California Slavic Studies* 7 (1973): 121-158; Mayzel, Matitiahu. 'The Formation of the Russian General Staff 1880-1917, A Social Study', *Cahiers du monde russe et soviétique* XVI (3-4,1975): 297-321; Mayzel, Matitiahu. *Generals and Revolutionaries: The Russian General Staff During the Revolution: A Study in the Transformation of Military Elite*. (Osnabrück: Biblio Verlag, 1979); Stein, Hans-Peter. 'Der Offizer der russischen Heeres im Zeitabschnitt zwischen Reform und Revolution', *Forschungen zur osteuropäischen Geschichte* 13 (1967): 346-507; Zaionchkovskii, P. A. Samoderzhavie i russkaia armiia na rubezhe XIX-XX stoletii, 1881-1903. (Moscow: Mysl', 1973): 168-248. A brief study is written by Ray, Oliver Allen. 'The Imperial Russian Army Officer', *Political Science Quarterly* 76 (4, 1961): 576-592. Details about the students and teachers at the higher military academies during the second half of the 19th century and beginning of 20th are presented by Mashkin, N. A. *Vysshaia voennaia shkola Rossiiskoi imperii XIX-nachala XX veka*. (Moscow: Akademiia, 1997): Chapters 2 and 3, Appendix 3-7.

^{42.} Kennedy, Paul, ed. *The War Plans of the Great Powers 1880-1914*. Paperback ed. (Boston: Allen & Unwin, 1979): 1-3.

^{43.} The electric telegraph was above all of strategic importance. It did not yet play any role on the battlefield. On the weaknesses of the telegraph as a strategic weapon, see Creveld, *Command*: 107-109.

^{44.} Mobilization refers to the process of calling up the different units, assembling them at certain points and gathering the necessary equipment. Concentration refers to the process of moving the troops to the main theatre of war.

^{45.} These figures do not include naval attachés, which at least in 1913 were also stationed abroad. Beauvais, Armand. Attachés militaires, attachés navals et attachés de l'air. (Paris: Editions A. Pedone, 1937): 30, 44-48. For Russia, see below, Chapter 3.

in Europe. In particular, the Prussian General Staff system received much recognition, both then and later.⁴⁶ Therefore, it seems appropriate to outline what has been called the 'primacy of Prussia'.⁴⁷ More than one scholar has pointed to the fact that Prussia's system of choosing and promoting officers ensured that the best and the brightest reached the top.⁴⁸ The selection process was based on merit alone through examinations, and of the 120 or so candidates to the War Academy in Berlin around forty gained entrance. After the three year course, these officers returned to regimental duty, but after a year, twelve of the best were called up to serve on the General Staff. If they did not live up to expectations, they were immediately sent back to service with the troops. The rotational troop duty contributed to the General Staff officers becoming an integral part of the army.⁴⁹

This was very different to the French army. In 1818, Marshal Gouvion Saint-Cyr (1764-1830) had established a *corps d'état-major* with specially trained officers from which all staff officers were to be drawn. A special school, *Ecole d'application d'état-major*, provided the training for these selected officers. From 1833 onwards, a law stipulated that graduates of the staff school were appointed permanently to staff service.⁵⁰ This meant that the only competitive examination was conducted upon entrance to the school and that the staff officers did not have much contact with and were often despised by colleagues serving in the field troops. The situation in Russia was much the same, but later we shall see that the War Ministry under D. A. Miliutin tried to bridge the gap between staff officers and the troops. The Austrian and British armies experienced the same problem.⁵¹

Another important factor that distinguished the Prussian army from its enemies in 1866 and 1870/71 was the attitude to military education and self-education among officers. Prussian General Gerhard Scharnhorst (1755-1831), a firm believer in the importance and value of military study, started several military journals, founded the *Militärische Gesellschaft* (a society where officers gathered and discussed military science) in 1801-2 in Berlin, and helped to create the War Academy in 1810. In the wake of the defeat at Jena, he reformed the General Staff. Together with other army reformers August Gneisenau (1760-1831), and Herman von Boyen,

^{46.} The French military attaché in Berlin, for instance, in 1868 warned his superiors in Paris of the excellence of the Prussian general staff. Stoffel, Eugène. *Rapports militaires écrits de Berlin 1866-70*. (Paris: Garniers frères, 1871): 131.

^{47.} Huntington, Samuel P. *The Soldier and the State: The Theory and Politics of Civil-Military Relations*. (London: The Belknap Press of Cambridge University Press, 1957): 30.

^{48.} Howard, Franco-Prussian War. 24-25; Huntington, Soldier and the State: 39-41, 48; Kennedy: The Rise and Fall: 237.

^{49.} Huntington, Soldier and the State: 53-54; Bucholz, Arden. Moltke, Schlieffen, and Prussian War Planning. (New York: Berg Publishers, Inc., 1991): 34-35

^{50.} Irvine, Dallas D. 'The French and Prussian Staff Systems before 1870', *The Journal of American Military History Foundation* 2 (4, 1938): 199-200. For more on the French military educational system, see Griffith, *Military thought*: Chapter 8.

^{51.} Howard, War: 101.

Scharnhorst played an important role in trying to create an army that would become the school of a the nation.⁵²The Prussian General Staff had its roots in the old Quartermaster-General's staff, an organization responsible for quartering the troops in the field. Staff work in peacetime consisted of intelligence gathering, map-making, making mobilization plans, and study of military history.⁵³ In 1864, a railway section was added the Great General Staff.⁵⁴ In spite of its name, this was not a large institution. In 1853, the General Staff in Berlin had a to-tal of twenty-one officers.⁵⁵

The use of military history and war games in educating the General Staff officers played an important role in encouraging a common way of thinking about tactical problems.⁵⁶This was important in a time when the armies grew larger and moved over considerable areas, which diminished the possibility of direct control. Consequently, the role of the subordinate commander increased since he needed to make independent decisions in line with the general intentions of the commander. Under Moltke's system of mission orders, a subordinate commander could change the instructions to reflect the intent of the commander. English observers particularly noted the absence of slavish obedience to superiors that was characteristic of other armies.⁵⁷ The personal role of Helmut von Moltke, Chief of the Prussian General Staff 1857-1888, should not be neglected and was often mentioned by his contemporaries as well as by twentieth-century scholars.⁵⁸

Perhaps it was the attitude towards intellectual military pursuits that made the Prussian army willing to study and learn from the mistakes of previous campaigns to a greater degree than did other armies.⁵⁹ Allegedly, war games were of no attraction to the Austrian army

^{52.} Gat, Azar. The Origins of Military Thought from the Enlightenment to Clausewitz. (Oxford: Clarendon Press, 1989): 163. See also White, Charles Edward. The Enlightened Soldier: Scharnhorst and the Militärische Gesellschaft in Berlin, 1801-1805. (New York: Praeger, 1989); Hornung, Klaus. Scharnhorst: Soldat, Reformer, Staatsman. (Munich: Bechtle, 1997). For the reform of the General Staff in particular, see Ritter, Staatskunst: Vol. 1: 211-221.

 ^{53.} Bucholz, Moltke, Schlieffen: 12-16; Creveld, Command: 109-111; Görlitz, Walter. Der deutsche Generalstab: Geschichte und Gestalt 1657-1945. (Frankfurt am Main: Verlag der Frankfurter Hefte, 1950): 9-29; Hittle, J.
 D. The Military Staff: Its History and Development. (Harrisburg, Pa.: The Military Service Publishing Company, 1944):48f; Irvine, Dallas D. 'The Origin of Capital Staffs', The Journal of Modern History 10 (2, 1938): 161-179; Wilkinson, Spenser. The Brain of an Army: A Popular Account of the German General Staff. 2nd ed. (London: Archibald Constable and Co, 1895): 175-187.

^{54.} It has been suggested, without substantial evidence, that this was done as a result from lessons drawn from the American Civil War. Pratt, *The Rise of Rail-Power*: 104; Luvaas, *Military Legacy*: 122; Showalter, *Railroads and Rifles*: 48, 232.

^{55.} Creveld, *Command*:111. The Great General Staff referred to the general staff in Berlin to distinguish it from the General Staff at troop level, *Truppengeneralstab*. There were general staff officer at corps and division level of the army. Together they made up the General Staff of the Army.

^{56.} Bucholz, Moltke, Schlieffen: 34-35.

^{57.} Hamley, E.B. *The Operations of War.* 4th ed. (Edinburgh: William Blackwood and Sons, 1872): ix-x. See also Huntington, *Soldier and the State*: 51.

^{58.} Stoffel, Rapports militaires: 39-40; Howard, Franco-Prussian War: 24-25; Bucholz, Moltke, Schlieffen: 39-43.

^{59.} Kennedy, *The Rise and Fall*: 238; Howard, *Franco-Prussian War*: 23.

since there was no money to be made from them.⁶⁰ Even officers entering the General Staff were not convinced of the virtues of intellectual skills. This attitude was reflected in the words of the Chief of the General Staff Ludwig Benedek (1804-1881), whose distrust of military science was well known: 'The only talents required in a staff chief are a strong stomach and a good digestion.' ⁶¹ The French General Staff was permeated by the same scorn for desk officers. Under the old régime, the French staff system had been unrivalled and, as early as 1766 a General Staff had been established.⁶² After 1815, however, this was only a proud memory. The French Marshal Patrice MacMahon (1808-1893) allegedly threatened to eliminate any officer from the promotion list whose name he had seen on the cover of a book.⁶³

When discussing the Great General Staff's rise to international acclaim it should not be forgotten that it was a prolonged process. For many years, the General Staff remained subordinate to the War Ministry and its influence on the King was negligible. Its authority increased somewhat in 1859 when Moltke was given the authority by War Minister von Bonin to report directly to him rather than through the *Allgemeine Kriegsdepartement* within the War Ministry. In 1862, it was possible to write a book about the Prussian army without mentioning the General Staff.⁶⁴ The Danish war was the first which won recognition for the Prussian General Staff - at least within the Prussian court and the army. The General Staff's impact on the battlefields of Schleswig and Denmark was initially insignificant. At the final stages of the war, however, Moltke was called from Berlin, first to become Chief of Staff to Wrangel and later to Prince Frederick Charles. He was largely responsible for the operation against Als, which brought the war to an end. The war strengthened Moltke's position and, in the war against Austria in 1866, the King entrusted the General Staff with issuing orders in the field without going through the War Ministry.⁶⁵

As several historians have already noted, the Prussian victories in 1866 and 1870/71 were neither accidental nor inevitable.⁶⁶ They highlighted the importance of staff work. The hitherto accepted image of the talented, natural genius who alone could command his army was slowly replaced by the planning staff officer.⁶⁷

^{60.} Creveld, Command:111.

^{61.} Wawro, *Austro-Prussian War*: 25-26; See also Rothenberg, *The Army*: 10-11,41, 60; Craig, Gordon A. 'Command and Staff Problems in the Austrian Army 1740-1866', in *The Theory and Practice of War*, edited by M. Howard. (London: Cassel & Co, 1965): 43-67.

^{62.} Irvine, 'The French and Prussian Staff Systems': 192-203. For a good study on French strategic planning see Cox, Gary P. *The Halt in the Mud: French Strategic Planning from Waterloo to Sedan*. (Oxford: Westview Press, 1994).

^{63.} Gat, Azar. The Development of Military Thought. (Oxford: Clarendon Press, 1992): 119-120; Ropp, War in the Modern World: 129-130.

^{64.} Creveld, Command:112.

^{65.} Craig, The Politics:193-95; McNeill, The Pursuit: 247-48.

^{66.} Howard, War: 100-01; Showalter, Railroads and Rifles:223.

^{67.} Creveld, Command: 115.

1.2.3 Technology and Tactics

Larger armies needed new tactics. At the beginning of the nineteenth century, the old infantry linear tactics had been replaced by shock attack in columns. During the Revolutionary wars, new recruits had been conscripted in large numbers and, without much training, were thrown into battle.⁶⁸ These troops could not be deployed in the traditional line to fire their muskets but were deployed in columns that sprinted towards the enemy with the bayonets down. Before the enemy had time to reload the muzzle-loading muskets, the storming French units had often broken through the lines.⁶⁹ Thus, the column became the dominant tactical formation in European armies.

The introduction of the rifle as the main infantry weapon was a long process influenced by a number of factors. The breech-loading rifle, used mostly for hunting, had existed since the seventeenth century, but the military use of it did not spread until the 1860s. The flintlock musket, adopted by armies in the sixteenth century and supplemented with a bayonet in the seventeenth century, was the standard infantry weapon used by all major armies.

The military use of rifles had been hampered by many, above all technological problems.⁷⁰ The modern production methods that brought down costs and the technical improvements of the breech-loading mechanism paved the way for the rifle.⁷¹ In the beginning, the rifles were very expensive and the rifling made it difficult to get the ball down the barrel. However, the early nineteenth century discovery of fulminate of mercury (an explosive that detonated upon impact) paved the way for Alexander Forsyth, a sports-loving clergyman, to apply the detonation principle to a rifle.⁷² In the 1820s, the percussion cap became available for military use. The elongated, cylindro-conoidal bullet named after the French Captain Claude-Etienne Minié, was highly significant. The Minié bullet had a hollow base, and when the rifle was fired, the force of the powder gases expanded the hollow portion of the bullet causing it to take the rifling. This capability made the rifle a much more accurate weapon than the smoothbore musket. The Minié rifle and bullet were used in the Crimean War and were developed together with improved, mechanized, production methods. The percussion cap, the rifling, and the Minié bullet had greatly improved the musket, but it was still loaded from the muz-

^{68.} Jones, *The Art of War*: 322-325; Rothenberg, Gunther. *The Art of Warfare in the Age of Napoleon*. Reprint of 1978 ed. (Staplehurst: Spellmount, 1997): 114-118, 149-156.

^{69.} It required 42 moves to fire a musket. McNeill, *The Pursuit*: 126-133; Ropp, *War in the Modern World*: 32-33.

^{70.} For a broad and stimulating discussion on the relationship between technological development and war, see Creveld, *Technology and War*.

^{71.} Young, Peter. *The Machinery of War.* (New York: Crescent Books, 1973): 72-76; McElwee, *The Art of War*: 120-21; Ropp, *War in the Modern World*:144-45.

^{72.} Bradley, Joseph. Guns for the Tsar: Technology Transfer and Small Arms Industry. (DeKalb, Illinois: Northern Illinois University Press, 1990); 12-16; O'Connell, Robert L. Of Arms and Men: A History of War, Weapons, and Aggression. (Oxford: Oxford University Press, 1989): 191-192.

zle. The needle gun, the first breech-loader to be used in a war, was developed by Johann Nikolaus Dreyse. The needle gun had a complicated construction. Gas leaked from the breech and since the needle went straight through the powder in the cartridge and exploded 'back-wards', the needle was vulnerable to intensive use. In theory, it was possible to fire six rounds per minute at a distance of up to 600 yards.⁷³ Finally, the development of the metallic cartridge helped in the subsequent development of breech-loading small arms. The metallic cartridge was easier to use than the paper cartridge, more reliable in all types of weather, more durable, and, once the manufacturing had improved, could be supplied in greater quantities.⁷⁴

The closed infantry column seemed to have become obsolete in view of lager forces and vastly improved firepower. From the perspective of the battlefield, the Prussian captain Boguslawski summarized the latest tactical development in 1872:

All idea of attacking with large compact masses, or drawing them up in line to fire upon one another, is finally exploded...The real secret of infantry fighting...now consists in so regulating and controlling the independent action of the individual soldier and of the leaders of a tactical unit as to facilitate...the direction of the fight, without losing the advantages of that same self-reliance...⁷⁵

In other words, the two or three lines deep, closed formation of the infantry battalion was suicidal against the new weapons with greater firepower and accuracy. A more flexible formation was required where every man used his initiative. Consequently, the technological development did not diminish the role of the non-commissioned officer or the soldier on the battlefield; it increased it. The troops needed motivation to advance and endure on the battlefield, in spite of the firestorms.

The improved firepower seemed to have strengthened defensive over offensive action. In the American Civil War, soldiers began to seek shelter in trenches or behind breastworks, making - as one historian put it - 'use of spade and ax in conjunction with the rifle'.⁷⁶ As we shall see, the growing importance of entrenchments was a tactical lesson European armies digested slowly. Although much of the contemporary tactical debate was dominated **as in conjunction** issues related to infantry, the changes affected other arms as well. Artillery tactics changed as smoothbores were replaced by breech-loading cannons. However, the technological development of cannons was slower, and the rapid development of small arms in the mid-nineteenth century

^{73.} McNeill, *The Pursuit*: 245; Showalter, *Railroads and Rifles*: 82-84. See also Anon. 'Ob igol'chatykh ruzh'iakh', *Artilleriiskii zhurnal* (9, 1866): 405-414.

^{74.} The political danger of a widespread distribution of these weapons is also likely to have affected the military introduction of rifles. The Prussian army had introduced the rifle in the 1840s, but initially kept it in store to be distributed in an emergency. Showalter, Dennis. *Railroads and Rifles*: 81.

^{75.} Quoted in Luvaas, Jay. 'European Military Thought and Doctrine, 1870-1914', in *The Theory and Practice of War*, edited by M. Howard: 83.

^{76.} Luvaas, Military Legacy: 140.

made some think that artillery had outlived its role. The advent of the breech-loading steel gun changed this and artillery became more significant as the size of the field guns grew.⁷⁷

The role of the most traditional and prestigious arm of all, the cavalry, changed. In the American Civil War, the cavalry had been used for raiding and reconnaissance and had fought on foot as 'mounted infantry'. This was fundamentally different from the traditional cavalry shock, which had become increasingly difficult to conduct.⁷⁸

The strategy of breaking up the closed infantry column and letting each man act more independently was controversial and disputed, most likely because it led to a loss of control. The discussions about the rifle's impact on infantry tactics in Europe illustrate that it was difficult to draw the conclusions that seem so obvious in hindsight. In 1859, the war against the French had convinced the Austrian army about the superiority of the bayonet attack. The Austrian infantry was badly trained in the use of the new rifles and failed to realize that the bullet made a curved path through the air and thus constantly shot over the storming French columns.⁷⁹ The French tactics of massed bayonet attacks were judged to be better and, in 1862, new field regulations for Austrian infantry were introduced according to the French example with disastrous effects only four years later.⁸⁰

Another illustration of the strength of firepower was the battle at Lundby during the Danish War. The Austrians and Prussians were allies in the war and, for the first time, the Prussian army used their rifled breech-loader, the needle gun, in battle. At Lundby on 3 July (N. S) the Prussians showed the effectiveness of the needle gun's firepower, when they repelled a Danish attack by holding their fire until the attacking Danes were 250 paces away and then firing three volleys. Of the 180 Danes who had attacked, 22 men died, 66 were wounded, some of the bodies had been hit seven or eight times. Only three Prussians were wounded.⁸¹

This, however, did not make the Austrian army change its mind about the advantage of the closed formation.⁸² The Austrian army's own experiences of the Danish war confirmed their belief that the closed order formation with bayonet attack still had a role to play.⁸³Further-

^{77.} Strachan, European Armies: 117-119.

^{78.} For an introduction on the use of cavalry in the Civil War I found Griffith, *Rally Once Again:* esp. Chapter 8 and Jones, *The Art of War:* 409-418 helpful. Useful information can also be pieced together from Hattaway and Jones, *How the North Won.* A thorough investigation of the use of cavalry by the Union forces in the Civil War is Starr, Stephen Z. *The Union Cavalry in the Civil War.* 3 vols. (Baton Rouge: Louisiana State University Press, 1979-85).

^{79.} Craig, The Battle: 9; Wawro, Austro-Prussian: 11-12.

^{80.} Delbrück, Hans, continued by Emil Daniels. *Geschichte der Kriegskunst*: Vol. 5: 229-30, 425-28; Showalter, *Railroads and Rifles*: 106-107; Strachan, *European Armies*: 115

^{81.} Showalter, Railroads and Rifles: 115-116; Wawro, Austro-Prussian War: 34-35.

^{82.} After the defeat in 1866 Austria decided to rearm its infantry with rifles. See Wheatcroft, Andrew. Technology and the Military Mind: Austria 1866-1914', in *War, Economy and the Military Mind*, edited by G. Best and A. Wheatcroft. (London: Croom Helm, 1976): 45-57.

more, they were concerned about the Prussian tendency to disperse rather than keep the soldiers in tight control. The official Austrian history of the Danish War maintained that the Prussian tactics 'could have been very dangerous against an enemy who knew how to keep his forces concentrated'.⁸⁴ It is worth noticing that this comment was made in 1870, that is four years after Königgrätz (where the Austrians had been defeated by the very same infantry tactics), which speaks volumes about the ambiguity of the lessons of the war and the difficulties the armies faced. Even in Prussia, the closed order was considered superior in the 1860s. The Prussian King continued to stress the value of closed formations and refused to change the infantry drill regulation.⁸⁵ In 1870, the German forces fought at Gravelotte in closed formation with disastrous results. The German losses during the battle amounted to over 20,000, a quarter of the entire Guard Corps (8,000 officers and men) died. The French losses were over 12,000.⁸⁶

^{83.} Rothenberg, *The Army*: 64-65; Showalter, *Railroads and Rifles*: 114-116.

^{84.} Cited in Showalter, Railroads and Rifles: 115-116.

^{85.} Showalter, Railroads and Rifles: 216.

^{86.} Howard, Franco-Prussian War:167-182.
2 Reforming the Russian Army

Most of the major European armies were engaged in handling rapid changes of the 1860s and 1870s. The Russian army had been defeated in the Crimean War. Spurred by the defeat and the rapid transformation in Europe, the Russian army faced two decades of transition and reform. The Crimean War had revealed weaknesses in every aspect of the Russian military organization. This chapter aims to describe the lessons learned from the Crimean defeat and to outline the major military reforms under the War Minister Dmitrii Alekseevich Miliutin during the period 1862-1874. At least some of the military reforms were a reaction to the Prussian victories on the battlefield and to the changes in warfare outlined in the previous chapter. Whenever possible, such connections will be identified and, in some cases, expanded upon. But, it should be made clear that the aim here is not to investigate the influence of foreign wars on each of the military reforms.

After the Crimean War, a period dominated by domestic reforms existed in Russia. The reforms during Alexander II's reign are popularly called the 'Great Reforms'.¹ Perhaps the most fundamental reform took place in 1861 with the emancipation of the serfs. Other important reforms – apart from the military ones – involved local government, and the judicial system. However painful the defeat of the Russian army in the Crimean War may have been, Sevastopol was no Jena that triggered immediate and radical reforms.² It was a humiliating defeat, but not fatal. Russia did not have to surrender to the complete will of a foreign power. Nevertheless, the army of Nicholas I, describe by one historian as 'large in size and formidable in appearance', had been defeated.³ What lessons were learned from this?

2.1 Lessons from the Crimea

A memorandum written during the war by D. A. Miliutin, who was an officer at the War Minister's disposition at the time the memo was written, listed several difficulties involved with a decision to continue fighting.⁴ The army was running out of soldiers and officers to recruit. The supplies of weapons were diminishing quickly since it had become increasingly difficult to import rifles from abroad. Food supplies were getting increasingly scarce as war zone supplies were being depleted and the lines of communications were so deficient that both the acquisition of supplies and the transportation of troops were severely affected.

The short memo eloquently summarized the problems facing the Russian army at war. In the eyes of at least a few reform-minded officers, the proud army of Nicholas I had been thoroughly discredited. One of these officers, General-Adjutant F. V. Rüdiger, Commander of the Guard and Grenadier Corps, had – during the summer of 1855 – drawn the attention of the new Tsar to the problems in a number of reports.⁵ Rüdiger criticized the excessive centraliza-

^{2.} Field, The End of Serfdom: 54-55.

^{1.} For some good, recent, general studies of the reform period see: Beyrau, Dietrich, Igor Cicurov, and Michael Stolleis, eds. *Reformen im Rußland des* 19. und 20. Jahhunderts: Westliche Modelle und russische Erfahrungen. (Frankfurt am Main: Vittorio Klostermann, 1996); Lincoln, W. Bruce. *The Great Reforms: Autoc*racy, Bureaucracy, and the Politics of Change in Imperial Russia. (DeKalb, Illinois: Northern Illinois University Press, 1990); Eklof, Ben, John Bushnell, and Larissa Zakharova, eds. *Russia's Great Reforms, 1855-1881*. (Bloomington: Indiana University Press, 1994). See also Lincoln, W. Bruce. In the Vanguard of *Reform: Russia's Enlightened Bureaucrats 1825-1861*. Reprint of the 1982 ed. (De Kalb, Ill.: Northern Illinois University Press, 1986). A classical pro-reform description by a prerevolutionary historian was written by Dzhanshiev, G. *Epokha velikikh reform.* (St. Petersburg: B. M. Vol'f, 1907). See also Tatishchev, S. S. *Imperator Alexander II, ego zhizn' i ego tsarstvovanie.* Reprint of 1911 ed. 2 vols. (Moscow: Charli, 1996) who devoted several chapters to the different reforms. On the abolishment of serfdom see Field, Daniel. *The End of Serfdom: Nobility and Bureaucracy in Russia 1855-1861.* (Cambridge, Mass.: Harvard University Press, 1976) and Zaionchkovskii, P. A. *Otmena krepostnogo prava v Rossii.* 2nd ed. (Moscow: Gosudarstvennoe uchebno-pedagogicheskoe izdatel'stvo, 1960). An interesting book on the judicial reform was written by Wortman, Richard S. *The Development of a Russian Legal Consciousness.* (Chicago: University of Chicago Press, 1976). The reform of the local government is described in Starr, S. Frederick. *Decentralization and Self-Government in Russia*, *1830-1870.* (Princeton, N. J.: Princeton University Press, 1972).

^{3.} Fuller, William C., Jr. Strategy and Power in Russia 1600-1914. (New York: Free Press, 1992): 241-42. For a few relevant studies on the Crimean war and the Russian army, see, for instance, Bestuzhev, I. V. Krymskaia voina 1853-56 gg. (Moscow: Akademiia nauk SSSR, 1956); Curtiss, John Shelton. Russia's Crimean War. (Durham, N.C.: Duke University Press, 1979). Zaionchkovskii, A. M. Vostochnaia voina 1853-1856 gg. v sviazi s sovremennoi ei politicheskoi obstonovki. 2 vols. (St. Petersburg: Ekspeditsiia zagotovleniia gosudarstvennykh bumag, 1908-13) was initially planned in several more volumes. As it is, the account serves as a detailed introduction to the war.

^{4.} Bestuzhev, I. V. 'Iz istorii krymskoi voiny 1853-1856 gg.', *Istoricheskii arkhiv* (1, 1959): 204-208. Contains Miliutin's memorandum 'About the Dangers of Continuing Military Actions in 1856'. It was written at the end of 1855.

^{5.} Skalon, D. A., ed. *Stoletie voennogo ministerstva*, 1802-1902 (hereafter *Stoletie*). 13 vols. (St. Petersburg, 1902-1914): Vol. 1: Appendix 5-9. Rüdiger's first report dated 22 March 1855 was not published. A copy of this report, which contain the initial proposal for creating a commission, can be found in the material relating to the secret conference held in 1873, Rossiiskii Gosudarstvennyi Voenno-Istoricheskii Arkhiv (hereafter RGVIA), F. 401, op. 2, d. 102, ff. 117-126. See also Zaionchkovskii, P. A. *Voennye reformy 1860-70 godov v Rossii*. (Moscow: Izdatel'stvo Moskovskogo Universiteta, 1952): 45-46; Brooks, Edwin Willis. 'Reform in the Russian Army 1856-61', *Slavic Review* 43 (1, 1984): 63-82; Keep, John L.H. *Soldiers of the Tsar: Army and Society in Russia* 1462-1874. (Oxford: Clarendon Press, 1985): 353-356; Kersnovskii, A. A. *Istoriia russkoi armii*. Reprint of 1933-38 ed. 4 vols. (Moscow: Golos, 1992-94): Vol. 2: 175-179.

tion of the army which had deprived commanders of initiative. He noted that, in the army of Nicholas I, any independent actions by officers were looked upon with the deepest distrust. Rüdiger maintained that the troops had been trained for the parade ground only and not for the battlefield. The military education of officers needed improvement as did the entire promotion process. He suggested that merit and knowledge become the leading criterion for promotion rather than seniority and patronage.⁶ Furthermore, he proposed that division and corps commanders be given increased responsibilities and powers, currently held by the Commander-in-Chief and his staff. Specifically, Rüdiger advocated that both the positions of Commander-in-Chief and his staff should be abolished in peacetime. He also recommended that officers who proved to be incompetent should be removed from service.⁷

It is noteworthy that Rüdiger also described the intellectual climate of the army as being in poor condition and needing improvement. He observed that it was particularly important to encourage military writings on contemporary wars and not stop or inhibit such writing because the responsible commanders were still alive. A military journal could be created for this purpose. Moreover, the creation of regimental libraries was vital for intellectual stimulation as was the organization of lectures and war games during the winter months.⁸

Rüdiger was not alone in expressing his criticism and General-Adjutant V. A. Glinka supported many of Rüdiger's points.⁹ In July 1855, a special commission, the Commission for the Improvement of the Military Sphere, was appointed to discuss all the aspects of reform. D. A. Miliutin, who was appointed a member of the Commission, wrote a memorandum that expressed his thoughts on necessary reforms.¹⁰ He made a comparison of the military organizations of France, Austria and Prussia. He praised the Prussian system as being superior to all others in terms of numbers and from an economic point of view. However, he noted that the Prussian *Landwehr* system was likely to work only in states where the level of education was sufficiently high and where the 'spirit of the people' and 'civil organization' (*grazhdanskoe ustroistvo*) were homogeneous (*edinoobrazno*).¹¹ Miliutin clearly thought that the differences be-

^{6.} *Stoletie*: Vol. 1, Appendix 5: 22. It is interesting to note that Rüdiger advocated this principle not only for the army but for all other forms of state service as well.

^{7.} Stoletie: Vol. 1, Appendix 6: 33; Appendix 7: 39-40.

^{8.} Stoletie: Vol. 1, Appendix 8: 43-47.

^{9.} Glinka's report to Alexander II is published in *Stoletie*: Vol. 1: Appendix 10.

^{10.} Rosskiiskaia Gosudarstvennaia Biblioteka, Otdel rukopisi, (hereafter RGB OR) F. 169, k. 22, ed. khr. 29. 'Thoughts on the Existing Disadvantages in the Russian Military System and on the Measures for Their Elimination'. 29 March 1856. Zaionchkovskii made a brief summary of the memo in Zaionchkovskii, P. A., ed. 'D. A. Miliutin. Biograficheskii ocherk', in *Dnevnik D.A. Miliutina*. 4 vols. (Moscow: Gosudarstvennaia ordena Lenina Biblioteka SSSR imeni V. I. Lenina. Otdel rukopisei., 1947-50): Vol. 1: 17 and in his *Voennye reformy*: 50 omitting any references to Miliutin's thoughts on Prussia. Miller relied on Zaionchkovskii's account, Miller, Forrestt A. *Dmitrii Miliutin and the Reform Era in Russia*. (Charlotte, North Carolina: Vanderbilt University Press, 1968): 22. Brooks used the original but did not expand on its contents. Brooks, Edwin Willis. 'D.A. Miliutin: Life and Activity to 1856'. Ph.D., Stanford University, 1970: 163-164.

tween Prussia and Russia were too large for a Prussian system to work in Russia. Nevertheless, he advocated the introduction of a small standing army in peacetime that could be expanded in wartime. Service time should be reduced to create a reserve force that could be called up in wartime. Secondly, he proposed to abolish the peacetime organization of armies and corps and replace it with military districts where all the units for a future war would be set up and the expanded with reserves in wartime.¹²He would later acknowledge that the idea of a military district system, as it was outlined in the report was largely a result of discussions with his famous uncle, Count Pavel Dmitrii Kiselev (1788-1872), then Minister of State Domains.¹³

In spite of these suggestions for reform, little happened in the next few years. Alexander II appointed N. O Sukhozanet as new War Minister, a man of the old school, and the reform aspirations came almost to a halt. The military colonies were abolished. The army was reduced in size, due to the fact that no annual levies took place for three years, from 1.7 million men in 1856 to 850,000 men in 1859.¹⁴ However, very little was done in the sphere of military education.¹⁵ The measures taken under Sukhozanet were largely focused on administrative matters. Miliutin reflected that the overriding concern of the highest military authorities seemed to be to 'reduce, abolish, and disband'.¹⁶ Nevertheless, perhaps one of the most significant measures during this period was the creation of a new military journal, Voennyi sbornik, in 1858. The journal proved significant for the military debate. In the initial publications of the journal, two General Staff officers called for the introduction of a short-service system. One of the editors of Voennyi sbornik, N. N. Obruchev, soon one of Miliutin's closest aides and later Head of the General Staff, and N. P. Glinoetskii, a leading military historian, more or less explicitly expressed the desirability of such a system in Russia.¹⁷ There were also articles that severely criticized the old army. Much debate was provoked by N. N. Obruchev's articles, where he delivered a biting critique of the Russian army's supply system during the Crimean War.¹⁸ In fact, the articles criticized not only the supply system, but also contained several

^{11.} RGB OR, F. 169, k. 22, ed. khr. 29, ff. 4v-5.

^{12.} RGB OR, F. 169, k. 22, ed. khr. 29, ff. 8, 10.

^{13.} RGB OR, F. 169, k. 14. ed. khr. 1, f. 78v. 'Memoirs'. 1861. Kiselev had written to Miliutin outlining his thoughts on the subject. See RGB OR, F. 169, k. 22, ed. khr, 31. Kiselev, P. D. Thoughts on Staff and Organization of the Army. 1856.

^{14.} Bogdanovich, M. Istoricheskii ocherk deiatel'nosti voennogo upravleniia v Rossii v pervoe dvadtsati-piatiletie blagopoluchnogo tsarstvovaniia Gosudaria Imperatora Aleksandra Nikolaevicha (1855-1880 gg.). 6 vols. (St. Petersburg: M. Stasiulevich, 1879-1881): Vol. 1: Appendix 5. See also Keep, Soldiers: 354; Kersnovskii, Istoriia: Vol. 2: 176-77.

^{15.} Brooks, 'Reform': 70-72.

^{16.} RGB OR, F. 169, k. 13, ed. khr. 3, f. 60. 'Memoirs'. 1858-60.

^{17.} Obruchev, N.N. 'O vooruzhennoi sile i eia ustroistve', *Voennyi sbornik* (1, 1858): 52-53. Glinoetskii, N. P. 'Voennaia statistika i soldatskii byt", *Voennyi sbornik* (1, 1858): 444-445. See also Keep, John L.H. *Power and the People: Essays on Russian History.* (Boulder: East European Monographs, 1995): 267-292 and Airapetov, O. R. 'N. N. Obruchev. Zabytaia kar'era "russkogo Mol'tke"', Manuscript, 1996: 34-37.

^{18.} Obruchev, N.N. 'Iznanka Krymskoi voiny', Voennyi sbornik (1: 545-586; 2: 429-476; 8: 239-306, 1858).

jibes at other aspects of the army, including the maltreatment of soldiers, the lack of good maps, and over-heavy equipment in view of the changes in tactics that required mobility.¹⁹

It is clear that several high-ranking officers learned lessons from the Crimean War, but they were few and unable to influence the military decisions in the period immediately following the war. Much has been made of the so-called revolutionary period within the army at the end of the 1850s and the beginning of the 1860s – especially by Soviet historians.²⁰ Conventional history has it that N. N. Obruchev took part in revolutionary activities and was a member of the radical group *Zemlia i volia*.²¹Recently, serious doubts has been cast on whether this actually was the case.²² Furthermore, the leading military thinker, M. I. Dragomirov, is said to have been a member of a circle of radical professors at the Nicholas Academy of the General Staff, which was linked to N. G. Chernyshevskii, but no substantial evidence is shown to support the claim.²³A number of officer were, in fact, involved in revolutionary activity during these years, but to what extent and how high it had penetrated in the hierarchy is more uncertain.²⁴

2.2 Miliutin and the Military Reforms

Before examining the military reforms under D. A. Miliutin between 1862 and 1874, a few words of clarification seem apt. To describe the reforms and Miliutin, words such as 'liberal', 'progressive', 'radical', and 'red' can be found in abundance in the literature of Soviet and

^{19.} Obruchev, 'Iznanka' (2, 1858): 435-36, 455, 463-64, 474.

^{20.} D'iakov, V. A. 'Peterburgskie ofitserskie organizatsii kontsa 50-kh-nachala 60-kh g. XIX v. i ikh rol' v istorii russko-pol'skikh revoliutsionnykh sviazei', in Iz istorii klassovoi bor'by i natsional'no-osvoboditel'no-go dvizheniia v slavianskikh stranakh, edited by I. A. Khrenov. (Moscow: Nauka, 1964): 268-359; D'iakov, V. A. Deiateli russkogo i pol'skogo osvoboditel'nogo dvizheniia v tsarskoi armii 1856-1865 godov. (Moscow: Nauka, 1967); D'iakov, V. A., and I. S. Miller. Revoliutsionnoe dvizhenie v russkoi armii i vosstanie 1863. (Moscow: Nauka, 1964); D'iakov, V. A. 'Soldatskoe dvizhenie v 1856-1865 gg.', in Revoliutsionnaia situatsiia v Rossii 1859-1861, edited by M. V. Nechkina. (Moscow: Nauka, 1970): 71-89; Fedorov, A.V. Russkaia armiia v 50-70 godakh XIX veka. (Leningrad: Izdatel'stvo Leningradskogo universiteta, 1959); 50-98; Taubin, P. A. 'K voprosu o roli N. G. Chernysevskogo v sozdanii "Revoliutsionnoi Partii" v kontse 50-kh-nachale 60-kh godov XIX v.', Istoricheskie zapiski 39 (1952): 59-97.

^{21.} Barbasov, A. 'Russkii voennyi deiatel' N.N. Obruchev', Voenno-istoricheskii zhurnal 15 (8 August, 1973): 100-105. D'iakov, 'Peterburgskie': passim; D'iakov, Deiateli russkogo: 125. D'iakov and Miller, Revoliutsionnoe dvizhenie: 120ff. Jakobs, Peter. Das Werden des französisch-russischen Zweibundes 1890-1894, Marburger Abhandlungen zur Geschichte und Kultur Osteuropas. Bd 8. (Wiesbaden: Otto Harrassow-itz, 1968): 29-32; Kennan, George F. The Decline of Bismarck's European Order: Franco-Russian Relations 1875-1890. (Princeton, N.J.: Princeton University Press, 1979): 44-46; Ulam, Adam B. In the Name of the People. (New York: Viking Press, 1977): 72-73, 84-87, 99-101.

^{22.} Airapetov, 'Zabytaia kar'era': 41-43, 48-49; Airapetov, O. R. 'Nikolai Nikolaevich Obruchev', *Voprosy istorii* (7, 1996): 49-69.

^{23.} D'iakov, 'Peterburgskie': 286, 317, 350. The General Staff officers and later revolutionary-emigré Mikhail Ivanovich Veniukov claimed that Dragomirov was a supporter of Herzen at the end of the 1850s. Veniukov, M. I. *Iz vospominaniia*. 3 vols. (Amsterdam, 1895): Vol. 1: 63.

^{24.} In 1862, 130 officers were convicted for illegal political activity. The document in RGB OR lists all of them: F. 169, k. 40, ed. khr. 7. Heyden, F. L. 'Short Note on Persons within the Military Department Involved in Political Crimes'. Neither Obruchev or Dragomirov and found on this list.

Western historiography, stretching from pre-revolutionary to contemporary accounts. Here it is important to point out where Miliutin stood on a few significant issues.²⁵ For instance, Miliutin played an instrumental role in the military reforms, not the least due to the fact that during his long tenure as War Minister he could see many of the reforms implemented.

Miliutin was a firm supporter of the autocracy and viewed the reforms as necessary to preserve it. He disliked hereditary privileges and believed that merit and knowledge should be the sole criteria for promotion.²⁶In the mid-60s, he summarized his views in a rare *profession de foi*:

In our view, there are two fundamental, essential conditions [which are] the *sine qua non* without which every political theory in application to Russia ought to be considered worthless. The first is the unity and integrity of the state; the second is the equality of all its members. For the first condition, a strong central power and a decisive predominance of the Russian element (we are talking about the Empire...) are necessary. For the second condition, it is essential to cast away all outdated outlived privileges, to take leave, once and for all, of the rights of social group (*kasta*) over another. But a strong central power precludes neither personal freedom of the Russian element mean the oppression and destruction of other nationalities. Rather, it means the elimination of ancient privileges...²⁷

He was convinced that only by creating a nation of equal citizens would the autocracy survive and he firmly supported the emancipation of the serfs. In this memo of 1856, he explicitly stated that serfdom hindered the shortening of the time of service.²⁸His main argument was based on the firm conviction that only by creating equal citizens could the unity of the state be preserved.²⁹ By educating soldiers and officers, the nation would benefit in two ways: the men would not only become better from a military point of view, they would also become better citizens.³⁰

^{25.} The best work on the development of Miliutin's ideas is Brooks, 'D. A. Miliutin'. Useful are also Zaionchkovskii's biographical account, 'D. A. Miliutin. Biograficheskii ocherk', in *Dnevnik D.A. Miliutina*, Vol. 1: 5-72 and Zaionchkovskii, P. A. 'Vydaiushchiisia uchenyi i reformator russkoi armii', *Voenno-istoricheskii zhurnal* (12, 1965): 32-43. See also Miller, Forrestt A. 'Dmitrii Miliutin: Liberal or Conservative?', *Jahrbücher für Geschichte Osteuropas* 13 (2, 1965): 192-98; Lincoln, Bruce. 'D. A. Miliutin's Views on Russia and Reform', in Miliutin, D. A. *Vospominaniia* 1816-1843. (Moscow: Rossiiskii arkhiv, 1997): 479-485. Reprint of the 1979 ed. Miliutin as a military thinker has been treated by Osipova, M. 'Obzor voenno-nauchnykh trudov D.A. Miliutina', *Voenno-istoricheskii zhurnal* (9, 1972): 102-107; Osipova, Margarita Nikolaevna. 'Voprosy voennoi istorii Rossii v nauchnom nasledii D.A. Miliutina'. Avtoreferat dissertatsii na stepeni kandidat istoricheskikh nauk, Institut voennoi istorii, Ministerstva oborony SSSR, Moscow, 1977. Miliutin's influence on foreign policy is briefly sketched by Hammer, Michel. 'D.A. Miljutin et la Politique Extérieure de la Russie', *Cahiers du monde russe et soviétique* 23 (3-4, 1982): 333-349.

^{26.} In a letter from A. I. Bariatinskii to Alexander II in 1860, he characterized Miliutin as a person who discriminated in favour of officers with higher education at the expense of others. Bariatinskii also noted Miliutin's dislike of aristocracy: 'He is hostile to everything aristocratic, especially to everything with titles, and for this reason I suggest that in time it would be useful to give him a title.' Miliutin received the title Count in 1878. At the publication of the biography on A. I. Bariatinskii in 1889, Miliutin blocked the publication of this letter. Zakharova, L. 'Dmitrii Alekseevich Miliutin, ego vremia i ego memuary', in Miliutin, D. A. *Vospominaniia*: 13-14.

^{27.} Zaionchkovskii, 'D. A. Miliutin. Biograficheskii ocherk': 32. See also Lincoln, 'D. A. Miliutin's Views': 482-83.

^{28.} RGB OR, F. 169, k. 22, ed. khr. 29, ff. 7, 10v.

2.2.1 The Importance of Education

As we have seen, it was the Crimean War that highlighted the need for educated officers. The introduction of rifles was changing the way battles were fought and officers needed a good military education. The fact that Miliutin, at the beginning of his twenty-year term as War Minister, concentrated on educational reforms, rather than pursuing the issue of a conscript army, which he recognized would meet stiff opposition, suggests that he was well aware of the requirements of modern warfare. Miliutin's reforms created a new system for military education, based primarily on talent and merit rather than on birth and patronage.

Attracting officers became increasingly difficult as the aristocracy turned away from the traditional service. It was no longer as prestigious to serve as it had been and the bad financial situation after the Crimean War did nothing to improve the situation. Miliutin noted that military service had lost its attraction to young men and that they often viewed service with contempt.³¹ The base for recruiting officers needed to be extended beyond the aristocracy which, in turn, required a reform of the military educational system.

The Russian officer corps was traditionally drawn from two main groups: around a quarter of all officers came from the military educational institutions, that is, the Page Corps, the Cadet Corps, and special military schools for artillery and engineering. The majority of the officer corps was either former soldiers or junkers who had volunteered. The officer corps – as was the case everywhere in Europe at this time – was predominantly noble.³² The majority of officers, those who had not been educated at the military educational institutions, had no or very little formal, general education. In 1861, more than 54 per cent of all officers had only been to elementary school or had received their education at home. In the infantry alone, approximately 80 per cent of the officers had no more than elementary education.³³ This system had two basic problems. First, it did not produce enough officers. Second, the quality of the

^{29.} It has been suggested by Rieber that the military arguments were decisive for emanicaption. He argued that emancipation was necessary in order to create a large short-service army since serfs released from military service became free. However appealing such a theory may seem, it ignores the economic and other factors as impetus for reform. Furthermore, it would have been possible to create a fairly large, trained reserve even without emancipation by extending the obligation of service to groups that were exempt. The army conscripts did not solely consist of serfs, but also state and crown peasants, town labourers and other categories who paid the poll tax. Rieber, Alfred, ed. *The Politics of Autocracy: Letters of Alexander II to Prince Bariatinskii 1857-64.* (Paris: Mouton & Co, 1966): 25. Field provided an interesting discussion on the reasons behind emancipation. Field, *The End of Serfdom.* See also Beyrau, Dietrich. 'Von der Niederlage zur Agrarreform', *Jahrbücher für Geschichte Osteuropas* 23 (1975): 191-212.

^{30.} See, for instance, RGB OR, F. 169, k. 14, ed. khr. 4, ff. 147, 161, 162v. 'Memoirs'. 1863, and Miliutin, D.A. 'Vsepoddaneishii doklad po voennomu ministerstvu 15-go ianvaria 1862 goda' in *Stoletie*: Vol. 1: Appendix 11: 92.

^{31.} RGB OR, F. 169, k. 14, ed. khr. 4, f. 163.

^{32.} See Chapter 1.

^{33.} Lalaev, M. Istoricheskii ocherk voenno-uchebnykh zavedenii. (St. Petersburg: M. Stasiulevich, 1880): Part 2: 189-190; Bobrovskii, P. O. 'Plan uchebnoi chasti v iunkerskikh shkolakh', Pedagogicheskii sbornik (14, 1865): 1194; Screen, J. E. O. The Helsinki Yunker School 1846-1879: A Case Study of Officer Training in the Russian Army. (Helsinki: Societas Historica Finlandiae, 1986): 18.

education was not high enough to meet the demands of rapid technological change and modern warfare.

In 1862 Miliutin drew up a programme that would transform the Russian military educational system.³⁴ He tried to abolish the Cadet Corps by transforming into military gymnasia. Miliutin's main argument against the Cadet Corps was that **t** we inefficient and expensive. He had also noted how bad it was to give children – a cadet usually entered service at the age of six or eight – a military education before they were mature enough.³⁵ The creation of military gymnasia was, in effect, an effort to de-militarize the early stages of officer education. The gymnasia followed the curriculum of the civilian Realschule with emphasis on mathematics and foreign languages. Civilian teachers were recruited and soon the military gymnasia had acquired a reputation as being the best secondary schools in Russia.³⁶ The military authorities emphasized the recruitment and training of the teachers and a special pedagogical journal, Pedagogicheskii sbornik, was founded in 1864.³⁷ A graduate of the gymnasium continued the studies to receive specialized military training at a so-called military school (voennoe uchilishche), where he studied special military subjects such as strategy, tactics, and fortification. The engineering and artillery schools had a three-year programme, whereas the infantry and cavalry schools had a two-year training programme. Approximately 600 officers graduated from the military schools each year. Trying to separate general and military education was a big step forward towards the modernization and professionalization of officer training. The effort to abolish the Cadet Corps was partly undone by Alexander III who abolished the gymnasia, reintroduced the Cadet Corps and fired the civilian teachers.³⁸

For the majority, however, the military gymnasia were still out of reach. In order to be able to recruit more broadly the junker schools were reformed. These, according to Miliutin, had the largest potential for producing officers.³⁹ The first junker schools had been established in the 1820s at some corps or army headquarters in order to provide some education for non-commissioned officers seeking a commission.⁴⁰ The quality of education varied among the

^{34.} Miliutin, D. A. 'Mnenie o voenno-uchebnykh zavedeniiakh', in *Stoletie*: Vol. 10, Part 3: 188-195. A copy of this report can be found in RGB OR, F. 169, k. 24. ed.khr. 3. For more on the reforms of the military educational system, see Zaionchkovskii, *Voennye reformy*: 221-253; Miller, *Dmitrii Miliutin*: 88-141; Stein, Hans-Peter. 'Der Offizer der russischen Heeres im Zeitabschnitt zwischen Reform und Revolution', *Forschungen zur osteuropäischen Geschichte* 13 (1967): 365-367, 392-397. A factual account is provided by Lalaev, *Istoricheskii ocherk*, Part 2: Chapters 5-7.

^{35.} Miliutin, 'Mnenie': 188-192.

^{36.} RGB OR, F. 169, k. 16, ed. khr. 3, f. 101v. 'Memoirs'. 1870-71. See also Lalaev, *Istoricheskii ocherk*: Appendix II and III for a comparison of the curricula of the Cadet Corps and the military gymnasia.

^{37.} A special two-year training course for teachers in the military gymnasia was created in 1865 at the Second Petersburg Military Gymnasium. Lalaev, *Istoricheskii ocherk*: Part 2: 139-143, 155-156; *Polnoe so-branie zakonov* (hereafter PSZ) *II*: XL, 41808 (13 Feb. 1865), XLIV, 46712 (1 Feb. 1869).

^{38.} Zaionchkovskii, P. A. *Samoderzhavie i russkaia armiia na rubezhe XIX-XX stoletii, 1881-1903.* (Moscow: Mysl', 1973): 299.

^{39.} Miliutin, 'Mnenie': 194. See also Zaionchkovskii, Voennye reformy: 243.

schools, and – more seriously – since they were attached to headquarters, they were disbanded in times of war.⁴¹ Miliutin tied the junker schools to the military district system and each district Chief-of-Staff was in charge of the school.⁴² Since they were attached to the staff, the school could continue to exist in wartime. Furthermore, the curriculum was unified and supervised by the Supreme Administration of the Institutions of Military Instruction within the War Ministry. These junker schools were opened to non-nobles and entrance to the two-year programme was gained through examination. The social composition of the junkers changed considerably. The percentage of nobles in the junker schools was 86 per cent between 1868-72, 54 per cent in 1894, and 37 per cent in 1905.⁴³ The junker schools produced around 1,000 officers a year.

The emphasis of these reforms lay on education. Anyone who had completed studies at a higher educational institution and had passed the examination in military studies at a military school could get promoted to officer after only a few months of service. Those with secondary education had to take the test and serve at least a year. In 1868, it was decided not to commission anyone to officer's status unless he had passed the examination from either a military or a junker school.⁴⁴ This emphasis on officer education was an exception in comparison to other European armies. Stein remarked that the Prussian army had abolished the privilege of birth by 1808 and yet, at the beginning of the First World War, had not recognized the lower school certificate (*Primareife*) as a requirement for entry into the officer corps.⁴⁵

Efforts were also made to improve education for non-commissioned officers. The army suffered a severe lack of trained NCOs. In 1867, special training units (*uchebnye komandy*) were established at the regimental level with the aim to raise the level of education among NCOs.⁴⁶ In 1870, approximately 1,500 NCO's attended the two-year course, which contained both military training and basic skills in reading and writing. In that same year, Major-General P. O.

^{40.} Bobrovskii, P. O. 'Ob uchrezhdenii iunkerskikh uchilishch', *Voennyi sbornik* (11, 1864): 92-144.

^{41.} Bobrovskii, 'Ob uchrezhdenii': 94-95; Miller, *Dmitrii Miliutin*: 103-104; Kenez, Peter. 'A Profile of the Prerevolutionary Officer Corps', *California Slavic Studies* 7 (1973): 125-126.

^{42.} The military districts were created in 1864-65. Initially there were ten districts that in 1871 had grown to fourteen. As they were created army and corps organization was abolished and the division became the largest unit within the district. This was controversial among some of the generals and, as we shall see, was used against Miliutin at the strategic conference in 1873. On the military district reform, see Zaionchkovskii, *Voennye reformy*: 85-99; Miller, *D. A. Miliutin*: 40-50; Bogdanovich, *Istoricheskii ocherk*, Vol. 4: 30-51. See also Miliutin's own account in [Miliutin, D. A.] 'Voennye reformy imperatora Aleksandra II', *Vestnik Evropy* (1, 1882): 21-35.

^{43.} Zaionchkovskii, Voennye reformy: 243; Kenez, 'Profile': 127.

^{44.} Stein, 'Der Offizer': 396; Screen, Helsinki Yunker School: 25.

^{45.} Stein, 'Der Offizer': 397.

^{46.} 'Prikaz po voennomu vedomstvu No 262' published in *Voennyi sbornik* (11, 1867): 143-157; Bobrovskii, P. O. 'Uchebnye komandy (polkovye shkoly)', *Pedagogicheskii sbornik* (8, 1870): 807-829; Bobrovskii, P. O. 'Vzgliad na gramotnost' i uchebnie komandy (ili polkovyie shkoly) v nashei armii', *Voennyi sbornik* (1870: 12: 279-310; 1871: 3: 41-87; 4: 283-297); Bogdanovich, *Istoricheskii ocherk:* Vol. 3: 124; Zaionchkovskii, *Voennye reformy*: 215.

Bobrovskii, Head of the Military Justice Academy 1875 through 1897, inspected several training units and emphasized that contemporary wars - especially the Austro-Prussian War - had underlined the need to improve the level of education throughout the army. He made no secret of the frustration of the military authorities with the poor level of general education.⁴⁷ Likewise, Major-General M. N. Annenkov, one of the observers with the Prussian army in 1870-71, explicitly noted that – in his view – it was the educated Prussian NCO who had most contributed to the success of the Prussian army.⁴⁸

It was clear to D. A. Miliutin that the army could not wait for the Ministry of Education to introduce a comprehensive elementary educational system.⁴⁹ The changing times made it more necessary than ever to have educated soldiers and officers. The literacy rate among the soldiers of Russian army was very low compared to other European armies. According to official sources, less than ten per cent of the new recruits 1867-1869 were literate. In 1867, the literacy rate among the new recruits was estimated at 9.27 per cent. The rate rose slowly and, in 1873, it was estimated at 12.17 per cent among the new recruits.⁵⁰ In 1866, only 20 per cent of soldiers were thought to be literate.⁵¹ This figure compares well with that of the Austrian army, where the literacy rate among new recruits was less than ten per cent in the mid-1860s, but is far less than Prussia, where the literacy rate among recruits was 96 per cent, than England at 77 per cent, and than France at 67 per cent.⁵² It should be noted that the figures varied greatly between the different branches of service. The soldiers in the Guards Corps had a literacy rate estimated at 60 per cent. Artillery and engineering troops, unsurprisingly, also had a considerably higher degree of literacy than the infantry.⁵³

In 1867 mandatory courses in literacy were introduced for all soldiers.⁵⁴ By 1868, the War Ministry began to provide a small sum of money for the necessary educational supplies.⁵⁵

^{47.} Bobrovskii, 'Uchebnye komandy': 808-809.

^{48.} Annenkov, Michail Nikolaevich. Voina 1870 goda. Zametki i vpechatleniia russkogo ofitsera. (St. Petersburg: Obshchestvennaia pol'za, 1871): 8

^{49.} RGB OR, F. 169, k. 15, ed. khr. 2, f. 132v. 'Memoirs'. 1865.

^{50.} Bobrovskii, 'Vzgliad na gramotnost''(12, 1870): 280; 'Russkoe voennoe obozrenie', *Voennyi sbornik* (4, 1874): 154.See also 'Zametka ob uspekhakh gramotnykh nizhnykh chinov', *Russkii invalid*, 25 Jan. 1869, and Obruchev, N. N., ed. *Voenno-statisticheskii sbornik*. 4 vols. (St. Petersburg: Voennaia tipografiia, 1867-71): Vol. 4, Part 2: 35. Since the War Ministry only started collecting information about literacy among new recruits in 1867, these figures should be seen as approximations rather than the absolute rates cited in the official accounts.

^{51.} Bobrovskii, P. O. 'Zatrudneniia v khode obucheniia gramotnosti v voiskakh', *Pedagogicheskii sbornik* (10, 1870): 1047. The figure, 34 per cent literate soldiers, in the military statistical collection seems exaggerated. Obruchev, *Voenno-statisticheskii*: Vol. 4, Part 2: 207.

^{52.} Rothenberg, Gunther. *The Army of Francis Joseph*. (West Lafayette, Ind.: Purdue University Press, 1976): 61; Obruchev, *Voenno-statisticheskii*: Vol. 1: 40, 109; Bobrovskii, 'Zatrudneniia': 1047.

^{53.} Bobrovskii, 'Vzgliad na gramotnost'' (12, 1870): 282.

^{54.} 'Prikaz po voennomu vedomstvu No 262', § 47. See also Bogdanovich, Istoricheskii ocherk, Vol. 3: 123-125; Keep, Soldiers: 370; Brooks, Jeffrey. When Russia Learned to Read. Literacy and Popular Literature 1861-1917. (Princeton, N. J.: Princeton University Press, 1985): 18-22.

Even the Military Scientific Committee, which was responsible for all war planning, was engaged in the efforts to increase literacy.⁵⁶ It made inspections in St. Petersburg Military District, where a special school for illiterate soldiers (created under the auspices of the influential pedagogue and teacher N. P. Stolpianskii) focused on teaching illiterate soldiers so that they, in turn, could teach others.⁵⁷

An important role in Miliutin's efforts to raise the level of education among soldiers was played by A. F. Pogosskii (1816-1874), the editor of the journals *Soldatskaia beseda* (1858-1863) and *Dosug i delo* (1867-1874). Both journals were aimed at providing reading for soldiers, and Pogosskii wrote many popular short-stories in the journals. *Soldatskaia beseda* gained immediate popularity and its circulation rose from 5,195 to 6,176 in 1860.⁵⁸ In 1866, Pogosskii wrote an article in *Voennyi sbornik*, clearly with Miliutin's support,⁵⁹ claiming that the shortened service time, the abolition of corporal punishment and the need for intellectual development had already changed the life of the Russian soldier. Comparing literacy with a powerful weapon to be used to improve morale and the intellectual climate among the troops, he wrote:

Literature is replacing the old disciplinary measures. ... A correct cultivation of literacy does not fail to bear fruit, but helps develop the moral strength - and consequently the physical strength - of the troops, which at the same time is beneficial for the entire population.⁶⁰

Some officers, for instance P. O. Bobrovskii felt that in spite of these efforts, not enough was being done, and he suggested several measures to improve the quality of teaching literacy.⁶¹ Still, literacy courses were introduced before universal conscription in 1874.⁶² During the next twenty four years, the percentage of literate soldier in the entire army had more than doubled, from around 20 per cent in 1868 to 54 per cent in 1892.⁶³ At the same time, the literacy

^{60.} Pogosskii, A. F. 'O gramotnosti v voiskakh', Voennyi sbornik (6, 1866): 264.

^{55.} In 1868, the War Ministry designated 50,000 roubles for this purpose. Zaionchkovskii, *Voennye reformy:* 212.

^{56.} Svod Voennykh Postanovlenii 1869 (hereafter SVP): Part. 1, Voennye upravleniia, Book. 1, Voennoe ministerstvo, Art. 154.

^{57.} Between January and May in 1870, 30 soldiers of 47 soldiers had learned to teach other soldiers to read and write. Stolpianskii, N. 'Obuchenie nizhnykh chinov gramote', *Russkii invalid*, 7 June 1870.

^{58.} Barenbaum, I. E. 'Narodnye zhurnaly A. F. Pogosskogo v gody revliutsionnoi situatsii', in *Revoliut-sionnaia situatsiia v Rossii v 1859-1861 gg.*, edited by M. V. Nechkina. (Moscow: Nauka, 1970): 213. For a contemporary appreciation of Pogosskii's work, see Bobrovskii, 'Vzgliadna gramotnost'' (12, 1870): 307.

^{59.} Pogosskii was out of Russia between 1863 and 1867, officially for curing his health, but more likely because of his sympathies with Poland in 1863. In 1866, VUK expressed support for the publication of Pogosskii's short-stories. RGVIA, F. 401, op. 5, d. 342, f. 1. 'Journals VUK'. 1866. Barenbaum, 'Narodnye zhurnaly': 199-200.

^{61.} See all the three articles Bobrovskii, 'Vzgliad na gramotnost''.

^{62.} Bushnell, John. 'Peasants in Uniform: The Tsarist Army as a Peasant Society', Journal of Social History 13 (4, 1980): 565-576; Bushnell, John. Mutiny amid Repression: Russian Soldiers in the Revolution of 1905-06. (Bloomington: Indiana University Press, 1985): 5, 261, and Eklof, Ben. Russian Peasant Schools. Officialdom, Village Culture, and Popular Pedagogy 1861-1914. (Berkley, Los Angeles, London: University of California Press, 1986): 124-125 wrongly stated 1874 or 1875 as the year of introducing obligatory literacy courses.

rate among the new recruits rose faster, from around nine per cent to 34 per cent. It may be an exaggeration to say that the army became the school of the nation, but the educational standard was still higher among soldiers than within the peasant population. It is clear that the educational efforts played an important role in strengthening the morale of the troops. The young cavalry officer, Vladimir Aleksandrovich Sukhomlinov, the future War Minister (1909-1915), serving in Warsaw in 1870, would later recall how he taught soldiers to write letters and that they soon were able to do it by themselves.⁶⁴According to the British military attaché and observer of the Russo-Turkish war in 1877-78, the improvements for the soldier made by Miliutin greatly contributed to a successful outcome of that war.⁶⁵

Under Alexander III teaching soldiers literacy was no longer obligatory, but nevertheless continued throughout the 1880s. In the beginning of the 1890s, only one military district maintained literacy courses. It was in Kiev Military District under the commander, M. I. Dragomirov, whose ideas and impressions from foreign wars will be analysed in Chapter 4.

2.2.2 The Call for a Common Cause

As we have seen, the experiences from the Crimean War had shown that the lack of a trained reserve force in times of war could have fatal consequences. Before the war, the standing army numbered 1,170,000 men. During the war, the army more than doubled in size. When the war was over, the number of men had reached 2,500,000.⁶⁶ In spite of this enormous effort, Russia had lost the war. The solution – according to the War Minister, D. A. Miliutin – was to create a small peacetime army with a large trained reserve force that could be called up in wartime. In his report to Alexander II 15 January 1862, he made a comparison between the reserve forces of other European armies:⁶⁷

^{63.} Bobrovskii, 'Vzgliad na gramotnost'' (12, 1870): 282; Keep, *Soldiers*: 370; Zaionchkovskii, *Samoderzhavie*: 275-277.

^{64.} Sukhomlinov, V.A. Vospominaniia. (Berlin: Russkoe universal'noe izdatel'stvo, 1924): 9.

^{65.} Wellesley, Frederick A. *With the Russians in Peace and War. Recollections of a Military Attaché.* (London: Eveleigh Nash, 1905): 285. A less positive view was given by the Prussian ambassador to Russia 1876-1892, formerly military plenipotentiary at the Russian court 1865-1869, General von Schweinitz. In his view Miliutin treated the army not so much as an instrument for war as an 'institute for general education'. Schweinitz, Hans Lothar von. *Denkwürdigkeiten des Botschafters H.L. von Schweinitz.* 2 vols. (Berlin: Verlag vom Reimar Hobbing, 1927): Vol. 2: 53.

^{66.} RGVIA, F. 401, op. 2, d. 100, ff. 74v-75. 'Considerations on the Defence of Russia'. 19 Jan. 1873.

^{67.} Miliutin, 'Vsepoddaneishii doklad': 75-86.

TABLE 1

Reserve Forces in European Armies 1862

	Peacetime	Wartime	Ratio
France	400,000	800,000	1:2
Austria	280,000	625,000	1:2.2
Prussia	200,000	695,000	1:3.4

Russia had a peacetime army of 765,532 men and could – officially – expand to almost double that number in times of war, but according to Miliutin, such an expansion was illusory because it was based on inaccurate data. In actual fact, Miliutin estimated the reserves to be 242,000 men. In order to create a substantial reserve force, he proposed an annual intake of 100,000 men serving eight years. In seven years, the reserves would number 700,000 men. This did not quite succeed but, in 1869, the number of reserves rose to over 500,000 men.⁶⁸ Meanwhile, the period of service had been reduced first in 1859 from fifteen to twelve years, and then in 1868 from twelve to ten years.⁶⁹

These reforms might have stopped here had it not been for two significant events: the Prussian success in the war against France and the timely intervention by the ex-Minister of the Interior, Member of the State Council, P. A. Valuev. The introduction of universal military service in Russia was a hard-won battle with discussions and debates stretching over three years before the law finally came into effect.⁷⁰In 1870, a Commission within the War Ministry had been created to work on the issue of universal conscription and it completed its discussions in the beginning of 1873. The proposals were then discussed in the State Council, before they could become law in 1874.⁷¹ There are already several studies that describe the introduction of universal conscription in Russia. Here it is relevant to examine Valuev's influential memorandum to Alexander II more closely.

It is perhaps ironic that a civilian rather than a soldier played such a crucial role in convincing Alexander II of the need for change in the army. Valuev had been travelling in Bavaria when

^{68.} Obruchev, Voenno-statisticheskii sbornik: Vol. 4, Part 2: 76; Zaionchkovskii, Voennye reformy: 79.

^{69.} PSZ II: XXXIX. 34882. (8 Sept. 1859); 45876 (20 May 1868).

^{70.} PSZ II: XLIX. 52983 (1 Jan. 1874).

^{71.} The discussions of the Commission on universal military service are found in RGB OR, F. 169, k. 25, ed. khr. 2, 8, 10-16, 'Commission on Military Service', and *ibid.* k. 24, ed. khr. 42, 'On the Introduction of Universal Military Service'. The questions discussed and the members of the Commission are listed in RGB OR, F. 169, k. 24, ed. khr. 38, f.3. 'The Creation of the Commissions'. The discussions in the State Council are described in Zaionchkovskii, *Voennye reformy*: 304-334, Zaionchkovskii, P. A. 'Podgotovka voennoi reformy 1874', *Istoricheskie zapiski* (27, 1948): 170-201; and Baumann, Robert Fred. 'The Debates over Universal Military Service in Russia 1870-74'. Ph.D, Yale University, 1982: esp. Chapters 4-7. Miller also treated the introduction of conscription, though without the benefit of archival sources. Miller, *Dmitrii Miliutin*: Chapter 6. See also Beyrau, Dietrich. *Militär und Gesellschaft im Vorrevolutionären Russland*, (Köln: Böhlau Verlag, 1984): 263-276; Dzhanshiev, *Epokha velikikh reform*: 509-530.

German troops mobilized in the summer of 1870. His impressions had confirmed his belief in the need for a radical change of the Russian army and he expressed his thoughts in a memorandum to Alexander II in the autumn 1870, 'A Non-Military Man's Thoughts on our Armed Forces'.⁷² In so doing, he lent his full support to D. A. Miliutin, who had prompted him to put his thoughts on paper for Alexander II.

P. A. Valuev and D. A. Miliutin made a curious pair. The latter was driven by the conviction that without reforms the autocracy was threatened. Valuev, on the other hand, was a conservative and they disagreed on most political issues although Miliutin later described him as 'one of the most enlightened conservatives'.⁷³ When it came to the army, Valuev supported the War Minister several times. In the wake of the Austro-Prussian war in 1866, Valuev not only helped Miliutin in the latter's pledges for a larger military budget, but also wrote a note to Miliutin arguing for the introduction of universal military service. It was inevitable, Valuev thought, in order to secure a larger reserve force and more officers.⁷⁴

The memorandum of 1870 was well received by Alexander II, who wrote at the top of the first page 'Completely coincides with my own thoughts, that I hope will be carried out as far as possible'.⁷⁵ Valuev – who at the time had no official employment – clearly had the Tsar's ear and there can be no doubt that Valuev's note played a vital role in convincing the Tsar of the inevitability of the reform. Furthermore, Valuev's thoughts reveal that he, like Miliutin, believed that the experience of universal military service would strengthen the possibility of a more united society.

'What is the reason for the remarkable success of Germany', Valuev asked. 'And if the reason can be found in the German military organization, can we adopt it - if not entirely so, at least partly'? Not surprisingly, Valuev found the reason for the German success in the military organization, in the speed and order with which the mobilization was carried out. He concluded that this scenario would not be possible in Russia, because the Russian territory was much larger and communications were insufficient. Furthermore, Russia did not have the population density of Prussia which made the army's transition to a war footing easier for the Prus-

^{74.} RGB OR, F. 169, k. 16, ed. khr. 1, f. 28. 'Memoirs'. 1867. RGB OR, F. 169, k. 16, ed. khr. 3, ff. 50v-52.
 ^{75.} RGVIA, 1873, F. 401, op. 2, d. 99, f. 20. The Tsar's note was written on 6 Oct. 1870.

^{72.} RGVIA, F. 401, op. 2, d. 99, ff. 20-29. Another copy of Valuev's memorandum is kept in RGB OR, F. 169, k. 22, d. khr. 45. It was first analysed by Zaionchkovskii, *Voennye reformy*: 259-**C2** and in Zaionchkovskii, P. A. 'P. A. Valuev (Biograficheskii ocherk)', in *Dnevnik P. A. Valueva*. (Moscow: Izdaltel'stvo Akademii Nauk SSSR, 1961): 45-46. Baumann also used the memorandum. Baumann, 'The Debates': 37-38. All these accounts contain certain - in my view - significant omissions.

