

**SANITATION, URBAN ENVIRONMENT
AND
THE POLITICS OF PUBLIC HEALTH IN LATE IMPERIAL MOSCOW**

Anna Mazanik

**A DISSERTATION
IN HISTORY**

Presented to the Faculties of the Central European University
in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy

Budapest, Hungary

2015

Supervisor: Professor Alexei Miller

Copyright in the text of this dissertation rests with the author. Copies by any process, either in full or part, may be made only in accordance with the instructions given by the Author and lodged in the Central European Library. Details may be obtained by the librarian. This page must form a part of any such copies made. Further copies made in accordance with such instructions may not be made without the written permission of the Author.

I hereby declare that this dissertation contains no materials accepted for any other degrees in any other institutions and no materials previously written and/or published by another person unless otherwise noted.

ABSTRACT

The dissertation analyzes the activity of the late-imperial Moscow elites in the sphere of urban sanitation between the mid-1870s and 1905. The main research problems of the dissertation are: which motivations – political, scientific, social, or economic - were behind the sanitary reforms, who cared and why they cared and which shape their goals took in practice. Although in nineteenth-century Russia the emerging field of public health became a highly politicized subject, scholars have devoted little attention to the local politics of health and the use of medical sciences in the urban reforms. The goal of the dissertation thus is to bring the urban dimension to the history of late-imperial Russian medicine and public health, as well as the health dimension to the Russian urban history.

The thesis focuses on three aspects of urban health policies: the prevention of venereal disease; the regulation of slaughtering and meat production; the removal and treatment of urban wastes. It argues that Moscow's project of sanitation implied both "serving the people" and disciplining them. The service to the urban community was expressed in applying scientific knowledge and the municipal resources to fight disease and provide medical assistance to those in need. The disciplinary mechanisms were introduced through imposing new norms of "healthy" and "civilized" behavior. At the same time, the dissertation emphasizes that the realization of these entangled processes was hindered by the social and political realities of the autocratic Russian Empire.

ACKNOWLEDGEMENTS

I am often suprized how fortunate I am to have so many people who tought, helped, inspired and supported me during the years of work on this project.

First of all, I would like to thank my supervisor, Alexei Miller, who was always there whenever I needed his advice. I enjoyed his outstanding ability to find a solution to any question - intellectual or practical - that I had, his endless irony, his trust in my work and his care for me (which he probably would not admit).

My deepest gratitude goes to Daniel Todes and Graham Mooney who devoted a lot of their time and energy to introducing me to the history of public health during my stay at the Johns Hopkins University in 2012 – and I still wonder how I have deserved so much attention and support. Without their guidance and knowledge this would have been a very different dissertation.

CEU with its vibrant and diverse intellectual community has been a wonderful environment for my work. This idea of this project emerged out of conversations with my friend and colleague Goran Miljan. I benefited greatly from the expertise and advice of the CEU faculty: Karl Hall, Alfred Rieber, Ohad Parnes, Mikhail Dmitriyev, Gabor Gyani, Markian Prokopovych and Ostap Sereda. I would also like to thank Judit Gergely and Aniko Molnar – their work and friendliness made the unavoidable bureaucratic procedures of the doctoral program easier to endure.

Many scholars in several countries discussed my project and gave me valuable assistance. I gained a lot from the suggestions of Natalie Zemon-Davis, Dorothee Brantz, Alexander Shevyrev, Martin Aust, Ruth Odenziel, Christof Mauch, Mikael Hård, Dieter Schott, Vladimir Bogdanov, Andrey Volodin, Konstantin Poleshchuk, Alexander Friedrich and Dejan Petkov. A special credit goes to Andrey Davydov from the Central State Archive of Moscow whose advice and publications guided me through the archival holdings.

A number of people read certain parts of my dissertation and their criticism influenced its shape and content: Victoria Frede, Andriy Zayarnyuk, Jon Mathieu, Elin Kilsey, Maya Peterson and my other colleagues from the Rachel Carson Center, as well as two anonymous reviewers from *Kritika*. Ann Roeder, Robin Bellers, Nicole Seymour, Frank Ludlow, Imogen Bayley and Ludmila Sharaya kindly helped with editing parts of this text.

I have worked on this dissertation in five different countries and enjoyed the friendship of many outstanding people, most of whom also happened to be historians. They were my intellectual companions, they shared the ups and downs of my career, they hosted me in various places, transported my documents across borders, submitted my reports and grant applications, kept me company in Moscow's libraries, helped me get access to the necessary books and articles and took care of me in many other ways. I am very grateful to Maria Falina, Irina Savinetskaya, Yulia Karpova, Maria Kudinova, Uku Lember, Anastasia Felcher, Gábor Szegedi, Vedran Duančić, Ernst Visser, Zsófia Lóránd, Gleb Kozyritsky, Ira Roldugina, Olga Chagadayeva, Alexander Varshavsky, Tamara Eidelman, Evgeny Natarov, the doctoral students of the Johns Hopkins University and particularly Todd Christopher, and my fellow students from CEU who shared with me the last months of my work. I also wish to thank the members of the network *Gender in the European Town* for all the productive discussions and my colleagues from the ReSET project in Ukraine for the inspiration, exciting scholarly debates and enjoyable professional friendship that has endured the challenge of war.

The work on this dissertation has been financed by the stipend and grants from CEU as well as grants from the German Academic Exchange Service (DAAD) and the German Research Foundation (DFG). I would also like to acknowledge the support of my family that hosted and took care of me during my very long research trips to Moscow.

Finally, I want to thank my most helpful and supportive boyfriend Brendan Roeder who discussed every argument and read every line of this dissertation.

CONTENTS

INTRODUCTION	1
CHAPTER ONE	
Hygiene and public health in imperial Russia	20
<i>Friedrich Erismann, hygiene and bacteriology</i>	21
<i>Health administration and community medicine</i>	28
CHAPTER TWO	
Local politics in Moscow and the dynamics of sanitary reforms	42
<i>Moscow: urban growth, social composition and city government</i>	43
<i>The emergence of municipal sanitary control</i>	48
<i>Sanitary reforms in Alekseyevan Moscow, 1885-1893: municipalization and “public good”</i>	52
<i>The Moscow municipality and the career of Erismann</i>	63
<i>Municipal initiatives, administrative resources: sanitary reform in the 1890s</i>	67
CHAPTER THREE	
“Habeas corpus cum lue venerea”: Syphilis, prostitution and public health	79
<i>Approaching syphilis and prostitution</i>	83
<i>Human body, individual freedom and abolitionism</i>	89
<i>Moscow chooses between abolitionism and regulationism</i>	97
<i>Outpatient clinics, Myasnitskaya hospital, and the treatment of venereal disease</i>	109
CHAPTER FOUR	
Animal bodies for the human good? The public abattoir and the slaughtering reform	126
<i>“Public good” versus profit: motivations behind the slaughtering reform</i>	130
<i>The operation of the abattoir: science, technology and the public image</i>	142
<i>Civilized slaughter: violence or torture?</i>	159
<i>The limits of “public good”: Abattoir as an employer</i>	170
CHAPTER FIVE	
Between cesspools and police stations: Campaign against water pollution and the Moscow sewerage system	182
<i>Rivers, wastes and the images of pollution</i>	185
<i>Choosing the sewerage system and the scientific explanation</i>	193
<i>Constructing the sewerage system and the relations between the city and the country</i>	206
<i>Using the sewerage system and the problem of industrial discharge</i>	213
CONCLUSION	233
BIBLIOGRAPHY	245

LIST OF TABLES AND FIGURES

Tables

- 1.1. Sanitary organizations in zemstvo provinces.
- 1.2. The biggest Russian cities and their sanitary organizations.
- 2.1. The mayors of late-imperial Moscow.
- 2.2. Municipal revenues and taxes in European cities per capita of population in 1879.
- 2.3. Mortality in Moscow and other European cities.
- 2.4. Selected causes of death in Moscow in 1882.
- 3.1. Number of examinations at the Women's clinic by category.
- 3.2. Incidence of disease among inspected women in 1901.
- 4.1. Number of animals at the Moscow abattoir and Berlin livestock market, 1890.
- 4.2. The morbidity of cattle and the rejection of slaughter products at the Moscow abattoir
- 4.3. The morbidity of pigs and the rejection of slaughter products at the Moscow abattoir.
- 4.4. Income of the abattoir's personnel in 1890.
- 5.1. Number of housing estates connected to the Moscow sewerage system.
- 5.2. Financial year results of the Moscow sewerage system.
- 6.1. Death rates from infectious disease in Moscow per 100,000 population in 1882 and 1912.

Figures

- 2.1. The Municipal outpatient clinic of Rogozhskaya district: facade and waiting room.
- 2.2. The building of the Moscow City Council.
- 3.1. The Myasnitskaya hospital.
- 3.2. Monthly number of examinations at the Women's ambulatoriya, 1889-1916.
- 3.3. Cases of disease among inspected women in relation to the total number of examinations, 1901-1911.
- 4.1. The complex of the Moscow abattoir.
- 4.2. Slaughterhouse for cattle.
- 4.3. The Moscow abattoir on the city map, 1912.
- 5.1. The pumping station of the Moscow sewerage system.

INTRODUCTION

In 1884, the year when Moscow sanitary organization was established, one of the city's satirical magazines welcomed the new institution with the following words:

We feel sincerely sorry for the newly-made sanitary doctors, who, with zeal worthy of a better cause, are forced now to play a comedy of inspection. We would like to be mistaken, but, judging from the experiences of the past years, we can hardly believe in the good results of the sanitary campaigns against Moscow dirt. This dirt is primordial, original, accumulated for centuries; what can the weak hands of sanitary doctors do with it?¹

In the last decades of the nineteenth century Moscow's local government institutions came to promote public health and sanitary reforms as an essential component of the modernizing project. Russia was a late-comer in the European health campaign; in many Western cities the public health and sanitary reforms took place decades earlier, making health of the population a new mark of social progress.

The centrality of health and sanitation to the idea of modernity, in combination with the portrayal of Russia as intrinsically “backward”, led Russian educated elites and medical professionals to see their mission as making the country healthier and cleaner to urgently bridge the perceived gap with “advanced” Western societies.² In Moscow, like in several other cities with metropolitan aspirations across Central and Eastern Europe, the ideas of urban transformation and catching up with a “European standard” often merged with ideas of a more general political change.³ Yet, although the Western path indeed served as a model of urban accomplishment or improving national public

¹ *Budil'nik*, 38 (1884), p. 455.

² On the Russian ideas of backwardness see Yanni Kotsonis, *Making Peasants Backward: Agricultural Cooperatives and the Agrarian Question in Russia, 1861-1914* (Houndmills, Basingstoke, Hampshire: Macmillan Press, 1999), pp. 1-8; on the importance of transfers from Western Europe to the Russian Empire see Aleksey Miller, Martin Aust and Ricarda Vulpius (eds.), *Imperium inter pares: Rol' transferov v istorii Rossiyskoy imperii (1700-1917)* (Moscow: Novoye Literaturnoye Obozreniye, 2010).

³ Jan Behrends and Martin Kohlrausch discuss it in their introduction to Jan Behrends and Martin Kohlrausch (eds.), *Races to Modernity: Metropolitan Aspirations in Eastern Europe, 1890-1940* (Budapest and New York: Central European University Press, 2014), pp. 1-19.

health, the process of making Russia healthier was a process *sui generis*, it was rooted in the regional political and social dynamics and resulted in original solutions and policies. The Western model often determined which questions were asked – but the answers were in many ways essentially Russian.

In the late 1870s – 1890s, Moscow authorities launched an unprecedented campaign of urban sanitation, or “*ozdorovleniye*”, which relied on the newly established in Russia discipline of hygiene as its scientific basis. This was a lengthy and complicated process that embraced a wide spectrum of activities, including the creation of networks of public health institutions and provision of access to free medical care, organization of sanitary infrastructure, introduction of new sanitary norms and rules and various bodies that controlled their implementation. The sanitary reform was pioneered by the municipality, which developed it in the format of community medicine, but later involved other actors, such as the local and imperial administration, the police and the regional bourgeoisie.

Although certain attempts to provide health care and improve the sanitary conditions of the city were made during the reign of Catherine II, Alexander I and Nicholas I,⁴ it was only after the Great Reforms that these efforts acquired a systematic form and effected a perceivable change. Both contemporaries and historians saw the Great Reforms of Alexander II as the watershed in imperial Russian history. The cornerstone of the Great Reforms was the abolition of serfdom in 1861, followed by the juridical reform (1864), the establishment of rural self-government - *zemstvo* (1864), the municipal reform (1870) and the military reform (1874), to name the most important

⁴ John Alexander, *Bubonic Plague in Early Modern Russia: Public Health and Urban Disaster* (Oxford: Oxford University Press, 2003), pp. 61-97; Alexander Martin, *Enlightened Metropolis: Constructing Imperial Moscow, 1762-1855* (Oxford: Oxford University Press, 2013), pp. 14-24, 36-65.

steps. The Great Reforms, elaborated by enlightened liberal bureaucrats, marked the culmination of the belief in the reform from above. They transformed the social relations in the country, increased the number of participants in political life and changed the patterns of political communication.⁵ They triggered urbanization, provided an arena for civic activism as well as the authority and the economic resources to apply it, and thus opened the way to many innovative local initiatives, including the sanitary reform.

My thesis examines the activity of the late-imperial Moscow elites in the sphere of urban sanitation between the mid-1870s and 1905. The earlier date corresponds to the first efforts of the local Moscow government, empowered by the 1870 Municipal Statute, to promote health and improve sanitary conditions in the city. The upper limit is the 1905 Revolution that marked the beginning of Russian parliamentarism, party politics and revolutionary turmoil. Although certain narratives in my dissertation go beyond 1905, the main period of my research is the time when municipalities (together with zemstvos) were the highest elected political bodies in Russia.

Christopher Hamlin once wrote that “a *public* controversy about the environment had to deal with broadly *public* issues.”⁶ Similarly, the underlying assumption for my research is that if the matters of pollution and sanitation suddenly became an important issue of public concern, it tells us just as much about the society itself as it does about the environment and epidemiological situation. The main research problems I will explore in my dissertation are: which motivations - scientific, ideological, social, or

⁵ See Ben Eklof, John Bushnell and Larissa Zakharova (eds.), *Russia's Great Reforms, 1855-1881* (Bloomington and Indianapolis: Indiana University Press, 1994), particularly Alfred Rieber, “Interest-Group Politics in the Era of the Great Reforms,” pp. 58-83.

⁶ Christopher Hamlin, “Environmental Sensibility in Edinburgh, 1839-1840: The ‘Fetid Irrigation’ Controversy,” *Journal of Urban History*, 20, 311 (1994), p. 333.

economic - were behind the sanitary reforms, who cared and why they cared and which shape those goals took in practice.

I deal with these problems in several contexts – urban, political, scientific and broadly cultural. I started working on the problem of sanitary reforms as an urban historian. Although my project evolved beyond the framework of a “city history”, the urban dimension remained very important to it. The story of the sanitary reforms was embedded in the local Moscow context in various different ways – socially, as the reforms were called into being by Moscow's rapid urbanization, its metropolitan claims and specific character of a migrant city;⁷ spatially, as they depended on the city's landscape, geography and climate, planning structure and social topography; institutionally, as the reforms were carried out primarily by the municipal bodies and with the use of expertise of the local academic centers, such as Moscow University and Moscow Agricultural Academy; economically, as the financial basis for the reforms came from the taxes paid by Muscovites, and the demand for and the potential of these new endeavors was generally linked to the importance of Moscow and its elites in the country's economy.⁸

My research illustrates the role of local actors and community-based initiatives in effecting important changes in social policy, welfare and the standard of living. Yet, the Moscow health reformers, however locally rooted they were, did not live in an isolated city. The period of my research saw the paradigmatic shift known as the “bacteriological revolution” when the broad miasmatic theory that linked disease with

⁷ On migrant cities see Daniel Brower, *The Russian City between Tradition and Modernity, 1850-1900* (Berkeley: University of California Press, 1990), pp. 75-91.

⁸ On Moscow merchant elites see Thomas Owen, *Capitalism and Politics in Russia: A Social History of the Moscow Merchants, 1855-1905* (Cambridge: Cambridge University Press, 1981); Alfred Rieber, *Merchants and Entrepreneurs in Imperial Russia* (Chapel Hill: University of North Carolina Press, 1982); Yu. A. Petrov, *Moskovskaya burzhuziya v nachale XX veka* (Moscow: Mosgorarkhiv, 2002).

filth was replaced by the search for particular pathogens. It was a time when the understanding of disease, its diagnostics, treatment and the policies of prevention were subject to change - although the scope and the course of this change are still disputed.⁹ Moscow medical practitioners were a part of the European scientific community and they eagerly interacted with their foreign colleagues – through personal letters, academic periodicals, international congresses, education, internships or study-trips abroad. In this respect, the local Moscow approaches to disease were a part of a transnational story of knowledge production and circulation, of adopting – or resisting – the new scientific ideas and translating them into social practice.

The sanitary reforms in Moscow were also tied to the more general political processes in the country. As Russia remained an autocratic state and because the autonomy of cities was quite limited, urban reformers had to stay in constant dialogue - and sometimes enter into conflict - with the central and local administration. For the same reasons, although the activity of the Moscow reformers was a local, city-centered enterprise, it had a much wider resonance in the country where municipalities, together with zemstvos, served as a kind of test-model of elected liberal government.¹⁰

More importantly, in Russia the discussions about cleanliness and pollution, health and disease had a deep metaphoric meaning. As historian Alexander Martin has argued, in the first half of the nineteenth century Moscow, with its small houses and abundant gardens, cultivated the myth of being a healthy and harmonious place and enjoyed a sense of superiority over the West-European cities that suffered from overcrowding and

⁹ Michael Warboys, “Was there a Bacteriological Revolution in Late Nineteenth-Century Medicine?” *Studies in History and Philosophy of Biological and Biomedical Sciences*, 2007, no. 38, pp. 20–42; Andrew Mendelsohn, “Cultures of Bacteriology: Foundation and Transformation of a Science in France and Germany, 1870–1914,” Ph.D. thesis, Princeton University, 1996.

¹⁰ On the liberalism in local politics see Robert Thurston, *Liberal City, Conservative State: Moscow and Russia's Urban Crisis, 1906-1914* (New York: Oxford University Press, 1987).

social conflict. Although Moscow public was aware of dirt and fetid odors, they did not invoke any images of decay or danger, but rather those of closeness to nature, patriarchal mores and social harmony. In Martin's interpretation, the silence of the Russian public about the everyday filth and stench of Moscow was a way of affirming the *ancien régime* values and vitality of the country's social order.¹¹

In the second half of the century, after the disaster of the Crimean War and the Great Reforms, the earlier visions of social harmony in the eyes of many yielded to the loss of public faith in the political regime. They gave way to the deepening sense of Moscow's "backwardness", when the growing accounts on the city's filth, pollution and anti-sanitary conditions reflected not only the physical reality, but also the demand for political changes and modernization among those who were writing and reading them. Moreover, the post-Reform accounts, and the quote at the beginning of this introduction is just one of them, described Moscow's pollution and dirt not as a new development, but, on the contrary, as a historic, centuries old or even "primaeval" [*pervobytny*] practice, as something that has to be overcome despite having been there forever.¹²

The late-nineteenth century Russian intellectuals and medical professionals saw the problems of health and sanitation as embedded in the entire reality of life in the Russian Empire – political, economic and social. Speaking and writing about health was - and still is – not about health alone, but also about the state that failed to ensure it. Exposing the faults of the health care system – be that catastrophic epidemiological statistics in

¹¹ Alexander M. Martin, "Sewage and the City: Filth, Smell, and Representations of Urban Life in Moscow, 1770-1880," *The Russian Review*, 67 (April 2008), pp. 243-274.

¹² See for example: "Zayavlenie glasnogo A.D. Lopasheva," *Izvestiya Moskovskoy Gorodskoy Dymy (IMGD)*, 4 (1879), pp. 1-2; "Doklad N 55 po vorposu o kanalizatsii Moskvyy," *IMGD*, 10 (1879), pp. 1, 22; V.F[idler], *Moskva. Kratkiye ocherki gorodskogo blagoustroystva* (Moscow: Tipografiya Blagushinoy, 1897), pp. 89-90.

the late nineteenth century or the unavailability of pain relief 120 years later – was and is also a way of exposing the faults of the existing political regime.

In my research I do not take the disease, dirt and pollution as a given, but treat them as cultural constructions. Following the anthropologist Mary Douglas, I believe that the visions of pollution have a symbolic load and reflect general ideas of social orders. Giving a famous definition of dirt as “a matter out of place”, Douglas argued that dirt is not an absolute category, but exists only in our minds. In her interpretation, human ideas about dirt and pollution are parts of broader cultural systems: “Dirt then is never a unique, isolated event. Where there is dirt there is system. Dirt is a by-product of a systematic ordering and classification of matter, in so far as ordering involves rejecting inappropriate elements.”¹³ For her, concerns about pollution reveal and articulate the concerns about the social order, while the bodily control is an expression of social control.¹⁴

That said, the Moscow sanitary reforms present an excellent lens to study not only the specific political setting but also *longue durée* cultural processes in Russian society. The explanations that the decision-makers provided for the sanitary reforms, the argumentation and the language they used, the questions that they raised and did not raise, the actions they took against the imagined health hazards and sources of pollution – be they human, animal or environmental - reflected their cultural assumptions on purity, dirt and the body, on class and gender, on violence and “civilized behavior”, on the social and natural hierarchies and on the relations of humans to nature.

¹³ Mary Douglas, *Purity and Danger: An Analysis of the Concepts of Pollution and Taboo* (London and New York: Routledge, 1996), pp. 2, 36.

¹⁴ On the relation between the physical and the social body see Mary Douglas, *Natural Symbols* (London and New York: Routledge, 1996), pp. 69-87, particularly pp. 74-77.

The original Russian word for “sanitation” is “*sanitariya*”. One of the protagonists of my work, a hygienist Friedrich Erismann, provided the following definition of “*sanitariya*” for the Russian Brockhaus and Efron encyclopedic dictionary:

The notion of “*sanitariya*” is best expressed by the phrase “applied public hygiene” [*prikladnaya obshchestvennaya gigiyena*] <...> There is, however, no absolute border between the “scientific” and “applied” hygiene; there is no and cannot be an abstract science of hygiene. The tasks, explored by hygiene with its scientific methods, are mostly created by life itself, while life receives from hygiene the answers that can serve as a basis for practical sanitary measures. Everything that these measures involve, everything that is required for their implementation from the state, from the local self-government institutions, from the private persons and associations is captured by the word “*sanitariya*”. In relation to the external circumstances from which individual or public health may suffer, the task of *sanitariya*, on the one hand, is to fight against the general climatic and local circumstances unfavorable to health, on the other hand, to possibly remove from the social organization of life all those moments that disturb the physical well-being of the population.¹⁵

This quote shows that in the Russian interpretation sanitation was a concept broader than the classical Chadwickian notion that linked disease with filth.¹⁶ In Russia sanitation meant not only the disposal of wastes or sewage, proper ventilation or cleaner dwellings, but instead referred to all spectrum of means of promoting health and preventing disease. It was tightly connected to policy and politics and, on the other hand, to the environment as the complex of “external circumstances” that implied both natural and social dimensions, from climate to political regime.

This broad understanding of sanitation was also shared by the Moscow municipal reformers. Mitrofan Shchepkin, an economist and a deputy of the Moscow City Council for thirty years, wrote that

¹⁵ F. Erismann, “Sanitariya” in *Entsiklopedicheskiy slovar'* (St. Petersburg: Brokgayz i Efron, 1900), vol. 28, p. 261.

¹⁶ Michael Warboys, “Before McKeown: Explaining the Decline of Tuberculosis in Britain, 1880–1930” in Flurin Condrau and Michael Worboys (eds.), *Tuberculosis Then and Now: Perspectives on the History of an Infectious Disease* (Montreal; Ithaca: McGill-Queen's University Press, 2010), pp. 150–151.

whatever the municipal self-government does, from paving, cleaning and watering the streets, reorganizing the street traffic, taking measures to develop trade and industry while protecting the working class, etc. to propagating education among the masses of urban population and organizing schools, - everywhere, in each of these undertakings the sanitary tasks of the municipality appear and demand constant attention.¹⁷

Although the concept of sanitation is crucial to my research, the exact word “sanitariya”, in fact, appeared in my sources relatively infrequently. As a rule, the nineteenth-century Russian documents preferred the adjective form to the noun – sanitary measures [*sanitarnye mery, meropriyatiya*], sanitary reforms [*sanitarnye preobrazovaniya*], sanitary control [*sanitarny nadzor*], sanitary requirements [*sanitarnye trebovaniya*]. The English word “sanitation” captures both the more static meaning of the Russian word “sanitariya” and the more dynamic meaning of the word “*ozdorovleniye*” (making or becoming healthier, improving sanitary conditions).

My dissertation is a contribution to several historiographical fields. The first is urban history of Russia and of Moscow. Numerous social and cultural studies of Russian urbanization, urbanism and metropolitan transformation provided the general background for my work.¹⁸ One aspect that is particularly relevant to my thesis is the scholarship on the post-Reform municipal government, its composition and relations to

¹⁷ M. P. Shchepkin, *Obshchestvennoye samoupravleniye v Moskve* (Moscow: S.n., 1906), p. 44.

¹⁸ James Bater, *St. Petersburg: Industrialization and Change* (Montreal: McGill-Queen's University Press, 1976); Joseph Bradley, *Muzhik and Muscovite: Urbanization in Late Imperial Russia* (Berkeley: University of California Press, 1985); B. N. Mironov, *Russkiy gorod v 1740-1860-e: demograficheskoye, sotsial'noye i ekonomicheskoye razvitiye* (Leningrad: Nauka, 1990); idem, *A Social History of Russia, 1700-1917*, vol. 2 (Boulder: Westview Press, 2000); B. I. Kolonitskiy and M. Steinberg (eds.), *Kul'tury gorodov Rossiyskoy imperii na rubezhe XIX-XX vekov* (St. Petersburg: Evropeyskiy dom, 2009). In the last fifteen years the late-imperial Russian urbanism was also researched in many doctoral dissertations, for the overview of those dissertations see Anna Mazanik, “Research in urban history: new research trends in doctoral dissertations in Russia since 2000,” *Urban History*, 42, 3 (2015), forthcoming.

the state.¹⁹ The other is the research that explores Moscow's physical space, its internal geographies, sights and smells.²⁰ Although the questions of urban pollution and the development of the sanitary infrastructure were well researched for many European and American cities,²¹ this perspective is quite new for the history of late-imperial Moscow and Russian urban history in general. The sanitary reforms are mentioned in the studies on Moscow only as side-stories and appear as inevitable (in success narratives²²) or as logical and necessary but insufficient (in failure narratives²³) solutions to the problems created by urbanization. In my work I would like to challenge this teleological approach through looking not only at the outcomes, but also at the motivations and processes and exploring the controversies of decision-making and implementation.

The second historiography relevant for my research is the history of Russia's and Moscow's entrepreneurial elites and their involvement in municipal politics. The authors of the two main monographs on this social group, Alfred Rieber and Thomas Owen, emphasized the non-bourgeois character of Russian entrepreneurs, unable to

¹⁹ V.A. Nardova, *Gorodskoye samoupravleniye v Rossii v 60-h – nachale 90-h godov XIX v.* (Leningrad: Nauka, 1984); eadem, *Samoderzhaviye i gorodskiye dумы v Rossii v kontse XIX – nachale XX veka.* (St. Petersburg: Nauka, 1994); Thurston, *Liberal City, Conservative State*; Brower, *The Russian City*; Blair Ruble, *Second Metropolis: Pragmatic Pluralism in Gilded Age Chicago, Silver Age Moscow and Meiji Osaka* (Cambridge: Cambridge University Press, 2001); L.F. Pissar'kova, *Gorodskiye reformy v Rossii i Moskovskaya Duma* (Moscow: Novy khronograph, 2010); see also Walter Hanchett, "Moscow in the Late Nineteenth Century: A Study in Municipal Self-Government," University of Chicago Ph.D. dissertation, 1964.

²⁰ P. Ilyin and B. Ruble (eds.), *Moskva rubezha XIX -XX stoletiy: vzglyad v proshloye izdaleka* (Moscow: Rossiyskaya politicheskaya entsiklopediya, 2004); Martin, *Enlightened Metropolis*; idem, "Sewage and the City."

²¹ For example, Donald Reid, *Paris Sewers and Sewermen: Realities and Representations* (Cambridge: Harvard University Press, 1991); Joel Tarr, *The Search for the Ultimate Sink: Urban Pollution in Historical Perspective* (Akron, OH: University of Akron Press, 1996); Martin Melosi, *The Sanitary City: Urban Infrastructure in America from Colonial Times to the Present* (Baltimore and London: The Johns Hopkins University Press, 2000); several collections of essays on this topic provide a panoramic view of how modern cities across the world approached sanitation and pollution: Christoph Bernhardt (ed.), *Environmental Problems in European Cities in the 19th and 20th Centuries* (Muenster: Waxmann, 2004); Dieter Schott, Bill Luckin, and Geneviève Massard-Guilbaud (eds.), *Resources of the City: Contributions to an Environmental History of Modern Europe* (Burlington, VT: Ashgate, 2005).

²² Pissar'kova, *Gorodskiye reformy*, pp. 348-353.

²³ Bradley, *Muzhik and Muscovite*; Ruble, *Second Metropolis*.

develop a strong ideology of bourgeois liberalism and until after the 1905 Revolution refraining from active political participation. In this respect the Moscow municipal government is presented as a rather amorphous apolitical institution, whose more or less successful undertakings in the improvement of the city followed the pre-municipal patterns of charity and direct sponsorship, rather than complex reformation.²⁴ Joining the discussion, Daniel Brower interpreted municipal politics as the manifestation of developing civil society in Russia and stated that Rieber and Owen overlooked the rapid emergence of civic activism among the urban elites whose appearance did not depend on an explicit political ideology or mass support.²⁵

Related to this is the scholarship on the Russian “missing middle class”, various bourgeois, professional and intellectual groups or, broadly, educated public, “*obshchestvo*” or “*obshchestvennost*”.²⁶ Historians have studied various social fragments that constituted the Russian “*obshchestvo*” and explored the patterns of social identity that could unite the diverse middle strata²⁷ – that did not match with the traditional estate categories and were broader than the *intelligentsia* and different from

²⁴ Owen, *Capitalism and Politics*; Rieber, *Merchants and Entrepreneurs*; for the response article see Iu. A. Petrov. “Moskovskii delovoi mir na rubezhe XIX-XX veka” in Iurii Petrov and John West, eds., *Kupecheskaya Moskva: Obrazy ushedshey rossiyskoy burzhazii*, (Moscow: ROSSPEN, 2004), pp. 5-20; see also William Brumfield, Boris Ananich, and Yuri Petrov (eds.), *Commerce in Russian Urban Culture, 1861-1914* (Washington, D.C.: Woodrow Wilson Center Press, 2001).

²⁵ Daniel R. Brower, *Russian City between Tradition and Modernity*, pp. 91-139, particularly p. 121.

²⁶ For the conceptual history of those words in imperial Russia see O. Yu. Malinova, “*Obshchestvo, publika, obshchestvennost* v Rossii serediny XIX – nachala XX veka: Otrazheniye v ponyatiyakh praktik publichnoy kommunikatsii i obshchestvennoy samodeyatelnosti” in Aleksey Miller, Denis Sdvizhkov and Ingrid Schierle (eds.), *Ponyatiya o Rossii* (Moscow: Novoye Literaturnoye Obozreniye, 2012), pp. 428-463.

²⁷ Nancy Frieden, *Russian Physicians in an Era of Reform and Revolution, 1856-1905* (Princeton: Princeton University Press, 1981); Christine Ruane, *Gender, Class, and the Professionalization of Russian City Teachers, 1860–1914* (Pittsburgh: University of Pittsburgh Press, 1994); Elise Kimerling Wirtschafter, *Structures of Society: Imperial Russia's “People of Various Ranks”* (Dekalb: Northern Illinois University Press, 1994); Harley Balzer (ed.) *Russia's Missing Middle Class: The Professions in Russian History* (Armonk, N.Y. : M.E. Sharpe, 1996); Joseph Bradley, *Voluntary Associations in Tsarist Russia: Science, Patriotism, and Civil Society* (Cambridge, Mass.: Harvard University Press, 2009); Elisa Becker, *Medicine, Law, and the State in Imperial Russia* (Budapest: Central European University Press, 2011).

the bourgeoisie. As the editors of the volume *Between Tsar and People* tried to define it, “[o]bshchestvennost' implied not so much a class, possessing a consciousness based on economic self-interest, as an informal yet authoritative presence of educated Russians determined to work for the common good, for 'progress'.”²⁸

My dissertation is not meant to be a social history of merchants, professionals or medical intelligentsia. Instead, it focuses on a narrow circle of Moscow health reformers. As Russia had no effective central institution responsible for public health, and because the appearance of such body on the local level was rather a goal than a pre-condition of the sanitary reforms, they emerged in the course of collective discussions, usually on the arena of the City Council and, importantly, numerous advisory committees and commissions. The Moscow health reformers presented a group that was diverse and contingent in composition. It included people of various estates, ranks, occupations, and political convictions: municipal activists and imperial bureaucrats, entrepreneurs and university professors, practicing physicians and engineers, socialists, liberals and monarchists. What united them was their involvement in the Moscow sanitary reform and their commitment to making the city healthier, although they often had different opinions of how that goal could be reached. The diversity of the Moscow health reformers reminds of the diversity of the Russian *obshchestvo* itself. Therefore, the study of the Moscow sanitary reforms can hopefully provide some insights into the social dynamics, career paths and ideologies within Russian *obshchestvo* and its interactions with the “tsar” and with the “people”.

²⁸ Samuel Kassow, James West and Edith Clowes, “Introduction: The Problem of the Middle in Late Imperial Russian Society” in Edith Clowes, Samuel Kassow and James West (eds.), *Between Tsar and People: Educated Society and the Quest for Public Identity in Late Imperial Russia* (Princeton: Princeton University Press, 1991), pp. 3–4.

Finally, the last important historiography is the scholarship on the history of Russian medical sciences and public health.²⁹ One point of dialogue here is the question about the scientific grounds of the Russian sanitary movement. I would like to problematize the relationship between hygiene and bacteriology and show that, in the Russian interpretation, hygiene as science and sanitation as its practical continuation embraced bacteriology already in the 1880s and constructed themselves not in opposition to it, but in synthesis.

The second, more general point, is that about the nature of the sanitary reforms. In the last decades the interpretation of nineteenth century urban public health reforms as a pillar of the emerging welfare state was subject to revision, often under the influence of a Foucauldian approach. Thus, Christopher Hamlin reinterpreted the sanitary reforms of Edwin Chadwick as an ideologically-loaded disciplinary strategy.³⁰ Patrick Joyce

²⁹ Frieden, *Russian Physicians in an Era of Reform and Revolution, 1856-1905*; Susan Gross Solomon and John Hutchinson (eds.), *Health and Society in Revolutionary Russia* (Bloomington: Indiana University Press, 1990); John Hutchinson, *Politics and Public Health in Revolutionary Russia, 1890-1918* (Baltimore: Johns Hopkins University Press, 1990); Daniel Todes, *Pavlov's Physiology Factory: Experiment, Interpretation, Laboratory Enterprise* (Baltimore: Johns Hopkins University Press, 2002); Galina Kichigina, *The Imperial Laboratory: Experimental Physiology and Clinical Medicine in Post-Crimean Russia* (Amsterdam and New York: Rodopi, 2009); Charlotte Henze, *Disease, Health Care and Government in Late Imperial Russia: Life and Death on the Volga, 1823-1914* (Abingdon & New York: Routledge, 2011). In the last 20 years the imperial public health has been also studied in a number of Russian PhD dissertations. Most of them, however, focused on zemstvo medicine and did not go beyond the findings of Nancy Frieden (although the authors were often unaware of her work). Nevertheless, some dissertations provided valuable insights in the functioning of the specific aspects of Russian public health: T.G. Yakovenko, *Ökhrana materinstva i mladenchestva vo vtoroy polivine XVIII – nachale XX vv.: na materialakh Sankt-Peterburga*,” PhD dissertation, St. Petersburg State University, 2008; E.V. Karavayeva, *“Sanitarno-prosvetitel’skaya i meditsinskaya deyatel’nost’ Russkoy pravoslavnoy tserkvi sredi sel’skogo naseleniya vo vtoroy polovine XIX-nachale XX v.:po materialam Tomskoy yeparkhii*,” PhD dissertation, Omsk State Pedagogical University, 2011; I.I. Morozova, *“Deyatel’nost’ gosudarstvennykh i obshchestvennykh organizatsiy Rossiyskoy imperii po sozdaniyu sistemy sotsial’noy i meditsinskoy pomoshchi lyudyam, stradayushchim zabolevniyami organov zreniya i slukha: na primere Tomskoy gubernii vtoroy poloviny XIX – nachala XX vv.”*, PhD dissertation, Russian State Social University, 2011; E.V. Kolganova, *“Zarozhdeniye sistemy okhrany materinstva i mladenchestva v Rossii v kontse XIX-nachale XX vv.”*, PhD dissertation, Moscow State University, 2012.