^{73.} RGB OR, F. 169, k. 16, ed. khr. 3, f. 50v. On their disagreements, see for instance RGB OR, F. 169, k. 15, ed. khr. 3, ff. 134, 136. 'Memoirs'. 1866. Miliutin was somewhat reluctantly fascinated by Valuev and devoted several pages in his memoirs to describe Valuev's early career. RGB OR F. 169, k. 13. ed.khr. 4, ff. 54v-55v. 'Memoirs'. 1860-61. Although they were about the same age and both came from Moscow, their views on most subjects were quite divergent.

sians. He drew the same conclusion as had the War Ministry; namely, that preparations for war should be made in peacetime. But even if they were done, it would by no means ensure Russian success. Valuev presumed that the War Ministry had done all in its power to make the necessary preparations. What was needed now was complete cooperation with the state's civilian institutions - the recognition of a common cause:

On the whole, in our military State it seems that the Russian army and the Russian military departments somehow are not ours, but outsiders. Not only do other departments, but also so called society, often treat it [the army] with remarkable indifference and even unsympathetically.76

According to Valuev, too many critics seemed more interested in finding and pointing out faults in the army than in making real improvements and achieving success. The armed forces themselves bore some of the blame for this isolation, but this lack of unity in Russia would have fatal consequences for a Russian mobilization. So what could be done? He found the answer in extending military service - with certain restrictions - to those parts of society that were exempt. With the impression of the German success on the battlefield still fresh, the time was right. Knowing how sensitive the issue of universal conscription was, Valuev crafted his arguments carefully by stating that universal military service would ensure (1) a sufficient number of officers both in peacetime and in wartime, and (2) one form of elementary education.

Regarding the first point, Valuev had a case. The inability of the Russian military system to produce enough officers grew worse every year. In 1868, there was a lack of 1,400 officers in peacetime and 5,560 in wartime. By 1870, the figures had increased to 2,770 and 6,820, respectively.77

Valuev pointed out that universal military service in Prussia had not led to any internal disturbances, but on the contrary:

... everywhere develops a feeling of solidarity with the general military affairs of the country. ... It is said that the Prussian military system puts the army closer to the people. Would it not be more correct to say that the system puts the whole country's population closer to the army?78

In supporting Miliutin in the demand for universal military service, Valuev acted as he wanted other civilians to act. He threw himself behind the common cause of defending Russia. This echoes the Prussian reformer, Scharnhorst, who aimed to raise and inspire the spirit of the army and to bring the army and the nation into a more intimate union.⁷⁹

^{77.} RGB OR, F. 169, k. 16, ed. khr. 2, f. 78. 'Memoirs'. 1868-69. Gosudarstvennyi Arkhiv Rossiiskoi Federatsii, (hereafter GARF), F. 677, op. 1, d. 345, f. 26. 'About the Basic Status of Individual Military Service'. ^{78.} RGVIA, 1873, F. 401, op. 2, d. 99, f. 26v.



^{76.} RGVIA, 1873, F. 401, op. 2, d. 99, f. 24v.

The system of 1874 was not universal in the true sense of the word, but it at least greatly expanded the pool from which the army could draft people and create a large reserve force. Those selected served for fifteen years, but the years in the line before transfer to the reserve varied depending on education. For those without any education the service time was set to six years in the line and nine in the reserves. Graduates of a higher educational institution were required to serve six months in the line and fourteen and a half years in the reserves. Recruits with elementary education were required to serve four years in the line and eleven in the reserves. Exemptions were also made for 'family reasons'; that is for sole breadwinners.⁸⁰ All in all approximately twenty-seven per cent of the men eligible to serve were called up.⁸¹ Most significantly, the exemptions were not based on people's social origin, but on other factors such as educational qualifications. It was still a dramatic step away from the old system and, with the law of 1874 the Russian nobility lost its privileged position (with regard to compulsory state service) that it had retained since 1762. The trained reserve increased considerably as a result of the reform. In 1873, there were 710,000 men, in 1886 - despite the losses of the 1877-78 war - there were 1,524,000 men.⁸²

2.2.3 The Rise of the General Staff

Under Miliutin, several steps were taken to raise both the intellectual standard of General Staff officers and the quality of staff work. The Russian term *general'nyi shtab* dated back to at least 1763, but the definition of tasks remained unclear. According to the official military code of 1859, the Department of the General Staff had three functions: (1) it supported the operational preparations of the army; (2) it performed the military-scientific work required for the preparation and conduct of war; (3) it supported the administrative tasks (*otrasli deloproizvod-stva*) that required either special preparation or a higher military education.⁸³ As we have seen, the importance of staff work grew as the armies increased in numbers and as railways enabled faster mobilization. Under Nicholas I staff work was not a high priority in an army placing its emphasis on parade-ground training and obedience. The Head of the War Academy, I. O. Sukhozanet, echoing some of his European comrades-in-arms, used to claim: 'It is possible to win without science, but without discipline – never.'⁸⁴

^{79.} Craig, Gordon A. The Politics of the Prussian Army 1640-1945. (Oxford: Oxford University Press, 1964):
41.

^{80.} PSZ II: XLIX. 52983 (1 Jan. 1874), VI § 45, 53-56; Makhotin, Nikolai Antonovich. Spravochnaia knizhka dlia russkikh ofitserov. (St. Petersburg: Tip.Vtorogo otdeleniia sobstvennoi E. I. V. Kantseliariia, 1875): 109-113.

^{81.} Zaionchkovskii, Voennye reformy: 308, 333-34.

^{82.} Zaionchkovskii, 'Podgotovka': 199.

^{83.} SVP 1859, Pt. 1, Obrazovanie voennykh uchrezhdenii, Bk. 1, Obrazvanie voennogo ministerstva i osobykh ustanolenii, Arts. 52-56. See also Kavtaradze, A. 'Iz istorii russkogo general'nogo shtaba', Voenno-istoricheskii zhurnal (12, 1971): 76.

Several factors played an important role in the efforts to create a professional General Staff. First, Miliutin created a unified military administration and simplified it through a series of institutional measures. He brought in several administrations, previously out of the War Minister's control, under the authority of the War Ministry. The War Ministry finally consisted of five major units: Imperial Headquarters, Military Council, High Military Court, War Ministry Chancellery, and Main Staff, as well as seven main sections (*upravleniia*): Intendance, Artillery, Engineer, Medical, Military-Educational Institutions, Irregular Forces, and Military Juridicial.⁸⁵

The new Main Staff, created in several administrative steps, was the cornerstone in Russia's efforts to create a staff that could meet the demands of modernized warfare. In 1863, the Department of the General Staff was transformed into the Main Administration of the General Staff (*Glavnoe upravlenie general'nogo shtaba*) which controlled both the Nicholas Academy of the General Staff and the Military-Topographical Depot. However, this was only a temporary construction and when the Main Administration was merged with the Inspectorate Department (*Inspektorskii departament* or *Dezhurstvo*)⁸⁶ in 1865, the new Main Staff (*Glavnyi shtab*) finally emerged. All work in various sections of the Main Staff was directed by the Consultative Committee (*Soveshchatel'nyi komitet*), created in 1863 and renamed the Military Scientific Committee (*Voenno-uchenyi komitet*) in 1867. It consisted of four sections: military statistical, military historical, tactical and topographical.⁸⁷ The committee was set up as 'something completely new in our General Staff', and it was noted that such committees existed 'in almost every major foreign army'.⁸⁸

Beginning in 1867 under General Nikolai Obruchev, the Military Scientific Committee became solely responsible for central war planning in Russia and stored all military intelligence. In 1875, the Mobilization Committee was created to support the Military Scientific Committee. In 1869, the Main Staff consisted of seven branches: the General Staff, the Military-Topographical Section, the Committee for the Movement of Troops and Military Cargoes by Railway (created in 1868), the Committee for Preparing Data on the Mobilization of Troops, the Military Scientific Committee, and Asiatic Section, and the Military Historical Commission. From 1866 the Head of the Main Staff was also Chief of the General Staff.⁸⁹

^{84.} Glinoetskii, N. P. *Istoricheskii ocherk Nikolaevskoi Akademii General'nogo shtaba*. (St. Petersburg: Shtab voisk gvardii i Peterburgskogo voennogo okruga, 1882): 106. On Miliutin's negative characterization of I. O. Sukhozanet, see Miliutin, *Vospominaniia*: 151-152 and RGB OR, F. 169, k. 13, ed. khr. 4, ff. 7-7v.

^{85.} SVP 1869, Pt. 1, Bk. 1, Art. 4. See also Stoletie, Vol. 1: 482-485.

^{86.} The Inspectorate dealt with personnel, order-of-battle and deployment data.

^{87.} 'Prikaz voennogo ministra No 349' published in *Voennyi sbornik* along with an outline of the reforms (12,1863): 141-153, 515-522; *SVP 1869*, Pt. 1,Bk. 1, Arts. 154-164. On the first meetings of the Consultative Committee, see Airapetov, 'Zabytaia kar'era': 57-60.

^{88.} Voennyi sbornik (12, 1863): 517.

The reforms of the Nicholas Academy of the General Staff, the most important source in providing the army with a body of professional soldiers,⁹⁰ also contributed to the rise of the General Staff. Miliutin's aim was to make the Academy the school for the most intellectually able officers in the army where talent, not birth, would decide promotion. The changes in the Academy's curriculum will be examined more closely later.⁹¹ Suffice it to note here that the entrance requirements were raised in 1862, substantial changes were made in the curriculum, and that the Academy increasingly came to provide the regiments with skilled commanders. During Miliutin's time as War Minister there was a considerable increase in the number of General Staff officers appointed as regimental commanders. In 1844-53, nine officers from the General Staff were appointed; in 1854-63, twenty were appointed; in 1864-73, sixty-nine; and, in 1874-1882, ninety-nine were appointed.⁹²

2.2.4 Miliutin and Prussia

A few words need to be said on whether or not the Prussian General Staff system could have been introduced in Russia. After Prussia's success on the battlefields in 1866 and 1870-71, this question was a major source of conflict within the higher echelons of the army. Miliutin's critics wanted a separate General Staff, responsible for all operational planning and directly responsible to the Tsar. The War Ministry would be responsible for administration. According to Sergei Witte, Finance Minister between 1892 and 1903 and nephew of R. A. Fadeev, Field Marshal A. I. Bariatinskii had recommended D. A. Miliutin to the post of War Minister in 1860 in anticipation of his own appointment as the Chief-of-Staff.⁹³ This may very well have been so, but it should be remembered that, at that time, the Prussian Chief-of-Staff had not yet achieved its independent status vis-à-vis the War Ministry.⁹⁴

^{89.} Stoletie, Vol. 1: 453-54; Kavtaradze, A. 'Iz istorii': 75-77; Zaionchkovskii, Voennye reformy: 99-108; Jones, David R. 'Administrative system and policy-making process', in *The Military-Naval Encyclopedia of Russia and the Soviet Union*, edited by David R. Jones. 7, incomplete vols. (Gulf Breeze, Florida: Academic International Press, 1978-97): Vol.2: 108-117.

^{90.} Fuller, William. Civil-Military Conflict in Imperial Russia 1881-1914. (Princeton, N.J.: Princeton University Press, 1985): 32-33; Mashkin, N. A. Vysshaia voennaia shkola Rossiiskoi imperii XIX-nachala XX veka. (Moscow: Akademiia, 1997): 27-42.

^{91.} See Chapter 4.

^{92.} Glinoetskii, N.P. Istoricheskii ocherk, 1882: 344; Mashkin, Vysshaia voennaia shkola: 105-108.

^{93.} Witte, S. Iu. *Vospominaniia*. 3 vols. (Moscow: Izd. sotsial'no-ekonomicheskoi literatury, 1960): Vol. 1: 30-31.

^{94.} That the deep conflict between Miliutin and Bariatinskii, which developed during the 1860s and culminated at the strategic conference in 1873, should originate from this is possible, but it seems doubtful. Bariatinskii's biographer wrote that the reasons for the conflict remained unclear. Zisserman, *A.L. Fel'dmarshal kniaz' Aleksandr Ivanovich Bariatinskii, 1815-1879.* 3 vols. (Moscow: Universitetskaia tipografiia, 1890): Vol. 3: 208. This, on the other hand, might indicate that it was too sensitive a question to be discussed in public. Even so, this conflict most certainly had more to do with personal rivalry and different personalities than with anything else. The personal aspects are emphasized by Rieber in Rieber, Alfred, ed. *The Politics of Autocracy: Letters of Alexander II to Prince Bariatinskii 1857-64*, (Paris: Mouton & Co, 1966): 68, whereas the ideological aspects are advocated by Zaionchkovskii. See Zaionchkovskii, 'D. A. Miliutin. Biograficheskii ocherk': 19 and Zaionchkovskii, *Voennye reformy 1860-70 godov v Rossii*: 126-127. Beyrau mainly agreed with Zaionchkovskii. Beyrau, Militär und Gesellschaft: 455.

In any case, Miliutin was accused by his contemporaries and by twentieth century historians for being essentially pro-French in his outlook on military affairs.⁹⁵ The military historian, A. Svechin, even claimed that Miliutin mechanically copied the French military system to such an extent that it delayed the introduction of universal military service.⁹⁶

It may be that the organization of the War Ministry resembled the French. However, the claim that Miliutin was essentially pro-French needs some qualification. In fact, he was very knowledgable about Prussian military affairs and on such subjects as military education and military science he was clearly inspired by Prussia. As early as 1840, on his first trip abroad, he noted in his diary that the Prussian officer was well educated in comparison with the Russian, and he deplored that so few Russian officers were interested in military science.⁹⁷ Miliutin saw Prussian military potential and argued for the importance of studying German military power long before most people became aware of the strength of the Prussian army.⁹⁸ Furthermore, as we shall see later, many aspects of the intellectual side of the Prussian military system became a source of inspiration for the Russian army. For instance, Miliutin made the following note after the Prussian victory in 1866:

A recent example shows us the great advantage that the Prussian army has over its adversaries in having a considerable body of officers, well instructed in military affairs, and having a perfect General Staff organization of its army corps. ...Our army, so eminent and smart in appearance with regard to soldiers, is poor when it comes to military science, compared to the French and the Prussian armies.⁹⁹

In 1872, the General Staff officer, F. A. Fel'dman, who later succeeded Obruchev as head of the Military Scientific Committee, wrote a description of the Prussian General Staff. His report was well received, not the least by N. N. Obruchev who in a letter of recommendation, possibly to Miliutin, called him a 'most deserving officer'.¹⁰⁰ Miliutin scribbled down a few pages with his reactions to Fel'dman's report. Although the report has been removed from the file,

^{95.} GARF, F. 677, op. 1, d. 349, ff. 46v, 80v. 'Note by General Fadeev, R. Doubts about the Current Military Organization, 1871-72'; Witte, Vospominaniia, Vol. 1: 31-32. Chubinskii, M. 'Pamiati D. A. Miliutina', Vestnik Evropy (9, 1912): 328-331; van Dyke, Carl. Russian Imperial Military Doctrine and Education 1832-1914. (Westport, CT: Greenwood Press, 1990): 54. For Miliutin's response, see [Miliutin], 'Voennye reformy': 5-35.

^{96.} Svechin, A. A. *Evoliutsiia voennogo iskusstva*. 2 vols. (Moscow-Leningrad: Gosudarstvennoe izdatel'stvo otd. voennogo ministerstva, 1927-28), Vol. 1: 341. See also Osipova, Margarita Nikolaevna. 'Voprosy voennoi istorii': 3.

^{97.} RGB OR, F 169. k. 1, ed. khr. 14, f. 46. 'Travel diary 1840 and 1841'. Book 1, Germany. See also Miliutin, *Vospominaniia*: 329. Brooks, 'D.A. Miliutin': 87-88. Zaionchkovskii, 'D. A. Miliutin. Biograficheskii ocherk': 26.

^{98.} Miliutin, D. A. Pervye opyty voennoi statistiki. 2 vols. (Moscow: Tip. Voenno-uchebnykh zavedenii, 1847): Vol 1. 75-76.

^{99.} RGB OR, F. 169, k. 22, ed. khr. 44, f. 10. 'Explanations to Count F. f. Berg's Memorandum to Alexander II about the Military and Political Situation of Russia'. 16 Aug. 1866.

^{100.} RGVIA, F. 401, op. 2, d. 71. ff. 61-61v. 'About the Mission of General Staff Colonel Fel'dman and Fl. ad. Colonel Zeddeler Abroad'. 3 May-30 Nov. 1872. Fel'dman's pro-Prussian report is briefly mentioned by Veniukov, M. I. Istoricheskie ocherki Rossii so vremeni Krymskoi voiny do zakliucheniia Berlinskogo dogovora 1855-1878. Vol 1. (Leipzig, 1878): 55.

Miliutin's reactions have remained and it is worth examining them in some detail.¹⁰¹ Miliutin admitted that the report on the Prussian General Staff pointed out a number of deficiencies in the Russian equivalent, and that much could be learned from the Prussian example. However, this did not necessarily mean that Russia had to imitate the Prussian system:

Every state, and every army, have their own conditions, traditions and customs. What is good for one may be completely inappropriate for another. I am convinced that if we should try to rebuild our General Staff according to the Prussian example, we would not so much create a new and better General Staff, as break up and destroy our current corps of General Staff officers.¹⁰²

This corps was, according to Miliutin, the best educated that Russia had ever had. The link between the General Staff and the line (*stroevaia sluzhba*) had become stronger, and more regimental and divisional commanders were recruited from the General Staff than ever before. The problem with the Russian General Staff corps, as Miliutin saw it, was that too few of the officers were involved in practical exercises which would prepare them for war. The newly introduced battlefield tours (*polevaia poezdka*) were undoubtedly a step in the right direction, but it was not enough. The officers often lacked real interest in what they were doing:

The majority of our capable and intelligent officers occupy themselves in other spheres of activity [than military studies]. This deficiency has nothing to do with the organization of our General Staff and it cannot be overcome by legislative measures: everything depends on personality and personality alone. If everyone of our Chiefs-of-Staff would involve all his subordinates and instell in them a liking for work, it would have many good effects also on today's General Staff organization.¹⁰³

In other words, the practices that would secure a more professional General Staff lay beyond administrative or organizational means and had more to do with attitude and mind set of the General Staff officer corps. Miliutin was not against copying from Prussia, but felt that the creation of an independent General Staff in Russia would create problems rather than solve them.

The strength of the Prussian General Staff organization, Miliutin found, did not lie in the organization but in the professional attitude of the officer corps. In Prussia, the General Staff organization was built on a cohesive, well-educated officer corps, conspicuously absent in Russia. It was this aspect of the Prussian army that Miliutin believed should be copied more than anything else:

I think, I am even convinced, that nothing in the current organization of the General Staff and the Main Staff prevents the development of specialized work (*spetsial'naia rabota*) to the same extent and of the same quality to that of the Great General Staff. ... One essential characteristic of the Prussians is needed: that each officer should see it as his unquestionable and obvious duty to devote all his time, his efforts and ability to his

^{101.} RGVIA, F. 401, op. 2, d. 71. ff. 65-68.
^{102.} Ibid., f. 65

^{103.} Ibid., f. 66

work - including scientific studies - and that he should treat his work differently than a civilian haggling over the rate of the fee. $^{104}\,$

The lack of professional attitude of the Russian officer corps greatly irritated Miliutin. On another occasion the Military Scientific Committee (VUK) had suggested certain measures to speed up the process of military statistical work in the military districts. According to VUK, the slow progress was due to lack of competent officers and to the fact that officers who were engaged in statistical work frequently switched places. Therefore, the Committee suggested that a few officers in each district should be assigned to finish the surveys and that they should receive an extra reward ranging from 500 to 1,000 roubles when the surveys were completed.¹⁰⁵ Miliutin responded:

... I have to say that it is the prime duty of General Staff officers to make military statistical surveys; for a qualified performance of this duty, they receive rewards and high ranks (*chiny*). Therefore, there is hardly any justification to give them additional money for making military statistical descriptions. After that, it would be necessary to evaluate the size of the sum to be given for every completed work assignment.¹⁰⁶

The reform of the Russian General Staff - the creation of the Main Staff and the Military Scientific Committee - shows an awareness of the growing importance of staff work. For the first time, the Russian army had created an organization that could serve as the 'brain of the army', with professional staff officers. However, the Main Staff was an enormous organization with wide ranging tasks. It controlled recruiting, mobilization, deployment, training, supply of troops, strategic and economic aspects of force deployment, and intelligence gathering. Because of its many different kind of duties, it has been said that the Main Staff tended to be less effective.¹⁰⁷ Overlapping tasks and departmental infighting were perpetuated. Since it was an integral part of the War Ministry, it could not exert real influence on Russian war planning as could its Prussian counterpart.¹⁰⁸ While there is much truth in this criticism, it is doubtful that an independent General Staff would have been a better solution. Given the departmental infighting and the political rivalries of the Russian autocracy, Miliutin may have been right in opposing such a staff. The experiment with an independent General Staff after the Russo-Japanese War of 1904-05 seems, at least in part, to have vindicated Miliutin's worst fears. After a few years of power struggle and disunity, the General Staff was brought in under the authority of the War Ministry in 1909.¹⁰⁹

^{104.} Ibid., f. 68.

^{105.} RGVIA, F. 401, op. 5, d. 344, f. 80-83. 'VUK Journal No 11', 2 Nov. 1868.

^{106.} Ibid., f. 79. 19 Dec. 1868

^{107.} Zaionchkovskii, Voennye reformy: 106.

^{108.} See all three articles by Kavtaradze, 'Iz istorii russkogo general'nogo shtaba', *Voenno-istoricheskii zhurnal* (12, 1971): 75-80. (7, 1972): 87-92; (12, 1974): 80-86; Menning, Bruce W. *Bayonets before Bullets*. (Bloomington: Indiana University Press, 1992)15-16, and Rich, David. 'The Tsar's Colonels: Military Professionals and the Remaking of Russian Strategy, Foreign Policy, and Autocracy, 1840-1895', Manuscript, 1997: Ch 3.

2.2.5 Rifles and Guns

During the 1860s and 1870s, the Russian army was in a constant process of rearmament. The full story of this important development has yet to be told, but it is significant to outline the main events.¹¹⁰ The technological transformation of the Russian army can, in some respects, be said to have been uncomplicated, since there was no opposition or discussion about the need to acquire new rifle weapons. That was plainly obvious. However, as we shall see, the implications of these new weapons on the battlefield were not always obvious, and even if they were it was not always clear how to put the ideas into practice. The most pressing problem regarding the new rifle weapons was how to get as many of them as quickly as possible.

The military attachés played an important role by providing information about new weapons and by acquiring and sending examples of these weapons to St. Petersburg. The rearmament of the Russian army was a result of international cooperation and domestic development of the arms industry. The Russian breech-loader, *Berdan*, was developed by Russian Artillery Officers, A. P. Gorlov and K. I. Gunnius, in the factories of Colt Patent Firearms Manufacturing Company in the United States during the second half of the 1860s.¹¹¹ The first version available in 1868, was called *Berdan 1*; the second version, available two years later, was called *Berdan 2*. By 1867, the Russian artillery officers believed the Gatling machine gun superior to the French *mitrailleuse*, ¹¹² which demonstrates that the Russian army was well aware of the latest military technological changes.¹¹³ Initially, the Russian artillery was dependent on the steel guns from the Krupp factories in Essen. However, as one might expect, money was a limiting factor and it was neither financially possible nor politically desirable to rely completely on foreign production. Miliutin, who had witnessed the vulnerability of Russia in this respect,

^{111.} Bradley, Guns: 99-120.

^{109.} Menning, *Bayonets*: 218; Fuller, *Strategy and Power*: 410-411; Kavtaradze, 'Iz istorii', (7, 1972). For Miliutin's reactions to the creation of an independent General Staff, see Miliutin, D. A. 'Starcheskie razmy-shleniia o sovremennom polozhenii voennogo dela v Rossii', *Izvestiia Imperatorskoi Nikolaevskoi Voennoi Akademii* (30, 1912): 840.

^{110.} Bradley, Joseph. *Guns for the Tsar: Technology Transfer and Small Arms Industry.* (DeKalb, Illinois: Northern Illinois University Press, 1990) explored the cooperation between the United States and Russia in small arms technology. Soviet historians have tended to emphasize the Russian side of the development. Beskrovnyi, *Russkaia armiia*: 293-329; Zaionchkovskii, P. A. 'Perevooruzhenie russkoi armii v 60-70kh gg. XIX veke', *Istoricheskie zapiski* 36 (1951): 64-100; Zaionchkovskii, *Voennye reformy*: 136-180. The article by Sheparev, R. M. 'Perevooruzhenie russkoi armii v vtoroi polovine XIX veka', *Moskovskii zhurnal* (6, 1997): 50-56 is mostly useful for its drawings and pictures of the different rifles. A good introduction with regard to rifles is Mavrodin, V. V., and Val. V. Mavrodin. *Iz istorii otechestvennogo oruzhiia. Russkaia vintovka*. (Leningrad: Izd. Leningradskogo universiteta, 1981). A pre-revolutionary account deserves mentioning, Fedorov, V. G. *Vooruzhenie russkoi armii v XIX stoletii*. (St. Petersburg: Tip. Khudozhestvennoi pechati, 1911).

^{112.} RGB OR, F. 169, k. 16, ed. khr. 1, f. 128; Bradley, Guns: 116.

^{113.} The *mitrailleuse* was surrounded by so much secrecy within the French army that it was seldom used efficiently in the war against Germany since few officers knew how it worked. Howard, Michael. *The Franco-Prussian War: the German Invasion of France, 1870-1871.* Reprint of 1961 ed. (London: Routledge, 1991): 36.

often underlined the importance for Russia to have a domestic arms industry. In his own words:

Russia is neither Egypt nor the Papal States and we have to restrict foreign weapon purchases for the army. We must build our own factories to produce our own weapons in the future.¹¹⁴

The Russian arms industry slowly built up a considerable production capacity. As we have discussed previously, the production of *Berdan 2* increased dramatically in the 1870s. The production of metal cartridges rose from five million in 1873 to eighteen million in 1875, which - while short of the planned production - was, nevertheless, a considerable increase.¹¹⁵

In 1866-67, the rearmament of the Russian infantry with muzzle-loaded rifles was completed. At the same time, the Austro-Prussian war highlighted the need for a breech-loaded rifle.¹¹⁶ The first Russian breech-loader, the so called *Karle*, was introduced in 1866, followed by two different systems, *Krnka* (with a metal cartridge) and *Berdan* (with a smaller calibre).¹¹⁷ After almost twenty years of rearmament, the situation in 1877 can be illustrated through the following table.¹¹⁸

TABLE 2

		reser
Rifle	For use	in Nupp
Karle, infantry	150,868	51,096
Krnka, infantry	372,700	192,866
.60 calibre Krnka sys- tem, dragoons	40,597	2,658
Berdan 1, infantry	17,810	10,104
Berdan 2, infantry	253,152	103,616
Carbines	12,102	6,388
Small-calibre rifles, dragoons	2,352	7,648
Small-calibre rifles, cossacks	60,000	10,000
Smith and Wesson revolvers	70,275	6,490

Russian Small Arms in 1877

^{114.} Quoted in Fedorov, Vooruzhenie: 237.

^{115.} Zaionchkovskii, 'Perevooruzhenie': 98

^{116.} Miliutin would later note that the Austro-Prussian War had demonstrated to all European state the 'urgent necessity' of introducing weapons loaded from the breech. RGB OR, F. 169, k. 15, ed. khr. 3, f. 170. See also Anon. 'Ob igol'chatykh ruzh'iakh', *Artilleriiskii zhurnal* (9, 1866): 405-414.

^{117.} Mavrodin and Mavrodin. *Iz istorii otechestvennogo oruzhiia*: 54, 68, 76. See also the description in Greene, F. V. *The Russian Army and its Campaigns in Turkey in 1877-78*. 2nd ed. (London: W.H. Allen and Co, 1880): 52-59.

^{118.} Zaionchkovskii, 'Perevooruzhenie': 99; Beskrovnyi, Russkaia armiia: 309.

Before the outbreak of the Russo-Turkish War, sixteen of the forty-eight infantry divisions were equipped with *Berdan* rifles. Not until 1884 was the entire Russian army - including the reserve - fully equipped with *Berdan* rifles.¹¹⁹ Artillery also went through a transformation from smooth-bores to rifled guns. The field artillery was rearmed first with a combination of steel and bronze cannons. There was no doubt among Russian artillery officers about the superiority of the steel cannon, but the production of large calibre steel guns was insufficient. The war of 1866 had made rearmament of the field artillery urgent and, in order to complete the transformation as quickly as possible, it was decided to adopt a bronze gun, which the Russians could produce at home. In 1869, the field artillery was fully equipped with rifled, breech-loaded guns.¹²⁰

The rearmament of the fortress artillery went more slowly. In spite of foreign purchases from Krupp and also, for instance, from Sweden, the Russian fortresses were still partly equipped with smooth-bores at the outbreak of the Russo-Turkish war in 1877.¹²¹Nevertheless, in the mid-1870s, the Russian arms industry had built up a capacity for making steel guns and during the period 1881-1894, produced 2,372 steel guns.¹²²

Against this brief background of change and reform, we can turn to the more immediate question of observing foreign wars. Since no Russian war correspondents were sent from the press, the military attachés and the special observers sent out by the War Ministry were closest to the war scenes. Who were these people and, more specifically, who were the military attachés and what were their tasks? What did the War Ministry want to know? These questions will be addressed in the next chapter.

^{119.} Zaionchkovskii, Samoderzhavie: 156.

^{120.} In 1867, Russia placed an order for 250 Krupp steel guns but since the Essen factory had its order books full, it would have taken too long to fulfil the order. Bogdanovich, *Istoricheskii ocherk:* Vol. 4: 246; Zaionchkovskii, 'Perevooruzhenie': 84-85. Miliutin described the adoption of bronze cannons a temporary and transitional measure. RGB OR, F. 169, k. 15, ed. khr. 3, f. 171v.

^{121.} Bogdanovich, Istoricheskii ocherk, Vol. 4: 269-273; Vol. 6: 209-223; Zaionchkovskii, 'Perevooruzhenie': 88-90.

^{122.} Zaionchkovskii, Samoderzhavie: 162.

3 The Eyes of the Tsar: The Russian Military Attachés

Before discussing the military attachés, we must try to define the term. The word used by the Russian War Ministry were *voennyi agent* or *voennyi korrespondent*, which referred to two categories of officers stationed abroad: officers who had the official status of a military attaché and those who had not. The latter did not appear regularly on the lists of military attachés since they received no pay – or very little – from the Ministry. Their role seems to have been that of a freelancing military attaché, with two exceptions. First, Colonel Nikolai Aleksan-drovich Novitskii, the officer in London 1862-72, who did not have the official title of military attaché, but who received his pay from the Ministry and always appeared on the lists of attachés.¹ Second, the assistant attaché in Paris, who specialized in artillery reporting. Lieutenant Vladimir Iulievich Giuliani (1861-70) and Captain Dmitrii Nikolaevich Leont'ev (1870-72) were usually listed as military attachés although they only received a very small salary in relation to their rank.

The second group relevant to foreign military intelligence gathering are the military representatives at the Prussian court. After the Napoleonic wars, Russia and Prussia introduced a system where a high ranking officer, usually a Guards officer and a personal adjutant of the sovereign, was exchanged between the courts. Initially, this was an expression of the friendship between Alexander I and Friedrich Wilhelm III, which was reinforced under Nicholas I who, in 1817, married Friedrich Wilhelm III's daughter. The Prussian plenipotentiaries have earned some scholarly attention, whereas little is known about their Russian counterparts.²

^{1.} Rossiiskii Gosudarstvennyi Voenno-Istoricheskii Arkhiv (hereafter RGVIA), F. 38, op. 5, d. 1097. 'About the Petition by Colonel Novitskii to Confer Him the Title of Military Agent and to Increase His Salary'. 1862. For a list of the military attachés and the other officers stationed abroad, see Appendix 1.

These special envoys differed from ordinary military attachés not only in their high rank, but more significantly in that they were not subordinated to the Head of the mission. They reported directly – but not exclusively – to the Tsar. The role of the military plenipotentiary was that of the sovereign's *Privatbotschafter* – a position between a military and diplomatic post.³

The third source for providing military intelligence is the observers sent to the various war fronts – in this case the European wars of 1859, 1864, 1866, and 1870-71, as well as to the American Civil War of 1861-65. These observers were mostly young General Staff officers or artillery specialists. Sending officers abroad to study different aspects of military science was not a new phenomenon in the Russian army, but after the Crimean War it became more frequent. For instance, the three military academies, the General Staff, Artillery and Engineering began to send to send professors abroad to study various aspects of military development.⁴ In addition, it was fairly common for officers on vacation to visit different military establishments in Europe which, in fact, upset both the military attaché in Paris and the military plenipotentiary in Berlin. In 1862, Prince Petr L'vovich Wittgenstein complained that officers on vacation and even those on official trips turned directly to the French authorities without notifying him or the Embassy and – worse – they were often ignorant about the subject that they came to study.⁵ Their behaviour compromised the reputation of Russian officers and the Russian government and even damaged his own position in Paris. A few years later, Count Vasilii Pavlovich Golenishchev-Kutuzov complained that travelling officers stopping in Berlin on their way to or from Paris often left before the necessary paperwork had been processed. When he had obtained the required authorization, it often happened that the officers were gone and perhaps later 'claimed that the military attachés did nothing for them'.⁶

The custom to place military attachés at foreign legations began after 1815, but did not become widespread in Europe until after 1848. The Russian army started to place officers permanently abroad in the 1830s.⁷ In this dissertation, the focus is on attachés permanently stationed abroad and the special observers sent to the various war scenes. But, how did the

^{2.} See von Lambsdorff, Gustav. *Die Militärbevollmächtigten Kaiser Wilhelms II. am Zarenhofe* 1904-1914. (Berlin: Schliffen Verlag, 1937): 21-22; Vagts, Alfred. *The Military Attaché*. (Princeton, N.J.: Princeton University Press, 1967): 281-300; Craig, Gordon A. 'Military Diplomats in the Prussian and German Service: the Attachés, 1816-1914', Political Science Quarterly 64 (1, 1949): 65-94; Meisner, Hans Otto. *Militärattachés und Militärbevollmächtigte in Preußen und im Deutschen Reich*. (Berlin: Rütten und Loening, 1957): 67-70; Ritter, Gerhard. *Die deutschen Militär-Attachés und das Auswärtige Amt*. (Heidelberg: Carl Winter, Universitätsverlag, 1959): 5-11. See also the memoirs of the Prussian plenipotentiary in St. Petersburg 1865-69 von Schweinitz, Hans Lothar. *Denkwürdigkeiten des Botschafters H.L. von Schweinitz*. 2 vols. (Berlin: Verlag vom Reimar Hobbing, 1927), Vol. 1: 173-246

^{3.} Meisner, Militärattachés und Militärbevollmächtigte: 68.

^{4.} 'Smes'', Zhurnal Ministerstva Narodnogo Proisveshcheniia. (Aug. 1856): 43-45; Glinoetskii, N.P. Istoricheskii ocherk Nikolaevskoi Akademii General'nogo shtaba. (St. Petersburg: Shtab voisk gvardii i Peterburgskogo voennogo okruga, 1882): 154, 312. Starting in 1871, the Nicholas Academy of the General Staff began on a yearly basis to send the top student abroad for eight months.

^{5.} RGVIA, F. 38, op. 5, d. 1103, ff. 6-7. 'Wittgenstein to the War Minister 4/16 Dec. 1862 Paris'.

^{6.} RGVIA, F 432, op. 1. d. 193, f. 18. 'Kutuzov to the War Minister 27 Jan. /8 Feb. 1868 Berlin'.

institution of the military attaché develop in Russia? How important was their role in intelligence gathering? This chapter examines these questions.

3.1 Gathering Intelligence through Attachés

The history of the military attaché in Russia started, curiously enough, at the international congress in Troppau in 1820.⁸ There the decision was taken – quite apart from the international proceedings – to establish a statistical section in the Russian Foreign Ministry.⁹ Adjutant-General A. S. Menshikov (1787-1869) took the opportunity to highlight the army's need for military statistics about foreign armies. This kind of information – that is, number and location of the troops and the navy, armament, fortresses, military education, topographical information, and so on – had previously been obtained during campaigns, particularly the Napoleonic wars, and through officers travelling abroad. But as Menshikov pointed out in his memorandum, the information was often incomplete and varied greatly. 'It is only with the cooperation of the Ministry of Foreign Affairs and the Committee that is about to be created that these gaps can be replenished', he noted.¹⁰ Instructions were sent to the Russian embassies and missions abroad containing a short list of desiderata, and it was clearly stated that in order to avoid the possibility of this new task preventing the regular work, the ambassadors should assign the tasks to the most appropriate and capable attachés.¹¹ Thus, the work was to be executed by the regular personnel at the embassy and there were no explicit plans to send military officers to perform these functions.

Two years later, in 1822, the Quartermaster-General Section (that is, the General Staff)¹² had produced more detailed instructions, specifying exactly what kind of information the army wanted from the foreign missions.¹³ The instructions, written by Colonel Fedor Fedorovich

^{7.} RGVIA, F. 29, op. 6, d. 178, f. 37. 'About the Collection of Statistical and Military Information from Foreign Countries'. 1850. See also Beauvais, Armand. Attachés Militaires, Attachés Navals et Attachés de l'air. (Paris: Les Presses Modernes, 1937): 7-17. Vagts, The Military Attaché: 15-24. See also Pokhlebkin, V. V. 'Kto byl pervym v Evrope voennym attashe', Voprosy istorii (8, 1996): 135-138.

^{8.} Between October and December 1820, the Holy Alliance (Austria, Prussia, and Russia) met and eventually signed a Declaration of intention to take collective action against revolution.

^{9.} RGVIA, F. 410, op. 1, d. 137. 'About the Creation of a Statistical Department at the Ministry of Foreign Affairs and the Supply of Statistical Information to the Main Staff Regarding the Military Situation in Other Countries'. 1820.

^{10.} RGVIA, F. 410, op, 1, d. 137, f. 20.

^{11.} RGVIA, F. 410, op. 1, d. 137, f. 2v.

^{12.} The Quartermaster-General Staff – mainly responsible for quartering the troops in the field – was the precursor of General Staffs in European armies. For Russia, see Kavtaradze, A. 'Iz istorii russkogo general'nogo shtaba', *Voenno-istoricheskii zhurnal* (12, 1971): 75-80. For general surveys see Hittle, J. D. *The Military Staff: Its History and Development*. (Harrisburg, Pa.: The Military Service Publishing Company, 1944): 48-49; Irvine, Dallas D. 'The Origin of Capital Staffs', *The Journal of Modern History* 10 (2, 1938): 161-179; van Creveld, Martin. *Command in War*. (Cambridge, Massachusetts: Harvard University Press, 1985): 35-40, 109.

^{13.} RGVIA, F. 29, op. 6, d. 178, ff. 6-31.

Berg, later Field Marshal and Head of the Department of the General Staff 1843-55,¹⁴ were detailed and highly ambitious, and make impressive reading to this day. In his report on the development of foreign military intelligence gathering in 1850, Colonel Dmitrii Alekseevich Miliutin (the future War Minister) called them a 'remarkable work in its completeness and systematic logic'.¹⁵The fifty-four pages of instructions concern both the army and the navy, and cover every aspect of the armed forces including recruitment, education, budget, equipment, morale, and war preparations. They are divided into two main segments - one for the army, the other for the navy - and each part contains several sections and chapters. The Army segment consists of four sections that define the areas about which the foreign missions should gather information: the War Ministry, military organization (including army and corps organization and military institutions, the army (including the number and location of the troops and the spirit of the armies) and war preparations. The navy segment consists of five sections: the same as were noted for the army plus an additional section pertaining to the construction of vessels. Clearly, it would not be easy for the traditional diplomat to gather all of this information – in fact, it was impossible since this work required military knowledge. Furthermore, there were not enough personnel at the embassy to carry out a task that most certainly was judged by the diplomats to be of secondary importance. In 1822, Berg hinted at the problem in a letter to Menshikov that accompanied the instructions:

It is not enough to specify the goal in sight. It is necessary to choose the means with which the goal can be achieved. $^{16}\,$

It is hardly surprising, therefore, that these instructions did not produce the desired result. In August 1827, Head of the General Staff, General Fedor Filippovich Dovre (1766-1828), wrote yet another memorandum to Foreign Minister, Karl Vasil'evich Nesselrode,¹⁷ where he admitted that the programme was far too extensive and complex to be handled by ordinary diplomatic officials. Dovre proposed that General Staff officers be sent to the embassies to collect military statistical information. For naval matters, naval officers would be required. The systematization of the material should be handled within the Main Staff, where Dovre suggested that a special committee should be created, consisting of one General Staff officer, one naval officer, and additional officers specializing in administrative and financial affairs. In addition, he proposed that the information should be sent directly to the Main Staff and should not make the detour around the Foreign Ministry.¹⁸ These proposals would have provided the Russian General Staff with both military attachés and a strong centre for intelligence collec-

^{14.} His service record is located in his personal fond in Gosudarstvennyi Arkhiv Rossiiskoi Federatsii (hereafter GARF), F. 547, op. 1, d. 1.

^{15.} RGVIA, F. 29, op. 6, d. 178, f. 33v.

^{16.} RGVIA, F. 410, op. 1, d. 137, f. 27.

^{17.} Karl Vasil'evich Nesselrode (1780-1862) was Foreign Minister between 1816 and 1856.

^{18.} RGVIA, F. 29, op. 6, d. 178, f. 34v-35v.

tion and analysis. But these were early days in the world of staff work and Nesselrode's reaction was perfunctory. He sent a letter to the embassies reminding them that Berg's instructions were still in force. The information should be sent to the Foreign Ministry and then forwarded to the Main Staff. In the secret memorandum of 5 August 1850, Colonel D. A. Miliutin, summarized the efforts of the General Staff to organize the collection of foreign military statistics in a systematic way between 1820 and 1832:

Unfortunately, one has to say that the correspondence, stretching over twelve years, resulted in almost nothing, since the fragmentary information occasionally delivered by the embassies was far from sufficient to meet either the proposed intentions or the demands of the State.¹⁹

As if this were not enough, Berg's instructions were lost in the archives. When he needed them in December 1843 to write a report about the necessity to update the secret archive of the Department of the General Staff with information about foreign armies, he searched in vain. They were discovered only in 1850 when Miliutin wrote his memorandum.²⁰

The first military attachés from the War Ministry were sent abroad during the second half of the 1830s.²¹ Officers were attached to the diplomatic missions in Paris, Berlin, Constantinople and Stockholm. This improved the situation slightly, but apparently not very much. F. F. Berg complained in 1843 that the information from both the War Ministry's correspondents and the diplomats occurred 'very seldom and [in] entirely insufficient [quantities] for the General Staff to fulfil its duties'.²² In 1843, the most recent information that the Russian General Staff possessed about Austrian forces was two years old, and information about Britain was four years old.

After 1836 (when the Quartermaster-General Section had been abolished), the institution responsible for collecting foreign military intelligence was the Military Scientific Section (*Voenno-Uchenyi otdel*) of the newly created Department of the General Staff. The Department of the General Staff now consisted of five sections: Section One was responsible for the movement and quartering of troops; Section Two was the Military Scientific Section; Section Three dealt with accounting; Section Four, the chancellery, was responsible for the correspondence with the military attachés (among other things); and Section Five, was an archive.²³

^{19.} RGVIA, F. 29, op. 6, d. 178, f. 37v.

^{20.} RGVIA, F. 29, op. 6, d. 178, f. 45v.

^{21.} RGVIA, F. 29, op. 6, d. 178, f. 37. See also Beauvais, Armand. *Attachés Militaires, Attachés Navals et Attachés de l'air.* (Paris: Les Presses Modernes, 1937): 16-17.

^{22.} RGVIA, F. 29, op. 6, d. 178, f. 52.

^{23.} Svod Voennykh Postanovlenii 1838 (hereafter SVP), Part 1, Obrazovanie voennykh uchrezhdenii, Book 1, Obrazvanie voennogo ministerstva i osobykh ustanvlenii, Arts. 45-50, and Art. 740. See also Curtiss, John Shelton. The Russian Army under Nicholas I, 1825-55. (Durham, N.C.: Duke University Press, 1965): 101-104.

Apart from the problems in actually getting the information, there were serious flaws in another equally important aspect of intelligence work – analysing and evaluating the information. It happened that the incoming information was sent directly from the Foreign Ministry to the chancellery of the Quartermaster-General Section or to the library of the General Staff where it was simply filed away. ²⁴As we have seen, there had been suggestions to create a special committee responsible for the systematization and analysis of the material, but nothing had come of them. With the creation of the Department of the General Staff and the intelligence section (the Military Scientific Section), the structure was put into place, but the quality of the staff work did not improve accordingly. F. F. Berg later complained that the reports had stopped reaching the Department of the General Staff and that the General Staff had to piece together information about foreign armies from different periodicals and journals. The information in these journals clearly showed that the data received by the General Staff from the foreign legations was of poor quality: 'extremely fragmentary, contradictory, often incorrect and generally incomplete' was how Berg characterized it.²⁵

In 1850, D. A. Miliutin had pointed out that the difficult part of the task had already been accomplished. The attachés were in place, now it only remained to 'reap the fruits; that is, to create a centre, where all the statistical information from abroad is collected for appropriate distribution and compilation'. He suggested the following measures: (1) that a special statistical committee should be created within the War Ministry, as it was in the Interior Ministry and in the Ministry of State Properties,²⁶ (2) that the work of the committee should be regulated by detailed and clear instructions; (3) that the committee compile a detailed programme for the gathering of military statistical information and (4) that the committee should immediately require the basic information from the military attachés and then have it updated continuously.²⁷ However, it was not until he became War Minister (eleven years later), that Miliutin was able to realize his ideas fully.

Thirty years later, in 1852, F. F. Berg's instructions were still in force but they had not produced the expected results. General Aleksandr Ivanovich Chernyshev (1786-1857), who was the War Minister between 1832-52, was acutely aware of the problem. The Prussian General

^{24.} RGVIA, F. 29, op. 6, d. 178, f. 36v.

^{25.} RGVIA, F. 29, op. 6, d. 178, f. 3v. It is interesting to note that Berg's critical tone in the internal papers of the General Staff differed drastically from his official voice. Officially, Berg declared that no changes were needed within the General Staff. Glinoetskii, N. P. *Istoriia russkogo general'nogo shtaba*. 2 vols. (St. Petersburg: Shtab voisk gvardii i Peterburgskogo voennogo okruga, Voennaia tipografiia, 1883, 1894): Vol. 2: 59-65, 140-144 and Glinoetskii's article, 'General'nyi shtab', in Leer, G.A., ed. *Entsiklopediia voennykh i morskikh nauk*. 8 vols. (St. Petersburg, 1883-97): Vol. 2: 432.

^{26.} It might seem strange that the War Ministry did not have this vital function of staff work. It should be remembered, however, that the importance of staff work is a product of the modernization of warfare. It was only when railways speeded up the communications, and larger armies could be mobilized faster, that advance war planning and, therefore, staff work became essential.

^{27.} RGVIA, F. 29, op. 6, d. 178, f. 39v.

Staff seemed to provide the solution. In a report from Berlin 12/24 March 1852,²⁸ the military attaché, Major-General Count Konstantin Konstantinovich Benckendorff, described the organization of the Prussian General Staff. In response, Chernyshev encouraged an investigation on how the Prussian system of collecting military information could be introduced in Russia.²⁹ In his final report, F. F. Berg suggested that the Prussian system of three desks within the General Staff should be copied.³⁰ The first desk would consist of Sweden, Denmark, the Netherlands, Belgium, Great Britain, France, Spain, and Portugal. The second desk would consist of Prussia, Austria, all of the German states, the states in the Italian peninsula, and Switzerland. The third desk would consist of Turkey, Persia, India, China, Kokand, Bukhara and Khiva. Berg also proposed that the existing military attachés should collect information from adjacent countries, and that officers be sent on a regular basis to areas where there were no military attachés, for example, Spain or Piedmont.

All of these efforts came to nothing. Nicholas I was not impressed and did not think it necessary to introduce the Prussian system. In his view, the correspondents of the War Ministry should continue to give as complete and as timely military statistics as was possible, and the second section of the Department of the General Staff should collect the information.³¹

The problem with Russian intelligence gathering was two-fold, both consequences of a weak centre. First, there was the problem of ensuring direct access to the information and making sure it was updated continuously. Second, the intelligence that did reach the General Staff was not analysed in a systematic way. The information flow through the Foreign Ministry was a major bottleneck. Thus, before the Crimean War Russia had insufficient and partly outdated military statistical information from countries like Britain, Turkey, Sweden, and the states in the Italian peninsula. The information about France and Prussia was slightly better, mainly because the attachés in those countries delivered more accurate and detailed material than the attachés elsewhere.³² Consequently, there was a large degree of arbitrariness involved. The instructions existed, but there were no real means or will to enforce them. In

^{28.} RGVIA, F. 29, op. 6, d. 178, ff. 57-58. 'Benckendorff to Chernyshev, Berlin 12/24 March 1852'. The report - incidentally written in French - contained a description of the Prussian General Staff, and an account of the *Generalstabsreisen*, i. e. tours where General Staff officers performed duty and reconnaissance tours. This was eventually introduced in Russia in 1872.

^{29.} RGVIA, F. 29, op. 6, d. 178, ff. 1v-2.

^{30.} RGVIA, f. 29, op. 6, d. 178, ff. 59-63. 'About the General Staff Collection of Information on Foreign Military Forces'.

^{31.} RGVIA, F. 29, op. 6, d. 178, f. 64. 'War Minister's Resolution, 19 April 1852'. The military correspondents at the missions in Berlin, Stockholm, Paris and Constantinople were instructed to start compiling information on neighbouring forces. In addition, the missions in Stuttgart, Munich, Neaples, Rome, Dresden, Lisbon, and Teheran were reminded of their duty to collect military information. RGVIA, F. 29, op. 6, d. 178, ff. 64v-65, ff. 72-73. Chernyshev's letter of 8 May 1852 to the War Ministry is published in Primakov, E. M., ed. *Ocherki istorii rossiiskoi vneshnei razvedki*. 3 vols., incomplete.Vol. 1. (Moscow: Mezhdunarodnye otnosheniia, 1995): 149-150.

^{32.} RGVIA, F. 29, op. 6, d. 178, f. 52v.

1856, when Colonel Baron Fedor Fedorovich Tornau was sent to Vienna, he showed the instructions to a friend at the Foreign Ministry who commented:

A highly honourable bureaucratic work, but my advice to you is: when you arrive in Vienna, put your instructions under lock and key at the Embassy and do not look at them again, but act according to what the circumstances permit.³³

A certain degree of subjectivity was perhaps inevitable in the process, but Russian military intelligence gathering in the period before 1856 and immediately afterwards suffered from the lack of an organized centre where the information could be collected and – even more important – analysed. This deficiency continued to plague Russian military statistics into the 1860s. However, in the 1860s, measures were taken to overcome the problems. The work of the military attachés was more regulated and organized, and they were integrated into the staff process of gathering and evaluating the information. The question of military statistical information, both about Russia and her neighbours, was discussed in the Consultative Committee in 1863. Descriptions such as 'unsatisfactory', 'incomplete', and 'incorrect' were often used to characterize the statistical projects before the Crimean War.³⁴

In 1865, the new Main Staff finally emerged. Responsible for foreign intelligence gathering was the Consultative Committee, created in 1863, renamed the Military Scientific Committee in 1867.³⁵ All of the material was collected in the Committee's archive. New instructions were issued, that, for instance, ensured a continuous updating of foreign military statistics.³⁶ With the reforms, War Minister D. A. Miliutin had fulfilled all four of his suggestions from 1850. Nevertheless, in spite of the efforts to strengthen the central organ of intelligence gathering, the War Ministry had no effective way of enforcing the instructions. In this respect, the basic deficiency in Russian intelligence gathering that was so obvious before the Crimean War continued to plague the Russian General Staff. Having said this, it is important to stress that vital

^{33.} Tornau, F. F. 'Vospominaniia Barona F. F. Tornau', *Istoricheskii Vestnik* (1:1897): 51-52. The friend was E. P. Kovalevskii, Head of the Asiatic Department of the Foreign Ministry. F. F. Tornau (1810-1890) had received his education at the Tsarskoe Selo Lyceum, participated in the war against Turkey in 1828, and was then appointed to the topographical section of the general staff. He and D. A. Miliutin later met in the Caucasus after Tornau had been released from a two-year long imprisonment in Abkhazia. Miliutin, D. A. *Vospominaniia* 1816-1843. New edition. Originally published in Tomsk, 1919 and reprinted in Newtonville, 1979. (Moscow: Rossiiskii arkhiv, 1997): 274-275. On Tornau, see also *Russkii biograficheskii slovar*', (hereafter *RBS*): Vol. 20A: 172-73; Ikonnikov, N. *La Noblesse de Russie*. 2nd ed. (Paris, 1958-66): Vol. R1: 200.

^{34.} Prince Golistyn's paper in RGVIA, F. 401, op. 5, d. 417, ff. 1-26, 'About Military-Statistical Works until the Present, Current Status and Means to Produce them in the Future', 19 Dec. 1863, and A. I. Maksheev's 'Colonel Maksheev's Thoughts about the Military-Statistical Works of the General Staff', 25 Jan. 1864. RGVIA, F. 401, op. 5, d. 417, ff. 73-84. See also Rich, David A. 'The Professionalization of Russia's General Staff 1870-1895: Ideas, Strategy, and Foreign Policy'. Ph.D., Georgetown University, 1993: 40-48, and his 'Imperialism, Reform and Strategy: Russian Military Statistics, 1840-1880', *The Slavonic and East European Review* 74 (4, 1996): 621-639.

^{35.} SVP 1869, Pt. 1, Obrazovanie voennykh uchrezhdenii, Bk. 1, Obrazovanie voennogo ministerstva i osobykh ustanovlenii, Arts. 154-164.

^{36.} RGVIA, F. VUA, d. 1320, f. 1, f. 6. 'About the Change of Instructions to Our Military Agents Abroad'. 1864.

progress had been made. The Military Scientific Committee had been created as a centre for dealing with foreign military intelligence, and the information was being updated regularly. Furthermore, between 1867 and 1871, the Head of the Military Scientific Committee, N. N. Obruchev, edited and published the first really substantial collection of military statistics to be published in Russia, *Voenno-statisticheskii sbornik*. It consisted of four volumes containing the latest military information as well as other statistical data on foreign countries as well as Russia.³⁷

In summary, by trying to improve the collection and analysis of foreign military intelligence, the Russian army did what other European armies were doing at the time.³⁸ This was not so much the result of trying to compensate for technological 'backwardness', as it was a response to the growing importance of staff work and of making war preparations in peacetime due to the ever-shortening amount of time it took to mobilize. This development was in no way exceptional for Russia, but was rather a trend among all European armies at the time.³⁹

3.2 Men in High Places

Who, then, were the military attachés, and where were they stationed? From 1856 Russia had permanent attachés in Berlin, Vienna, London, Paris, and Constantinople.⁴⁰ In 1862, when Russia recognized Italy, an officer was appointed to Turin.⁴¹ Ten years later there were also permanent military attachés in Rome, Washington, and the Hague. The War Ministry's cost in salaries in had risen from 23,895 roubles in 1862 to 48,590 roubles in 1872.⁴²

In addition, there were the unofficial (freelance) officers working abroad without pay from the War Ministry. In the beginning of the 1860s, there were only a few officers in this category. Prince Emmanuil Nikolaevich Meshcherskii had been in Brussels since at least 1859,⁴³ Cornet

^{37.} Obruchev, N. N., ed. *Voenno-statisticheskii sbornik*. 4 vols. (St. Petersburg: Voennaia tipografiia, 1867-71).

^{38.} Beauvais, Armand. *Attachés militaires, attachés navals et attachés de l'air*. (Paris: Editions A. Pedone, 1937): 22-30.

^{39.} Fuller has argued that the Russian War Ministry started to place increasing emphasis on the collection of foreign military intelligence in 1880 as a mean to compensate for 'Russian technological backwardness'. Fuller, William C., Jr. *Strategy and Power in Russia 1600-1914*. (New York: Free Press, 1992): 341, 344-45.

^{40.} Primakov, *Ocherki istorii*: Vol. 1: 151; RGVIA, F. 437, op. 1, d. 35, ff. 19-19v. 'About the Appointment of Colonel Hasford as Military Agent in Turin'. 1862. In 1866, Florence became the residence for the military attaché and after the unification of Italy, Rome. The post in London was initially held by Count N. P. Ignat'ev (1832-1908), later ambassador to Constantinople 1864-1874, but he left in 1858, and the position was apparently vacant until Novitskii arrived in 1861. The attaché sent to Paris in 1856, Adjutant-General P. P. Al'bedinskii (1826-1883), stayed for a two-year period and was then succeeded by P. A. Shuvalov. Al'bedinskii later became Commander of the troops in Riga and Vil'na Military Districts. In 1881, he was appointed to the State Council.

^{41.} RGVIA, F. 437, op. 1, d. 35, f. 2v.

^{42.} RGVIA, F. 38, op. 5, d. 1097, ff.11-12; F. 440, op. 1, d. 190, f. 3v.

Andrei Glebovich Nechaev was attached to the mission in Turin, ⁴⁴ and Captain V. V. Molostvov was based in Frankfurt.⁴⁵ In 1869, Count Mikhail Petrovich Kleinmichel was attached to the French embassy at the suggestion of Grand Duke Nikolai Nikolaevich the Elder.⁴⁶ That year a comprehensive list of these freelancers appeared in the Ministry.⁴⁷ The list included ten officers, one of whom was N. A. Novitskii in London and Colonel V. V. Molostvov who had been transferred to Vienna to assist Baron F. F. Tornau. There were two officers working in Florence, one in Karlsruhe, and one in the Hague. The others were Prince E. N. Meshcherskii in Brussels, Captain Konstantin Gavrilovich Doppelmaier in Berlin, Captain V. I. Giuliani in Paris, and his successor, Captain D. N. Leont'ev.

Who was appointed to the position of military attaché? The War Ministry under D. A. Miliutin had the explicit policy of appointing General Staff officers.⁴⁸ If we look at the officers with the official status of military attaché who served between 1859 and 1872, including Novitskii in London but excluding the military representative in Berlin, we have a total of eleven officers. Six of them were either fligel' adjutants or adjutant-generals when appointed or became so during their years as attachés. Of the remaining five, three were General Staff officers – Baron F. F. Tornau, Major-General Vsevolod Gustavovich Hasford, Colonel Aleksandr Semenovich Zelenyi – and the other two, Major-General Aleksandr Pavlovich Gorlov and Colonel Viktor Antonovich Frankini, were graduates of the Artillery Academy.⁴⁹ In the group belonging to the suite of the Tsar, Count Pavel Andreevich Shuvalov,⁵⁰ Prince P. L. Wittgenstein and Major-General Otto Borisovich Richter came from the Horse Guards regiment. N. A. Novitskii was a colonel who was married to the daughter of General V. F. Adlerberg, Commander of the Imperial Headquarters.⁵¹ Captain Aleksandr Aleksandrovich Daller was an artillery captain from the Guards and Count Pavel Ippolitovich Kutaisov had served as a second lieu-

^{43.} In 1866, he began to receive pay from the Ministry; 1,500 roubles, in recognition of his useful, but unpaid, work for seven years. RGIVA, 1866, F. 401, op. 2, d. 69. f. 5. 'About the Designation of Salary to Lieutenant Prince Meshcherskii at our Mission in Brussels'. 1866. Ikonnikov, *La Noblesse*: Vol. Z1: 221 contains some biographical information.

^{44.} RGVIA, F. 38, op. 5, d. 1081. About the Appointment of Lieutenant Nechaev, attached to our Embassy in Madrid to our Embassy in Turin 1862; F. 437, op. 1, d. 34. 'About the Appointment of Cornet Nechaev to our Embassy in Turin without the Title of Military Agent'. 1860-61. There is a very brief reference to A. G. Nechaev in Ikonnikov, *La Noblesse*: Vol. K2: 393.

^{45.} RGVIA, F. 432, op. 1, d. 188. 'Information Provided by Captain Molostvov from our Mission in Frankfurt'. 1866. Ikonnikov, *La Noblesse*: Vol. J2: 415.

^{46.} RGIVA, F. 401, op. 2, d. 118, f. 1. 'About the Letter by the Commander of the Guards and Petersburg Military District Regarding the Appointment of Count Kleinmichel 2 to Paris or Brussels'. Kleinmichel was obviously very ill and died in 1872, aged twenty-four. Ikonnikov, *La Noblesse*: Vol. G1: 144-45.

^{47.} RGVIA, 1869, f. 401, op. 2, d. 118, f. 8. 'List of Officers Attached to our Foreign Embassies Independently of the Military Agents'. 9 Dec. 1869.

^{48.} RGVIA, F. 38, op. 5, d. 1183, f. 14. 'About General-Adjutant Barantsev's Petition for Appointing Colonel De Shar'er Military Agent in Switzerland'. 1864.

^{49.} Gorlov, an artillery specialist, played a vital role in developing the rifle *Berdan* No. 1, the first Russian breech-loading rifle. See Chapter 2.

^{50.} His famous brother, Count Petr Andreevich Shuvalov, was Director of the Third Department. For biographical details about Pavel A., see Ikonnikov, *La Noblesse*: Vol. C1: 280-281.

tenant in the Guards Horse Pioneer Squadron before entering the General Staff Academy from which he graduated in 1860.⁵²

The Guards Corps was, not surplisingly, a great source for providing officers for foreign assignments. Of the eleven officers, at least nine came from the Guards Corps and this figure might actually be higher since it has not been possible to track down the early service records for two of these men. If we include the eleven officers who worked as freelancers, we find that from a total of twenty-two men at least nineteen came from the Guards Corps. Although these figures might change slightly if we could determine the education of the other three officers we can clearly see the dominance of the Guards Corps.

With regard to the branch of service, the artillery specialists and graduates from the General Staff Academy dominated as the recruiting ground of the attachés. In the group of the eleven attachés, four came from either the Guards Horse Artillery or simply the Guards Artillery and three had graduated from the General Staff Academy. There seems to be only one officer, even if we include all officers stationed abroad, who came from the engineering troops, namely Count P. I. Kutaisov.

Favouritism and patronage clearly played an important role in appointing the attachés. Novitskii is one example, and his protector, V. F. Adlerberg, supported him when he wanted to transfer from London to Paris.⁵³ The Minister at the misision in Turin, Count Ernst Gustavovich Stackelberg, actively supported the appointment of Cornet A. G. Nechaev, even invoking the name of Grand Duke Nikolai Nikolaevich the Elder.⁵⁴ The latter was also behind the appointment of Kleinmichel to Paris.⁵⁵ These are but a few of the examples that demonstrate the importance of patronage. They are illustrative since it has been possible to trace the patronage. However, the lack of written evidence in other cases is no reason to believe that patronage did not exist in those cases as well.

It should be remembered that the number of people in this exclusive club is very small – far too small to make it possible to draw any statistically significant conclusions. Nevertheless, it is noteworthy that a large proportion of these officers had a specialist education. Even if patronage played an important role in appointing them, it was seldom the sole criterion. Knowl-

^{51.} RGVIA, 1867, F. 401, op. 2, d. 50. See also Veniukov, M. I. Istoricheskie ocherki Rossii so vremeni Krymskoi voiny do zakliucheniia Berlinskogo dogovora 1855-1878. 4 vols. (Leiipzig, Prague, 1878), Vol. 1: 54-55; Voennaia entsiklopediia, Vol. 1: 143-44.

^{52.} Kutaisov succeeded Novitskii in London in 1872. RGVIA, F. 440, op. 1, d. 190, f. 3v. See Ikonnikov, *La Noblesse*: Vol. H1: 249 for some biographical details.

^{53.} RGVIA, 1867, F. 401, p. 2, d. 50. 'About Count Adlerberg I's Letter on Appointing Colonel Novitskii Military Agent in Paris'. 1867.

^{54.} RGVIA, F. 437, op. 1, d. 34, f. 1.

^{55.} RGVIA, F. 401, op. 2, d. 118, f. 1.

edge and skill also characterized the majority of these officers.⁵⁶ As we have seen, from 1859 to 1872 approximately half of the military attachés (six of eleven) belonged to or were appointed to the suite of the Tsar, itself not a small body. In fact, Alexander II appointed 246 officers to the suite during his reign.⁵⁷ In terms of specialization, Artillery and General Staff officers dominated. Personal wealth was almost a prerequisite, considering the low pay and the high costs involved. To be sent abroad as a military attaché may have been an honourable assignment, certainly laborious, but definitely not a very profitable duty. The pay from the War Ministry was not enough to maintain an honourable position and to be able to participate in social events where it was possible to gain access to information. Money problems were a constant complaint in the letters of Baron Tornau in Vienna, exacerbated by the fact that the Ministry occasionally was slow in paying his salary.⁵⁸

What, then, did these officers do once they were stationed abroad? Judging from the instructions, the workload of the attachés was heavy. They reported to the Military Scientific Committee within the Main Staff and directly to the War Minister. In addition, they were expected to report on changes and improvements in artillery and engineering directly to the Artillery and Engineering Administrations. In addition to writing reports, they sent weapons so that new models could be tested.⁵⁹

The instructions used after the Crimean War were essentially based on those of Berg written in 1802. Only minor adaptations had been made in the intervening years.⁶⁰ The military at-taché was supposed to report on:

- 1. numbers, organization and the location of both army and fleet;
- 2. personnel reinforcement capacity and supply mechanisms;
- 3. troop movements and, if possible, the reasons for such movements;
- 4. fortresses and fortifications;
- **5.** experiments and tests of new weapons and other items that have an impact on military science;

^{59.} Lukin, P. 'Kollektsiia ruchnogo ognestrel'nogo oruzhiia inostrannykh obraztsov, prinadlezhashchaia Oruzheinoi komissii', *Oruzheinyi sbornik* (2, 1861): 1-15.

^{56.} Veniukov was not correct when he stated that the position of the military attaché was transformed into a sinecure for inferior officers, appointed exclusively through connections. Veniukov, *Istoricheskie ocherki*: 54.

^{57.} Miloradovich, G. A. *Spisok lits Svity Ikh Velichestv s tsarstvovaniia Imperatora Petra I-go po 1886 g.* (Kiev: S.V. Kul'zhenko, 1886): 200-201.

^{58.} Rosskiiskaia Gosudarstvennaia Biblioteka, Otdel rukopisi, (hereafter RGB OR), F. 169, k. 76, ed. khr. 35, ff. 1-2. 'F. F. Tornau to D. A. Miliutin 6/18 May1861'; Ibid., ed. khr. 36, ff. 1-2. 'F. F. Tornau to D. A. Miliutin 14/26 Jan. 1867', and Ibid., f. 15. 'F. F. Tornau to D. A. 13/25 Jan. 1868'. And yet, Tornau was by no means a poor man. He had an estate in Russia, 460 hectares. Ikonnikov, *La Noblesse:* Vol. R1: 200. See also his letters to Miliutin, written at the estate during the 1840s and early 1850s. RGB OR, f. 169, k. 76, ed. khr. 29 and 30.

^{60.} In 1852, an abridged version was produced. RGVIA, F. 29, op. 6, d. 178, ff. 70-71.
- 6. camps and manoeuvers;
- 7. the spirit of the troops and the Officer Corps;
- 8. the state of the artillery, engineering, commissariat, provisions, and medical administrations;
- 9. changes in regulations, armament, and uniforms;
- 10. new works in the field of military science, maps, etc.;
- 11. the military educational establishment and teaching methods;
- 12. the organization of the General Staff;
- **13.** detailed information about troop movements by railways, numbers and mobilization time;
- 14. improvements in military administration.⁶¹

In addition, it was emphasized that they were subordinated to the Head of the mission and, if they reported on technical issues, they should avoid reporting facts that 'normally filled foreign journals' and instead concentrate on 'even the most trivial details'. The attachés were also instructed to gather the material with caution and to be careful not to arouse the suspicion of the local authorities. In order to stay abreast of military knowledge at home, the attachés received the *Artilleriiskii zhurnal* and the *Inzhenernyi zhurnal* from St. Petersburg. From 1862 onward they also received the *Voennyi sbornik*.⁶²

In 1864, the Consultative Committee revised the instructions and issued new ones.⁶³ Perhaps the most interesting change was the point about military education. The War Ministry was explicitly interested in the reforms in other countries concerning the training of the troops and the measures for support and dissemination of education in the army – for officers as well as for soldiers.⁶⁴ This is revealing for several reasons. The technical changes (the rifle and the rifled gun, for instance) had implications for tactics and education, and the Russian army clearly was aware of and interested in these matters. Moreover, to instruct the attachés to report on how other armies supported education shows an understanding of the necessity to create an educated army of literate soldiers and knowledgeable officers.

^{61.} See, for instance, RGVIA, F. 437, op. 1, d. 34, ff. 4-6; F. 437, op. 1, d. 35, ff. 21-23. A copy of Hasford's instructions from 1862 can be found in Arkhiv vneshnei politiki Rossiiskii Imperii (hereafter AVPRI), F. 133, op. 469, d. 57, ff. 84-87. The instructions to the military attachés in 1856 were published in Primakov, *Ocherki istorii*: Vol. 1: 152-153.

^{62.} RGVIA, F. 38, op. 5, d. 1104. 'About Sending the Journal *Voennyi sbornik* to the Military Agents'; RGVIA, f. 437, op. 1, d. 34, f. 6.

^{63.} RGVIA, F. VUA, d. 1320. van Dyke briefly summarized the 1864 instructions. van Dyke, Carl. Russian Imperial Military Doctrine and Education 1832-1914. (Westport, CT: Greenwood Press, 1990): 78.
^{64.} RGVIA, F. VUA, d. 1320, f. 5v.

Other noteworthy changes in the instructions were, first, the attachés were to update the military statistical notebooks for respective countries three times a year: 1 January, 1 May, and 1 September. This would ensure that the military statistical information was up to date. Second, they were to write in Russian and translate parts of important foreign books or booklets into Russian. In previous instructions, this was only a recommendation and the reports were sometimes written in French. Even after the new instructions had been issued this practice continued.

Reports that described the political situation were to be sent directly to the War Minister after being shown to the Head of the mission. It is interesting to note that the Russian military attaché was if not encouraged then at least, permitted to write about political issues. This is very different from the Prussian instructions of 1816, where the attachés were told explicitly to stay out of politics. The Prussian instructions explicitly stated that the military attachés were to get 'an accurate knowledge of states from the purely military point of view' and should 'avoid meddling in politics'.⁶⁵

Although nothing was said in the instructions on the use of agents it was allowed in practice. For instance, F. F. Tornau in Vienna hired an informant in 1870. This agent, however, proved to be useless and he was fired after only one month.⁶⁶

The instructions were subsequently sent out to the attachés⁶⁷ and if they did not send timely, updated information on the size of the army, the military budget etc. they received a letter from the War Ministry.⁶⁸ Wittgenstein responded that, prior to this he had been unable to update the information three times a year because it was impossible to find the necessary documents with the exact data. He maintained that it was possible to compile such information only once a year, that is, when the budget was discussed and when the Finance Minister presented a comprehensive report with the exact numbers and money allocated to the different units.⁶⁹

^{65.} Craig, Gordon A. *The Politics of the Prussian Army* 1640-1945. (Oxford: Oxford University Press, 1964): 258. Vagts, *The Military Attaché*: 15-16. It was only in the 1880s that the Prussian army and other armies began to engage the military attachés in political reporting to an unprecedented degree. See Craig, *The Politics*: 266-268.