³⁰ Christopher Hamlin, *Public Health and Social Justice in the Age of Chadwick: Britain, 1800-1854* (Cambridge: Cambridge University Press, 1998).

explained the modern slaughterhouses and the sewer systems within the governmentality paradigm - as a mechanism of creating liberal, self-governing subjects.³¹ Chris Otter analyzed the illumination and sanitary inspection in the Victorian cities as strategies of the operation of power and surveillance.³²

In Russian studies, the ideas of Michel Foucault also provoked debates about the Russian version of modernity and liberalism. These debates, however, developed mostly along the lines of the intellectual histories of Russian medical sciences rather than in the scholarship on urban policy. Laura Engelstein, in her famous critical evaluation of Foucault, argued that the authority that was enjoyed by the scientific disciplines and free professions in the liberal Western states did not develop to the same extent in autocratic Russia, despite the penetration of Western ideas and practices. In her view, Foucauldian explanatory model generally does not apply to the Russian context because of the absence of rule of law.³³

Commenting on Engelstein's argument in his article on the Russian reception of Foucault, Viktor Zhivov suggested that the absence of the rule of law in Russia did not necessarily prevent the development of disciplinary mechanisms: "The big unfreedom does not exclude the small unfreedom. Mechanisms of internal disciplinary control coexist with clear despotism, and with law as the means of direct coercion."³⁴

Similarly, Dan Healey suggested that Foucauldian disciplinary mechanisms were in place in the specific discourses on sexuality and sexual dissent despite the authoritarian

³¹ Patrick Joyce, *The Rule of Freedom: Liberalism and the Modern City* (London: Verso, 2003).

³² Christ Otter, *The Victorian Eye: A Political History of Light and Vision in Britain, 1800-1910* (Chicago and London: University of Chicago Press, 2008).

³³ Laura Engelstein, "Combined Underdevelopment: Discipline and the Law in Imperial and Soviet Russia" in Jan Goldstein (ed.), *Foucault and the Writing of History* (Oxford: Blackwell, 1994).

³⁴ Viktor Zhivov, "Chto delat' s Fuko, zanimayas' russkoy istoriyey?" NLO, 49 (2001), <http://magazines.russ.ru/nlo/2001/49/zhivov.html>, accessed February 22, 2015.

contexts in which they developed.³⁵ Daniel Beer, whose work on human sciences focused primarily on the ideas of social deviance, degeneration and pathology, objected to Engelstein's argument and claimed that “not just the radical but also the liberal project of renovation (*ozdorovlenie*) was by definition coercive” and that imperial scientists and Russian liberalism in general were forerunners of the oppressive solutions of the Soviet regime.³⁶ Beer, however, did not investigate how scientific knowledge and theories translated into public policy in pre-revolutionary Russia - the problem that I would like to explore in my work to see whether or not the imperial project of *ozdorovleniye* was in fact so coercive in practice.

My dissertation aims to bring the urban dimension to the history of late-imperial Russian medicine and public health, as well as the health dimension to the Russian urban history. Although in nineteenth-century Russia the emerging field of public health became a highly politicized subject and contested arena of policy, scholars have devoted little attention to the local politics of health and the use of medical sciences in the urban reforms.³⁷ A history of one specific city offers a possibility to see how the abstract intellectual debates worked on the ground and were treated by the real people operating within concrete social, political, legal, economic and spatial contexts.

³⁵ Dan Healey, *Homosexual Desire in Revolutionary Russia: The regulation of sexual and gender dissent* (Chicago: University of Chicago Press, 2001), p. 10.

³⁶ Daniel Beer, *Renovating Russia: The human science and the fate of liberal modernity, 1880-1930* (Ithaca: Cornell University Press, 2008), pp. 23, 207-208.

³⁷ The rare English-language monograph that treats this problem is Charlotte Henze, *Disease, Health Care and Government in Late Imperial Russia* that studies health politics and responses to cholera epidemics in imperial Saratov. In the recent years there have been several PhD dissertations in Russian that dealt, although very descriptively, with the urban public health, particularly, in Siberia, for example: K.A. Semenova, “Zdravookhraneniye goroda Tomsk v istoricheskom razvitii, 1860-e-1919,” PhD Dissertation, Tomsk State University, 2009; I.I. Morozova, “Deyatel’nost’ gosudarstvennykh i obshchestvennykh organizatsiy Rossiyskoy imperii po sozdaniyu sistemy sotsial’noy i meditsinskoy pomoshchi lyudyam, stradayushchim zabolevniyami organov zreniya i slukha: na primere Tomskoy gubernii vtoroy poloviny XIX – nachala XX vv.,” PhD dissertation, Russian State Social University, 2011.

The dissertation focuses on three aspects of urban health policies: the prevention of venereal disease; the regulation of slaughtering and meat production; the removal and treatment of urban wastes. Each of these aspects of public health refers to the important change in the urban policy - the municipal reform of the supervision of prostitution, the creation of the public abattoir, and the construction of the sewerage system. The choice of these three case-studies might seem quite unusual; indeed, they have rarely been studied together – and this is exactly why I introduce the relevant historiography in the beginning of each of the respective chapters. Perhaps, today the spheres of venereal disease, meat production or waste treatment appear quite remote from each other, but in nineteenth-century Moscow they were all perceived as parts of sanitation and all were managed by the sanitary bodies of the city government. Moreover, each of these reforms in its own way was celebrated as Moscow's achievement. Together, these three cases show the breadth, the scope and the diversity of the Russian project of sanitation - both in its approaches to human health and to external circumstances. They reveal the desire and attempts to regulate the vital functions of the body – those of reproduction, nutrition and excretion. On the other hand, they illustrate how the institution of the new sanitary regime worked on three different levels – targeting (primarily, but not exclusively) humans, animals and the natural environment.

My research is based on the holdings of the Central State Archive of Moscow (TsGAMOS, Center for Documents prior to 1917, former Central Historical Archive of Moscow, TsIAM). Many of the archival documents have not been previously used by historians. There are three major thematic groups of documents that I used for my dissertation.

The first one includes the protocols of the meetings of the City Council, correspondence of the municipal and administrative institutions and the materials of the

numerous expert advisory committees and congresses. Most such documents were preserved in the archive, but some were published either in the municipal journal *Izvestiya Moskovskoy Gorodskoy Dumy* (IMGD) or in the form of separate volumes. These documents allow not only to trace major policy decisions, but also to see how they were elaborated and discussed and what meaning was attached to them by their advocates (or opponents) and by those involved in their implementation.

The other important group of sources comprises reports on the activity of the various city institutions, either periodical or prepared for specific occasions, such as, for example, the participation of the city in national and international exhibitions and congresses. The majority of these documents were published, but some were only accessed as archival files.

The third group consists of diverse scientific texts, such as academic monographs, conference papers, dissertations, university textbooks or the minutes of public lectures. For my research I have also used legislation and statistics, periodicals, political publicism, administrative and medical documentation, guidebooks, maps and egodocuments.

The general approach to the historical sources in my project combines context-sensitive intellectual history of scientific and political debates with the analysis of the actual social policy in the sphere of sanitary regulation. This is a top-down approach with all the respective limitations this might entail. In my work I deal primarily with elites - intellectual, economic or political. My research focuses on men, as they were more active in the field that I study, but I try to take variable experiences of men and women into account where possible.

Cities present coherent units for comparative analysis that may allow us to establish commonalities and differences in how metropolises in various national and

geographical contexts tackled the problems of pollution and disease and responded to the challenges of modernity. Although my dissertation is not explicitly comparative, I tried to keep a certain implicit comparative perspective which was partly intentional, partly opportunistic, because most of the scholarship on the history of urban public health, environment and sanitation refers to non-Russian case-studies. Since Moscow reformers were looking primarily at Europe, most of my comparative examples refer to European context.

Yet another methodological issue is that of the history of transfer and the transnational circulation of knowledge. Nineteenth-century cities were borrowing from each other, and Moscow was clearly no exception. My work can reveal how scientific theories, technologies and social practices traveled across national boundaries and were adapted to very different political, cultural and environmental contexts.

The dissertation consists of five chapters. Chapter 1 explains the organization of public health in post-Reform Russia (its legal framework, the place of central and local medical administration, zemstvo and municipal sanitary institutions, as well as professional medical associations) and discusses the discipline of hygiene that provided the scientific grounds for the sanitary reforms.

Chapter 2 introduces the social and political context of Moscow and studies the general dynamics of the sanitary reforms and the actors involved. In this chapter I propose the periodization of how the sanitary regulation and infrastructure evolved in Moscow and investigate the relations between the municipality and the imperial administration.

The three remaining chapters present the case-studies of specific sanitary reforms. Chapter 3 analyzes the introduction of the municipal supervision of prostitution as a measure against venereal disease. Chapter 4 explores the construction and operation of

the public abattoir. Finally, Chapter 5 studies the campaign against river pollution and the appearance of the sewerage system.

In my dissertation I used the BGN/PCGN system of romanization of Russian, with simplified forms to render the English versions of Russian names. The full names of the archival files (because of their length) are provided in the bibliography section. All dates in the text are given according to the Julian calendar used in the Russian Empire. The Julian calendar was twelve days behind the Gregorian in the nineteenth century, and thirteen days behind in the twentieth.

CHAPTER ONE

Hygiene and public health in imperial Russia

Arithmetic is a cruel science: assuming that I spent no more than five minutes on each patient ...five!... then five hundred minutes equals eight hours and twenty minutes – without a break, please note. Apart from that I had a ward for forty inpatients and I also did operations. In short, when I left the hospital at nine o'clock in the evening, I had no desire to eat, drink or sleep. My only wish was for no one to call me out to a confinement.

Mikhail Bulgakov, *A Young Doctor's Notebook*

“[A]ctually in the Russian Empire there are no governmental institutions that would care about public health, nor explicit endeavors in this direction by the local self-government, nor even any practical interest on the side of society to the burning questions of public hygiene,” wrote in 1876 Friedrich Erismann (1842-1915) in his programmatic text on the organization of public hygiene in Russia.¹ A young and active Swiss-born physician who recently came to Russia, Erismann was dreaming about preventive medicine, a network of sanitary organizations, and the involvement of local self-government and of wider circles of society in questions of hygiene – the new science that he believed to be crucial for the well-being of the Russian population.

This new hygiene was not a matter of narrow scholarly discussions - it was a science that saw the entire community as an object of its intervention. The following chapter studies how the science of hygiene appeared and was institutionalized in Russia, how its practitioners defined its subject matter, how this science was incorporated into community medicine and political dynamics and what actors were involved in this process.

¹ F.F. Erisman, “Organizatsiya obshchestvennoy gigiyeny v Rossii,” *Otechestvennye zapiski*, 6 (1876), pp. 225-227.

Friedrich Erismann, hygiene and bacteriology

Friedrich Erismann (known in Russia as Fyodor Fyodorovich Erisman) was the key figure in the sanitary reforms that evolved in Russia in the last decades of the nineteenth century. Having earned his doctorate from the University of Zurich and initially trained as an ophthalmologist, he followed his wife Nadezhda Suslova, one of the first Russian female physicians, to Russia in 1869. While a private practitioner in St. Petersburg, Erismann got interested in questions of public hygiene and environmental factors in disease causation, first in the field of his initial expertise, studying the influence of school arrangements on the development of myopia, and then moving on to explore the housing conditions of the poor.² To expand his knowledge in the matters of hygiene and sanitation, he went to Munich to work in the laboratory of Max von Pettenkofer, who was then among the greatest authorities in these fields.

After the Russian-Turkish War of 1877-78, when Erismann was involved in the disinfection works at the front line, he was called by the Moscow zemstvo to study the sanitary conditions at the factories of Moscow province. The results of this inspection were published in 17 volumes, six of which were prepared by Erismann personally, and became a model for medical statistical study in Russia.³

In 1882 he was invited to lecture on hygiene at Moscow Imperial University. While a university professor, Erismann played a crucial role in the institutionalization of

² F.F. Erisman, *Vliyaniye shkol na proiskhozhdeniye blizorukosti: po nablyudeniym nad uchashchimisya v uchebnykh zavedeniyakh v Sankt-Peterburge* (St. Petersburg: Tipografiya Kotomina, 1870); idem, "Podval'nye zhilishcha v Peterburge" in *Arkhiv sudebnoy meditsiny i obshchestvennoy gigiyeny*, September and December 1871.

³ F.F. Erisman, *Sanitarnoye issledovaniye fabrichnykh zavedeniy Moskovskogo uyezda*, (Moscow: Mosk. Gub. Zemstvo, 1882-1885), vols. 1-5; idem, *Sanitarnoye issledovaniye fabrichnykh zavedeniy Klinskogo uyezda* (Moscow: Mosk. Gub. Zemstvo, 1891).

hygiene as an academic discipline. Immediately after assuming his office, he created a proper hygienic laboratory with necessary equipment and resources. In 1884 hygiene received its own chair within the Department of Medicine. From 1885 on, the classes in the hygienic laboratory were made obligatory for medical students. Apart from students, this laboratory was also open to practicing physicians. Finally, in 1891, the laboratory emerged in the first-in-Russia Institute of Hygiene, an important center of research on public health and sanitation.⁴

What was this new discipline of hygiene that Erismann was promoting? In his words, hygiene was a science that studied “all those natural conditions and factors of social life that in one way or another contribute to the disturbance of the physiological functions of human organism and, therefore, influence the mortality and morbidity of the population.”⁵ The main goal of all hygienic research, according to Erismann, was to find the laws that govern human health. To explore these laws hygiene had to expand its focus beyond internal physiological processes and to look at the relations between the human body and its environment that for him meant both natural and man-made factors.

As Erismann explained, hygiene was based on the dual methodological ground of experiment and sanitary statistics. He saw hygiene as a positivist experimental science with the analysis of empirical data as its major tool. The experimental character of hygiene meant that for its purposes it also used methods of other related disciplines such as bacteriology, chemistry, physics or physiology but, even when doing so,

⁴ S. Boubnoff, *Institut d'hygiène de l'Université impériale de Moscou* (Moscow: Tipo-litografiya T-va I.I. Kushnerev i K^o, 1897), p. 3; N. Mikhailov, *Pamyati professora F.F. Erismana*, (Moscow: Tipo-litografiya T-va I.I. Kushnerev i K^o, 1915), p.5. The works of the hygienic laboratory and the Institute of Hygiene were published as F.F. Erisman (ed.), *Sbornik rabot gigenicheskoy laboratorii Moskovskogo Universiteta*, vols. 1-5 (Moscow: Tipografiya Kartseva, 1886-1894).

⁵ F.F. Erisman, *Kurs gigyeny*, vol. 1 (Moscow: Tipografiya A.A. Kartseva, 1887), p. 9.

hygiene kept its distinct subject matter - “a man in given circumstances from which he may get sick or die.” This very word “circumstances” [*usloviya*] distinguished hygiene from physiology that studied the human organism in itself. Hygiene, in its turn, always had to take into account the forces located outside the human body and imposed on it by nature and society.⁶

The emphasis on unfavorable environment as the locus of disease was a prevalent view among nineteenth-century sanitarians. This scientific belief was grounded in the miasmatic theory that linked disease with filth or social theory that connected the lack of health to poverty, exhaustion and deprivation.⁷ In the 1870s-1880s that broad environmentalist explanation was replaced by the germ-theory with its search for specific pathogens.

Historians of Russian medicine tend to present Erismann and his school of hygiene as opponents of the new science of bacteriology. Erismann’s biography, in particular, the fact that he was a disciple of Max von Pettenkofer, could give an impression of Erismann as a “thoroughgoing environmentalist” and devoted proponent of Pettenkofer’s ideas, including his distrust for bacteriology.⁸ Indeed, Erismann claimed that “the dominance of the one-sided bacteriological approach would have meant a death sentence” for urban and rural public health campaigns.⁹ This, however, did not

⁶ Erisman, *Kurs gigyeny*, 1887, pp. 7-10.

⁷ Christopher Hamlin, *Public Health and Social Justice in the Age of Chadwick: Britain, 1800-1854* (Cambridge: Cambridge University Press, 1998), pp. 52-83; Ann La Berge, *Mission and Method: The Early Nineteenth-Century French Public Health Movement* (Cambridge: Cambridge University Press, 2002), pp. 82-100; Martin Melosi, *The Sanitary City: Environmental Services in Urban America from Colonial Times to the Present* (Pittsburgh: University of Pittsburgh Press, 2008), pp. 28-68.

⁸ Charlotte Henze, *Disease, Health Care and Government in Late Imperial Russia: Life and Death on the Volga, 1823-1914* (New York: Routledge, 2011) pp. 23; John Hutchinson, *Politics and Public Health in Revolutionary Russia, 1890-1918*, (Baltimore: Johns Hopkins University Press, 1990), pp. 35-36.

⁹ F.F. Erisman, “Znacheniye bakteriologii dlya sovremennoy gigyeny” in *Trudy vtorogo s’yezda russkikh vrachey v Moskve* (Moscow: Pechatnya Yakovleva, 1887), pp. 25, 27.

mean the denial of bacteriology. Erismann praised the “brilliant discoveries of Pasteur and Koch” and considered bacteriology a useful tool for the hygienist.¹⁰ In his own laboratory at Moscow University in the 1880s bacteriological methods held a prominent place, while the Institute of Hygiene later had a special bacteriological department.¹¹

Instead of seeing Russian late-nineteenth century bacteriology and hygiene as opponents, I interpret them with David Barnes's concept of “sanitary-bacteriological synthesis” - a flexible framework of understanding and combating disease by integrating old concerns about cleanliness and unwholesome environment with the new knowledge of microbes as the agents of infection.¹² However, if this integration, according to Barnes, happened in France through the language of bacteriology, in Russia it was rather hygiene that incorporated the germ-theory and remained the umbrella science for the campaign against health threats. The sanitary-bacteriological synthesis also meant that, although the new bacteriological knowledge was accepted by Russian medical practitioners, the older ideas about the risks of decomposing wastes and their emanation were not immediately refuted. As I will demonstrate below, the explanations of disease causation, that today would be considered mutually exclusive, were not seen as such in late-imperial Russia and could coexist within the same approach.

It is clear that Erismann was positive about certain infectious diseases being caused by microbes. He regarded environmental factors (for instance, dust, temperature, humidity, etc.) as facilitating the accumulation, transmission and growth of bacteria but

¹⁰ Erisman, “Znachenie bakteriologii dlya sovremennoi meditsiny”, pp. 19-20, 26.

¹¹ Erisman, ed., *Novye kliniki i instituty (klinicheskiy gorodok) Imperatorskogo Moskovskogo Universiteta na Devichiyem pole* (Moscow: Tipolitografiya T-va I.N. Kushnerev I Ko, 1891), pp. 134-138.

¹² David Barnes, *The Great Stink of Paris and the Nineteenth-Century Struggle Against Filth and Germs* (Baltimore: Johns Hopkins University Press, 2006), p. 3.

not as the cause of infectious diseases *per se*.¹³ Erismann's emphasis on the quantitative bacteriological analysis in his university lectures might give an impression that for him "bacteria" was just a new name for miasma and meant an equally unspecific virulent substance in the air.¹⁴ Yet, the quantitative bacteriological analysis led Erismann to an important question: "[A]re we dealing here with the indifferent microbes, the innocent saprophytes or *among the microorganisms of the air dust there are also so-called specific pathogenic microbes, i.e. those that can be considered the agents of infectious disease?*"¹⁵ [Italics in original]. The answer that he gave to this question was unambiguous: the understanding of the causes of morbidity from infectious disease in a particular locality cannot be reached through merely examining the general quantity of the microorganisms in the air but only "with the direct analysis of the air for pathogenic forms that requires isolating particular microbes through cultivation in the appropriate nutrient medium as well as testing their pathogenic features through animal inoculation"¹⁶ - a method that clearly referred to Koch's postulates rather than to the miasmatic explanation.

The fact that Erismann was wrong about the etiology of particular diseases – for instance, he denied that cholera is waterborne¹⁷ - does not negate his general belief in germ-theory. In his lectures Erismann did not question contagionism as such but rather pointed to the insufficient understanding of its mechanisms. The mere fact that pathogenic microbes cause disease did not satisfy him as he wanted to know the details of this causality.¹⁸ The focus on environmental factors reflected Erismann's concerns

¹³ Erisman, *Kurs gigiyeny*, vol. 2 (Moscow: Tipolitografiya T-va I.N. Kushnerev i Ko, 1892), pp. 122-124.

¹⁴ Erisman, *Kurs gigiyeny*, 1892, pp. 125-133.

¹⁵ Erisman, *Kurs gigiyeny*, 1892, pp. 133-134.

¹⁶ Erisman, *Kurs gigiyeny*, 1892, p. 134.

¹⁷ Erisman, *Kurs gigiyeny*, 1892, p. 136.

¹⁸ Erisman, *Kurs gigiyeny*, 1892, p. 128.

about the limitations of bacteriological knowledge and contemporary understandings of disease etiology, as the existing methods did not allow to easily identify the pathogens: “We should admit the existence of the pathogenic elements <...> which will only be discovered in the future that would allow us to use more advanced research methods (in particular regarding the differentiation of the microorganisms through cultivating them in various nutrient media).”¹⁹

In Erismann’s time, knowledge of microbes and their pathogenic effect was in fact very limited; for many diseases the agents were not yet identified or if so, the reliability of each discovery was still under question. Even the verified identification of disease agent in itself was of little help to a practitioner like Erismann. He required a much broader picture that included the mechanisms of its action, transmission, and prevention as well as the understanding of the social context in which disease operated.

For Erismann, hygiene was both a medical and a social science as it explains those laws “that govern over the morbidity and the mortality of population, studies the influence of professions, social status, living conditions and various social factors on the health of the considerable number of people and sanitary condition of considerable geographical units.”²⁰ The hygiene of Erismann was what we would now call interdisciplinary: it incorporated the fields that are today studied by public health, epidemiology, biostatistics, health economics, environmental sciences, sociology and social anthropology.

The role of hygiene was seen not only in establishing scientific laws but in prompting changes in social life. “It should be considered almost a crime that humanity commits against itself,” he wrote in 1873, “that the houses and cities are now constructed as if

¹⁹ Erisman, *Kurs gigiyeny*, 1892, p. 139.

²⁰ Erismann, *Kurs gigiyeny*, 1887, p. 10.

hygiene with its doctrines does not exist.”²¹ When scientific laws turned into social practices, hygiene turned into sanitation. Erismann believed that the major tool of sanitation was sanitary legislation:

Sanitary legislation should regulate the relations between humans in all matters that concern the protection of health; it should give every individual and an entire society tools to protect themselves against all actions dangerous for their health from the side of the others. Therefore, it is necessary to have the laws against the falsification of food, against the sale of spoiled or unhealthy products; the laws that would provide the basis for the measures against the spread of infectious disease; the laws that regulate the sanitary side of the construction business; the laws that protect the health of the workers from the harmful influence of professional labor.”²²

The importance of external factors in the operation of disease inevitably meant that hygiene and sanitation movement needed to target social questions such as working conditions, housing, nutrition and food control, schooling and childcare and, eventually, poverty. The social agenda of hygiene and sanitation reflected and also developed the acute questions discussed by the Russian *obshchestvo*.

Russian medical practitioners and health reformers generally shared the values and ideology of the intelligentsia, which absorbed the broad ideological spectrum of European liberalism, socialism and the Russian populist movement of the 1860s. Historians of Russia’s intelligentsia have pointed out that what brought cohesion to that group of different social backgrounds was the opposition to the existing autocratic regime and a collective ethos and a conviction that they were called and morally obliged to improve the life of the uneducated and impoverished majority and move the country

²¹ F.F. Erisman, *Rukovodstvo k gigiene*, (St. Petersburg: Tipografiya Stasyulecivha, 1873), p. 2.

²² F. Erisman, “Sanitariya” in *Entsiklopedicheskiy slovar'* (St. Petersburg: Brokgayza i Efron, 1900), vol. 28, p. 261.

to a brighter future.²³ In the debates on the reorganization of Russian society, however, this ethos often went side by side with the intelligentsia's own claims for greater autonomy and political influence that were denied to them by the autocracy. Russian medical practitioners saw their profession as a vehicle for merger with the people, but at the same time they stressed their social activism and service to the nation in the quest for the profession's authority and prestige.²⁴

Politically Friedrich Erismann himself was close to social-democrats, but in his task to promote Russian public health he worked together with populists and liberals alike.²⁵ For Erismann and for many of his followers, hygiene offered the knowledge and sanitation the tools required to significantly improve the life of the Russian population through promoting health and preventing disease. At the same time, through its direct connection to social policy, it could advance the role of scientific expertise and support public autonomy from the imperial government - both of which, according to Erismann, were indispensable to achieving the health goals.

Health administration and community medicine

Friedrich Erismann was convinced that the state should use the achievements of hygiene, yet governmental intervention in sanitary reforms had to remain very limited:

²³ Victoria Frede, *Doubt, Atheism and the Nineteenth-century Russian Intelligentsia* (Madison: University of Wisconsin Press, 2011), pp. 13-16, 218-219; Nathaniel Knight, "Was the Intelligentsia Part of the Nation? Visions of Society in Post-Emancipation Russia," *Kritika: Explorations in Russian and Eurasian History*, 7, 4 (Fall 2006): 733-758.

²⁴ Nancy Frieden, *Russian Physicians in an Era of Reform and Revolution, 1856-1905* (Princeton: Princeton University Press, 1981), pp. 313-314; Lisa Kay Walker, "Public Health, Hygiene and the Rise of Preventive Medicine in Late Imperial Russia, 1874-1912," University of California at Berkeley PhD thesis, 2003.

²⁵ S.I. Mitskevich, *Zapiski vracha-obshchestvennika* (Moscow: Meditsina, 1969), pp. 69, 81.

[T]he experience of our Western neighbors shows that a too direct interference of the legislation in the organization of public hygiene is absolutely undesirable. The legislation only has to create certain boundaries in the interests of public health that nobody could trespass without being punished. Then it is necessary to remove all the obstacles for the emergence of sanitary organizations in municipalities and zemstvos and to give the regional self-government the right to independently create in their localities the institutions that would be responsible for studying the means to improve the sanitary conditions.²⁶

He believed that the best way to organize public hygiene was a decentralized system based on “the participation of the local population.”²⁷

The participation of the local population in matters of public health policy was indeed a relatively new phenomenon in Russia. The Great Reforms of Alexander II, in particular, the introduction of zemstvo in 1864 and the new Municipal Statute of 1870 allowed for the appearance of a new actor in the health policy - local communities that were now empowered to organize their welfare systems.

Prior to that, medicine in Russia had largely been a state enterprise. The state educated, licensed, ranked, employed and supervised majority of the medical personnel; in fact, early in the nineteenth century very few positions for medical practitioners could be found outside state institutions. The medical profession as such was an eighteenth-century creation of the Russian state; corporate consciousness and autonomy were low, because the occupation was new and for a long time dominated by foreigners - the first university medical degree was awarded in Russia only in 1794.²⁸ The scope of public health measures and general access to medical care had remained very limited - in the 1860s, the 80-million population of the Empire had only about 10,000 registered physicians.²⁹ The appearance of new local self-government

²⁶ Erisman, “Organizatsiya obshchestvennoy gigiyeny v Rossii”, p. 226.

²⁷ Erisman, “Organizatsiya obshchestvennoy gigiyeny v Rossii”, p. 251.

²⁸ John Alexander, *Bubonic Plague in Early Modern Russia: Public Health and Urban Disaster* (Oxford: Oxford University Press, 2003), p. 38; see also Frieden, *Russian Physicians*, pp. 21-52.

²⁹ Frieden, *Russian Physicians*, p. 28.

institutions - that had been very weak in Russia before the Great Reforms – created numerous alternative employment opportunities for medical professionals, allowing them to act for and on behalf of the *obshchestvo*, and not the state while the gap between the two deepened during the conservative turn of the Russian government after the assassination of Alexander II in 1881.³⁰

Even though contemporaries often viewed Russia as an over-bureaucratized state, it was in fact under-governed,³¹ and in the spheres of social welfare, public health and sanitation, perhaps, more than in any other. The functions of health and sanitation control were scattered, often with overlap and confusion, among several state agencies with little responsibility and executive potential to coordinate any efficient policy on a national level.

According to the law, the sphere of civil and veterinary medicine belonged to the Ministry of Interior. The key organ within the Ministry was the Medical Council that was legally described as the supreme authority for questions of public health, medical science and treatment, and forensic medicine.³² All instructions and draft laws concerning public health had to pass through the Medical Council before going to the emperor. Although the legal description of its competence was impressive, it presented just a small amorphous advisory body that by itself could neither initiate, nor execute policy.³³

³⁰ Elisa Becker has argued, however, that the medical profession remained strongly dependant on the state also after the Great Reforms and that physicians strove to redefine their role from within the state rather than outside it, see Elisa Becker, *Medicine, Law, and the State in Imperial Russia* (Budapest: Central European University Press, 2011), particularly p. 270.

³¹ Stephen Velychenko, “Chislennost' byurokratii i armii v Rossiyskoy imperii v sravnitel'noy perspective,” in *Rossiyskaya imperiya v sovremennoy zarubezhnoy istoriografii* (Moscow: Novoye Izdatel'stvo, 2005), pp. 83-114.

³² “Ustav vrachebny” in *Svod zakonov Rossiyskoy Imperii* (St. Petersburg: 1892), pp. 1-2; *Polnyi Svod Zakonov Rossiyskoy Imperii*, coll. II, vol. 17, part 1 (St. Petersburg, 1843), Nr. 15202; see also *ibidem*, coll. III, vol. 24, part 1 (St. Petersburg, 1907), Nr. 24254.

³³ Hutchinson, *Politics and Public Health*, p.5-6.

Executive power was concentrated in the Medical Department. Three offices within the Department corresponded to three main spheres of its activity: 1) registration of medical personnel, its appointments, awards and pensions; 2) supervision of state hospitals, medical societies, education and statistics; 3) general category of fighting epidemics and sanitary measures. The medical bodies of the Ministry of Interior also included the Veterinary committee, although the delineation of the medical and veterinary control was often controversial. In addition, the Ministries of Public Instruction, Finance, Transportation, Agriculture and State Domains controlled health-related issues in the structures within their own jurisdiction.³⁴

The impotence of the existing medical structures of the state government to manage questions of public health was quite clear even to the St. Petersburg officials. In 1885, the Medical Council declared that the sanitary reform was of vital necessity to the state, given exceptional death rates. The Ministry of Interior initiated the investigation into the causes of high mortality and ways to fight it. A special Committee, created for these purposes under the Medical Council and chaired by the prominent physician Sergey Botkin soon concluded that the Medical Department, in its existing shape, was incapable of implementing sanitary reform in Russian and that it was necessary to create another central institution that would manage all the sanitary affairs of the empire – the idea that was not realized until the end of the imperial era.³⁵

On the local level, the state medical administration belonged to the appointed provincial and city governors, whose responsibilities, among others, included “measures for public health protection, providing food in the province, ensuring

³⁴ N.G. Freiberg, “Vrachebno-sanitarnoye zakonodatelstvo,” in *Spravochnik po obshestvenno-sanitarnym i vrachebno-bytovym voprosam*, (Moscow: Tipografiya Richter, 1910), pp. 182-184; “Ustav vrachebny”, pp. 1-2; Hutchinson, *Politics and Public Health*, pp. 4-5.

³⁵ D.A. Sokolov and V. I. Grebenshchikov, *Smertnost' v Rossii i bor'ba s neyu*, (St. Petersburg: Tipografiya Stasyulevicha, 1901), pp. 2-3; Hutchinson, *Politics and Public Health*, p. 6.

necessary care to the sick and helpless and supreme control of the quick implementation of all legal orders and instructions.” Questions of anti-epidemic measures, openings of pharmacies and personnel decisions could be made by the governors alone without any consultation. The Provincial Medical Board, headed by the Provincial Medical Inspector, the main specialized medical body of the local imperial administration in the sphere of public health, had a subordinate role to the governor and was an executor of his decisions.³⁶

The lowest step in the state system of sanitary control was the local police, as they were accountable for the realization of the instructions issued by all the authorities involved in sanitary regulation. The police department actually was the crucial link in the execution of effective control. It was the police alone that had the power to lay charges and bring matters to court when sanitary regulations were violated.³⁷

The Great Reforms brought about another, arguably, more efficient actor in public health. It empowered the local communities themselves to become actively involved in and responsible for the health policy in their regions through the authority of elected self-government institutions and to develop accessible infrastructure to prevent and treat disease. Interestingly, Russian *obshchestvo* saw municipalities and zemstvos not as the local state, but as the parts of the *obshchestvo* – and so did the municipal or zemstvo activists themselves.

The new concepts of *obshchestvennaya meditsina*, *obshchestvenny vrach* or *vrach-obshchestvennik* that can roughly be translated into English as “community medicine” and “community physicians” entered Russian public discourse in the last third of the

³⁶ Freiberg, “Vrachebno-sanitarnoye zakonodatelstvo,” p.184-185.

³⁷ A.N. Davydov, Moskva, vek XX. Istoricheskaya ekologiya, 1901-1917, vol. 1 (Moscow: Mosgorarhiv, 2000), p. 8; Hutchinson, Politics and Public Health, p. 15.

nineteenth century. The understanding of these concepts was double-edged – on the one hand, they implied the medical system organized by the local community and functioning according to its demands; on the other hand, they meant the shift from medicine focused on an individual to medicine focused on a community as the object of treatment. As the Kazan professor of pathological anatomy A.V. Petrov described this development in 1873, “after centuries of fruitless service to the individuals, medicine and physicians are called to serve the whole society.”³⁸

Dmitry Zhbakov, one of the most remarkable figures in community medicine and, not surprisingly, a member of the populist movement, later described this shift with the following words:

In his private practice a doctor dealt only with individual patients, not connected to each other, and his task was only to cure the sick, without thinking what would happen afterwards and what was happening around. With the emergence of community medicine it became necessary to deal with the masses of diseased and the healthy population around them, to get convinced in the tight connection between the sick and the healthy, to see the dependence of diseases and epidemics from all environmental factors <...> It immediately became clear that it is necessary to fight prejudices, to propagate hygiene, to introduce possible sanitary measures, so to say, to actively interfere in the people’s life.³⁹

Erismann was among the main advocates of community medicine, consonant with his own social-hygienic outlook, arguing that “only those measures can be beneficial that improve the health conditions of the whole groups of people or of the population altogether.”⁴⁰

³⁸ “Dnevnik Obshchestva vrachey Kazani”, 3 (1873), cited in I.D. Strashun, *Russkaya obshchestvennaya meditsina v period mezhdv dvumya revolutsiyami 1907-1917* (Moscow: Meditsina, 1964), p. 11.

³⁹ D.I. Zhbakov “Kratkiye svedeniya o vozniknovenii i deyatelnosti obshchestvenno-sanitarnykh uchrezhdeniy v zemskoy Rossii” in *Spravochnik po obshchestvenno-sanitarnym i vrachebno-bytovym voprosam* (Moscow: Tipografiya Richter, 1910), p. 39.

⁴⁰ Quoted in N.A. Semashko “Friedrich Erismann: The Dawn of Russian Hygiene and Public Health,” *Bulletin of the History of Medicine*, vol. 20, no 1 (June 1946), p. 5.

The institutionalization of community medicine and sanitary control started at the turn of 1870s in the zemstvo circles; it was usually initiated and coordinated through the provincial sanitary congresses - periodical meetings of physicians and representatives of the zemstvo to discuss and devise public health policy.⁴¹ The first of them was held in 1871 in the Tver' province, and a year later the initiative spread to Kazan', Nizhny Novgorod, Perm' and Samara. In the following thirty five years more than 300 sanitary congresses took place all across European Russia.⁴²

Although the convocation of the sanitary congresses did not transgress the limited authority of the zemstvo and was in fact the step towards the sanitary reform that was officially recognized as urgent, the practice raised serious concerns for the central administration. Disturbed by the increasingly audible public domain, the state had to switch from mere licensing to the direct supervision and interference with the activity of the congresses, in an attempt to quell the hopes of those who saw the potential cradle of liberalism and opposition in local self-government.

At first, the convocation of a sanitary congress required approval by the Ministry of Interior. It functioned according to its own program, was presided over by elected chairmen, open to public and had no restriction in the composition. From 1889, however, the Ministry insisted on giving presidency over the congresses to the Medical Inspectors, who were now obliged to read all the reports and papers and moderate debates in order to prevent any deviation from the purely scientific agenda. The list of participants and listeners also had to be created in advance and presented to the Ministry. In 1901 the Ministry approved the Statute of sanitary congresses that delegated control to provincial governors who had to approve the program and the

⁴¹ D.N. Zhbakov, "Kratkiye svedeniya o vozniknovenii i deyatel'nosti obshchestvenno-sanitarnykh uchrezhdeniy v zemskoy Rossii," pp. 45-46.

⁴² Zhbakov, "Kratkiye svedeniya," pp. 45-46.

participants of the congress and generally could forbid the congress or shut it down “should the activity of the meeting reveal any disorder, or deviation from the entrusted tasks.”⁴³

The congresses, especially in the first decades, often worked spontaneously, without any preliminary plan or prepared lectures, providing an arena for social activism and open, though not necessarily productive, debates on urgent questions of public health. The need for a more ordered and purposeful discussion led to creating smaller and permanent zemstvo advisory organs. The executive functions were given to the sanitary bureaus that, in some modification, operated in all zemstvo provinces, with the exception of Vyatka, Poltava and Orel.⁴⁴

Table 1.1. Sanitary organizations in zemstvo provinces.

Source: D.I. Zhbakov “Kratkiye svedeniya o vzniknovenii i deyatelnosti obshchestvenno-sanitarnykh uchrezhdeniy v zemskoy Rossii” in *Spravochnik po obshchestvenno-sanitarnym i vrachebno-bytovym voprosam*, (Moscow: Tipographiya Richter, 1910); Idem, *Sbornik po gorodskomu vrachebno-sanitarnomu delu* (Moscow: Tipographia Richter, 1915).