^{66.} Tornau felt that he needed extra help in the summer of 1870 when the Franco-Prussian War was beginning. Having discovered that the man (called 'U' by Tornau) provided false information, he got rid of him. Subsequently, Tornau was sceptical of the value of trying to find another agent. RGVIA. F. VUA, d. 1328, ff. 296-97. 'Tornau to Miliutin 17/19 July 1870 Vienna'; ff. 113-14. 'Tornau to Miliutin 23 Aug./4 Sept. 1870 Vienna'.

^{67.} See for instance RGVIA, F. 432, op. 1, d. 181, ff. 76-77. 'Miliutin to Adlerberg 5 June 1864'; F. 440, op. 1, d. 176, ff. 29-30. 'Miliutin to Wittgenstein 25 June 1864'.

^{68.} RGVIA, F. 432, op. 1, d. 181, f. 107. 'Verigin to Adlerberg, November 1864'.

^{69.} RGVIA, F. 440, op. 1, d. 181, ff. 14-15. 'Wittgenstein to Miliutin. Paris 28 March/9 April 1865'.

The Tsar read a substantial part of the reports from Berlin, Paris, and Vienna. His brief, but frequent, comments written on the reports are an indicator that the Russian reports were not treated as lightly as the reports by the famous French military attaché in Berlin, Baron Stoffel.⁷⁰ Stoffel's published reports clearly made an impression on Russian officers.⁷¹ In relation to this, it is interesting to note a conversation between the Russian observer to the Franco-Prussian War, Baron L. L. Zeddeler, and Count Golenishchev-Kutuzov, who met each other at the end of the Franco-Prussian War.⁷² Kutuzov looked depressed and explained that he had been reading the recently published reports from Baron Stoffel. In the light of these reports, his own seemed insignificant. Zeddeler tried to comfort him by pointing out that Stoffel's reports were not even read and consequently had not been of any use to the French army. 'Maybe the same thing happened to the Count's reports', Zeddeler remarked. However, most of Kutuzov's reports that are kept in GARF and RGVIA show clear signs of having been read by the Tsar and the other addressees.

As far as can be judged, the content of the attaché reports varies – depending on the person reporting. While several attachés wrote (at least for this study) many relevant reports others proved less useful. For instance, Novitskii in London seems only to have sent newspaper clippings, books and official reports on various topics.⁷³ Contemporary recognition of the military attachés is scarce, but even Veniukov,⁷⁴ who did not have a high regard for the officers appointed military attachés, acknowledged that Gorlov in the United States, Doppelmaier in Prussia, and Fel'dman in Austria provided useful information.⁷⁵In spite of all instructions, it seems clear that the attachés had a large degree of personal freedom to shape their work.

How important were military attachés in a larger perspective? One way of trying to answer this question is to look at their careers. First, we can note that several of the attachés during the period 1859-72 served for a long time. Tornau stayed in Vienna from 1856 to 1873, Franki-

^{70.} After the French defeat in the Franco-Prussian war, Baron Stoffel was accused of not having reported about the superiority of the Prussian army. He then published several of his reports and, in so doing, found them unopened in the War Ministry. Stoffel, Eugène. *Rapports militaires écrits de Berlin 1866-70*. (Paris: Garniers frères, 1871).

^{71.} The reports were almost immediately translated into Russian and published in *Voennyi sbornik* (3, 1871): 127-164. Leont'ev wrote that the reports could be useful for the Russian army. RGVIA, F. 440, op. 1, d. 188, ff. 22-23. 'Leont'ev to the War Minister 25 Jan./6 Feb. 1871'. Miliutin agreed and at once recommended their publication in *Voennyi sbornik*. RGVIA, F. 440, op. 1, d. 188, f. 24. 'Note by Miliutin 5 Feb. 1871'.

^{72.} Zeddeler, L.L. 'Dvadtsat' piat let nazad. Otryvok iz dnevnika', Istoricheskii vestnik (4, 1896): 118-119.

^{73.} One can only regret that Shuvalov stayed such a brief period in Paris. His reports make excellent reading and show both political and military insight. It is hardly surprising that he was a highly respected diplomat during his tenure as ambassador in Berlin 1885-94. See Lieven, Dominic. *Russia's Rulers under the Old Regime*. (London: Yale University Press, 1989): 198-98, 353.

^{74.} Veniukov, Mikhail Ivanovich (1832-1901), General Staff officer and geographer. Sympathizing with revolutionary ideas, he emigrated from Russia in 1877.

^{75.} Veniukov, M.I. *Istoricheskie ocherki Rossii so vremeni Krymskoi voiny do zakliucheniia Berlinskogo dogovora* 1855-1878. 4 vols. (Leipzig, Prag, 1878), Vol. 1: 54-55. Fel'dman worked as military attaché in Vienna between 1876 and 1881.

ni served in Constantinople 1856-71, Novitskii in London 1861-72 and then in Rome from 1872, and Wittgenstein in Paris 1861-75. All four advanced to the rank of lieutenant-general, which is the third highest rank after general and field marshal. Of the eleven officers who served as military attachés during 1859-72, at least six became lieutenant-generals, four became generals (Shuvalov, Kutaisov, Richter and Zelenyi) and three (Shuvalov, Richter, and Kutaisov) were appointed to the State Council. If we add the military representatives at the Prussian court, who already were high ranking officers, Count Nikolai Vladimirovich Adlerberg also finished as a general in the State Council and Count V. P. Kutuzov was a lieutenant-general when he died in 1873. The four generals who were appointed to the State Council had all entered service in the Guards, Adlerberg had served as governor-general, and Kutaisov served as governor. Richter held the position of Commander of the Imperial Headquarters when he was appointed. Of the military officers in the State Council, they clearly belonged to what has been described as the social élite made up of Guards officers rather than the intellectual élite with officers of the artillery, engineering, and sappers.⁷⁶

The relationship between the officers and the diplomatic corps at the legations was not free of tensions.⁷⁷ When the Russian military attaché, Baron Fedor Fedorovich Tornau, arrived in Vienna immediately after the Crimean War, he was greeted by the acting Head of the mission, Viktor Petrovich Balabin (1811-1864), with the words: 'Write as little as you can, if you start to write it will not do you any good'.⁷⁸ Baron Tornau, however, did not take heed and wrote extensively about Austrian military and political life throughout his years as military attaché. The tensions between the professional diplomats and the military had probably not been eased by the fact that two officers who served as military attachés before the Crimean War (Count K. K. Benckendorff, military attaché in Berlin 1847-56, and Major-General Count E. G. Stackelberg, military attaché in Vienna 1852-56) had been promoted to ministers at diplomatic missions after the Crimean War.⁷⁹

The friction between diplomats and officers was a reality and on one occasion an ambassador intervened. In 1862, Colonel Novitskii in London complained to Miliutin that the War Ministry's lack of recognition of his position as military attaché constrained his work.⁸⁰ He com-

^{76.} Lieven, Russia's Rulers: 64-65.

^{77.} For the tensions between the diplomats and the military attachés in the Prussian army, see Craig, 'Military Diplomats'.

^{78.} RGB-OR, F. 169, k. 76, ed.khr. 34, f. 23. 'F. F. Tornau to D.A. Miliutin 14 Sept. 1857'. See also excerpts from Tornau's memoirs, Tornau, F. F. 'Vospominaniia Barona F. F. Tornau', *Istoricheskii Vestnik* (1,1897): 50-82.

^{79.} Konstantin Konstantinovich Benckendorf, Count, (1817-1858) was appointed Minister to the court of Württemberg 1856-58: *RBS*, Vol. 2: 698. Ernst Gustavovich Stackelberg, Count (1813-1870) was appointed Head of the Russian mission of the Kingdom of Sardinia in1856. In 1864 -68, he served in Vienna. His last position was as ambassador in Paris. *RBS*, Vol. 23:396-397. His obituary is in *Russkii invalid*, 7 May, 1870.

^{80.} RGVIA, F. 38, op. 5, d. 1097, ff. 5-7. 'Novitskii to Miliutin 8/20 Oct. 1862'.

pared himself with his French colleague who could work openly. The ambassador, Count Filip Ivanovich Brünnov (1797-1875), argued forcibly against giving Novitskii the formal title and eventually succeeded.⁸¹ Brünnov's main argument was that there was no difference in the working conditions between Novitskii and the French military attaché. Both were subordinate to the Head of the mission and were free to do all of the necessary work. Why was it so important to Brünnov that Novitskii not be given the official status? His behaviour illustrates the tension between the diplomatic and military attachés and indicates that the ambassador felt that he would lose some of his control over Novitskii if he became a 'full blown' military attaché – in spite of the formal regulation.

Furthermore, it is clear that, in most cases, the Russian military attachés were able men, obviously aware of their roles as officers without a uniform – soldiers in civilian surroundings. F. F. Tornau thought himself superior to his diplomatic colleagues. For instance, he noted that any man of some talent could put together a diplomatic report filled with gossip and extracts from a newspaper, whereas a military report required hard facts and exact numbers.⁸²

3.3 At the Prussian Court

The military plenipotentiary in Berlin had – as already noted – a special position that deserves some attention. The most important difference between the attachés and military representatives was that the latter were directly subordinate to the Tsar only. This difference could cause complications. Count N. V. Adlerberg (1819-1892) was sent initially as military attaché to Berlin (*voennyi agent sostoiashchii pri missii v Berline*) immediately after the Crimean War. In 1861, the Tsar elevated him to the position of military representative at the Prussian court (*voennyi agent sostoiashchii pri Ego Velichestve Korole Prusskom*). He felt obliged to point out to the Imperial Headquarters that it be made perfectly clear that he was now completely independent of both the mission and the Foreign Ministry. He wrote that 'failure to understand this will give rise to inconveniences and unfriendly conflicts, harmful to the service'.⁸³

In addition to the military representative there was also a Russian military attaché in Prussia. In compliance with the military convention between Russia and Prussia, signed in 1863, the General Staff officer Colonel Fedor Petrovich Weymarn was sent to Prussia for three years.⁸⁴

^{81.} RGVIA, F. 38, op. 5, d. 1097, ff. 24-28. 'Brünnov to Gorchakov, London, 13/25 Nov. 1862'.

^{82.} RGB OR, F. 169, k. 76, ed. 36, ff. 14v-15. 'F. F. Tornau to D. A. Miliutin,19 June/1 July1867'.

^{83.} RGVIA, F. 970, op. 1, d. 750, f. 1v. 'About the Appointment of General-Adjutant Count Adlerberg 3, attached to His Majesty the King of Prussia'. October 1861.

^{84.} RGVIA, F. 1, op. 1, d. 58131, f. 33. 'Lieutenant-General Weymarn's Service Record 1891': ff. 31-40. In connection with the Polish uprising, Russia and Prussia concluded an agreement providing for the cooperation of the military authorities in the frontier districts against the rebels. See Taylor, A. J. P. *The Struggle for Mastery in Europe* 1848-1914. (Oxford: Oxford University Press, 1954): 133-136.

He was succeeded by the Artillery Officer Captain K. G. Doppelmaier who, in turn, was succeeded in 1872 by Artillery Captain A. A. Daller.

It is noteworthy that Adlerberg's successor, Count V. P. Golenishchev-Kutuzov (1803-1873),⁸⁵ received the normal instructions sent to all military attachés from the War Ministry - including the paragraph that he was subordinate to the Head of the mission. This, however, should not be taken too literally. Kutuzov clearly wrote reports directly to the Tsar.⁸⁶ The exchange of military plenipotentiary and attaché in Berlin occurred at a bad time. Adlerberg left in early 1866 to take up his post as governor-general in Finland before Kutuzov arrived. Kutuzov had only been in Berlin less than a month before he found himself in the field attached to the Headquarters of the Prussian army.⁸⁷ The military attaché, Weymarn, who alone had been responsible for the reporting during the build-up to the Austro-Prussian War, left in early June for Finland and a position at the military district staff.⁸⁸ Interestingly enough, Weymarn thought that Austria would win the war. In his view, the Prussian Landwehr-system was useful only in the case of a defensive war where one could appeal to patriotic feelings. In an offensive war, where large losses could be expected, such troops were not likely to be successful. Even though he acknowledged that the Prussian infantry was better armed, he thought that the Austrian soldiers had a superior morale, were more energetic, and were unified in their actions.⁸⁹

The Russian military representatives were integrated with the ordinary attachés in terms of reporting. The Prussian representative, General von Schweinitz, claimed that he reported to no one but the King.⁹⁰ Both Adlerberg and Golenishchev-Kutuzov wrote regularly to the War Minister and to the Main Staff. They appeared regularly in the Ministry's lists of military attachés. Even though they provided both the War Minister and the Main Staff with information, it was not the military representative's main task to report on every detail of the army. Their tasks were more extensive than those of the ordinary military attachés. The Prussian *Militärbevollmächtigter* General von Schweinitz explained that it was essential to gain the confidence of the Tsar; otherwise the position was untenable. They often accompanied the sovereign on hunts and manoeuvres, and reported all the minutiae of military life including the

^{85.} Ikonnikov, *La Noblesse*: Vol. X1: 166-167.

^{86.} GARF, f. 678, op. 1, d. 502. 'Reports by Count Kutuzov to Alexander II from Berlin with Enclosed Information about the Prussian Army 1867-72'. All in all, there are 22 letters. For Kutuzov's biographical details, see Miloradovich, *Spisok*: 45, 72, 144, and Ikonnikov, *La Noblesse*: Vol. X1: 166-67.

^{87.} RGVIA, F. 432, op. 1, d. 187, ff. 88, 95-96, 102. He wrote his first report from Berlin on 31 May/12 June 1866. His first report from the Prussian army HQ was written on 19 June/1 July 1866.

^{88.} RGVIA, F. 1, op. 1, d. 58131, f. 33v.

^{89.} See his reports, RGVIA, F. 432, op. 1, d. 187, ff. 74-76, 'Report to the War Minister 7/19 May 1866', and f. 79-80, 'Weymarn to Miliutin, Berlin, 12/24 May 1866'.

^{90.} Schweinitz, Hans Lothar von. *Denkwürdigkeiten des Botschafters H.L. von Schweinitz.* 2 vols. (Berlin: Verlag vom Reimar Hobbing, 1927): Vol. 1: 181-82.

bestowal of orders and changes in uniforms to the extent that the Prussian envoy used the word '*Hosenspione*' to describe their duties.⁹¹The reports from Kutuzov that have been preserved show that there is some truth in this, but at the same time it is a simplification. Kutuzov sometimes acted as a messenger, conveying diplomatic messages between the two sovereigns. It was Kutuzov's idea to have Dragomirov's book on the Austro-Prussian War translated into German.⁹² Moreover, he was behind the suggestion to send the artillery officer K. G. Doppelmaier as an observer to the Prussian army in 1866.⁹³

The military representative at the Prussian court earned considerably more than the normal attachés – usually twice as much. In 1862, N. V. Adlerberg earned 10,000 roubles, whereas the military attachés in Vienna, Turin, London, and Paris earned between 5,000 and 5,700 roubles. The attaché in Constantinople earned a total of 2,500 roubles. This sum included 1,200 roubles for *neglasnye* expenses; that is, for agents, telegrams, postage, and the acquisition of new weapons.⁹⁴ These figures approximately equalled the pay of the councillor (*sovetnik*) at the embassy who usually earned between 4,000 and 6,000 roubles. The pay was approximately the same ten years later. ⁹⁵A major-general serving at a staff in St. Petersburg would earn approximately 3,400 roubles.⁹⁶

The military representative signified the friendly personal ties between Russia and Prussia, and held a position stationed between a military and a diplomatic post. The extent to which he would be successful depended on personal contacts in the higher spheres of the military and the political arena. It is, therefore, hardly surprising that they do not seem to have written any deeper analysis about the changes in warfare during the 1860s. In general, the reports of the ordinary military attachés contain more analysis of this kind, although not very many of the direct reports to the Tsar seem to have survived.

3.4 The Observers

If the military attaché and the officer at the Prussian court were the main source of foreign military intelligence in peacetime, then the observers were an equally important source in wartime since this was the traditional way of studying the special features of war in prac-

^{91.} Schweinitz. Denkwürdigkeiten: Vol. 1: 175-76, 181-81.

^{92.} GARF, F. 678, op. 1, d. 502, f. 2, 'Kutuzov to Alexander II, Berlin, 18/30 Nov. 1867'.

^{93.} RGIVA, F. 432, op. 1, d. 187, ff. 98-f. 98v. 'Kutuzov to Miliutin 4/11 June 1866'.

^{94.} RGVIA, 1867, F. 401, op. 2, sv. 423, d. 22b. The sum for expenses remained the same over the years. In 1912, it was still 1,200 roubles. See Fuller, William C. Jr. 'The Russian Empire.', in *Knowing One's Enemies: Intelligence Assessment before the Two World Wars*, edited by E. May. (Princeton, N.J.: Princeton University Press, 1984): 106.

^{95.} RGVIA, F. 38, op. 5, d. 1097, ff. 11-12, 15-16; F. 440, op. 1, d. 190, f. 3v.

^{96.} Obruchev, Voenno-statisticheskii: Vol. 4, Pt. 2: 155.

tice.⁹⁷ To a certain degree – as was the case with the attachés – it was also a diplomatic position. Thus, when discussing who to send to the Prussian army, Count E. G. Stackelberg, Head of the mission in Vienna, felt obliged to point out that it was necessary to send an observer to the Austrian army to ensure that the situation would not be misinterpreted at the Austrian court.⁹⁸ The Austrian army, however, declared that the Kaiser did not want any foreign observers at all this time.⁹⁹ Apart from the military representative, V. P. Golenishchev-Kutuzov, and the attaché artillery officer K. G. Doppelmaier, the Russian General Staff sent Colonel M. I. Dragomirov, later Head of the General Staff Academy and one of the most influential military thinkers in the Russian army, to the Prussian army.¹⁰⁰ In the war of 1859, when the ordinary military attachés in France and Austria went to the respective armies, Dragomirov had served as an observer. Shuvalov travelled with the French headquarters and Tornau with the Austrian. Dragomirov was sent to the Piedmontese army.

In 1870, the French army did not allow any foreign observers but the Prussian army was open and the interest from the Russian side was enormous. The Russian army sent eleven officers to cover all conceivable aspects of the campaign, and this figure does not include the eight medical doctors that were sent from the Military Medical Administration. Kutuzov travelled with the Prussian headquarters, Baron L. L. Zeddeler was first with the X Corps and then VI Corps, witnessing the sieges of Metz and Paris.¹⁰¹ K. G. Doppelmaier travelled with the Prussian Guard, E. N. Meshcherskii travelled with the V Corps under General von Kirchbach. The nephew of Field Marshal F. F. Berg, Cornet Georg Gustavovich Berg,¹⁰² accompanied the First Prussian Corps under General von Manteuffel. Major-General Mikhail Nikolaevich Annenk-

^{97.} Sending observers to other armies had its roots in the antiquity. Beauvais, *Attachés Militaires*: 3-9; Vagts, *The Military Attaché*: 3-8.

^{98.} RGVIA, F. 428, op. 1, d. 103, ff. 30-31. 'Information from the Military Attaché in Vienna, Tornau, About the Austrian Army's War Preparations'.

^{99.} RGVIA, 1866, F. 401, op. 2, d. 57, f. 4. 'About the Appointment of General Staff Colonel Dragomirov to the Prussian Army During the Military Operations'.

^{100.} Dragomirov graduated from the General Staff Academy in 1856 as the first in his class and was awarded the gold medal, a rare distinction. He soon gained a reputation as one of the most perceptive military thinkers and was appointed Commandant of the General Staff Academy between 1878 and 1889. For an introduction to Dragomirov's tactical and educational thoughts see, for instance, Bonch-Bruevich, M. D. 'Mikhail Ivanovich Dragomirov. (Ocherk)', *Izvestiia Imperatorskoi Nikolaevskoi Voennoi Akademii* (25, 1912): 80-101; Beskrovnyi, L. G. 'M. I. Dragomirov', in *M. I. Dragomirov. Izbrannye trudy. Voprosy vospitaniia i obucheniia voisk*, edited by L. G. Beskrovnyi. (Moscow: Voenizdat, 1956): 3-39; Komissarov, A. M. 'M. I. Dragomirov o voinskoi distsipline', *Voenno-istoricheskii zhurnal* (6, 1989): 89-92; Zaitsev, L. A. 'Voenno-pedagogicheskie vzgliady M. I. Dragomirova', *Voenno-istoricheskii zhurnal* (9, 1983): 72-76; Fuller, *Strategy and Power*: 303-305; Menning, *Bayonets*: 38-42; Pintner, Walter. 'Russian Military Thought: The Western Model and the Shadow of Suvorov', in *Makers of Modern Strategy from Machiavelli to the Nuclear Age*, edited by P. Paret. (Oxford: Clarendon Press, 1986): 354-375; Wahlde, Peter von. 'Military Thought in Imperial Russia'. Ph.D., Indiana University, 1966: 120-124; Zaionchkovskii, P. A. *Voennye reformy 1860-70 godov v Rossii*. (Moscow: Izdatel'stvo Moskovskogo Universiteta, 1952):185-186.

^{101.} Metz fell on 29 October after a more than two months long siege. Paris capitulated on 28 January 1871 after a siege that started on 19 September 1870. The bombardment of Paris had begun on 5 January 1871. All the dates here are given in the new style.

^{102.} According to Miliutin, he was sent because of the persistent pleading on his behalf by Field Marshal Berg. RGB OR, F. 169, k. 16, ed. khr. 3, f. 33. 'Memoirs'. 1870-71. For G. G. Berg's service record, see GARF, F. 547, op. 1, d. 806.

ov was sent to study the use of railways. The Main Engineering Administration sent three officers: Major-General Ottomar Borisovich Gern, Colonel Ivan Ivanovich Val'berg,¹⁰³ and Staff-Captain Mel'nitskii. The Intendance Administration sent Colonels Tsurmilen and Barkman to study the organization of the rear.¹⁰⁴In Paris, the military attaché, P. L. Wittgenstein, and his assistant, D. N. Leont'ev, still managed to write their impressions.¹⁰⁵

The American Civil War did not attract the same attention, and a permanent military attaché was not placed in Washington until 1868. Colonel D. I. Romanov was with the Union army at the outbreak of the war and, in 1864, Colonel de Struve from the Engineering Corps did some reporting from the Confederate army and the Army of the Potomac.¹⁰⁶

The circumstances of travelling during times of war were often chaotic, and the observers – being guests in the foreign armies – often had to adjust their reports out of consideration to their hosts.¹⁰⁷ In both of the wars to which he was sent, M. I. Dragomirov failed to reach the battlefield in time to be an eyewitness to the main battles of those wars; namely, Magenta (4 June) and Solferino (24 June) in 1859 and Königgrätz (3 July) in 1866.¹⁰⁸ Furthermore, when M. I. Dragomirov was sent to the Piedmontese army in 1859, he was assigned such a small amount of money that he could not afford a horse – an absolute necessity. The Head of the mission, Count E. G. Stackelberg, volunteered to lend him the money.¹⁰⁹ During the build-up to the war in 1870, Count Golenishchev-Kutuzov was taking a cure in Karlsbad. Doppelmaier

^{103.} He published two technical reports on French fortresses during the war. See Val'berg, I. 'Ocherk voennykh deistvii pod frantsuzskimi krepostiami v 1870-71 g.', *Inzhenernyi zhurnal* (5: 556-596; 6: 644-690, 1873).

^{104.} RGVIA, 1870, F. 401, op. 2, d. 90. 'About the Missions of Russian Officers to the Prussian and French Armies During the Military Operations'. RGB OR, F. 169, k. 16, ed. khr. 3, f. 32-33. 'Memoirs'. 1870-71. See also Zeddeler, L: L. 'Dvadtsat' piat' let nazad. Otryvok iz dnevnika', *Istoricheskii vestnik* (4, 1896): 114-129 and (5, 1896): 480-508. Barkman was a graduate of the Nicholas Academy of the General Staff. He died in 1871. Glinoetskii, *Istoricheskii ocherk*: 129.

^{105.} Leont'ev published a brief account about the defence of Paris in *Voennyi sbornik* (6-9, 1871). A separate volume was also published. Leont'ev, D. *Oborona Parizha. Zapiski ochevidtsa.* (St. Petersburg: Departament udelov, 1871).

^{106.} See E. Everts' article 'Voennye deistviia pod Charl'stonom s 1861 po 1865 g.', *Voennyi sbornik* (8, 1867): 180. One of Romanov's reports is in RGVIA, F. 453, op. 1, d. 342. A copy of this is kept in AVPRI, Kollektsiia mikrofil'mov, No 13, op. 66. De Struve published one specialized article De Struve, G. E. 'Ob oborone morskikh prokhodov i gavanei v Anglii i v Soedinennykh shtatakh Severnoi Ameriki', *Inzhenernyi zhurnal* (1, 1866): 52-78. His presence in the US was briefly mentioned by the Russian Minister in Washington, E. de Stöckl. See Woldman, Albert A. *Lincoln and the Russians*. (Cleveland and New York: The World Publishing Company, 1952): 231. A number of de Stöckl's dispatches from the US during the Civil War are quoted in this book and in Sideman, Belle B., and Lillian Friedman, eds. *Europe Looks at the Civil War*. (New York, N. Y.: Collier Books, 1960). See also Malkin, M. 'K istorii russko-amerikanskikh otnosheniiakh vo vremia grazhdanskoi voiny v SShA', *Krasnyi arkhiv* (3, 1939): 97-153, and Golder, Frank A. 'The American Civil War Through the Eyes of a Russian Diplomat', *American Historical Review* 26 (3, 1921): 454-463.

^{107.} RGVIA, F. 428, op. 1, d. 86, f. 11. 'Tornau to the War Minister. 11/23 July 1859, Vienna'. See also RGVIA, F. 38, op. 5, d. 872, ff. 1v-2, 'About the Mission of General Staff Staff-Captain Dragomirov to Italy and His Presence at the HQ of the Sardinian Army'. 1859, where Dragomirov was instructed to be careful when writing as not to offend the dignity (*dostoinstvo*) of the Piedmontese army, and RGVIA F. 401, op. 2, d. 57, ff. 57-58, 1866.

^{108.} All dates here are given in new style.

^{109.} RGVIA, F. 38, op. 5, d. 872, ff. 7-8. 'Stackelberg to Sukhozanet, 28 June 1859'.

wrote, with visible irritation that he would start to report since Kutuzov was away. He also emphasized the importance of making necessary preparations well in time to 'avoid what happened to Colonel Dragomirov in the last war'.¹¹⁰

Travelling with foreign armies was no sinecure, not even for these experienced officers. Zeddeler later remembered many hardships and left the war scene for two weeks after falling ill in France.¹¹¹ Meshcherskii returned briefly to Brussels when he suffered from dysentery.¹¹²

The Russian General Staff clearly relied on the observers' ability to study the latest military development. The War Minister, Miliutin, often made references to useful information that he had received from the observers, particularly from the Franco-Prussian War.¹¹³ It is also revealing to look at the instructions given to the observers. In Dragomirov's instructions of 1859, there were three key items to which attention should be paid: the progress of the war, the condition of the fighting armies, and the use of the more sophisticated weapons.¹¹⁴ Eleven years later, the instructions had grown considerably and contained all the current questions that were troubling the minds of military thinkers in Europe. The Russian officers should especially observe:

- the use of railways for transporting masses of soldiers and the influence of railways on the progress of the war;
- the significance of the different kinds of military transport;
- the significance of the bayonet attack, considering the contemporary infantry armament;
- how the cavalry acts in battle against infantry;
- in general, the administration of troops in war, and the organization of lines of communications, hospitals, and the transport system.¹¹⁵

In summary, during the period 1859-71, the Russian army had built up a system of systematic intelligence gathering from foreign armies, both in peacetime and wartime. The importance

^{110.} RGVIA, F. 506, op. 1, d. 534, ff. 5-6. 'Doppelmaier to Fersman, 2/14 July 1870, Berlin'. Lieutenant General Aleksandr Fedorovich Fersman (1813-1880) was member of the Artillery Committee of the Main Artillery Administration.

^{111.} RGVIA, 1870, F. 401, op. 2, d. 90, f. 201. 'Zeddeler to the War Minister 22 Dec. 1870'; Zeddeler, 'Dvadtsat' piat' let nazad', (4, 1896): 121-122, and (5, 1896): 501.

^{112.} RGVIA, 1870, F. 401, op. 1, d. 90, f. 181. 'Meshcherskii to Miliutin. 26 Nov/8 Dec. 1870'; RGIVA, F. VUA, d. 1328, ff. 263-64, 'Meshcherskii to Miliutin. 3/15 Oct. 1870' and Ibid., f. 288, 'Meshcherskii to Heiden, 16/28 Dec. 1870'. Count Fedor Logginovich Heiden (1821-1900) was Head of the Main Staff 1866-1881.

^{113.} For references to military attachés and observers, see, for instance, RGB OR, F. 169, k. 14. ed. khr. 4, f. 52v; Ibid., k. 15, ed. khr. 3, ff. 35, 70; Ibid., k. 16, ed. khr. 3, ff. 32v-33v. 'Memoirs'. 1863, 1866, 1870-71.

^{114.} RGVIA, F. 38, op. 5, d. 872, ff. 1-1v.

^{115.} RGVIA, 1870, F. 401, op. 2, d. 90, ff. 11-11v. 'Heyden to Wittgenstein. July'. 1870.

of foreign intelligence was increasingly recognized, although there was never any discussion of abolishing the institution of military attachés, not even during the years when there were serious problems. Just how much confidence the War Minister placed in foreign intelligence gathering becomes evident in a letter from D. A. Miliutin to V. P. Golenishchev-Kutuzov at the outbreak of the Austro-Prussian War. Miliutin wanted to send officers from all branches of the service so that the Russian army could receive:

the most accurate information possible about the practical use of all the improvements and innovations that have been introduced in armies lately and that will be tried out for the first time in this war. 116

Furthermore, in the summer of 1870, Russia kept a sharp eye on Austria since it feared a rapid Austrian mobilization. Consequently, F. F. Tornau, the attaché in Vienna, was put under great pressure to report as soon as he saw anything that suggested Austrian mobilization. Miliutin, however, warned him to be careful and to discriminate between ordinary peacetime preparations, and those clearly linked to war.¹¹⁷

The content of this material will be dealt with in due course, but already one can note that among the observers, L. L. Zeddeler's reporting was particularly influential. Not only did it arouse lively debate, but his reports were read by several members of the Imperial family.¹¹⁸ It should also be noted that it is not necessarily the actual reports from the theatre of war that are the most revealing about the Russian army's impression from the war, but rather the military debate and the Main Staff's evaluation and interpretation of these reports. Next, we shall see what issues were discussed in the military debate and how the General Staff Academy reacted to the changes in warfare.

^{117.} RGVIA, F. VUA, d. 1328, ff. 124v-125. 'Miliutin to Tornau, 19 July 1870'. This document was briefly consulted by Shneerson, L.M. *Franko-prusskaia voina i Rossiia*. (Minsk: Izdatel'stvo BGU im.V. I. Lenina, 1976): 111. Note that the name of the attaché in Vienna is F. F. Tornau, not Tarkov, as Shneerson stated.
^{118.} RGB OR, F. 169, k. 16, ed. khr. 3, ff. 33-33v; RGVIA, F. 1, op. 1, d. 58133. 'Zeddeler's Service Record'.

^{116.} RGVIA, 1866, F. 401, op. 2, d. 57, f. 7. 'Miliutin to Kutuzov, 9 June 1866'. See also RGB OR, F. 169, k. 15, ed. khr. 3, f. 169v, where Miliutin gave credit to the military attachés for providing useful information.

4 Lessons From Foreign Wars - the Military Debate and the General Staff Academy

4.1 Military Reporting

Russian military reporting during these wars relied to a large degree on information obtained by people on the spot, either by the regular military attachés or specially sent observers. The Russian press, however, did not send its own correspondents to the foreign war scenes.¹ During 1859-71, the press had to rely on the foreign correspondents' reports through news agencies. This caused some irritation, especially with regard to the American Civil War, and there were complaints both in the military and the regular press about the lack of reliable information from this war.² The situation was exacerbated, no doubt, because the War Ministry did not have a military attaché in the United States at that time. At least two officers, as we have seen, travelled in the United States during the war but, since only a fragment of their reports seems to have survived in the archives and they published only sparingly, it is difficult to assess to what extent they observed the war.

It seems clear that the Russian War Ministry did not attach the same high priority to the Civil War as it did to the European wars.³ Russia sent observers to all of the wars except for the Danish War in 1864 and, in addition, had permanent military attachés in all of the major cities of Europe, as we saw in Chapter 3.

^{1.} The first Russian war correspondent was N. V. Berg in the Crimean War. In the Russo-Turkish War 1877-78 and the Russo-Japanese War 1904-05, there were several Russian reporters. See the entry 'Voennye korrespondenty' in *Voennaia entsiklopediia*, Vol. 13: 198-202 and McReynolds, Louise. *The News Under Russia's Old Regime: The Development of a Mass-Circulation Press.* (Princeton, N.J.: Princeton University Press, 1991): 87-92.

^{2.} Glinoetskii, N. P. 'Voennoe obozrenie', *Voennyi sbornik*, (5, 1861): 278; Ibid., (6, 1862): 507; McReynolds, *The News*: 48.

Voennyi sbornik and *Russkii invalid* carried regular news articles about the development on the different theatres of all of the wars. Most of the articles (in both publications!) were written by N. P. Glinoetskii and were based on telegrams and reports in foreign newspapers.⁴ In addition, M. I. Dragomirov wrote three articles in *Russkii invalid* in 1866⁵ and L. L. Zeddeler contributed with at least four in 1870.⁶

As we have seen, during the short period between 1859 and 1871, a number of questions concerning military development were raised which were of major concern for all European armies. Subjects for debate were, for instance, the demonstrated importance of the Prussian General Staff, the growing strength of nationalism in Europe, the growing use of reserves, and the impact of technology on warfare (that is, the development of railways, the introduction of rifles and rifled guns, and the electric telegraph). This, in turn, raised questions about the education and morale of the army. At the level of infantry tactics the closed column used for attack was called into question and the days of the cavalry attack with cold steel seemed to be numbered.

How did the Russian army view these changes and interpret foreign wars? To what degree were the results of the European wars ascribed to cultural and national factors? Was the military less inclined to learn lessons because foreign experience was seen as unsuitable for the Russian army? Did the Russian military writers romanticize their own forces? The issue of national factors in the military reporting is relevant since it casts light on how the growing strength of nationalism in European politics was reflected in Russian military thought. Moreover, romanticizing one's own forces could lead to an unwillingness to adapt to changing circumstances.

This chapter aims to examine what information the military attachés sent to the Main Staff and to illustrate the military debate in the wake of the wars. The chapter aims to demonstrate the burning issues in Russian military thought during this period and to cast some light on

^{3.} Not just the lack of material in the archives seems to indicate this. D. A. Miliutin in his memoirs listed all of the observers and military attachés sent to the war scenes in Europe but, in his writings about the American Civil War, there are no references to any attaché or observer. Miliutin wrote about the Civil War in his memoirs each year for as long as it lasted, displaying his pro-Union sentiments, which were well in line with the official Russian policy towards the warring parties. Rosskiiskaia Gosudarstvennaia Biblioteka, Otdel rukopisi, (hereafter RGB OR) F. 169, k. 14, ed. khr. 1, ff. 54-58. (1861); Ibid., k. 14, ed. khr. 2, ff. 117v-119v. (1862); Ibid., k. 14, ed. khr. 4, ff. 6-7v. (1863); Ibid., k. 15, ed. khr. 1, ff. 154-154v. (1864); Ibid., k. 15, ed. khr. 2, ff. 116-f. 119v. (1865).

^{4.} Nikolai Pavlovich Glinoetskii, (1830-1892). Military historian and prolific writer. 1872 member of the Military Scientific Committee, General-Lieutenant. *Russkii biograficheskii slovar'* (hereafter *RBS*): Vol. 15: 315-16.

^{5.} *Russkii invalid*, 22 July 1866, 3 Aug. 1866, 9 Aug. 1866. The articles were later published in Dragomirov, M. I. *Sbornik original'nykh i perevodnykh statei*. (St. Petersburg: V.S. Balashev, 1881): 248-269.

^{6.} Russkii invalid, 17 Sep. 1870, 1 Oct. 1870, 4 Oct 1870, 8 Nov 1870 and possibly 20 Sep 1870.

the level of awareness among the leading military thinkers in the Russian army about the lessons to be learned from foreign wars.

The chapter will also show how the wars affected the curriculum and the teachings at the Nicholas Academy of the General Staff. In relation to this, the process of war planning, which began in Russia during this period, will be touched upon. It will make clear that the Academy learned several lessons, mainly from Prussia, and among other things introduced *Generalstabsreisen* and war games. Furthermore, officer clubs were introduced and public lectures about military subjects were initiated by the Academy. The study of military history was emphasized in the curriculum. This demonstrates not only that the future General Staff officers devoted time to studying foreign wars, but that some of the lessons were actually incorporated into the higher education of the Russian army.

4.2 Observing Foreign Wars

4.2.1 The Military System and Nationalism

The connection between the political system and the military organization was one of the main themes in the Russian military literature on the European wars between 1859 and 1871. It was a subject raised many times to explain Austria's two defeats in 1859 and 1866, not least by F. F. Tornau, the military attaché in Vienna and observer in the Austrian army in 1859. In Tornau's view, it was the Austrian political system that was responsible for the Austrian defeat in 1859 – not mainly rifles or tactics.⁷ He noted that should there be another war against a European military power, Austria would lose again if nothing was done about the military system and 'the inner workings of the government' (*vnutrennee grazhdanskoe upravlenie*).⁸ After the Austrian defeat in 1866, he concluded that in order to enhance the fighting strength of the Empire's military forces, morale needed to be boosted, which could not be achieved without a 'radical reform of the political organization of the Empire'.⁹

Tornau's criticism of the Austrian army reflects much of what was said about the Russian army of Nicholas I after the Crimean defeat, and Tornau was not alone in his critical approach to the Austrian empire. In *Voennyi sbornik* Lieutenant-General M. I. Ivanin, a General Staff officer,¹⁰ frankly stated that the Prussian needle gun had little to do with the Austrian defeat in

^{7.} As we have seen in Chapter 1, as a consequence of defeat, Austria changed its tactical doctrine toward even greater emphasis on the closed order bayonet attack.

^{8.} Rossiiskii Gosudarstvennyi Voenno-Istoricheskii Arkhiv (hereafter RGVIA) F. 428, op. 1, d. 85, f.162v. 'Tornau to the War Minister. 16/28 Sept. 1859'; RGVIA, F. 428, op. 1, d. 86, f. 42v. 'Tornau to the War Minister 11/23 July 1859'.

^{9.} RGVIA, F. 428, op. 1, d. 103, ff. 91v-92. 'Tornau to the War Minister, November 1866'.

1866. The real reason for the Austrian debacle was the inability of the political system to create an effective fighting force. Austria was 'a paralyzed political, financial system'.¹¹ Furthermore, according to Ivanin, the reason behind Austria's 'half-century stagnation' was that the government had suppressed all other nationalities of the Empire and forced them to be subordinate to the German race. The Prussians, on the other hand, had understood how to cultivate and strengthen the national consciousness of the people. More importantly, the Prussian government had made sure that this education had reached all the estates of society so that the army was seen by everyone as the 'bulwark of the power of the state'.¹²

It is scarcely surprising that the Russians looked at the Prussian military organization with admiration. Particularly noteworthy, however, are the writings of Genrikh Antonovich Leer (1829-1904), Professor of Strategy at the General Staff Academy.¹³ He was one of the most significant Russian military theorists and later became Commandant of the General Staff Academy between 1889 and 1898. The most important lesson of the Franco-Prussian war, drawn by Leer immediately at the end of that war, was that it had demonstrated the importance of having a properly arranged military organization in order to achieve the maximum fighting strength of the army.¹⁴ The Great Commander, the genius (like Napoleon I) was also important but rare, and Prussia had – through its military organization – managed to insure itself from having to rely on a single genius. It was the military organization that had enabled Prussia to mobilize such a large fighting force so quickly. In addition, he concluded that the war had demonstrated (1) the necessity of strict calculation (razschet) and the removal of improvisation in war planning, and (2) the necessity of knowing the enemy's military organization. Regarding the last point, he stressed the importance of military statistics and – not least – the role of the military attachés, whom he saw as advance posts, the eyes and ears of the army.¹⁵ Detailed and exact knowledge of the enemy was a prerequisite for a rational war plan and the Prussian example had shown the importance of preparing such plans regarding potential enemies.

Furthermore, Leer developed his thinking about the connection between the political system of a state and the organization of its armed forces. He noted that the military system was 'on-

^{13.} Leer was appointed to the Chair of Strategy 1865. For introductions on Leer's thoughts, see Beskrovnyi, L. G. Ocherki voennoi istoriografii Rossii. (Moscow: Izdatel'stvo Akademii nauk SSSR, 1962): 203-208; Meshcheriakov, G.P. Russkaia voennaia mysl' v XIX-om veke. (Moscow: Nauka, 1973): 176-180, 206-297; Zhilin, P.A., ed. Russkaia voennaia mysl' konets XIX-nachalo XX v. (Moscow: Nauka, 1982): 81-83; Wahlde, Peter von. 'Military Thought in Imperial Russia'. Ph.D., Indiana University, 1966: 133-142.

^{15.} Ibid., 10, 25.

^{10.} Ivanin, Mikhail Ignat'evich (1801-1874). In 1866, he became chairman of a commission dealing with transportation of troops by rail. In 1871, he was appointed member of the Military Scientific Committee.

^{11.} Ivanin, M. 'Avstro-Prusskaia voina 1866 g.', Voennyi sbornik (12, 1866): 235-236.

^{12.} Ibid., 237.

^{14.} Leer, G. A. Publichnye lektsii o voine 1870 mezhdu Frantsiei i Germaniei do Sedana vkliuchitel'no. (St. Petersburg: Obshchestvennaia pol'za, 1871): 7.

ly a reflection of the political system'.¹⁶ In the case of Prussia, he traced the reasons for the success of its army to the general political development of Prussia. It was Prussia's strength that in times of need it was able to achieve radical political and military reform. Comparing Prussia after the defeat of Jena and Prussia at the end of the 1850s, he pointed out that, in the political sphere, yesterday's Stein was today's Bismarck.¹⁷ In the administrative sphere, parallels could be drawn between Scharnhorst and Roon, and in strategic thinking between Gneisenau and Moltke. He recognized that Prussia had achieved its political goal by using force. Echoing Clausewitz, Leer was convinced that war was the continuation of politics by other means:

...war, in certain respects, is *the political bayonet*, whereas all the other means, such as science....are only *preparations*. War, however, *finally determines* the most important political issues.¹⁸ (All the italics in the original.)

He pointed out that the political issue of the unification of Germany was now solved, but the military strength remained. He asked: 'Who can guarantee that someone is not tempted to abuse it?'¹⁹

Contrary to most other military writers at the time, Leer tried to penetrate the connection between the military and political organization of a state and to link the political system of a state to the kind of wars it was likely to conduct. The military organization of a state was influenced both by foreign policy and domestic political conditions. Consequently, despotic regimes, characterized by centralization of power in the hands of one ruler and the absence of civic rights, were most likely to conduct offensive wars. One example was Turkey in the eighteenth century.²⁰ Democratic republics (that is, the ancient Greek republics) were the very opposite of despotic regimes and embodied equality for all in political and civic affairs. This system was generally unable to conduct offensive wars while it was unusually strong in the defence. Monarchies – combining centralization with a certain amount of freedom and rights – were, accordingly, good for both offensive and defensive warfare.²¹

^{16.} Ibid., 13.

^{17.} Ibid., 19-20. Thus, Leer argued that Bismarck and Roon had not created anything new, but were building on the foundation laid down by the reformers at the beginning of the nineteenth century. Karl Stein (1757-1831) became First Minister in Prussia in 1807. He undertook far-reaching changes towards reform, such as abolishing hereditary serfdom and introducing local government in cities. Later, he entered Russian service and influenced the creation of the European coalition against Napoleon. Craig, Gordon A. *The Politics of the Prussian Army 1640-1945.* (Oxford: Oxford University Press, 1964): 38-42. ^{18.} Ibid., 22.

^{19.} Ibid., 9.

^{20.} Leer, G. A. *Opyt kritiko-istoricheskogo issledovaniia zakonov iskusstva vedeniia voiny (polozhitel'naia strategiia).* (St. Petersburg: V. Golovin, 1869): 469. Parts of this book were published in *Voennyi sbornik* in 1867, No 1-5, 9-10.

^{21.} Leer, Opyt: 470.

Leer saw the introduction of universal military service as a direct consequence of the tendency towards a public life (*obshchestvennoe ustroistvo*) based on equal rights before the law. This had led to larger armies on the battlefield and to an increase in the quality of the troops since the 'best elements of the society' had started to enter military service. The tactical formation of the armies had also changed as a consequence of the introduction of conscription. Tactics began to be based on *trust*, which led to more flexibility wherein the initiative of the individual officers played a greater role and the terrain was used to a large degree. All this stood in sharp contrast to the old linear tactics where the entire army was used as a machine under one commander on a flat battlefield.²²

Foreign policy also affected the military organization of the state. In Leer's opinion, foreign policy and military force complemented each other. It was the task of foreign policy to enter into coalitions or to remain neutral, thus influencing the question of securing the flanks and the rear; that is, the operational lines. He stressed that it was both easier and more convenient to secure the operational lines through foreign policy than to rely on military force alone.²³

Finally, he formulated a military policy for Russia. Since it was Russia's political mission to bring Western European civilization – adopted and reworked by Russia – to the Asiatic people, the military policy of Russia should continue to be the traditional policy of Peter I, namely, defence in the West and offensive in the East. In so far as the Russian army had conducted offensive campaigns in the West, these had been offensive only from a military point of view but had remained defensive with regard to foreign policy, according to Leer.²⁴ He obviously defined an offensive war as one with civilizing missions, and he did not count Peter I's challange to Sweden's hold on the Baltic, for instance, as one of these.

Leer has been accused of relating contemporary warfare to the experience of the Napoleonic Wars and of failing, therefore, to appreciate the changes in warfare. It is true that Leer related and compared the latest events on the battlefield with the experience from the Napoleonic wars, but this did not necessarily mean that he did not see and value the new dimensions in warfare. His preoccupation with theory, according to one historian, led him to concentrate on the wrong trees while the entire forest around him was changing.²⁵ By connecting political and military reform in an effort to achieve a strong army, he was hardly focusing on the wrong trees, but gave formidable support to the War Minister who was in the midst of planning the introduction of universal military service.

^{22.} Leer, Opyt: 470; Leer, Publichnye...do Sedana: 27.

^{23.} Leer, *Opyt*: 471. He illustrated this by the example of Napoleon I, who in 1805 had secured Prussia's neutrality during the campaign in Moravia.

^{24.} Ibid., 472.

^{25.} Menning, Bruce W. Bayonets before Bullets. (Bloomington: Indiana University Press, 1992): 36.

Several Russian officers explained the causes for the victories and defeats on the battlefields of Europe in 1859-71 in national and cultural terms – at least up to a point. This is reflected in attaché reports as well as in published material in the wake of the wars. Before the outbreak of the war in 1859, Tornau in Vienna wrote an evaluation of the different peoples of the Austrian empire from a military perspective.²⁶

According to Tornau, the Hungarians were the best soldiers of the Austrian army - brave, receptive, and more suited for attack than for defence. They were physically strong and had a high morale. The Italians were characterized as receptive but equally liable to forget what they had learned – brave but not as physically strong as the Hungarians. Therefore, the Italians were particularly useful as chasseurs and as light cavalrymen rather than as infantrymen. In writing about the East and West Slavs, Tornau used the geographical area rather than the nationality as the denominator. The Galicians (that is, the Ruthenians) were difficult to train, but more than any other nationality they could endure physical labour and deprivation. They were loyal to their commanders. Many Austrian officers ranked the Galicians higher than the Hungarians. The Bohemians (that is, the Czechs) were educated, industrious, and bright but at the same time stubborn, cunning, and ungrateful.²⁷ The Czech chasseurs were famous for their accurate shooting and the infantry regiments for their fortitude. Heavy cavalry consisted of men recruited from Bohemia – both Czechs and Germans. The Slovenes -Tornau called them the Styrians and the Carinthians - were loyal and well-behaved but physically weak. The Slovenian infantry was famous for its discipline. The southern Slavs (Tornau's words), on the contrary, were good soldiers but lacked the necessary discipline to make them excellent. In the artillery, there were many good Serbocroats (sic!), but in general the Slavs were better for service in the infantry.

Finally, Tornau's description of the Germans revealed an underlying antipathy and suspicion towards the ruling nationality, characteristic of the Russian sentiments towards Austria after the Crimean War. Tornau remarked that the Germans were less suited for military service than any of the other nationalities of the Austrian army.²⁸ They were more educated than the other nationalities, but this only made them more intelligent, not necessarily more know-ledgeable about military affairs. They were useless in the face of danger, but good for service in the engineering troops, the technically advanced artillery, and the medical units. It is worth noticing that Tornau did not mention the Poles in his description, but talked merely of the Galicians.

^{26.} RGVIA, F. 428, op. 1, d. 85, ff. 52-54. 'Tornau to the War Minister, 3/15 April 1859'.

^{27.} Ibid., f. 53.

^{28.} Ibid., f. 53v.

One of the Russian military writers who was most outspoken in his view that the outcome of the wars in 1859 and 1866 could be ascribed to national factors was the young General Staff officer, Mikhail Ivanovich Dragomirov. His thoughts on the influence on national factors on warfare deserve attention, since most of the scholarship on Dragomirov has concentrated on his tactical thinking.

In his articles of the war in 1859, Dragomirov interpreted the war as a struggle between the Latin and German races.²⁹ He viewed the Italian efforts to obtain independence as a natural consequence of the fact that the Austrian empire was inherently flawed:

Austria, put together from different parts which do not have anything organic in common, at an early stage engendered mistrust among the people, forcing together those who do not have any common interests.³⁰

He mocked the Austrian government's investments in roads and railways as if the Austrians had thought that roads would bring together the different people 'not noticing that no railway can provide a relationship among those who cannot stand each other'. He was full of admiration for the Italians who fought bravely in spite of meagre military means and who had a clear goal set for themselves: Italian unification and independence.³¹ Dragomirov stressed that the material side of warfare was useful only if the morale was sound. It is worth noticing that Dragomirov had already formulated one of the basic principles in his military thinking, a principle he would not shrink from regardless of the technical developments throughout the century.

In taking the Italian side, Dragomirov adhered to the strong anti-Austrian sentiments in Russia after the Crimean War. However, neither he nor Tornau ever drew any parallel between Russia and Austria, which may seem remarkable today particularly considering the multi-national similarities. The most obvious explanation for this is that they did not draw a parallel because they did not see one. Together with Belorussians and Ukrainians, who were not seen as very different, the Russians constituted the vast majority within the army.³² Clearly this was not the same thing as the distinct groups of the Austrian army: Hungarians, Germans, Czechs, etc. Moreover, Austria was seen as an empire falling apart and a parallel to Russia contained devastating implications.

^{29.} Dragomirov, M. I. 'Obzor Ital'ianskoi kampanii 1859', *Inzhenernyi zhurnal* (6, 1861): 503.

^{30.} Ibid., 505.

^{31.} Ibid., 504, 506.

^{32.} Although reliable figures do not exist, the share of Russians, Ukrainians and Belorussians in the levy of 1870 were estimated at 90 per cent, in absolute figures 83,931 out of 93,437. These figures do not include Poland, which was treated separately. Obruchev, N. N., ed. *Voenno-statisticheskii sbornik*. 4 vols. (St. Petersburg: Voennaia tipografiia, 1867-71): Vol. 4, Part 2: 227.

The Prussian success in 1866 was also ascribed to national factors. It is interesting to note that in 1866 Dragomirov clearly had read Tornau's 1859 reports. In Dragomirov's analysis of the Austrian defeat in 1866 against Prussia, there are several paragraphs that can be found *verbatim* in Tornau's report of 1859.³³ According to Dragomirov, it was both the political system and the characteristics of the Prussian race (*prusskaia rasa*) that constituted the recipe for Prussian victory.³⁴ Moreover, he remarked that respect for the law was widespread, recognized by every Prussian regardless of class. As a consequence of this 'lawfulness' (*zakonnost'*), everyone in Prussia accepted their military duty.

In summary, the Russian officers saw the national unity of Prussia and the internal unity of the society (where all sectors were gathered behind the army) as two of the most important explanations for the Prussian victories. Dragomirov was far from alone in stressing this.³⁵ In analysing Prussia, Leer made a distinction between the military spirit of an army and the national spirit (*narodnyi dukh*). The latter stemmed from the historical development of the nation. It was necessary for a successful army to have both.³⁶

4.2.2 Men Against Fire

If there was unity in the view of the Prussian military organization, the issue of the consequences of increased firepower caused some debate. Breech-loading rifled guns and rifles had led to more accurate fire, increased fire-range and increased rate of fire, since they were easier to reload than the old muskets. For instance, the Prussian needle gun used in 1866 and 1870 had a fire-rate of six rounds a minute and a range of around 600 paces. The French *chassepot*, an improved rifle, had a fire-rate of nine rounds a minute and a range of 1,500 to 2,000 paces.

The issue of firepower caused a debate that touched on many important topics. The development raised many questions: about possible changes in the tactical formations and entrench-

^{33.} Dragomirov, M. I. *Ocherki Avstro-Prusskoi voiny v 1866 godu*. (St. Petersburg: Tipografiia Departamenta Udelov, 1867): 70; and RGVIA, F. 428, op. 1, d. 86, f. 51. 'Tornau to the War Minister. August 1859'. The paragraphs relate a passage which made clear that the reasons for the Austrian defeat could be found in the political system of the Austrian empire. It was a system based on mistrust towards its peopl and the soldiers brought up in such a system were deprived of the personal energy essential for a good soldier. Dragomirov's articles were also published in *Voennyi sbornik* (3-6, 1867).

^{34.} Dragomirov, *Ocherki*: 1. As exclusively Prussian traits, distinct from German, he noted 'the youthful confidence in their own strength and superiority, also in relations to foreign elements'.

^{35.} For a few other eloquent examples of the same thinking, see: Zinov'ev, M. A. 'Zametki o germanskoi armii', *Voennyi sbornik* (5, 1873): 4-5; and Ibid., (6, 1873): 267; Baikov, L. 'Frantsuzskaia i germanskaia armii pered voinoiu 1870 g.', *Voennyi sbornik* (5, 1876): 43. See also Zeddeler's report from the Prussian army. 'Vzgliad na prusskuiu voennuiu organizatsiiu' published in *Russkii invalid*, 4 Oct. 1870. A copy of the original report is kept in Gosudarstvennyi Arkhiv Rossiiskoi Federatsii (hereafter GARF) F. 677, op. 1, d. 343. 'Memorandum by Lieutenant Zeddeler'. 8 Sept. 1870.

^{36.} One of Leer's pupils at the General Staff Academy, N. V. Shenshin, would later follow in his professor's footsteps by stressing the national unity of the Prussian forces and emphasizing that Prussia had inspired other European states to introduce national armies. Shenshin, N. 'Strategicheskii obzor voennykh deistvii 1870 g. do Sedanskoi kapituliatsii vkliuchitel'no', *Voennyi sbornik* (7: 5-44; 8: 223-264, 1876).

ment tactics, about ways to boost morale and to prepare the troops for the storm of bullets and shells on the battlefield of the future.

In the Crimean War, French and English troops had used rifles against the Russian muskets. The Russian army had already experienced the devastating effects of rifles, but it was not until the war of 1859 that both sides were armed with rifles. The importance of fire on the battlefield did not escape any of the influential Russian military thinkers. However, opinions differed somewhat with regard to the consequences for tactical principles. As we shall see, some stressed the importance of strengthening the morale of the troops to be able to meet the firestorms, whereas others advocated the need to meet fire with fire.

The results of the war in 1870-71 had further highlighted the importance of firepower. From the battlefield, the Russian War Ministry received alarming reports from the artillery officer, K. G. Doppelmaier, who did not mince his words:

Infantry must above all attack in open order, and the distance between the first and second line must be increased. ...Attack under individual fire must be made running. ...Such battles require independence of the individual soldier and the officers and make it imperative that commands be fulfilled unconditionally and immediately. ...Only a fully disciplined infantry, with decisive officers, can be successful in attacks today in view of the defensive power of fire.³⁷

In 1870-71, the Germans had even moved away from the tactical regulations, which stipulated attack in closed columns, in favour of attacking in dispersed order during the latter part of the war.³⁸

How was this received in St. Petersburg? A particularly interesting example of the debate in *Voennyi sbornik* on the consequences of increased firepower on the battlefield broke out after the war. One of the main participants in the debate was M. I. Dragomirov. He was reluctant to elevate fire to the leading tactical principle. Instead, he emphasized the morale of the troops and the importance of training and education.

It is necessary to pause briefly to examine his opinions, since his insistence on the moral element in warfare (which led him to talk more about the traditional bayonet attack than firepower) has given him a bad reputation in view of the Russian defeats in 1904-05 and in the First World War.³⁹ As a consequence, his ideas and the rationale for his conclusions have been somewhat obscured. What did he say that made such an impression on contemporaries? His basic ideas can be summarized in three principles: ⁴⁰

^{37.} RGVIA, F. 506, op. 1, d. 534, ff. 80v-81. Doppelmaier died shortly after the end of the war in a riding accident in Berlin in 1871. Zeddeler, L.L. 'Dvadtsat' piat' let nazad. Otryvok iz dnevnika', *Istoricheskii vestnik* (4, 1896): 117.

^{38.} RGVIA, F. 506, op. 1, d. 534, f. 80v. 'Doppelmaier to A. F. Fersman, Gonesse, 20 Oct. 1870'. See also Zeddeler, L. L. 'Pekhota, artilleriia i kavaleriia v boiu i vne boia, v Germano-Frantsuzskoi voine 1870-1871 godov', *Voennyi sbornik* (7, 1872): 49-50.

- to teach the soldier only what was necessary in war;
- to treat the soldier with respect;
- to emphasize the bayonet attack in training, not because firing was not important but because the bayonet attack required more psychological strength, which was more difficult to train and took longer time to acquire.

These thoughts stood in sharp contrast to the traditional view on how to create an effective army. The first point was one of Suvorov's principles, but after the Crimean War, it also encompassed an indirect criticism of the army of Nicholas I, where the emphasis on training lay on the parade-ground. The second point related to the efforts to create a more humane environment for the soldier, which was linked to a more restrictive use of corporal punishment.⁴¹ The third point essentially subscribed to the Napoleonic principle that war was largely a moral exercise. Dragomirov's ideas were not entirely uncontroversial.⁴²

It was L. M. Baikov, a young General Staff graduate, who started the debate by claiming that the lessons of the battle of Königgrätz had not been properly appreciated.⁴³ He acknowl-edged – in accordance with Leer and Dragomirov and others – that Königgrätz had shown the need to create a national (*narodnaia*) army and had demonstrated the need for national education and universal military service. However, he challenged Dragomirov in the tactical field by claiming that the traditional infantry attack in closed-order column had become almost impossible. He questioned the validity of Dragomirov's oft-repeated Suvorov-dictum 'The bullet is a fool, but the bayonet is a fine fellow'. Königgrätz had led to a new age in tactics – the 'tactics of fire' as opposed to the 'tactics of the bayonet'. This meant that many small units should be the formation for attack, not the closed-order mass column. Baikov claimed

^{39.} Kersnovskii, A.A. Istoriia russkoi armii. 4 vols. (Reprint of 1933-38 ed. Moscow: Golos, 1992-94): Vol. 3: 24; Menning, Bayonets: 3, 38-43; Snyder, Jack. 'Civil-Military Relations and the Cult of the Offensive, 1914 and 1984', in Military Strategy and the Origins of the First World War, edited by S. E. Miller, S. M. Lynn-Jones and S. Van Evera. (Princeton, N.J.: Princeton University Press, 1991): 49.

^{40.} Dragomirov most important publications are collected in three works: Dragomirov, M. I. *Sbornik original'nykh*; *Chetyrnadtsat' let.* 1881-1894. *Sbornik original'nykh i perevodnykh statei*. (St. Petersburg: V. Berezovskii, 1895); *Odinnadtsat' let.* 1895-1905 gg. 2 vols. (St. Petersburg: Russkaia skoropechatnia, 1909). See also his course books: *Lektsii taktiki, chitannye v uchebnom pekhotnom batalione. Kurs* 1863-64. (St. Petersburg: A.P. Chernviakov, 1864); *Kurs prinoravlennyi k programma voennykh uchilishch.* 2nd ed. (St. Petersburg: Pechatnia V.I. Golovina, 1872).

^{41.} Bogdanovich, M. Istoricheskii ocherk deiatel'nosti voennogo upravleniia v Rossii v pervoe dvadtsati-piatiletie blagopoluchnogo tsarstvovaniia Gosudaria Imperatora Aleksandra Nikolaevicha (1855-1880 gg.). 6 vols. (St. Petersburg: M. Stasiulevich, 1879-1881); Vol. 4: 454, 456-458; Zaionchkovskii, P. A. Voennye reformy 1860-70 godov v Rossii. (Moscow: Izdatel'stvo Moskovskogo Universiteta, 1952): 109.

^{42.} An illustrative example is, for instance, Major-General K. I. Gershel'man's article in *Voennyi sbornik* where he attacked Dragomirov for underestimating the virtue of repetition and habit in peacetime training. Pedantry was necessary since it secured order in a real battle-situation. Gershel'man, K. I. 'Neskol'ko slov o sovremennom napravlenii nekotorykh nashikh pisatelei po taktike', *Voennyi sbornik* (1, 1868): 3-22. Gershel'man was an officer of the General Staff and a member of the Committee of the Organization and Education of Troops.

^{43.} Baikov, L. 'Vliianie srazheniia pod Keniggretsom na taktiku', *Voennyi sbornik* (6, 1872): 303-352; Baikov, L. 'Po povodu stat'i M. Dragomirova pomeshchennoi v 12 No "Voennogo sbornika" za 1872 g.', *Voennyi sbornik* (4, 1873): 303-334. See also Baumann, Robert F. 'Technology versus the Moral Element: Emerging Views in the Russian Officer Corps, 1870-1904', in *New Perspectives in Modern Russian History*, edited by R. B. McKean. (New York: St. Martin's Press, 1992): 43-64.

that the infantry was by far the most important unit on the field, whereas artillery and cavalry had been assigned to support infantry. Fire was now the dominant factor on the battlefield.

The observer with the Prussian army in 1870-71, L. L. Zeddeler, expressed similar views in an article where he summarized his impressions from the war.⁴⁴ More cautiously than Baikov, he noted the growing importance of fire on the battlefield and wondered whether Suvorov, had he been alive, would have trained his troops to attack in closed formation. He pointed out that the war had shown that the frontal attack had become very difficult to conduct and led to enormous losses. He argued that firearms had gained strength on the battlefield to the degree that 'at least in this war, they have replaced the bayonet attack'.⁴⁵

Dragomirov replied to both articles.⁴⁶ He accused Baikov of being incapable of an objective analysis and of being a 'knight of the bullet'. Dragomirov did not see anything that changed the established truth that fire prepared the way for the bayonet attack. He stressed that the bullet and the bayonet did not exclude each other, but complemented each other; consequently, the dispersed order was a complement to the closed order.⁴⁷ The purpose in war was not to kill and hurt as many as possible, but 'to force the enemy to surrender to us'. The morale of the troops (that is, the bayonet attack) is the determining factor on the battlefield, and it made little sense to talk about 'tactics of fire' and 'tactics of the bayonet', since the only tactics worth the name was 'sound tactics'.

In response to Zeddeler's doubts about Suvorov's training methods had he been alive, Dragomirov coldly replied that this issue was irrelevant:

A change of weapons might lead to a change in training methods in how to handle this weapon, but it hardly has anything to do with the moral strength of people.⁴⁸

A few year later, Zeddeler openly stated that the Franco-Prussian war had so clearly demonstrated the importance of firepower that the line of infantry (*strelkovaia tsep'*) could no longer be considered to act as a complement to the closed column but had acquired an independent role on the battlefield.⁴⁹This article is a publication of two memoranda written by Zeddeler in 1872-74 and was originally sent to the Commander of the Guards and St. Petersburg Military District, Grand Duke Nikolai Nikolaevich the Elder. The memoranda were then considered by a commission within the Main Committee on the Organization and Education of Troops

^{44.} Zeddeler, 'Pekhota, artilleriia i kavaleriia': 33-114.

^{45.} Ibid., 55.

^{46.} Dragomirov, M. I. 'Po povodu nekotorykh statei vyzvannykh poslednimi dvumia kampaniiami', *Voennyi sbornik* (12, 1872): 253-274; (1, 1873: 89-106).

^{47.} Dragomirov, 'Po povodu', (12, 1872): 261, 269. This was one of Dragomirov's favourite maxims.

^{48.} Dragomirov, 'Po povodu', (1, 1873): 97.

^{49.} Zeddeler, L.L. 'Vliianie oruzhiia, zariazhaiushchegosia s kazny na ogon', boi i boevuiu podgotovku pekhoty', *Voennyi sbornik* (1, 1876): 68.

under the chairmanship of Lieutenant-General G. I. Chertkov. The commission recognized the importance of firepower, but did not make any recommendations about changes in the tactical regulations. The commission's protocols were also read by the Military Scientific Committee and by Alexander II.⁵⁰ Others who argued in the press for a change in the tactical regulations were General-Adjutant Todleben, the war hero of Sevastopol, and the General Staff officer, A. P. Skugarevskii.⁵¹

Dragomirov did not change his emphasis despite the increase in firepower. He recognized that increased firepower imposed new requirements on the troops. Greater flexibility and the development of courage and resourcefulness were needed in every man in the arm – officer as well as soldier.⁵² Consequently, he was not against a gradual revision of the existing tactical regulations, but he did not advocate a complete overturn.⁵³

In fact, the 1866 regulations governing infantry assault tactics took the increased importance of firepower into account and prescribed a combination of open- and closed-order for the attack, leaving some freedom to commanders to adapt to the situation. Still, the emphasis lay on the bayonet attack. In 1881 - after the Russo-Turkish War - the new tactical regulations explicitly recommended that infantry deploy for the attack in skirmish formation.⁵⁴ Furthermore, between 1881 and 1904, the tactical doctrine was changed three times. The Russian army seems to have made more - not the - changes to its regulations than other European armies in trying to keep up with the rapid changes in organization and technology.⁵⁵ The problem was that although the regulations stipulated certain things, they were not necessarily put into practice. Dragomirov, who was acutely aware of this problem, made it clear in his argument with Baikov in 1872: 'To observe the regulations is one thing; to apply them [to reality] quite another.'⁵⁶

^{52.} Dragomirov, Ocherki: 221.

^{53.} Dragomirov, M. I. 'O veroiatnykh peremenakh v taktike', *Voennyi sbornik* (11: 3-26; 12: 167-211, 1867).
 ^{54.} Dobrovol'skii, D. 'Issledovanie ob ustave nashei pekhoty', *Voennyi sbornik* (1, 1867): 301-340; Menning, *Bayonets*: 41-42, 136-138; Beskrovnyi, *Russkaia armiia*: 150-151; Beskrovnyi, L. G. Ocherki po istoch-

nikovedeniiu voennoi istorii Rossii. (Moscow: Izdatel'stvo Akademii nauk SSSR, 1957): 355-56. ^{55.} Menning, *Bayonets*: 136. See also Strachan, Hew. *European Armies and the Conduct of War*. (London: Unwin Hyman, 1983): 114-117.

^{50.} Zeddeler's memoranda are located in RGVIA, F. 868, op. 1, d. 277, ff. 2-59, and the protocols in Ibid. ff. 77-88, 111-147. Comments by the Tsar and the Military Scientific Committee are in Ibid. ff. 102-109. The deliberations of the Military Scientific Committee are also located in RGVIA, F. 401, op. 5, d. 350, ff. 27v-29v. 'Journals of the Military Scientific Committee, No. 1. 25 Jan. 1875'. Excerpts of the committee protocols were published in *Voennyi sbornik*, 'Russkoe voennoe obozrenie' (6, 1879): 119-126. The commission is briefly mentioned in Beskrovnyi, L. G. *Russkaia armiia i flot v XIX veke*. (Moscow: Nauka, 1973): 149-150; Menning, *Bayonets*: 44; Zaionchkovskii, *Voennye reformy*: 189-90.

^{51.} Todleben, E. I. 'O znachenii ognia v boiu', *Voennyi sbornik* (8, 1876): 294-306; Skugarevskii, A. 'Novye trebovaniia taktiki v vidu ozhidaemykh izmenenii v pekhotnom ustave', *Voennyi sbornik* (4: 304-332; 11: 64-100, 1876).

^{56.} Dragomirov, 'Po povodu', (12, 1872): 257.

In relation to this debate, a few words need to be said about the allegedly fundamental conflict in Russian military thought during the second half of the nineteenth century. Conventional history has it that the Russian military thinkers were split into two distinct groups: one emphasizing the need to adopt modern technology, the other emphasizing the extraordinary qualities of the Russian soldier. In his study of Russian military thinking, von Wahlde made a distinction between nationalists and academics, that is, he applied the Slavophile/Westernizer controversy to military thinking.⁵⁷ Finding this distinction inadequate, Fuller divided the two groups into magicians and technicians, arguing that his division allows a broader interpretation, where a technician at the same time can be a Slavophile.⁵⁸ Soviet scholars have drawn the line between academics and representatives of the national Russian school.⁵⁹

In my view, this conflict has been largely exaggerated and has created an artificial contradiction between, for instance, D. A. Miliutin and M. I. Dragomirov or Dragomirov and Leer. In fact, more united Dragomirov and Leer than divided them.⁶⁰ As far as Miliutin is concerned, he said much of what Dragomirov said - twenty years earlier in an article hailing Suvorov.⁶¹ This article, however, was perhaps not so much a glorification of Suvorov as a cleverly concealed criticism of the army of Nicholas I. Miliutin was already formulating the principles that could be discussed in public only twenty years later. By referring to Suvorov, he stressed the importance of the independent initiative of the individual commander and of the soldier as the determining factor in warfare. He argued that officers should treat the soldiers in a humane manner.⁶² This was the very opposite of the prevailing view that leadership emanated from Imperial inspiration and that harsh discipline was vital for military success.⁶³

In much the same way, Dragomirov constantly referred to Suvorov when arguing his case.⁶⁴ Some of these ideas were controversial or – worse – perceived as radical, and it might be argued that Dragomirov tried to legitimize these ideas among the more traditional parts of the Russian officer corps by using the authority of Suvorov.