Province/ capital city of the province (if different)	Number of provincial sanitary congresses (1871-1909)	Creation of zemstvo sanitary bureau
Bessarabia/ Kishinev	9	1892
Vladimir	13	1883
Vologda	7	1902
Voronezh	10	1897
Vyatka	8	No
Ekaterinoslav	11	1896
Kazan	8	1898
Kaluga	5	1905
Kostroma	9	1895
Kursk	10	1886
Moscow	18	1875
Nizhny Novgorod	4	1898
Novgorod	10	1883
Olonets/ Petrozavodsk	2	1885
Orel	4	No
Penza	11	1891

⁴³ Ibid., pp. 49-50.

⁴⁴ Ibid., p. 57.

Perm	11	1890
Poltava	7	No
Pskov	7	1899
Ryazan	16	1896
Samara	14	1893
St. Petersburg	10	1878
Saratov	14	1889
Simbirsk	5	1896
Smolensk	13	1892
Tavria/ Simpheropol	11	1892
Tambov	11	1897
Tver	15	1888
Tula	10	1904
Ufa	6	1885
Kharkov	8	1896
Kherson	17	1886
Chernigov	10	1889
Yaroslavl	4	1903

Municipal involvement in community medicine took place parallel to zemstvo activity and, directly or indirectly, under its influence. Russian cities were an obvious target for the hygiene movement. Drastic growth in urban population, a constant influx of migrants from the rural areas and the failure to accommodate them provided the potential breeding grounds for disease. At the same time, cities, as the centers of wealth and education, and also as the representative facades of the modernizing empire, had enough (or at least more than the rest of the country) material, human and institutional resources to implement costly sanitary improvements. Universities, the main suppliers of the medical profession, were located in the cities, and it was there that scholarly discussions took place and that academic knowledge often found its applications.

Institutionalization of urban sanitary control was fostered by the spread of epidemics. The typhus and plague epidemic of 1878-1879 led to the establishment and development of sanitary organizations in St. Petersburg, Moscow and Ekaterinoslav, the diphtheria outbreak of the 1880s in Nizhny Novgorod and Nikolayev, the cholera

epidemics of 1892-93 in Baku, Ekaterinodar and Orenburg and of 1908 in Samara. The basic public health measures of the city councils, like those of the zemstvos, included local sanitary legislation and sanitary inspection. By the eve of World War I most of the cities with a population of over 100,000 systematically registered cases of contagious diseases, produced statistics of morbidity and mortality and had bacteriological and chemical laboratories. Practically all of them (except for Minsk, Vitebsk and Dvinsk) organized smallpox vaccinations and all had municipal slaughterhouses and veterinary inspection. However, the more elaborated and costly forms were not that common – about a half of the biggest Russian cities had school health control, while sanitary technologies and infrastructure functioned in only a few.⁴⁵

Table 1.2. The biggest Russian cities and their sanitary organizations.

Source: D.I. Zhbakov: *Sbornik po gorodskomu vrachebno-sanitarnomu delu*. Moscow: Tipographia Richter, 1915.

City	Population (1912)	Creation of permanent sanitary organization	Number of sanitary doctors (1912 or 1913)	Expenses on the public health (% to all city expenses)
Astrakhan	150000	1883	7	3,19 [1912]
Baku	217000	1890	9	3,80 [1911]
Dvinsk	111000	1890	1	0,2 [1911]
Ekaterinodar	101000	1892	4	5,26 [1912]
Ekaterinoslav	197000	1879 (from 1883 subordinated to the city)	5	2,43 [1911]
Ivanovo-Voznesensk	168000	No	1	0,83 [1913]
Irkutsk	127000	1882	4	2,34 [1913]
Kazan	179000	1913	1	1.04 [1912]
Kharkov	238000	1878	15	4.91 [1913]
Kishinev	130000	No	2	1.19 [1911]
Kiev	500000	1878	14	1.74 [1912]
Minsk	100000	1911	3	0.63 [1911]
Moscow	1612000 (without suburbs 1399000)	1884	60	8.96 [1914]
Nizhny Novgorod	115000	1889	4	2.98 [1911]

⁴⁵ D.I. Zhbakov, *Sbornik po gorodskomu vrachebno-sanitarnomu delu*. (Moscow: Tipographia Richter, 1915), pp. 442-443.

Nikolayev	103000	1885	2	3.48 [1911]
Odessa	546000 (1910)	1897	14	3.81 [1911]
Omsk	133000	1903	2	0.86 [1911]
Orenburg	120000	1892	2	1.65 [1911]
Revel	130000	1879	2	1.93 [1912]
Riga	400000	1885 (?)	6	3.21 [1911]
Rostov-on-Don	202000	1904	5	3.00 [1912]
Samara	156000	1908	7	2.36 [1912]
St. Petersburg	2018000 (without suburbs 1686000)	1884	150	6.06 [1912]
Saratov	223000	1904	5	4.44 [1911]
Tashkent	226000	1902	2	1.03 [1912]
Tiflis	300000	1893	8	1.98 [1912]
Tomsk	110000	1897	3	2.56 [1911]
Tsaritsin	100000	1908	3	1.62 [1911]
Tula	132000	No	3	2.43 [1912]
Vilnius	240000	1890	11	0.78 [1911]
Vitebsk	100000	1902	2	0.35 [1911]
Warsaw	781000	No (sanitary control belongs to police)	1	-
Yaroslavl	105000	No	No	1.22 [1912]

Despite the desire of the state to hinder any immediate cooperation between local self-government institutions, its own incapacity to coordinate public health policy on the national level allowed an alternative actor in the form of civil associations to enter the scene. Even though zemstvos and municipalities did not possess any collective representative organ for supra-regional discussion and exchange of experience, this niche was filled by the professional organizations that would allow for transfer of knowledge and practices bypassing direct intergovernmental cooperation.

Medical communities emerged in Russia from the beginning of the nineteenth century, initially in the form of university clubs or expatriate associations. Thus, societies of German doctors appeared in both imperial capital cities and Riga around 1820, later becoming counterbalanced by the societies of Russian doctors in St. Petersburg (1833) and Moscow (1858). By the mid-1860s local professional associations in some form existed in most of the cities of the Empire, from Vilno to

Irkutsk, and from Arkhangelsk to Tiflis.⁴⁶ It was not, however, until the 1880s when the medical associations left the borders of their localities and acquired the form of a national professional organization - the Society of the Russian physicians in Memory of N.I. Pirogov.⁴⁷ The interests of the Pirogov Society included a wide spectrum of scientific and therapeutic problems, and community medicine and public health policy occupied a prominent place in its discussions and activity. Out of about three dozen of commissions initiated by the Pirogov Society in the 1890s and 1900s, most were concerned with questions of sanitation and welfare, including factory legislation, workers' insurance, child mortality, famine relief, disinfection and water pollution.⁴⁸

In the situation when sanitary reform was bound to a particular locality, the Pirogov Society assumed the function of a coordinating body. For example, it engaged in creating and introducing a uniform country-wide system of demographic and medical data collection, a consistent conceptual framework and nomenclature and a common work program for local sanitary organs.⁴⁹ The inability of the central administration to moderate and coordinate local actors resulted in attempts by the professional community not only to keep the tasks of expertise and knowledge production, but also to appropriate the regulative and managing functions of the state, at least in the sphere of public health, and to claim monopoly over these functions.

⁴⁶ I.D. Strashun, *Russkaya obshchestvennaya meditsina*, p. 8; M.M. Levit, *Stanovleniye obshchestvennoy meditsiny v Rossii* (Moscow: Meditsina, 1974), pp. 99-105.

⁴⁷ On the Pirogov Society see: Frieden, *Russian Physicians in an Era of Reform and Revolution, 1856-1905*, p. 118-122.; Hutchinson, *Politics and Public Health*; Joseph Bradley, *Voluntary Associations in Tsarist Russia: Science, patriotism, and civil society* (Cambridge, Mass.: Harvard University Press, 2009), pp. 224-253.

⁴⁸ K. I. Shidlovsky, "Nekotorye svedeniya ob Obshchestve russkikh vrachei v pamyat' N.I. Pirogova." in *Spravochnik po obshchestvenno-sanitarnym i vrachebno-bytovym voprosam*, (Moscow: Tipografiya Richter, 1910), pp. 7-8.

⁴⁹ Ibid., p. 14.

The mistrust of community physicians to the state and their unwillingness to cooperate with it resulted, for instance, in their disapproval of the reform of the state medical administration and the creation of a strong central medical authority.⁵⁰ The opposition to the central administration in some cases resulted in the declarative rejection not only of its policy but also of any mechanisms of governing associated with the state. Thus, one of the participants of the eighth congress of the Pirogov Society in 1902 could claim that “centralization, public surveillance over the population and their inevitable companions - order and the punishment for the non-fulfillment of the order - are the enemies of the real community medicine and sanitation.”⁵¹ It was not only the state who, to use the expression of Laura Engelstein, showed “reluctance to disperse the mechanisms of social discipline,”⁵² but the modern professional groups that were sometimes unwilling to share the coercive authority of the state, trying to find alternative and often utopian methods for the realization of their reformative projects. The perceived opposition of community medicine and the autocratic state narrowed down the field for possible cooperation between community physicians and the government in the field of sanitary reform.

In practice, however, any plan of public health improvements, prophylaxis, sanitary regulations and hygiene education required an institutional base. Although the proponents of community medicine initiated a discourse of how to make the modern Russia healthier, in order to achieve practical results it had to enter into dialogue with the power-holders. Medical activism had to be channeled through the existing

⁵⁰ Sokolov and Grebenshchikov, *Smertnost' v Rossii I bor'ba s neyu*, p. 4; Hutchinson, *Politics and Public Health*, pp. 7-9.

⁵¹ N. Ivanov, “Ob usloviyakh uspehnogo provedeniya v zhizn sanitarnykh meropriyatiy” in *Vos'moy pirogovskiy s'yezd* (Moscow: Pechatnya Yakovleva, 1902), vol 4, p. 8.

⁵² Laura Engelstein, “Combined Underdevelopment: Discipline and the Law in Imperial and Soviet Russia” in Jan Goldstein (ed.), *Foucault and the Writing of History* (Oxford: Blackwell, 1994), p. 230.

governmental structures and to rely on them as the source of executive authorities for the implementation of any sanitary measures.

The nature of sanitary reform depended greatly on personal initiative, the composition of the local government, its receptiveness to public health concerns and its executive and financial potential to implement costly and complicated projects. At the same time, the successful development of sanitation, medical care and welfare systems, legitimized through the use of expert knowledge, could expand the authority of the self-government institutions and reshape the course, or at least the rhetoric of their negotiations with officialdom in the autocratic state. The following chapters will explore how these processes evolved in the course of the sanitary reforms in Moscow.

CHAPTER TWO

Local politics in Moscow and the dynamics of sanitary reforms

What London needs, is too early for Moscow.
Alexander Pushkin, *A Letter to Censor*

We Russians have two homelands: our own Russia and Europe, even if we call ourselves Slavophiles [...] Many, very many of the things we took from Europe and transplanted in our own soil were not simply copied like slaves from their masters [...]; they were inoculated into our organism, into our flesh and blood. There are some things, indeed, that we lived through and survived *independently*, just as they did there in the West, where such things were indigenous.

Fyodor Dostoevsky, *A Writer's Diary*

The last third of the nineteenth century was an era of modernization and abrupt growth for many cities in Europe and North America. Russia was no exception, and among its cities Moscow, though obviously not unique, was a striking example of this process. Moscow possessed many characteristic features of Russian urbanization, but it was not a typical town, because the sheer size of the population and complexity of the area set Moscow aside.

The task of accommodating hundreds of thousands of new urbanites, of providing food and water to them, of keeping them healthy and removing their wastes was a new and difficult job for Moscow's authorities. Epidemics posed a serious threat to the booming migrant city as Moscow's mortality and morbidity rates remained among the highest in urban Europe.¹ In a world where the health of the population was becoming

¹ Joseph Bradley, *Muzhik and Muscovite: Urbanization in Late-Imperial Russia* (Berkeley: University of California Press, 1985), pp. 22-25; Robert Thurston, *Liberal City, Conservative State* (New York: Oxford University Press), pp. 14-20; Blair Ruble, *Second Metropolis: Pragmatic Pluralism in Gilded Age Chicago, Silver Age Moscow, and Meiji Osaka* (Cambridge: Cambridge University Press), pp. 267, 277.

an important political asset, the sanitary reform moved to the top of the agenda of the city government.

This sanitation campaign was, expectedly, not always a steady and consistent process; it had its conflicts, advances and retreats. I identify three stages corresponding to how pre-1905 authorities approached sanitary reforms in Moscow. In the first period, from the early 1870s till the early 1880s, pollution and the poor sanitary condition of the city became a subject of public debate. The reformed Moscow municipality acknowledged its responsibility to tackle this problem, but the realization of that goal proceeded rather slowly. The second stage, between the mid-1880s and the early 1890s, saw major breakthroughs, when the key projects of public health and sanitary services were developed and commissioned. It was a time of unprecedented speed and scope of municipal activity. The city institutions evolved into important actors in local politics, against the background and in spite of the opposition between the Moscow municipal leaders and the local administration throughout the 1880s. In the last stage, commencing in the early 1890s, many endeavors of the previous period were continued and completed, although the pace and the scale of reforms somewhat decreased. At the same time, this was the period when the imperial administration got more involved in the sanitary reforms, which, on the one hand, resulted in its cooperation with the municipality, but, on the other hand, meant that the role of the municipality as the main promoter of public health and sanitation was challenged.

Moscow: urban growth, social composition and city government

The size and metropolitan claims of late-imperial Moscow put it in the same league as major European cities. By the turn of the twentieth century, among European metropolises Moscow was ranked sixth in population and was the biggest city without

a capital status.² The bifurcation point in the growth of Moscow was connected to the abolition of serfdom in 1861. Located at the heart of the agricultural provinces, Moscow immediately felt the impact of the liberation, as thousands of peasants flooded into the city in search of work. In the first decade after the liberation the population increased by half, reaching 602,000 in 1871. The pattern of growth continued in the following decades, and in 1897 Moscow had already 1,043,000 residents followed by 1,346,000 in 1907 and 1,612,000 in 1912.³

Most of the migrants belonged to the peasant estate and came from the central provinces of European Russia – a region that suffered from overpopulation and a lack of land.⁴ The peasants were forced to look for alternative means of subsistence, and going to the city in search of wages (*otkhod*) became a common solution. The abolition of serfdom intensified the peasant migration to Moscow due to the facilitation of the process and due to the necessity of redemption payment for the land after emancipation, which exceeded the peasants' ability to pay and arguably made rural life worse than it had been under serfdom.⁵

In the last decades of the nineteenth century Moscow was a true city of immigrants, since almost three-quarters of its population was non-native. Naturally, the fact that immigration was the dominant factor of substantial urban growth was not something peculiarly Russian. Yet, in the 1880s, among the major European cities Moscow had the greatest proportion of immigrants – about three quarters - and still held this position

² I. A. Verner, *Sovremennoye khozyaistvo goroda Moskvyy* (Moscow: Gorodskaya tipografiya, 1913), p. 6.

³ *Statisticheskyy ezhegodnik goroda Moskvyy* (Moscow: Izdatel'stvo moskovskoy gorodskoy dумы, 1908-1916), p.7; *Glavneyshiye predvaritelnyye dannyye perepisi goroda Moskvyy 6 marta 1912 g.* (Moscow: S.n.; 1913); E. A.Zvyagintsev et al., eds. *Moskva* (Moscow: I.N. 1915), p. 112.

⁴ Barbara Anderson, *Internal Migration during Modernization in Late Nineteenth-Century Russia* (Princeton: Princeton University Press, 1980), p. 106; Boris Mironov, *A Social History of Imperial Russia* (Boulder: Westview Press, 2000), pp. 333, 341-2.

⁵ Mironov, *A Social History of Imperial Russia*, p. 333.

20 years later. The ratio of immigrants was particularly striking among the labour force – in 1902, a mere 12 per cent of the entire active male population could call Moscow their hometown.⁶

What is peculiar about the Russian urbanization experience is the transient character of migration and the strong ties of migrants to the village. The common survival strategy was constructed around the combination of agricultural labour and additional wages in the city within the same family. *Otkhod* remained a predominantly male phenomenon: husbands and sons went off to the city, while wives together with children and older family members remained working in the village.⁷ The gender composition of Moscow was a good illustration of this pattern – while in London, Paris, Berlin, Vienna and Budapest, women outnumbered men,⁸ Moscow had only 700 females per 1,000 males in 1871, the figure slowly increasing to 755 in 1897 and to 767 in 1902.⁹

Drastic urbanization resulted in the considerable reshaping of the city's social structure and urban environment. The tremendous influx of migrants constituted the cheap labour force for a developing urban economy. Moscow's industrialization, predominantly in textile production, made it one of the key centers of the emerging Russian bourgeoisie, the *nouveaux riches* whose supremacy was built on their success in the capitalist economy. "Merchant Moscow" – this was the late-nineteenth-century

⁶ Bradley, *Muzhik and Muscovite*, p. 103; Anna Mazanik "The City as a Transient Home: Residential Patterns of Moscow Workers around the Turn of the Twentieth Century," *Urban History*, 40, 1 (2013), pp. 54-56.

⁷ Mironov, *A Social History of Imperial Russia*, p. 347; Jeffrey Burds, *Peasant Dreams and Market Policies: Labor Migration and the Russian Village, 1861–1905* (Pittsburgh: University of Pittsburgh Press, 1998), pp. 25-38.

⁸ *Statisticheskii atlas goroda Moskvyy* (Moscow: Gorodskaya tipografiya, 1887), p. 43; András Gerö and János Poór (eds.), *Budapest: A History from its Beginnings to 1996* (Boulder: Columbia University Press, 1997), p. 104.

⁹ Verner, *Sovremennoye khozyaystvo goroda Moskvyy*, pp. 9–10.

nickname of the city that a merchant Pavel Buryshkin used as a title for his famous memoirs.¹⁰

Table 2.1. The mayors of late-imperial Moscow

Source: L. Pissar'kova, *Gorodskie reformy v Rossii i Moskovskaya Duma* (Moscow: Novy khronograph, 2010).

1863-1869	Prince Alexander Shcherbatov
1869-1871	Prince Alexander Cherkassky
1871-1873	Ivan Lyamin
1873-1876	Daniil Schumacher
1877-1881	Sergey Tretyakov
1881-1883	Boris Chicherin
1883-1885	Stepan Tarasov
1885-1893	Nikolay Alekseyev
1893-1897	Konstantin Rukavishnikov
1897-1905	Prince Vladimir Golitsyn
1905-1912	Nikolay Guchkov
1914-1917	Mikhail Chelnokov

Moscow was governed by the City Council (*Gorodskaya Duma*) - a large policy-making body which elected a small executive Board (*Gorodskaya Uprava*) and the mayor. The responsibilities of the City Council legally were limited to the spheres of urban infrastructure, beautification, economy and welfare, including food and water supply, waste removal and “the protection of public health”. According to the Municipal Statute of 1870, suffrage was given to Russian citizens who paid taxes to the city, either from real estate property or in the form of commercial or industrial fees. Only men over the age of 25 could personally take part in the elections, but women and

¹⁰ P. Buryshkin, *Moskva kupecheskaya* (New York: Izdatelstvo imeni Chekhova, 1954). On the Moscow business elite see: Thomas Owen, *Capitalism and politics in Russia: A social history of the Moscow merchants, 1855-1905* (Cambridge: Cambridge University Press, 1981); Alfred Rieber, *Merchants and Entrepreneurs in Imperial Russia* (Chapel Hill: University of North Carolina Press, 1982); Yu. A. Petrov, *Moskovskaya burzhuaziya v nachale XX veka* (Moscow: Mosgorarkhiv, 2002); Blair Ruble, *Second Metropolis*, pp. 80-87.

men under 25, paying the necessary taxes, could express their will via warrants.

Vvoting rights were also given to juridical entities if they were subject to city taxation.

Table 2.2. Municipal revenues and taxes in European cities per capita of population in 1879

Source: Mitrofan Shchepkin, “Gorodskoye khozyaystvo Moskvyy po smete 1882 goda”, *IMGD*, 2 (1882).

City	Municipal revenues per capita (in francs)	Municipal taxes per capita (in francs)
Paris	119.3	87.81
Berlin	42.09	26.73
Vienna	61	37.04
Turin	49	23.31
Copenhagen	47.42	23.72
Stockholm	71.13	35.97
Prague	105.31	30.51
Triest	104	25.57
Munich	124.09	24.4
Frankfurt on Main	97.74	30.9
Moscow	18.63	14.47

The inequality of electoral qualification was conveyed by the curial system, which divided the electorate into three groups. Each group paid the same amount of taxes to the city and elected the same quantity of deputies to the council, thus privileging wealthy entrepreneurs and property owners. All those who rented an apartment in the city and were not engaged in commercial activity (large groups of professionals, civil servants, workers) were excluded from electorate. The introduction of a special apartment tax - which would allow renters to become city tax-payers and enter the rolls of voters - was actively discussed in the Moscow City Council in the late 1870s and early 1880s, although economic considerations prevailed in this matter as the municipal budget, formed primarily from taxation, remained small. This situation changed only after 1882 when the financial policy of the City Council shifted towards long-term

municipal bonds that were then invested into large-scale infrastructural projects, some of which later became a source of municipal revenues.¹¹

The emergence of municipal sanitary control

In 1879, one of the municipal committees stated that

Moscow has long ago become the model of pollution and negligence. Despite its favorable topographic conditions, the abundance of water sources, considerable vegetation, the city became anti-hygienic in all aspects because of the indifference of the residents to the public interest [*ravnodushiye obyvateley k obshchestvennym interesam*].¹²

Pollution and the poor sanitation of Moscow were seen not only as long-existing and unpleasant features of urban life but also as signs of the passivity and undevelopment of Russian civil society. In the late 1870s, it was the reformed urban self-government claiming to act in the public interest that ventured to promote hygiene and fight pollution.

In Moscow, neither community medicine in general, nor sanitary reform in particular were conceived as complex projects of preventing and treating disease but emerged out of temporary measures taken under the threat of coming epidemics, such as cholera in 1866-67, smallpox in 1872, typhus and smallpox in 1878, and plague in 1879. The City Council had, in fact, very little experience in dealing with the health of Muscovites. The first municipal health institution appeared in Moscow only in 1866 when, during the severe typhus epidemic, the City Council - then presided by the mayor

¹¹ V.A. Nardova, *Samoderzhaviye i gorodskie dumy v Rossii v kontse XIX – nachale XX veka* (St. Petersburg: Nauka, 1994), p. 10; eadem, *Gorodskoye samoupravleniye v Rossii v 60-kh – nachale 90-kh godov XIX v.* (Leningrad: Nauka, 1984), pp. 82-108; L.F. Pisar'kova, *Gorodskie reformy v Rossii i Moskovskaya Duma* (Moscow: Novy khronograph, 2010), pp. 313-331.

¹² “Doklad N 55 po vorposu o kanalizatsii Moskvy,” *IMGD*, 10 (1879), p. 22.

Alexander Shcherbatov - opened a temporary hospital with 240 beds, which later became the 2nd municipal Shcherbatov hospital.¹³

At the turn of the 1880s, the struggle against epidemics was seen as related to the general improvement and sanitation of the urban environment. It was the concern about the high mortality rates in Moscow, especially in comparison with Western cities, that was at the core of the discussions about the large projects of the city sanitation. In the words of the municipal deputy and physician A. G. Levental,

In public, in the City Council, in press we hear complaints about the exceptionally high mortality rates in Moscow. It is said that the rate is 39 out of every 1000, and there is no other place with such high mortality rate, neither in the small towns, nor in the big cities of Western Europe. Indeed, our mortality rates are very high, and it is the responsibility of the municipality to make it smaller, but how can it reach this goal? Hygienic research and statistics show that mortality drops in those cities where the condition of soil and air are improved and where they are made cleaner. In our case soil and air are extremely polluted by the cesspool wastes <...> To make the soil and air cleaner, we need to deal with the disposal of wastes.¹⁴

The sanitary reform started with the sanitary decrees. The first among them, approved in October 1875, regulated waste disposal and cesspool cleaning. In 1879 the City Council issued another decree on the upkeep of cesspools, dustholes, and yards to prevent the stench and pollution of rivers and ground waters. These decrees were published constantly, prescribing new norms of housing construction, street cleaning and maintenance, the organization of baths and laundries, animal keeping and slaughtering, peddling, food production and sale, waste disposal and transportation.¹⁵

¹³ D. I. Zhbakov, *Sbornik po gorodskomu vrachebno-sanitarnomu delu v Rossii* (Moscow: Tipografiya Richter, 1915), p. 16; A.A. Chertov, *Gorodskaya meditsina v Evropeyskoy Rossii* (Moscow: Pechatnya Yakovleva, 1903), p. 86; Pissar'kova, *Gorodskie reformy*, p. 264.

¹⁴ *IMGD*, 9 (1881), p. 994.

¹⁵ *Sbornik obyazatel'nykh dlya zhiteley g. Moskvy i chastiyu drugikh gorodov postanovleniy* (Moscow: Pechatnya Yakovleva, 1897), pp. 24-41; *Sbornik obyazatel'nykh dlya zhiteley goroda Moskvy postanovleniy Moskovskoy Gorodskoy Dumy* (Moscow: Gorodskaya Tipografiya, 1896), pp. 1-131.

Table 2.3. Mortality in Moscow and other European cities (per 1000 of population)Source: *Smertnost' naseleniye g. Moskv 1872-1899* (Moscow: Gorodskaya tipografiya, 1891)

Moscow, 1878-1885	33.15
Vienna, 1880-1885	29.19
Berlin, 1876-1885	27.6
Paris, 1879-1884	25.15
London, 1881-1885	21.36

For several years, however, these regulations remained without proper executive support, as the municipal body responsible for sanitary inspection and the control of the existing regulations was founded in a stable form nearly a decade later. The first attempts to create a sanitary organization in Moscow were once again undertaken as temporary extraordinary measures. In 1878, in connection to the outbreak of smallpox and also in the fear of the introduction of typhus from the seat of war with the Ottoman Empire, city mayor Sergey Tretyakov convened a commission of physicians to prevent the spread of disease. An elaborated plan, supported by the City Council, divided Moscow in 17 districts, each managed by a physician and a warden who were responsible for the detection and isolation of the sick as well as sanitary inspection, particularly in the places of food sale and the confluence of the poor. The following year, these measures were reintroduced due to the threat of plague, but it was not until 1884 that the sanitary organization finally acquired a permanent character. Later the number of sanitary doctors increased to 20 and in 1886 they also received the supervising function of the wardens.¹⁶

The system of community medicine that evolved out of these anti-epidemic measures had an expressly collegial character and was practically devoid of any administrative managers, relying instead on the wide circles of medical professionals.

¹⁶ Zhbankov, *Sbornik po gorodskomu vrachebno-sanitarnomu delu*, pp. 27-28.

In a situation of institutional immaturity and general incompetence in the sphere of public health policy, this collegiality provided an indispensable advisory support to the local government and allowed for regular and open professional discussions, where a variety of opinions and first-hand observations made up for the lack of experience and necessary training.

Table 2.4. Selected causes of death in Moscow in 1882

Source: *Smertnost' naseleniya g. Moskve, 1872-1899* (Moscow: Gorodskaya tipografiya, 1891).

Population of Moscow, 1882	753500
Total deaths in 1882	29312
Including deaths from:	
Acute gastroenteritis	6085
Tuberculosis	3241
Other respiratory diseases	3577
Sepsis	1069
Typhoid	488
Typhus	472
Relapsing fever	1073
Typhus, typhoid or relapsing fever (<i>tif neopredelennogo vida</i>)	408
Dysentery	616
Scarlet fever	576
Diphtheria	538
Measles	401
Smallpox	372
Pertussis	300
Syphilis	100
Cancer	503

This system lacked the clear hierarchy of power and involved most of its members in the policymaking through its tight connection to the municipal government. Participation in municipal advisory bodies and consulting local authorities was expected even from the lowest executive links of health personnel – such as sanitary doctors, trade inspectors or physicians in the city hospitals. The activity of the sanitary

organization and its members was not formalized and strictly regulated and until the end of the century they acted without any instructions. It was only in 1896 that the Moscow public health organization received its director - the head of the medical-sanitary branch - and the municipal medical council - an advisory body to the Municipal Board that consisted of the deputies elected by physicians at municipal service from among themselves.¹⁷ As the future head of sanitary-medical branch A.G. Petrovsky noted in 1896, before those reforms, “the absence of instructions was to some degree compensated by the weekly discussions of all the activities of the sanitary organization at the meetings of the Commission of sanitary doctors.”¹⁸

However, the practical necessity of multilevel discussions slowed down the executive process and presented an extra burden to the overloaded and understaffed health services. At the same time, the lack of the institutionalized managerial hierarchy in the field of sanitation opened space for more informal power mechanisms and increased the role of personal charisma and authority in the decision making, both among the municipal reformers and among the health professionals, that would become particularly evident in the second half of the 1880s and early 1890s.

Sanitary reforms in Alekseyevan Moscow, 1885-1893: municipalization and the “public good”

In 1881, the Slavophil newspaper “Rus” lamented the state of affairs in the Moscow City Council and the weakness of the mayor:

Our Council gathers almost every week, every trifle provokes long and meaningless discussions, the city mayor has no freedom for personal initiative and is constantly shadowed by the Council <...> The Council now is only a school to exercise in the

¹⁷ Chertov, *Gorodskaya meditsina v evropeiskoi Rossii*, pp. 100-110; Zhbakov, *Sbornik po gorodskomu vrachebno-sanitarnomu delu*, pp. 27-49.

¹⁸ A.G. Petrovsky, *Gorodskoy sanitarny nadzor v Moskve* (Moscow: Gorodskaya tipografiya, 1886), p. 24.

public discussion of public questions. It is not useless for those who exercise, but is completely useless for the resolution of the questions.¹⁹

Just four years later, the relations between the Council and the mayor could hardly raise such concerns. In 1885, the Moscow municipality elected a new mayor Nikolay Alekseyev (1852-1893) whose term in the office became the high point in various spheres of Moscow's accomplishment, including community medicine and the sanitary reform.

Alexander Amfiteatrov, a Moscow journalist and literary critic, wrote in his famous and favorable account of Alekseyev that “after becoming the mayor, he breathed for Moscow [*zhizn'yu odnoy dyshal*],” “the honor of serving Moscow was his only compensation” and “it is difficult to find a sphere of public activity which was not, directly or indirectly, touched by his inexhaustible energy, thirsty for work”.²⁰ Alekseyev's successor in the office Vladimir Golitsyn mentioned his “endless devotion to the municipal cause, his sincere desire to properly manage it, to be its real master; in this matter among the city public he had no equals – and even less rivals”.²¹

Trying to expand the influence and efficiency of the Moscow self-government, Alekseyev took a keen interest in the matters of urban infrastructure and community medicine. It was under Alekseyev that the municipality united under its umbrella a whole network of sanitary and medical institutions that empowered it to independently manage a large sphere of urban public policy.

¹⁹ *Rus'*, 10 (1881), p. 4.

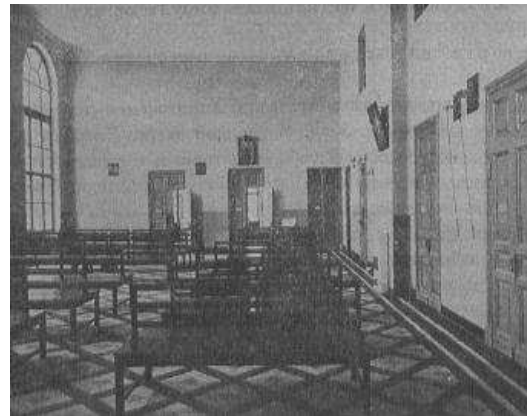
²⁰ A.V. Amfiteatrov, *Nedavniye lyudi* (St. Petersburg: Tipografiya T-va Khudozh. Pechati, 1901), pp. 246, 259.

²¹ Golitsyn quoted in A.G. Gusev, “Moskovsky gorodskoy golova N.A. Alekseyev v dnevnikh i vospominaniyakh sovremennikov,” *Gosudarstvennoye upravleniye. Elektronny vestnik*, 45 (August 2014), p. 333.

In 1887, on the initiative of Alekseyev, epidemiological control was taken away from the police and given to the municipality. Six of Moscow's hospitals that had previously belonged to the State Welfare Department (*Prikaz Obshchestvennogo Prizreniya*) or to the Department of Empress Maria (*Vedomstvo Imperatritsy Marii*) were also moved to the management of the city.²² The network of community medicine institutions went to a new level, when, in addition to the inpatient hospitals, the city opened two municipal outpatient clinics (*ambulatoriya*). The outpatient clinics became very popular among the city population that could now receive medical treatment while keeping the wages, although generally the quality of services and the equipment of outpatient clinics remained inferior to that of the hospitals.²³ In 1891 there were already five such clinics and that year they served more than 92,000 individual patients.²⁴

Figure 2.1. Municipal outpatient clinic of Rogozhskaya district: facade and waiting room

Source: I.A. Verner, *Sovremennoye khozyaystvo goroda Moskvy* (Moscow: Gorodskaya tipografiya, 1913).



In 1889, the municipal laundry and disinfection station were founded. The functions of sanitary control diversified, penetrating more and more spheres of urban life after

²² *IMGD*, 4 (1887), Appendix, p. 8; 8 (1887), section 1, p. 10; Chertov, *Gorodskaya meditsina*, pp. 86-89.

²³ E.F. Pechorkin, "Ambulatoriya v eye nastoyashchem i blizhayshem budushchem," *Obshchestvenny vrach*, 6 (1912), pp. 753-765.

²⁴ "Kratkiy otchet o deyatel'nosti gorodskikh ambulatoriy za 5 let (1887-1891)," *IMGD*, 3 (1892), pp. 11-16.

the creation of school, veterinary and trade inspectors in 1889-1890 and the opening of the Sanitary station with a laboratory in 1891.²⁵ It was also under Alekseyev that the City Council commissioned three undertakings that I discuss in detail later on in my dissertation (Chapters 3, 4 and 5). In 1889, the municipality took over the inspection of prostitutes and prevention of venereal disease - a task that had previously belonged to the police. In 1886-1888, Moscow constructed the public abattoir that replaced small private slaughtering facilities and led to the centralization and, eventually, monopolization of meat production by the municipality. Finally, the municipality expanded the existing systems of water supply and commissioned the long-discussed sewerage and waste-treatment system.

The sanitary reform was gaining momentum in Moscow along the lines of the conflict between the city and the administration, concerned with the growing independence and influence of the self-government institutions. The opposition had started already in the early 1880s in the mayorship of the lawyer Boris Chicherin, but the conflict reached its culmination towards the end of the decade, when the Governor-General Prince Vladimir Dolgorukov (1810/1865 – 1891) faced the newly-elected Alekseyev.

Dolgorukov was a descendent of an old Russian aristocratic family and had made a military career back in the time of Nicholas I. In 1885, when Alekseyev was elected Moscow mayor, Dolgorukov was seventy-five years old, for twenty of which he had been Moscow Governor-General. Dolgorukov was a believer in the *ancien régime* values. In the words of his late-imperial biographer, he was the “mouthpiece of the loyal [*vernopoddanicheskikh*] feelings of Muscovites” and “the principles of protecting the

²⁵ Petrovsky, *Gorodskoy sanitarny nadzor*, pp. 12-24.

autocratic power of the tsar, of Orthodoxy and nationality”.²⁶ Chicherin, who clearly disliked Dolgorukov, saw in him the quintessence of the Russian high-ranking bureaucracy: “[O]ne needs neither intelligence, nor education, nor conscience, nor the knowledge of business; one needs to be vulgar and scoundrel from head to toe, to grovel, to flatter and to lie.”²⁷ As the Governor-General, Dolgorukov tried to curb the dangerous “liberalism” and “parliamentarism” in Moscow’s municipal institutions, which, in his view, were avoiding the “necessary and beneficial influence of the governmental administration.”²⁸

The mayor Nikolay Alekseyev was the opposite in most respects. He was only thirty-three, came from a merchant family and managed several very successful enterprises across the country; he was young, ambitious and energetic. In the words of Dolgorukov, “with his enormous wealth and loud voice” Alekseyev “thought he could promote the merchant liberalism in Moscow and in the City Council.”²⁹

Boris Chicherin described Alekseyev as “a son of the Russian merchant estate who did not cringe before the authorities but knew how to remain independent.”³⁰ The interests of Alekseyev and Dolgorukov clashed repeatedly, first in 1886, when Alekseyev allowed himself to publicly comment on the Russian foreign policy during the emperor's visit to Moscow, then over the issue of the commercial arcades which Dolgorukov ordered to close, then in 1887 when Dolgorukov opposed the municipal involvement in the water-pipe construction and the city reform of the supervision of prostitutes (discussed below) and unsuccessfully tried to remove Alekseyev from his

²⁶ A.N. Vishnevsky, *Knyaz' Vladimir Andreyevich Dolgorukov, byvshiy moskovskiy gubernator* (Moscow: S.n., 1910), pp. 39-40.

²⁷ B.N. Chicherin, *Vospominaniya. Zemstvo i Moskovskaya дума* (Tambov: Yulis, 2007), p. 197.

²⁸ See letters of V.D. Dolgorukov in *K.P. Pobedonostsev i ego korrespondenty* (Moscow and Leningrad: Gosudarstvennoye izdatelstvo, 1923), pp. 266-268, 344-346.

²⁹ *K.P. Pobedonostsev i ego korrespondenty*, pp. 268. 346.

³⁰ Chicherin, *Vospominaniya*, p. 173, quoted in Owen, *Capitalism and politics*, p. 88.

post. In 1889, when Alekseyev was reelected as the mayor of Moscow, Dolgorukov appealed to the emperor Alexander III for the non-recognition of elections, referring to Alekseyev's "lack of respect to authorities, his desire for independence and ignoring the administration".³¹ The emperor, however, took Alekseyev's side and confirmed him as the mayor of Moscow.