^{57.} Wahlde, 'Military Thought': 95-116.

^{58.} Fuller, William C., Jr. Strategy and Power in Russia 1600-1914. (New York: Free Press, 1992): 303-305, 514.

^{59.} Beskrovnyi, Ocherki voennoi: 203-270; Zhilin, Russkaia voennaia mysl': 106ff.

^{60.} Both, for instance, agree that the morale of the troops was the determining factor in war and that fire complemented the bayonet attack. Yet, Dragomirov as been described as advocating 'military nihilism' while Leer 'the most significant military-scientific figure in the Russian Army'. Kersnovskii, *Istoriia*: Vol. 3: 23-24. See also Sukhomlinov, V. A. *Vospominaniia*. (Berlin: Russkoe universal'noe izdatel'stvo, 1924): 11, 16-17, 55-56.

^{61.} Miliutin, D.A. 'Suvorov kak polkovodets', Otechestvennye zapiski (3, 1839): 1-32, 71-94.

^{62.} In spite of the vast improvements of military technology at the turn of the century, Miliutin still emphasized the overall importance of the morale of the troops as the determining factor in warfare. See his article written in 1909, but published posthumously in 1912. Miliutin, D. A. 'Starcheskie razmyshleniia o sovremennom polozhenii voennogo dela v Rossii', *Izvestiia Imperatorskoi Nikolaevskoi Voennoi Akademii* (30, 1912): 833-858.

^{63.} See also Brooks, Edwin Willis. 'D.A. Miliutin: Life and Activity to 1856'. Ph.D., Stanford University, 1970: 67-68.

It is noteworthy that neither Dragomirov nor Leer romanticized the Russian soldier. Leer, as we shall see later, firmly believed that the laws of war were eternal, unaffected by time and borders.⁶⁵ Dragomirov's ideas were based on a humane concern for the military man in the widest sense and he was clearly perceived by contemporaries as saying things of a more general applicability. For instance, the Prussian officer A. Drygalski, praised the advanced Russian military debate and thought highly of both Dragomirov and Leer.⁶⁶Another indication of contemporary appreciation was that both Dragomirov and Leer were appointed honorary members of the Swedish Royal Military Academy in Stockholm.⁶⁷

There is a fundamental difference, therefore, between Dragomirov's thinking and that of the Pan-Slavist General R. A. Fadeev. The latter argued that the Russian soldier was not suited for independent actions since he lacked personal initiative. The Russian soldier could only fight in closed columns, distrusted his commander, and hated firing.⁶⁸

Another illustrative example of the debate on the impact of firepower broke out regarding field fortifications. The example of Metz was the disputed issue. Metz was a town and a fortress which the German forces besieged between 19 August and 29 October 1871 when the French commander, General Bazaine, finally capitulated without having tried to break out. Zeddeler was convinced that the German field fortifications around the fortress, in combination with the firepower of rifled artillery, were so strong that a breakout had been condemned to failure.⁶⁹ The German forces had the fortress under full control. Zeddeler concluded that in

^{64.} It is interesting to note that Dragomirov did not only re-edit Suvorov's *Nauka pobezhdat*' but was also the first to translate a part of Clausewitz' *On War* into Russian in 1888. Dragomirov, M. I. Uchenie o voine Klauzevitsa - osnovnye polozheniia. *Voennyi sbornik* (10: 245-271; 11: 5-22, 1888). This is a translation from a French edition, corrected towards the original by M. A. Gazenkampf, Professor of Military Administration at the General Staff Academy. The first more substantial translation of *On War* in Russian appeared in 1902, translated by K. Voide: Klauzevitz. *Voina (Teoriia strategii)*. 2 vols. (St. Petersburg: Tip. Glavnogo Upraleniia Udelov, 1902).

^{65.} See, for instance, Leer, Publichnye...do Sedana: 237, 256-258.

^{66.} Drygalski, Albert von. *Die neu-russische Taktik in ihrer gegenwärtigen Entwicklung mit besonderen Berücksichtigung der herrschenden Ausbildung.* (Berlin: Mittler und Sohn, 1880): iii-viii, 9-10. See also Spaleny, Norbert. *Rückblicke auf die russische Taktik der Vergangenheit und Gegenwart.* (Graz: Albert Lentner, 1878): 94-98, 174. Spaleny, *a*Austrian officer, not using any Russian sources in the original language, gave the Russian army credit for having moved towards dispersed order. However, quoting Fadeev, he claimed that the Russians had understood only the form - not the spirit - of the new infantry tactic.

^{67.} Glete, Jan. Krigsvetenskapsakademien, försvaret och den industriella samhällsomvandlingen 1870-1920. In Fäderneslandets försvar. Kungl. Krigsvetenskapsakademien 1796-1996, edited by E. Norberg. (Stockholm: Atlantis, 1996): 210-213; Kjellander, Rune. Kungl. Krigsvetenskapsakademien. Biografisk matrikel med porträttgalleri 1795-1995. (Stockholm: Akad., 1996): 77, 91.

^{68.} GARF, F. 677, op. 1, d. 335, ff. 2, 7-9. 'Memorandum by Major-General Fadeev on the Importance of Armour For All the Branches of Service'. June 1869. This is an article originally intended for publication in *Voennyi sbornik*. The journal had refused to publish it with the motivation that armour on infantry was hardly an appropriate response to the introduction of rifles, since it would seriously hamper the speed of an attack. See also Fadeev, R. *Vooruzhennye sily Rossii*. (Moscow: Universitetskaia tipografiia (Katkov i Ko), 1868): 282.

^{69.} Zeddeler, L. L. 'K voprosu: mogli-li frantsuzy probit'sia iz Metsa i Parizha?', *Russkii invalid*, 14 March 1871 and Zeddeler, L. L. 'Zametka na stat'iu g. G. Leera', *Russkii invalid*, 30 March 1871.

today's warfare, field fortifications played such an important role that breakouts of the sort that could have been attempted from Metz and Paris become almost impossible.

This emphasis on material conditions was rejected by Leer. He argued that a breakout attempt could very well have succeeded had it not been for the demoralized French army. It was the lack of morale that had determined the outcome of Metz.⁷⁰ Above all, the poor morale among the generals of the French army was a consequence of an inadequate military organization.⁷¹

The importance of the spade and field fortifications was noted primarily in connection with the European wars. The engineering officer, E. Everts (a veteran of Sevastopol) wrote on what the American Civil War had to teach about defending fortresses from attack from both land and sea. He found the evidence inconclusive and could not determine any rules that could guide a future siege.⁷² On the basis of his experience in Prussia in 1866, Dragomirov argued that artillery and infantry fire had highlighted the importance of field fortifications. He recommended that the infantry be trained in using spades.⁷³ In the same vein, Leer called for the introduction of field fortifications in infantry training.⁷⁴ Zeddeler observed that although the French entrenchments had not stopped the Prussian infantry there was no doubt about the great importance of entrenchments for defensive action.⁷⁵ The lessons of the Civil War took a bit longer to sink in. During the Russo-Turkish War, the engineering officer I. Gausman, published a book on the use of field fortifications during the Civil War.⁷⁶ Gausman drew the reader's attention to the fact that 'sometimes the Americans used the spade and the axe in battle more than the bayonet and firearms'.⁷⁷ It is largely a descriptive and technical work, but it clearly shows an awareness of the importance of the spade on the battlefield.

Quite possibly, the importance of entrenchments was not learned in earnest until the three battles of Plevna (8 July, 18 July, and 11 September 1877) during the Russo-Turkish War. The

^{70.} Leer, G. A. 'Zametka na stat'iu: K voprosu: mogli-li frantsuzy probit'sia iz Metsa i Parizha?', *Russkii invalid*, 21 March 1871 and Leer, G. A. 'Zametka na zametku Barona Zeddelera', *Russkii invalid*, 12 April 1871. Leer would later receive support for his views, albeit from a slightly more technical point of view, by the engineering officer, A. Nikulishchev. See his article 'Blokada i kapituliatsiia Metsa', *Inzhenernyi zhurnal* (1872, 6: 497-548; 9: 739-780; 1873, 5: 481-555; 6: 597-643), especially 6, 1873.

^{71.} See also Leer, G.A. 'Prigovor nad Bazenom', *Voennyi sbornik* (1, 1874):87-92. Incidentally, a twentieth century historian reached the same conclusion. Howard, Michael. *The Franco-Prussian War: the German Invasion of France*, 1870-1871. University Paperbacks ed. (London: Routledge, 1961): 257.

^{72.} Everts, E. 'Voennye deistviia pod Charl'stonom s 1861 po 1865 g.', *Voennyi sbornik* (10, 1867): 213.

^{73.} Dragomirov, 'O veroiatnykh peremenakh', (12, 1867): 201-203.

^{74.} Leer, G. A. Publichnye lektsii o voine 1870-71 godov mezhdu Frantsiei i Germaniei ot Sedana do kontsa voiny. (St. Petersburg: Tipografiia departamenta udelov, 1873): 12-13.

^{75.} Zeddeler, 'Pekhota, artilleriia i kavaleriia': 47, and Zeddeler, L. L. 'Znachenie polevykh ukreplenii pri sovremennom obraze deistviia pekhoty', *Russkii invalid*, 217, 1 Oct. 1870.

^{76.} Gausman, Iosif. *Voina v Soedinennykh Shtatakh Ameriki 1861-65 gg.* 2 vols. (St. Petersburg: Tipografiia Departamenta Udelov, 1877-78).

^{77.} Ibid., Vol. 1: 7, 16.

Russian army succeeded in taking Plevna only after suffering massive losses in the three attacks. Zeddeler would later remark bitterly that the efforts of the Russian army to take Plevna clearly showed that nothing had been learned from Metz and Paris.⁷⁸ The experiences of this war clearly demonstrated the importance of entrenchments, and an entrenching tool subsequently became standard equipment for the Russian soldier. If the Russians were slow to learn this lesson, they were not alone. Foreign observers during the Russo-Turkish War 1877-78, in spite of the evidence of Plevna, were reluctant to conclude that attacks against entrenched positions had become almost impossible.⁷⁹ If anything, this reluctance demonstrates that it is one thing to observe a lesson and learn it in theory – quite another to put theory into practice. Only after the practical experience was the army able to take certain measures to implement the lessons throughout the entire organization. Perhaps this is particularly true for large organizations, such as armies, but it was nothing exceptional for the Russian army.

Why were Dragomirov and others so reluctant to diminish the emphasis on the bayonet in favour of fire? It was not, as sometimes believed, that the Russian tactical thinkers were unaware or underestimated the increased importance of fire on the battlefield.⁸⁰ One of the reasons was the conviction that diminishing the emphasis on the bayonet would negatively affect the soldier's will to fight. It could potentially lead the soldier to be more concerned for his own safety than to concentrate on the task, which was to move forward in spite of the rain of bullets. In other words, firepower was seen as something that potentially could paralyze the troops.

A tactical commission (in which Dragomirov was an influential member) – created in the wake of the Austro-Prussian War to consider the effects of firepower on tactics – declared that it would be 'very harmful' if the opinion spread among the troops that the significance of the bayonet had diminished:

The bullet and the bayonet do not exclude each other but complement each other: the first paves the way for the other and to overlook one or the other would be equally harmful.⁸¹

There was also the fear that the soldiers would use all of the ammunition at an early stage and then would have to fight without any bullets. This was important since there were several kinds of rifles in the Russian army and the majority of them were effective only at close

 ^{78.} Zeddeler, L. L. 'Dvadtsat' piat' let nazad. Otryvok iz dnevnika', *Istoricheskii vestnik* (5, 1896): 490.
 ^{79.} O'Connor, Maureen P. 'The Vision of Soldiers: Britain, France, Germany and the United States Ob-

serve the Russo-Turkish War', War in History (3, 1997): 271-72, 277, 283-84.

^{80.} A typical complaint among Soviet scholars was that Dragomirov did not appreciate the material factor in warfare. Beskrovnyi, L. G. 'M. I. Dragomirov', in *M. I. Dragomirov. Izbrannye trudy*, edited by L. G. Beskrovnyi. (Moscow: Voenizdat, 1956): 6-7.

^{81.} RGVIA, F. 868, op. 1, d. 217, ff. 12-13. 'Report by the Tactical Commission on Changes in Tactical Training in Connection with the Improvement of Rifles and Artillery Weapons'. 26 May 1867.

range.⁸² Likewise, the increase in firepower above all strengthened the defender who could hide and shoot from a long distance with great precision.⁸³ But too much emphasis on digging entrenchments and learning to seek shelter in the terrain was not seen as a productive training. Offensive action was viewed as an important way to boost the morale of the troops.⁸⁴

Another reason for concern was that dispersed order meant less control of the troops. The closed column symbolized order. As armies had grown larger, so had the battlefield and choosing dispersed order the main formation could lead to complete chaos. The role of the non-commissioned officer had increased and he needed to be able to make independent decisions. This was widely recognized⁸⁵ but it was not enough completely to overhaul the prevailing belief in Russia and elsewhere that the closed order was still the only way forward. Significant here was the fact that the army suffered a severe lack of trained NCOs, an issue that become even more serious when, in 1874, the time of service became shorter.⁸⁶ Finally, the war 1870-71 could be seen as an eloquent confirmation of the opinion that technology alone is not sufficient to win wars. In this war, the Prussian needle gun was technically inferior to the French *chassepot* – and yet, Prussia had won.

4.2.3 The Cavalry Reconsidered

Cavalry was the most traditional arm of the army. It played a key part in the ethos of the nobility, with proud traditions of heroic exploits on the battlefield.⁸⁷ Armed with sabres and lances, it was the cavalry that could determine a battle through resolute shock-actions and quick pursuit of the enemy. It was also an expensive part of the army. At a time when development pointed toward small standing armies and large reserves, it was not possible to keep large, permanent cavalry units in the same way as before. Moreover, the improved firepower of artillery and infantry weapons did not bode well for the future of cavalry. All of these factors - social, economic, and military - make it particularly interesting to see how the changes were interpreted with regard to cavalry.

^{82.} During the Russo-Turkish War, there was no shortage of ammunition, largely because the troops had been taught to save ammunition. Zaionchkovskii, *Voennye reformy*: 343-344.

^{83.} Kalinskii, Fedor. 'Vzgliad na upotrebleniie v boiu polevoi i gornoi artillerii osobenno v bol'shikh massakh', *Artilleriiskii zhurnal* (7, 1872): 792.

^{84.} Leer, Publichnye... do Sedana: 5-6.

^{85.} See, for instance, Dragomirov, 'O veroiatnykh peremenakh', (12, 1867): 204-205; Leer, G.A. 'Vliianie nareznogo oruzhiia na sovremennoe sostoianie taktiki', *Voennyi sbornik* (4, 1861): 298, (5, 1861): 34-37.

^{86.} Rediger, A. Unter-ofitserskii vopros v glavnykh evropeiskikh armiiakh. (St. Petersburg: Trenke i Fiusno, 1880): 1, 145.

^{87.} Of all the branches, the cavalry, not surprisingly, had the highest proportion of noble officers. Zaionchkovskii, P. A. *Samoderzhavie i russkaia armiia na rubezhe XIX-XX stoletii, 1881-1903.* (Moscow: Mysl', 1973): 203-205.

The future role of the cavalry was an issue much debated in the military press. It does not seem to have been a major concern of the observers and the military attachés. Nevertheless, these were worrying times for the cavalry. In the European wars of 1859-71, the cavalry had not played a distinguished role. In the wars of 1866 and 1870-71, the cavalry was hardly used at all on the battlefield and every time it was used the losses were terrible. The battlefield was dominated by artillery and infantry.⁸⁸ During the Franco-Prussian War, there was only one successful cavalry attack, on 16 August (N.S.) 1870 by German forces at Mars-la-Tours, described by one historian as probably 'the last successful cavalry charge in Western European warfare'.⁸⁹

Looking at European wars during the 1860s, however, did not provide any solutions for Russian military writers. They were all in agreement that the wars had, above all, demonstrated the need to train cavalry units even more diligently than before. The moment of attack, the timing, was even more crucial than ever.⁹⁰ The argument was that cavalry charges against infantry with rifles, even smooth-bores, had never been successful. At one point, the General Staff Academy graduate, M. A. Terent'ev, had to argue that it was, in fact, possible to train cavalrymen.⁹¹

The 1870s saw an intensified debate about the future role of cavalry. The professor of the General Staff Academy, A. I. Vitmer, even proposed to the Military Scientific Committee that a special journal for cavalrymen be started. The Committee voiced support in principle for the proposal, but noted that there were no funds for such a journal and added that articles on cavalry could always be published in *Voennyi sbornik*.⁹²

The outcome of the war in 1870-71 may have prompted the debate, but at the same time the lessons of the American Civil War were slowly beginning to sink in. Among the Russian officers there was clearly awareness of the Civil War and its lessons. The fact that the military attaché in Paris, P. L. Wittgenstein, in the midst of the Franco-Prussian war, noted that the Civil War had shown that the defender had an advantage over the attacker in a siege is but one example to illustrate this.⁹³

^{88.} Howard, Franco-Prussian War: 115-118; Jones, Archer. The Art of War in the Western World. (Chicago: University of Illinois Press, 1987): 401; Wawro, Geoffrey. The Austro-Prussian War. Austria's War with Prussia and Italy in 1866. (Cambridge: Cambridge University Press, 1996): 290-291.

^{89.} Howard, Franco-Prussian War: 156-157.

^{90.} Dragomirov, 'O veroiatnykh peremenakh', (12, 1867): 193-94; Dragomirov, Ocherki: 222-223; Leer, Publichnye...do Sedana: 261; Terent'ev, M. 'Ostalas' li konnitsa tem, chem byla?', Voennyi sbornik (2, 1865): 294-297.

^{91.} Terent'ev, M. A. 'Kavaleriiskie voprosy', Voennyi sbornik (10, 1865): 289.

^{92.} RGVIA, F. 401, op. 5, d. 346, ff. 6-6v. 'Journals of the Military Scientific Committee'. No 1. 10 Jan. 1870.

^{93.} RGVIA, F. VUA, d. 1328, f. 19v. 'Wittgenstein to the War Minister. 5/15 Sept. 1870. Defence Resources of Paris'.

Although Leer had observed that cavalry had been used mostly for reconnaissance in 1870-71, and even hinted at the necessity of transforming the entire cavalry into dragoons⁹⁴ (that is, light infantry armed with rifles acting as mounted infantry), it was the American Civil War that provided more substantial evidence of the changing role of cavalry. The young General Staff officer, N. N. Sukhotin, later member of the State Council, looked at America for solutions. His dissertation at the General Staff Academy is a thorough investigation of the use of cavalry raids and reconnaissance during the Civil War.⁹⁵ Sukhotin found that it was too early to write off the cavalry and that the Civil War had shown that the cavalry could be very useful if it was used in the right way. It was, above all, the raids conducted by light cavalry of the Confederate Army that impressed him. He argued that these raids had played an instrumental role in keeping the South in the war for so long, despite the numeral superiority of the Union Army.⁹⁶ The raids served several purposes; above all, to destroy railway lines and supplies, factories, etc. In some cases, the raids had a political motive; for instance, the Confederate cavalry leader Brigadier General John H. Morgan's raids into enemy territory had served the purpose of trying to persuade the inhabitants to change sides. The strategic significance of the raids was equally great. They had shaken the morale of the enemy forces, diverted forces and attention from important points, and broken supply and communication routes.97

Sukhotin was convinced that the American use of cavalry could be applied in Europe. He even argued that the Franco-Prussian War might have ended more rapidly if the Germans had used cavalry raids against Paris when one French army was in Metz and the other on the way to Sedan. Furthermore, Sukhotin argued that the differences between the light cavalry units (that is, dragoons, uhlans and hussars) should be abolished and that only one form of light cavalry should exist.⁹⁸

Sukhotin was rather alone among European military writers in placing such confidence in cavalry raids. Neither the famous Justus Scheibert in Prussia, who had been an observer in the Civil War, nor Vigo Roussillon in France thought highly of the American use of cavalry. Neither did the English observers.⁹⁹

^{94.} Leer, Publichnye...do kontsa voiny: 16-17.

^{95.} Sukhotin, N. *Reidy i poiski kavalerii vo vremia amerikanskoi voiny 1861-65.* (Moscow: Tipografiia shtaba Moskovskogo voennogo okruga, 1875).

^{96.} Ibid., 221-222.

^{97.} Ibid.,226-227.

^{98.} N.S. 'Zametka o kavalerii', *Voennyi sbornik* (8, 1874): 295-299.

^{99.} Luvaas, Jay. The Military Legacy of the Civil War: the European Inheritance. Reprint of 1959 ed. (Lawrence, Kansas: University Press of Kansas, 1988): 66; 104, 131, 147-148.

One military writer who played a part in awakening the Russian interest in the use of cavalry in the Civil War - and one that Sukhotin had read - was the British cavalry officer, Lieutenant Colonel George T. Denison. Denison, serving in Canada, had written a book in 1868 on cavalry, drawing heavily on the lessons from the Civil War. Significantly, although he argued for the importance of light cavalry, he still believed in the old-style cavalry trained for the traditional charge of cold steel.¹⁰⁰ This went down very well in Russia and the book was translated from a German edition and published in 1872.¹⁰¹ The combination of finding a new role for the cavalry together with a moderate respect for the traditional one secured Denison's success. In 1877, his history of cavalry won the first prize in a competition set up by Grand Duke Nikolai Nikolaevich the Elder.¹⁰²

The idea of changing the focus on the use of cavalry to tasks of reconnaissance and raids – which must have seemed a lot less glorious that the cold-steel charge – was, in fact, rather accepted among cavalry officers.¹⁰³ The lessons of the Civil War were also incorporated in Russian cavalry planning. In 1874, V. A. Sukhomlinov, who at that time was a student at the General Staff Academy, was assigned to make a study of how a cavalry breakthrough into the German lines could be accomplished. The time for German mobilization was assumed to be six days.¹⁰⁴ Furthermore, in 1874 the Military Scientific Committee discussed the usefulness of using cavalry raids to destroy railways. It instructed the Main Administration for Engineering to ask the military attaché in Vienna to provide 50 pud (819 kg) of dynamite and the attaché in London to send 50 pud of nitroglycerin so that tests could be conducted to determine which substance was the most useful. General Todleben had already spoken out in favour of dynamite.¹⁰⁵ In the autumn of 1876, a large practice raid was conducted in Poland that Sukhotin described as the 'first try in Europe to apply the American cavalry raid on the railways across the Vistula.'¹⁰⁶ Further evidence can be found in the Russo-Turkish War in the

^{100.} Luvaas, *Military Legacy*: 111-113.

^{101.} Denison, George. 'Organizatsiia, vooruzheniia i upotreblenie kavalerii na voine soglasno sovremennomu sposobu vedeniia voiny', *Voennaia biblioteka*, Vol. 8. (St. Petersburg: Tip. V. S. Balasheva, 1872).
^{102.} Denison, George. *Istoriia konnitsy.* 2 vols. (St. Petersburg: Tip. A. Benke, 1897): Vol. 1: i-v. The importance of this victory should not be exaggerated. Denison's entry was one of only two and the only one of any quality. Nikolai Nikolaevich was said to have been disappointed with the outcome and the book was not translated into Russian until twenty years later. This translation also contains a separate volume with comments from the German edition of Denison's book. The opinions of the reviewing committee on Denison's work are in Appendix 4, Vol. 1: xxviii-xxx.

^{103.} See, for instance, Major General P. Skobel'tsyn's articles where he stressed the importance of cavalry raids. Skobel'tsyn, P. E. 'Sovremennaia osnovaniia organizatsii i taktiki kavalerii', *Voennyi sbornik* (9, 1876): 89-128; (4, 1877): 273-296. Skobel'tsyn was a Guards cavalry officer and a graduate of the General Staff Academy. See also the article by the cavalry commander, Novitskii, N. D. 'Zametki o boevoi naznachenii i obuchenii kavalerii', *Voennyi sbornik* (3, 1876): 61-68.

^{104.} Sukhomlinov, Vospominaniia: 13-14.

^{105.} RGVIA, F. 401, op. 5, d. 350, ff. 1-2v. 'Journals of the Military Scientific Committee'. No 1. 26 Jan. 1874'.

^{106.} Sukhotin, N. 'Nabeg letuchogo otriada za Vislu. Epizod iz kavaleriiskikh manevrov', Voennyi sbornik (11: 125-153; 12: 365-398, 1876).

advance of Major General I. V. Gurko in Bulgaria in 1877.¹⁰⁷ During this war, the American observer, Lieutenant Francis V. Greene, was frequently asked by Russian officers about the raids during the Civil War.¹⁰⁸

It was only later, in connection with the reform of 1882, that protests against this emphasis on cavalry raids were voiced. This reform transformed all hussar and uhlan regiments - except the Guards - into dragoons. It also stipulated that all the Russian cavalry should be armed with rifles and bayonets instead of lances in order to increase the firepower of the cavalry.¹⁰⁹ The reform was prepared during the 1870s, when the cavalry regulations were also amended, providing for dismounted training for first dragoons and, later, hussars and uhlans.¹¹⁰As we shall see, this line of thinking had strong support in the war planning section of the Russian War Ministry. The reform did much to improve the fighting strength of the cavalry as an independent branch of the army, although it was not fully put into practice. It clearly shows an effort to react to the changes, an effort that caused some attention and regard among military writers in Europe.¹¹¹ This development continued into the 1890s when a reaction set in and the focus shifted from dismounted action back to the traditional cavalry charge of cold-steel.¹¹²

It is clear that the Russian military writers debated almost all of the issues raised by the wars in 1859-71. However, there were a few noteworthy exceptions. One issue almost completely absent in the Russian military writing was the importance of industrial power in war – indicated by the American Civil War – or that wars could be protracted. In 1862, Glinoetskii noted that the North had to – and was also willing to – spend enormous resources on its army.¹¹³ Towards the end, when it was clear that the war was drawing to a close, he concluded that the Confederacy had run out of resources and could not be expected to hold out against the North.¹¹⁴ Likewise, E. I. Everts, noted that the Union army had a great advantage over the Confederacy in that the industry in the North had mostly been involved in fulfilling the

^{107.} McElwee, William. *The Art of War Waterloo to Mons.* (London: Weidenfeld and Nicolson, 1974): 334; Menning, *Bayonets*: 57-58.

^{108.} Greene, F. V. *The Russian Army and its Campaigns in Turkey in 1877-78.* 2nd ed. (London: W.H. Allen and Co, 1880): 453; O'Connor, 'The Vision of Soldiers': 278.

 ^{109.} Zaionchkovskii, Samoderzhavie: 136; Kersnovskii, Istoriia: Vol. 3: 18-21; Sukhomlinov, Vospominaniia:
 29, 52-53; Menning, Bayonets: 145-46. Kersnovskii called the reform a 'knockout blow for the Russian cavalry.'

^{110.} Menning, *Bayonets*: 45-46; Zaionchkovskii, *Voennye reformy*: 207.

^{111.} Anon. Was haben wir von der russische Kavallerie zu erwarten? (Hannover: Helwing'sche Verlagsbuchhandlung, 1884).

^{112.} Menning, *Bayonets*: 146. Nevertheless, the American officer who observed the manoeuvres at Krasnoe Selo in 1897 praised the flexible performance of the cavalry and noted that the Russians seemed to have understood the true rôle of cavalry better than either the Germans, the French, or the English. Miles, Nelson A. *Report of Major-General Nelson A. Miles of his Tour of Observation in Europe*. (Washington: Government Printing Office, 1899): 50.

^{113.} Glinoetskii, N. P. 'Voennoe obozrenie', Voennyi sbornik (2, 1862): 544

^{114.} Glinoetskii, N. P. 'Inostrannoe voennoe obozrenie', Voennyi sbornik, (10, 1864): 194.

needs of both army and fleet.¹¹⁵ But nowhere is there any indication of a deeper understanding of this phenomenon. This lesson was largely overlooked by other European armies as well. In Prussia, the military writer, Justus Scheibert, was one of the few to interpret the Civil War as a product of the industrial age, but it was not generally recognized until the end of the century.¹¹⁶ In fact, the Prussian victories suggested that wars could be short, and that a large, well-trained army could win wars very rapidly.

Another issue that did not draw much attention in the military press was the organization of the rear. Armies and theatres of war had grown in size, and railways had speeded up the mobilization and concentration of the troops. All this indicated that the planning of transport and supply had to be carried out in peacetime in much greater detail than before. It was an area of military planning that, so it seemed to the Russian military writers, had become more difficult that before, in spite of the railways.¹¹⁷ The military use of railways lay, above all, in their strategic importance.¹¹⁸ Not even the Prussians performed very well in supplying their troops, and this was the only area where they did not receive their usual praise.¹¹⁹ The observer, Cavalry Captain Prince E. N. Meshcherskii, was highly critical of the Prussians on the grounds that requisitions undermined the discipline of the troops.¹²⁰

The lack of public debate about the importance of the *Intendance* does not mean that the Russian army was unaware of it. Two officers were sent to the Prussian army with the specific task of studying the organization of the rear in the Prussian army.¹²¹ In spite of this, M. Gazenkampf later complained that information about food supplies in the 1870-71 war was very fragmentary.¹²² In 1872, the War Ministry appointed a commission, headed by Adjutant-General A. A. Nepokoichitskii, in order to work out new regulations for the organization of the rear.¹²³ War Minister D. A. Miliutin would later claim that it was the Franco-Prussian war that

^{115.} Everts, E. 'Voennye deistviia pod Charl'stonom s 1861 po 1865 g.', Voennyi sbornik (8: 1867): 185.

^{116.} Luvaas, *Military Legacy*: 74, 137. It was I. S. Bliokh, at the turn of the century, who first made a thorough study of the economic implications of war, although he thought that all production would come to a halt during a future war since all the productive forces would be out fighting. Bliokh, I.S. *Budushchaia voina v tekhnicheskom, ekonomicheskom i politicheskom onosheniiakh.* 6 vols. (St. Petersburg: Tipografiia I. A. Efrona, 1898): Vol. 6: 162-192, esp. 175. See also Howard, Michael. 'Men Against Fire: Expectations of War in 1914', in *Military Strategy*, edited by S. E. Miller, et al.: 3-7; Zhilin, *Russkaia voennaia mysl*': 99-106.

armiiakh', Voennyi sbornik (10, 1875): 282.

^{118.} For a detailed discussion on this issue, see Chapter 5. The military writers were unanimous in their opinions on railways. See, for instance, Annenkov, Michail Nikolaevich. 'O primenenii zheleznykh dorog k voennomu delu', *Voennyi sbornik* (12, 1866): 329-352; Annenkov, M. N. *Voina 1870 goda. Zametki i vpechatleniia russkogo ofitsera*. (St. Petersburg: Obshchestvennaia pol'za, 1871). Dragomirov, *Ocherki*: 229-231; Leer, *Publichnye...do Sedana*: 258-59; Leer, *Publichnye...do kontsa voiny*: 360-363; Mau, N. 'Vliianie zheleznykh dorog na uspekh voiskkovykh peredvizhenii', *Voennyi sbornik* (8, 1872): 293-318.

^{119.} 'Polevaia intendantskaia chast' v prusskoi armii (S teatra voiny)', Russkii invalid, 8 Nov. 1870.

^{120.} RGVIA, F. VUA, d. 1328, ff. 238v-239. 'Meshcherskii to the War Minister. Orbais, 29 Aug/10 Sept. 1870'.

^{121.} Colonel Barkman and Colonel Tsurmilen.

^{122.} Gazenkampf, 'Prodovol'stvie voisk', *Voennyi sbornik* (11, 1875): 197.

had prompted the appointment of the commission since the war 'provided us with valuable information' in this area. The commission did not finish its work until 1876. Miliutin blamed the commission for working so slowly that no provisions for a better organization of the rear services had been put in place in time for the Russo-Turkish War.¹²⁴

In some cases, purported lessons were not so much lessons learned from the wars, as arguments used in the current domestic political debate. A particularly illustrative example was when N. P Glinoetskii portrayed the American military organization in a positive light. The general attitude in European armies towards the American military organization was one of contempt. Colonel Romanov observed that the United States had spent very little money on its armed forces. Now the economy had to change and supply large sums of money for the war. He asked: 'Is it possible to make war only with money, without properly trained troops and knowledge of military science?'¹²⁵ At the bottom of this lay a European scepticism towards militia forces and a strong belief in a standing army. All the more surprising, therefore, when Glinoetskii in 1862 looked to the United States as an example to follow. He noted that 'the new fashion to fight wars requires large armies', but since this was expensive it was necessary to find a way to increase standing armies without spending more money:

[Today] it would be easy to train a citizen to become a soldier in the permanent army, especially if he has had some experience of serving in the militia, the volunteer forces, or the national guards, and provided he is trained by good and experienced commanders. The best example of this is America where ... in spite of the most unfavourable conditions, quite good armies have been created.¹²⁶

He suggested that it might be possible to reduce the standing army in peacetime in favour of increasing the reserve forces. When the war was over, Glinoetskii wrote respectfully about the power and experience of the Union army, and predicted that it would come to play an important role in international affairs in the years to come.¹²⁷ Glinoetskii's support for an increased reserve force was not a lesson learned from the Civil War, but it illustrates well how the issue of increasing the reserve was used as a lesson in order to give it extra weight in the political debate. Rather, this was a lesson of the Crimean defeat and, as we have seen, Miliutin had already sketched out these plans in 1856 when he served as a member of the 1855 commission chaired by General F. V. Rüdiger.¹²⁸

^{123.} Bogdanovich, *Istoricheskii ocherk*: Vol. 6: 163-164.

^{124.} RGB OR, F. 169, k. 16, ed. khr. 3, f. 151. 'Memoirs'. 1870-71.

^{125.} Glinoetskii, N. P. 'Voennoe obozrenie', *Voennyi sbornik* (9, 1861): 244-45; RGVIA, F. 453, op. 1, d. 342, f. 4v. 'Extract from the letter by Lieutenant-Colonel Romanov, New York 5 Oct. 1861, Observations of the Military Operations on the Potomac'.

^{126.} Glinoetskii, N. P. 'Voennoe obozrenie', Voennyi sbornik (1, 1862): 267

^{127.} Glinoetskii, N. P. 'Inostrannoe voennoe obozrenie', *Voennyi sbornik* (5, 1865): 116-117.

^{128.} RGB OR, F. 169, k. 22, ed. khr, 29, ff. 7-7v. 'Thoughts on the Existing Disadvantages in the Russian Military System and on the Measures for Their Elimination'. 29 March 1856.

4.3 Studying Foreign Wars at the General Staff Academy

4.3.1 The Theory and Practice of Educating General Staff Officers

The General Staff Academy was founded in 1832 with the participation of General Antoine Henri Jomini, who had left Napoleon and transferred his services to the Tsar.¹²⁹ He envisioned a military academy with emphasis on theoretical subjects like tactics, strategy, military statistics, and military history. However, practical exercises in the form of parade ground drill prevailed and came to dominate the first decades of the Academy. When the young N. N. Obruchev met Jomini in Paris in 1864, he was met with the question: 'Your Academy, is it really an academy or simply a school?¹³⁰ The report does not reveal what Obruchev answered, but in the mid-60s the Academy embarked on a balancing act between more practical knowledge, represented by 'staff rides' and war games, and more theoretical knowledge, principally represented by military history and strategy. War games were played on maps using small metal pieces to represent the troops. Two adversary units played against each other under the supervision of an umpire, whose role was vital to the game and whose instructions could not be contradicted.¹³¹ The 'staff ride' was a war game conducted on the ground and was 'the ultimate war game test'.¹³² It differed from a field exercise in that it involved only a rather small group of General Staff officers, some line officers, and no troops. The purpose was to prepare officers for war time duties and acquaint them with the actual terrain of either an historic battle or of a possible future theatre of war. In Russia, the staff rides took place in the border areas.¹³³

^{129.} His son, Aleksandr Genrikovich (1814-1888), was a senior official of the Russian Foreign Office through the 1870s and 1880s. On the development of the Academy, see Glinoetskii, N.P. Istoricheskii ocherk Nikolaevskoi Akademii General'nogo shtaba. (St. Petersburg: Shtab voisk gvardii i Peterburgskogovoennogo okruga, 1882) which is official in its tone but, nonetheless, contains a wealth of facts. More recent studies are: Steinberg, John W. 'The Education and Training of the Russian General Staff: A History of the Imperial Nicholas Military Academy 1832-1914'. PhD, Ohio State University, 1990. van Dyke, Carl. Russian Imperial Military Doctrine and Education 1832-1914. (Westport, CT: Greenwood Press, 1990). On Jomini see for instance Shy, John. 'Jomini', in Makers of Modern Strategy from Machiavelli to the Nuclear Age, edited by P. Paret. (Oxford: Clarendon Press, 1986): 143-185; Strachan, European Armies: 60-75.

^{130.} RGVIA, F. 544, op. 1, d. 615, ff. 16v-17. 'Obruchev to Leont'ev. 6 Oct. 1864'. There is no study devoted to Jomini's influence in Russia, but it is usually perceived - probably rightly so - to have been great. But in the 1860s, Jomini's position as a leading military thinker was in decline both in Russia and elsewhere. Miliutin remarked in his memoirs that when Jomini died in 1869, at the age 90, his intellectual ability had weakened and, with a stain of bitterness, he noted that Jomini had advised the Tsar about how damaging it would be for Russia to build strategic railways. RGB OR, F. 169, k. 16, ed. khr. 2, f. 94v. 'Memoirs'. 1868-69.

^{131.} 'Voennaia igra', Leer, G.A., ed. *Entsiklopediia voennykh i morskikh nauk*. 8 vols. (St. Petersburg, 1883-97): Vol. 2: 199-200; Skugarevskii, A. 'Prakticheskiia zaniatiia po taktike', *Voennyi sbornik* (2, 1873): 259-290; Skugarevskii, A. 'Voennaia igra, ee literatura i znachenie', *Voennyi sbornik* (1, 1874): 59-70; Skugarevskii, A. *Voennaia igra. Sbornik zadach*. (St. Petersburg, 1874): 1-4.

^{132.} Bucholz, Arden. *Moltke, Schlieffen, and Prussian War Planning*. (New York: Berg Publishers, Inc., 1991): 34. See also Irvine, Dallas D. 'The French and Prussian Staff Systems before 1870', *The Journal of American Military History Foundation* 2 (4, 1938): 195.

^{133.} Otchet o polevoi poezdke partii ofitserov komendirovannykh ot glavnogo shtaba v 1871. (St. Petersburg: Voennaia tipografiia, 1871): 3-4.
Officers with four years of service, at least two of which had been in line duty, could apply to the Academy. Each had to sit two competitive examinations; the first in the military district in which he served and, if successful, the second in the Academy in St. Petersburg. One could then enter the Academy for two years of general courses. The advancement from one year to the next was based on merit only; that is, exam results. After graduation, it was the rank with-in the class that determined whether or not the officer would be allowed to join the General Staff or not. In practice, the graduates were so few and the requirement of data gathering and planning so great that a majority went to the General Staff. According to Beskrovnyi, whose figures cover the period 1852-1882, 903 of 1,329 graduates continued to the General Staff.¹³⁴ In the 1890s, it was decided that half of the graduates should be admitted to the General Staff.

In 1869, a third year (actually, six months) was added to the General Staff education with the intention that the officers should apply their knowledge to specific military problems.¹³⁵ Each officer should prepare two oral presentations - one related to military history, the other to military art/science - and one written paper on a subject involving strategy, military statistics, and military administration. From 1871 onward, the third-year General Staff students also took part in the war games and staff rides that were introduced that year, and to which we will return in this chapter. Thus, the third year incorporated a deepening of both the theoretical and practical work.

In theory, the Russian General Staff Academy adhered to the same principles as the Prussian *Kriegsakademie* – it was open and based on merit – and graduates could be sent back to serve in the line rather than automatically entering the General Staff. In France, the General Staff system was closed; that is, graduates of the staff school were appointed permanently to staff service and promotions were almost exclusively based on seniority.¹³⁶ The similarities between the Russian and Prussian General Staff education were, however, largely theoretical. In practice, there was a fundamental difference. Lieutenant-General Aleksandr Karlovich Baumgarten (1815-1883), Commandant of the General Staff Academy 1858-1862, pointed out that the line service requirement was not always fulfilled in Russia, whereas in Prussia, it was followed rigorously.¹³⁷ He attributed this to the lack of a sense of duty among Russian officers which, in turn, originated from the lack of mechanisms to enforce the regulations, but added with a sigh of resignation:

^{134.} Beskrovnyi, L.G. Russkaia armiia i flot v XIX veke. (Moscow: Nauka, 1973): 189.

^{135.} Glinoetskii, *Istoricheskii ocherk*: 237-242. Miliutin mentioned this in his memoirs. RGB OR, F. 169, k. 16, ed. khr. 2, f. 165.

^{136.} Mitchell, Allan. Victors and Vanquished: the German Influence on Army and Church in France after 1870. (Chapel Hill: University of North Carolina Press, 1984): 82-92; Irvine, 'The French and Prussian': 200-201.

^{137.} RGVIA, F. 544, op. 1, d. 566, f. 4. 'Lieutenant-General Baumgarten to the Staff of the Military Educational Institutions'. 13 Aug. 1862.

No matter how much we demanded that the commanders write certificates for the officers wanting to enter the Academy, they would always look at it as a mere formality. 138

He also noted that the Russian General Staff Academy had the explicit goal of educating officers to serve in the General Staff and, therefore, found the Prussian concept of a 'military university' too broad for its purposes. Under the influence of G. A. Leer, that was to change towards the end of the century.¹³⁹

The founding father of the Prussian War Academy, Gerhard von Scharnhorst, had pioneered military education in Prussia in the wake of the Prussian defeat against Napoleon at Jena. Scharnhorst taught at the Academy and introduced not only staff rides and war games but the study of military art through the examples provided by military history. Among the students were Clausewitz, who later noted that Scharnhorst had taught 'war as it really was' (*den eigentlichen Krieg*). This so called applicatory method essentially meant learn by doing, but it is important to stress that is was as much a mental exercise as it was an exercise in practical operations.¹⁴⁰ After years in decline, the ideas of Scharnhorst were revitalized in Prussia by General Verdy du Vernois, to whom we will return.¹⁴¹ This had little in common with the French applicatory method (used at the *Ecole d'application d'état major* in Paris) that the academic committee of the Russian General Staff Academy dismissed in 1864 based on Obruchev's report. The academic committee noted that the scientific considerations in the French applicatory school were highly 'superficial and fragmentary' and, therefore, of little

^{138.} RGVIA, F. 544, op. 1, d. 566, f. 4v.

^{139.} RGVIA, F. 544, op. 1, d. 566, ff. 15v-16; F. 401, op. 5, d. 345, f. 135. 'Journals of the Military Scientific Committee'. No 13, 31 Oct. 1869. See also 'Academies, Military', in Jones, David R., ed. *The Military-Naval Encyclopedia of Russia and the Soviet Union*. (Gulf Breeze, Florida: Academic International Press, 1978-): Vol. 1: 126-127

^{140.} Clausewitz quoted in Hornung, Klaus. Scharnhorst: Soldat, Reformer, Staatsman. (Munich: Bechtle, 1997): 91. Other useful sources on Prussian military education and the role of Scharnhorst are, for instance, Bucholz, Moltke, Schlieffen: 29; Goerlitz, Walter. History of the German General Staff. Translated by Brian Battershaw. (Boulder: Westview Press, 1985): 19-20; Hahlweg, Werner. 'Das Clasewitzbild einst und jetzt', in Carl von Clausewitz: Vom Kriege. (Bonn: Dümmler, 1991): 28-29; Huntington, Samuel P. The Soldier and the State: The Theory and Politics of Civil-Military Relations. (London: The Belknap Press of Cambridge University Press, 1957): 39-46. Paret, Peter. Clausewitz and the State. (Oxford: Clarendon Press, 1976): 65-74; Paret, Peter. 'Clausewitz', in Makers of Modern Strategy, edited by P. Paret: 186-213; Paret, Peter: 'The Genesis of On War', in Carl von Clausewitz: On War, edited by P. Paret and M. Howard. (London: Everyman's Library, 1993: 9-10; Ritter, Gerhard. Staatskunst und Kriegshandwerk. 4 vols.(München: Verlag R. Oldenbourg, 1959-1968): Vol. 1: Chapters 3-4. White, Charles Edward. The Enlightened Soldier: Scharnhorst and the Militärische Gesellschaft in Berlin, 1801-1805. (New York: Praeger, 1989): 87-113. For French military education, see, for example Griffith, Paddy. Military thought in the French army, 1815-51. (Manchester: Manchester University Press, 1989): Chapter 8; and, briefly, in Cox, Gary P. The Halt in the Mud: French Strategic Planning from Waterloo to Sedan. (Oxford: Westview Press, 1994): 45-51. See also Airapetov, O. R. 'N. N. Obruchev. Zabytaia kar'era "russkogo Mol'tke"', Manuscript, 1996: 50-51, and van Dyke, Russian Imperial Military Doctrine: 59-60.

^{141.} Wilkinson, Spenser. *The Brain of an Army: A Popular Account of the German General Staff.* 2nd ed. (London: Archibald Constable and Co, 1895): 187.

use to Russian General Staff education.¹⁴² Instead, the source for military intellectual inspiration was found in Prussia.

The first two years at the Russian General Staff Academy entailed both general and military subjects. The category of main subjects included: tactics, strategy, military history, military administration, and geodesy with cartography. Subsidiary subjects included Russian and foreign languages, engineering and artillery studies, and political history, with some reference to international law.¹⁴³

4.3.2 The Curriculum

The impact of the wars (that is, the Franco-Austrian in 1859, the American Civil War, and the Wars of German unification 1864, 1866, and 1870-71) on the General Staff Academy's curriculum was immediate. The impact can also be seen in the library and in the discussions within the academic committee whose yearly accounts began to be published in 1863.¹⁴⁴ How, then, were the wars reflected in the courses and the library?

All of the wars, except for the Danish War in 1864, entered the curriculum in one way or another. The Austro-French War of 1859 was incorporated in the curriculum to study, above all, the significance of railways as lines of communications and the significance of the electric telegraph. The battles of Solferino and Magenta were particularly studied in the tactics course as examples of unplanned battles (*sluchainye srazheniia*).¹⁴⁵ The American Civil War appeared in the strategy course of 1865 illustrating 'the influence of technology on coastal attacks and defence'.¹⁴⁶

From 1867, A. E. Stankevich, Professor of Military History, lectured about the American Civil War, giving particular attention to the organization of the Union army, the use of railways and the telegraph.¹⁴⁷ In fact, extra time was added to the military history course in 1867 explicitly in order to provide time for the study of the Civil War.¹⁴⁸ This put the Russian army

 ^{142.} Otchet o zan**a**iatiiakh konferentsii Nikoaevskoi Akademii General'nogo Shtaba v techenii uchebnogo 1863-64
 g. (St. Petersburg: V. Spridonov, 1864): 17, 35.

^{143.} Svod voennykh postanovlenii 1869, (hereafter: SVP) Pt. 4, Voennye zavedeniia, Bk. 15, Zavedeniia voennouchebnye, art. 50.

^{144.} A summary of the accounts were regularly published at the beginning of each year in *Voennyi sbornik's* Russian military section, which pertained to Russian military developments.

^{145.} Programmy kursa Nikolaevskoi Akademii General'nogo Shtaba. (St. Petersburg: Eduard Veimar, 1865): 10.
^{146.} Ibid., 17.

^{147.} Afanasii Evlampievich Stankevich (1834-1881) was appointed professor of military history at the Nicholas Academy of the General Staff in 1862. See *RBS*: Vol. 19: 319-20.

^{148.} Programmy kursa Nikolaevskoi Akademii General'nogo Shtaba. (St. Petersburg: Eduard Veimar, 1865): 17; Otchet o zanaiatiiakh konferentsii Nikoaevskoi Akademii General'nogo Shtaba v techenii uchebnogo 1865-66 g. (St. Petersburg: Eduard Veimar, 1867): 10; Otchet o zanaiatiiakh... 1866-67 g. (St. Petersburg: A. Iakobson, 1867): 15; Otchet o zanaiatiiakh... 1867-68 g. (St. Petersburg: A. Iakobson, 1869): 13.

well in line with the French and British Academies where lectures on the American Civil War started at around the same time, whereas it never appeared on the curriculum of the Prussian War Academy.¹⁴⁹ Initially, Stankevich devoted his lectures to Grant's campaigns of 1862, illustrating the 'features of the organization of the American army, the importance of railways and telegraphs and, finally, river and sea communications'. Later, he added Sherman's campaign of 1864 to his lectures.¹⁵⁰ In 1870, the military history course of the second year comprised eight lectures on the American Civil War and twelve on the Austro-Prussian.¹⁵¹ In 1871, ten lectures were devoted to the Civil War and there was a remarkable increase in lectures devoted to the campaign of 1830-31, which had forty-nine lectures increased to fifty-two.¹⁵³ This was to change again and, in 1873, there were twenty-six lectures about Poland 1830-31, twenty-four lectures on the 1866 campaign, and sixteen lectures on the Franco-Prussian War.¹⁵⁴The American Civil War had disappeared from the military history course.

No other war, however, made a stronger impact on the curriculum than the Franco-Prussian. According to the yearly accounts from the Academy and the course programme from 1878, this war dominated the entire curriculum.¹⁵⁵There was still some room for the American Civil War, however. It was studied during the 1870s in relation to both strategy and engineering tactics, above all, in illustrating hasty fortifications and entrenchments.¹⁵⁶ The war of 1859 seems to have disappeared from the curriculum.

Furthermore, the new wars clearly made an impact on the students at the Academy. Of the themes chosen by the third-year students for the presentation in military history in 1870-71, seven themes were dedicated to the most recent wars, that is, from 1859 onwards. Twelve themes concerned the Napoleonic Wars and six dealt with the period 1828-55.¹⁵⁷ These figures remained more or less constant throughout the first half of the 1870s. Even more compelling is the choice of theme for the military science presentation. In 1871-72, these presentations dealt with issues of quick-firing artillery, the military telegraph, the importance

^{149.} Luvaas, *Military Legacy*: 101, 144,137. One(most likely apocryphal) story has it that Moltke said about the Civil War that this war was only a matter of 'two armed mobs chasing each other around the country'. No one - it seems - has ever documented Moltke's alleged statement. Even if Moltke was not particularly impressed with what he saw, it does not mean - as Luvaas has shown - that the war was ignored in Europe.

^{150.} Otchet o zanaiatiiakh...1869-70 g. (St. Petersburg: A. Iakobson, 1871): 22.

^{151.} A lecture lasted 1.5 hours.

^{152.} Otchet o zanaiatiiakh...1871-72 g. (St. Petersburg: Tipografiia Morskogo ministerstva, 1873): 5.

^{153.} Otchet o zanaiatiiakh...1870-71 g. (St. Petersburg: A. Iakobson, 1872): 4-5

^{154.} Otchet o zanaiatiiakh...1872-73 g. (St. Petersburg: A. Iakobson, 1873): 5-6.

^{155.} Otchet o zanaiatiiakh...1871-72 g.: 6.

^{156.} Programmy kursa Nikolaevskoi Akademii General'nogo Shtaba. (St. Petersburg: Obshchestvennaia pol'za, 1878): 21, 58-60.

^{157.} Otchet o zanaiatiiakh...1870-71 g. (St. Petersburg: A. Iakobson, 1872): 25.

of fortresses, cavalry, field fortifications, and field defences – all in the light of the experiences of the Prussian victories in 1866 and 1870-71.¹⁵⁸

This dominance of contemporary wars demonstrates a willingness to learn from foreign wars. Although it could be argued that the students chose the latest campaigns because there was less material – and consequently – less reading to do, there was also a risk involved. The lessons of these wars were far from clear and some of them controversial, as we have seen. So for a young, rising, officer it could have seemed safer not to risk his career by reaching the 'wrong' conclusions. In addition, these were, after all, foreign wars and normally one would assume that the Russian campaigns would be the first choice for students.

It was not only within the walls of the Academy that the wars of 1866 and 1870-71 resounded. In 1866, public lectures were introduced, starting with M. I. Dragomirov's lectures on the lessons of the Austro-Prussian War.¹⁵⁹ The lectures were considered so successful that it became a regular event in the life of the Academy.¹⁶⁰ In 1870-71, G. A. Leer held public lectures about the ongoing war and, later, one of the observers during the war, L. L. Zeddeler, gave much publicized lectures at the Academy.¹⁶¹ In due course, the other Academies (the Artillery Academy and the Engineering Academy) followed suit. The lectures were held in the evening during the winter. They were not mandatory for the Academy students. Not all of them were public and the War Minister, D. A. Miliutin, urged the Academy to organize more public lectures.¹⁶²

Not all of the lectures were as popular as Dragomirov's in 1866, which allegedly attracted 300 to 500 listeners, or Leer's and Zeddeler's, whose lectures were attended by Alexander II, but these lectures represented something distinctly new in Russian military life. After Leer's lectures, the academic committee noted that they had a tremendous impact on Russian 'military society' (*voennoe obshchestvo*) and 'should undoubtedly make the audience understand ... the important value and practical use of the study of military history'.¹⁶³ But the benefit for the military was only one side of the coin. By making many of the lectures public, certain sectors of society were invited to get a glimpse of military affairs, and – surely this was the intent – a greater understanding of the army.

^{158.} Otchet o zanaiatiiakh...1871-72 g.: 28.

^{159.} Dragomirov, Ocherki.

^{160.} Glinoetskii, Istoricheskii ocherk: 309f.

^{161.} Abridged versions of Leer's lectures were published in the military newspaper *Russkii invalid* during the winter of 1870-71 and then published in two separate volumes. For Zeddeler's lectures, see Zeddeler, 'Pekhota, artilleriia i kavaleriia'.

^{162.} Otchet o zanaiatiiakh...1870-71 g. (St. Petersburg: A. Iakobson, 1872): 45.

^{163.} Ibid., 44-45.

A comparison of the entrance tests from 1865 and 1876 reveals that the most striking difference (apart from the fact that in 1876 there is a recommended reading list, whereas in 1865 the applicants simply referred to notes from the military schools) was that both French and German were mandatory tests.¹⁶⁴There was also an increasing pressure to know English. In 1866, the academic committee, much concerned with the poor knowledge of languages in general, set up a voluntary course in English in extra-curricular time.¹⁶⁵

4.3.3 The Library

It should be noted that several improvements were made to the library during the 1860s. A reading room was created and, between 1866 and 1873, 3000 new volumes were acquired. Old books were given to public libraries and library catalogues began to be published.¹⁶⁶

A brief look at the contents of the Academy library can explain why German had become absolutely crucial for the future General Staff officers. The library's collection of books regarding military history and, above all, military science in German increased more than the holdings in Russian, French, or any other language between 1866 and 1887. Military science included books on strategy, tactics and regulations. The number of titles in German on this subject increased by 505 titles between 1866 and 1887. The number of French titles increased by 260, and Russian titles increased by 161.¹⁶⁷

	Military history			Military science		
	1866	1873	1887	1866	1873	1887
Russian	133	195	378	107	173	268
French	379	518	238	316	393	576
German	279	443	314	380	558	885
Other	37	75	99	104	109	109

Holdings of the General Staff Academy Library by Language 1866-1887

TABLE 3

^{164.} Programma dlia ispytaniia ofitserov postupaiushchikh v Nikolaevskoi Akademii General'nogo Shtaba. (St. Petersburg: Eduard Veimar, 1865); Programma dlia ispytaniia ofitserov postupaiushchikh v Nikolaevskoi Akademii General'nogo Shtaba. (St. Petersburg: Obshchestvennaia pol'za, 1876): 71.

^{165.} The conference of the Academy noted that knowledge of English would be useful for every General Staff officer, especially the geodesist, because of the wealth of books in English relating to physics and mathematics.

^{166.} Glinoetskii, Istoricheskii ocherk: 298; Kvitnitskii, Katalog biblioteki Nikolaevskoi Akademii General'nogo Shtaba. 1 ed. (St. Petersburg: Eduard Veimar, 1866); Vil'k, Katalog biblioteki Nikolaevskoi Akademii General'nogo Shtaba (1866-1873). (St. Petersburg: Tip. Morskogo ministerstva, 1873); Shevelev, A. Sistematicheskii katalog biblioteki Nikolaevskoi Akademii General'nogo Shtaba (1873-87). (St. Petersburg: Tipografiia Trenke i Fiusno, 1887).

^{167.} Kvitnitskii, *Katalog biblioteki*: 3-83; Vil'k, *Katalog biblioteki*: 3-54; Shevelev, *Sistematicheskii katalog*: 19-40. See also Rich, David A. 'The Professionalization of Russia's General Staff 1870-1895: Ideas, Strategy, and Foreign Policy'. Ph.D., Georgetown University, 1993: 55.

If we break down the military history figures and look at books related to the wars that concern us, we find - hardly surprisingly - that the Franco-Prussian War attracted the greatest interest.

Even more interesting is the fact that not only did the Academy acquire a large number of French and German books about the war, but the Russian officers produced several original studies on the subject. Table 4 illustrates the number of titles in the library in Russian in con-

TABLE 4	Library Holdings in Military History. Books in Russian/Total Holdings by Wars.						
		1859	1861-65	1864	1866	1870-71	
	1866	2 /12	1/4	-/3	-	-	
	1873	2/18	5/30	1/8	2/61	3/98	
	1887	2/18	6/40	1/9	3/71	8/196	

trast to those in any other language; that is, German, French, and English. The figures may not look very impressive from a Russian point of view, but it should be remembered that less than a quarter of the total library holdings were in Russian initially.¹⁶⁸ Two years after the Franco-Prussian War had ended, three studies by Russian officers had been published. This could be compared with the five titles on the American Civil War, where only one was a Russian study,¹⁶⁹ the rest being translations. It is also interesting to note that none of the English titles in 1866 related to the American Civil War, whereas seven years later there were sixteen English titles about the war.

It needs to be stressed that the library catalogues cannot reveal what the General Staff officers actually read, but at least they give a good indication of where the Academy's interests lay.

4.3.4 The Role of Military History and the General Staff

We have seen that military development of the 1860s pointed towards the need to make preparations for war in peacetime. War planning is a process which involves many aspects. In short, the maxim of Vegetius 'if you want peace, prepare for war' covers much more than simply acquiring weapons. According to the historian Arden Bucholz, the Prussian war planning process consisted of four segments: organizational, representational, educational, and analytical.¹⁷⁰ Bucholz's structure contains important features that can be used as tools, although it tends to neglect the role of individuals. In Russia, the will of the Tsar was still paramount, as we shall see. The use of military attachés to gain information about foreign armies,

^{168.} The Academy library contained a total of approximately 40,000 volumes. Glinoetskii, *Istoricheskii* ocherk: 298.

^{169.} A separate volume of E. Everts' articles first published in *Voennyi sbornik*, 1867. 'Voennye deistviia pod Charl'stonom s 1861 po 1865 g.' (8: 179-222; 9: 3-24; 10: 191-218, 1867).

^{170.} Bucholz, Moltke, Schlieffen: 12-17.

in Bucholz's terminology the 'representational' aspect, was briefly dealt with in the previous chapter. The overall role of military statistics in Russian war planning has been examined in detail by David Rich.¹⁷¹ The other aspects of war planning, the 'educational' aspect (military history) and the 'analytical (war games) are, however, two distinct features that also shaped early Russian war planning process and they will be considered here. This was a development clearly influenced by the events in Europe. The General Staff officer, A. P. Skugarevskii, recognized the increased importance of studying military history and summed up part of the problem of preparing an army for war when he wrote:

Military history gives a true picture of the actual battle. It provides material and supports theoretical conclusions; it is the source and verification of all practical exercises. ... The theoretical discussions and the practical exercises should together help in the independent search for actual facts.¹⁷²

Bucholz noted that military history became more and more important in Prussia, and this was true also in Russia.¹⁷³ It is no exaggeration to say that the importance of military history grew during the 1860s to such an extent that by the 1870s it was the cornerstone in Russian military science.¹⁷⁴ Two institutions were instrumental in this development: the General Staff Academy and the Consultative Committee – later renamed the Military Scientific Committee – within the Main Staff. We will begin with the former. Military history was important for two reasons. On the one hand, it served as a tool for comparing the current developments with the past. On the other hand, it was intended to encourage a coherent thinking on strategical and tactical issues. It is this reasoning that lay behind the substantial changes in the military history course and the strategy course offered at the General Staff Academy in 1832.¹⁷⁵ The preliminary work (before the decision was taken to change the military history course) had been conducted by a commission comprising four General Staff officers under the chairmanship of Major-General Petr Kononovich Men'kov, who also was editor of the military journal *Voennyi sbornik*.¹⁷⁶

^{171.} Rich, 'The Professionalization'.

^{172.} Skugarevskii, A. *Srazhenie pri Nakhode 27-go iunia 1866 g.* (St. Petersburg: Tip. V. Demakova, 1875): ii.
^{173.} Bucholz, *Moltke, Schlieffen*: 56, 77.

^{174.} Rich, 'The Professionalization': 55. See also Avdeev, V. A. 'Voenno-istoricheskie issledovaniia v russkoi armii', *Voenno-istoricheskii zhurnal* (3, 1986): 81-84. Avdeev, V. A. 'Voenno-istoricheskie issledovaniia v Akademii General'nogo shtaba russkoi armii', *Voenno-istoricheskii zhurnal* (12, 1987): 77-80. Leonidov, L. 'Iz istorii russkoi voenno-istoricheskoi mysli 60-kh godov XIX veka', *Voenno-istoricheskii zhurnal* (10, 1973): 95-100. Airapetov, 'Zabytaia kar'era': 66-67.

^{175.} Soobrazheniia po peresmotru kursov i uchenykh zaniatii v Nikolaevskoi Akademii General'nogo Shtaba. (St. Petersburg: V. Spirodonov, 1865). The results of this were also published in *Voennyi sbornik*, 'Russkoe ovennoe obozrenie', (4, 1865): 138-154. The new curriculum is described in *Voennyi sbornik* (1, 1866): 32-54, and (2, 1866): 161-192.

^{176.} A printed version of the commissions deliberations are kept in RGVIA, F. VUA, d. 18068, ff. 449-479. 'Material Regarding the Review of the Courses at the Nicholas Academy of the General Staff'. 1865. In 1869, P. K. Men'kov (1814-1875) also became the editor of *Russkii invalid* when the editorship of the newspaper and the journal merged.

The new military history course was divided into two parts: (1) the art of warfare (*voennoe iskusstvo*), and (2) the study of campaigns (*izuchenie kampanii*). The first part was to aim at showing the influence of contemporary conditions on the art of warfare, and the second part was to contain a critical examination of two or three campaigns instead of the previous accounts of one war after another. The strategy course was to consist of two parts also: (1) a historical survey of the influence of different factors on warfare, and (2) a synthesis of the different factors, with particular attention to the executive and mechanical side of military operations. It was emphasized that the course should have a practical direction without dogmatism and abstract theories. The two courses were interrelated and were to be developed in close cooperation with each other. The academic committee of the Academy later stated that the changes were a direct response to the new demands on the General Staff.¹⁷⁷ Furthermore, it was stressed that military historical works had to be provided with bibliographical notes - a small but vital indication that the attitude towards military history was changing towards a more scientific approach.

G. A. Leer was responsible for these changes. In 1867, he made a study trip to the War Academy in Berlin, and there can be no doubt that he was inspired by Prussia.¹⁷⁸ Leer hailed the way the Prussians valued and taught military history.¹⁷⁹ As the founder of the 'critical-historical' school in Russian military thought, Leer has been accused of being too preoccupied with abstract theories. The essence of his critical-historical method was to search for the eternal laws of warfare by choosing the appropriate examples in military history. It was important to choose facts closest in time to the period studied.¹⁸⁰ The view that military science could be studied through the prism of military history was essentially the same approach advocated by Scharnhorst half a century earlier in Berlin.

However, Leer criticized the War Academy in Berlin for not having a course in strategy although 'a theory of strategy is entirely possible'.¹⁸¹ In his search for this theory, he differed from Prussian thinkers, not least Clausewitz himself. Nevertheless, Clausewitz had some influence on Leer, which can be seen in Leer's emphasis on the psychological aspects of warfare and in his efforts to explain the relationship between strategy and politics.¹⁸²

^{177.} Otchet o zanaiatiiakh...1871-72 g.: 2.

^{178.} During this trip, he also met General Moltke in Berlin. 'Genrikh Antonovich Leer', *Russkaia starina* (3, 1894): 238.

^{179.} Leer, G. 'General'nyi shtab i ego komplektovanie v Prussii i vo Frantsii', *Voennyi sbornik* (11, 1868): 49-74; (12, 1868): 343-372.

^{180.} Leer, G.A. 'Znachenie kriticheskoi voennoi istorii', *Voennyi sbornik* (5, 1863): 82.; Leer, *Opyt*: vi.

^{181.} Leer, 'General'nyi shtab', (11, 1868): 72-73.

^{182.} See, for example, Leer, *Opyt*: 1-3, 18-25. See also van Dyke's discussion, where he makes an effort to show a direct link between Leer's *Opyt* and Clausewitz's *On War*: *Russian Imperial Military Doctrine*: 68-73. A recent study examines the influence of Clausewitz in Russia. Rose, Olaf. *Carl von Clausewitz*: *Wirkungsgeschichte seines Werkes in Rußland und der Sowjetunion 1836-1991*. (Munich: R. Oldenbourg Verlag, 1995): esp. 11-84.

The academic committee noted that Leer's observations on military history in Berlin were particularly useful for Russia, especially the study of campaigns in greater detail, on a dayby- day basis. It was General Verdy du Vernois in Berlin who had revitalized this method in the study of military history.¹⁸³ He was well known in the Russian military establishment and had spent two year with the Russian army in Poland in 1863-65.¹⁸⁴ His writings and lectures later had an immediate influence on the young Staff-Captain Skugarevskii, who had been sent abroad by the Academy in 1871 to the military academies in Berlin and Vienna.¹⁸⁵ Skugarevskii, as we shall see, played an important role in introducing war games in Russia. At the same time, Leer pointed out that this method of teaching military history required better organized archives than Russia had and put large demands on the teacher.¹⁸⁶

The other institution where military history developed was the Consultative Committee within the Main Staff. With regard to historical writings, one of the main concerns of the Committee was the fact that other European armies took responsibility for the writing of military history whereas in Russia, a few individuals had produced works of 'only rarely serious quality'.¹⁸⁷ The Committee drew up a list of preferential subjects, including the Russo-Turk-ish War 1828-29, single battles from the Crimean War, the fighting against Shamil etc. Furthermore, to stimulate military historical writing, the Committee decided to reward monographs on certain wars and military administration, and to publish the best articles in *Voennyi sbornik*. The Committee also decided to support General Staff officers who wanted to write or translate military historical works or tactical works with an allowance ranging from 1,000 to 2,500 silver roubles. ¹⁸⁸

This was a major step forward, particularly in view of the fact that there was no official Russian account of the Crimean War, but Russian translations of the Prussian official history of the War of 1859, the Austrian and Prussian official accounts of the war of 1866, and the Prussian official history of the Franco-Prussian War. In Russia a special commission was created in 1879 to write the official history of the Russo-Turkish War.¹⁸⁹ This was the first war for which the Russians wrote an official history.

^{183.} Julius Verdy du Vernois (1832-1910), Prussian General and teacher at the *Kriegsakademie*. During the Franco-Prussian War, he was responsible for intelligence at the Prussian General Staff under Moltke. He was War Minister for a brief period in 1889-1890.

^{184.} Verdy du Vernois, Julius. *Im Hauptquartier der russischen Armee in Polen 1863-65*. (Berlin: Ernst Siegfried Mittler und Sohn, 1905). L. L. Zeddeler met him during the 1870-71 war and had been greeted by him in Russian. Zeddeler, 'Dvadtsat' piat' let nazad', (4, 1896): 125.

^{185.} He had been sent abroad specifically to learn German. When in Berlin, he attended Verdy de Vernois' lectures almost exclusively. His report from the six months trip between August 1871 and February 1872 is in RGVIA, F. 413, op. 1, d. 44.

^{186.} Otchet o zanaiatiiakh... 1867-68 g. (St. Petersburg: A. Iakobson, 1869): 13-14.

^{187.} N. O. 'Obzor deiatel'nosti soveshchatel'nogo komiteta general'nogo shtaba za 1864 i 1865 gg.', *Voen-nyi sbornik* (7, 1866): 50. See also Airapetov, 'Zabytaia kar'era': 59.

^{188.} N. O. 'Obzor deiatel'nosti': 51.

We noted earlier that the Danish War of 1864 never appeared in the curriculum at the General Staff Academy. However, two years after that war a study appeared in print written by General Staff officer, Captain Vladimir Nikitich Chudovskii. The book deserves mentioning not so much for its original ideas,¹⁹⁰ but because it was the first study about a recent war to be awarded prize money (350 roubles) by the Consultative Committee,¹⁹¹ which is an indication that the committee was not solely interested in Russian wars or wars in traditional areas such as the Caucasus.¹⁹²Furthermore, the Committee stressed the need to encourage writings not only about Russian wars but also about operations from the most recent wars 'in order to explain the contemporary art of warfare'.¹⁹³ One of the legacies of the work of the Committee - certainly appreciated by this historian - was the determination with which it decided to bring order to the military historical archive.¹⁹⁴

After the Prussian triumph in 1866, the Academy explicitly noted that the tasks of General Staffs in all European armies had become more and more varied.¹⁹⁵ The academic committee stressed that, therefore, it was vital to concentrate on a careful selection of officers for the General Staff. These officers should be provided with a more practical education. It was also important to develop a closer relationship between the troops and the General Staff. The committee worried about the fact that the Russian General Staff corps did not yet fully appreciate all of its responsibilities. In order to understand the growing importance of staff work, special attention should be given to the General Staffs of foreign armies.¹⁹⁶ The committee did not specify which 'foreign armies' it had in mind, but it is not too wild a guess to assume that the Prussian army was setting the example. For instance, it was surely no coincidence that G. A. Leer was sent to the *Kriegsakademie* in Berlin in 1867.