Alekseyev, in fact, repeatedly displayed his reverence and respect for the imperial family. Emperor Alexander III also favored Nikolay Alekseyev and, after the sudden death of the Moscow mayor, allegedly said: "I loved him because he was not about politics, but only about work" [*zanimalsya ne politikoy, a tol'ko delom*].³²

Indeed, Moscow's municipal elites did not openly challenge the autocracy in the name of the urban self-government.³³ Alekseyev was not a theoretician – as was, for example, his predecessor in the mayor's office, the liberal lawyer Boris Chicherin. The "merchant liberalism" that Dolgorukov was writing about had little to do with Alekseyev's political convictions but rather revealed Dolgorukov's own understanding of the concept of "liberalism" as the lack of discipline and subordination and the desire for independence – the understanding shared by several groups of the Russian society in the second half of the nineteenth century.³⁴

Alekseyev did not put forward any explicit political program and, in that sense, to use the expression of the emperor, was indeed not "about politics". Yet, it was

³¹ On the conflicts between the mayor and the Governor-General see K. Poleshchuk, "Nevozmozhnaya v Moskve dolzhnost' gorodskogo golovy": Nikolay Alekseyev i koronnaya administratsiya," *Rodina*, 12 (2012), pp. 106-107, quote from p. 107.

³² These words were mentioned in the diary of A.S. Suvorin, quoted in Poleshchuk, "Nevozmozhnaya v Moskve dolzhnost'...", p. 108.

³³ Owen, *Capitalism and politics*, p. 89.

³⁴ L.V. Bibikova, "Politicheskaya politiya, konservatory i sotsialisty: igra liberalizmami v publichnom i nepublichnom prostranstve Rossiyskoy imperii v kontse XIX – nachale XX veka," in A. Miller, D. Sdvizhkov and I. Shirle, eds., *Ponyatiya o Rossii: K istoricheskoy semantike imperskogo perioda* (Moscow: Novoye Literaturnoye Obozreniye, 2012), pp. 516-519.

Alekseyev's "work" that had an important political meaning. The expansion and success of the municipal affairs implicitly marked the opposition to autocracy through opening an independent public domain. This domain was defended by the active representatives of influential social groups who were convinced in the legitimacy of their action. In the words of historian Daniel Brower, "the practice of municipal power, when legitimated by the belief in its value and importance, enhanced the role of municipalities as political entities distinct from the state".³⁵ This process gave the urban elites a sense of autonomy from the autocratic state – although the mode of governance within the municipal domain could itself be quite autocratic.

Thus, Alekseyev's devotion to his "work" and inclination to zealously pursue his goals hindered democratic tendencies in the City Council. Contemporaries noted the despotic character of Alekseyev's personality and "the Alekseyevan regime" that he introduced in municipal politics.³⁶ According to Chicherin, Alekseyev "was elected with the majority of votes and from the first moment became a tsar in the Council [*votsarilsya v dume*]; it was no longer self-government, but rather self-rule on the public grounds", and under him "the assembly was deprived of its independence and became an obedient instrument in the hands of the mayor which is undesirable in the public government."³⁷

One of Alekseyev's strategies to reach his goals was the manipulation of the Council discussions: "He did not allow to speak too much, and if a deputy digressed, he asked him to stick to the agenda, quickly and clearly summarized the discussions, asked a precise question and put it to a vote." The minutes and protocols of the City Council

³⁵ Daniel R. Brower, *Russian City between Tradition and Modernity*, (Berkeley: University of California Press, 1990), pp. 91-139, quotation from p. 95.

³⁶ The term "Alekseyevan regime" was used in 1892 by historian Grigory Dzhanshiyev in *Epokha velikikh reform* (Moscow: Territoriya budushchego, 2008), vol. 2, p. 185.

³⁷ Chicherin, *Vospominaniya*, p. 175.

meetings reveal that, under Alekseyev, it was not so silent and passive as Chicherin described it: proposals of urban reforms often provoked heated debates with a variety of competing opinions. It is still apparent that Alekseyev fully used his position as a chair to skilfully channel them in the direction he wanted.

Figure 2.2. The building of the Moscow City Council.

Source: I.A. Verner, *Sovremennoye khozyaystvo goroda Moskvy* (Moscow: Gorodskaya Tipografiya, 1913).



The other strategy, employed by Alekseyev, was convincing the Council - and the urban elites in general - with his own behavior. Alekseyev was a very rich man and he clearly did not come to municipal politics for financial gains. Even more, for the sake of promoting his cause, he was ready to invest his private funds in municipal endeavors. He refused to receive the mayor's salary, leaving that money in the city budget; he donated huge sums for the city initiatives – and persuaded other members of the Moscow business elite to do the same. Alekseyev covered the expenses of the City receptions and ceremonies, his funds were used, for example, for the construction of

the municipal water-pumping stations and several schools, and, on his request, his wife donated 300,000 rubles for the construction of the Moscow psychiatric hospital after his death.³⁸

Finally, Alekseyev, especially in the matters of sanitation and public health, heavily relied on expert knowledge. Any major decision in this sphere – be that new regulations, or control over venereal disease, or the construction of the abattoir and the sewerage system, or the opening of the sanitary station – were preceded by the experts' discussions in various committees organized by the municipality. The extensive use of scientific expertise helped to present the activity of the municipality as objectively necessary, rational and progressive and allowed it to justify its intervention in the life of Muscovites, especially in the spheres where it was likely to encounter resistance. In that sense, the City Council was very receptive to the words of the experts, although Alekseyev did not fail to also use this for political advantage and, especially when the scientific community was not unanimous, adjusted expert conclusions to his political goals. Nevertheless, this situation allowed scientific experts to become very influential in Moscow local politics and health reforms.³⁹ As I will demonstrate below with the example of Friedrich Erismann, the experts managed to lobby their ideas, projects and professional claims through their close cooperation with the municipal government.

In the 1880s, the city discussions on sanitation were centered on three major themes - those of backwardness, public good and municipalization. Yanni Kotsonis has argued that in imperial Russia “backwardness” emerged as a self-contained framework of

³⁸ Pisar'kova, *Gorodskiye reformy*, pp. 274-275.

³⁹ I must add here that I use the word “expert” descriptively - meaning a person very knowledgeable about a particular area because of education or experience. The word “expert” in my text does not refer to any group self-name. It is also not a translation of the Russian word “ekspert” which in late-imperial Russian meant a person providing expertise in legal procedures. I would like to thank Karl Hall who pointed out the need for such explanation.

explanation and a kind of ideology in its own right. The educated public agreed that Russia was backward and underdeveloped and this claim could be used to explain practically any phenomena.⁴⁰ Although the comparison with the West was not necessarily crucial to that construction of backwardness, it certainly played a role in the imagination of the Moscow municipal leaders. The Moscow reformers did not fail to make comparison with other big cities; all available sources of information – from the personal impressions of the deputies during their trips abroad to the growing sets of statistical data – confirmed them in the conviction that Moscow was far behind the European cities, which can be summarized in the following quote from the City Council discussions:

[W]e see the examples of municipal expenses in such beautiful cities as London, Paris and especially Vienna. We are spoiled by the life in these beautiful cities, but we should not forget how much those countries are wealthier and more productive than ours, how much more valuable the labor is there and the work better. We need to remember a Russian proverb: cut your coat according to your cloth [*po odezhke protyagivay nozhki*].⁴¹

Yet, for the city reformers Moscow's perceived backwardness was not a kind of irreversibility but a challenge with which they could cope. As one of the municipal deputies exclaimed in 1885, “in the five years that I am a deputy, the Council always discusses that the municipality should make a step in urban accomplishment so that Moscow resembles a European city”.⁴²

Overcoming that “backwardness” and turning “more European” was presented as the “public good”. Pushkin’s famous, if ironic statement “what London needs, is too early for Moscow,” invoked in the epigraph to this chapter, was no longer valid in

⁴⁰ Yanni Kotsonis, *Making Peasants Backward: Agricultural cooperatives and the agrarian question in Russia, 1861-1914* (Houndmills, Basingstoke, Hampshire: Macmillan Press, 1999), pp. 1-8.

⁴¹ *IMGD*, 10 (1885), p.1109.

⁴² *IMGD*, 7 (1885), pp. 787-788.

Moscow of the 1880s. That Moscow, at least in the sphere of urban sanitation, needed to have everything what London had, and in a better form.

The “public good” of the sanitary reforms in Moscow rhetorically embraced the formula of “serving the people,” which had dominated the circles of the Russian intelligentsia since the 1860s. At the same time, it also referred to the patriotic and Slavophil values of the Moscow merchants who wanted to place their businesses at the service of the nation.⁴³ That “service” was combined with the promotion of scientific knowledge that should help reorganize urban life on the new rational principles and make it “less backward”.

The practical mechanism of overcoming “backwardness” and achieving “public good” was seen in municipalization which in the 1880s became the basis for the city policy in the sphere of sanitation. Both the City Council deputies and the invited experts regarded the municipal government as the key guardian of public health.⁴⁴ The process of municipalization, the expansion of the city activities and jurisdiction was by no means peculiarly Russian – it was a phenomenon known to the whole western world in the nineteenth century. In many European and American cities municipalization was a response to the failure of market forces to cope with the complex problems of urban life.⁴⁵

However, in Russia municipalization had a particular symbolic value and was incorporated in some specifically Russian debates. The claim of being the mouthpiece of certain social groups or of “the people” was typical for all participants of the political

⁴³ Alfred Rieber, *Merchants and Entrepreneurs*, pp. 139-148; 165-177.

⁴⁴ See, for instance, discussions of sanitary reforms in *IMGD*, 7 (1885), pp. 779-788; TsGAMOS, 179:58:44:17-18.

⁴⁵ Robert Morris, “Governance: Two centuries of urban growth” in Robert Morris and Richard H. Trainor (eds.), *Urban Governance: Britain and Beyond since 1750* (Aldershot: Ashgate, 2000).

debate, in Russia and elsewhere. Yet, in the autocratic Russian state only municipalities and zemstvos, that remained the only elected governing bodies, could legitimize this right in legal terms. The Moscow municipal elites presented themselves as the only legitimate representatives of the city population, as acting on behalf and for the benefit of the urban community because, as the municipal deputy Nikolay Lanin put it, “the wise lawmaker gave us this ability.”⁴⁶

Not only did the Moscow municipality see its task in promoting hygiene and sanitation, but it claimed a monopoly in this sphere, both against the administrative bodies and private service-providers. When the opponent in the debate was the administration, it was presented as inefficient, incompetent, arbitrary and too coercive.⁴⁷ When it was the private business the municipality was arguing against, the entrepreneurs were described as “undisciplined”, “ignorant” and “always inclined to gain maximum profit and to avoid the sanitary rules” at the expense of public utility.⁴⁸ According to this rhetoric, only the municipal institutions were responsible, competent and efficient suppliers of public health services, just like in the program that Erismann drew up in the 1870s.

The Moscow municipality and the career of Erismann

Erismann was, in fact, a remarkably influential figure in the sanitary reform of the Moscow municipality. His involvement, as his obituary put it, was twofold:

On the one hand, he, as a professor, creates the chair of scientific hygiene in Moscow University with an exemplary Institute of Hygiene, first in Russia. The science, that was asleep until then, wakes up. Students and young physicians received in this exemplary scientific school of a talented professor both academic and practical guidance. On the other hand, together with this university work, Erismann becomes a

⁴⁶ *IMGD* 10 (1885), p. 1113.

⁴⁷ *TsGAMOS*, 179:58:30:13-16, 63-64.

⁴⁸ *IMGD*, 7 (1885), p. 787.

prominent and creative worker for the Moscow zemstvo and municipality. All important undertakings of the time in the sphere of sanitation appeared either on his initiative or with his active involvement. With his works, Erismann connected the interests of science to the practical and urgent [*neposredstvennymi i zhiznennymi*] interests of society.⁴⁹

Indeed, as a professor of hygiene at Moscow University and the head of its hygienic laboratory Erismann was the main and also the most obvious authority in the scientific matters of sanitary projects. He was a lecturer to or even the direct supervisor of the younger generation of physicians from which the municipality recruited its personnel. He was also clearly popular among his students. One of them, Sergey Mitskevich, remembered how impressed he was by Erismann's lectures on hygiene at Moscow University: "From our other professors of medicine we have never heard these words and this broad social formulation of medical questions: they all approached disease and patients as private practitioners, they never spoke about prevention and community medicine."⁵⁰

In addition to his university work, Erismann was also famous in non-educational medical organizations. He was one of the founders and an active member of the Pirogov society of Russian physicians. Furthermore, Erismann was a very prolific writer. His coursebooks on hygiene and his multivolume survey of sanitation at the factories of the Moscow province were particularly known, but he also regularly published in Russian and German periodicals.⁵¹

All this made Erismann a big name in the circles that were involved in the Moscow sanitary reforms and at the same time allowed him to accumulate remarkable power and potential to affect the decision-making in urban health policy. The Moscow

⁴⁹ Mikhaylov, *Pamyati professora F.F. Erimana* (Moscow: Kushnerev, 1915) p. 5.

⁵⁰ S.I. Mitskevich, *Zapiski vracha-obshchestvennika* (Moscow: Meditsina, 1969), p. 37.

⁵¹ The list of Erismann's publications can be found in *Entsiklopedicheskiy slovar'*, vol. 81 (St. Petersburg: Brokgauz i Efron, 1904), pp. 25-27.

municipality often invited him to advise on the matters of public health (school inspection, water-supply, waste removal, abattoir construction), even those that were beyond the immediate expertise of Erismann.⁵² Thus, for instance, when in 1887 Alekseyev convened a conference to discuss the possible measures to combat venereal disease in the city, Erismann was not only invited to attend it but was also elected the chair of the executive committee despite the fact that several famous syphilologists were nominated for this position.⁵³ At the same time, Erismann's involvement in the zemstvo activity and his cooperation with the Moscow municipality ensured the synergy of university research and health policy in the city and province of Moscow.

The fact that Erismann influenced decision-making in several governmental and academic bodies favored not only the dissemination of hygienic knowledge but also the advancement of Erismann's own career. In 1889, the municipality intended to create a sanitary station - a special laboratory meant to prevent the falsification of food, drinks and basic household goods. In fact, the potential responsibilities of the sanitary station in many ways coincided with the activity of Erismann's hygienic laboratory that too was conducting research on food, water, soil, or construction materials.⁵⁴ The question of the sanitary station was discussed by the committee of Moscow sanitary doctors together with Friedrich Erismann. The committee concluded that this institution “as a guardian of public health” should necessarily be headed by a hygienist and, in fact, created under the umbrella of the hygienic laboratory of Moscow University. When this project reached the university, the rector too convened a commission for its

⁵² Mikhaylov, *Pamyati professora F.F. Erismana*, p. 7; *Kanalizatsiya goroda Moskvyy* (Moscow: Gorodskaya Tipografiya, 1901) p. 5; *IMGD*, 7 (1885), pp. 787-791; 10 (1885), pp. 13-15.

⁵³ TsGAMOS, 179:58:30:64.

⁵⁴ S. Boubnoff, *Institut d'hygiène de l'Université impériale de Moscou* (Moscow: Tipo-litografiya T-va I.I. Kushnerev i K^o, 1897), pp. 7-8.

consideration that again had Erismann among its members and predictably approved the plan.⁵⁵

The new municipal sanitary station, financed by the city, was thus established under the control of the hygienic laboratory and Erismann was appointed its director. This seemed to be a reasonable choice, as Erismann was indeed the greatest authority in the sphere of hygiene in the city. It is also quite plausible that the connection of the sanitary station to the hygienic laboratory allowed to cut the expenses of its creation and ensured a higher level of scientific expertise, bringing the university knowledge to the municipal service.

Yet, one has to note how convenient this arrangement was for Erismann's career. It allowed him to unite under his influence the key branches of public sanitation. It prevented the appearance of a new institution that could potentially compete with his laboratory in experimental hygiene. Moreover, it attracted financial and institutional resources to his own laboratory. The director of the sanitary station was the first high-rank position created by the Moscow municipality and the fact that it was given to Erismann clearly reinforced his standing in the academic world. Although this does not undermine Erismann's commitment to the goals of public health and his willingness to devote his energy to turning Russia and Moscow into a healthier place, it is clear that the close cooperation between the local government and Erismann not only promoted his cause of hygiene but also increased his authority in the scholarly circles and had certain personal career benefits for him.

Erismann was very consistent in his belief that the community medicine of *zemstvos* and municipalities with a strong emphasis on preventive measures was the only

⁵⁵ TsGAMOS, 179:58:44:8-20.

appropriate way of organizing the public health system in Russia. When the Botkin commission proposed to create a strong central body to effectively manage public health and sanitation on the imperial level, Erismann decisively opposed it, saying that “the acknowledgment of the necessity of the sanitary organization should emerge and get stronger on the soil of the real experience without the constraints of governmental regulation”.⁵⁶

This position was very convenient to the active self-government institutions like the Moscow municipality under Alekseyev. The involvement of Erismann in the matters of the sanitary reform offered the city both his scholarly expertise and his political support, allowing the municipality to monitor the city and regulate the lives of its inhabitants. The new strategies of social control challenged the monopoly of power of the autocratic state and enhanced the authority of the municipal institutions. In this context, the agency of sanitary reform had, arguably, not less symbolic value than its actual content, as it was the municipality and not the central government that could claim credit for the health reform and modernization, at least at the local level.

Municipals initiatives, administrative resources: sanitary reform in the 1890s

In the 1890s several important developments reshaped the sanitary campaign in Moscow. The major structural change was the new Municipal Statute of 1892 that had symbolic and practical implication for local politics in Moscow.

The legislation of 1892 changed the logic of the relations between the municipality and central authorities. The so-called “golden words” of the Municipal Statute of 1870, that stated that the municipal government, within the granted authority, functions

⁵⁶ D.A. Sokolov and V. I. Grebenshchikov, *Smertnost' v Rossii i bor'ba s neyu* (St. Petersburg; Tipografiya Stasyulevicha, 1901), p. 4.

independently, were not to be found there anymore. The new statute of 1892 limited the independence of the municipal bodies and increased the control of imperial administration over them. The City Council was obliged to report to the governor for all spheres of its activity, from elections to budgeting. The statute stipulated numerous cases when the governor and other authorities could delay the implementation and even nullify the council's decisions and gave the administration the right to appoint the public officials of the local government and even the deputies of the council.⁵⁷

Another innovation was the change of the electoral system. The tax-payment qualification was replaced by a new one based on the property ownership; this reduced the already small number of voters in Moscow from 23,000 to 6,000.⁵⁸ Yet, historians have pointed out that in most Russian towns, and Moscow was no exception, only a minority of those entitled to vote were coming to the voting stations, and the mass abstention, especially among the poor, had effectively reduced the electorate even before the new legislation. With the high rates of abstention, the active minority of the electorate showed remarkable continuity in their priorities and favored the earlier deputies.⁵⁹ The new statute did not bring any radical change to the Moscow City Council. Throughout the 1880s, merchants and honorary citizens had already formed the core of the council, and the new legislation only strengthened their positions.⁶⁰

There were also some personal changes. In March 1893, Nikolay Alekseyev was murdered by a demented man right at his office in the new building of the Moscow City Council, that had been completed a year before. As the future Moscow governor Vladimir Dzhunkovsky remembered in his memoirs,

⁵⁷ Nardova, *Samoderzhaviye i gorodskiye dumy*, pp. 12-13.