Furthermore, a number of articles in *Voennyi sbornik* compared the Russian General Staff system with foreign systems and called for reforms of the Russian system. These articles, written by graduates of the Academy, emphasized the need to improve the education at the General Staff Academy, to study recent campaigns, and to bring the General Staff officers closer to the

^{189.} A task it took over 20 years to complete, but finally resulted in the nine volume account Voenno-istoricheskaia kommissia glavnogo shtaba. *Opisanie russko-turetskoi voiny 1877-78 gg. na Balkanskom poluostrove.* 9 vols. (St. Petersburg: Voennaia tipografiia, 1901-13) and a special attachment, *Osoboe pribavlenie k opisaniiu russko-turetskoi voiny 1877-78 gg. na Balkanskom poluostrove* (1909-11).

^{190.} It was, above all, based on the book by the Prussian military historian, Wilhelm Rüstow, and the book by Count Waldersee, then artillery officer, later Chief of the Prussian General Staff (1888-91).

^{191.} Chudovskii, V. *Voina za Shlesvig-Golstein 1864 goda*. (St. Petersburg: Obshchestvennaia pol'za, 1866). It was one of three works rewarded by the Consultative Committee in 1865. See the Committee's journal in RGVIA, F. 401, op. 5, d. 342, f. 76, and N. O. 'Obzor deiatel'nosti': 64.

^{192.} Airapetov hastily drew such a conclusion based the list of prioritized themes from the first meeting of the Committee. Airapetov, 'Zabytaia kar'era': 59-60.

^{193.} RGVIA, F. 401, op. 5, d. 342, f. 55v. 'Journals of the Consultative Committee'. No 7, 1866.

^{194.} RGVIA, F. 401, op. 5, d. 342, f. 57v.

^{195.} Otchet o zanaiatiiakh...1866-67 g. (St. Petersburg: A. Iakobson, 1867): 18-19

^{196.} Ibid., 19; Glinoetskii, Istoricheskii ocherk: 270-71.

troops.¹⁹⁷ This preoccupation with the education of General Staff officers and the creation of an intellectual centre within the War Ministry indicate that the Russian military had realized the growing importance of staff work.

4.3.5 Staff Rides and War Games

The staff ride was the practical side of war gaming. War games played an important role in the war planning process for several reasons. First, the games entailed a practical aspect, which added a practical element to the theoretical education. Second, and perhaps more importantly, they encouraged a uniform thinking about tactical problems, which was significant considering the increased importance of independent officers on the battlefield. In this respect, they served the same purpose as military history. With larger armies spread over larger areas, the possibility of direct central control had diminished and the role of the subordinate commander increased, since he needed to be able to make independent decisions in accordance with the general intentions of the commander. In Prussia, the General Staff under General Moltke practised a system of mission orders where a subordinate commander could change the instructions so that they would reflect the intent of the commander. English observers, in particular, noted the absence of the slavish obedience to superiors that was characteristic of other armies.¹⁹⁸

It was Leer's trip to Berlin in 1867 that eventually led to the introduction of staff rides in Russia.¹⁹⁹ The Prussian staff rides were also discussed in the Military Scientific Committee in 1869 and the Committee concluded that the Prussian staff rides under General Moltke were worth full attention and something to imitate. The Committee also proposed that staff rides be held in Warsaw, Kiev, and Moscow Military Districts. The staff rides would give the officers a chance to practise 'what was required of them in war' and would provide the officers with an opportunity to reconnoitre areas and implement different military operations.²⁰⁰ Furthermore, in 1869, Miliutin had asked the Military Plenipotentiary, Count Golenishchev-Kutuzov, to ask General Moltke whether it would be possible to send Russian officers as observers. In 1870, all of the preparations had been made and Zeddeler and Fel'dman were

^{197.} Apart from Leer's articles in 1868, see especially Mosolov, N. 'Obzor akademii general'nogo shtaba v zapadnykh evropeiskikh gosudarstvakh', *Voennyi sbornik* (7, 1863): 3-70. Mosolov graduated from t he Academy in 1862. A. Gololobov. 'Nasha akademiia general'nogo shtaba', *Voennyi sbornik* (5, 1871): 61-139. Gololobov graduated in 1870. See also, for instance, V., P. 'Neskol'ko slov o general'nom shtabe', *Voennyi sbornik* (4, 1871): 140-144; and M. G. 'Ustroistvo i sluzhba general'nogo shtaba', *Voennyi sbornik* (7, 1873): 85-114.

^{198.} Hamley, E.B. *The Operations of War.* 4th ed. (Edinburgh: William Blackwood and Sons, 1872): ix-x. ^{199.} Glinoetskii, *Istoricheskii ocherk*: 266-67, 310-11. Erickson and van Dyke seem to believe that the introduction of practical exercises was a result of Obruchev's report of 1864. Erickson, John. *The Russian Imperial/Soviet General Staff.* The College Station Papers. (College Station, TX: The Center for Strategic Technology, 1981): 108; van Dyke, *Russian Imperial Military Doctrine*: 60.

^{200.} RGVIA, F. 401, op. 5, d. 345, ff. 135-136v. 'Journals of the Military Scientific Committee'. No 13, 31 Oct. 1869.

ready to go to the *Generalstabsreisen* that were due to begin in August.²⁰¹ The outbreak of the war cancelled these plans and only in 1872 could L. L. Zeddeler, F. A. Fel'dman, and Fligel'adjutant G. G. Berg participate in the Prussian staff rides.²⁰²

The chronology is important since it shows that the Russian War Ministry was well aware of the possible use of the Prussian staff rides before the Prussian victory in 1870-71. Rather, it was the Austro-Prussian War of 1866 that was the catalyst. It is clear that when L. L. Zeddeler wrote about Prussian *Generalstabsreisen* in one of his reports from the theatre of war in 1870, he only told the War Ministry what it already knew.²⁰³

The first staff ride was held in 1871 under the supervision of the Commandant of the Academy, Lieutenant-General A. N. Leont'ev.²⁰⁴ Forty-two officers from the Academy's faculty participated, among them Leer and Obruchev. From the Main Staff, fifteen officers had been appointed. The ride in eastern Livonia lasted nine days. Later that year, staff rides were also held in Moscow, Warsaw, and Kiev Military Districts.²⁰⁵ Two years later, in 1873, the Main Staff held its first staff ride.²⁰⁶

The staff ride in Russia served several goals, most importantly it served educational purposes. It was also a step in bridging the gap between line officers and General Staff officers. This issue was close to Miliutin's heart and, in 1872, General Staff officers who aimed to become regimental commanders or chiefs-of-division staff were commanded to serve in the line for one year.²⁰⁷ Clearly, the newly graduated Staff-Captain Nikolai Ivanovich Mau echoed the War Minister's views in an article in *Voennyi sbornik*, which emphasized the importance of line officers' participation in the staff rides. In addition, Mau underlined that it was important to make the purpose of the staff rides clear not only to the army but to broader sectors of the society:

^{201.} RGVIA, 1870, F. 401, op. 2, d. 84, ff. 6-6v. 'About the Mission of General Staff Colonels Baron Zeddeler and Fel'dman to the Prussian General Staff Manoeuvres'. 1870. See also Miliutin's memoirs where he explicitly stated that the staff ride was learned from the example of General Moltke in Prussia. RGB OR, F. 169, k. 16, ed. khr. 3, f. 152v.

^{202.} RGVIA, 1872, F. 401, op. 2, d. 71. ff. 4-6. It was after this trip abroad that Fel'dman produced the controversial paper on the Prussian General Staff. See Chapter 3.

^{203.} GARF, F. 677, op. 1, d. 344, ff. 6-6v. 'Tactical and Strategic Preparations and Military Officer Education'. 1 Oct. 1870.

^{204.} Aleksandr Nikolaevich Leont'ev (1827-1878) was Commandant of the General Staff Academy between 1862 and 1878.

^{205.} 'Polevye poezdki ofitsery general'nogo shtaba v 1871 g.', *Voennyi sbornik* (4, 1872): 133-166. See also Glinoetskii, N. P. 'Zametki o polevykh poezkakh ofitserov General'nogo shtaba', *Voennyi sbornik* (10, 1872): 249-267.

^{206.} Rich, David. 'The Tsar's Colonels: Military Professionals and the Remaking of Russian Strategy, Foreign Policy, and Autocracy, 1840-1895'. Manuscript, 1997: Chapter 4.

^{207.} R...n. 'Neskol'ko slov po povodu prikomandirovyvaniia ofitserov general'nogo shtaba k stroiu', *Voennyi sbornik* (12, 1874): 381-388.

In Prussia ... not only is the military community interested in the staff rides, but also peaceful citizens, who respect the staff ride and recognize its usefulness. ... In the efforts to make our staff rides known, neither the private nor the specialist military press has touched on those issues most likely to be of interest for society: what a staff ride is, the aim and purpose of it, the work, and the officers' situation, etc.²⁰⁸

In essence, this was the same call expressed by Valuev in 1870; namely, that the army and civilian society should find common ground. This was perceived as important since universal military service was about to be introduced.

The staff rides seem to have helped to create an *ésprit de corps* within the Academy itself.²⁰⁹ Many years later, A. I. Denikin would remember that the traditional staff ride was the only occasion when the relations between teachers and students at the Academy were relaxed and intimate.²¹⁰

The Russian General Staff also made efforts to develop war games played on maps. From 1872 onwards, war games were incorporated into the tactics course at the General Staff Academy and the first games took place involving both second- and third-year students.²¹¹ War games, as such, were not completely new in the Russian army. During the 1830s and 1840s, there had been some interest in them, above all in the Guards General Staff. In 1848, a hand-book was published by Colonel Kuzminskii about how to conduct war games.²¹² However, it was only in the early 1860s that war games started to develop seriously in Russia. This development has two distinct parts: the first taking place during the beginning of the 1860s, the second – clearly influenced by Prussia's victories of 1866 and 1870-71 – during the 1870s. The first stage was mostly concerned with questions regarding the overall usefulness of war games and whether they should be practised at lower levels of the army. The second stage was concerned with producing material, instructions, and books. By this time no one seriously questioned the use of the games.²¹³

In the early 1860s, the military debate was very much concerned with questions about education of soldiers and officers and the war game debate was a part of this. E. Feoktistov argued in *Voennyi sbornik* for the spreading of war games among the troops²¹⁴ and, at the same time, war games were being introduced in different units of the army.²¹⁵ The critics of war games

^{208.} Mau, N. 'Polevye poezdki i uchastie v nikh stroevykh ofitserov', *Voennyi sbornik* (6, 1873): 293-311

^{209.} Glinoetskii, Istoricheskii ocherk: 311.

^{210.} Denikin, A. I. Staraia armiia. 2 vols. (Paris: Rodnik, 1929, 1931): Vol. 1: 65.

^{211.} Otchet o zanaiatiiakh... 1871-72 g.: 7-8.

^{212.} Kuzminskii. *Rukovodstvo k voennoi igre*. (St. Petersburg, 1848).

^{213.} See, for instance, Kazanskii's articles 'Zametka o voennoi igre', *Russkii invalid*, , 20, 21 Oct. and 31 Dec. 1872.

^{214.} Feoktistov, E. 'Uproshchennaia voennaia igra', *Voennyi sbornik* (6, 1863): 335-382.

^{215.} For instance 1st Brigade of the 10th Infantry Division, the Azov Infantry Regiment, the regiments of the 12th Infantry Division, etc. Skugarevskii, 'Voennaia igra, ee literatura': 61.

focused on two issues: the usefulness of the war games, and the Prussian application of them. M. I. Dragomirov questioned the benefit of war games at the lower levels of the army. He wrote two articles on this matter in *Oruzheinyi sbornik* 1862.²¹⁶ At the time he was adjunct professor in tactics at the General Staff Academy and teacher of tactics to the Heir Apparent. Dragomirov was strongly against making war games an obligatory part of the training at the lower levels of the army. Dragomirov criticized war games because of their purely theoretical nature. He acknowledged that the war games were useful for officers, but that there were many more important things for soldiers to devote their training to.²¹⁷ It can be argued that Dragomirov probably was right in questioning the usefulness of war games for soldiers and non-commissioned officers who needed more basic education.²¹⁸

The other critical voices clearly show that although inspired by Prussia – after all, it was Prussia that invented war games²¹⁹ – the Russian officers did not simply copy, but seriously discussed the advantages and disadvantages of war games. In 1862, Stankevich had pointed out a negative feature - in his view - of the Prussian war games, that is, the tendency to create 'if not a science, so at least an art' of war games. This led to war games becoming like a textbook filled with rules. Stankevich saw war games as a practical aid to strategic and tactical think-ing.²²⁰

Skugarevskii clearly learned a lot from Prussia, particularly from the teachings of Verdy du Vernois.²²¹ Skugarevskii played an instrumental role in introducing war games in Russia. He too, however, was not uncritical. He was concerned with adapting the war games to suit the Russian army and also criticized the Prussian army for wanting to do too much. War games, in Skugarevskii's view, were good for solving simple, concrete tasks. War games should aim at developing independent military qualities. The main benefits of the games were that they gave a concrete picture of the battles and that they could be something to talk about with other like-minded people. In this spirit, he published a book about the battle of Nachod in 1866.²²² It was a detailed study where all of the troop movements were recorded almost minute by minute. The purpose was to present the events as objectively as possible and, in opposition to Leer, Skugarevskii noted that he could not use the 'normal method of critical

^{216.} In No 1 and 4, later published in Dragomirov, *Sbornik original'nykh*: 111-131.

^{217.} Dragomirov, Sbornik original'nykh: 123-125. See also his Odinnadtsat' let, Vol. 2: 413-414.

^{218.} Incidentally, the criticism of the 'lack of realism' in the 19th century war games seems valid. See 'War Games' in Macksey, Kenneth. *The Encyclopedia of Weapons and Military Technology: From Prehistory to the Present Day.* (London: Penguin Books, 1995): 358.

^{219.} Bucholz, Moltke, Schlieffen, 1991: 29-31.

^{220.} Stankevich, A. 'Voennaia igra', Voennyi sbornik (7, 1862): 91-116. Skugarevskii, A. 'Voennaia igra, eia pol'za i nedostatki', Voennyi sbornik (4, 1875): 223-230.

^{221.} Skugarevskii, 'Prakticheskiia zaniatiia': esp. 269-277. See also Verdy du Vernois, Julius. *Kriegsgeschichtliche Studien nach der applikatorische Methode.* (Berlin: Mittler und Sohn, 1876) which contains a detailed description of the battle of Custozza 24 June 1866.

^{222.} Skugarevskii, *Srazhenie pri Nakhode*.

study' since this would lead to a subjective description that might conceal the true facts. At each stage, the reader should be able to stop and ask: 'how could one act in that situation? how would he have acted? why in this way and not the other?' In this way, he hoped to address the problem that every army faces, namely that:

In peacetime, there tends to be a conviction that in battle one can always act according to certain rules, whereas war teaches us that sometimes a sudden coincidence can completely overthrow the rules.²²³

Clearly, both staff rides and war games had come to stay. What role did they play in the Russian war planning process? This is very difficult to answer, but the following points can be made. Although the Russian staff ride had been directly inspired **three** the Prussian example, it hardly seems to have played any major role in the war planning processin contrast to Prussia.²²⁴ The greatest use of the staff ride in Russia lay in its educational benefits. When the staff rides were introduced it was these aspects that were emphasized.²²⁵ Nevertheless, they were also of strategic importance. In view of the fact that the staff rides up until the outbreak of the Russo-Turkish War 1877-78 took place in Warsaw, Kiev, Moscow, Vil'na, and Odessa Military Districts, it would not be unreasonable to think that the first years of staff rides were also used to reconnoitre and acquaint the officers with the western borderlands. All of the war planning in 1876 could not stop Obruchev from making a reconnaissance tour to Poland in May.²²⁶

The introduction of staff rides and war games in Russia demonstrates that the War Ministry followed international development closely and was willing to borrow ideas from Prussia. It was by no means an easy process. A serious problem in Russia, especially compared with Prussia, was the lack of competent officers to conduct the staff rides and to act as umpires in the war games. But at least it was a recognized problem. In 1869, the Military Scientific Committee pointed out that the success of the staff rides was, to a high degree, dependent on individual officers.²²⁷ The lack of competent umpires in war games was highlighted by Skugarevskii.²²⁸ Moreover, in the first years relatively few of the whole Russian officer corps took part in the staff rides. During the first half of the 1870s only approximately 100-200 officers of approximately 30,000 officers participated.²²⁹ It may not look very impressive but the

- ^{226.} Rich, 'The Tsar's Colonels': Chapter 4.
- ^{227.} RGVIA, F. 401, op. 5, d. 345, ff. 136v-137.
- ^{228.} Skugarevskii, 'Voennaia igra, ee literatura': 63.

^{223.} Ibid., ii-iv.

^{224.} Bucholz, Moltke, Schlieffen: 29-31, 89-91.

^{225.} Glinoetskii, 'Zametki o polevykh poezkakh'.

^{229.} In 1871, a total of 140 officers took part in staff rides. 'Russkoe voennoe obozrenie', *Voennyi sbornik* (4, 1871): 157. Rich, David. 'The Tsar's Colonels': Chapter 4. For the numbers of the officer corps, see Beskrovnyi, *Russkaia armiia*: 40, 62; Pintner, Walter M. 'The Burden of Defense in Imperial Russia, 1725-1914', *The Russian Review* 43 (1984): 253; Stein, Hans-Peter. 'Der Offizer der russischen Heeres im Zeitabschnitt zwischen Reform und Revolution', *Forschungen zur osteuropäischen Geshichte* 13 (1967): 374.

early staff rides involved the war planning section of the army, and competence was built up with new generations of graduates from the General Staff Academy. In addition, war games and other intellectual pursuits slowly began to spread to lower levels.

4.4 Discussing War

It was not only the exclusive elite of the General Staff officers who were affected by the newborn interest in military affairs that the wars of the 1860s brought with them. It affected the entire officer corps in several ways. The most distinct features of this development were the growing importance of the military press (spearheaded by the military journal, *Voennyi sbornik*), the appearance of officer clubs or military gatherings (*voennoe sobranie*), and the active state support of regimental libraries. This aspect deserves special attention since it shows the first seeds of a growing professional attitude in the Russian officer corps.²³⁰ In addition, it demonstrates an awareness of the War Ministry that measures needed to be taken to improve the intellectual climate in the army and that lessons could be learned from abroad, above all, Prussia.

First, in the 1860s there was a growing interest among Russian officers to discuss military affairs publicly. *Voennyi sbornik* had been founded in 1858 and, later, two new specialized publications were created; *Oruzheinyi sbornik* in 1861, and *Pedagogicheskii sbornik* in 1864. In the 1860s the artillery journal, *Artilleriiskii zhurnal*, and the engineering journal, *Inzhenernyi zhurnal*, changed from bi-monthly to monthly publications. The daily newspaper, *Russkii invalid*, was important as well, but *Voennyi sbornik* clearly played an instrumental role in educating the Russian officer corps.²³¹ It was often the only military literature that many officers ever read. This was underlined by an anonymous writer in 1860, who pointed out the importance in publishing not only reviews of major military writings but also extracts from them. That was the only chance many officers had, living 'in God knows what corners [of the earth]' to become acquainted with these works.²³²

It is true that the subscription rate of the *Voennyi sbornik* fell from 5,063 in 1858 to 2,612 in 1864 but, at the same time, officers started to write more articles in the journal. The reasons for the

^{230.} Zaionchkovskii mentioned this development in passing and did not go into it in any detail. Zaionchkovskii, *Voennye reformy*: 213, 218.

^{231.} For a general overview, see Maksheev, F. A. K 50-letiiu "Voennogo sbornika". (St. Petersburg, 1910) and 'Voennyi sbornik', Voennaia entsiklopediia, Vol. 6: 587-589. See also Beskrovnyi, Ocherki po istochnikovedeniiu: 430-37. Levasheva, Z.P. Bibliografiia russkoi voennoi bibliografii sistematicheskii perechen osnovnykh bibliograficheskikh ukazatelei s nachale XIX veka do Velikoi Oktiabr'skoi sotsialisticheskoi revoliutsii. (Moscow, 1950): 31-32.

^{232.} Voennyi sbornik, (4,1860): 413. The letter was published as a footnote to the article 'Vostochnaia voina' by K. Sh.

drop in subscription rate has been attributed to the fact that, after eight months as editor, N. G. Chernyshevskii was replaced by P. K. Men'kov. It has been alleged that the journal then simply became the official voice of the War Ministry.²³³ In any case, the number of contributors receiving fees for delivered articles rose from forty-four in 1859, to 120 in 1863, 150 in 1865, and then stabilized at approximately 170.²³⁴ The share of original articles written for the journal compared with translations also rose slightly, as did the number of articles submitted for publication.²³⁵ This development made the journal note in 1867:

Ten years ago, our sporadic military literature was mostly supplemented with foreign military literature; the existing military journals were filled with translations and only in exceptional cases were original articles written. ... Ten years ago military journalism hardly existed.²³⁶

Second, the appearance of officer clubs was an important event in providing an opportunity for the self-improvement of the officers. These institutions grew in number and received state support as a direct consequence of the changes in warfare in the 1860s.²³⁷ In particular, it was recognized that modern warfare required officers to be able to act independently and that they had to teach soldiers to act individually. To achieve this, measures needed to be taken to develop the intellectual level of the officer corps, and to encourage the officers to study military science on their own.²³⁸ The War Ministry examined the situation in 1869 and, at that time, officer clubs existed in three military districts: Warsaw, Vil'na and in Finland. In addition, the commander of Kazan' Military District had recently started a club for officers.²³⁹ During the period 1869 and 1872, the clubs spread from a higher level down to battalion level.²⁴⁰ Lectures were organized which covered different aspects of warfare, including such

^{233.} Keep, *Power and the People*, 1995: 267-292; Makeev, N. N. G. Chernyshevskii - redaktor Voennogo sbornika. (Moscow: Voennoe izdatel'stvo, 1950). For a thoughtful discussion on how it came to be that the Chernyshevskii was appointed editor, see Brooks, E. Willis. 'The Improbable Connection: D.A. Miljutin and N.G. Chernyshevskii, 1848-1862', *Jahrbücher für Geschichte Osteuropas* 37 (1989): 21-44. Miliutin's comments on Chernyshevskii in his memoirs are published in Koz'min, B. 'N. G. Chernyshevskii v redaktsii "Voennogo sbornika". Iz vospominanii D. A. Miliutina', *Literaturnoe nasledstva* (25-26, 1936): 234-237. Airapetov compared the main themes of the Journal's first eight months with the first eight months under the editorship of P. K. Men'kov, but did not discover any significant changes in what kind of articles were published. Airapetov, 'Zabytaia kar'era': 33, 38.

^{234.} 'Russkoe voennoe obozrenie', *Voennyi sbornik* (2, 1864): 243.

^{235.} In 1863, 174 articles were submitted to the journal; in 1869, the number had risen to 233. See the yearly statistical figures in *Voennyi sbornik* (1, 1864): 239-242; (2, 1866): 200-205; (4, 1867): 149-154; (3, 1868): 67-70; (2, 1869): 212-214; (2, 1870): 160-162; (2, 1871): 91-92; (2, 1872): 143.

^{236.} 'Izdanie Voennogo sbornika v 1866 g.', *Voennyi sbornik* (4, 1867): 149-150.

^{237.} See Miliutin's recollections of this development. RGB OR, f. 169, k. 16, ed. khr. 3, f. 152v. 'Memoirs'.
1870-71. See also 'Voennye besedy v 22-i pekhotnoi divizii', *Russkii invalid*, 13 Feb. 1871; 'Voennye besedy v 15-i pekhotnoi divizii', *Russkii invalid*, 4 Feb. 1872.

^{238.} Anon. 'Besedy i chteniia v inostrannykh armiiakh po povodu voennykh voprosov', Voennyi sbornik (11, 1869): 83-102; Anon. 'Ob ustroistve voennykh sobranii i obshchikh ofitserskikh stolov', Voennyi sbornik (9, 1871): 57-103; 'Russkoe voennoe obozrenie', Voennyi sbornik (1, 1873): 37-48.

^{239.} Anon. 'Ob ustroistve': 60, 70.

^{240.} See, for instance, 'Besedy o voenno-pokhodnom telegrafe', *Voennyi sbornik* (12, 1872): 343-366; Anon. 'Zametki o sovremennom takticheskom boe i o podgotovke k nemu pekhotnogo soldata. Voennaia beseda, prochitannaia v sobranii ofitserov 1-go i 2-go batalionov 98-go pekhotnogo Derptskogo polka', *Voennyi sbornik* (11, 1874): 44-66.

topics as the history of firearms in the major powers of Europe and in Russia, the campaigns of 1866 and 1870, military history, and the critical-historical method. There were lectures on rifled artillery, railways, military hygiene, topographical studies, and even natural science.²⁴¹ The War Ministry emphasized that giving a lecture should not be reserved for specialists, but every officer should be encouraged to give talks.²⁴² The events did not restrict themselves only to lectures. In some places, like the 97th Infantry Livonian Regiment, the officers gathered twice a week to discuss different tactical problems.²⁴³

Different activities began to fill up the year of the Russian officer. During the winter months there were the discussions and lectures. In the summer, staff rides had spread from the General Staff to divisions and regiments. The approach to military science and education was changing and the officers of the Guards First Rifle Battalion 'started to read military articles and books with particular interest'. At the summer exercises in 1871, the younger officers were given – for the first time – tactical tasks like reconnaissance. All of these activities were not without their problems, of course, and the historian of the Guards First Rifle Battalion probably spoke for many when he remarked: 'All this, as every new thing, could not be established immediately and firmly, not least because the inspection and verification at that time were very superficial.'²⁴⁴

Indicative of the prevailing views in Russia was the fact that a writer in *Russkii invalid* felt a need to stress that these officer gatherings were not a luxury 'but an inevitable and urgent necessity' (italics in original).²⁴⁵ P. Kazanskii even suggested that the talks should be made permanent and become mandatory for every officer.²⁴⁶ Agreeing with him, an anonymous writer in *Voennyi sbornik* highlighted the difficulties in organising these military discussion clubs. He argued that the groups had to be started and supported by the commanders of the units.²⁴⁷ The main problem was that if a group had been organized on private initiative it had no chance of surviving in the long run. An officer, acting on his own initiative, was usually viewed by his colleagues with contempt, as someone who was trying to rise above the rest, a snob trying to teach others, who were less informed. Another article pointed to the example of Prussia where participation in the lectures and war games of the so-called military societies was mandatory – not in the form of orders, but as a matter of moral obligation.²⁴⁸In other

^{241.} 'Voennye besedy v 16-i pekhotnoi divizii', *Russkii invalid*, 25 Feb. 1872.

^{242.} Anon. 'Ob ustroistve': 73.

^{243.} 'Voennye besedy', Russkii invalid, 31 March 1872.

^{244.} Kartsov, P. Istoricheskii ocherk leib-gvardii pervogo strelkovogo Ego Imperatorskogo Velichestva batal'ona 1856-1885. (St. Petersburg: F. S. Sushchinskii, 1885): 101-102.

^{245.} 'Voennye besedy', *Russkii invalid*, 13 Feb. 1871.

^{246.} P. Kazanskii. 'O voennykh besedakh', *Russkii invalid*, 3 Dec. 1872.

 ^{247.} Anon. 'Neskol'ko slov ob ustroistve voennykh besed v ofitserskikh sobraniiakh', *Voennyi sbornik* (10, 1873): 317-336.

words, it was a matter of pride for the officers to take part and at least in one regiment each officer gave one lecture each year.

In Russia, the newly-set up military gatherings were distinct from the self-confident Prussian *Militärische Gesellschaft.*²⁴⁹ One serious problem was the lack of premises which hampered the growth of the clubs.²⁵⁰ Moreover, the Russian War Ministry could not wait for the officer corps to develop a group identity as it had in Prussia and, in 1874, participation in the officer gatherings was made mandatory.²⁵¹

Nevertheless, it is interesting to note that these clubs were set up with the explicit goal to create a group identity (*dukh tovarishchestva*) among officers. Apart from spending time discussing military science and playing war games, the officer clubs were encouraged by the War Ministry to arrange various social activities. It was important to attract as many officers as possible. Civilians were allowed to attend the clubs as guests, but could not become members.²⁵²

In relation to the development of officer clubs, the War Ministry began to give attention to the regimental libraries. Regimental libraries had existed in Russia since 1810 when libraries were founded in the Semenovskii and Preobrazhenskii regiments. These libraries, and others that were built up, were created at the officers' own expense.²⁵³ The need for improved libraries was a theme in the military debate in the 1860s. In one library, one writer pointed out, the main information came from the military journals, but these were often removed by a few, senior commanders and there was nothing left to read for the rest of the regiment.²⁵⁴ To underscore his point, another writer listed the holdings of one regimental library: fourteen titles – mostly novels and travel books, not one about a military subject. Another library had a seemingly impressive sixty titles in the military science section; however, only six of them were new. The section consisted, to a large degree, of old regulations.²⁵⁵ These were only a few indications of the state of the libraries, but they were surely not exceptions. The exception was rather the Naval Library at Kronstadt, held out as an example by one writer, with 30,000 volumes.²⁵⁶

^{248.} 'Russkoe voennoe obozrenie', Voennyi sbornik (1, 1873): 43.

^{249.} The first Military Society in Prussia had been started in Berlin by Scharnhorst. Craig, *The Politics*: 28.

^{250.} 'Russkoe voennoe obozrenie', Voennyi sbornik (1, 1873): 49.

^{251.} Bogdanovich, Istoricheskii ocherk: Vol. 6: 409-410.

^{252.} Anon. 'Ob ustroistve': 77.

^{253.} 'Biblioteki voennye i voiskovye', Leer, ed. *Entsiklopediia*: Vol. 1: 424.

^{254.} Serebrenitskii, A. 'Ob ekzamenakh ofitserov', Voennyi sbornik (11, 1863): 104.

^{255.} I. 'Neskol'ko slov po povodu stat'i Polkovye ofitserskie biblioteki', *Voennyi sbornik* (7, 1866): 93-98.

^{256.} Anon. 'Neskol'ko slov ob ustroistve': 333-334.

In 1873, the War Ministry designated extra money for the libraries, and the Main Staff started to publish lists with titles that every library was obliged to acquire.²⁵⁷ Access to the library of the Main Staff, hitherto restricted to General Staff officers, was extended in 1874 not only to the entire officer corps, but also to civilians 'engaged in scientific research'.

All this pointed to something distinctly new in Russian military life. How deeply did all of this penetrate the Russian officer corps? The War Minister, D. A. Miliutin, would later remark that 1872 stood out among all others in this outburst of interest among officers for military science. These activities, said Miliutin, had a positive influence on the Russian officer corps.²⁵⁸ However, he would also (long afterwards) claim that these efforts, including staff rides, war games, officer clubs, would have been more successful if the commanding officers and, not least, Alexander II had been able to get over the old habits. In a rare emotional outburst, he noted that these habits had taken root in Russia during the reign of Paul I and had reached a climax during the reign of Nicholas I. Although Alexander II recognized the positive development among the troops, he could not overcome the old traditions and continued to demand the strictest regularity and alignment in ceremonial parades, 'the whole former petty formalism', thus:

One reprimand by the Tsar for a trivial error regarding some paragraph in the regulations or for some false step, an insufficiently neat alignment, paralyzed all of the efforts to try to give the education of the army a new character, corresponding more to the true value and conditions of war.²⁵⁹

The role of the Tsar in influencing the army, particularly perhaps its intellectual development, was still great. But that the War Ministry actively tried to support development towards a more educated, intellectually homogeneous officer corps is beyond doubt. Furthermore, Miliutin's pessimism cannot be entirely justified. During the 1880s and 1890s, the development of officer clubs continued to receive support from the War Ministry and, in 1885, the Guards Corps in St. Petersburg Military District began to publish their military discussions.²⁶⁰ The

^{257.} Leer, ed. *Entsiklopediia*: Vol. 1: 424. See also 'Spravochnyi katalog izdanii o kotorykh bylo ob'iavleno v tsirkuliariakh glavnogo shtaba s 1870 po 1875', *Voennyi sbornik* (1, 1876): 1-14, and 'Spravochnyi katalog izdanii o kotorykh bylo ob'iavleno v tsirkuliariakh glavnogo shtaba s 1870 po 1880 g,', *Voennyi sbornik* (5, 1881): 1-14.

^{258.} RGB OR. F. 169. k. 16. ed. khr. 4, f. 90. 'Memoirs'. 1872-73. See also Zaionchkovskii, P.A., ed. *Dnevnik D.A. Miliutina*. 4 vols. (Moscow: Gosudarstvennaia ordena Lenina Biblioteka SSSR imeni V. I. Lenina. Otdel rukopisei., 1947-50): Vol. 1: 154.

^{259.} RGB OR, F. 169, k. 16, ed. khr. 3, ff. 152v-153. This topic, the military style of the Romanovs, is discussed in Keep, John L.H. *Power and the People*, 1995: 189-209. See also Wortman, Richard. *Scenarios of Power: Myth and Ceremony in Russian Monarchy*. (Princeton, N. J.: Princeton University Press, 1995), especially 343-378 for the military education of Alexander II. Regarding Alexander's military education see also 'Gody ucheniia ego imperaterskogo vysochestva naslednika Aleksandra Nikolaevicha 1826-38', in *Sbornik Imperatorskogo russkogo istoricheskogo obshchestva*, Vol. 30, 1881: 1-20, 287-318; Tatishchev, S. S. *Imperator Alexander II, ego zhizn' i ego tsarstvovanie.* Reprint of 1911 ed. 2 vols. (Moscow: Charli, 1996): Vol. 1: 10-12, 23-25, 29, 49, 55-57, 61-62, 76-77, 104.

^{260.} The name of the publication was *Voennye besedy ispolnennye v shatbe voisk gvardii i Peterburgskogo voennogo okruga*. For the officer clubs, see Fuller, William. *Civil-Military Conflict in Imperial Russia 1881-1914*. (Princeton, N.J.: Princeton University Press, 1985): 22-23.

first Russian private military journal, *Razvedchik*, was founded in the mid-1880s. In 1896, a group of General Staff and Guards officers founded a military society, *Obshchestvo revnitelei voennykh znanii*, which grew so that by 1905 its membership was larger than the Imperial Geographic Society.²⁶¹ Towards the end of the 19th century, Russian military science flourished and much original research was conducted.²⁶² It has been pointed out that only a very small group of General Staff officers – a few thousand officers – were engaged in intellectual pursuits, and this may be true.²⁶³ The point here is that in the 1860s and early 1870s, the Russian War Ministry was aware of the current changes in the military development and took immediate measures to come to terms with them and in the sphere of intellectual improvement – an activity that is not easily controlled through regulations and orders – the Ministry tried to act.

We have seen that many of the burning issues of foreign wars were reported by the military attachés and observers and discussed in the military press. The impact of foreign wars on the General Staff Academy and the war planning process have also been discussed. What influence did foreign wars have on the secret war plans of the War Ministry? This is the question for the next chapter.

^{261.} Fuller, Civil-Military: 34-35.

^{262.} Menning, *Bayonets*: 130-136; Steinberg, 'The Education and Training': 151, 172-190.

^{263.} Fuller, *Civil-Military*: 35. The disunity of the entire Russian officer corps has been the subject of several studies. See especially Stein, Der Offizer: 376-389. It will be noted that the my view of the intellectual development of the Russian officer corps differs from that of Bushnell and Kenez. Bushnell, John. 'The Tsarist Officer Corps 1881-1914', *American Historical Review* 86 (3, 1981): 753-80, Kenez, Peter. 'A Profile of the Prerevolutionary Officer Corps', *California Slavic Studies* 7 (1973): 150-158. They treat the period more immediately preceding the First World War, when the situation was very different from the 1860s and 1870s. Even so, Professor Bushnell has based his conclusions largely on memoirs and fiction which no doubt reveals part of the truth, but in my view tends to be exaggerated in its focus on drunkenness and thievery, etc. Recently, Fuller has given a more balanced account. Fuller, *Civil-Military*: especially 15-46.

Facing the Enemy - the Strategic Conference in 1873

5.1 Strategy and War Plans in Russia

5

From 1870 onwards the Russian War Ministry was involved in hectic activity that touched on every aspect of the army – organizational, political and strategic. It had become increasingly clear to the Russian War Ministry and its Main Staff that it was not enough to try to catch up with the changes in contemporary warfare simply by patching holes as they appeared. The War Ministry had long been painfully aware of a growing disparity between the reforms in the Russian army and the changes needed to be able to keep up with current military developments. In 1870, the War Ministry estimated that Germany and Austria could each raise an army of more than one million men.¹ Miliutin touched on this problem in his annual report to the Tsar in 1869 and developed it further in 1870. In his 1 January 1870 report, he asked:

...is our army large enough - even in its full wartime strength - in view of the colossal armed forces, that are being created from the masses of armed people in every European state and even in Turkey?...This question is so important and touches on so many state interests that it requires special consideration.²

In other words, the changes that confronted the Russian army in 1870 were simply too profound to be solved by the War Ministry alone. Priorities needed to be made in view of the growing size of wartime armies through universal military service and the growth of railway lines enabling swift concentration of troops.

^{1.} Rossiiskii Gosudarstvennyi Voenno-Istoricheskii Arkhiv (hereafter RGVIA) F. 401, op. 2, d. 99, ff. 100v, 102v, 'Facts for the Evaluation of the Armed Forces of Russia'.

^{2.} Rosskiiskaia Gosudarstvennaia Biblioteka, Otdel rukopisi, (hereafter RGB OR) F. 169, k. 16, ed. khr. 2, f. 75. 'Memoirs'. 1868-69. See also Zaionchkovskii, P. A. *Voennye reformy* 1860-70 godov v Rossii. (Moscow: Izdatel'stvo Moskovskogo Universiteta, 1952): 257.

In 1870, the War Ministry had set to work on the details of the planned changes, and two commissions had been created, both under the chairmanship of the Chief of the Main Staff, General Fedor Logginovich Heyden.³ One commission worked on the introduction of universal military service (as we saw in Chapter 2) and the other worked on the future organization of the armed forces.⁴ Both commissions had completed their work by early 1873.

This development culminated in 1873 in a secret, strategic conference, chaired by Alexander II, where the question of Russia's strategic position was to be treated. It was an effort by the War Minister, D. A. Miliutin, to rally his ministerial colleagues around the army, and to gain broad political support for the changes of the army that Miliutin knew must be made. There was fierce opposition at the conference both to D. A. Miliutin personally and to all the army reforms since 1862. As it turned out, the attack did not succeed. Had the opposition succeeded in removing Miliutin, it would surely have called the plans of introducing universal military service into question. This underlines the importance of the strategic conference for the development of the Russian army. The agenda of the conference was formulated around the first Russian war plan of 1873.⁵ This plan was written in the wake of the Prussian victory over France in 1871 and was, in fact, produced as a consequence of the Franco-Prussian War.

The work with strategic war plans in the 1870s differed fundamentally from the previous Russian war plans. Hitherto, this work had been characterized by reaction to current events and mostly contained lists of deployment of units and commanders in war. In 1866, at the request of Foreign Minister Aleksandr Mikhailovich Gorchakov,⁶ Miliutin sketched a few scenarios for a possible development along the Western border. In the following year, Miliutin made some preliminary calculations in the case of war which he presented to Alexander II.⁷ In 1867, Russia feared Austria-Hungary and was convinced that the dual-monarchy was preparing for war against the Russia. Extremely worrying was a dispatch from the military attaché in Vienna, F. F. Tornau. In the report Tornau described a conversation with an Austrian

^{3.} Fedor Logginovich Heyden (1821-1900), General, Chief of the Main Staff 1866-1881, succeeded N. V. Adlerberg as Governor-General in Finland 1881. *Voennaia entsiklopediia*, Vol. 7: 211.

^{4.} The instructions for the Commissions were printed in *Russkii invalid*, 25 Dec. 1872, and in Obruchev, N. N., ed. *Voenno-statisticheskii sbornik*. 4 vols. (St. Petersburg: Voennaia tipografiia, 1867-71); Vol. 4, Part 2, Appendix 2: 232-235. There are also copies of the instructions in RGB OR, F. 169, k. 24, ed. khr. 36, ff. 30-32, and in Gosudarstvennyi Arkhiv Rossiiskoi Federatsii (hereafter GARF) F. 677, op. 1, d. 345, ff. 29-32. The deliberations of the Organizational Commission are kept in RGB OR, F. 169, k. 26, ed. khr. 13. For the journals of the meetings, see RGB OR, F. 169, k. 26, ed. khr. 1-3. The members of the Commission are listed in RGB OR, F. 169, k. 24, ed. khr. 38, ff. 1-2, 'The Creation of the Commissions'.

^{5.} RGVIA, 1873, F. 401, op. 2, d. 100, ff. 74-110, 119-120, 126-145. 'Considerations on the Defence of Russia'. 19 Jan. 1873. A copy of the plan and its appendices can also be found in RGB OR, F. 169, k. 37, ed. khr, 4, 5, and 6.

^{6.} Aleksandr Mikhailovich Gorchakov, (1798-1883), Foreign Minister 1856-1882.

^{7.} RGB OR, F. 169, k. 38, ed. khr. 32, 'Thoughts on a Change of the Demarcation Lines in Europe'. 1866.; RGB OR, F. 169, k. 37, ed. khr. 1, 'Preliminary Thoughts in the Case of War'. 9 Nov. 1867. See also Shneerson, Lev Mikhailovich. *Avstro-prusskaia voina 1866 g. i diplomatiia velikikh evropeiskikh derzhav*. (Minsk: Ministerstvo vysshego, srednego spetsial'nogo i professional'nogo obrazovaniia SSSR, 1962): 156, 212.

general who was convinced that Austria and Russia would go to war against each other over the Eastern question.⁸ Every move by the Austrian army was followed closely by Tornau in Vienna and the War Ministry in St. Petersburg.⁹ At the outbreak of the Franco-Prussian War, the War Minister drew up some plans in case the war spread, and Alexander II ordered the army to mobilize.¹⁰

Soon this kind of *ad-hoc* planning would be a thing of the past. In terms of strategic planning the Franco-Prussian War was a warning, later recognized by D. A. Miliutin.

The events in the Franco-Prussian War clearly demonstrated that we were not prepared [for war]. It was recognized that we needed a general defence plan for the western theatre of war... 11

The Main Staff was unprepared and, before a war plan could be completed, a commission of General Staff, engineering, and artillery officers was sent in 1871 to examine the Western parts of Russia. The interest was, above all, directed towards the strategic defence line Vil'na, Ko-vno, Grodno, Belostok, Proskurov, and the upper part of the Dnestr.

Military developments in Europe necessitated a war plan that contained not only a thorough examination of the geographical/topographical conditions of the possible war theatres, but also an evaluation of the geopolitical situation and the strength of the armed forces from a strategic perspective. The Prussians had seemed to show that wars were won or lost very quickly. The railways had made it possible to move large forces across long distances in a much shorter period than previously. In order not to be taken by surprise, it was necessary to think and plan for future wars before they began. Prussia had realized this earlier than had other European countries, and had taken a lead in developing concise operational war plans.¹² Strategic thought has been largely neglected by scholars treating the Russian army, ¹³ yet it touches on many issues related to the very existence of a state. An analysis of Russian

^{8.} RGB OR, F. 169, k. 76, ed. khr. 36, ff. 7-10. 'F. F. Tornau to D. A. Miliutin, 19 June/1 July 1867'. See also Miliutin's memoirs, F. 169, k. 16, ed. khr. 1, ff. 118v-119. 1867.

^{9.} RGB OR, F. 169, k. 16, ed. khr. 1, f. 119. Tornau's reports from 1867 are located in RGVIA, F. 428, op. 1, d. 106. See also Narochnitskaia, L. I. *Rossiia i otmena neitralizatsii Chernogo moria 1856-1871 gg.* (Moscow: Nauka, 1989): 131, 170.

^{10.} RGB OR, F. 169, k. 37, ed. khr. 2. 'Preparatory Notes for the Report Submitted to His Majesty 9 August 1870 in the Case of War'. The weekly reports on the progress of mobilization are found in RGVIA, F. 400, op. 2, d. 1472. 'War Preparations 22 Aug. 1870 - 12 Mar. 1871'. See also Narochnitskaia, *Rossiia i otmena neitralizatsii*: 171; Fuller, William C., Jr. *Strategy and Power in Russia 1600-1914*. (New York: Free Press, 1992): 277-278.

^{11.} RGB OR, F. 169, k. 16, ed. khr. 3, f. 158v. 'Memoirs'. 1870-71.

^{12.} See, for instance, Bucholz, Arden. *Moltke, Schlieffen, and Prussian War Planning*. (New York: Berg Publishers, Inc., 1991): 39-41. See also Kennedy, Paul, ed. *The War Plans of the Great Powers 1880-1914*. Reprint of1979 ed. (Boston: Allen & Unwin, 1985): 1-3 and, for more details on Moltke's plans, Rothenberg, Gunther. 'Moltke, Schlieffen, and the Doctrine of Strategic Envelopment', in *Makers of Modern Strategy from Machiavelli to the Nuclear Age*, edited by P. Paret. (Oxford: Clarendon Press, 1994): 296-311. In his memorandum in 1870, P. A. Valuev praised the Bavarian war plan of which he had managed to get a copy. He claimed that it had taken approximately three years to complete the plan. RGVIA, 1873, F. 401, op. 2, d. 99, f. 23v-24. 'A Non-Military Man's Thoughts on our Armed Forces'.

strategic thinking in 1870-73 includes questions about foreign wars in a broader context of foreign policy, finance, and the army's links to civilian institutions.¹⁴

The Russian war planning process in a broad sense was touched upon in Chapter 4. This chapter will attempt to illustrate the impact of the wars of 1859-71 on Russian strategic thinking and to judge to what degree the lessons of these wars were absorbed in the war plan of 1873. This plan formed the basis for the future Russian war plans of the next thirty years. The first part of the chapter will deal mainly with developments from 1870 until 1873. The second part will analyse the war plan of 1873 and the results of the strategic conference.

5.2 Russia and Europe in 1870 - the View of the Army

One of the first – if not the first – strategic documents in Russian war planning that approached the contemporary requirements was produced in the War Ministry in 1870. The document, 'Facts for the Evaluation of the Armed Forces of Russia', consists of 204 pages, handwritten by a clerk.¹⁵ The author is unknown, but a qualified guess is that it was written by the Chief of the Military-Scientific Committee, N. N. Obruchev, during the first half of 1870, before or just at the outset of the Franco-Prussian War.¹⁶ It is a thorough summary of the military and political development in Europe since the end of the Crimean War. No reference was made to the American Civil War. The document is divided into five sections: (1) Conditions for the development of our military system, (2) Changes in European political conditions, (3) Transformation of the military systems in Europe, (4) General conclusions regarding the military system and size of European forces, and (5) Comparison between the European and the Russian forces. The document is worth closer scrutiny since it clearly illustrates how

^{13.} Notable exceptions are the recent studies by Fuller, *Strategy and Power*; Rich, David. 'The Tsar's Colonels: Military Professionals and the Remaking of Russian Strategy, Foreign Policy, and Autocracy, 1840-1895'. Manuscript, 1997.

^{14.} The strategic level of military activity has been defined as 'the employment of national armed forces to secure by force national goals defined by political leadership'. Millett, Allan R., Williamson Murray, and Kenneth H Watman. 'The Effectiveness of Military Organizations', in *Military Effectiveness, Volume I: The First World War*, edited by A. R. Millett and W. Murray. (Boston: Unwin Hyman, 1988): 6-7. For a few interesting views on the definition of strategy or grand strategy, see Kennedy, Paul. 'Grand Strategy in War and Peace: Toward a Broader Definition', in *Grand Strategies in War and Peace*, edited by P. Kennedy. (New Haven and London: Yale University Press, 1991): 1-7; Murray, Williamson, and Mark Grimsley. 'Introduction: On Strategy', in *The Making of Strategy: Rulers, States, and War*, edited by W. Murray, M. Knox and A. Bernstein. Reprint of the 1994 ed. (Cambridge: Cambridge University Press, 1995): 1-23; Paret, Peter, ed. *Makers of Modern Strategy from Machiavelli to the Nuclear Age.* Reprint of the 1986 ed. (Oxford: Clarendon Press, 1994): 3-8.

^{15.} RGVIA, 1873, F. 401, op. 2, d. 99, ff. 30-133. The document is kept in one of the four files with material regarding the secret conference in February and March 1873 chaired by Alexander II. The other numbers of these files are F. 401, op. 2, d. 98, 100, and 102.

^{16.} Obruchev made a few corrections on the document and occasionally filled out gaps of information in the text. P. A. Zaionchkovskii, the Soviet historian who spent a large part of his life in the archives, guessed that Obruchev was the author. Zaionchkovskii only commented very briefly on the contents of this document. See Zaionchkovskii, *Voennye reformy*: 258, 364.

the Russian War Ministry perceived potential new threats at the beginning of 1870 and how it was prepared to meet them.

The first section is largely a description of the Russian military reforms under D. A. Miliutin. The main achievement of these reforms, according to the document, was to make faster mobilization possible. The mobilization time had been reduced from six to eight months to twenty-eight days. In six to seven weeks after mobilization, it was estimated that the army would be prepared to go into battle.¹⁷ These improvements were adequate for the international situation at the end of the 1850s but developments in Europe, both militarily and politically, were rapid.

The main change in European politics during the last fifteen years was the appearance of what the author called the 'national factor'.¹⁸ The author illustrated his point by making a brief survey of each of the main European powers. France was the first European power to embark on this road, strengthened by the success in the Crimean War. The author's suspicion and distrust of France's role in European politics were thinly veiled. He noted that, in 1859, France had proclaimed the freedom and independence of Italy from the Alps to the Adriatic Sea. Furthermore, France had played a dominant role in meddling in the Polish crisis of 1863. Although the French involvement in Poland had resulted in a diplomatic defeat it had boosted the morale of the Poles. At the next opportunity, the Poles could confidently count on European support. France had also encouraged the non-Slavonic population of the Danubian principalities to unite in a new state, Romania.¹⁹

Britain had also begun to support the national cause in international politics. Not only had she pushed for the international recognition of Italy, she had also shown support for the Greeks. With a touch of malicious delight, the author noted that this policy had consequences for England in relation to Ireland:

England's relationship with Ireland is very much like our position as regards Poland. England cannot relinquish Ireland without infringing on the unity of the State.²⁰

Prussia was perhaps the best example for demonstrating the growth of nationalism in European politics. In the wars of 1864 and 1866, Prussia had acted in her own interest, although for a long time Prussia had obscured her true goals by hiding behind 'common German interests'. Prussian policy clearly showed that Prussia completely recognized the principle of acting in the national interest, according to the document.²¹

^{17.} RGVIA, 1873, F. 401, op. 2, d. 99, ff. 42-42v.

^{18.} Ibid., f. 44.

^{19.} Ibid., ff. 44v-48.

^{20.} Ibid., ff. 48-50v.

^{21.} Ibid., ff. 50v-53.

Austria had also adopted the new policy of 'nationalism', however, not as a means to strengthen the state, but only to support its shaking foundations. For ten years, she had tried to stifle the natural ambitions of its peoples, and the campaign of 1859 had shown the 'artificial system' of the Austrian state.²² The year 1866 had shown that a state which was not firmly built on a single nationality was constantly threatened by destruction. Austria had been forced to turn to Hungary and to create a new state based on two nationalities, but the crucial question of the future of the Hapsburg Empire remained unsolved. The author predicted that if the questions of the Military Border, Bohemia, Croatia, Slavonia, Dalmatia, and Galicia remained unsolved, the Austro-Hungarian monarchy would inevitably fall. The only solution would be to create a federation, where the rights of Bohemia, Poland were recognized.²³

After a brief survey of Turkey, Romania, Bulgaria and Scandinavia, the author asked: 'Can all of these things happen without influence on the position of Russia?' Not surprisingly, he noted that neutrality had been the only possible policy for Russia after the Crimean defeat, but in view of European developments, Russia needed to change. Russia was forced to respond, since Europe had begun to view Russia no longer as purely a unitary state:

Europe began to see Russia, not only as the powerful Russian people, full of life, receiving freedom, using a land organization (*zemel'noe ustroistvo*) unthinkable in the feudal West, rich both in economic and moral terms, but more importantly as a state with racial (*plemennye*) connections which extended far beyond the political borders, reaching to Elbe and the Adriatic, a leader for all Slav peoples, reflecting an influence not only on the future fate of Europe, but on the whole world.²⁴

Alarming as this may sound, it in no way prompted the Russian War Ministry to think in offensive terms. Russia was depicted as a victim and growing nationalism was seen with trepidation. The factor of national interest in European politics had given Russia a few new friends but, above all, more enemies. Neither France nor Prussia could be trusted any longer. In other words, as far as the Russian strategic planners were concerned, an alliance with France in 1870 – a reality twenty-two years later – was very remote.²⁵

^{22.} Ibid., ff. 53v-54.

^{23.} Ibid., ff. 54-57. The Military Border system had evolved over centuries and was an area in the southern parts of the Austrian Empire where, above all, Croats and Serbs served initially as a defence force against Turkish invasion. For a succinct, albeit short introduction to this system, see Rothenberg, Gunther E. 'The Habsburg Military Border System: Some Reconsiderations', in *War and Society in East Central Europe*, edited by B. K. Király and G. E. Rothenberg. (New York: Brooklyn College Press, 1979): 361-392.

^{24.} RGVIA, 1873, F. 401, op. 2, d. 99, ff. 59v-60.

^{25.} On the military agreements in the Franco-Russian alliance, see Airapetov, O. R. 'N. N. Obruchev. Zabytaia kar'era "russkogo Mol'tke". Manuscript, 1996: 142-146; Fuller, *Strategy and Power*: 350-362; Kennan, George F. *The Fateful Alliance: France, Russia and the Coming of the First World War.* (Manchester: Manchester University Press, 1984): 15-16 and esp. Chapters 9-11. Both Airapetov and Fuller think¶ more highly of Obruchev's strategic understanding than does Kennan. Kennan attached much significance to the fact that Obruchev's wife was French and that Obruchev spent his vacations at the family château in France.

Who, then, was the potential enemy and was the Russian army prepared to fight? In answering these questions, the memorandum described military developments in Europe over the last ten years. If the single most important event in European political relations was the growing strength of nationalism, the equivalent on the military side was the introduction of 'armed masses'.²⁶ The war of 1866 had created a chain reaction in Europe. Prussia had managed to mobilize huge forces in fifteen to twenty-two days. It had only been possible to train and prepare such large forces only in a system based on a military-national (*voenno-narodnyi*) model. Several of the other European states – even Turkey – hurried to copy the Prussian example. Three years had not yet passed and the whole continent was already covered with armed masses.

In Prussia, the military organization was based on universal military service, which was advantageous from a financial point of view (that is, it was comparatively cheap). In addition, the author stressed that the military system 'inculcated in all the sections of the population the sense of the sacred duty to defend the fatherland'.²⁷ The drawbacks with the *Landwehr* soldiers had become obvious in 1848, 1850, and 1859 when the *Landwehr* soldiers were both unwilling to serve and ill-disciplined. These faults were corrected by the reform in 1860, a reform that aimed to strengthen the army and to reduce the role of the *Landwehr*. The wars of 1864 and 1866 justified the reform in a convincing way. The author stressed that military action in 1866 had started so quickly because of the Prussian field army, which had been able to enter Bohemia and thus cover the mobilization of the *Landwehr*. The subsequent success of the fact that Prussia had a trained reserve – not an armed militia. Militia forces were dreaded not only by the Russian army. These forces were viewed as unreliable, useless in battle, and potentially dangerous to the domestic order.

The French military system – until recently the guiding-star in Europe – was no longer held in high regard in Russia. The French military reforms in 1868 had proposed to increase the annual intake and to create a trained reserve force, *garde mobile*, of 500,000 men but, in reality (as the memorandum pointed out) not very much had happened.²⁹ In fact, the law of 1868 in France was never implemented. It was only after the defeat against Germany, in 1872, that France introduced a military system based on universal military service.³⁰ The only improve-

^{26.} RGVIA, 1873, F. 401, op. 2, d. 99, f. 60.

^{27.} Ibid., f. 66. The phrase 'the sacred duty to defend the fatherland' was subsequently used by D. A. Miliutin later in 1870 when he drew up the plans for the reorganization of the Russian army. See his memorandum 'About the Basic Status of Individual Military Service', GARF. F. 677, op. 1, d. 345, f. 27. The phrase was also used in the first paragraph of the law 1 January 1874. *Polnoe sobranie zakonov (PSZ) II*: XLIX. 52983.

^{28.} RGVIA, 1873, F. 401, op. 2, d. 99, f. 69.

^{29.} Ibid., f. 81v.

ments of the 1868 law were the reduction of numbers of long-serving mercenary soldiers and the recruitment of larger numbers of young recruits. However, the number of tactical units and their cadres had not changed. The author calculated that France would be able to put 616,000 men on a war footing, which would not be enough to defend the country. The military strength of the North German Federation and Baden, Württemberg and Bavaria was, according to the calculations, 1,146,325 soldiers.³¹

In reality, these figures were almost correct for Germany, but overestimated the French forces. In 1870, Germany mobilized 1,183,000 men in eighteen days, and sent 462,000 to the French frontier to start the campaign. To meet this force, France (on paper) had a 567,000-man army to mobilize but was only able to muster 200,000 men.³²

The Russian War Ministry was as dismissive of the Austrian military organization as of the French, but for different reasons. The defeats of 1859 and 1866 had shown the need for change, but the Austrian attempts at reform were only half-hearted. The writer noted that since the *Landwehr* was a national force, the organization of such forces were executed with much greater efficiency in Hungary than in Austria. 'In Austria', he remarked, 'the *Landwehr* remains a dead letter'.³³ The fact that Austria would be able to raise an army of one million men in the case of war was not impressive since most of its troops would 'never be able to acquire the unity and patriotic spirit that is needed'. The Austrian army could only count on patriotism amongst the German, Hungarian, Tyrolian and, to some extent, Polish troops. The rest of the army, in particular the troops in the Military Border, contained an element which could turn easily into a hostile force against the Austro-Hungarian government. All in all, the author calculated the number of pro-governmental troops to be 300,000 men in an army of 1,161,000.³⁴

Leaving the accuracy of these estimates aside, the assertion that the army of the dual-monarchy found it increasingly difficult to rely on the loyalty of the different ethnic units seems to have been valid. In particular, this was true as regards the Czech or Hungarian troops, and even of the Croats, traditionally used along the Military Border.³⁵

^{30.} Challener, Richard D. The French Theory of the Nation in Arms, 1866-1939. (New York: Columbia University Press, 1955): 10-45; Howard, Michael. The Franco-Prussian War: the German Invasion of France, 1870-1871. Reprint of 1961 ed. (London: Routledge, 1991): 29-34.

^{31.} RGVIA, 1873, F. 401, op. 2, d. 99, f. 76.

^{32.} The German mobilization was not the very smooth process anticipated in the plans, but it was vastly superior to that of the French. Howard, *Franco-Prussian War:* 57-78. The use of railways in the German mobilization in 1870 is examined by van Creveld, Martin. *Supplying War: Logistics from Wallenstein to Patton.* (Cambridge, Massachusetts: Harvard University Press, 1977): 89-96.

^{33.} RGVIA, 1873, F. 401, op. 2, d. 99, f. 97v.

^{34.} Ibid., f. 102v. Unlike Tornau eleven years earlier, the author used the different names of the nationalities (Poles, Slavs, Romanians, etc.), rather than the geographical areas, in the list.

The author summed up, saying that these changes had led to an increase in the wartime strength of armies in Europe. It was the reserve forces that had developed the most, both with regard to numbers and service time. The principle that it was the personal duty of each citizen to defend the country was recognized everywhere. He also pointed out that the systems based on universal military service had managed to combine the interest of the state with those of the different classes of society. The fact that people from all classes were recruited had improved the morale of the armies and the 'conservative factor' had increased in importance in these new armies. This was due to the fact that the higher classes – and educated people – could become officers by serving as volunteers for a very short period. These volunteers would then serve as officers in the reserve or *Landwehr*. This point is noteworthy. The War Minister, D. A. Miliutin, was already convinced of the necessity of the reform and hardly needed to be persuaded of its virtues. The fact that this point is made in an official document in the War Ministry speaks volumes about how controversial the issue of universal conscription was.

In the face of this potentially menacing situation – the whole of continental Europe filled with armed masses – the author pointed out that it was, above all, the defence capacity of the states that had improved considerably, whereas the offensive power had not been affected significantly. Offensives could only be carried out by the regular armies (in contrast to the reserve and the militia) and even then the armies could not commit all troops to offensive action. France had troops tied up in Algeria and Prussia – in the case of war with France – had to secure its rear (Russia) and its flanks (Denmark and Austria). In the case of war against Russia, Prussia would have to secure its rear against France and its flanks against Denmark. Austria, planning a war against Prussia, would have to commit troops against a possible attack from Russia and Italy.³⁶

What, then, were the consequences for Russia? It was not likely that a single country would embark on an offensive campaign against Russia. Consequently, Russia had to prepare for an attack by a coalition of forces. This coalition was likely to consist of three different constellations: (1) Austria and Prussia (including the North German states), (2) Austria, Prussia, Turkey and Sweden, or (3) states mostly interested in the Eastern question; that is, Austria, Turkey, France, Italy, and England.

^{35.} Kennedy, Paul. *The Rise and Fall of the Great Powers: Economic Change and Military Conflict from* 1550 to 2000. (London: Fontana Press, 1988): 279-280. Nevertheless, at the outbreak of the First World War, all of the the different people of the Austro-Hungarian army were as enthusiastic and filled with patriotic feelings as other European armies. It was only as the war continued that desertions among the Slav units began. Stone, Norman. *The Eastern Front* 1914-1917. Reprint of the 1975 ed. (London: Penguin Books, 1998): 122-127.

^{36.} RGVIA, 1873, F. 401, op. 2, d. 99, ff. 121-122.

Comparing the size of the forces of each of these coalitions with the Russian forces, the author produced the following figures.³⁷

TABLE 5	Strength of the Russian Army and European Armies in 1870					
		Battalions	Squadron s	Guns	Number of men	
	1. Austria, Prussia	585	474	1986	695,000	
	Eur. Russia	536 ^a	208	1368	585,000	
	2. Aust. Pr. Turk. Swe.	750	620	2546	875,000	
	Eur. Russia and Caucasus	654	224	1460	700,000	
	3. Aust. Turk, Fr. It. Eng.	602	460	1922	655,000	
	Eur. Russia and Caucasus	654	224	1460	700,000	

a. Includes both field and garrison battalions.

Judging from these figures alone, it might seem that the third scenario would be the best for Russia. However, the author feared this scenario the most. Without spelling it out, he clearly had the lessons of the Crimean War in mind, where the Russian army had been forced to tie up forces for the defence of St. Petersburg that were needed in the Crimea. The author noted that, in the third scenario, the participation of two major naval powers would force the Russian army to split and make concentration difficult. Consequently, Russia would actually be weaker at the decisive point of the battle than the enemy.³⁸

The best way out of this situation would have been to attack, but the Russian army was hardly in any position to do so. With regard to the new armies in Europe, there were no longer just regular forces on the other side of the border but hundreds of thousand of troops, partly field troops, partly local, as well as masses of *Landwehr* or militia. It would not be difficult to defeat these secondary forces, according to the memorandum, but it required a concentration of forces at the very beginning of the offensive to deal a successful first blow against the enemy. This was estimated to require 600,000 troops, a number Russia would hardly be able to muster in an attack since 'we have to leave a part of the troops to secure the borders of the state'. Thus, an offensive campaign would only succeed under 'very favourable political conditions for us'. Having compared the number of forces in the different scenarios, the memorandum

^{37.} Ibid., ff. 127-128v, 131v-132.

^{38.} Ibid., ff. 127-128v, 132-132v.

reached the conclusion that the Russian army was hardly prepared to defend the country effectively and was even less capable of mounting an offensive campaign.³⁹

Thus, the Russian strategic analysis in 1870, in practice, excluded any offensive action and was very pessimistic about Russia's chances to resist an attack by coalition forces. The underlying assumption was that an offensive could only succeed if Russia had a coalition partner or at least a friend who would refrain from attack. In 1870, the friend was undoubtedly Prussia. At the outbreak of the Franco-Prussian War, Miliutin described both Austria-Hungary and England as 'unreliable'.⁴⁰ Conspicuously absent in the strategic analysis is any evaluation about which scenario was the most likely. The Russian army was simply preparing for everything. Within only three years this had changed.

In view of the lessons from the Crimean War and – added to this – recent military developments in Europe, the conclusions in the analysis are hardly surprising. The view of Russia as a victim of circumstances may seem exaggerated but it contains a grain of truth. The gap between the Russian army and, at least, the Prussian army was widening, not only in numbers but also in modern weaponry and the construction of railway networks. However, it was not in military technology that the most significant change lay. Universal conscription encompassed the idea of the citizen-soldier, the patriotic, educated man with close ties to the army unit and to the fatherland. Nationalism was growing in strength in Europe as Germany and Italy were unified. At the same time, the distinction between the military and the civilian life of the nations became less apparent.⁴¹ War correspondents reported from the war using the telegraph to send their reports. Soldiers on leave could travel home and back, and the wounded could be treated at home. The war effort increasingly became the concern of the entire nation. These aspects were not lost on the Russian War Ministry.

5.3 Lessons from Prussia and America

5.3.1 Militia Contra Reserve - the American Connection

The most acute problem for the Russian army in 1870 was the lack of a trained reserve force. The reserve forces had greatly increased in Europe, as the author of 'Facts' had pointed out, and Russia was lagging behind. Still, during Miliutin's time as War Minister, the trained reserve had increased from approximately 200,000 in 1862 to 500,000 in 1869.⁴²

^{39.} Ibid., f. 133.

^{40.} RGB OR, F. 169, k. 16, ed. khr. 3, f. 31.

^{41.} Howard, *Franco-Prussian War*: 3; Howard, Michael. *War in European History*. (Oxford: Oxford University Press, 1976): 98.

In 1870, Miliutin submitted the first provisions in preparing for the introduction of universal military service. They consist of two documents: 'About the Development of our Armed Forces' and 'About the Main Foundations of Individual Military Service.'⁴³The former outlined a proposal for a new organization of the Russian army – above all the creation of a substantial reserve force. Miliutin demanded two things: (1) that a reserve force of at least 600,000 men be created, and (2) that this force be deployed in the European parts of Russia, where the threat was perceived to be the greatest.⁴⁴

The document, 'About the Development', is noteworthy because it was one of the few official documents by D. A. Miliutin in which clear reference to the American Civil War was made. It was the use of militia forces in the Union army that had caught his attention.

In making his case for the formation of the reserve, Miliutin argued against militia forces (*opolchenie*). The militia could in no way replace a trained reserve force. The main task of a trained reserve was to support the active field army and to relieve it from taking part in secondary military operations, that is, in areas away from the main theatre of war. These operations could still involve conflicts with enemy forces but, according to Miliutin, the reserves did not have to be equal to the active army in tactical knowledge. However, in discipline, endurance, and fighting morale, the reserve force needed to be as good as the active army, which required a fair amount of training. A militia did not have enough training to be useful in battle. ⁴⁵ To illustrate his point, he used the American Civil War. In the beginning of that war, when the Union army largely consisted of a militia force, with only a few months of training, the army had suffered constant defeats:

Only when the government had replaced the militia with volunteers, recruited for three to five years, did the discipline of the army grow stronger, a real military spirit was created and, with it - victory.⁴⁶

The American Civil War did not persuade Miliutin of the need to create a trained reserve. As we have seen, he was already convinced of this. Rather, he used the American Civil War to argue his case in the political debate on universal conscription. The Civil War had demonstrated (1) that it was possible to train civilians to become good soldiers in a fairly short period, and (2) that a reserve force required people who had gone through proper military training. He later remembered the initial chaos of the Civil War. The battle of Bull Run clearly showed how inefficient a militia force could be if it lacked both training and discipline. He noted how

^{42.} Obruchev, Voenno-statisticheskii sbornik: Vol. 4, Part 2: 76; Zaionchkovskii, Voennye reformy: 79; Skalon, D.A., ed. Stoletie voennogo ministerstva, 1802-1902. 13 vols. (St. Petersburg, 1902-1914): Vol. 1, 485-86, Appendix 11: 80.

^{43.} GARF, F. 677, op. 1, d. 345. 'Documents by War Minister D. Miliutin'. 9 December 1870.

^{44.} Ibid., ff. 6, 7v, 17v.

^{45.} Ibid., f. 6v.

^{46.} Ibid., f. 7.

panic in the Union army had lead to desertions and to the the dissolution of entire units. It was good fortune that the Confederate army had not exploited this.⁴⁷

Miliutin had discussed different ways of changing the recruitment system in Russia with his uncle, P. D. Kiselev.⁴⁸ As early as 1865, Kiselev noted in his diary that it was well worth studying the use of volunteers in the Civil War. Kiselev felt that a standing army of 300,000 men would be sufficient with a reserve force similar to the one used in the United States. Such a recruitment system would be beneficial to the Russian finances and 'without any danger for her defence'.⁴⁹ Kiselev was also an admirer of the Swiss volunteer system, something that Miliutin was not so enthusiastic about. Miliutin was careful to make a distinction between a militia and a reserve force.⁵⁰ Even if he had been a supporter of Kiselev's ideas, he was careful not to say so. The issue of universal conscription was controversial enough, and Miliutin preferred to tread lightly and not argue outright for the creation of a large militia.⁵¹ The American Civil War provided him with arguments to show that universally conscripted civilians could be trained to become good soldiers.

5.3.2 Military Expenses - the German Connection

Finance was a major obstacle to the efforts to reinforce the Russian army. According to Miliutin, the outcome of the Franco-Prussian War had made people realize that it was necessary to look beyond money when it came to the reforms of the armed forces.⁵² This seems exaggerated, considering the constant battle between the War and Finance Ministers. Mikhail Khristofovich Reutern was a formidable adversary, not open to any arguments that would involve an increased military budget.⁵³

However, after 1870 Prussia's prestige and power, won by three stunning victories, was indisputable and the Russian War Ministry used the opportunity to the maximum. At the end of

^{47.} Miliutin ignored the fact that the Confederate Army at this time was a militia force as well. RGB OR, F. 169, k. 14, ed. khr. 1, f. 56v. 'Memoirs'. 1861. The Battle of Bull Run was fought on 21 July 1861 (N. S.), and General Irvin McDowell's Union army fled in panic when enveloped by the Confederate force. The Confederate President Jefferson Davis's decision not to authorize pursuit was much criticized subsequently. Hattaway, Herman, and Archer Jones. *How the North Won: A Military History of the Civil War.* (Urbana: University of Illinois Press, 1983): 44-49.

^{48.} RGB OR, F. 169, k. 16, ed. khr. 2, f. 74; Zablotskii-Desiatovskii, A. P. Graf P. D. Kiselev i ego vremia. 4 vols. (St. Petersburg: M. Stasiulevich, 1882): Vol. 3: 411-412.

^{49.} Zablotskii-Desiatovskii, Graf P. D. Kiselev: Vol. 3: 370-371.

^{50.} RGB OR, F. 169, k. 16, ed. khr. 2, f. 74v.

^{51.} In his memoirs, he would later admit that he 'had to act very carefully in order to gradually achieve a better balance between the peace time staff of the army and the full wartime army. It was out of the question to go directly to a militia system'. RGB OR, F. 169, k. 16, ed. khr. 2, ff. 76-76v.

^{52.} RGB OR, F. 169, k. 16, ed. khr. 3, f. 49.

^{53.} Mikhail Khristofovich Reutern (1820-90) was Finance Minister between 1862 and 1878. *Russkii biograficheskii slovar'* (hereafter *RBS*): Vol. 16: 5-22. Several of his reports to Alexander II were published in Reutern, Michael von. *Die finanzielle Sanierung Rußlands nach der Katastrophe des Krimkrieges 1862 bis 1878 durch den Finanzminister Michael von Reutern*. (Berlin: Georg Reimer, 1914).

1871, N. N. Obruchev completed a comparison between the military budgets of Germany and Russia.⁵⁴ The purpose of the document was to explain and defend the level of Russian military expenditure in comparison to Germany. It was printed and distributed to ministers and members of the State Council.⁵⁵ The tone was slightly alarmist with a few exaggerations and contradictions. For instance, Obruchev initially gave a very bleak picture of Russia and her armed forces in order to explain the high Russian military budget yet, a little later, he stated confidently that 'the Russian army is in no respect inferior to foreign armies'.⁵⁶ Nevertheless, the document offers a valuable insight into the War Ministry's thinking on the armed forces in relation to politics, and it clearly shows what impression the Prussian wars had made on the army leadership or, at least, how the example of Germany was used in the debate. Obruchev used a number of Prussian publications regarding the Prussian army. There is even a rare acknowledgement of the work of the military attaché, K. G. Doppelmaier, who had supplied the German military budget and explained certain of its details. ⁵⁷ The document provoked an angry response from the Finance Minister, who accused the War Ministry of manipulating the figures.⁵⁸ The details of the financial argument do not primarily concern us here, but rather Obruchev's views on Russia, politics, and military affairs.

How could the large Russian military budget – approximately thirty per cent of the state budget – be explained? In absolute figures, Russia spent more on its army than any other country, for instance, fifty-five per cent more than Germany, and twenty-nine per cent more than France.⁵⁹ According to Obruchev, such a comparison of figures was not accurate since there were many differences between Russia and other countries. He turned to Germany to illustrate his point. Russia was a much larger country than Germany. For instance, the European part of Russia alone was ten times larger than the entire German territory. The climate was harsher in Russia and the average temperature of Bremen (+10 degrees centigrade) could only be compared with Odessa and Astrakhan'. Russia had a population of eighty-two mil-

^{54.} RGVIA, 1873, F. 401, op. 2, d. 98, ff. 26-110. 'Comparative Table of the Military Expenses of North Germany According to the Estimated Budget of 1870 and of Russia According to the Actual Expenses of 1869' with an Explanatory Statement'. These document can also be found in RGB OR, F. 169, k. 28, ed. khr. 8. Airapetov relied on Miliutin's memoirs for an account of the contents of these documents. 'Zabytaia kar'era': 67-68. See also Askew, William C. 'Russian Military Strength on the Eve of the Franco-Prussian War', *The Slavonic and East European Review* 30 (1951): 185-205 which contains an abridged translation of the Explanatory Statement. Eugene Schuyler, the United States chargé d'affaires in St. Petersburg, had managed to secure a copy of the document and sent it translated to the Secretary of State, Hamilton Fish, on 6 March 1872.

^{55.} It seems clear that at least some of the military attachés read the 'Comparison'. Tornau returned a copy to the member of the State Council Sergei Grigorievich Stroganov 22 December 1871. RGVIA, F. 401, op. 5, d. 615, f. 18.

^{56.} RGVIA, 1873, F. 401, op. 2, d. 98, f. 29

^{57.} Ibid., ff. 44, 45v, 46v.

^{58.} There is a summary of the Finance Minister's response in Beyrau, *Militär und Gesellschaft*: 300-304. For more details on 'the war of pamphlets' between the War Ministry and the Finance Ministry, see also Fuller, *Strategy and Power*: 300-303.

^{59.} RGVIA, 1873, F. 401, op. 2, d. 98, f. 26v.
lion, Germany had forty million.⁶⁰ Furthermore, he stressed the lack of railway networks in Russia as compared to Germany. The inhabitants of populated areas were financially poor and very few towns in Russia could be compared with foreign towns:

...the rest look like villages that periodically burn down due to frequent fires. In the remote areas of the State, it is still possible to encounter large parts of the population without proper lodgings, being content with dens, huts, yurts, cabins, etc.⁶¹

Obruchev was not alone in referring to geographical and climatological factors as aggravating for Russia and its army in the efforts to modernize. Miliutin pointed to these factors when he discussed the possibility of introducing a militia or volunteer system in Russia. The vastness of Russia, the long distances, and the climate, according to Miliutin, made it impossible for Russia to copy a volunteer system like that of Switzerland.⁶² In 1870, again, it was the geographical situation, the long borders, and the unprotected coastlines that made it imperative for Russia to increase the size of the wartime army.⁶³ From this, it becomes evident that Russian geographical exceptionalism was used by the army when it was opportune to do so in the domestic political debate, whether to defend a large budget or argue for different reforms. Importantly, neither Obruchev nor Miliutin believed that Russia was so exceptional in geographical or other terms that universal military service could not be introduced. Rather, it was a foreigner who seized on Russian 'exceptionalism'. When the German War Minister, Albrecht von Roon, met Miliutin in 1872, he told Miliutin that he did not understand why Russia would want to introduce universal conscription since it did not correspond to Russia, neither the State order nor the level of civilization.⁶⁴

Obruchev was aware of the need to develop the industrial potential of Russia, particularly production of coal and iron as well as mechanical and chemical industry. He claimed that the industrial level always stood in relation to the people's needs. With a tone of bitterness, he added that the Russian people had begun to acquire the necessities of life only in the past ten years, whereas until the emancipation of the serfs, the people had lived in slavery. In education, Russia suffered from total 'backwardness' (*otstalost'*). The low level of general education made it difficult even to recruit sufficient numbers of competent administrators to governmental service. The degree of literacy among the population was stated to be one or two per cent.⁶⁵

^{60.} RGVIA, 1873, F. 401, op. 2, d. 98, ff. 27-27v.

^{61.} Ibid., f. 27v.

^{62.} RGB OR, F. 169, k. 16, ed. khr. 2, f. 74v. Quote from the yearly report from the War Ministry 1 Jan. 1868.

^{63.} GARF, F. 677, op. 1, d. 345, f. 3v.

^{64.} RGB OR, F. 169, k. 16, ed. khr. 4, ff. 59-59v. 'Memoirs'. 1872-1873.

^{65.} RGVIA, 1873, F. 401, op. 2, d. 98, ff. 27-27v. This figure probably refers to the entire population. The literacy rate among new recruits was considerably higher. See Chapter 2.

Furthermore, Obruchev argued that since the tasks of the State were more extensive and difficult in Russia than in Germany, the tasks of the army were even more complicated. He noted that the maintenance of the army was closely linked to the highest interests of the State. The military expenditure of every state depended on the general political situation and on the conditions in which the army existed:

... The first; that is, the political situation determines the number and the purpose of the troops; the second; that is, the conditions of the troops, more or less determine the cost of their maintenance. The War Ministry has only a limited influence on the latter point and even less on the former, which in turn is immediately subordinate to the territorial expansion of the country, the power of its neighbours, and the political role marked out for it by history. Therefore, all that can be reasonably asked of the War Ministry is that the cost of the army should correspond to the surrounding circumstances.⁶⁶

It was in relation to this (that is, the political sphere), that Prussia provided an example to follow. In 1867, the North German Confederation had been created and the Parliament had immediately passed a law providing funds for maintaining an army equal to one per cent of the population. This so-called 'iron law' automatically provided an annual grant of 225 thalers per man. This, according to Obruchev, showed that Prussia had realized that there was a relationship between the cost of the maintenance of the troops and the general strength of the army. The military budget was discussed and criticized in the parliament, but 'all occasions for unfounded, unreasonable complaints of the size of the military budget' had been removed. In Russia, Obruchev felt, there was still much resistance to military expenditure.

This view of the situation in Prussia is only partly correct. It is true that the parliament of the North German Confederation had passed the 'iron law' that provided funds for the army, but whether this was actually a result of more knowledgeable German politicians can be disputed. For one thing, the decision was taken in the wake of the Prussian victory over Austria, when Prussia had established itself as the leader of German unification. Furthermore, the military laws passed by the North German Confederation had been implemented in Prussia as a part of the military reforms between 1859 and 1864 but the Prussian Chamber took no part in these decisions.⁶⁷ The Prussian government under Bismarck had simply circumvented the Chamber, which had refused to approve any military funds in the constitutional conflict during the first half of the 1860s - facts conveniently not mentioned by Obruchev. The important point, however, is that a Russian General Staff officer had seen the connection between the army and the political system – and argued that Russia had something to learn from Germany in this respect.

^{66.} RGVIA, 1873, F. 401, op. 2, d. 98, ff. 28-28.

^{67.} Craig, Gordon A. The Politics of the Prussian Army 1640-1945. (Oxford: Oxford University Press, 1964): 164-66, 174-179, 220.

Obruchev emphasized the need to keep a small standing army in peacetime in order to increase the reserve and expand the army in times of war. The peacetime army served two purposes, he noted: (1) to maintain order in the interior, and (2) to serve as cadres for the troops to be mobilized in wartime. Russia's standing army in peacetime was twice as large as the German army. But Germany could expand its army three times in war, while Russia could only expand the army one and a half times.

In view of the latest developments in Europe and in the art of war, Obruchev argued that no more cuts in the Russian military budget could be made. After all, the army had cut its numbers substantially during the last twenty years. In 1850, the army consisted of two per cent of the population and, in 1870, it was less than one per cent. Thus, there were no 'superfluous men' in the Russian army:

The army is a political instrument, but also a technical one requiring constant improvements. If the existence of a state requires the existence of such an instrument, this instrument should be equal to those of other countries, and always ready to enter into conflict with them.⁶⁸

To ignore these principles would lead to fatal consequences. The violation of these principles accounted for the defeat of Austria at Königgrätz and the defeat of France Metz and Sedan. Prussia won these wars because its government saw the army not as a burden weighing on the economic interests of the country, but as a force which guaranteed the very existence of the State.

So, if P. A. Valuev in his memorandum had argued for the importance of moving the people closer to the army, Obruchev wanted to move the ministers and politicians closer to the army. Both argued for a closer integration of military and civilian life. The days of a large standing army were numbered and a trained reserve force was needed. Peacetime preparations for recruitment and mobilization slowly became concerns of civilian life not, as before, restricted to the army exclusively. Large armies required weapons, uniforms, and supplies on a hitherto unprecedented scale. Communications – above all enlarged railway networks – needed to be improved. The general level of education needed to be improved. Germany was seen as an example to follow in all of these areas.

Conventional history has it that the Imperial Russian army officer lacked political understanding.⁶⁹ This view needs modification. Obruchev's memorandum, which was supported by Miliutin, clearly shows considerable political insight. In a time of growing nationalism and industrialization, political unity had become a prerequisite for survival. In terms of nationality, it was clear that the Great Russians were seen as the dominating people. Miliutin in the of-

^{68.} RGVIA, 1873, F. 401, op. 2, d. 98, f. 43

^{69.} Ray, Oliver Allen. 'The Imperial Russian Army Officer', Political Science Quarterly 76 (4, 1961): 592.

ficial memorandum 'About the Development' expressed doubts about the reliability of the population in the border areas in the case of an invasion.⁷⁰ The growing strength of nationalism posed a challenge to the existence of the multi-national Russian Empire. The Russian War Ministry was not unaware of this – on the contrary. Miliutin and Obruchev felt that the army had an important role to play in unifying the Empire since the army was something that both the political centre of the autocracy and larger parts of the, universally conscripted, population could rally round. At the same time, they saw the army as being important in the efforts to modernize the Empire. These views were not shared by everyone in the political life of St. Petersburg, but it is indicative that among these were the most influential officers of the Russian army.

5.4 Stand Firmly in the West - the War Plan of 1873

The work on a strategic survey of Russia began in 1872. The military districts were instructed to provide the War Ministry with surveys of the possible theatres of war in their districts.⁷¹ The military attachés were also involved in providing estimated size and mobilization time for the foreign armies.⁷² This material was then compiled in two strategic surveys, one of the European frontier districts and the other of the Caucasus. Obruchev was responsible for the former, Grand Duke Mikhail Nikolaevich for the latter.

Obruchev's plan, 'Considerations on the Defence of Russia', was, no doubt, the more significant document.⁷³ In effect, it was the first Russian war plan that laid the basis for all of the war plans to 1909.⁷⁴ True enough, it does not contain all the details for mobilization and deployment as did the plan of 1880 and subsequent plans,⁷⁵ but the strategic concept outlined in 1873 remained the same. The plan was presented and discussed at the strategic conference in 1873, the debates of which we shall return to later.

The plan and the strategic conference are of such importance in the history of the Russian army that it may seem odd that they have only received attention from a small number of

^{70.} GARF, F. 677, op. 1, d. 345, f. 3v. In 1859, Major-General P. K. Men'kov had noted that 'our Fatherland may be vast - but the ruling element is one'. RGVIA, F. VUA, d. 18068, f. 190. 'Thoughts on the Organizatization of the Military System in Russia'. 3 May 1859. This document by Men'kov was written as a commentary to Miliutin's memorandum of 1856.

^{71.} RGB OR, F. 169, k. 16, ed. khr. 3, f. 158v, and F. 169, k. 16, ed. khr. 4, ff. 85-85v.

^{72.} RGVIA, F. 401, op. 5, d. 615, ff. 12-17.

^{73.} P. A. Zaionchkovskii summarized Obruchev's plan in his *Voennye reformy*: 280-288. Although it is an extensive summary it contains a few important omissions. My interpretation of the plan differs somewhat from that of Professor Zaionchkovskii.

^{74.} Zaionchkovskii, A. M. *Podgotovka Rossii k mirovoi voine v mezhdunarodnom otnoshenii*. (Leningrad: Gosvoenizdat, 1926): 29-30, 340.

^{75.} Fuller, *Strategy and Power*: 341; Rich, 'The Tsar's Colonels': Chapter 4.

scholars. The conference was the first attempt to get broad political support for a strategic programme of the Russian army. Fundamental questions about the Russian armed forces were raised. The material from the conference that has survived in the archives consists of approximately 1,200 pages of documents for discussion, personal statements from participants, the final resolution, and a number of additional papers concerning the implementation of the decisions. If detailed minutes of the day-to-day deliberations were taken they are nowhere to be found. However, the different memoranda from the participants, and the diaries of Miliutin and Grand Duke Konstantin Nikolaevich give a good, although not complete, picture of what went on during the meetings. The conference convened five times in the Winter Palace under the chairmanship of Alexander II between 28 February and 31 March. The seniority of the participants, including five grand dukes, the two field marshals, and a number of senior ministers, and the fact that the conference was chaired by the Tsar indicate that the issues discussed were of overriding importance.

The only historian, until recently, who made the connection between the Franco-Prussian War and the conference in 1873 was A. M. Zaionchkovskii, in 1926. P. A. Zaionchkovskii analysed the conference more from a domestic-political than from a strategic perspective. Recently Obruchev's plan has received attention from two American historians, but for various reasons they were not able to consult the original document, and relied exclusively on P. A. Zaionchkovskii's summary.⁷⁶ Our focus is the influence of the foreign wars on Russian strategic thinking. The plan illustrates how the wars, the European conflicts as well as the American Civil War, had an impact on the Russian strategic thinking. Another point – perhaps obvious – is that the very fact that the document was written is, in itself, indicative of a prompt reaction to foreign military developments. Strategic plans of this significance, which clearly identified a threat and laid down a long-term commitment for the army, had not been made before. The first effort was the 'Facts for the Evaluation of the Armed Forces of Russia', but it was only in 1873 that the strategic evaluation of Russia had grown into a more comprehensive plan.

Obruchev's plan was defensive in thought and action. It was a defence based on three pillars: mass of men, railways, and fortresses – all in the Western parts of Russia. Obruchev demanded four things: (1) a programme for building strategic railway lines, (2) an increased number of infantry battalions, (3) the relocation of the cavalry to the Western frontier, and (4) a programme for upgrading the fortresses.

^{76.} Fuller, Strategy and Power, 295-300; Rich, 'The Tsar's Colonels': Chapter 4. See also, Menning, Bruce W. Bayonets before Bullets. (Bloomington: Indiana University Press, 1992): 19-20, and Zaionchkovskii, P. A. 'D. A. Miliutin. Biograficheskii ocherk', in Miliutin, D. A. Dnevnik D. A. Miliutina 4 vols. (Moscow: Gosudarstvennaia ordena Lenina Biblioteka SSSR imeni V. I. Lenina. Otdel rukopisei., 1947-50), Vol. 1: 40-43.

The basic thought in Obruchev's plan was that Russia had to prepare for a war against a coalition, since the reasons for war were not likely to be personal quarrels among the European sovereigns, but would be based on significant political differences:

In preserving peace, all prepare for war. ...The art of diplomacy can provide us with allies and equalize our chances in a fight with the enemy. Strategic considerations cannot venture into the diplomatic domain, but must consider the defence system of the State from the situation where we have to - not attack - but defend ourselves, which means [preparations] for a war with a first-rate opponent.⁷⁷

The transition from peace to war had become instantaneous and four questions needed urgent answers: (1) as the current army large enough in relation to the armies of neighbouring countries; (2) how quickly could the Russian army mobilize; (3) how quickly could it concentrate; and (4) were the frontier areas properly prepared to meet the enemy?

In the case of a war in Europe, the Russian army could not use all of its forces. Obruchev noted that the army in the Caucasus could not be used, nor could the troops in Orenburg, Turkestan and Siberia.⁷⁸ These troops amounted to a total of 226,400 soldiers. General Sherman, hero of the American Civil War, who visited Russia in May 1872, remarked with regard to the troops in Caucasus '...in the case of a European war, she could not withdraw these forces, as the natives would surely rise.'⁷⁹ Sherman did not know how right he was. For a war in Europe, the Russian army could raise (including the Don Cossacks) 1,000,000 soldiers compared to Germany's 1,270,000, Austria's 1,020,000, and Turkey's 230,000.⁸⁰ This would put Russia in an awkward position, not only in the case of a coalition force, but also in relation to Germany alone.

'Mobilization - as it is conducted today - is a completely new thing to us', Obruchev continued, acutely aware of the fact that the use of railways had fundamentally changed mobilization. Modern mobilization was characterized by large numbers of troops being rushed long distances in a short time. In 1870, Germany had transported 462,000 men over nine railway lines in merely two weeks.⁸¹ This compares with the Russian army's attempt to mobilize in 1859 against Austria, a process planned to take three months, but which had taken five months to complete or, for that matter, with the failed attempts by Prussia to come to the rescue of Austria in 1859.⁸² It will be remembered that France had made a successful use of railways in 1859.

^{77.} RGVIA, 1873, F. 401, op. 2, d. 100, f. 74. Zaionchkovskii's summary only contained the first sentence of the paragraph quoted here. Zaionchkovskii, *Voennye reformy:* 280.

^{78.} In the First World War, the Siberian Corps and also units from Turkestan and Orenburg were important reserves on the Eastern Front. Stone, *Eastern Front*: 104, 112, 118, 142, 257.

^{79.} Saul, Norman E. Concord and Conflict: The United States and Russia, 1867-1914. (Lawrence, Kansas: University Press of Kansas, 1996): 74.

^{80.} The number of the Turkish army does not include *opolchenie*. RGVIA, 1873, F. 401, op. 2, d. 100, f. 76.
^{81.} Howard, *Franco-Prussian War*: 60; van Creveld, *Supplying War*: 90.

Obruchev observed that it was the war of 1859 that had first highlighted the importance of railways.⁸³ The French army needed less than three weeks from the Austrian ultimatum to deploy behind the Alps. Furthermore, the latest wars of 1866 and 1870 were even more convincing since they demonstrated how the battle readiness of contemporary armies was not measured in months or even weeks but in days and hours.

For the Russian army, this meant that it must try to achieve the same battle readiness as the rest of Europe 'regardless of territorial or economic obstacles' - as Obruchev put it. As the main obstacle to achieve this he mentioned Russia's poor economic situation, following the cost of rearmament and the money spent on improving the depots of the army. These depots had been exhausted in the Crimean War. Nevertheless, substantial progress had been made and the time needed to bring the troops of the different districts to fighting-strength had dropped from between 25 and 50 days in 1867 to between 8 and 32 days in 1872.⁸⁴ This achievement was ascribed to new railway lines and the electric telegraph. The Achilles he an even faster mobilization was the provision of horses. In the St. Petersburg Military District, it would take 35 days to gather the horses required. In the Warsaw Military District, the mobilization of horses was estimated at 60 days and in the Caucasus 90 days. Nevertheless, the picture was not entirely black and the entire army would have reached their mobilization depots on the eighteenth day, and it would have been ready to move in five to six weeks from the call-up.⁸⁵ This was nowhere near the German army's mobilization speed which was estimated to be nine days. The Austrian army's was estimated as being within twelve days. The military attaché in Vienna, however, was sceptical about Austria's official mobilization estimates. In January 1872, he noted that the Austrian army, officially, would be able to raise 420,000 men against Russia in four weeks. Tornau thought that these figures were exaggerated but, as he somewhat ironically pointed out, 'I will not argue against them, since if I am wrong it will not do us any good'.86

Obruchev was clearly frustrated by this development – even Turkey had speeded up the mobilization of its army – and it was imperative that the Russian army follow suit. But to speed up the army's mobilization and concentration depended not only on the War Ministry but,

^{83.} RGVIA, 1873, F. 401, op. 2, d. 100, f. 77.

^{82.} RGIVA, 1873, F. 401, op. 2, d. 100, ff. 77-77v; Showalter, Dennis. *Railroads and Rifles: Soldiers, Technology and the Unification of Germany*. (Hamden, Conn.: Archon Books, 1975): 40-43; Wawro, Geoffrey. *The Austro-Prussian War. Austria's War with Prussia and Italy in 1866*. (Cambridge: Cambridge University Press, 1996): 12. The military attaché in Vienna was asked about the Russian mobilization and reported to the War Minister that he replied to all inquires that he did not know anything about it, since at his latest visit to Warsaw he had not seen any troops on the move. RGVIA, F. 401, op. 1, d. 85, f. 4. 'Tornau to the War Minister. 31 Jan./12 Feb. 1859'.

^{84.} RGVIA, 1873, F. 401, op. 2, d. 100, f. 78. The Caucasus Military District had - at least on paper - improved the mobilization time from 111 days in 1867 to between 19 and 39 days in 1872.

^{85.} RGVIA, 1873, F. 401, op. 2, d. 100, f. 80v.

^{86.} RGVIA, F. 401, op. 5, d. 615, f. 16v. 'F. F. Tornau to F. L. Heyden, 16/18 Jan. 1872'.

above all, on the general disposition of the State (*gosudarstvennoe rasporiazhenie*) and, more specifically, on railway construction.

Concentration, according to Obruchev, depended on two factors: army deployment (which units are stationed where) and communications. Regarding the latter factor, Russia still had too few railway lines, in spite of recent developments. In European Russia, the railway network amounted to 14,000 versts (14,938 km) whereas Germany had 22,000 versts (23,474 km) and Austria 11,306 versts (12,064 km). But the territory of the two neighbours was much smaller than the Russian territory. In terms of actual lines that could be used to concentrate troops against Russia, Germany had ten lines to Russia's five. The Russian lines were St. Petersburg-Warsaw, Moscow-Warsaw, Odessa-Belostok, Kursk-Vil'na, and Riga-Kovno. A coalition of Germany and Austria had sixteen lines, compared to the six Russian lines against this coalition.⁸⁷

In calculating the mobilization and concentration times, Obruchev reached the conclusion that it would take the Russian army between 63 and 70 days to concentrate against Austria, whereas Austria could concentrate its troops against Russia within 30-33 days. Against Germany, the situation was equally bleak. The concentration of the Russian army was estimated at 54 to 58 days, compared to the estimated 20-23 days it would take the German army to concentrate against Russia. Obruchev pointed out that these calculations were only approximates, but they clearly illustrated the lack of railways on the Russian side. This put Russia in a position between two extremes. Either Russia could start the war with an insufficient army and risk being crushed almost before the war had begun, or it would have to retreat and lose the border areas.⁸⁸ In a worst-case scenario, Austria could have taken a large part of Poland and Volhynia within thirty days from the mobilization announcement. Within the same time, Germany could have occupied Poland and a large part of Lithuania.⁸⁹ In addition, the Russian army would not only have to fight the attacking enemy but also the 'entire rebellious populations of Poland and Volhynia'. In an appendix to the strategic report, there is an analysis of reliable/unreliable elements of the Polish population. Out of a total population of 6,200,000 people, four million peasants were considered to be largely loyal, 'but in a critical moment, neither they, nor the Jews are to be trusted. The nobility, the merchants, the clergy, and the petty bourgeois (meshchane) will turn against us'.⁹⁰ Similarly, in the strategic survey

^{87.} RGVIA, 1873, F. 401, op. 2, d. 100, ff. 82-82v.

^{88.} Ibid., f. 84.

^{89.} Ibid., ff.84v-86. Most likely, these figures were vastly overestimated, at least as far as Austria was concerned. Much later, in 1914, the Russian General Staff (and perhaps the Austrians themselves) believed that the Austrian army could reach far into Volhynia within twenty days of mobilization. In reality, by 1914, they were still far south of the Russian border. Stone, *Eastern Front*: 34.

^{90.} RGVIA, 1873, F. 401, op. 2, d. 100, f. 129.

of the Caucasus, Grand Duke Mikhail Nikolaevich anticipated a Muslim insurrection against Russia in the case of a Turkish invasion of the area.⁹¹

The frontier areas were not at all prepared for a German/Austrian offensive. In Obruchev's mind, the Western areas were extremely vulnerable. The area in Poland around the Vistula was prepared for a direct attack from the West, but it could easily be circumvented from the North and/or the South. The north-western theatre - 'a vital area of our territory from a military point of view' - was not secured by anything. The area contained the main roads to St. Petersburg and Moscow and, perhaps worse, gave the enemy access to the Vil'na and Riga 'centres of Polish and German aspirations'.⁹² Vil'na, for instance, with four railway lines, did not have any substantial fortifications. Furthermore, the main area (*glavnaia baza*) for the Russian army, between the rivers Dvina and Dnepr, was not supported by any railways, which was particularly serious since 'today, all strategic considerations have to be based on rail-ways'.

Russia was thus burdened by slower mobilization and concentration times than its neighbours, due to lack of railways, long distances, and a problem with the supply of horses. In addition, the fortresses in the western provinces did not meet the current demands of warfare. They required both new rifled guns and improved fortifications in view of the increased firepower of the rifled artillery. So what could be done?

Obruchev tried to be diplomatic. He pointed out that in every detail, the size of the army could not be put on the same level as one or other European power. The army had to reflect the geographical and political situation of the Empire and its history, not merely the current political situation. Looking westwards, he saw two powers – bound by common interests – being able to raise 60 divisions, supported by reserves, against Russia and concluded:

Here is our main danger (*opasnost'*). In order to avert it we must be able to stand up against these neighbours with equal power. 93

Consequently, the Russian army needed 720 battalions to protect the Western borders, plus 50 to 60 battalions for Finland, St. Petersburg, and the Baltic Sea, as well as 50 to 60 battalions for the Black Sea area. In total, 820-840 infantry battalions needed to be deployed in European Russia.⁹⁴ This figure can be compared to the 516 infantry battalions that were stationed there at the time and the estimated 728 battalions that Austria-Hungary and Germany could muster against Russia. Obruchev wanted the battalions to be active, not reserves.

^{91.} RGVIA, 1873, F. 401, op. 2, d. 100, f. 102v.

^{92.} Ibid., f. 89. All of these references to fears of an internal uprising in the case of war were omitted by P. A. Zaionchkovskii.

^{93.} Ibid., f. 91v.

^{94.} Ibid., f. 92.

The idea behind Obruchev's calculations was to stand firmly in the West and not retreat from Poland. There was no question of retreating into the depths of the Empire. Historically, the vastness of the territory and the distance of governmental centres from the borders had undeniably been an asset, but to pursue such a strategy in 1873 would be mortally dangerous, Obruchev maintained. To withdraw from Poland, even for a short period, could lead to the loss of the Poland. It would look like a defeat and have implications that were dangerous. In addition, the position on the Vistula was the only really good position from which to mount an offensive. Within a month (or 400 versts) lay the Austrian, Hungarian and Prussian capitals. To launch an offensive from the area around the Dvina and Dnepr was deemed impossible.⁹⁵

It is significant to note that these strategic thoughts are coloured on the one hand by fears of foreign invasion and on the other by fears of internal uprising. The events of 1863 in Poland were still vivid in the memory of the Russian strategic planners and would remain there for a long time. The fear of an uprising in Poland explains both the conviction that it was impossible to retreat into the interior, and the reluctance to undertake offensive action. In the case of an offensive the Russian army in 1873 did not have enough reserves to leave behind to secure internal order.

A number of measures were needed to secure a position in Poland. First and foremost, a large part of the Russian cavalry had to be moved to the border and the infantry had to be deployed slightly behind the cavalry units. Most of the Russian cavalry at that time were deployed in the interior. Obruchev argued that it was vital for the cavalry to be redeployed on the border when war was declared. Its task was to slow down the concentration of the enemy through raids against its railway lines and, at the same time, to protect the mobilization of the Russian infantry.⁹⁶ This notion deserves merit since it clearly shows that the lessons of the American Civil War were being absorbed into Russian strategic planning.

By 1880, almost half of the Russian cavalry (128 squadrons) had been deployed on the German and the Austrian borders.⁹⁷ It should to be pointed out that all this was a form of compensation – in this case, for the lack of railways. In no way does it indicate that the Russian Main Staff was unaware of the military usefulness of railways. When Bismarck complained in 1883 to the Russian government about the massive build-up of cavalry units at the borders, Obruchev remarked:

Who can really compare the offensive power of cavalry with the offensive power of railways? Just as steam power exceeds horse power, in modern strategy, offensive force is

^{95.} Ibid., f. 94.

^{96.} Ibid., ff. 94-94v.

^{97.} Fuller, Strategy and Power: 306.

determined not by the relative deployment of cavalry squadrons in peace, but by the quantity and speed of those trains which will bear the troops from all quarters to their points of concentration on the frontier with the declaration of mobilization.⁹⁸

The willingness of the Russian army to learn so readily from the use of cavalry in the American Civil War has several explanations. Geographical similarities between the countries undoubtedly played an important role. In comparison with other European countries, Russia had an enormous territory, not unlike the territory where the American Civil War took place. Although the United States did not have the same difficulties with militarily powerful neighbours as did Russia, they had similar terrain and long distances in common. Another factor, already indicated, was the lack of railways in Russia. In order to gain time for its own mobilization, raids into enemy territory were seen as a necessity. A third factor was surely financial. Since cavalry was expensive to maintain and the traditional role of cavalry on the battlefield was threatened in view of increased firepower, the soil was fertile to search for new cavalry tasks. Raids and reconnaissance provided a solution to the problem, and the America-Civil War provided ample examples of a new role for the cavalry.

One of the consequences of the decision to deploy more cavalry in the Western borderlands, surely not accidental, was that the number of Russian troops permanently stationed in these predominantly non-Russian areas increased. On the other hand, the redeployment of cavalry regiments from their traditional areas in the interior of Russia, at least initially, proved demoralizing for the cavalrymen. V. A. Sukhomlinov recognized that the move made sense from a strategic point of view, but still called it a 'dangerous experiment'. He claimed that it took years of training to repair the damages inflicted on the cavalry by the redeployment from the 'native Russian garrisons' to the West. Many officers simply retired.⁹⁹

Nevertheless, Russia urgently needed more railways. Obruchev asked for the extension of new railways by proposing that eleven lines at a total length of 6,780 versts (7,234 km) be built over the next five years. Of these, 1,800 versts (1,921km) were strategic railways; that is, they connected garrisons and were built exclusively for military purposes. These were lines within Poland in an area stretching from the Vistula to the Dvina-Dnepr region. The rest were equally important for military purposes but could also be defended for economic reasons. Obruchev had the following demands:

(1) From Lukov to Ivangorod: 60 versts (64 km); (2) Novogeorgievsk to Ivangorod, eastward to Zamosts, including a branch from Piaska to connect to the Kiev-Brest line: 395 versts (421 km); (3) Ivangorod to Cracow with a branch to transport coal - 255 versts (272 km), and (4)

^{98.} Quoted in Fuller, *Strategy and Power*: 343.

^{99.} Sukhomlinov, V. A. *Vospominaniia*. (Berlin: Russkoe universal'noe izdatel'stvo, 1924): 62-63. See also Kersnovskii, A. A. *Istoriia russkoi armii*. Reprint of 1933-38 ed. 4 vols. (Moscow: Golos, 1992-94): Vol. 3: 20.

Lublin to the station Koliushka at the Lodz line: 235 versts (250 km). This would improve the communications in Poland, but important as they were, they did not secure links with the interior of the Empire. In 1873, there were three such links leading from Warsaw to Moscow, St. Petersburg and Kiev. Just as the German and Austrian lines were vulnerable to attacks from the Russian side, Obruchev was aware that the Russian railway lines were equally vulnerable to enemy raids. He wanted additional lines that would secure the main area (glavnaia baza) for Russian concentration, between the Dvina and Dnepr. This included a line from Briansk to Brest (over Gomel, Mozyr and Pinsk) with two branches ending in Grodno and Rovno, respectively. Moreover, in order to secure the area behind the Dvina and Dnepr, a line between Vitebsk and Gomel was necessary.¹⁰⁰ In addition, the Baltic region would need a line from Pskov to Riga, and a further connection with the Rybinsk-Bologoe line. The Black Sea region needed a connection from Sevastopol to Kerch and a line connecting Kherson, Nikolaev and Odessa. Likewise, the Eastern parts of the Empire needed some 1,000 versts (1,067 km) from Kursk to Voronezh, from Khar'kov to Borisoglebsk, and from the station of Nikitovka to Tsaritsyn. All these lines, according to Obruchev, were of economic as well as strategic interests. The strategically vital lines between the Vistula and the Dvina-Dnepr region might have little economic use, but almost 5,000 versts (5,335 km) coincided with economic interests.¹⁰¹

These were not unrealistic demands. Russia had built 9,654 kilometres of railway between 1860 and 1870, and in the eight-year period 1870-78, the Russian railway network was extended by another 10,597 kilometres.¹⁰² The crucial distinction here is 'strategic' railway lines, which meant that they were almost exclusively useful for military purposes. This meant extra expenses for the military - that is, from the State budget. The Russian railways during the 1850s and 1860s were largely built with private, foreign capital. This policy was highly contested by D. A. Miliutin, who thought that railways were much too important to be left to private capital. He maintained that the railway policy was based on a faulty axiom; namely, that railways were always a burden to the State budget. In Miliutin's view, the examples of Prussia and Austria had demonstrated that railway construction was a question of national security that simply could not be measured in roubles and copecks. He strongly advocated government funded railway construction, against the policy that relied on foreign capital for the railways.¹⁰³ Ever since 1866, the War Ministry had been trying to gain support for a railway programme financed by the State to improve the connections to Poland. Obruchev had written a report in 1868,¹⁰⁴ which was subsequently discussed in the Committee of Ministers on 11 February 1869. The Finance Minister, Reutern, trying to stabilize the rouble, was a

^{100.} RGVIA, 1873, F. 401, op. 2, d. 100, ff. 95v-96v.

^{101.} Ibid., f. 97v.

^{102.} Maksheev, F. Zheleznye dorogi v voennom otnoshenii. (St. Petersburg, 1890): 7. See also Geyer, Dietrich. Der russische Imperialismus. Studien über den Zusammenhang von innerer und auswärtiger Politik 1860 bis 1914. (Göttingen: Vandenhoeck & Ruprecht, 1977): 34-35.

sworn enemy of anything that looked like increased expenses of the State budget, and he argued successfully against the report.¹⁰⁵ Much to Miliutin's annoyance, Chancellor A. M. Gorchakov sided with the Finance Minister.¹⁰⁶ However, two lines to the War Minister's liking were approved – from Brest-Litovsk to Smolensk and to Kiev. In spite of this, the military factor in the development of the railway networks did not play the important role the War Ministry would have liked.

This was very different from Prussia, where the cost of railway networks was lower due, for instance, to much shorter distances. In Prussia, a state-owned railway system was being developed alongside a privately-owned one. Initially, the Prussian state-owned railway policy was run at the insistence of the Minister of Commerce. In 1860, about half of Prussia's railways were state owned.¹⁰⁷ Throughout the 1860s, the General Staff under General Moltke would develop both the strategic thinking about railways and its implementation. As a member of the State Committee for Railways, he had a direct influence over railway construction.¹⁰⁸

In Russia, the policy of state-built railways was not introduced until the 1880s, which led to a more rapid development of the railways in Poland that Obruchev had called for.¹⁰⁹ The railway network in the Vistula region west of Belostok, Brest and Rovno was extended by 3,000 kilometres during a twenty year period (1882-1902), 1,800 kilometres of which were 'strategic' railways. Furthermore, in European Russia, the railway network grew from 16,293 kilometres in 1873 to 48,724 km in 1903.¹¹⁰ During the thirty years between 1870 and 1900, the total Russian railway network grew from 11,243 km to 56,976 km. This can be compared with Germany, where the network grew from 19,575 to 51,391 km during the same period and the growth of Austria's network from 9,589 km to 36,883 km.

^{104.} RGVIA, F. 401, op. 5, d. 416. 'Material About the Construction of Railways'. 1868.

^{103.} Throughout the 1870s, the State sold much of the state-owned railways to private interests. At the same time, the government often held a majority of the private railways' debentures. See Solov'eva, A. M. *Zheleznodorozhnyi transport Rossii vo vtoroi polovine XIX v.* (Moscow: Nauka, 1975): 95-118; Gatrell, Peter. *The Tsarist Economy 1850-1917.* (London: B.T.Batsford, 1986): 150-154, 214-216; Westwood, J. N. *A History of Russian Railways.* (London: Allen & Unwin, 1964): 48-50, 74-78. See also Brooks, E. Willis. 'The Military and Industrialization in Reform Russia: the Railroad Connection'. Manuscript 1987: 3-4.

^{105.} In spite of finding railway construction one of the 'most important future tasks' for the Russian government in 1866, Reutern noted that the financial situation had made it all but impossible for the State to build railway networks. Reutern, *Die Finanzielle Sanierung*: 55-56.

^{106.} RGB OR, F. 169, k. 16. ed. khr. 2, ff. 106-106v.

^{107.} Showalter, *Railroads and Rifles*: 38.

^{108.} Creveld, Martin van. *Technology and War from 2000 B.C. to the Present*. (London: Brassey's, 1991): 158-159.

^{109.} Solov'eva, Zheleznodorozhnyi transport: 153-63; Westwood, A History of Russian Railways: 75-76; Za-ionchkovskii, A. M. Podgotovka: 57-58.

^{110.} Zaionchkovskii, A. M. Podgotovka: 58-59.

Finally, the fortresses needed attention. New and stronger fortifications were needed in view of the power of rifled artillery fire and since they served as supply depots - increasingly important in the West if Obruchev's plan of deploying large numbers of troops were to be realized. Obruchev demanded a programme for the improvement of fortresses at a total cost of forty million roubles.¹¹¹ According to one historian, this project was one of the last efforts to fully solve the issue of engineering preparations in Russia. Although not fully completed, the programme remained unaltered until 1908, when the cost to improve totalled eight billion roubles.¹¹² Other countries also put money into fortresses. For instance, after 1871, Germany decided to improve its fortresses at the cost of 96 million thalers.¹¹³

The first priority of the fortress programme was to secure the defence of the Neman. Therefore, it concentrated on the fortresses at Grodno, Dubno and Kovno – not in Poland itself. Kovno was seen as a key point in the defence of Russia.¹¹⁴ Miliutin would later state that it was the Franco-Prussian War that had turned the War Ministry's attention to the need for a fortress programme. The outcome of the war had demonstrated the vulnerability of Russia's position on the Vistula, which easily could be circumvented from the north or the south. The realization of this danger was a direct consequence of the Franco-Prussian War.¹¹⁵

In Poland, three fortresses were of special importance: Novogeorgievsk (where the Vistula and Bug-Nareev meet, just north of Warsaw), Warsaw and Ivangorod (where the Vistula and the Veprzha meet, south of Warsaw). There were two options to consider: either to fortify the city of Warsaw or to build a bridgehead in central Poland between the rivers Bug-Nareev and Vistula. Obruchev dismissed the first option, on the grounds that the population would be very hostile to any large-scale fortification construction within the city. This hostility could also affect the morale of the soldiers in a negative way. In addition, it would be very expensive to fortify Warsaw. Instead, Obruchev opted to make some improvements to the citadel in Warsaw but, above all, to make improvements at Ivangorod and Novogeorgievsk at a cost of twelve million roubles. This would not, of course, protect Warsaw or prevent the enemy from entering, but Obruchev thought that the very threat of bombardment would force the population to remain submissive. Clearly, there was no doubt at the Russian War Ministry that the Poles would rebel at the first possible chance. A case in point: before 1876, artillery ammunition was never distributed to the units but was kept in the fortress of Novogeorgievsk so that it would not fall into Polish hands in case of an uprising.¹¹⁶

^{111.} This compares to the three million roubles that the War Ministry currently was spending on fortresses per year. RGB OR, F. 169, k. 16, ed. khr 3, f. 158. See also Shil'der, N. *Graf Eduard Ivanovich Totleben: ego zhizn' i deiatel'nost'*. (St. Petersburg: V. A. Tikhanov, 1885-86): Vol. 2: 702.

^{112.} Zaionchkovskii, A.M. Podgotovka, 51.

^{113.} Shil'der, Graf Eduard Ivanovich Totleben: Vol. 2: 585.

^{114.} RGVIA, 1873, F. 401, op. 2, d. 100, ff. 98-98v.

^{115.} RGB OR, F. 169, k. 16, ed. khr. 3, f. 158.

Such was the plan of 1873. It stressed the need to be on the defensive - at least initially. A strategic retreat, like that made in 1812, was categorically excluded. The only serious consideration of offensive action was made with regard to the Caucasus in the case of a Turkish intervention.¹¹⁷ The idea that a future war in Europe would take place on Polish territory remained in the subsequent, more elaborated war plans of 1880, 1883, 1887, and 1890. All of these plans also provided for initial cavalry raids to thwart German and Austrian concentration at the borders of Russia. However, from 1887 onwards, Russian plans started to provide options for offensive action against Austria even at the beginning of the war.¹¹⁸ One of the reasons for this was that the Russian war planners became convinced that the very lack of roads and railways, the size of the country, its poverty - that is, all of the things that were seen in 1873 to work against Russia - could work to its advantage. In 1880, Obruchev thought that all of these things were a factor 'about which an invading army must think twice and which could possibly free more of our troops for an offensive'.¹¹⁹ The war plan of 1880 contained features for both a defensive and defensive/offensive campaign. Which would be chosen depended on what action the Germans took. Amazing as it may seem, the Main Staff planned that the Russian mobilization would switch from defensive to offensive action if it turned out that the Germans did not mount as large attack as had been assumed.¹²⁰In 1873, the Russian War Ministry did not seriously consider the possibilities of launching an offensive from the west.

The threat to Russia in 1873 was perceived as coming from the west, above all, from Germany and Austria-Hungary. Britain was mentioned only in passing as a threat to Russian interests in the south. Why Obruchev saw Germany and Austria as the main threat rather than Britain can to some degree be explained by the recent unification of Germany by Prussia. The Prussian army seemed invincible on the battlefield, and a great military power had suddenly appeared at the Russian borders. But this was only part of the explanation. Obruchev's view in the war plan was that Russia was more or less isolated at the European arena and, therefore, had to cope alone. He felt that neither Germany nor Austria were to be trusted in the diplomatic sphere. The offensive-defensive alliance between Austria and Prussia, signed on 20 April 1854 (N. S.), was cited by Obruchev as a demonstration of the unreliability of these powers.¹²¹ As far as the Crimean War was concerned, it had been lost due to geographical and political factors. He was visibly worried over the fact that Prussia and Russia had remained friends when Prussia, at the same time, in every political question, evidently 'pur-

^{116.} Fuller, Strategy and Power: 279-280.

^{117.} RGVIA, 1873, F. 401, op. 2, d. 100, f. 92.

^{118.} Zaionchkovskii, A.M. Podgotovka: 45; Fuller, Strategy and Power: 348-350.

^{119.} Fuller, Strategy and Power: 347.

^{120.} Ibid., 348-49.

sued only German interests'.¹²² If Obruchev felt that Russia and Germany were destined to be enemies out of a deeper concern for the growing power of nationalism and/or because of cultural factors, he was not explicit about it.¹²³ His concern for what he perceived as Russian international isolation and the weight he gave to political factors, nevertheless, suggests a deeper anxiety. The problem for Obruchev was this: should the friendly relationship with Germany break down, Russia would have had no obvious coalition partners. On the other hand, as an officer in the war planning section of an army in the midst of fundamental reform, he was more likely to present a worst-case scenario in order to get at least some of the money needed for the reforms, whether or not he actually anticipated that a war against Germany was inevitable. Furthermore, since Alexander II was very pro-Prussian, it is unlikely that Obruchev would or could have expressed deeper concerns towards Prussia in an official document such as the war plan.¹²⁴ However, in Russian society as a whole, according to Miliutin, feeling was on the French side.¹²⁵

Was the war going to be long or short? The war plan implicitly assumed that Germany would aim for a short campaign, that is, a decisive battle. Although Germany had no plans for a war against Russia at the time, the assumption that Germany was planning for a short campaign was sound. This would later be established in the Schlieffen Plan, the basic plan for Germany in the First World War.¹²⁶ To plan for a protracted war including a retreat far into the Russian territory was hardly realistic in view of Prussia's rapid victories in 1866 (seven weeks) and 1870 (Sedan after only a month where Napoleon III and an army of more than 80,000 men had surrendered).¹²⁷ From the Russian perspective, this scenario would have led to a certain de-

^{121.} RGVIA, 1873, F. 401, op. 2, d. 100, ff. 91-91v. The agreement had a secret article authorizing Austria to use force against Russia if Russia did not vacate the Danubian Principalities. See Goldfrank, David. *The Origins of the Crimean War.* (London and New York: Longman, 1994): 265; and Taylor, A. J. P. *The Struggle for Mastery in Europe 1848-1914.* (Oxford: Oxford University Press, 1954): 62-665, 69. Taylor wrote that the treaty seemed 'a complete Austrian victory'.

^{122.} RGIVA, 1873, F. 401, op. 2, d. 100, f. 93. The quotes referring to Obruchev's political concerns were not mentioned by Zaionchkovskii.

^{123.} He was consistently unclear when he spoke of 'common German interests'. Sometimes he referred to Prussia, sometimes to Germany and/or the Hapsburg monarchy. RGVIA, 1873, F. 401, op. 2, d. 99, f. 51; F. 401, op. 2, d. 100, f. 91v.

^{124.} Obruchev's counterpart in Prussia, Field Marshal Helmuth von Moltke, was more explicit. In 1871, he claimed that the friendly relationship between the two powers could not be expected to last forever: 'Between the peoples themselves there is an unmistakable and mutual antipathy of faith and customs, and their material interests are in opposition.' Whether or not Obruchev confided such thoughts in letter or other personal documents is unfortunately likely to remain a secret. Although it is clear that some of the documents from Obruchev's archive are kept in RGVIA in Moscow, they have not been assembled into a single fond. To what extent his personal papers have survived is unclear. Moltke was quoted in Craig, *The Politics*: 275-276. For the search of Obruchev's archive, see Airapetov, O.R. 'K sud'be arkhiva N.N. Obrucheva', *Vestnik Moskovskogo universiteta ser. 8* (2, 1993): 80.

^{125.} RGB OR, F. 169, k. 16, ed. khr. 3, f. 32v. See also Narochnitskaia, *Rossiia i otmena neitralizatsii*: 175; Shneerson, L. M. *Franko-prusskaia voina i Rossiia*. (Minsk: Izdatel'stvo BGU im. V.I. Lenina, 1976): 141.

^{126.} Beyrau, *Militär und Gesellschaft*: 278; Bucholz, *Moltke, Schlieffen*: 127. Interesting essays on the war plans before the 1914 can be found in Kennedy, Paul, ed. *The War Plans of the Great Powers* 1880-1914. Reprint of1979 ed. (Boston: Allen & Unwin, 1985). For Russia, see Fuller, *Strategy and Power*: 433-451; Kersnovskii, *Istoriia*: Vol. 3: 155-169; Lieven, Dominic. *Russia and the Origins of the First World War*. (London: Macmillan, 1983): 101-118.

feat. The Soviet historian, P. A. Zaionchkovskii, has criticized Obruchev for failing to take into account the possibility of an enemy attack deep into the Empire.¹²⁸ The point is that such a plan would have been essentially unrealistic. The Prussians would certainly have found an offensive campaign deep into the Russian Empire impossible. Whether they could have been forced by Russia to make such a move remains, perhaps, even more questionable. Obruchev calculated, correctly as it turned out, with this. He thought that the European powers in the West had learned from history and would not try to fight a protracted campaign far into the Russian Empire. To plan for a retreat, therefore, would not have made any sense.¹²⁹

It has been alleged that the General Staffs exclusively planned for short wars ever since the Prussian victories in 1866 and 1870-71 and did not count on the possibility of a long war. This may be true at a later stage but, in 1873, the Russian army clearly did not exclude the possibility of a long campaign, if only they could meet the initial German assault. Fuller has argued eloquently for the rationale of planning for a short war.¹³⁰ He believes that the Russians did not plan to fight a protracted war from Poland because it was 'no solution'. The point I should like to stress is that it was no solution, because it was no option. Fighting from Poland, the Russians had to plan for a short war. In view of the perceived threat from the Polish population, the Russian war planners found it *impossible* to turn Poland into an armed bastion. However, the issue of the length of a future war was simply passed over in silence. The belief in and the planning for short wars did not seem to have penetrated the Russian strategic planning. At the outbreak of the Franco-Prussian war, many expected a protracted war. L. L. Zeddeler, one of the Russian observers, quoted Alexander II to that effect. Chancellor Gorchakov was also quoted as saying:

It will require terrifying sacrifices and a lot of time for one of the sides to lose. If a thirtyyear war is not plausible, a seven-year war is possible.¹³¹

Another point needs to be made. The plan of 1873 touches only implicitly on the fact that industrial capacity had become a determining factor of a country's military strength. The American Civil War had hinted at this, but it was scarcely noticed at the time - and then only in passing.¹³² However, as indicated above, the Russian War Ministry was not completely unaware of the importance of a strong industrial capacity. Indicative of this are the facts that Obruchev thought that the development of the army reflected society's development as a whole, and that he saw industrial advancement as a reflection of the needs of society. In addi-

^{127.} Howard, Franco-Prussian War: 222.

^{128.} Zaionchkovskii, Voennye reformy: 288.

^{129.} RGVIA, 1873, F. 401, op. 2, d. 100, f. 93v.

^{130.} Fuller, Strategy and Power: 299-300.

^{131.} Zeddeler, L.L. 'Dvadtsat' piat' let nazad. Otryvok iz dnevnika', Istoricheskii vestnik (4, 1896): 115.

^{132.} RGB OR, F. 169, k. 15, ed. khr. 2, f. 116. 'Memoirs'. 1865.

tion, D. A. Miliutin clearly appreciated the importance of having a domestic armaments industry and state-funded railways for the army.¹³³ There were several problems connected to these issues in Russia – primarily, economic ones. There was not much room for maneouvre. The strategic railways, expensive to build and to maintain, would largely be useless in peacetime. The situation was similar in the armaments industry. Since Russia could not count on exporting arms or munitions, there was no real incentive for the State to invest in factories that would only produce during wartime. This is also why, in the build-up to the First World War, the War Ministry used to buy shells from existing manufacturers, rather than to build factories.¹³⁴

Thus, the Russian War Ministry did not fail to observe – and to some degree to act on – the consequences of recent military developments. The willingness to respond to change, however, was only shared by a small number of officers in the Main Staff and was not 'common knowledge' among the other ministers or even among many other high-ranking officers. Moreover, the inability of the War Minister to persuade his ministerial colleagues to support the necessary changes was a hampering factor in the War Ministry's efforts to adapt to change.

5.5 Between Victory and Defeat - the Strategic Conference

The agenda of the conference was formed around the strategic plan. The agenda contained fourteen questions, not all of which were discussed during the five meetings. The most important issues concerned the military budget, the railway programme and the programme for fortresses, outlined in Obruchev's strategic plan, and measures to speed up mobilization and concentration. In addition, the creation of a reserve force and the future organization of infantry, cavalry, field artillery, and engineering troops were issues on the agenda.¹³⁵

The idea of organizing a special conference to consider military affairs had first been raised on the train from Tsarskoe Selo to the Crimea in the summer of 1872.¹³⁶ D. A. Miliutin suggested to Alexander II that there should be a conference with selected military and State officials to discuss the fundamental questions facing the Russian army in view of a united Germany. Miliutin wanted to secure political support for a war plan and the reorganization of

^{133.} Bradley, Joseph. Guns for the Tsar: Technology Transfer and Small Arms Industry. (DeKalb, Illinois: Northern Illinios University Press, 1990): 119, 165, 178. Zaionchkovskii, P. A. 'D. A. Miliutin. Biograficheskii ocherk': 31; Zaionchkovskii, Voennye reformy: 140-80.

^{134.} Stone, Eastern Front: 145-46.

^{135.} RGVIA, 1873, F. 401, op. 2, d. 100, ff. 3-5. 'Questions to be Discussed'. A copy of the agenda is located in RGB OR, F. 169, k. 37, ed. khr. 7, ff. 29-31.

^{136.} RGB OR, F. 169, k. 16, ed. khr. 4, ff. 86-86v.

the armed forces. He also hoped that the conference would solve the financial question since Obruchev's plan required a lot of additional funds. Priorities needed to be made and the basic question at the conference was fundamental. What was the most important future task of the Russian army? The initial date for the conference was set for December 1872 but the War Ministry's preparatory work was not finished until the beginning of 1873.

A total of thirty-three participants gathered, including Alexander II and D. A. Miliutin, five grand dukes, Field Marshals Bariatinskii and Berg, Chancellor A. M. Gorchakov, Finance Minister M. Kh. Reutern, State Controller A. A. Abaza, the members of the State Council (S. G. Stroganov, K. V. Chevkin, P. N. Ignat'ev), Minister of the Imperial Court (A. V. Adlerberg), the Naval Minister (N. K. Krabbe), Director of the Third Department (P. A. Shuvalov), the Minister of Communications (A. P. Bobrinskii), and the Interior Minister (A. E. Timashev). In addition, five Military District commanders and eight War Ministry representatives participated. Major-General N. N. Obruchev and Colonel F. K. Velichko (later Acting Secretary in the Mobilization Committee) were the conference secretaries.

The only objections to Obruchev's plan were raised by Grand Duke Nikolai Nikolaevich the Elder.¹³⁷ In a printed statement that was circulated among the participants, he strongly opposed the defensive nature of the plan. To prepare for defence would be to give up all that Russia's 'traditional policy' had accomplished. Poland should be the main area from which an offensive should be launched, and this required more troops in the western regions. It would be necessary to keep these troops on a constant war footing.¹³⁸ Cost was not an issue for him - to launch an offensive and fight the future war on enemy territory would clearly impress Western Europe and that was the policy Russia had to pursue.¹³⁹ Besides, the army was going to cost money anyway; therefore, it was better to spend it on preparations for an offensive. Ironically, like Obruchev, he came to the conclusion that it was most urgent to strengthen the flanks and, therefore, to improve the fortresses at Kovno, Grodno, Dubno, and Bender. All similarities ended there. Obruchev wanted to strengthen the flanks for two reasons: he feared that the enemy would circumvent the defence line either from the north or the south, and he thought it impossible for political reasons to make Poland into an armed bastion. The Grand Duke, however, saw the flanks an the area from which troops could be concentrated to launch offensives into enemy territory. He only advocated new railway lines to connect Kovno and Grodno and a branch connecting Briansk-Gomel with Brest-Litovsk. He did not support the

^{137.} RGVIA, 1873, F. 401, op. 2, d. 102, ff. 96-115. 'Memorandum by Nikolai Nikolaevich the Elder'.

^{138.} The Russian army had four different levels in which to keep an infantry unit: cadre, normal or peacetime, reinforced, and war. It referred to the degree to which the unit had fulfilled its numbers with regard to the estimated fighting-strength in the case of war. To illustrate: if the full fighting-strength was 100 per cent, the reinforced unit was 75 per cent, the normal was 55 per cent and the cadre unit was 35 per cent.

^{139.} RGVIA, 1873, F. 401, op. 2, d. 102, ff. 97v-98, 114-115.

War Ministry's proposal to build railways in the Polish salient, ¹⁴⁰ which may appear curious, but he was clearly convinced that it was a waste of money to invest anything in Poland. Even the improvement of fortresses in Poland was a defensive measure. He proposed that 75 per cent of all Russian infantry divisions be deployed in the western regions – the area between the rivers Volkhov and Dnepr – in preparation for a massive offensive.¹⁴¹

In comparison with Obruchev's strategic plan, the response from the Grand Duke seems superficial and full of rhetorical statements. There are no thoughts about how the troops were to be supplied in its offensive or, for that matter, anything that indicates a deeper strategic understanding. The offensive was necessary for the Russian Empire to defend its place in history and impress Western Europe. It might be unfair to compare the two documents since the strategic plan had taken years to develop whereas Nikolai Nikolaevich presumably did not have more than a few weeks to formulate his response. Nevertheless, the lack of depth in his statement is telling. After all, he was Inspector-General of the Cavalry and Engineering forces as well as commander of the St. Petersburg Military District. The Grand Duke did not win over the conference for his ideas and Obruchev's war plan was accepted without further ado. In its final statement, the conference underlined the importance for Russia, in view of European developments, 'to continue to pursue a pacific policy'.¹⁴² With regard to the troops in Poland, the conference strongly objected to keeping these units on a constant war footing: 'It would be very inconvenient not only for economic reasons but,primarily, for political reasons.'¹⁴³

The adoption of the plan could certainly be described as a success for the War Ministry. However, it was a short-lived accomplishment. Although the conference had accepted the basic reasoning of the plan, it was not prepared to supply any large financial means to implement it. Already, on the first day of the conference, the Finance Minister Reutern's proposal was adopted. This stipulated a military budget for 1874 of 174,290,000 roubles, then to be fixed at 179,290,000 roubles a year for the next three-year period.¹⁴⁴ In addition, it was decided that the Finance Ministry, together with the State Controller and the War Ministry, should work out a plan how to make the military budget 'normal'; that is, to stop adding to the budget each year. The basic principle laid down by the conference was that no measures could be undertaken by the War Ministry or the Main Staff, unless prior approval - either by the Tsar or

^{140.} RGVIA, 1873, F. 401, op. 2, d. 102, f. 98v.

^{141.} Ibid., f. 100v.

^{142.} RGVIA, 1873, F. 401, op. 2, d. 100, f. 6. 'Resolution of the Secret Conference Under the Personal Chairmanship of the Emperor 28 February, 3, 8, 10, 31 March 1873'. The entire resolution: ff. 1-2, 6-26. The pages in the file have not been sorted in the correct order. A copy of the resolution is located in RGB OR, F. 169, k. 37, ed. khr. 7, ff. 1-26.

^{143.} RGVIA, 1873, F. 401, op. 2, d. 100, f. 11.

^{144.} Ibid., f. 6v.

the War Minister respectively - had been obtained.¹⁴⁵Obruchev would later point out with obvious disappointment:

...in 1873, the danger of a restored Germany was recognized and a few measures were taken, but modestly. Three, five millions a year were assigned, when others spent tens of thousands of millions. 146

The result may seem curious, to say the least. Indicative is the decision to accept the railway programme discussed at the second meeting. No objections were raised and the War Ministry's proposal was approved. Konstantin Nikolaevich wrote soberly in his diary:

The railways were discussed but it did not result in anything because everything depends on finances. $^{\rm 147}$

Without objections or reservations, the conference accepted the fortress programme. It even made a point of stressing that it was important to strengthen Poland and the flanks, Dubno and Dnepr-Bug areas. No works were to be made on the fortresses in the city of Warsaw, except for the citadel.¹⁴⁸ Since insufficient funds were allocated for these projects, the construction of new railway lines had to be postponed for the time being and the programme for fortresses was delayed by fifteen years.¹⁴⁹

Importantly, the conference acknowledged the significance of building barracks for the troops in the western areas to speed up mobilization. But not only that; the conference noted that barracks were needed to improve the education of the troops.¹⁵⁰ The lack of rooms had hampered the efforts to teach the soldiers to read and write, and had diminished the opportunities for officers to study independently.¹⁵¹ In 1870, 56 to 58 per cent of the troops lived in barracks and the rest lived with the local population.¹⁵² The lack of barracks would delay the deployment of cavalry units in Poland and it was only after the Russo-Turkish War of 1877-78 that the money for the construction of barracks was provided.

In a sense, the results of the conference seem like a paradox. Decisions were taken that appear to nullify each other. In fact, neither the economic nor the strategic issues were much debated

^{145.} RGVIA, 1873, F. 401, op. 2, d. 100, f. 121. 'Report from D. A. Miliutin to Alexander II'. 1 May 1873; Ibid., f. 212v-213. 'Instructions to the Main Staff by D. A. Miliutin'. 28 May 1873.

^{146.} Obruchev, N. N. 'Pervaia nasha zabota - stoiat' tverdo v Evrope', *Istochnik* (6, 1994): 4-21. The published report was originally written in 1885 with the title 'Fundamental Historical Questions for Russia, Our Preparedness and Ability to Solve Them'.

^{147.} GARF, F. 722, op. 1, d. 104, f. 22. 3 March 1873. 'Grand Duke Konstantin Nikolaevich's Diary'.

^{148.} RGVIA, 1873, F. 401. op. 2, d. 100, ff. 7v-9.

^{149.} Beyrau, Militär und Gesellschaft: 304.

^{150.} RGVIA, 1873, F. 401, op. 2, d. 100, ff. 2v, 10-11.

^{151.} See, for instance, Bobrovskii, P. 'Vzgliad na gramotnost' i uchbnye komandy (ili polkovye shkoly) v nashei armii', *Voennyi sbornik* (3, 1871): 41-87.

^{152.} Beyrau, *Militär und Gesellschaft*: 333. Numbers quoted from the yearly report from the War Ministry 1 Jan 1870. See also Voenno-istoricheskaia kommissia glavnogo shtaba. *Opisanie russko-turetskoi voiny* 1877-78 gg. na Balkanskom poluostrove. (St. Petersburg: Voennaia tipografiia, 1901-06): Vol. I.: 156.

at all. It was another issue that brought the conference to the boiling point - the organization of the army. This conflict nearly cost Miliutin his post and it jeopardized all of the army reforms since 1862. It is clear that the controversy was not primarily about army organization or increasing the combat preparedness of the Russian army - not even about lessons learned from Prussia, although both sides in the conflict vigorously claimed to be learning from Prussia. By suggesting that a conference should be held, D. A. Miliutin had hoped to win wide political support for the development of the armed forces. He wanted his ministerial colleagues to support the army, just as they had, so it was perceived, in Prussia. Instead, the very opposite happened.

As soon as the first meeting began on 28 February, Field Marshal Bariatinskii launched a severe attack on the War Minister and his reforms. His complaints echoed a longing for times past and reflected a frontline soldier's contempt of bureaucracy. Administrators had taken over the War Ministry, the operational element in the army had been set aside and, if the War Ministry needed anything, it was not more money but to cut all excessive expenses.¹⁵³ Grand Duke Konstantin Nikolaevich noted afterwards in his diary:

It began with an improper attack, full of bad faith, by Bariatinskii on the War Minister and all of his work. Even the Tsar did not like this very much, and he told him a few unpleasant truths.¹⁵⁴

Alexander II noted tersely in his diary: 'Bariatinskii against the War Minister.'¹⁵⁵ This was only a small forewarning of the conflict that would develop later. It was skilfully disentangled by Alexander II who appointed a commission – headed by Bariatinskii – to look in to possible cuts in the military budget. 'Let those who talk about possible cuts show what cuts they have in mind', he told the War Minister. Miliutin was irritated but, in the end, the commission's investigations came to nothing.¹⁵⁶

The serious conflict opened up on 10 March, the fourth day of the conference. General-Adjutant Aleksandr Petrovich Khrushchev¹⁵⁷ proposed the creation of four armies in the European parts of Russia. Altogether, the Russian army should consist of five armies; four in the European part, and one in the Caucasus. Alexander II, Grand Dukes Mikhail Nikolaevich and Nikolai Nikolaevich, and Field Marshal F. F. Berg clearly supported the proposal.¹⁵⁸ In addition, Berg went so far as to plainly suggest that most of the military districts be abolished, and that only four large districts be kept. This would not only increase the fighting preparedness,

^{153.} RGB OR, F. 169, k. 16, ed. khr. 4, ff. 115-115v.

^{154.} GARF, F. 722, op. 1, d. 108, f. 20. 28 Feb. 1873. 'Grand Duke Konstantin Nikolaevich's Diary'.

^{155.} Quoted in Zaionchkovskii, Voennye reformy, 295.

^{156.} RGB OR, F. 169, k. 16, ed. khr. 4, f. 119v. For a detailed description of the Commission's futile efforts, see Beyrau, *Militär und Gesellschaft*: 295-299.

^{157.} Aleksandr Petrovich Khrushchev (1806-1875), Governor-General in Western Siberia and Commander of the West-Siberian Military District between the years 1866-1874.

but also save money in peacetime.¹⁵⁹At the same time, Grand Duke Mikhail Nikolaevich proposed to create six regiments in an infantry division;¹⁶⁰ that is, to add an extra brigade to each division. This was also supported by the Tsar and the Grand Dukes. According to Miliutin, he first heard about Grand Duke Mikhail Nikolaevich's plan two days before the conference started¹⁶¹ although it seems that these ideas had been boiling since the end of 1870.¹⁶²

The proposal to create five armies was a frontal attack on Miliutin and his reforms. It threatened to overhaul the military district system or, at best, reduce the military districts to purely administrative entities. The military districts had been created in 1864 and enjoyed considerable autonomy, not only in such matters as supply and military logistics but also in threat analysis and even defence planning.¹⁶³ The army commanders, directly subordinated to the Tsar and thereby circumventing the War Ministry, would have become responsible for all operational planning. The proposal was also a call for the resurrection of the pre-Crimean military organization in Russia. A separate General Staff had existed in Russia in 1815-36 and most of the troops were *not* subordinated to the War Ministry. The four corps (the Guards Corps, the Grenadier Corps, the Caucasus and Orenburg Corps, and the Active Army in the west) were directly subordinate to the Tsar. In addition, the Artillery and Engineering Administrations were independent from Ministerial control. The Corps commanders and the Directors of the separate Administrations, often Grand Dukes, were all-powerful and ran things the way they thought best. It was a highly centralized and rigid military system that had proven itself to be a failure in the Crimean War.

On the other hand, the creation of five armies in peacetime, in fact, would have greatly improved the military preparedness in the case of war. Provided that the armies were properly trained and led by competent officers, the operational flexibility of sending armies where needed would have improved. Furthermore, the plan would have given the future field commanders more time to think about strategy and operative planning, instead of having to worry about administrative issues. However, the plan was not realistic. First, it would have been very expensive to realize. Second, it would have been difficult to implement the plan,

^{158.} RGVIA, 1873, F. 401, op. 2, d. 102. General Khrushchev's proposal, ff. 216-219. F. F. Berg's comments on Obruchev's strategic plan and the proposal to create four large armies, ff. 182-198. See also Nikolai Nikolaevich's support for Khrushchev's proposal, ff. 112-113 and Alexander II's notes, ff. 54-55. These were also written down by A. V. Adlerberg, ff. 56-63. Grand Duke Mikhail Nikolaevich's comments on the criticism of the proposal, ff. 202-209. Miliutin's account of the event can be found in RGB OR, F. 169, k. 16, ed. khr. 4, ff. 122-122v; Zaionchkovskii, *Voennye reformy*: 299.

^{159.} RGVIA, 1873, F. 401, op. 2, d. 102, f. 197.

^{160.} An infantry division consisted of four regiments.

^{161.} RGB OR, F. 169, k. 16, ed. khr. 4, f. 114.

^{162.} At the end of 1870, the heir apparent, Aleksandr Aleksandrovich (together with General I. I. Vorontsov-Dashkov and Field Marshal Bariatinskii) seems to have had far-reaching plans to oppose the War Ministry's plans of reorganizing the army. Zaionchkovskii, *Voennye reformy*: 293.

^{163.} Miller, Forrestt A. Dmitrii Miliutin and the Reform Era in Russia. (Charlotte, North Carolina: Vanderbilt University Press, 1968): 52-55, 69; Zaionchkovskii, Voennye reformy: 84-85, 95.

since the army already suffered from a severe lack of educated officers. Apart from the generals needed in the proposed army organization, the proposal would have required approximately thirty-three per cent more regimental commanders.

Miliutin called it 'a monstrous project' and was so upset that he threatened to resign. He repeated this threat in a conversation with Alexander II on 11 March. Alexander II tried to calm him by explaining that it was not a question of changing the military administration (*voennoe upravlenie*) but the organization of the troops. Miliutin was baffled:

But is not the organization of the troops an essential part of the military organization (*voennoe ustroistvo*) of the State. The organization of the troops is linked to all the instructions of the War Ministry in every detail. Especially now, when we are about to introduce a new law on military service...¹⁶⁴

In a memorandum written 23 March 1873 with the help of Obruchev, Miliutin outlined his main objections. First, the proposal to create four armies in European Russia would create a rigid system that did not allow for any flexibility. Since it was impossible to predict which coalition the Russian army would meet, such an organization might lead to a situation where there were no troops where needed, and there might be a surplus of inactive troops in secondary areas.¹⁶⁵ Second, Miliutin feared four army commanders, pointing out that they were only needed in war. He argued that, on the one hand, they might use their powers and consequently undermine or go against the governmental power by creating their own power centres; on the other hand, they might be commanders-in-chief by name only, in which case they were not needed anyway. He used the example of Prussia to point out that the army in Prussia was one and undivided and, that it did not have separate armies and army commanders in peacetime. To create large armies would put an end to the military district system which, in turn, would prolong mobilization:

In Prussia, from the moment that mobilization has been announced, it is forbidden to make any extra demands and all correspondence from lower instances to higher is prohibited. All must know what they have to do and prepare for this in peacetime. Such an administration can only be achieved through many years of work. To think one can achieve this without a proper division of districts is as unthinkable as creating an army without companies, battalions, regiments, or divisions.¹⁶⁶

It is interesting to note that it was Miliutin, and not primarily his adversaries, who most eagerly used the Prussian example to argue his case. Miliutin had tried to create a system that would adapt more readily to the requirements of contemporary warfare. With the growing size of wartime armies, military administration and organization had grown more complex. This required centralization. The troops needed weapons and supplies on an unprecedented scale. The railways had drastically shortened mobilization times which, as we have seen, re-

^{164.} RGB OR, F. 169, k. 16. ed. khr. 4, f. 124v.

^{165.} RGVIA, 1873, F. 401, op. 2, d. 102, f. 131. 'Memorandum, 23 March 1873'.

^{166.} Ibid., f. 139.

quired that plans were made in peacetime for the mobilization and the concentration of the troops. At the same time, flexibility was needed to allow each district to be responsible for the battle preparedness of the units within its jurisdiction. This required decentralization. The balance was delicate, but Miliutin believed he had achieved it through a unified War Ministry and the military districts. What Miliutin feared most was a return to the old, pre-Crimean, army organization.¹⁶⁷ Unity would be lost. Looking at Prussian efficiency in military organization and the requirements of contemporary warfare, Miliutin concluded that a step backwards would be detrimental to Russia's ability to defend herself.

In the end, Alexander II stood by his War Minister. A compromise was reached at a meeting with the Tsar, the heir apparent, Grand Dukes Mikhail and Nikolai Nikolaevich and Miliutin. The meeting took place separate from the conference on 24 March and it was decided not to make any substantial changes to the army organization.¹⁶⁸ Corps were to be created, but in the west only, and the corps commanders were to be subordinate to the commander of the military district. In peacetime, the corps should consist of two or three infantry divisions with cavalry and artillery. In wartime, an engineering brigade should be added. It was also decided to create brigade staffs in each division, which meant that each division was divided into two brigades. Miliutin did not hurry to create corps, and when the war against Turkey broke out in 1877, the corps staffs had not yet been created, whereas the brigade staffs were in place.¹⁶⁹

The last meeting of the conference was uneventful. A number of decisions were taken with regard to army organization. Briefly, they can be summarized as follows. The basic thought behind these changes was to have a peacetime organization that would resemble (as far as possible) the wartime organization. All units required in war should already have been created in peacetime, and in the case of mobilization, it would only be necessary to bring up these units to wartime strength.

An infantry regiment would consist of four battalions instead of three, and each battalion whould consist of four companies instead of five. One sharp-shooting battalion was assigned to each infantry division deployed in a border area, whereas the other divisions were reinforced with infantry units. It was decided to keep all the divisions in European Russia at peacetime strength; that is, about half of its projected fighting-strength in wartime. However, the conference did not completely rule out the possibility of bringing some of the divisions in the west to an reinforced fighting-strength – 75 per cent of projected strength in war – but this would have to be decided with regard to the financial situation.¹⁷⁰ It is significant to note that

^{167.} RGVIA, 1873, F. 401, op. 2, d. 102, f. 137v.

^{168.} RGB OR, F. 169, k. 16, ed. khr. 4, ff. 130v-131.

^{169.} Zaionchkovskii, Voennye reformy: 335.

the increase in the number of battalions in the peacetime organization not only led to a higher degree of military preparedness but also an increased preparedness in the case of internal disturbances. Furthermore, a new dislocation plan in 1874 provided for the redeployment of most of the infantry and the artillery to the western military districts behind the Narev, Bug and Vistula rivers.¹⁷¹

An interesting consequence of the changes in cavalry divisions was that the integration of the Cossack units into the ordinary cavalry organization. It was decided to break up the existing cavalry divisions (which consisted of six regiments) by splitting them in two and adding a regiment of Don Cossacks to each division. In European Russia, sixteen cavalry divisions with four regiments in each would be created: one dragoon regiment, one uhlan, one hussar, and one Don Cossack regiment. The Don Cossack regiments that were not included in the cavalry division were to be given to the infantry divisions. The cavalry division should – like the infantry division – consist of two brigades.¹⁷² The Cossacks had previously been organized in ten separate hosts (*voiska*) and several lesser formations. Although some of the separate hosts had a proud historical legacy, the Cossacks during the nineteenth century were often called upon to strengthen the regular cavalry.¹⁷³ There had been rumours in the mid-1860s that Miliutin had wanted to abolish the special privileges of the cossacks, which is not unlikely considering Miliutin's attitudes to hereditary privileges in general, but nothing had been done.¹⁷⁴ In any case, the solution of 1873 meant that the Cossacks were tied more closely to the regular cavalry organization.

The Franco-Prussian War had demonstrated the need to strengthen the field artillery so that it was proportionate to the infantry.¹⁷⁵ It was decided to strengthen the foot artillery by an increase of approximately one third; that is, from six batteries in a brigade to eight. This decision was never implemented.¹⁷⁶ Furthermore, two mounted batteries were added to each cavalry division. This included the mounted Don Cossacks.¹⁷⁷ Finally, it was decided to reor-

^{170.} RGVIA, 1873, F. 401, op. 2, d. 100, ff. 14-15. The size of the infantry division was kept at the same level; that is, in peacetime 6,000 men, in wartime 10,800 men.

^{171.} Fuller, *Strategy and Power*: 305. In 1877, a new law regulating the use of the army by the civilian authorities was approved. Fuller, William C., Jr. *Civil-Military Conflict in Imperial Russia 1881-1914*. (Princeton, N.J.: Princeton University Press, 1985): 77-81.

^{172.} RGVIA, 1873, F. 401, op. 2, d. 100, ff. 17v, 22, 18v, 23.

^{173.} Menning, *Bayonets*: 28. For a brief summary on the impact of the introduction of conscription on the cossacks, see McNeal, Robert.H. 'The Reform of Cossack Military Service in the Reign of Alexander II', in *War and Society in East Central Europe*, edited by B. K. Király and G. E. Rothenberg. (New York: Brooklyn College Press, 1979): 409-421. For a general introduction to the Cossack forces in the Russian army, see also McNeal, Robert H. *Tsar and Cossack 1855-1914*. (New York: St. Martin's Press, 1987).

^{174.} RGB OR, F. 169, k. 15, ed. khr. 3, ff. 138v-139. 'Memoirs'. 1866.

^{175.} RGB OR, F. 169, k. 16, ed. khr. 3, f. 157.

^{176.} Zaionchkovskii, P. A. Samoderzhavie i russkaia armiia na rubezhe XIX-XX stoletii, 1881-1903. (Moscow: Mysl', 1973): 137.

^{177.} RGVIA, 1873, F. 401, op. 2, d. 100, ff. 19v, 24, 20v, 25, 21v, 22v.

ganize the five engineering brigades. A railway battalion and a military telegraph park were added to each brigade ¹⁷⁸Again, according to Miliutin, it was the Franco-Prussian War that had demonstrated to the Russian War Ministry the need to improve military telegraph parks and the organization of permanent railway battalions.¹⁷⁹ These had not had a permanent organization before 1873.

In the end, several important decisions had been made and the War Ministry could continue with the reform of the Russian army. Basically, the war plan had been approved. Yet, the original purpose of the conference, to gain broad political support for the war plan and the army reforms, had not been achieved. Miliutin, who had proposed the conference in the first place, was so disappointed and angry that he started to keep a diary at the age of 57. Earlier, he had not found the time to do so.¹⁸⁰

The most serious setback was not the conflict about the army organization – spectacular as it was – but the reluctance of the conference to procure money for the strategic plan. It may seem curious that the War Ministry was unable to put more weight behind its demands, considering the fact that all but three participants in the conference were officers themselves. Miliutin was clearly not only incapable influence his ministerial colleagues, but his own officers as well.¹⁸¹

Moreover, considering the strategic purpose of the conference, the silence from the Foreign Ministry is conspicuous. The Foreign Minister took part in the conference but left no impact on the outcome. No memoranda and no reactions can be found in spite of the fact that Miliutin had kept Gorchakov informed by sending a steady stream of papers to the Foreign Minister in the weeks leading up to the conference.¹⁸² This silence may have had a simple explanation. Pro-Prussian sentiments still prevailed in the Russian court and even the relationship with Austria-Hungary was improving. In view of this, the worst-case-scenario of the war plan must have seemed exaggerated. The German-Austrian alliance was still in the future and the worst-case scenario did not become reality until forty years later. In the Spring of 1873, the preparations for the League of the Three Emperors were being finalized.¹⁸³ It is

^{178.} RGVIA, 1873, F. 401, op. 2, d. 100, ff. 22v, 17, 23v.

^{179.} RGB OR, F. 169, k. 16, ed. khr. 3, ff. 159v-160.

^{180.} Miliutin, Dnevnik D. A. Miliutina: Vol. 1: 77.

^{181.} For a similar observation with regard to the debate about railway construction, see Brooks, 'The Military and Industrialization': 12.

^{182.} Fuller, Strategy and Power: 302; Rich, 'The Tsar's Colonels': Ch. 4.

^{183.} Taylor, *The Struggle*: 219-221; Rich, 'The Tsar's Colonels': Ch 4; Kiniapina, N. S. *Vneshniaia politika Rossii vtoroi poloviny XIX veka*. (Moscow: Vysshaia shkola, 1974): 133. On 6 May1873, Field Marshal Berg and the Chief of the Great General Staff, Helmuth von Moltke signed a mutual defence agreement in Berlin between Russia and Germany. Bismarck refused to endorse it and the agreement remained a footnote in the relationship between the two countries. It was never invoked later.

clear, however, that Miliutin did not achieve his aim of wholehearted political support behind the army.¹⁸⁴

The conflict that had culminated at the conference did not originate primarily in military issues. It was a mixture of personal and political rivalries. D. A. Miliutin was seen by his political enemies as a liberal, 'a red'. Miliutin continued to argue for reforms even when most of the other ministers had stopped doing so at the end of the 1860s. The Head of the Third Department, General-Adjutant Petr Andreevich Shuvalov, was a driving force in the opposition against the War Minister.¹⁸⁵ During the second half of the 1860s, the conflict with Bariatinskii had developed into a real press war. In the pages of Russkii mir and even the financial newspaper, Birzhevye vedomosti, the sharp pen of Major-General Rostislav Andreevich Fadeev, working as an aide to Bariatinskii, relentlessly criticized the War Minister and the reforms.¹⁸⁶ The opposition invoked the Prussian military organization as an example to follow, pressed for the creation of an independent General Staff, and accused Miliutin of having created a French military system. In reality, the conflict was not about a French or a Prussian military system. Apart from the personal differences between Bariatinskii and Miliutin, and the larger political issues of the policy of reform, the conflict also had some ideological overtures. It was about privileges and a resurrection of the pre-1856 Russian army organization. Bariatinskii, the Grand Dukes, and Shuvalov represented privilege and birth, whereas Miliutin represented merit and competence, the 'self-made' man.

Miliutin was pessimistic about the outcome of the conference. He wrote:

The dark clouds had passed by; apparently things had become quiet. The latest reports [by me] to the Tsar have reassured me. But I have no illusions. I know that the intrigue against me does not go away easily; after a defeat [the enemies] do not lay down their weapons, but will await new opportunities to renew the attacks, openly and behind the scenes.¹⁸⁷

His negative assessment of the conference cannot be entirely justified. In fact, when Miliutin had retired in 1881, the new Tsar, Alexander III, appointed a commission to examine the or-

^{184.} Miliutin's influence in foreign policy, however, increased after the diplomatic failure a the Congress of Berlin in 1878. Zaionchkovskii, 'D. A. Miliutin. Biograficheskii ocherk': 50-54; Hammer, Michel. D.A. 'Miljutin et la Politique Extérieure de la Russie', *Cahiers du monde russe et soviétique* 23 (3-4, 1982): 333-349.

^{185.} See the revealing memoirs by the German Ambassador to St. Petersburg1876-1892. He knew Russia well. Between 1865 and 1869, he was the Prussian military plenipotentiary at the Russian court. Schweinitz, Hans Lothar von. *Denkwürdigkeiten des Botschafters H.L. von Schweinitz*. 2 vols. (Berlin: Verlag vom Reimar Hobbing, 1927): vol. 2: 385. See also Zaionchkovskii, *Voennye reformy*: 289-293. P. A. Shuvalov (1827-1889) was Head of the Third Department in 1866-1873. He was ambassador in London 1874-1878. *RBS*: Vol. 23: 487-489.

^{186.} See also his book *Vooruzhennye sily Rossii*. (Moscow: Universitetskaia tipografiia (Katkov i Ko), 1868). Several of Fadeev's writings can also be found in Alexander III's fond in GARF. F. 677, op. 1, d. 335, 349, 355 are particularly revealing for Fadeev's criticism. For biographical details on Fadeev, see *RBS*: Vol. 21: 6-10.

^{187.} Miliutin, Dnevnik D.A. Miliutina: Vol. I: 78.

ganization of the army.¹⁸⁸ Under the chairmanship of Adjutant-General Pavel Evstaf'evich Kotsebue, Member of the State Council and, in 1874-1880, Governor-General in Warsaw, the commission set to work on a complete revision of Miliutin's system. One of the questions explicitly dealt with the introduction of an independent General Staff. This was the moment Miliutin's enemies had been waiting for, yet nothing came of it. The military district system remained unaltered, the War Ministry's hegemony survived. It was only with the reforms in 1903 and 1905 that the Main Staff received a more independent status from the War Ministry.¹⁸⁹ The military system of Miliutin remained in power. Why was this? One historian explained it by acknowledging that Alexander III was not stupid and what had seemed right in 1873 appeared unwise eight years later.¹⁹⁰ More to the point, it supports the argument that the conflict in 1873, to a substantial degree, was a personal conflict. In 1881, Bariatinskii was dead and Shuvalov had lost his influence. In addition, change required money and the financial situation in Russia after the war against Turkey in 1877-78 did not provide room for any expensive reforms.¹⁹¹

One of the constant complaints of the opposition against the War Ministry was that the 'martial spirit' was missing in the army of Miliutin, who was seen simply as an administrator – regardless of the fact that he had actually been wounded in battle during his early career in the Caucasus.¹⁹² To some degree, the opposition was right. The reforms to create a unified War Ministry and the military district system were administrative reforms, with the aim to improve the over-centralized military administration of the Crimean War. In addition, the fears that future field commanders would be hampered by administrative work were not entirely unfounded.¹⁹³

Nevertheless, at a time when peacetime planning and strategic thinking had become increasingly important, the Russian army did not remain idle. A strategic planning section had been created in the Main Staff and strategic plans were beginning to be drawn up. The General

^{188.} Zaionchkovskii, Samoderzhavie: 92-102.

^{189.} This reform did not last very long. In 1909, the Main Directorate of the General Staff, created in 1905, was brought back under the control of the War Ministry. Kavtaradze, A. 'Iz istorii russkogo general'nogo shtaba', *Voenno-istoricheskii zhurnal* (12, 1971): 75-80; Kavtaradze, A. 'Iz istorii russkogo general'nogo shtaba', *Voenno-istoricheskii zhurnal* (7, 1972): 87-92; Menning, *Bayonets*: 97-98, 218.

^{190.} Zaionchkovskii, Samoderzhavie: 102.

^{191.} The war preparations and the actual war between 1876 and 1877 had cost 888 million roubles. For more on the problems with military expenditure at the end of the century, see Fuller, *Civil-Military*: 47-74.

^{192.} RGB OR, F. 169, k. 27, ed. khr. 9. 'Memorandum by Field Marshal Bariatinskii to Alexander II regarding the new Regulation on the Field Administration of Troops'. Bariatinskii's memorandum is also located in RGVIA, F. 1, op. 1, d. 28904, ff. 122-134. See also Kersnovskii, *Istoriia*, Vol. 2: 183, 194-195, and Zaionckovskii, *Voennye reformy*: 131-133.

^{193.} For instance, before the outbreak of the war in 1914, the field-staffs were occupied with administrative tasks rather than operational planning. Rostunov, I. I. *Russkii front pervoi mirovoi voiny*. (Moscow: Nauka, 1976): 114-115.

Staff officer behind his desk had made his entry into the Russian army – although clearly not as completely as had his Prussian counterpart. General Moltke had realized the importance of war planning and it was in this field that the Prussian General Staff had laid the foundations for the Prussian victories in 1866 and 1870-71. Thus, General Moltke could spend the mobilization in 1866 lying on a sofa reading a book – all preparations had already been made.¹⁹⁴ Preparations for war were no longer made mainly on the parade ground, but behind a staff office desk.

^{194.} van Creveld, Martin. *Command in War*. (Cambridge, Massachusetts: Harvard University Press, 1985): 115.

Conclusions

This thesis set out to examine the Russian army's impressions of foreign wars and the army's attitude towards change between 1859 and 1871. Several areas of the army have been studied as well as several aspects of change: military technology, military science (including education, tactics and strategy), the creation of mass armies, and the growing strength of nationalism. The picture that has emerged is one of an army that was open and willing to learn from foreign wars. It is not an unambiguous picture, but the Russian army in the 1860s and 1870s was largely involved in trying to keep up with the changing times. By examining foreign wars, this thesis has explored new ground which has uncovered a new vantage point for analysis of the Russian army.

The interpretation of the Russian army in this thesis differs from some of the traditional interpretations. An attempt has been made to analyse not only what the Russian officers said, but why they drew the conclusions they did. 'When all is said and done', the historian Marc Bloch once wrote, 'a single word, "understanding," is the beacon light of our studies'.¹

Returning to the beginning of this thesis, would it be correct to say that 'Sedan was almost a second Sevastopol' for the Russian army? If we mean that Sedan was perceived as a warning, that it highlighted the need for change, the answer must be no. The Russian War Ministry, led by D. A. Miliutin, had been aware of the need for change long before the fatal defeat of the French army on 1 September 1870. Sedan, however, made it possible for the War Minister to push the reform of universal military service more forcefully.

^{1.} Bloch, Marc. *The Historian's Craft*. Translated by Putnam, Peter. Reprint of 1954 ed. (Manchester: Manchester University Press, 1992): 118.

The military attachés played an important role in providing the War Ministry with information about the latest military developments. They were also permitted to report about political issues. Does this mean they influenced military or foreign policy? Although the time frame in this thesis is limited, little has been found to support such a claim. None of the military attachés reached influential positions from where they could have influenced policy. The role of the military plenipotentiary at the Prussian court was special, but nothing suggests that he was involved in policy making, at least not during this period. Rather, it would seem his role was to execute policy, that is, make sure that the good relations between the sovereigns were upheld.

One of the underlying themes in this thesis has been the question of how a large and hierarchical organization like an army learns lessons. There is no doubt that many of the Russian generals wanted to learn, which was one of the lessons the Russians learned from foreign wars.² Admittedly, the circle was not large, but among them were some of the most influential officers. Nevertheless, it is important to stress that the 'learning process' varied considerably in immediacy and depth. For instance, in the field of strategy and the development of a war plan, the impact of foreign wars was almost immediate. The Russian army did not react to this development more slowly than any other European army, with the exception of Germany. In 1870, the Russian war planners did not point to any specific direction as the area where the threat of attack could be perceived as greatest. Three years later, the planning concentrated on a possible attack from the West. Lessons were also learned in technology, railways, and rifled weapons, and the army responded as quickly as the economic realities would allow.

However, tactical lessons never seem to be learned easily. In other words, there is a limit to what can be learned from study alone. It took almost ten years for the tactical lessons regarding cavalry to penetrate military planning. Another case in point is that the Russian army was not equipped with entrenchment tools until after the experience of the 1877-78 war against Turkey. Yet, long before that war, military writers had pointed out the growing importance of such tools in warfare. In tactics, at least in certain aspects, one's own army's mistakes seemed to be the most powerful teacher. In large, rigid, organizations it could, perhaps, not be otherwise. Introducing innovations, whether technical or tactical, always entails a risk and the consequences of innovations are not always easy to predict. With hindsight, it is clear that the Austrian army drew the wrong conclusions from their defeat against France in 1859. In 1870, the French army leadership had high hopes for the *mitrailleuse* which came to almost nothing since practically nobody had been trained to use it. Furthermore, to change the regulations,

^{2.} One military writer criticized the French army for having been too self-centred and proud to find it worthwhile to study the armies of foreign countries. 'Zametki s teatra voiny', *Russkii invalid*, 13 Sept. 1870.

which may seem innocent enough, is a large undertaking which is not easy to correct. Therefore, one can expect large organizations, such as armies, to show a certain reluctance to jump too quickly in adjusting to change. On the other hand, a general 'wait and see' attitude is potentially dangerous and can lead to devastating results. Much of the problem consists of finding a balance in peacetime between adjusting to change and determining the actual value of innovations for war. There is a balance to be found here between novelty and tradition, between jumping to conclusions and resisting change. The fact that its position is directly linked to the security of the state does not make the army's situation an easy one. It is hardly surprising, therefore, that armies are often described as being marked by a curious contradiction. On the one hand, they are oriented toward the present and future in their efforts to make the most rational use of their means and to be as efficient as possible. On the other hand, they are often perceived by both insiders and outsiders as the carriers of traditional values, represented by ceremonies that should be preserved at all cost.³

This balancing act between future and past became more evident in times of rapid change. In tactics, a balance needed to be found between technology and morale. The pre-1914 European armies were later accused of disregarding technology and of putting too much emphasis on morale. The experience of the First World War certainly seems to vindicate this criticism. Nevertheless, many wars of the twentieth century have demonstrated time and time again that an army with poor morale, regardless of its technological superiority, does not win wars. In the war plan, balance needed to be found between a perceived threat and the resources available to meet that threat. The first step, to identify an enemy, was obviously essential, but by no means obvious. In 1859, the French army seemed invincible. Eleven years later, it was the Prussian army. Predicting the future is a hazardous task; thus the war planner must interpret the immediate situation and draw up the plans accordingly. This is what Obruchev did in 1873. In reality, the threat from Germany and/or Austria-Hungary was practically non-existent at the time, but Obruchev saw a united Germany and, at the same time, a very weak defence line in Poland. Therefore, the army had to stand firm in the West. Surely money - or rather the lack of it – played a role when Obruchev wrote the plan. The programmes in the plan would have cost a lot of money. By dramatizing the possible threat, Obruchev could quite possibly count on receiving at least some of the money needed.

The Russian army's attitude towards change and learning from foreign wars cannot be separated entirely from the domestic political debate, including the larger issue of the reforms of the Russian empire. This is, perhaps, not surprising in the case of introducing conscription – considering the social implications of this reform – but other areas of the military debate

^{3.} Keep, John L.H. *Power and the People: Essays on Russian History*. (Boulder: East European Monographs, 1995): 189.

were also affected by politics, for example, military technology and the debate on the change of the infantry regulations. In the midst of the War Ministry's rearming the infantry with a new rifle, the Berdan, the heir apparent launched his own version of a rifle, the Baranov. His actions were directed against D. A. Miliutin, and Alexander II finally intervened in 1869 and told Aleksandr Aleksandrovich to stop interfering and that he hampered the rearmament from running its course.⁴ Moreover, it was surely no coincidence that both L. L. Zeddeler and L. M. Baikov (who were involved in the debate with M. I. Dragomirov in the beginning of the 1870s) had close ties with Grand Duke Nikolai Nikolaevich. Even the slightest attack on Dragomirov could not, at that time, be interpreted as anything but an attack - directly or indirectly - on Miliutin. As we have seen, Dragomirov's and Miliutin's views on Suvorov entailed more than the issue of infantry tactics. They touched on the role of the army with implications for the contemporary military reforms. Without exaggerating these aspects, they seem to indicate that to learn lessons from foreign wars was not a value-free, impartial process. Does this suggest that the Russian army was different in its attitudes toward change compared to other armies? Judging from the Austrian army's 1866-68 debates about introducing new rifles, issues surrounding technology were generally not value-free since they challenged the established military order.⁵ In France, the adoption of the *chassepot* was delayed for three years because of the War Minister's objections.⁶ In Prussia, the King refused to change the infantry regulations in favour of breaking up the closed column and continued to stress the importance of morale and discipline.⁷ The question is whether or not attitudes towards change can be completely detached from political and other issues. Evidence suggests not, but the Russian army does not seem to have been very different from other armies in this respect.

One of the most controversial issues was that of copying the Prussian General Staff system, where the General Staff was independent of the War Ministry. One may ask why Miliutin was so reluctant to copy this system since it evidently worked so well in Prussia. The standard answer has been that Miliutin feared losing power, and that he defended the almighty War Ministry in order to defend his own position. Such an explanation – though perhaps not entirely wrong – seems too simplistic. It can be argued that Miliutin may have been correct in dreading a separate power-base of the army given its already strong tendencies to factionalism. Miliutin once suggested that a General Staff system of the Prussian model would not have

^{4.} Rosskiiskaia Gosudarstvennaia Biblioteka, Otdel rukopisi, (RGB OR) F. 169, k. 16, ed. khr. 2, ff. 95-96. 'Memoirs'. 1868-1869; Zaionchkovskii, P. A. *Voennye reformy 1860-70 godov v Rossii*. (Moscow: Izdatel'stvo Moskovskogo Universiteta, 1952): 174-176.

^{5.} Wheatcroft, Andrew. 'Technology and the Military Mind: Austria 1866-1914', in *War, Economy and the Military Mind*, edited by G. Best and A. Wheatcroft. (London: Croom Helm, 1976): 45-57.

^{6.} Howard, Michael. *The Franco-Prussian War: the German Invasion of France*, 1870-1871. Reprint of 1961 ed. (London: Routledge, 1991): 35.

^{7.} Showalter, Dennis. *Railroads and Rifles: Soldiers, Technology and the Unification of Germany*. (Hamden, Conn.: Archon Books, 1975): 216.

worked in Russia, since there was no General Moltke in the Russian army.⁸ This may be true but it is beside the point, since the structure, the military educational system, and the prevailing intellectual climate would have made it very difficult for any individual to acquire the equivalent position of Moltke in the Russian army and, for that matter, in other armies as well.⁹

This question is linked to a larger issue at hand; the question of taking systems from other countries as models in efforts to modernize, be it administrative practices, legal systems, financial institutions, or in the military field. During the Great Reforms, the Russian government was involved in a process of borrowing ideas from foreign sources. Officials were sent abroad to study a vast number of aspects of Western society, including the peasant question, as well as the judicial, banking and military systems. Implicit in this process was the willingness to learn and borrow ideas, but at the same time make adjustments to Russian conditions so that the reforms did not simply mirror the Western models. Not even the introduction of universal conscription was copied from Prussia without modifications to Russian conditions.

Why are some cultures ready to import entire systems straight from abroad, whereas others are not? Without attempting to address this complex question in its entirety, the following points can be made. No doubt, it has much to do with self-perception. Both Dragomirov and Leer wrote on this issue and make it clear that copying from abroad, without making adaptations to Russia, was seen as something negative and degrading.¹⁰ It would have been perceived as admitting that Russia did not have its destiny in its own hands. History, or rather the interpretation of history, might have played a role here. The military reforms by Paul I, which included copying from Prussia, were widely seen among Russian officers as a failure and an embarrassment. It is also true that there was a tradition of resentment in Russian society against Germans, due largely to their success and affluence in Russia.¹¹ In addition, the issue of importing Western models was linked to nationalism and a growing conviction that foreign practices could not be copied. They would not work since a certain system had been developed for a specific nationality. How did the Russian officers perceive themselves in comparison to their Western colleagues? Miliutin captured much of the conflicting feelings when he returned from his European journey in 1840-1841:

...my journey has opened my eyes to the real conditions in Russia compared to Western Europe from a cultural perspective. Sincerely loving my country, I deeply lament how

^{8.} Rossiiskii Gosudarstvennyi Voenno-Istoricheskii Arkhiv (RGVIA) 1872, F. 401, op, 2, d. 71, f. 67v.

^{9.} For the debate within the French army, see Mitchell, Allan. *Victors and Vanquished: the German Influence on Army and Church in France after 1870.* (Chapel Hill: University of North Carolina Press, 1984): 82-96.

^{10.} Dragomirov, M. I. Ocherki Avstro-Prusskoi voiny v 1866 godu. (St. Petersburg: Departament Udelov, 1867): 217-218; Leer, G. A. Publichnye lektsii o voine 1870 mezhdu Frantsiei i Germaniei do Sedana vkliuchitel'no. (St. Petersburg: Obshchestvennaia pol'za, 1871): 7-8.

^{11.} Lieven, Dominic. Russia and the Origins of the First World War. (London: Macmillan, 1983): 25.

much we have departed from the way, showed by Peter the Great. ... I write these lines with sincere grief: from the depths of my soul I hope to live to see the day when all I have said would be an anachronism.¹²

The view of the West as a source of inspiration rather than of imitation, and balanced by a firm belief in the Russian autocracy, would underpin the military reforms and the entire reform period. In connection with this, it is important to stress that the view of Russia as 'backward' or 'exceptional' was only invoked by Miliutin and Obruchev when they thought it would strengthen their case in the political debate. In general, it has been popular among Western scholars to apply the term 'backwardness' to Russia. This - in my view - should be avoided since it tends to mislead and obscure more than it explains. Implicit in this view is that Russia was exceptional or at least fundamentally different in comparison with other states. Although all nations differs from each other in some respects, this thesis has attempted to demonstrate that the Russian army's impressions of foreign wars were neither 'backward' nor particularly exceptional.

The Russian generals were affected by the growing strength of nationalism in Europe. Miliutin held up Germany as an example as a 'homogeneous' state. Obruchev pointed at the growing strength of 'nationalism' and the need for Russia to respond to this development. Both expressed fears about the 'unreliability' of the population in the border areas. At the same time, the army was seen as a unifying instrument in Russia, as something that society as a whole should gather around. The Great Russians were seen as the leading nationality of the Empire. In 1870, the author of the report 'Facts for the Evaluation of the Armed Forces of Russia', observed that Europe's view of Russia had changed to a more 'nationalistic' attitude. In fact, the view of Russia from within was also changing in the same direction. Implicitly here lie the seeds of the policy of Russification. It would be an exaggeration to claim that Miliutin and Obruchev explicitly advocated a suppression of all nationalities of the Russian empire, except for the Great Russians. Their version of Russification was more inclusive than exclusive, a hope, or desire, that the army - universally conscripted - would create a sense of equal citizens defending the Tsar and the Fatherland together. The law of 1874 stipulated:

...the strength of the State does not depend exclusively on the number of its troops, but is based chiefly on the moral and intellectual qualities of the army, which can be fully developed only on condition that the defence of the country has become the common task of the people, and when all, without distinction of rank or class, unite in that sacred cause.¹³

 ^{12.} Miliutin, D. A. *Vospominaniia 1816-1843*. Edited by L. G. Zakharova. New edition. Originally published in Tomsk, 1919 and reprinted in Newtonville, 1979 ed. (Moscow: Rossiiskii arkhiv, 1997): 420.
 ^{13.} Polnoe sobranie zakonov II: XLIX, 52982. (1 Jan. 1874).
This may be perceived as naive perhaps, but it does not imply political ignorance. The Russian generals were, in reality, signing up to the policy of Russification largely as a result of their analyses of foreign wars.

One of the most important lessons that the Russian army learned from Prussia - and one that Miliutin wanted to copy - was the lesson connected to the intellectual life of the army. The reforms in military education, the improvements of Russian military journalism, and the efforts made by the War Ministry to help officers improve themselves indicate a fundamental break with the traditional warrior-nobleman. It points towards an emerging professional attitude among officers. The Russian army had created a system that placed the emphasis on talent when educating its officers. Miliutin had not only understood the Prussian system, but shared the basic underlying views held by such reformers such as Scharnhorst and Gneisenau.¹⁴ It is not clear how deeply this development penetrated the Russian officer corps; further research is needed in this area. Nevertheless, Fuller saw the same tendencies of an emerging professional officer corps in his study on civil-military conflict at the turn of the century. There is no doubt that the development started as early as the 1860s and 1870s, a result of the impressions from foreign wars.

Finally, we must ask why this lesson, so central for the Russian army in the 1860s and 1870s, seems to have been completely forgotten forty years later. Miliutin wanted a more self-confident army with officers and soldiers united in professionalism and patriotism. Yet, the general picture of the Russian army before 1914 is that of a deeply divided entity; the high command was plagued by personal rivalries, the officer corps was characterized by narrow group interests, the cavalry despised the infantry, the artillery thought itself superior to both the infantry and the cavalry, the the Guards saw themselves as the only true military elite.¹⁵ In 1912, a senior general remarked that 'there will never be unselfish cooperation amongst the higher leaders as in the German army'.¹⁶ One may only speculate on the reasons for this or, indeed, whether or not the sitation was very much different from other armies. One point can be made: intellectual development cannot be ordered by decree. Military establishments, like other state institutions, are characterized by a corporate identity that develops over time, influenced by a number of factors. Miliutin pointed to the paramount role of the Tsar in this respect and even criticized Alexander II for not entirely appreciating the importance of intellectual development within the army. Under the reign of Alexander III, the counter-reforms no doubt had a dampening effect. More remarkable, perhaps, is not that every lesson

^{14.} See also Wildman, Allan K. The End of the Russian Imperial Army: the Old Army and the Soldier's Revolt (March-April 1917). (Princeton, N.J.: Princeton University Press, 1980): 38-40.

^{15.} Fuller, William C., Jr. Civil-Military Conflict in Imperial Russia 1881-1914. (Princeton, N.J.: Princeton University Press, 1985): 22.

^{16.} Lieven, *Russia and the Origins:* 112.

was not implemented, but that so many lessons were learned and observed and that efforts were made to act on them. This, in fact, was one of the most important consequences of the lessons learned from foreign wars.

Appendix 1

Russian military attachés 1859-1872

Adlerberg, Nikolai Vladimirovich (1819-1892) Count, General, Military Plenipotentiary, Berlin 1856-1866

Daller, Aleksandr Aleksandrovich, Major-General, Berlin 1872-

Frankini, Viktor Antonovich (1820-1892) Lieutenant-General, Constantinople 1856-1871

Golenishchev-Kutuzov, Vasilii Pavlovich (1803-1873) Count, Lieutenant-General, Military Plenipotentiary, Berlin 1866-1873

Gorlov, Aleksandr Pavlovich (1830-1905) Lieutenant-General, Washington 1868-1872

Hasford, Vsevolod Gustavovich, Major-General, Turin and Florence 1862-1868

Kutaisov, Pavel Ippolitovich, (1837-1911) Count, General, London 1872-

Novitskii, Nikolai Aleksandrovich, Lieutenant-General, London 1861-71, Rome 1872-

Richter, Otto Borisovich (1830-1908) General, Florence 1868-1871

Shuvalov, Pavel Andreevich (1830-1908), Count, General, Paris 1859-1861

Tornau, Fedor Fedorovich (1810-1890), Baron, Lieutenant-General, Vienna 1856-1873

Wittgenstein, Petr L'vovich, Prince, Lieutenant-General, Paris 1861-1875

Zelenyi, Aleksandr Semenovich (1839-1913) General, Constantinople 1872-1879

Other Officers Stationed Abroad¹

Astaf'ev, Staff-Captain of Cavalry, Florence 1869-Doppelmeier, Konstantin Gavrilovich (d. 1871) Captain, Berlin 1866-1871 Giuliani, Vladimir Iulievich, Captain, Paris 1861-1870 Kleinmichel, Mikhail Petrovich (1848-1872) Count, Captain, Paris 1869-72* Lanskoi, Pavel Petrovich, Lieutenant, Karlsruhe 1869-Leont'ev, Dmitrii Nikolaevich, Captain, Paris 1870-72 Meshcherskii, Emmanuil Nikolaevich (1832-1877), Prince, Captain of Cavalry, Brussels 1859-Molostvov, Vladimir Vladimirovich (1835-76) Colonel, Frankfurt 1866 and Vienna from 1869 Nechaev, Andrei Glebovich, Colonel Florence 1861-Trubetskoi, Prince, Lieutenant, The Hague 1869-Weymarn, Fedor Petrovich (1831-1913) General, Prussia 1863-1866, and Poland (1864)*

^{1.} Based on RGVIA, 1869, F. 401, op. 2, d. 118, f. 8. 'List of Officers Attached to our Foreign Embassies Independently of the Military Agents'. 9 Dec. 1869. Those marked with an asterisk did not appear on the list.

Bibliography

Archives

1. Rossiiskii Gosudarstvennyi Voenno-istoricheskii arkhiv (RGVIA), Moscow

- F. 1. Chancellery of the War Ministry
- F. 29. Chancellery of the War Ministry
- F. 38. Department of the General Staff
- F. 400. Main Staff
- F. 401. Military Scientific Committee
- F. 404. Military Topographical Section
- F. 409. Officer Service Records
- F. 410. Military Scientific Archive.
- F. VUA. Military Scientific Archive
- F. 412. Military Scientific Archive
- F. 413. Military Scientific Archive
- F. 428. Austria-Hungary
- F. 453. America
- F. 431. Great Britain
- F. 432. Germany
- F. 435. Denmark
- F. 437. Italy
- F. 440. France
- F. 488. Foreign Wars
- F. 499. Main Intendance Administration
- F. 501. Master-General of Ordnance Staff (Shtab general-fel'dtseikhmeistera)
- F. 503. Artillery Department
- F. 504. Main Artillery Administration

- F. 506. Technical Unit of the Main Artillery Administration
- F. 544. Nicholas' Academy of the General Staff
- F. 802. Main Military-Technical Administration, i. e. Main Engineering Admin-
- istration
- F. 846. Military Scientific Archive
- F. 868. Main Committee of the Organization and Education of Troops
- F. 970. Military Field Chancellery
- F. 14664. Staff of the Guards Corps

2. Gosudarstvennyi arkhiv Rossiiskoi Federatsii (GARF), Moscow

- F. 547. Fedor Fedorovich Berg
- F. 722. Grand Duke Konstantin Nikolaevich. Marble Palace
- F. 647. Grand Duchess Elena Pavlovna
- F. 677. Alexander III
- F. 678. Alexander II
- F. 828. Aleksandr Michailovich Gorchakov

3. Arkhiv vneshnei politiki Rossiiskoi Imperii (AVPRI), Moscow

F. 133, op. 469, 470. Chancellery of the Foreign MinistryF. 138, op. 476. Secret Archive of the MinisterF. Collection of Microfilms, op. 66.

4. Rossiiskaia Gosudarstvennaia Biblioteka. Otdel rukopisei (RGB OR), Moscow

F. 169. Dmitrii Alekseevich Miliutin

5. Gosudarstvennyi istoricheskii muzei (GIM), Moscow

- F. 137. Military History Museum
- F. 208. Mikhail Grigor'evich Cherniaev
- F. 342. Aleksandr Ivanovich Bariatinskii

Published sources

1. Published laws, documents, government documents

Polnoe sobranie zakonov Rossiiskoi Imperii. Second series. (St. Petersburg, 1830-84).

Sbornik imperatorskogo russkogo istoricheskogo obshchestva. 148 vols. (St. Petersburg, 1867-1916). Sbornik noveishikh svedenii o ruchnom ognestrel'nom oruzhii dlia gg. pekhotnykh i kavaleriiskikh ofitserov russkoi armii. (St. Petersburg: Iakov Trei, 1857).

Svod voennykh postanovlenii 1838, 1859, 1869. St. Petersburg.

Austria, War Department. Russlands Wehrkraft. (Vienna: L. W. Seidel und Sohn, 1871).

Bestuzhev, I. V. 'Iz istorii krymskoi voiny 1853-1856 gg.', *Istoricheskii arkhiv* (1, 1959): 204-208. [Contains Miliutin's December 1855 memorandum Ob opasnosti prodolzheniia v 1856 g. voennykh deistvii.]

Jelavich, Babara, ed. Russland 1852-1871. Aus den Berichten der Bayerischen Gesandtschaft in St. Petersburg. (Wiesbaden: Otto Harassovitz, 1963).

Lieven, Dominic, ed. Russia, 1859-1914, in K. Bourne and D. C. Watt, gen. eds., *British Documents on Foreign Affairs: Reports and Papers from the Foreign Office*. Part 1. Series A. (London, 1983).

Skalon, D. A., ed. Stoletie voennogo ministerstva, 1802-1902. 13 volumes in 56 parts. (St. Petersburg, 1902-1914).

Vernadsky, George, ed. A Source Book for Russian History from Early Times to 1917. 3 vols. (London: Yale University Press, 1972).

Voenno-istoricheskaia kommissia glavnogo shtaba. Opisanie russko-turetskoi voiny 1877-78 gg. na Balkanskom poluostrove. 9 vols. (St. Petersburg: Voennaia tipografiia, 1901-13).

2. Encyclopedias, reference works

Adres kalendar'. (St. Petersburg, 1865-77).

Almanach de Gotha. (Gotha, 1843-45, 1847, 1854-55, 1857-58, 1862, 1865, 1871).

Ezhegodnik russkoi armii na 1870 god. (St. Petersburg: Voennaia tipografiia, 1870).

Pamiatnaia knizhka na 1872 god. (St. Petersburg, 1872).

Russkii biograficheskii slovar'. (St. Petersburg: Imperatorskoe russkoe istoricheskoe obshchestvo, 1896-1913). [25 volumes published and and Azbuchnyi ukazatel' imen russkikh deiatelei dlia Russkogo biograficheskogo slovaria.

Spisok general'nogo shtaba. (St. Petersburg: Voennaia tipografiia, 1875).

Spisok general'nogo shtaba. (St. Petersburg: Voennaia tipografiia, 1876).

Voennaia entsiklopediia. 18 vols. (St. Petersburg/Petrograd, 1911-15). [Incomplete. A-Port Artur.]

Zhizneopisaniia russkikh voennykh deiatelei. 4 vols. (St. Petersburg, 1885-87).

Brockhaus and Efron, Entsiklopedicheskii slovar'. 86 vols. (St. Petersburg, 1890-1907).

Dement'ev, A. G., A. V. Zapadov, and M. S. Cherepakhov, eds. *Russkaia periodicheskaia pechat'*. (Moscow: Gosizdpollit, 1959).

Dupuy, Ernest R. & Dupuy, Trevor N. *The Encyclopedia of Military History from 3500 B.C. to the Present*. 4th ed. (London: BCA, 1993).

Grimsted, Patricia Kennedy, and Vladimir Petrovich Kozlov, eds. *Arkhivy Rossii. Moskva i Sankt-Peterburg.* (Moskva: Arkheograficheskii tsentr, 1997).

Ikonnikov, N. La Noblesse de Russie. 2nd ed. A1-Z2 vols. (Paris, 1958-66).

Jones, David R., ed. *The Military-Naval Encyclopedia of Russia and the Soviet Union*. Seven, incomplete vols. (Gulf Breeze, Florida: Academic International Press, 1978-97).

Keegan, John, and Andrew Wheatcroft, eds. *Who's who in Military History*. 3rd ed. (London: Routledge, 1996).

Leer, G.A., ed. Entsiklopediia voennykh i morskikh nauk. 8 vols. (St. Petersburg, 1883-97).

Levasheva, Z. P. Bibliografiia russkoi voennoi bibliografii sistematicheskii perechen osnovnykh bibliograficheskikh ukazatelei s nachale XIX veka do Velikoi Oktiabr'skoi sotsialisticheskoi revoliutsii. (Moscow, 1950).

______ and K. V. Sinitsyna, eds. *Russkaia voennaia periodicheskia pechat'* 1702-1916. *Bibliograficheskii ukzatel'*. (Moscow: Gosudarstvennaia ordena Lenina Biblioteka SSSR imeni V. I. Lenina. Voennyi otdel, 1959).

Lyons, M. The Russian Imperial Army: A Bibliography of Regimental History and Related Works. (Stanford, Calif.: Hoover Institution, 1968)

Macksey, Kenneth. The Encyclopedia of Weapons and Military Technology: From Prehistory to the Present Day. (London: Penguin Books, 1995).

Makhotin, Nikolai Antonovich. *Spravochnaia knizhka dlia russkikh ofitserov*. 3rd ed. (St. Petersburg: Tip. Vtorogo otdeleniia sobstvennoi E. I. V. Kantseliariia, 1875).

Mamyshev, Vs. Zhizneopisaniia russkikh voennykh deiateli. Vypiski 1-4. (St. Petersburg: Trenke i Fiusno, 1885-87).

Masanov, I. F. *Slovar' psevdonimov russkikh pisatelei, uchenykh i obshchestvennykh deiatelei.* 4 vols. (Moscow: Izd. vsesoiuznoi knizhnoi palaty, 1956-60).

Miloradovich, G. A. Spisok lits Svity Ikh Velichestv s tsarstvovaniia Imperatora Petra I-go po 1886 g. (Kiev: S.V. Kul'zhenko, 1886).

Rummel', V. V., and V. V. Golubtsov. *Rodoslovnyi sbornik russkikh dvorianskikh familii*. 2 vols. (St. Petersburg: A. S. Suvorin, 1886-87).

Tarapygin, F. A. Izvestnye russkie voennye deiateli. (St. Petersburg: I.V. Leont'ev, 1911).

Welding, Otto, ed. Deutschbaltisches Biographisches Lexikon 1710-1960. (Köln, Wien: Böhlau Verlag, 1970).

Wieczynski, Joseph L., ed. *The Modern Encyclopedia of Russian and Soviet History*. 59 vols. (Gulf Breeze, FL.: Academic International Press, 1976-1996).

Zaionchkovskii, P. A., ed. Istoriia dorevoliutsionnoi Rossii v dnevnikakh i vospominaniiakh. Five volumes in 12 parts. (Moscow, 1976-1989).

_____., ed. Spravochnik po istorii dorevoliutsionnoi Rossii. 2nd ed. (Moscow: Kniga, 1978).

3. Memoirs, diaries, letters

Denikin, A. I. Staraia armiia. 2 vols. (Paris: Rodnik, 1929, 1931).

Drake, L. 'Iz davno proshedshego', Russkaia starina (7: 129-132; 8: 429-436, 1908).

Feoktistov, E. M. Za kulisami politiki i literatury 1848-1896. (Moscow: Novosti, 1991).

Gazenkampf, M. Moi dnevnik 1877-78. (St. Petersburg: V. Berezovskii, 1908).

Gerua, Boris Vladimirovich. Vospominaniia o moei zhizni. 2 vols. (Paris: Tanais, 1969).

Golitsyn, N. S. 'Imperatoriskaia voennaia akademiia general'nogo shtaba v 1834-48 gg. Vospominaniia o sluzhbe v akademii byvshego professora gen.-ot-inf. kniazia N. S. Golytsina',*Russkaia starina* (2: 409-428; 3: 703-712, 1883).

Ignatiev, A. A. Piatdesiat' let v stroiu. 2 vols. (Moscow: Voenizdat, 1988).

Kartsov, P. P. Iz proshlogo. 2 vols. (St. Petersburg: Obshchestvennaia pol'za, 1888).

Men'kov, Petr Kononovich. Zapiski. 3 vols. (St. Petersburg: V. Berezovkii, 1898).

Miliutin, D. A. *Dnevnik D. A. Miliutina*. Edited by P. A. Zaionchkovskii. 4 vols. (Moscow: Go-sudarstvennaia ordena Lenina Biblioteka SSSR imeni V. I. Lenina. Otdel rukopisei., 1947-50).

Nikitenko, A.V. *Dnevnik*. 3 vols. (Moscow: Gosizd. khudozhestvenni literatury, 1955-56). Parensov, P. Iz proshlogo. 'Epizod iz zhizni Voennogo sbornika', *Russkaia starina* (5, 1908): 288-292; (12, 1909): 563-566.

Reutern, Michael von. Die finanzielle Sanierung Rußlands nach der Katastrophe des Krimkrieges 1862 bis 1878 durch den Finanzminister Michael von Reutern. (Berlin: Georg Reimer, 1914).

Rieber, Alfred, ed. *The Politics of Autocracy: Letters of Alexander II to Prince Bariatinskii* 1857-64, (Paris and The Hague: Mouton & Co, 1966).

Shaposhnikov, Boris Mikhailovich. Vospominaniia. Voenno-nauchnye trudy. (Moscow: Voenizdat, 1974).

Sukhomlinov, V. A. Vospominaniia. (Berlin: Russkoe universal'noe izdatel'stvo, 1924).

Tiutcheva, A. F. *Pri dvore dvukh imperatorov. Vospominaniia. Dnevnik.* 1855-82. 2 vols. (Moscow: M and I Sabasnikov, 1928-29).

Tornau, F. F. 'Vospominaniia kavkazskogo ofitsera', Russkii vestnik (9: 5-79; 10: 391-459; 11: 5-83; 12: 391-451, 1864).

______. 'Vospominaniia o Kavkaze i Gruzii', *Russkii vestnik* (1: 5-36; 2: 401-443; 3: 102-155; 4: 658-707, 1869).

______. 'Vospominaniia Barona F. F. Tornau', Istoricheskii Vestnik (1: 50-82; 2: 419-447, 1897). Valuev, P.A. Dnevnik P.A. Valueva. 2 vols. (Moscow: Izdaltel'stvo Akademii Nauk SSSR, 1961).

Veniukov, M. I. 'Vospominaniia M. I. Veniukova 1850-1856 g.', Russkaia starina (7, 1886): 81-104.

_____. Iz vospominaniia. 3 vols. Vol 1. (Amsterdam, 1895).

Verdy du Vernois, Julius. Im Hauptquartier der russischen Armee in Polen 1863-65. (Berlin: Ernst Siegfried Mittler und Sohn, 1905).

Wellesley, Frederick A. With the Russians in Peace and War. Recollections of a Military Attaché. (London: Eveleigh Nash, 1905).

Witte, S. Iu. Vospominaniia. 3 vols. (Moscow: Izd. sotsial'no-ekonomicheskoi literatury, 1960).

Zakhorova, L.G., and L.I. Tiutiunnik, eds. Perepiska Imperatora Aleksandra II s velikim kniazem Konstantinom Nikolaevichem. Dnevnik Velikogo kniazia Konstantina Nikolaevicha. 1857-1861. (Moscow: Terra, 1994).

Zeddeler, L.L. 'Dvadtsat' piat' let nazad. Otryvok iz dnevnika', *Istoricheskii vestnik* (4: 114-129; 5: 480-508, 1896).

_____. 'Otryvki iz vospominanii', Istoricheskii vestnik (3, 1909): 918-941.

Zykov, S. P. 'Nabroski iz moei zhizni', *Russkaia starina* (3: 622-643; 4: 141-154; 5: 349-372; 7: 3-38; 9: 381-412, 1910).

4. Other published primary sources, contemporary military writings

Anon. 'Ob igol'chatykh ruzh'iakh', Artilleriiskii zhurnal (9, 1866): 405-414.

Anon. 'Besedy i chteniia v inostrannykh armiiakh po povodu voennykh voprosov', Voennyi sbornik (11, 1869): 83-102.

Anon. Die Heeresmacht Russlands, ihre Neugestaltung und politische Bedeutung. (Berlin: Carl Duncker's Verlag, 1870).

Anon. Voina 1870 goda. Ocherki i materialy dlia istoricheskogo opisaniia. (St. Petersburg: M. Ustinov, 1870).

Anon. 'Ob ustroistve voennykh sobranii i obshchikh ofitserskikh stolov', *Voennyi sbornik* (9, 1871): 57-103.

Anon. 'Neskol'ko slov ob ustroistve voennykh besed v ofitserskikh sobraniiakh i o voennykh bibliotekakh dlia nashei armii', *Voennyi sbornik* (10, 1873): 317-336.

Anon. 'Kreposti i sovremennaia artileriia', Voennyi sbornik (9: 90-100; 10: 294-310, 1874).

Anon. 'Zametki o sovremennom takticheskom boe i o podgotovke k nemu pekhotnogo soldata. Voennaia beseda, prochitannaia v sobranii ofitserov 1-go i 2-go batalionov 98-go pekhotnogo Derptskogo polka', *Voennyi sbornik* (11, 1874): 44-66.

Anon. Mysli ob organizatsii ruskkoi narodnoi armii v sviazi s interesami sel'skogo khoziaistva i semeinogo byta russkogo naroda. (Moscow: Ignatsius, 1875).

Anon. Was haben wir von der russische Kavallerie zu erwarten? (Hannover: Helwing'sche Verlagsbuchhandlung, 1884).

Anon. 'Vnutrennee polozhenie Rossii v 1855 g.', Russkaia starina (3, 1901): 579-96.

Anon. Voennaia reforma. Sbornik statei. (St. Petersburg: Voennyi golos, 1906).

Akinin. 'Ocherk datskoi voiny 1864 g.', Voennyi sbornik (11: 85-144, 12: 203-256, 1865).

Anichkov, V. Voennoe khoziaistvo. (St. Petersburg: Nikolai Denotkin, 1860).

Annenkov, M. N. Voina 1870 goda. Zametki i vpechatleniia russkogo ofitsera. (St. Petersburg: Obshchestvennaia pol'za, 1871). _____. 'O primenenii zheleznykh dorog k voennomu delu', *Voennyi sbornik* (12, 1866): 329-352.

Astaf'ev, A. I. O sovremennom voennom iskusstve. (St. Petersburg: Tip. Pochtovogo Departamenta, 1856).

B-i, V. 'Po povodu predostoiashchikh poezdok ofitserov general'nogo shtaba', *Voennyi sbornik* (7, 1873): 71-84.

Baikov, L. 'Vliianie srazheniia pod Keniggretsom na taktiku', *Voennyi sbornik* (6, 1872): 303-352.

_____. 'Po povodu stat'i M. Dragomirova pomeshchennoi v 12 No "Voennogo sbornika" za 1872 g.', Voennyi sbornik (4, 1873): 303-334.

_____. 'Frantsuzskaia i germanskaia armii pered voinoiu 1870 g.',*Voennyi sbornik* (5, 1876): 5-43.

______. 'Franko-germanskaia voina 1870-71 g. Sedanskaia operatsiia', *Voennyi sbornik* (10: 239-297; 11: 5-40; 12: 277-302, 1876; 2: 260-294; 3: 30-44; 4: 221-272; 7: 5-36, 1877).

Batezaul, N. 'Strategicheskii ocherk nastoiashchei polozheniia evropeiskikh gosudarstv', *Voennyi sbornik* (1: 29-42; 2: 155-174; 3: 3-40; 5: 45-74; 7: 37-70; 9: 41-72, 1868).

Berens, A. 'Ocherk sovremennogo sostoianii teorii strategii', *Voennyi sbornik* (12, 1862): 1-20. [Supplement].

Beskrovnyi, L. G., ed. M. I. Dragomirov. Izbrannye trudy. Voprosy vospitaniia i obucheniia voisk. (Moskva, 1956).

_____. Russkaia voenno-teoreticheskaia mysl' XIX i nachala XX vekov. (Moscow: Voennoe izdatel'stvo Ministerstva oborony Soiuza SSR, 1960).

Bil'derling, A. A. 'Vzgliad na ubyl v voiskakh v prezhnaia i v posledniia voiny nyneshnnego stoletiia', *Voennyi sbornik* (2, 1870): 367-388.

_____. 'Zametka o prusskoi armii v nastoiashchuiu voinu', Voennyi sbornik (11, 1870): 59-72.

______. 'Sravnenie sil protivnikov v nastoiashchuiu voinu', *Voennyi sbornik* (12, 1870): 327-362.

___. 'Skorostrel'naia pushka kak kavaleriiskoe orudiia', *Voennyi sbornik* (2, 1873): 291-304.

_____. 'Uprazhneniia kavallerii v proche zheleznykh dorog i telegrafov', *Voennyi sbornik* (12, 1874): 389-396.

Bobrovskii, P. O. 'Ob uchrezhdenii iunkerskikh uchilishch', Voennyi sbornik (11, 1864): 92-144.

_____. 'Plan uchebnoi chasti v iunkerskikh shkolakh', *Pedagogicheskii sbornik* (14, 1865): 1192-1222.

_____. 'Uchebnye komandy (polkovye shkoly)', *Pedagogicheskii sbornik* (8, 1870): 807-829.

_____. 'Zatrudneniia v khode obucheniia gramotnosti v voiskakh', *Pedagogicheskii sbornik* (10, 1870): 1040-1052.

______. 'Vzgliad na gramotnost' i uchebnie komandy (ili polkovyie shkoly) v nashei armii', *Voennyi sbornik* (12, 1870: 279-310; 3: 41-87; 4: 283-297, 1871).

Bogdanovich, M. 'Voennaia politika i voennyie uchrezhdeniia v sovremennom ikh sostoianii', *Russkaia starina* (1, 1878): 97-104.

Bonch-Bruevich, M. D. 'M. I. Dragomirov. Osnovy vospitaniia i obrazovaniia voisk', Voennoistoricheskii zhurnal (3, 1973): 75-80.

Chudovskii, V. Voina za Shlesvig-Golstein 1864 goda. (St. Petersburg: Obshchestvennaia pol'za, 1866).

De Struve, G. 'O zheleznykh broniakh', Inzhenernyi zhurnal (5, 1865): 683-696.

_____. 'Ob oborone morskikh prokhodov i gavanei v Anglii i v Soedinennykh shtatakh Severnoi Ameriki', *Inzhenernyi zhurnal* (1, 1866): 52-78.

Denison, George. Organizatsiia, vooruzheniia i upotreblenie kavalerii na voine soglasno sovremennomu sposobu vedeniia voiny. Vol. 8, Voennaia biblioteka. (St. Petersburg: Tip. V. S. Balasheva, 1872). ___. Istoriia konnitsy. 2 vols. (St. Petersburg: Tip. A. Benke, 1897).

Detlov, K. K. 'Novorossiiskie draguny pred Imperatorom Aleksandrom II', Russkaia starina (4, 1883): 155-174.

Dobrovol'skii, D. 'Issledovanie ob ustave nashei pekhoty', *Voennyi sbornik* (1, 1867): 301-340. Doppelmaier, K. 'Narezka artilleriiskikh orudii v S. Peterburgskom arsenale', *Artilleriiskii zhurnal* (3, 1863): 129-159.

_____. 'Avstro-Prusskaia voina s artilleriiskoi tochki zreniia', *Artilleriiskii zhurnal* (12, 1866): 622-686.

Dragomirov, M. I. Lektsii taktiki, chitannye v uchebnom pekhotnom batalione. Kurs 1863-64. (St. Petersburg: A.P. Chernviakov, 1864).

____. Kurs taktiki dlia ofitserov uchebnogo pekhotnogo batal'ona. (St. Petersburg, 1867).

_____. Ocherki Avstro-Prusskoi voiny v 1866 godu. (St. Petersburg: Departament Udelov, 1867).

_____. Taktika. Kurs prinoravlennyi k programma voennykh uchilishch. 2nd ed. (St. Petersburg: Pechatnia V.I. Golovina, 1872).

_____. Sbornik original'nykh i perevodnykh statei. (St. Petersburg: V.S. Balashev, 1881).

_____. *Chetyrnadtsat' let. 1881-1894. Sbornik original'nykh i perevodnykh statei.* (St. Petersburg: V. Berezovskii, 1895).

_____. Odinnadtsat' let. 1895-1905 gg. 2 vols. (St. Petersburg: Russkaia skoropechatnia, 1909).

_____. 'Sol'ferinskaia bitva', Inzhenernyi zhurnal (3: 167-212; 4: 273-295; 5: 367-386, 1861).

______. 'Obzor Ital'ianskoi kampanii 1859', *Inzhenernyi zhurnal* (6, 1861): 503-516; (3, 1862): 215-227; (2: 135-197; 5: 601-648; 6: 811-843, 1863); (3, 1864): 315-381.

_____. 'Uchenie o voine Klauzevitsa - osnovnye polozheniia', *Voennyi sbornik* (10: 245-271; 11: 5-22, 1888).

_____. 'Konspekt lektsii po taktike', *Voennyi sbornik* (9, 1912): 1-28.

Drake, L. 'O razvedyvatel'noi sluzhbe samostoiatel'nykh kavaleriiskikh edinits', *Voennyi sbornik* (11, 1875): 90-96.

Drygalski, Albert von. Die neu-russische Taktik in ihrer gegenwärtigen Entwicklung mit besonderen Berücksichtigung der herrschenden Ausbildung. (Berlin: Mittler und Sohn, 1880).

Dublianskii, V. 'Zametka ob avanpostakh', Voennyi sbornik (9, 1863): 135-138.

Durop, K. 'Takticheskoe obrazovanie armii v mirnoe vremia', *Voennyi sbornik* (2, 1872): 229-243.

Fadeev, R. A. *Vooruzhennye sily Rossii*. (Moscow: Universitetskaia tipografiia (Katkov i Ko), 1868).

. Russkoe obshchestvo v nastoiashchem i budushchem. Chem nam byt'? (St. Petersburg, 1874).

Feoktistov, E. 'Uproshchennaia voennaia igra', Voennyi sbornik (6, 1863): 335-382.

Gausman, Iosif. *Voina v Soedinennykh Shtatakh Ameriki 1861-65 gg*. 2 vols. (St. Petersburg: Departament Udelov, 1877-78).

Gazenkampf, M. 'Prodovol'stvie voisk v mirnoe i voennoe voennoe vremia v russkoi i inostrannykh armiiakh', *Voennyi sbornik* (9: 82-103; 10: 265-301; 11: 164-200, 1875).

Gershel'man, K. I. 'Neskol'ko slov o sovremennom napravlenii nekotorykh nashikh pisatelei po taktike', *Voennyi sbornik* (1, 1868): 3-22.

Glinoetskii, N. P. 'Voennaia statistika i soldatskii byt'', Voennyi sbornik (2, 1858): 441-58.

_____. 'Zametki o polevykh poezdkakh ofitserov general'nogo shtaba', *Voennyi sbornik* (10, 1872): 249-267.

Gololobov, A. 'Nasha akademiia general'nogo shtaba', *Voennyi sbornik* (5, 1871): 61-139. Goriachev, Nikolai. 'Kavaleriiskie zametki', *Voennyi sbornik* (9, 1874): 61-89. Gorlov, A. P. 'Ob upotrebleiameykh v armii Soedinennykh Amerikanskikh Statov ruzh'iakh, zariazhaioshchikhsia s kazennoi chasti, i k nim metallicheskikh patronakh', *Oruzheinyi sbornik* (3, 1866): 1-36.

_____. Voennye ocherki. Soedinennykh Shtatov Ameriki. Artilleriiskii zhurnal (7: 223-30; 8: 441-466; 10: 597-601, 1866).

_____. 'Vest-Pointskaia voennaia akademiia', *Pedagogicheskii sbornik* (9: 912-942; 10: 999-1015, 1873).

Greene, F. V. *The Russian Army and its Campaigns in Turkey in 1877-78.* 2nd ed. (London: W.H. Allen and Co, 1880).

I. 'Neskol'ko slov po povodu stat'i Polkovye ofitserskie biblioteki', *Voennyi sborni*k (7, 1866): 93-98.

I.T. 'Chetyre goda voiny v Soedinennykh Amerikanskikh Shtatakh', *Voennyi sbornik* (1866, 10: 159-221; 11: 3-54; 12: 185-234; 1: 3-46; 2: 259-302; 4: 141-176; 5: 27-52; 6: 145-170, 1867).

Ivanin, M. 'Avstro-Prusskaia voina 1866 g.', Voennyi sbornik (12, 1866): 235-243.

Kalinskii, Fedor. 'Vzgliad na upotrebleniie v boiu polevoi i gornoi artillerii osobenno v bol'shikh massakh', *Artilleriiskii zhurnal* (7: 789-820; 9: 1187-1211; 11: 1449-1476, 1872).

Khoroshkhin, M. 'Po povodu stat'i: Skorostrel'naia pushka kak kavaleriiskoe orudie', *Voennyi sbornik* (8, 1873): 249-258.

Klauzevitz. *Voina (Teoriia strategii)*. Translated by Voide, K. M. 2 vols. (St. Petersburg: Tip. Glavnogo Upraleniia Udelov, 1902).

Kokhovskii, V. P. 'Reforma voenno-uchebnykh zavedenii - eia prichiny, sposob sushchestvleniia i rezul'taty (1862-1869)', *Pedagogicheskii sbornik* (3, 1869): 179-221.

Korf, A. N. 'Prichiny uspekhov frantsuzskoi armii v ital'ianskuiu kampaniiu 1859 g.', Voennyi sbornik (3, 1864): 145-176.

Kr...kii, Ia. 'O deistvii voisk v boiu na osnovanii opyta franko-germanskoi voiny 1870-71 godov', *Voennyi sbornik* (10: 291-316; 11: 79-106; 12: 257-280, 1873).

Kraevskii. 'Kratkii obzor ital'ianskii kampanii 1859 g. v inzhenernoi otnoshnenii', Inzhenernyi zhurnal (3, 1860): 375-429.

Krenke. 'Gramotnost' v armii', Voennyi sbornik (12, 1868): 373-382.

Kvitnitskii, kap. Katalog biblioteki Nikolaevskoi Akademii General'nogo Shtaba. 1 ed. (St. Petersburg: Eduard Veimar, 1866).

L. B. 'O postanovke kursa taktiki v voennykh uchilishchakh', *Voennyi sbornik* (6, 1874): 304-313.

L. D. 'Vzgliad na obuchenie strel'be mass pekhoty', Voennyi sbornik (4, 1874): 256-289.

L. K. 'Vzgliad na stepen' obrazovaniia russkikh ofitserov v armii', *Voennyi sbornik* (1, 1858): 145-162.

Lavrov, P. L. 'Vliianiie razvitia tochnykh nauk na uspekhi voennogo dela i v osobennosti artillerii', *Artilleriiskii zhurnal* (4: 231-250; 6: 285-303; 7: 355-375, 1865).

Leer, G. A. Zapiski taktiki dlia voennykh uchilishch. Kurs starshego klassa. (St. Petersburg, 1866).

_____. Opyt kritiko-istoricheskogo issledovaniia zakonov iskusstva vedeniia voiny (polozhitel'naia strategiia). (St. Petersburg: V. Golovin, 1869).

_____. Publichnye lektsii o voine 1870 mezhdu Frantsiei i Germaniei do Sedana vkliuchitel'no. (St. Petersburg: Obshchestvennaia pol'za, 1871).

_____. Publichnye lektsii o voine 1870-71 godov mezhdu Frantsiei i Germaniei ot Sedana do kontsa voiny. (St. Petersburg: Departament udelov, 1873).

______, ed. Obzor voin Rossii ot Petra Velikogo do nashikh dnei. 4 vols. (St. Petersburg: V. Bezobrazov, 1885-96).

_____. 'Neskol'ko slov o sovremennom sostoianii polevoi fortifikatsii', *Voennyi sbornik* (12, 1859): 395-414.

_____. 'Vliianie nareznogo oruzhiia na sovremennoe sostoianie taktiki', *Voennyi sbornik* (3: 27-42; 4: 297-316; 5: 33-60; 7: 55-78; 8: 321-340, 1861).

_____. 'Znachenie kriticheskoi voennoi istorii v izuchenii strategii i taktiki',*Voennyi sbornik* (5, 1863): 57-92.

_____. 'Obzor Severo-Amerikanskoi mezhdousobnoi voiny', *Inzhenernyi zhurnal* (6, 1863): 844-883.

______. 'Glavnye kharakteristicheskie cherty frantsuzskoi i prusskoi uchebno-vospitatel'nykh sistem sravnitel'no s nashego', *Voennyi sbornik* (10, 1868): 223-258.

_____. 'General'nyi shtab i ego komplektovanie v Prussii i vo Frantsii', *Voennyi sbornik* (11: 49-74; 12: 343-372, 1868).

______. 'Osnovnye nachala organizatsii v primenenii k vysshim takticheskim edinitsam', *Voennyi sbornik* (2, 1874): 232-261.

_____. 'Prigovor nad Bazenom', Voennyi sbornik (1, 1874): 87-92.

_____. 'Strategiia-nauka i strategiia-iskustvo', Voennyi sbornik (1, 1874): 29-58.

Leont'ev, A. 'O zaniatiiakh ofitserov v stroevykh chastiakh voisk', *Voennyi sbornik* (3, 1874): 33-48.

Leont'ev, D. Oborona Parizha. Zapiski ochevidtsa. (St. Petersburg: Departament udelov, 1871).

Lukin, P. 'Kollektsiia ruchnogo ognestrel'nogo oruzhiia inostrannykh obraztsov, prinadlezhashchaia Oruzheinoi komissii', Oruzheinyi sbornik (2, 1861): 1-15.

M. 'O pol'ze obucheniia gramote vsei massy russkikh voisk', Voennyi sbornik (2, 1858): 354-58.

M. G. 'Ustroistvo i sluzhba general'nogo shtaba', Voennyi sbornik (7, 1873): 85-114.

Maksheev, F. A. Zheleznye dorogi v voennom otnoshenii. Zapiski dlia slushatelei Nikolaevskoi Akademii General'nogo Shtaba. Vypusk I. (St. Petersburg: Tip. Shtaba voisk gvardii i Peterburgskogo voennogo okruga, 1890).

Markov, M. I. 'O sovremennom znachenii, upotreblenii i obuchenii kavalerii', *Voennyi sbornik* (9, 1875): 57-81.

Mau, N. 'Vliianie zheleznykh dorog na uspekh voiskkovykh peredvizhenii', *Voennyi sbornik* (8, 1872): 293-318.

_____. 'Polevye poezdki i uchastie v nikh storevykh ofitserov', *Voennyi sbornik* (6, 1873): 293-311.

Mikhnevich, N. P., ed. Istoriia voennogo iskusstva s drevneishikh vremen do nachala XIX stoletiia. (St. Petersburg: Leshtukovskaia Parovaia Skoropechatnia P.O. Jablonskago, 1895).

Miles, Nelson A. Report of Major-General Nelson A. Miles of his Tour of Observation in Europe. (Washington: Government Printing Office, 1899).

Miliutin, D. A. Kriticheskoe issledovanie znacheniia voennoi geografii i statistiki. (Moscow, 1846).

_____. *Pervye opyty voennoi statistiki*. 2 vols. (Moscow: Tip. Voenno-uchebnykh zavedenii, 1847).

_____ and A. I. Mikhailovskii-Danilevskii. Istoriia voiny Rossii s Frantsiei v tsarstvovanie Imperatora Pavla I v 1799 godu. 5 vols. (Moscow: Tip. Shtaba Voenno-Uchebnykh Zavedenii, 1851).

____. 'Suvorov kak polkovodets', Otechestvennye zapiski (3, 1839): 1-32, 71-94.

[Miliutin, D. A.] 'Voennye reformy imperatora Aleksandra II', Vestnik Evropy (1, 1882): 5-35.

Miliutin, D. A. 'Starcheskie razmyshleniia o sovremennom polozhenii voennogo dela v Rossii', Izvestiia Imperatorskoi Nikolaevskoi Voennoi Akademii (30, 1912): 833-858.

Morozov, E. F. Poslednyi fel'dmarshal. *Russkii geopoliticheskii sbornik* (2, 1996?): 33-48. [Contains excerpts from D. A. Miliutin's *Kriticheskoe issledovanie znacheniia voennoi geografii i voennoi statistiki*.]

Mosolov, N. 'Obzor akademii general'nogo shtaba v zapadnykh evropeiskikh gosudarstvakh', *Voennyi sbornik* (7, 1863): 3-70. N. S. 'Zametka o kavalerii', Voennyi sbornik (8, 1874): 295-299.

Nikolaevskaia Akademiia General'nogo Shtaba. Otchet o zan**g**iatiiakh konferentsii Nikoaevskoi Akademii General'nogo Shtaba v techenii uchebnogo 1863-64 g. (St. Petersburg: V. Spridonov, 1864).

_____. Otchet o zan**g**iatiiakh konferentsii Nikoaevskoi Akademii General'nogo Shtaba v techenii uchebnogo 1865-66 g. (St. Petersburg: Eduard Veimar, 1867).

_____. Otchet o zan**u**iatiiakh konferentsii Nikoaevskoi Akademii General'nogo Shtaba v techenii uchebnogo 1866-67 g. (St. Petersburg: A. Iakobson, 1867).

_____. Otchet o zan**a**iatiiakh konferentsii Nikoaevskoi Akademii General'nogo Shtaba v techenii uchebnogo 1867-68 g. (St. Petersburg: A. Iakobson, 1869).

_____. Otchet o zan**a**iatiiakh konferentsii Nikoaevskoi Akademii General'nogo Shtaba v techenii uchebnogo 1869-70 g. (St. Petersburg: A. Iakobson, 1871).

_____. Otchet o zan**a**iatiiakh konferentsii Nikoaevskoi Akademii General'nogo Shtaba v techenii uchebnogo 1870-71 g. (St. Petersburg: A. Iakobson, 1872).

_____. Otchet o zan**a**iatiiakh konferentsii Nikoaevskoi Akademii General'nogo Shtaba v techenii uchebnogo 1871-72 g. (St. Petersburg: Tipografiia Morskogo ministerstva, 1873).

_____. Otchet o zan**s**iatiiakh konferentsii Nikoaevskoi Akademii General'nogo Shtaba v techenii uchebnogo 1872-73 g. (St. Petersburg: A. Iakobson, 1873).

_____. Otchet o zan**u**iatiiakh konferentsii Nikoaevskoi Akademii General'nogo Shtaba v techenii uchebnogo 1873-74 g. (St. Petersburg: A. Iakobson, 1874).

_____. Otchet o polevoi poezdke partii ofitserov komendirovannykh ot glavnogo shtaba v 1871. (St. Petersburg: Voennaia tipografiia, 1871).

_____. Programma dlia ispytaniia ofitserov postupaiushchikh v Nikolaevskoi Akademii General'nogo Shtaba. (St. Petersburg: Eduard Veimar, 1865).

_____. Programma dlia ispytaniia ofitserov postupaiushchikh v Nikolaevskoi Akademii General'nogo Shtaba. (St. Petersburg: Obshchestvennaia pol'za, 1876).

_____. Programmy kursa Nikolaevskoi Akademii General'nogo Shtaba. (St. Petersburg: Eduard Veimar, 1865).

_____. Programmy kursa Nikolaevskoi Akademii General'nogo Shtaba. (St. Petersburg: Obshchestvennaia pol'za, 1878).

_____. Soobrazheniia po peresmotru kursov i uchenykh zaniatii v Nikolaevskoi Akademii General'nogo Shtaba. (St. Petersburg: V. Spirodonov, 1865).

Nikulishchev, A. 'Voennye deistviia pod Metzom v 1870 g.', *Inzhenernyi zhurnal* (9: 909-978; 10: 1021-1090; 11: 1135-1201, 1871; 2: 129-192, 1872).

______. 'Blokada i kapituliatsiia Metsa', *Inzhenernyi zhurnal* (6: 497-548; 9: 739-780, 1872; 5: 481-555; 6: 597-643, 1873).

Novitskii, N. D. 'Zametki o boevoi naznachenii i obuchenii kavalerii', *Voennyi sbornik* (3, 1876): 61-68.

Obruchev, N. N. Set' russkikh zheleznykh dorog. (St. Peterburg: Voennaia tipografiia, 1864).

_____. , ed. *Voenno-statisticheskii sbornik*. 4 vols. (St. Petersburg: Voennaia tipografiia, 1867-71).

_____. 'Iznanka Krymskoi voiny', *Voennyi sbornik* (1: 545-586; 2: 429-476; 8: 239-306, 1858).

_____. 'O vooruzhennoi sile i eia ustroistve', Voennyi sbornik (1, 1858): 16-56.

_____. 'Zapiski o snariazhenii pekhoty piati pervostepennykh evropeiskikh armii', *Voennyi sbornik* (3, 1862): 137-188.

_____. 'Obzor deiatel'nosti Voennogo Ministerstva v poslednee piatiletie (1861-65 gg.)', *Voennyi sbornik* (10: 193-266; 11: 5-84, 1865).

_____. 'Pervaia nasha zabota - stoiat' tverdo v Evrope', *Istochnik* (6, 1994): 4-21.

Pogosskii, A. F. 'O gramotnosti v voiskakh', Voennyi sbornik (6, 1866): 251-264.

Polubinskii, Ia. 'O neobkhodimosti dlia artilleriiskogo ofitsera vysshego spetsial'nogo obrazovaniia', *Artilleriiskii zhurnal* (12, 1864): 883-901.

Pönitz, Carl Eduard. Die Eisenbahnen und ihre Benutzung als militärische Operazionslinien. 2nd ed. (Adorf: Verlags-Bureau, 1853).

R...n. 'Neskol'ko slov po povodu prikomandirovyvaniia ofitserov general'nogo shtaba k stroiu', *Voennyi sbornik* (12, 1874): 381-388.

Rediger, A. *Unter-ofitserskii vopros v glavnykh evropeiskikh armiiakh.* (St. Petersburg: Trenke i Fiusno, 1880).

_____. *Komplektovanie i ustroistvo vooruzhennoi sily*. 3rd ed. (St. Petersburg: Voennaia tipografiia, 1900).

Serebrenitskii, A. 'Ob ekzamenakh ofitserov', Voennyi sbornik (11, 1863): 91-120.

Shenshin, N. 'Strategicheskii obzor voennykh deistvii 1870 g. do Sedanskoi kapituliatsii vkliuchitel'no', *Voennyi sbornik* (7: 5-44; 8: 223-264, 1876): .

Shevelev, A. Sistematicheskii katalog biblioteki Nikolaevskoi Akademii General'nogo Shtaba (1873-87). (St. Petersburg: Trenke i Fiusno, 1887).

Shklarevich, V. 'Po povodu stat'i: Avstro-prusskaia voina s artilleriiskoi tochki zreniia', Artilleriiskii zhurnal (1, 1867): 84-110.

Skobel'tsyn, P. E. 'Sovremennaia osnovaniia organizatsii i taktiki kavalerii', *Voennyi sbornik* (9: 89-128; 1877, 4: 273-296, 1876-1877).

Skugarevskii, A. Voennaia igra. Sbornik zadach. (St. Petersburg: Tip. V. S. Balasheva, 1874).

_____. Srazhenie pri Nakhode 27-go iunia 1866 g. (St. Petersburg: Tip. V. Demakova, 1875).

_____. 'Prakticheskiia zaniatiia po taktike', *Voennyi sbornik* (2, 1873): 259-290.

_____. 'Voennaia igra, ee literatura i znachenie', Voennyi sbornik (1, 1874): 59-70.

_____. 'Voennaia igra, ee pol'za i nedostatki', *Voennyi sbornik* (4, 1875): 223-230.

_____. 'Novye trebovaniia taktiki v vidu ozhidaemykh izmenenii v pekhotnom ustave', *Voennyi sbornik* (4: 304-332; 11: 64-100, 1876).

Spaleny, Norbert. Rückblicke auf die russische Taktik der Vergangenheit und Gegenwart. (Graz: Albert Lentner, 1878).

Stankevich, A. ed. Sistematicheskii perechen' sochinenii po ranym otrasliam voennykh znanii. (St. Petersburg: Imperatorskaia Akademiia Nauk, 1873).

Stankevich, A. 'Voennaia igra', Voennyi sbornik (7, 1862): 91-116.

Stoffel, Eugène. Rapports militaires écrits de Berlin 1866-70. (Paris: Garniers frères, 1871).

Sukhotin, N. *Reidy i poiski kavalerii vo vremia amerikanskoi voiny 1861-65.* (Moscow: Shtab Moskovskogo voennogo okruga, 1875).

Sukhotin, N. 'Nabeg letuchogo otriada za Vislu. Epizod iz kavaleriiskikh manevrov', *Voennyi sbornik* (11: 125-153; 12: 365-398, 1876).

Svidzinskii, E. 'Zametki o sovremennom takticheskom boe i o podgotovke k nemu pekhotnogo soldata', *Voennyi sbornik* (11, 1874): 44-66.

Terent'ev, M. A. 'Ostalas' li konnitsa tem, chem byla?', Voennyi sbornik (2, 1865): 271-297.

_____. 'Kavaleriiskie voprosy', *Voennyi sbornik* (3: 83-112; 4: 231-242; 6: 237-244; 8: 273-300; 10: 289-324, 1865).

Todleben, E. I. 'O znachenii ognia v boiu', Voennyi sbornik (8, 1876): 294-306.

V. P. 'Neskol'ko slov o general'nom shtabe', Voennyi sbornik (4, 1871): 140-144.

V.Ch. 'Izmeneniia, vyzvannye posledneiu franko-prusskoiu voinoiu v neofitsial'nykh takticheskikh rukovodsvakh dlia prusskoi pekhoty', *Voennyi sbornik* (9, 1873): 51-86.

Val'berg. I. 'Voennye telegrafy v Prussii v voinu 1870 g.', Inzhenernyi zhurnal (11, 1871): 1202-1226.

_____. 'Ocherk voennykh deistvii pod frantsuzskimi krepostiami v 1870-71 g.', *Inzhenernyi zhurnal* (5: 556-596; 6: 644-690, 1873).

Valuev, P. A. 'Duma russkogo vo vtoroi polovine 1855 goda', Russkaia starina (9, 1893): 503-514.

Veniukov, M. I. Istoricheskie ocherki Rossii so vremeni Krymskoi voiny do zakliucheniia Berlinskogo dogovora 1855-1878. 4 vols. (Leipzig, Prague, 1878).

Verdy du Vernois, Julius. *Kriegsgeschichtliche Studien nach der applikatorische Methode*. (Berlin: Mittler und Sohn, 1876).

Vil'k, polk. Katalog biblioteki Nikolaevskoi Akademii General'nogo Shtaba (1866-1873). (St. Petersburg: Tip. Morskogo ministerstva, 1873).

Voide, K. M. Pobedy i porazheniia v voine 1870 g. i deistvitel'nye ikh prichiny. 2 vols. (Warsaw: A. Gins, 1889-90).

Walker, C. B. 'The Battle of Königgrätz', Journal of the Royal United Service Institution 12 (51, 1868): 440-482.

W.L.H. Die Kriegführung unter Benutzung der Eisenbahnen und der Kampf um Eisenbahnen. Nach den Erfahrungen des letzten Jahrzehnts. (Leipzig: F.A. Brockhaus, 1868).

Zeddeler, L. L. 'Razmeshchenie armii', Voennyi sbornik (12, 1868): 319-341.

_____. 'Pekhota, artilleriia i kavaleriia v boiu i vne boia, v Germano-Frantsuzskoi voine 1870-1871 godov', *Voennyi sbornik* (7, 1872): 33-114.

_____. 'Po povodu stat'i M. Dragomirova pomeshchennoi v 4 No "Voennogo sbornika" za 1873 g.', *Voennyi sbornik* (6, 1873): 283-292.

_____. 'Vliianie oruzhiia, zariazhaiushchegosia s kazny na ogon', boi i boevuiu podgo-tovku pekhoty', *Voennyi sbornik* (1, 1876): 59-90.

Zhilinskii, A. 'Strategiia-nauka i strategiia - iskustvo', *Voennyi sbornik* (11, 1873): 5-48. Zinov'ev, M. A. 'Zametki o germanskoi armii', *Voennyi sbornik* (5: 111-125; 6: 237-278; 7: 115-134; 8: 259-288; 9: 31-50, 1873).

5. Unpublished manuscripts and theses

Airapetov, O. R. 'N. N. Obruchev. Zabytaia kar'era "russkogo Mol'tke". Manuscript, 1996. Baumann, Robert Fred. 'The Debates over Universal Military Service in Russia 1870-74'. Ph.D., Yale University, 1982.

Brooks, Edwin Willis. 'D. A. Miliutin: Life and Activity to 1856'. Ph.D., Stanford University, 1970.

_____. 'The Military and Industrialization in Reform Russia: the Railroad Connection'. Manuscript, 1987.

Osipova, Margarita Nikolaevna. 'Voprosy voennoi istorii Rossii v nauchnom nasledii D.A. Miliutina'. Avtoreferat dissertatsii na stepeni kandidat istoricheskikh nauk, Institut voennoi istorii, Ministerstva oborony SSSR, Moscow, 1977.

Rich, David A. 'The Professionalization of Russia's General Staff 1870-1895: Ideas, Strategy, and Foreign Policy'. Ph.D., Georgetown University, 1993.

_____. 'The Tsar's Colonels: Military Professionals and the Remaking of Russian Strategy, Foreign Policy, and Autocracy, 1840-1895'. Manuscript, 1997.

Screen, J. E. O. 'The Entry of Finnish Officers into Russian Military Service'. Ph.D., School of Slavonic and East European Studies, University of London, London, 1976.

Steinberg, John W. 'The Education and Training of the Russian General Staff: A History of the Imperial Nicholas Military Academy 1832-1914'. Ph.D., Ohio State University, 1990.

Wahlde, Peter von. 'Military Thought in Imperial Russia'. Ph.D., Indiana University, 1966.

6. Newspapers, periodicals

Birzhevye vedomosti, St. Petersburg, 1861-1879 Golos, St. Petersburg, 1863-1884 Moskovskie vedomosti, Moscow, 1756-1917 Russkii invalid, St. Petersburg, 1813-1917 Artilleriiskii zhurnal, St. Petersburg, 1808-1917 Inzhenernyi zhurnal, St. Petersburg, 1857-1917 Voennyi sbornik, St. Petersburg, 1858-1917 Oruzheinyi sbornik, St. Petersburg, 1861-1909 Pedagogicheskii sbornik, St. Petersburg, 1864-1917 Cahiers du monde russe et soviétique, Paris, 1959-93 Cahiers du monde russe, Paris, 1994-Forschungen zur osteuropäischen Geschichte, Wiesbaden, 1957-Istoricheskie zapiski, Moscow, 1937-Istoricheskii vestnik, St. Petersburg, 1880-1917 Jahrbücher für Geschichte Osteuropas (Neue Folge), Wiesbaden, 1953-Krasnyi arkhiv, Moscow, 1922-1941 Novaia i noveishaia istoriia, Moscow, 1957-Rodina, Moscow, 1989-Russian Review, Stanford, Calif. / Cambridge, Mass., 1941-Russkaia starina, St. Petersburg, 1870-1918 Slavic Review, Seattle, Wash., 1959-Slavonic and East European Review, London, 1922-Voenno-istoricheskii zhurnal, Moscow, 1939-Voprosy istorii, Moscow, 1945-War and Society, Duntroon, 1983-War in History, Sevenoaks, 1994-

7. Secondary literature

Anon. 'K istorii voenno-uchebnoi reformy imperatora Alexandra II-go, 1856-70', Russkaia starina (5: 345-366; 6: 693-712, 1887).

Addington, Larry H. The Patterns of War since the Eighteenth Century. 2nd ed. (Bloomington: Indiana University Press, 1994).

Airapetov, Oleg Rudol'fovich. 'K sud'be arkhiva N.N. Obrucheva', Vestnik Moskovskogo universiteta ser. 8 (2, 1993): 80.

_____. 'Nikolai Nikolaevich Obruchev', Voprosy istorii (7, 1996): 49-69.

Alekseev, Mikhail. 'Po tu storonu fronta. Voennaia razvedka Rossii nakanune pervoi mirovoi voiny', *Rodina* (8, 1994): 82-87.

Alston, Patrick L. *Education and the State in Tsarist Russia*. (Stanford, California: Stanford University Press, 1969).

Amburger, Erik. Geschichte der Behördenorganisation Russlands von Peter dem Grossen bis 1917. (Leiden: E. J. Brill, 1966).

Andolenko, C. R. Histoire de l'armée russe. (France: Flammarion, 1967).

Andreevskii, Evgenii Konstantinovich. 'M. I. Dragomirov i voenno-uchebnye zavedenii', *Russkaia starina* (10: 33-54; 11: 357-372, 1908).

___. 'M. I. Dragomirov-fel'dfebel'', Russkaia starina (1, 1909): 90-106.

______. 'M. I. Dragomirov vo vremia Avstro-Prusskoi voiny', *Russkaia starina* (4: 177-184; 5: 447-450; 10: 167-174; 12: 617-624, 1910); (1: 219-226; 3: 605-612; 4: 111-118; 10: 182-190; 11: 449-457; 12: 565-574, 1911).

Åselius, Gunnar. 'Militärattachéerna i S:t Petersburg. En undersökning av det svenska underrättelseväsendets modernisering 1885-1917', *Militärhistorisk tidskrift* (1990): 7-44.

Askew, William C. 'Russian Military Strength on the Eve of the Franco-Prussian War', *The Slavonic and East European Review*, 30 (1951): 185-205.

Avdeev, V. A. 'Voenno-istoricheskie issledovaniia v russkoi armii', *Voenno-istoricheskii zhurnal* (3, 1986): 81-84.

_____. 'Voenno-istoricheskie issledovaniia v Akademii General'nogo shtaba russkoi armii', *Voenno-istoricheskii zhurnal* (12, 1987): 77-80.

Baiov, A. K. Graf Dmitrii Alekseevich Miliutin. (St. Petersburg: Tip. A. S. Suvorina, 1912).

Barbasov, A. 'Russkii voennyi deiatel' N.N. Obruchev', Voenno-istoricheskii zhurnal (8, 1973): 100-105.

Barenbaum, I. E. 'Narodnye zhurnaly A. F. Pogosskogo v gody revliutsionnoi situatsii', in *Revoliutsionnaia situatsiia v Rossii v 1859-1861 gg.*, edited by M. V. Nechkina. (Moscow: Nauka, 1970): 196-214

Barsukov, Evgenii. Russkaia artilleriia v mirovuiu voinu. 2 vols. (Moscow: Gosvoenizdat, 1938-39).

Bartlett, Roger, and Janet Hartley, eds. Russia in the Age of Enlightenment: Essays for Isabel de Madriaga. (London: Macmillan, 1990).

Bassford, Chrisopher. Clausewitz in English: The Reception of Clausewitz in Britain and America, 1815 - 1945. (New York: Oxford University Press, 1994).

Baumgart, W. 'Der Krimkrieg in der angelsächsischen und russichen militärgeschichtlichen Literatur der sechsiger Jahre', *Militärgeschichtliche Mitteilungen*, 8 (2, 1970): 181-194.

Beauvais, Armand. Attachés militaires, attachés navals et attachés de l'air. (Paris: Editions A. Pedone, 1937).

Begunova, Alla. Sabli ostry, koni bystry...(iz istorii russkoi kavalerii). (Moscow: Molodaia gvardiia, 1992).

Beliaev, N. I. Russko-turetskaia voina 1877-78 gg. (Moscow: Voenizdat, 1956).

Bellamy, Christopher. 'Seventy Years On: Similarities Between the Modern Soviet Army and its Tsarist Predecessor', *Journal of the Royal United Services Institute for Defence Studies*, 124 (3, 1979): 29-38.

Beskrovnyi, L. G. Ocherki po istochnikovedeniiu voennoi istorii Rossii. (Moscow: Izdatel'stvo Akademii nauk SSSR, 1957).

_____. Ocherki voennoi istoriografii Rossii. (Moscow: Izdatel'stvo Akademii nauk SSSR, 1962).

_____. Russkaia armiia i flot v XIX veke. Voenno-ekonomicheskii potentsial Rossii. (Moscow: Nauka, 1973).

_____. Russkoe voennoe iskusstvo XIX veka. (Moscow: Nauka, 1974).

_____. Armiia i flot Rossii v nachale XX veka: Ocherki voenno-ekonomicheskogo potentsiala. (Moscow: Nauka, 1986).

______., ed. 'Stranitsy boevogo proshlogo: Ocherki voennoi istorii', (Moscow: Nauka, 1968). Best, Geoffrey. *War and Society in Revolutionary Europe* 1770-1870. Reprint of 1982 ed. (Stroud: Sutton Publishing, 1998).

Best, Geoffrey, and Andrew Wheatcroft, eds. *War, Economy and the Military Mind.* (London: Croom Helm, 1976).

Bestuzhev, I. V. 'Znachenie krymskoi voiny 1853-56 gg. v razvitii russkogo voennogo iskusstva', *Doklady i soobshchenii Instituta istorii*. (5, 1955): 43-52.

____. Krymskaia voina 1853-56 gg. (Moscow: Akademiia nauk SSSR, 1956).

Beyrau, Dietrich. 'Von der Niederlage zur Agrarreform', Jahrbücher für Geschichte Osteuropas, 23 (1975): 191-212.

_____. 'Der deutsche Komplex: Rußland zur Zeit der Reichsgründung', *Historische Zeitschrift* (6, 1980): 63-107.

_____. Militär und Gesellschaft im Vorrevolutionären Russland. Beiträge zur Geschichte Osteuropas. Bd 15. (Köln: Böhlau Verlag, 1984).

______ and Igor Cicurov, and Michael Stolleis, eds. *Reformen im Rußland des 19. und 20. Jahhunderts: Westliche Modelle und russische Erfahrungen.* Studien zur Europäischen Rechtsgeschichte. Sonderhefte 86. (Frankfurt am Main: Vittorio Klostermann, 1996).

Bil'derling, A. A. 'Graf Dmitrii Alekseevich Miliutin', Voennyi sbornik (2, 1912): 3-16.

Black, C. E., ed. The Transformation of Russian Society. Aspects of Social Change since 1861. (Cambridge, Mass., 1960).

Bliokh, I.S. Budushchaia voina v tekhnicheskom, ekonomicheskom i politicheskom otnosheniiakh. 6 vols. (St. Petersburg: I. A. Efron, 1898).

Bogdanovich, M.Istoricheskii ocherk deiatel'nosti voennogo upravleniia v Rossii v pervoe dvadtsatipiatiletie blagopoluchnogo tsarstvovaniia Gosudaria Imperatora Aleksandra Nikolaevicha (1855-1880 gg.). 6 vols. (St. Petersburg: M. Stasiulevich, 1879-1881).

Bolkhovitinov, N. N. Russko-amerikanskie otnosheniia i prodazha Aliaski 1834-1867. (Moscow: Nauka, 1990).

_____. 'Otkliki v SShA na otmenu krepostnogo prava v Rossii', *Voprosy istorii* (8, 1995): 126-132.

_____. 'Rossiia i nachalo grazhdanskoi voiny v SShA. Po arkhivnym materialam', Novaia i noveishaia istoriia (3, 1995): 30-42.

Bonch-Bruevich, M. D. 'Mikhail Ivanovich Dragomirov. (Ocherk)', Izvestiia Imperatorskoi Nikolaevskoi Voennoi Akademii (25, 1912): 80-101.

Bond, Brian. War and Society in Europe, 1870-1970. (London: Collins, Fontana Paperback, 1984).

_____. The Pursuit of Victory: From Napoleon to Saddam Hussein. (Oxford: Oxford University Press, 1996).

Borodkin, M. 'Graf D. A. Miliutin v otzyvakh ego sovremennikov', *Voennyi sbornik* (5, 1912: 1-16; 6: 1-20, 1912).

Bradley, Joseph. *Guns for the Tsar: Technology Transfer and Small Arms Industry.* (DeKalb, Illinois: Northern Illinois University Press, 1990).

Brodie, Bernard and Fawn. From Crossbow to H-bomb. (Bloomington: Indiana University Press, 1973).

Brooks, Edwin Willis. 'Reform in the Russian Army 1856-61', Slavic Review, 43 (1, 1984): 63-82.

_____. 'The Improbable Connection: D. A. Miljutin and N.G. Chernyshevskii, 1848-1862', Jahrbücher für Geschichte Osteuropas, 37 (1989): 21-44.

Brooks, Jeffrey. When Russia Learned to Read. Literacy and Popular Literature 1861-1917. (Princeton, N. J.: Princeton University Press, 1985).

Bucholz, Arden. Moltke, Schlieffen, and Prussian War Planning. (New York: Berg Publishers, Inc., 1991).

Bushnell, John. *Mutiny amid Repression: Russian Soldiers in the Revolution of 1905-06.* (Bloomington: Indiana University Press, 1985).

______. 'Peasants in Uniform: The Tsarist Army as a Peasant Society', *Journal of Social History*, 13 (4, 1980): 565-576.

______. 'The Tsarist Officer Corps 1881-1914', American Historical Review, 86 (3, 1981): 753-80. Carr, William. The Origins of the Wars of German Unification. (London: Longman, 1991).

Challener, Richard D. *The French Theory of the Nation in Arms, 1866-1939.* (New York: Columbia University Press, 1955).

Charters, David A., Marc Milner, and J. Brent Wilson, eds. *Military History and the Military Profession*. (Westport, Conn.: Praeger, 1992).

Chubinskii, M. 'Pamiati D. A. Miliutina', Vestnik Evropy (9, 1912): 316-338.

Clausewitz, Carl von. *On War*. Edited and translated by Michael Howard and Peter Paret. (London: David Campbell Publishers, 1993).

Cox, Gary P. The Halt in the Mud: French Strategic Planning from Waterloo to Sedan. (Oxford: Westview Press, 1994).

Craig, Gordon A. *The Battle of Königgrätz.* (Philadelphia and New York: J. B. Lippincott Co, 1964).

_____. The Politics of the Prussian Army 1640-1945. (Oxford: Oxford University Press, 1964). _____. Germany: 1866-1945. (Oxford: Oxford University Press, 1981).

_____. 'Military Diplomats in the Prussian and German Service: the Attachés, 1816-1914', *Political Science Quarterly* 64 (1, 1949): 65-94.

Creveld, Martin van. *Supplying War: Logistics from Wallenstein to Patton.* (Cambridge, Massachusetts: Harvard University Press, 1977).

_____. Command in War. (Cambridge, Massachusetts: Harvard University Press, 1985).

Curtiss, John Shelton. The Russian Army under Nicholas I, 1825-55. (Durham, N.C.: Duke University Press, 1965).

_____. Russia's Crimean War. (Durham, N.C.: Duke University Press, 1979).

Danilevskii, N. Ia. Rossiia i Evropa. Reprint of 1895 ed. (St. Petersburg: Glagol, 1995).

D'iakov, V. A. Deiateli russkogo i pol'skogo osvoboditel'nogo dvizheniia v tsarskoi armii 1856-1865 godov. (Moscow: Nauka, 1967).

______ and I. S. Miller. *Revoliutsionnoe dvizhenie v russkoi armii i vosstanie 1863.* (Moscow: Nauka, 1964).

______. 'Peterburgskie ofitserskie organizatsii kontsa 50-kh-nachala 60-kh g. XIX v. i ikh rol' v istorii russko-pol'skikh revoliutsionnykh sviazei', in *Iz istorii klassovoi bor'by i natsional'no-osvoboditel'nogo dvizheniia v slavianskikh stranakh*, edited by I. A. Khrenov. Uchenye zapiski instituta slavianovedeniia, 28. (Moscow: Nauka, 1964): 268-359.

_____.'Soldatskoe dvizhenie v 1856-1865 gg.', in *Revoliutsionnaia situatsiia v Rossii 1859-*1861, edited by M. V. Nechkina. Vol. 5. (Moscow: Nauka, 1970): 71-89.

Delbrück, Hans, and Emil Daniels. Geschichte der Kriegskunst im Rahmen der politischen Geschichte. 7 vols. 1-4 by Delbrück. (Berlin: Georg Stilke, 1900-36).

Demeter, Karl. Das deutsche Offizierkorps in Gesellschaft und Staat 1650-1945. 4th ed. (Frankfurt am Main: Bernard & Graefe Verlag für Wehrwesen, 1965).

Derevianko, I. V. 'Russkaia agenturnaia razvedka v 1902-05 gg.', *Voenno-istoricheskii zhurnal* (5, 1989): 76-78.

Dixon, Norman. On the Psychology of Military Incompetence. (London: Pimlico, 1976).

Duffy, Christopher. Russia's Military Way to the West: Origins and Nature of Russian Military Power 1700-1800. (London: Routledge & Kegan Paul, 1981).

Doorn, J. van, ed. Armed Forces and Society. Sociological Essays. (The Hague: Mouton, 1969). Dzhanshiev, G. Epokha velikikh reform. (St. Petersburg: B. M. Vol'f, 1907).

Earle, Edward Mead, ed. *Makers of Modern Strategy*. (Princeton, N.J.: Princeton University Press, 1944).

Eklof, Ben. Russian Peasant Schools. Officialdom, Village Culture, and Popular Pedagogy 1861-1914. (Berkley, Los Angeles, London: University of California Press, 1986).

______ and John Bushnell, Larissa Zakharova, eds. *Russia's Great Reforms*, 1855-1881. (Bloomington: Indiana University Press, 1994). [Also published in Russian by the same editors: *Velikie reformy v Rossii 1856-1874*. (Moscow: Izdatel'stvo Moskovskogo Universiteta, 1992)].

English, John A. A Perspective on Infantry. (New York: Praeger Publishers, 1981).

Epstein, Robert M. 'Patterns of Change and Continuity in Nineteenth Century Warfare', Journal of Military History 56 (3, 1992): 375-388.

_____. Napoleon's Last Victory and the Emergence of Modern War. (Lawrence, KS: University Press of Kansas, 1994).

Erickson, John. *The Russian Imperial/Soviet General Staff*. The College Station Papers. (College Station, TX: The Center for Strategic Technology, 1981).

______., ed. The Military-Technical Revolution: Its Impact on Strategy and Foreign Policy. (New York: Frederick A. Praeger, 1966).

Eroshkin, N. P. Istoriia gosudarstvennykh uchrezhdenii dorevoliutsionnoi Rossii. (Moscow: Vysshaia shkola, 1983).

Fedorov, A.V. Russkaia armiia v 50-70 godakh XIX veka. (Leningrad: Izdatel'stvo Leningradskogo universiteta, 1959).

Fedorov, V. G. Vooruzhenie russkoi armii v XIX stoletii. (St. Petersburg: Tip. Khudozhestvennoi pechati, 1911).

Ferenczi, Caspar. 'Funktion und Bedeutung der Presse in Rußland vor 1914', Jahrbücher für Geschichte Osteuropas 30 (1982): 362-398.

Field, Daniel. The End of Serfdom: Nobility and Bureaucracy in Russia 1855-1861. (Cambridge, Mass.: Harvard University Press, 1976).

Finer, S. E. The Man on Horseback: The Role of the Military in Politics. (London: The Pall Mall Press, 1962).

Florinsky, Michael. Russia: A History and Interpretation. 2 vols. (New York: The Macmillan Company, 1953).

Franz, Günther. Rußland auf dem Wege zur Katastrophe. (Berlin: Deutsche Verlagsgesellschaft für Politik und Geschichte, 1926).

Fuller, William C. Jr. Civil-Military Conflict in Imperial Russia 1881-1914. (Princeton, N.J.: Princeton University Press, 1985).

_____. Strategy and Power in Russia 1600-1914. (New York: Free Press, 1992).

Gallie, Walter B. *Philosophers of Peace and War*. (Cambridge: Cambridge University Press, 1978).

Galushko, Iu., and A. Kolesnikov. Shkola Rossiiskogo Ofitserstva. Istoricheskii spravochnik. (Moscow: Russkii mir, 1993).

Gat, Azar. The Origins of Military Thought from the Enlightenment to Clausewitz. (Oxford: Clarendon Press, 1989).

_____. The Development of Military Thought. (Oxford: Clarendon Press, 1992).

Gatrell, Peter. The Tsarist Economy 1850-1917. (London: B.T.Batsford, 1986).

Gerschenkron, Alexander. *Economic Backwardness in Historical Perspective*. (Cambridge, Mass.: Belknap Press, 1962).

Geyer, Dietrich. Der russische Imperialismus. Studien über den Zusammenhang von innerer und auswärtiger Politik 1860 bis 1914.(Göttingen: Vandenhoeck & Ruprecht, 1977).

Glete, Jan. 'Krigsvetenskapsakademien, försvaret och den industriella samhällsomvandlingen 1870-1920', in *Fäderneslandets försvar. Kungl. Krigsvetenskapsakademien* 1796-1996, edited by E. Norberg. (Stockholm: Atlantis, 1996): 141-260

Glinoetskii, N. P. Istoricheskii ocherk Nikolaevskoi Akademii General'nogo Shtaba. (St. Petersburg: Shtab voisk gvardii i Peterburgskogo voennogo okruga, 1882).

_____. Istoriia russkogo general'nogo shtaba. 2 vols. (St. Petersburg: Shtab voisk gvardii i Peterburgskogo voennogo okruga, Voennaia tipografiia, 1883, 1894).

Goerlitz, Walter. *History of the German General Staff*. Translated by Brian Battershaw. (Boulder: Westview Press, 1985).

Golder, Frank A. 'The American Civil War Through the Eyes of a Russian Diplomat', American Historical Review 26 (3, 1921): 454-463.

Goldfrank, David. *The Origins of the Crimean War*. (London and New York: Longman, 1994). Golovine, Nicholas N. *The Russian Army in the World War*. (New Haven: Yale University Press, 1931).

Gooch, John. Armies in Europe. (London: Routledge & Kegan Paul, 1980).

Griffith, Paddy. Rally Once Again: Battle Tactics of the American Civil War. (Ramsbury: The Crowood Press, 1987).

_____. *Military thought in the French army, 1815-51.* (Manchester: Manchester University Press, 1989).

Grishinskii, A. S., V. P. Nikol'skii, and N. L. Klado, eds. *Istoriia russkoi armii i flota*. 15 vols. (Moscow: Obrazovaniie, 1911-13).

Grodskii, G. Mikhailovskie artilleriiskie uchilishche i akademiia v XIX stoletii. (St. Petersburg: V. Mil'shtein, 1905).

Hagerman, Edward. *The American Civil War and the Origins of Modern Warfare*. (Bloomington: Indiana University Press, 1988).

Hahlweg, Werner. 'Das Clasewitzbild einst und jetzt', in Carl von Clausewitz: *Vom Kriege*. (Bonn: Dümmler, 1991): 1-172.

Hamley, E. B. The Operations of War. 4th ed. (Edinburgh: William Blackwood and Sons, 1872).

Hammer, Michel. 'D.A. Miljutin et la Politique Extérieure de la Russie', Cahiers du monde russe et soviétique 23 (3-4, 1982): 333-349.

Hattaway, Herman, and Archer Jones. *How the North Won: A Military History of the Civil War.* (Urbana: University of Illinois Press, 1983).

Haycock, Ronald, and Keith Neilson, eds. *Men, Machines and War*. (Waterloo, Ontario: Wilfrid Laurier University Press, 1988).

Hellie, Richard. Enserfment and Military Change in Muscovy. (Chicago: University of Chicago Press, 1971).

Henderson, W. O. *The Industrial Revolution on the Continent: Germany, France, Russia 1800-1914.* 2nd ed. (London: Frank Cass and Co, 1967).

Hittle, J. D. The Military Staff: Its History and Development. (Harrisburg, Pa.: The Military Service Publishing Company, 1944).

Holsti, Kaveli J. *Peace and War: Armed Conflicts and International Order 1648-1989.* (Cambridge: Cambridge University Press, 1991).

Hornung, Klaus. Scharnhorst: Soldat, Reformer, Staatsman. (Munich: Bechtle, 1997).

Hosking, Geoffrey. Russia: People & Empire 1552-1917. (London: HarperCollins Publishers, 1997).

Howard, Michael. War in European History. (Oxford: Oxford University Press, 1976).

_____. *The Franco-Prussian War: the German Invasion of France, 1870-1871.* Reprint of 1961 ed. (London: Routledge, 1991).

______., ed. Soldiers and Governments: Nine Studies in Civil-Military Relations. (London: Eyre & Spottiswoode, 1957).

_____., ed. The Theory and Practice of War. (London: Cassell & Co, 1965).

Hubbell, J. T., ed. Battles Lost and Won: Essays from Civil War History. (London: Greenwood Press, 1975).

Huntington, Samuel P. The Soldier and the State: The Theory and Politics of Civil-Military Relations. Reprint of 1957 ed. (London: Belknap Press, 1995).

Irvine, Dallas D. 'The French and Prussian Staff Systems before 1870', *The Journal of American Military History Foundation* 2 (4, 1938): 192-203.

_____. 'The Origin of Capital Staffs', The Journal of Modern History 10 (2, 1938): 161-179.

Jakobs, Peter. Das Werden des französisch-russischen Zweibundes 1890-1894, Marburger Abhandlungen zur Geschichte und Kultur Osteuropas. Bd 8. (Wiesbaden: Otto Harrassowitz, 1968). Jelavich, Babara. Sankt Petersburg and Moscow: Tsarist and Soviet Foreign Policy 1814-1974. (Bloomington and London: Indiana University Press, 1974).

_____. Russia and the Formation of the Romanian National State 1821-1878. (Cambridge: Cambridge University Press, 1984).

Johanson, Christine. 'Autocratic Politics, Public Opinion and Women's Medical Education During the Reign of Alexander II, 1855-1881', *Slavic Review* 38 (3, 1979): 426-443.

Johansson, Alf W. Europas krig. Militärt tänkande, strategi och politik från Napoleontiden till andra världskrigets slut. (Stockholm: Tidens förlag, 1988).

Jones, Archer. *The Art of War in the Western World*. (Chicago: University of Illinois Press, 1987). Jordan, Donaldson, and Edwin Pratt. *Europe and the American Civil War*. (Boston and New York: Riverside Press, 1931).

Kartsov, P. P. Istoricheskii ocherk Novogorodskogo grafa Arakcheeva Kadetskogo Korpusa i Nizhegorodskoi Voennoi Gimnasii 1834-1884. (St. Petersburg: F. S. Sushchinskii, 1884).

_____. Istoricheskii ocherk leib-gvardii pervogo strelkovogo Ego Imperatorskogo Velichestva batal'ona 1856-1885. (St. Petersburg: F. S. Sushchinskii, 1885).

Kamenetskii. 'Materialy o russko-amerikanskikh othosheniiakh', Istoricheskii zhurnal (3-4, 1943): 72-74.

Kavtaradze, A. G. 'Iz istorii russkogo general'nogo shtaba', Voenno-istoricheskii zhurnal (12, 1971): 75-80.

_____. 'Iz istorii russkogo general'nogo shtaba', Voenno-istoricheskii zhurnal (7, 1972): 87-92.

_____. 'Iz istorii russkogo general'nogo shaba (1909-iul' 1914 gg.)', Voenno-istoricheskii zhurnal (12, 1974): 80-86.

_____. 'Voiskovoe upravlenie general'nogo shtaba russkoi armii', *Voenno-istoricheskii zhur-nal* (6, 1978): 77-82.

Keegan, John. The Face of Battle. (London: Pimlico, 1976).

____. A History of Warfare. (London: Pimlico, 1993).

Keep, John L.H. Soldiers of the Tsar: Army and Society in Russia 1462-1874. (Oxford: Clarendon Press, 1985).

_____. Power and the People: Essays on Russian History. (Boulder: East European Monographs, 1995).

Kenez, Peter. 'A Profile of the Prerevolutionary Officer Corps', *California Slavic Studies* 7 (1973): 121-158.

Kennan, George F. The Decline of Bismarck's European Order: Franco-Russian Relations 1875-1890. (Princeton, N.J.: Princeton University Press, 1979).

_____. The Fateful Alliance: France, Russia and the Coming of the First World War. (Manchester: Manchester University Press, 1984).

Kennedy, Paul. *The Rise and Fall of the Great Powers: Economic Change and Military Conflict from* 1550 to 2000. (London: Fontana Press, 1988).

______., ed. *The War Plans of the Great Powers 1880-1914*. Reprint of 1979 ed. (Boston: Allen & Unwin, 1985).

______., ed. Grand Strategies in War and Peace. (New Haven: Yale University Press, 1991).

Kersnovskii, A. A. Istoriia russkoi armii. Reprint of 1933-38 ed. 4 vols. (Moscow: Golos, 1992-94).

Kiernan, V. G. 'Conscription and Society in Europe before the War of 1914-18', in War and Society: Historical Essays in Honour and Memory of J.R. Western 1928-1971, edited by M. R. D. Foot. (London: Paul Elek, 1973): 141-158.

Kiniapina, Nina Stepanovna. Vneshniaia politika Rossii pervoi poloviny XIX veka. (Moscow: Vysshaia shkola, 1963).

_____. Vneshniaia politika Rossii vtoroi poloviny XIX veka. (Moscow: Vysshaia shkola, 1974).

Kipp, Jacob W. 'Consequences of Defeat: Modernizing the Russian Navy, 1856-63', Jahrbücher für Geschichte Osteuropas 20 (1972): 210-225.

Király, B.K., and G.E. Rothenberg, eds. War and Society in East Central Europe During the Eighteenth and Nineteenth Centuries. (New York, 1979).

Kjellander, Rune. Kungl. Krigsvetenskapsakademien. Biografisk matrikel med porträttgalleri 1795-1995. (Stockholm: Akad., 1996).

Kolb, Eberhard, ed. Europa vor dem Krieg von 1870. (München: Oldenbourg, 1987).

Komissarov, A. M. 'M. I. Dragomirov o voinskoi distsipline', Voenno-istoricheskii zhurnal (6, 1989): 89-92.

Korzun, L. 'Razvedka v russkoi armii v pervoi mirovoi voine', *Voenno-istoricheskii zhurnal* (4, 1981): 60-65.

Koz'min, B. 'N. G. Chernyshevskii v redaktsii "Voennogo sbornika". Iz vospominanii D. A. Miliutina', *Literaturnoe nasledstva* (25-26, 1936): 234-237.

Krahmer, Gustav. *Geschichte der Entwicklung des russischen Heeres von der Thronbesteigung Kaiser Nikolaus I Pawlowitsch bis auf die neuste Zeit.* Facsimile of the 1896-97 ed, Leipzig. 2 vols. (Kreveld: Olmes, 1975).

Lalaev, M. Istoricheskii ocherk voenno-uchebnykh zavedenii. (St. Petersburg: M. Stasiulevich, 1880).

Lambert, Andrew D. The Crimean War: British Strategy 1853-56. (Manchester: Manchester University Press, 1990).

Lambsdorff, Gustav von. Die Militärbevollmächtigten Kaiser Wilhelms II. am Zarenhofe 1904-1914. (Berlin: Schliffen Verlag, 1937).

Laue, Theodore H. von. Sergei Witte and the Industrialization of Russia. Reprint of 1963 ed. (New York: Atheneum, 1973).

Leonidov, L. 'Iz istorii russkoi voenno-istoricheskoi mysli 60-kh godov XIX veka', Voenno-istoricheskii zhurnal (10, 1973): 95-100.

Leroy-Beaulieu, A. L'Empire des Tsar et les Russes. 3 vols. (Paris: Hachette et C., 1881-89).

Lesnik, S. 'Rossiia i Prussiia v Shlezvig-Golshtinskom voprose', *Krasnyi arkhiv* (2, 1939): 51-118.

Levshin, D. M. Pazheskii korpus za 100 let (1802-1902). (St. Petersburg: Khudozhestvennaia Pechat', 1902).

Liadov, M. 'Arkhiv general-fel'dmarshala grafa Miliutina', Istoricheskii zhurnal (7, 1940): 139-47.

Lieven, Dominic. Russia and the Origins of the First World War. (London: Macmillan, 1983).

_____. Russia's Rulers under the Old Regime. (London: Yale University Press, 1989).

_____. *The Aristocracy in Europe* 1815-1914. (London: Macmillan Press, 1992).

Lincoln, Bruce. In the Vanguard of Reform: Russia's Enlightened Bureaucrats 1825-1861. Reprint of 1982 ed. (De Kalb, Ill.: Northern Illinois University Press, 1986).

_____. Nicholas I: Emperor and Autocrat of All the Russias. (DeKalb, Illinois: Northern Illinios University Press, 1989).

_____. The Great Reforms: Autocracy, Bureaucracy, and the Politics of Change in Imperial Russia. (DeKalb, Illinois: Northern Illinois University Press, 1990).

_____. 'The Ministers of Alexander II: A Brief Survey of Their Backgrounds and Service Careers', *Cahiers du monde russe et soviétique* 17 (4, 1976): 467-83.

_____. 'D. A. Miliutin's Views on Russia and Reform', in Miliutin, D. A. Vospominaniia 1816-1843. (Moscow: Rossiiskii arkhiv, 1997): 479-485.

Luntinen, Pertti. French Information on the Russian War Plans 1880-1914, Studia Historica 17. (Helsinki: Societas Historica Finlandiae, 1984).

_____. *The Imperial Russian Army and Navy in Finland 1808-1918,* Studia Historica 56. (Helsinki: Societas Historica Finlandiae, 1997).

Luvaas, Jay. *The Military Legacy of the Civil War: the European Inheritance*. Reprint of 1959 ed. (Lawrence, Kansas: University Press of Kansas, 1988).

Makeev, N. N. G. Chernyshevskii - redaktor Voennogo sbornika. (Moscow: Voennoe izdatel'stvo, 1950).

_____. 'N. G. Chernyshevskii - redaktor "Voennogo sbornika"', *Voprosy istorii* (4, 1949): 65-82.

Maksheev, F. A. K 50-letiiu "Voennogo sbornika". (St. Petersburg, 1910).

Maksimovskii, M. Istoricheskii ocherk razvitii Glavnogo Inzhenernogo Uchilishcha 1819-1869. (St. Petersburg: Imperatorskaia Akademiia Nauk, 1869).

Malkin, M. 'K istorii russko-amerikanskikh otnosheniiakh vo vremia grazhdanskoi voiny v SShA', *Krasnyi arkhiv* (3, 1939): 97-153.

Marwick, Arthur. War and Social Change in the Twentieth Century. (London: Macmillan, 1974).

Mashkin, N. A. Vysshaia voennaia shkola Rossiiskoi imperii XIX-nachala XX veka. (Moscow: Akademiia, 1997).

Mavrodin, V. V., and Val. V. Mavrodin. *Iz istorii otechestvennogo oruzhiia. Russkaia vintovka.* (Leningrad: Izd. Leningradskogo universiteta, 1981).

May, Ernest, ed. *Knowing One's Enemies: Intelligence Assessment before the Two World Wars.* (Princeton, N.J.: Princeton University Press, 1984).

Mayzel, Matitiahu. 'The Formation of the Russian General Staff 1880-1917, A Social Study', *Cahiers du monde russe et soviétique* 16 (3-4, 1975): 297-321.

_____. Generals and Revolutionaries: The Russian General Staff During the Revolution: A Study in the Transformation of Military Elite. Studien zur Militärgeschichte, Militärwissenschaft und Konfliktforschung. Bd. 19. (Osnabrück: Biblio Verlag, 1979).

McElwee, William. The Art of War Waterloo to Mons. (London: Weidenfeld and Nicolson, 1974).

McKean, Robert B., ed. New Perspectives in Modern Russian History. (New York: St. Martin's Press, 1992).

McNeal, Robert H.Tsar and Cossack 1855-1914. (New York: St. Martin's Press, 1987).

McNeill, William H. The Pursuit of Power: Technology, Armed Force, and Society since A.D. 1000. (Oxford: Basil Blackwell, 1982).

_____. *The Structure of Military-Technical Transformation*. Harmon Memorial Lectures in Military History, 37. (Colorado: Superintendent of Documents, U.S. Government Printing Office, 1994).

McPherson, James M. Battle Cry of Freedom: The Civil War Era. (London: Penguin Books, 1988).

McReynolds, Louise. *The News Under Russia's Old Regime: The Development of a Mass-Circulation Press.* (Princeton, N.J.: Princeton University Press, 1991).

Meisner, Hans Otto. Militärattachés und Militärbevollmächtigte in Preußen und im Deutschen Reich. (Berlin: Rütten und Loening, 1957).

Menning, Bruce W. Bayonets before Bullets. (Bloomington: Indiana University Press, 1992).

Meshcheriakov, G. P. Russkaia voennaia mysl' v XIX-om veke. (Moscow: Nauka, 1973).

Miller, Forrestt A. *Dmitrii Miliutin and the Reform Era in Russia*. (Charlotte, North Carolina: Vanderbilt University Press, 1968).

_____. 'Dmitrii Miliutin: Liberal or Conservative?', *Jahrbücher für Geschichte Osteuropas* 13 (1965): 192-98.

Miller, Steven E., Sean M. Lynn-Jones, and Stephen Van Evera, eds. *Military Strategy and the Origins of the First World War*. Revised and Expanded Edition ed. (Princeton, N.J.: Princeton University Press, 1991).

Millett, Allan R., and Williamson Murray, eds. *Military Effectiveness, Volume I: The First World War.* (Boston: Unwin Hyman, 1988).

Mitchell, Allan. *The German Influence in France after 1870: The Formation of the French Republic.* (Chapel Hill: University of North Carolina Press, 1979).

_____. Victors and Vanquished: the German Influence on Army and Church in France after 1870. (Chapel Hill: University of North Carolina Press, 1984).

_____. The Divided Path: the German Influence on Social Reform in France after 1870. (Chapel Hill: University of North Carolina Press, 1991).

Mosse, W. E. The European Powers and the German Question 1848-1871. (Cambridge: Cambridge University Press, 1958).

_____. The Rise and Fall of the Crimean System 1855-71: The Story of a Peace Settlement. (London: Macmillan and Company, 1963).

_____. Liberal Europe: The Age of Bourgeois Realism 1848-1875. (London: Thames and Hudson, 1974).

_____. Alexander II and the Modernization of Russia. Reprint of 1958 ed. (London: I.B. Tauris & Co, 1992).

Murray, Williamson, MacGregor Knox, and Alvin Bernstein, eds. *The Making of Strategy: Rulers, States, and War.* Reprint of the 1994 ed. (Cambridge: Cambridge University Press, 1995).

Narochnitskaia, L. I. Rossiia i voiny Prussii v 60-kh godakh XIX v. za ob'edinenie Germanii "sverkhu". (Moscow: Gosudarstvennoe izdatel'stvo politicheskoi literatury, 1960).

_____. Rossiia i otmena neitralizatsii Chernogo moria 1856-1871 gg. (Moscow: Nauka, 1989).

Nechkina, M. V., ed. Revoliutsionnaia situatsiia v Rossii 1859-1861. 10 vols. (Moscow: Akademiia nauk SSSR, 1960-86).

N.O.L. 'Russkii Invalid i Voennyi Sbornik k 50-letiiu Voennogo Sbornika', Russkaia starina (5, 1908): 283-287.

O'Connell, Robert L. Of Arms and Men: A History of War, Weapons, and Aggression. (Oxford: Oxford University Press, 1989).

O'Connor, Maureen P. 'The Vision of Soldiers: Britain, France, Germany and the United States Observe the Russo-Turkish War', War in History (3, 1997): 264-295.

Obolenskaia, S. V. Franko-prusskaia voina i obshchestvennoe mnenie Germanii i Rossii. (Moscow: Nauka, 1977).

Osipova, Margarita Nikolaevna. 'Obzor voenno-nauchnykh trudov D.A. Miliutina', Voennoistoricheskii zhurnal (9, 1972): 102-107.

_____. 'Posle Krymskoi voiny', Voenno-istoricheskii zhurnal (2, 1992): 4-13.

Oskin, G. 'Vozniknovenie i razvitie sluzby general'nogo shtaba v Russkoi armii', Voenno-istoricheskii zhurnal (3, 1969): 91-97.

P.N. 'Dmitrii Alekseevich Miliutin vo vremia upravleniia ego voennym ministerstvom', *Russkaia starina* (1, 1886): 693-712.

Pankov, D. V., ed. Razvitie taktiki russkoi armii XVIII v.-nachalo XX v. (Moscow: Voenizdat, 1957).

Paret, Peter. Clausewitz and the State. (Oxford: Clarendon Press, 1976).

______ed., *Makers of Modern Strategy from Machiavelli to the Nuclear Age.* Reprint of the 1986 ed. (Oxford: Clarendon Press, 1994).

Pearton, Maurice. *The Knowledgeable State: Diplomacy, War and Technology since 1830.* (London: Burnett Books, 1982).

Petrov, A. N., ed. *Russkaia voennaia sila*. 2nd ed. 2 vols. (St. Petersburg: I. N. Kushnerev, 1892). Pflanze, Otto. *Bismarck and the Development of Germany*. 3 vols. (Princeton, N.J.: Princeton University Press, 1963-1990).

Pintner, Walter M. 'The Burden of Defense in Imperial Russia, 1725-1914', *The Russian Review* 43 (1984): 231-259.

_____, and Don Karl Rowney, eds. *Russian Officialdom: The Bureaucratization of Russian socie*ty from the Seventeenth to the Twentieth Century. (London: MacMillan Press, 1980).

Pipes, Richard. Russia under the Old Regime. (New York, N.Y.: Macmillan Publishing Company, 1974).

Pope, Dudley. Guns. (London: The Hamlyn Publishing Group, 1969).

Preston, R.A., S.F. Wise, and H.O Werner. *Men in Arms: A History of Warfare and its Interrelationships with Western Society.* (London: Atlantic Press, 1956).

Preston, Adrian, ed. *General Staffs and Diplomacy Before the Second World War*. (London: Croom Helm, 1978).

Primakov, E. M., ed. *Ocherki istorii rossiiskoi vneshnei razvedki.* 3 incomplete vols. (Moscow: Mezhdunarodnye otnosheniia, 1995-1997).

Prokof'ev, E. A. 'Bor'ba dekabristov za peredovoe russkoe voennoe iskusstvo', (Moscow: Akademiia nauk SSSR, 1953).

Purves, J.G., and D.A. West, eds. War and Society in the Nineteenth Century Russian Empire. (Toronto: New Review Books, 1972).

Puzyrevskii, A. Russkaia armiia pered voinoi 1877-78 gg. (St. Petersburg: V. Berezovskii, 1889).

Pyziur, Eugene. 'Bismarck's Appraisal of Russian Liberalism as Prussian Envoy in St. Petersburg', *Canadian Slavonic Papers* 10 (3, 1968): 298-311.

Ragsdale, Hugh, ed. Imperial Foreign Policy, Woodrow Wilson Center Series. (Washington and Cambridge: Woodrow Wilson Center Press and Cambridge University Press, 1993).

Ranke, Leopold. *Englische Geschichte vornehmlich im sechszehnten und siebzehnten Jahrhundert.* 7 vols. (Berlin: Duncker und Humblot, 1859-68).

Ray, Oliver Allen. 'The Imperial Russian Army Officer', *Political Science Quarterly* 76 (4, 1961): 576-592.

Reddel, Carl W., ed. Transformation in Russian and Soviet Military History. (Washington, D.C.: United States Air Force Academy, 1990).

Rich, David. 'Imperialism, Reform and Strategy: Russian Military Statistics, 1840-1880', The Slavonic and East European Review 74 (4, 1996): 621-639.

Rieber, Alfred. *Merchants and Entrepreneurs*. (Chapel Hill: University of North Carolina Press, 1982).

_____. 'Alexander II: A Revisionist View', Journal of Modern History 43 (1, 1971): 42-58. Ritter, Gerhard. Die deutschen Militär-Attachés und das Auswärtige Amt. (Heidelberg: Carl Winter, Universitätsverlag, 1959).

_____. Staatskunst und Kriegshandwerk: Das Problem des "Militarismus" in Deutschland. 4 vols. (München: Verlag R. Oldenbourg, 1959-1968).

Rogger, Hans. 'Russia and the Civil War', in *Heard Around the World*, edited by H. Hyman (New York: Alfred A. Knopf, 1969): 177-256.

Ropp, Theodore. War in the Modern World. (Durham, N.C: Duke University Press, 1959).

Rose, Olaf. Carl von Clausewitz: Wirkungsgeschichte seines Werkes in Rußland und der Sowjetunion 1836-1991. (Munich: R. Oldenbourg Verlag, 1995).

Rostunov, I. I. Istoriia pervoi mirovoi voiny, 1914-1918. 2 vols. (Moscow: Nauka, 1975).

_____. Russkii front pervoi mirovoi voiny. (Moscow: Nauka, 1976).

_____. Russko-turetskaia voina 1877-78. (Moscow: Voenizdat, 1977).

Rothenberg, Gunther. *The Army of Francis Joseph.* (West Lafayette, Ind.: Purdue University Press, 1976).

_____. The Art of Warfare in the Age of Napoleon. Reprint of 1978 ed. (Staplehurst: Spell-mount, 1997).

Rotnistrov, P.A, ed. Istoriia voennogo iskusstva. 2 vols. (Moscow: Voennoie izdatel'stvo Ministerstva Oborony SSSR, 1963).

Ruud, Charles A. *Fighting Words: Imperial Censorship and the Russian Press 1804-1906.* (Toronto: University of Toronto Press, 1982).

Rydström, Jens. 'Tidens krav: Om militär professionalism i Sverige och Ryssland 1884-1914', *Militärhistorisk tidskrift* (1992-93): 7-103. Saul, Norman E. Distant Friends: The United States and Russia 1763-1867. (Lawrence, Kansas: University Press of Kansas, 1991).

_____. Concord and Conflict: The United States and ussia, 1867-1914. (Lawrence, Kansas: University Press of Kansas, 1996).

Screen, J. E. O. The Helsinki Yunker School 1846-1879: A Case Study of Officer Training in the Russian Army, Studia Historica 22. (Helsinki: Societas Historica Finlandiae, 1986).

Sella, Amnon. The Value of Human Life in Soviet Warfare. (London: Routledge, 1992).

Seton-Watson, Hugh. *The Russian Empire 1801-1917*. Reprint of the 1967 ed, Oxford History of Modern Europe. (Oxford: Oxford University Press, 1990).

Shaposhnikov, B. *Mozg arrmii*. 3 vols. (Moscow, Leningrad: Voennyi vestnik, Gosudarstvennoe izdatel'stvo otdel voennoi literatury, 1927-29).

Sheparev, R. M. 'Perevooruzhenie russkoi armii v vtoroi polovine XIX veka', *Moskovskii zhur*nal (6, 1997): 50-56.

Shevyrev, A. P. Russkii flot posle Krymskoi voiny: liberal'naia biurokratiia i morskiie reformy. (Moscow: Izdatel'stvo MGU, 1990).

Shil'der, N. *Graf Eduard Ivanovich Totleben: ego zhizn' i deiatel'nost'*. 2 vols. (St. Petersburg: Russkaia Skoropechatnia, V. A. Tikhanov, 1885-86).

Shneerson, Lev Mikhailovich. Otkliki v Rossii na avstro-prusskuiu voinu 1866 g. Uchebnye zapiski Belorusskogo gosudarstvennogo universiteta (10, 1950): 157-182.

_____. Avstro-prusskaia voina 1866 g. i diplomatiia velikikh evropeiskikh derzhav. (Minsk: Ministerstvo vysshego, srednego spetsial'nogo i professional'nogo obrazovaniia SSSR, 1962).

_____. Franko-prusskaia voina i Rossiia. (Minsk: Izdatel'stvo BGU im. V.I. Lenina, 1976).

Sovazh, S. Rossiiskaia imperatorskaia armiia. (St. Petersburg: Obshchestvennaia pol'za, 1894).

Showalter, Dennis. *Railroads and Rifles: Soldiers, Technology and the Unification of Germany.* (Hamden, Conn.: Archon Books, 1975).

Sideman, Belle B., and Lillian Friedman, eds. *Europe Looks at the Civil War*. (New York, N. Y.: Collier Books, 1960).

Sinel, Allen. *The Classroom and the Chancellery*. (Cambridge, Mass.: Harvard University Press, 1973).

Smychnikov, A. A., and Val. V. Mavrodin. 'K voprosy o perevooruzhenii russkoi armii v seredine XIX v.', in *Problemy istorii feodal'noi Rossii*, edited by S. L. Peshtin and I. V. Stepanov (Leningrad: Izd. Leningradskogo universiteta, 1971): 235-256.

Solov'eva, A. M. Zheleznodorozhnyi transport Rossii vo vtoroi polovine XIX v. (Moscow: Nauka, 1975).

Spiers, Edward. The Army and Society 1815-1914. (London: Longman, 1980).

Starr, S. Frederick. *Decentralization and Self-Government in Russia*, 1830-1870. (Princeton, N. J.: Princeton University Press, 1972).

Starr, Stephen Z. The Union Cavalry in the Civil War. 3 vols. (Baton Rouge: Louisiana State University Press, 1979-85).

Stein, Hans-Peter. 'Der Offizer der russischen Heeres im Zeitabschnitt zwischen Reform und Revolution', Forschungen zur osteuropäischen Geschichte 13 (1967): 346-507.

Stevens, Carol Belkin. Soldiers on the Steppe: Army Reforms and Social Change in Early Modern Russia. (DeKalb, Ill.: Northern Illinois University Press, 1995).

Stevenson, David. Armaments and the Coming of War: Europe, 1904-1914. (Oxford: Clarendon Press, 1996).

Stone, Norman. Europe Transformed 1878-1919. (Cambridge, Massachusetts: Harvard University Press, 1984).

_____. *The Eastern Front 1914-1917.* Reprint of the 1975 ed. (London: Penguin Books, 1998). Strachan, Hew. *European Armies and the Conduct of War.* (London: Unwin Hyman, 1983).

Svechin, A. A. *Evoliutsiia voennogo iskusstva*. 2 vols. (Moscow-Leningrad: Gosudarstvennoe izdatel'stvo otd. voennoi literatury, 1927-28).

______., ed. *Strategiia v trudakhh voennykh klassikov.* 2 vols. (Moscow: Vysshii voennyi redaktsionnyi sovet, 1924-26).

Sviiasov, E.V., ed. Russkaia voennaia proza XIX veka. (Leningrad: Lenizdat, 1989).

Taranovskii, Theodore, ed. *Reform in Modern Russian History: Progress or Cycle?* (Cambridge: Woodrow Wilson Center Press and Cambridge University Press, 1995).

Tatishchev, S. S. Imperator Alexander II, ego zhizn' i ego tsarstvovanie. Reprint of 1911 ed. 2 vols, Aktual'naia istoriia Rossii. (Moscow: Charli, 1996).

Taubin, P. A. 'K voprosu o roli N. G. Chernysevskogo v sozdanii "Revoliutsionnoi Partii" v kontse 50-kh-nachale 60-kh godov XIX v.', *Istoricheskie zapiski* 39 (1952): 59-97.

Taylor, A. J. P. *The Struggle for Mastery in Europe 1848-1914*. (Oxford: Oxford University Press, 1954).

Thaden, Edward C. Conservative Nationalism in Nineteenth-Century Russia. (Seattle: University of Washington Press, 1964).

_____.Russia's Western Borderlands, 1710-1870. (Princeton, N. J.: Princeton University Press, 1984).

_____., ed. Russification in the Baltic Provinces and Finland, 1855-1914. (Princeton, N. J.: Princeton University Press, 1981).

Tiushkevich, S. A., ed. Filosofiia i voennaia istoriia. (Moscow: Nauka, 1979).

Ulam, Adam B. In the Name of the People. (New York: Viking Press, 1977).

Ushakov, K. Podgotovka voennykh soobshchenii Rossii k mirovoi voiny. (Moscow, Leningrad: Gosizd otdel voennoi literatury, 1928).

Vagts, Alfred. A History of Militarism: Civilian and Military. Revised ed. (New York: The Free Press, 1959).

_____. The Military Attaché. (Princeton, N.J.: Princeton University Press, 1967).

van Dyke, Carl. Russian Imperial Military Doctrine and Education 1832-1914. (Westport, CT: Greenwood Press, 1990).

Wahlde, Peter von. 'Dmitrii Miliutin: Appraisals', *Canadian Slavic Studies* 3 (2, 1969): 400-414. Waldron, Peter. *The End of Imperial Russia*, 1855-1917. (London: Macmillan, 1997).

Walicki, Andrzej. A History of Russian Thought: From the Enlightenment to Marxism. (Oxford: Clarendon Press, 1988).

Wallach, J. L. Kriegstheorien: Ihre Entwicklung im 19. und 20. Jahrhundert. (Frankfurt am Main: Bernard & Graefe Verlag für Wehrwesen, 1972).

Wawro, Geoffrey. The Austro-Prussian War. Austria's War with Prussia and Italy in 1866. (Cambridge: Cambridge University Press, 1996).

Weeks, Theodore R. Nation and State in Late Imperial Russia: Nationalism and Russification on the Western Frontier, 1863-1914. (DeKalb, Illinois: Northern Illinois University Press, 1996).

Westwood, J. N. A History of Russian Railways. (London: Allen & Unwin, 1964).

White, Charles Edward. The Enlightened Soldier: Scharnhorst and the Militärische Gesellschaft in Berlin, 1801-1805. (New York: Praeger, 1989).

Wilkinson, Spenser. *The Brain of an Army: A Popular Account of the German General Staff.* 2nd ed. (London: Archibald Constable and Co, 1895).

Wildman, Allan K. The End of the Russian Imperial Army: the Old Army and the Soldier's Revolt (March-April 1917). (Princeton, N.J.: Princeton University Press, 1980).

Wirtschafter, Ellis Kimerling. From Serf to Russian Soldier. (Princeton, N.J.: Princeton University Press, 1990).

_____. 'Military Justice and Social Reform in the Prereform Army', *Slavic Review* 44 (1, 1983): 67-82.

Woldman, Albert A. *Lincoln and the Russians*. (Cleveland and New York: The World Publishing Company, 1952).

Wortman, Richard S. *The Development of a Russian Legal Consciousness*. (Chicago: University of Chicago Press, 1976).

_____. Scenarios of Power: Myth and Ceremony in Russian Monarchy. (Princeton, N. J.: Princeton University Press, 1995).

Young, Peter. The Machinery of War. (New York: Crescent Books, 1973).

Zablotskii-Desiatovskii, A. P. *Graf P. D. Kiselev i ego vremia*. 4 vols. (St. Petersburg: M. Stasiulevich, 1882).

Zaionchkovskii, A. M. Nastupatel'nyi boi po opytu deistvii Generala Skobeleva v srazheniiakh pod Lovchei, Plevnoi (27 i 30 avgusta) i Sheinovo. (St. Petersburg: S. Kornatovskii, 1893).

_____. Vostochnaia voina 1853-1856 gg. v sviazi s sovremennoi ei politicheskoi obstonovki. 2 vols. (St. Petersburg: Ekspeditsiia zagotovleniia gosudarstvennykh bumag, 1908-13).

_____. Podgotovka Rossii k mirovoi voine v mezhdunarodnom otnoshenii. (Leningrad: Gosvoenizdat, 1926).

Zaionchkovskii, P. A. Voennye reformy 1860-70 godov v Rossii. (Moscow: Izdatel'stvo Mosko-vskogo Universiteta, 1952).

_____. *Otmena krepostnogo prava v Rossii.* 2nd ed. (Moscow: Gosudarstvennoe uchebno-ped-agogicheskoe izdatel'stvo, 1960).

_____. *Krizis samoderzhaviia na rubezhe 1870-1880 godov.* (Moscow: Izd. Moskovskogo universiteta, 1964).

_____.Samoderzhavie i russkaia armiia na rubezhe XIX-XX stoletii, 1881-1903. (Moscow: Mysl', 1973).

___. 'Arkhiv D. A. Miliutina', Voprosy istorii (5-6, 1946): 96-104.

____. 'Podgotovka voennoi reformy 1874', Istoricheskie zapiski 27 (1948): 170-201.

_____. 'Perevooruzhenie russkoi armii v 60-70kh gg. XIX veke', *Istoricheskie zapiski* 36 (1951): 64-100.

_____. 'Vydaiushchiisia uchenyi i reformator russkoi armii', *Voenno-istoricheskii zhurnal* (12, 1965): 32-43.

Zaitsev, L. A. 'Voenno-pedagogicheskie vzgliady M. I. Dragomirova', Voenno-istoricheskii zhurnal (9, 1983): 72-76.

Zhilin, P. A. Russkaia voennaia mysl' konets XIX-nachalo XX v. (Moscow: Nauka, 1982).

Zisserman, A. L. Fel'dmarshal kniaz' Aleksandr Ivanovich Bariatinskii, 1815-1879. 3 vols. (Moscow: Universitetskaia tipografiia, 1890).