⁵⁸ Pissar'kova, *Gorodskiye reformy*, p. 190.

⁵⁹ Nardova, *Gorodskoye samoupravleniye*, pp.61-66; eadem, *Samoderzhaviye i gorodskiye dumy*, p. 29; Brower, *Russian city*, p. 123.

⁶⁰ Pissar'kova, *Gorodskiye reformy*, p. 212.

[t]he death of Alekseyev was a tremendous, unparalleled loss for Moscow. It was an outstanding city public activist, the mayor, the head of the City Council, and nothing could stop him when it was a matter of urban improvement. Both supporters and opponents of Alekseyev had to agree that his death was indelible loss for the capital.⁶¹

Clearly, after the death of Alekseyev, the Moscow municipality never produced such a devoted and powerful leader, and his absence was reflected in the efficiency and influence of the Moscow municipality that in the following years was finishing the projects that Alekseyev had started. The mayors that succeeded the murdered Alekseyev – Konstantin Rukavishnikov and Prince Vladimir Golitsyn - governed Moscow in a much calmer manner and avoided open confrontations with the administration.⁶²

Another loss of Moscow's health reformers was the departure of Friedrich Erismann. The scholarly career of Erismann in Russia had a very abrupt ending. In 1895 he supported the riots of the university students and, together with other professors, petitioned the imperial administration against the punishment of protestors and the interference of the police in the university affairs. The document provoked a harsh reaction within the Ministry of Public Instruction that condemned the petition and reprimanded Erismann, making him quit Moscow University and go back to Switzerland in 1896. This was not the end of Erismann's own career - he joined the Swiss Social-Democratic Party and was elected a member of the City Council in Zurich, where he worked until his death in 1915.⁶³ But the departure of Erismann, together with the death of Alekseyev, meant that Moscow's community medicine was deprived of its

⁶¹ V. F. Dzhunkovsky, "Vospominaniya" in *Velikiy knyaz Sergey Aleksandrovich Romanov: Biograficheskiye materialy* (Moscow: Novospassky monastyr', 2011), p. 321

⁶² Owen, *Capitalism and politics*, pp. 160-161.

⁶³ Mikhaylov, *Pamyati professora F.F. Erimana*, p. 13.

most charismatic leaders whose personal authority and influence could determine the course of reforms.

Significant changes also occurred in the imperial administration. In 1891, the elderly Governor-General Vladimir Dolgorukov was replaced by Prince Sergey Alexandrovich Romanov, the uncle and the brother-in-law of the emperor Nicholas II. Prince Sergey was a political hardliner, notorious for his conservative views and repressions against radical elements. The same can be said about his main adviser Dmitry Trepov, appointed the Chief of Moscow Police in 1896.

Both Trepov and Prince Sergey Romanov had particular sensitivity to the questions of unrest and revolution. In 1878 the governor of St. Petersburg Fyodor Trepov, the father of Dmitry Trepov, was wounded by a member of a revolutionary organization Vera Zasulich. Three years later emperor Alexander II, the father of Prince Sergey, was killed by the terrorists.

Dmitry Trepov was not particularly loved neither by the Moscow public, nor by the officials in St. Petersburg. The most famous – and, probably, the harshest – account of him was left by the Deputy Minister of Interior and later a member of the State Duma from the Party of Democratic Reforms Prince Sergey Urusov, who described Trepov as “a sergeant by education and a pogrom-maker by conviction.”⁶⁴ Even Trepov's colleague and ally, the head of Moscow security police and the author of police socialism Sergey Zubatov had mixed feelings about his chief:

He was a man of great soul who carefully upheld his honor and conscience. But he was the guard officer and this was where his quirks came from: his arrogance, his grumpiness, his short temper, his harshness <...> his manner “to bark even at the moon” scared those who talked to him and annoyed those who did not know him well.⁶⁵

⁶⁴ Quoted in S. Yu. Witte, *Vospominaniya*, (Moscow: Izdate'stvo sotsial'no-ekonomicheskoy literatury, 1960), vol. 2, p. 350.

⁶⁵ See the letter of Zubatov to V.L. Burtsev in B.P. Koz'min, *Zubatov i yego korrespondenty: Sredi okhrannikov, zhandarmov i provokatorov* (Moscow and Leningrad: Gosudarstvennoye izdatel'stvo, 1928), pp. 70-71.

Despite his apparently not very agreeable personality, Trepov had a remarkable influence over Prince Sergey. As the Deputy of the Moscow City Council Nikolay Vishnyakov said it,

the unlimited ruler of Moscow is the prince [Sergey], unintelligent and unpleasant, and not loved by anyone; he does not do anything and allows all the matters to be managed by his oprichnina headed by the Polizmeister Trepov and the head of his administration Istomin. In reality, it is Trepov who rules over the city affairs, things happen as he wants them, and the prince only follows him.⁶⁶

A similar opinion was voiced by the other contemporaries. Thus, the Minister of Finance Count Sergey Witte called Trepov “the closest colleague-boss [*sotrudnik-rukovoditel'*] of Prince Sergey Alexandrovich”.⁶⁷ The archival sources from the fund of the Moscow Governor-General indeed reveal that in his letters and documents Prince Sergey often repeated Trepov's words, conclusions and suggestions without editing them.

The other landmark of the decade was the cholera epidemic of 1892. In Western Europe, the threat of cholera had gradually declined by the end of the nineteenth century, yet Russia was hit by a particularly devastating outbreak of the epidemic as late as 1892 which was estimated to have caused more than 250,000 deaths. Historians of Russian public health have argued that the cholera epidemic was a turning point that signaled the beginning of the Russian revolutionary era. The epidemic, together with the famine of the preceding year, demonstrated the incompetence of the tsarist government to ensure the wellbeing of the population and discredited the autocratic regime in the eyes of the educated public, giving way to the alienation and conflict

⁶⁶ Quoted in Pissar'kova, p. 400.

⁶⁷ S. Yu. Witte, *Vospominaniya*, (Moscow: Izdate'stvo sotsial'no-ekonomicheskoy literatury, 1960), vol. 2, p. 348.

between the state and society in Russia and pushing those, who struggled for making Russia healthier, into opposition.⁶⁸

I would argue, however, that Moscow local politics, at least in the questions of urban sanitation, show a more nuanced picture of the relations between the Russian state and community medicine. One of outcomes of the cholera epidemic for Moscow was that the imperial administration became more involved in the matters of public health and sanitation - the sphere that in Alekseyevan Moscow had been dominated by the municipality - and explicitly sought cooperation with community medicine.

Although since the mid-1870s the municipality tried to regulate the sanitary state of Moscow, many of its rules and decrees had remained stillborn because the city had little possibility to control their implementation. When the violation was recorded, the case was sent to court that, usually after a several-month consideration, could only impose a minor fine; in certain cases, paying those fines was easier and cheaper for the violator than complying with the law.⁶⁹

The cholera of 1892 was the moment when the Moscow Governor-General tried to use the large potential of its administrative resources to reinforce the public health activity of the municipality and make the city population comply with the sanitary rules through closer monitoring and higher fines for such violations.⁷⁰ Though this was an extraordinary, cholera-related measure, at the end of the 1890s, after the epidemic was long over, it was reintroduced as a result of the joint efforts of Dmitry Trepov and Prince Sergey.

⁶⁸ Nancy Frieden, *Russian Physicians in an Era of Reform and Revolution, 1856-1905* (Princeton: Princeton University Press, 1981), pp. 135-177, Charlotte Henze, *Disease, Health Care and Government in Late Imperial Russia: Life and Death on the Volga, 1823-1914* (New York: Routledge, 2011), pp. 3-4; for the study of that cholera epidemic in Germany, see Richard Evans, *Death in Hamburg: Society and Politics in the Cholera Years* (Oxford: Clarendon Press, 1987).

⁶⁹ TsGAMOS, 16:130:240:25, 34-35.

⁷⁰ TsGAMOS, 16:130:240:34-35; *IMGD*, 7-8 (1892), p. 179.

The pretext for this was the case of a Moscow house-owner M.P. Popov, whose complete disregard for sanitary regulations and amazing inventiveness in avoiding them gave the administration a reason to intervene. In 1894 local police noticed that Popov never used cesspool cleaning carts and invited the municipal engineer to check the estate. The engineer did not find anything wrong except for an improperly organized kitchen-midden, for which Popov had to pay a 10-ruble fine on the sentence of the justice court. The following year, in November 1895, the police recorded the drain going to the channel of the Moskva River from Popov's estate, and again the justice court made him pay only a minimal fine of 10 rubles. The police, however, asked for the municipal engineer, who had to postpone the inspection first until spring because of abundant snow, and then until summer because of the spring floods. When the expert investigation eventually took place in August 1896, it revealed a complicated clandestine system of sinks and drains that conveyed the wastewaters from the house straight into the river. Two aspects particularly stunned the investigators. First was the inventiveness of the house-owner, who devised such an elaborated underground system that was completely invisible from outside and could only be found after extensive excavations in the yard. Second was the fact that Popov turned out to be a wealthy man who, apart from that house, also owned a varnish factory and had been involved in tea trade – and clearly could have afforded paying for the waste removal services.⁷¹

Using that outstanding case of Popov and other materials of the sanitary negligence presented to him by the municipal sanitary committee, Prince Sergey in 1896 requested from the Ministry of Interior the extraordinary right to punish sanitary violations with his own power, avoiding the legal court procedure. He proposed that those who did not

⁷¹ TsGAMOS, 16:130: 240:7-8.

comply with the sanitation requirements of the City Council should be subject to fine of 500 rubles (instead of maximum 50 on the sentence of the justice court) or even three months of imprisonment.⁷²

The choice of juridical explanation of this request was quite remarkable. As the legal ground for granting such extraordinary right, Sergey referred to the Decree on Measures for the Preservation of State Order and Social Stability. This decree was promulgated by Alexander III in 1881 as a part of his counter-revolutionary attack, but, despite being “temporary”, remained in force until 1917. The decree allowed to introduce the regime of reinforced security and stipulated that the governors of the regions where state order was under threat had a right to issue special orders, non-compliance with which would result in 500-ruble fine or three-month arrest.⁷³ This decree, however, did not concern the field of sanitation; it was conceived as a tool of the security police and aimed primarily to counter political threats, although in practice it was applied quite broadly to prevent various public disorders.⁷⁴

That Decree on Measures to Protect State Order was indeed introduced in Moscow in 1892,⁷⁵ but that year, to use the words of the cholera researcher Charlotte Henze, “epidemics represented not only a medical but also a political challenge” as the outbreak of disease was accompanied by conflicts, riots and violence.⁷⁶ Those who disregarded sanitary regulations, in the eyes of the authorities, created favorable

⁷² TsGAMOS, 16:130:240:23-25.

⁷³ *Polnoye sobraniye zakonov Rossiiskoy Imperii*. Collection III, vol. 1, (St. Petersburg: 1885), no. 350.

⁷⁴ Jonathan Daly, “On the Significance of Emergency Legislation in Late Imperial Russia”, *Slavic Review*, 1995, vol. 54, no. 3, pp. 609, 617.

⁷⁵ TsGAMOS, 16:130:240:23-24.

⁷⁶ Charlotte Henze, *Life and Death on Volga, 1893-1914: Disease, Healthcare and Government in late imperial Russia* (New York: Routledge, 2011), pp. 3-5, 51; see also Jeff Sahadeo “Epidemic and Empire: Ethnicity, Class, and ‘Civilization’ in the 1892 Tashkent Cholera Riot”, *Slavic Review* 64, no. 1 (Spring 2005), pp. 117-139.

grounds for the spread of disease and contributed to the social turmoil, undermining the stability and order.

In 1896 that reasoning was, however, no more convincing. The Minister of Interior Ivan Goremykin, a legalist and a supporter of self-government, whose permission was necessary for the application of extraordinary legislation, was insensitive to the concerns of Sergey. He did not see their relations to state security and, therefore, any grounds for applying the aforementioned Decree.⁷⁷

It did not discourage the Governor-General who, as a member of the imperial family, could approach the problem from a different side. After a year of intensive correspondence and a personal visit to St. Petersburg, Sergey managed to receive the outstanding right to punish violators with his own power for the next five years as a special permission of the emperor Nicholas II.⁷⁸ As it was formulated in the official permission of the Committee of Ministers, “the granting of this extraordinary right to the highest local representative of the state power guarantees that these rights will be used for the necessary purposes”.⁷⁹

The new mode of persecuting sanitary violators was promulgated on March, 1898. Several months afterwards, Dmitry Trepov also proposed to ban the preliminary notifications to violators because “some people ignore all sanitary regulations until they get a notification, knowing that without it they cannot be persecuted... although it is their direct responsibility to keep their house in order all the time.”⁸⁰

The main goal of these measures was deterrence rather than punishment, because, as Trepov reported in 1902, not a single person was arrested on those grounds, and the

⁷⁷ TsGAMOS, 16:130:240:32-33.

⁷⁸ TsGAMOS, 16:130: 240:43, 46, 49, 53, 63.

⁷⁹ TsGAMOS, 16:130:240:64-66.

⁸⁰ TsGAMOS, 16:130:240:99.

500-ruble fine was a rare case. According to his reports, in 1897 63 percent of the inspected houses did not comply with the municipal requirements, while in 1902 their part dropped to 17 percent.⁸¹ In 1903, the special powers of the Governor-General in administrative persecution of the sanitary violators were prolonged for another five years.⁸²

The efficiency of these measures is a subject of speculation, but the presented case reveals some important aspects of the sanitary reforms in Moscow and municipal politics in general. Firstly, it shows that by the turn of twentieth century the administration could be an ally and a supporter of the local self-government in the questions of public health and sanitation. The Governor-General was no more concerned with the growing authority of the municipal institutions and did not try to hinder the expansion of its undertakings. Instead, he acknowledged the benefit and legitimacy of municipal efforts. Furthermore, the value of municipal expertise was recognized at the highest governmental level in St. Petersburg. The special powers of the Governor-General allowed him not to establish new rules but only to make the population comply with the rules created by the self-government institution. Plausibly, given the public attention that the health topics received in Russia after the cholera epidemic of 1892, the desire of the local administration to support the municipal endeavors can be interpreted also as an attempt to receive credit for the sanitary measures that had initially been developed by the self-government institutions in the format of community medicine.

Secondly, it once again confirms that the reality of the local politics in the pre-1905 Russia did not fit in the binary model of “self-government vs. imperial administration”

⁸¹ TsGAMOS: 16:130:240:130-131.

⁸² A.N. Davydov, *Moskva, vek XX. Istoricheskaya ekologiya, 1901-1917* (Moscow: Mosgorarkhiv, 2000), p. 37.

that remains strikingly persistent in the studies on Russian municipalities.⁸³ The “administration” was a complex system where local and central actors, including the emperor himself, could have diverse opinions and take different sides in each case. The support of Alexander II to Alekseyev in his conflict with Dolgorukov and the response of Goremykin to Prince Sergey, although in different ways, demonstrate that the central authorities in St. Petersburg could in fact side with the self-government bodies against the local governors. As I will discuss later on, various elements of the central government had opposite opinions on certain questions which determined their interactions with local actors. The seemingly inconsistent actions and responses of the imperial administration reflected the fundamental tension within the Russian officialdom between the conflicting trends of moving towards the rule of law and withholding the traditional administrative arbitrariness.

Finally, it also reveals the limits of municipal rule in Russia. On the one hand, throughout the last decades of the nineteenth century municipal government, especially in the matters of public health and sanitation, was a “work in progress” and the level of its formalization and bureaucratization was quite low, despite the visible tendency towards it. In this situation the presence of active reform-minded individuals was very perceivable – and so was their absence, especially when combined with the powerful figures in the local administration.

More importantly, the discussed case demonstrates that the municipal rule, despite all its successful undertakings, despite the influence of the social groups that stood

⁸³ See for example: Jan Behrends, “Modern Moscow: Russia's Metropolis and the State from Tsarism to Stalinism” in Jan Behrends and Martin Kohlrausch (eds.), *Races to Modernity: Metropolitan Aspirations in Eastern Europe, 1890-1940* (Budapest and New York: Central European University Press, 2014), pp. 101-124; A.A. Romanov, “Deyatel'nost' organov gorodskogo samoupravleniya po razvitiyu sotsial'no-ekonomicheskoy infrastruktury Moskvyy”, PhD dissertation, State University of Management, 2010; Gusev, “Moskovskiy gorodskoy golova.”

behind it and its legitimation through public representation, still yielded in importance to the administrative resource. Actors on all levels of the governmental structure admitted that the power of municipality to improve the sanitation in the city was limited and that the court procedures were inefficient. The resolution of this problem, however, did not follow the path of legally expanding the authority of the municipality or improving the efficiency of the courts but instead introduced the extraordinary restrictive measures that were based on the bureaucratic discretion and bypassed the existing law. Once again, it was easier for the imperial government to respond to the problem not with reforms but with increasing the arbitrary administrative power.

CHAPTER THREE

“Habeas corpus cum lue venerea”: Syphilis, prostitution and public health

“But haven't you ever heard what sort of a thing is that disease called syphilis?”

“Of course I've heard... The nose falls through”

“No, Kolya, not only the nose! The person becomes all diseased: his bones, sinews, brains grow diseased... Do you see these white spots? This - is syphilis, Kolya! Do you understand? - syphilis in the most fearful, the most serious stage. Now dress yourself and thank God.”

Aleksandr Kuprin, *Yama: The Pit*

“Syphilis is undoubtedly one of the greatest social evils,” wrote in 1885, in his doctoral dissertation, Grigory Gertsenshtein, “almost everywhere it has managed to become a typical disease of the masses that equally terrorizes [*svirepstvuet*] the rural inhabitants of the black-soil Russian steppe and the provinces where developed industry has dramatically changed the character of the Russian peasant”.¹

By the last third of the nineteenth century many Russian physicians and public officials came to see syphilis as a serious health hazard. The emergence of community medicine, the expansion of public health facilities and the intense interaction of physicians raised awareness of the incidence of venereal disease among the urban and the rural population. Although official medical statistics were scarce and often unreliable, some conclusions about the spread of syphilis can be drawn from the medical examination of the army conscripts. According to the official data of the Medical Department, in three years (1878, 1879, 1880) the examination of 807746 conscripts revealed 5130 cases of syphilis meaning that 0.6 percent or one of every 157

¹ G.M. Gertsenshtein, *Sifilis v Rossii* (St. Petersburg: Tipografiya Rumsha, 1885), vol. 1, part. 1, pp. 4, 27.

was infected.² In these years, the total number of 4362608 people underwent general medical examination at various places (factories, prisons, etc.), and syphilis was found in 60941, or 1.4 percent.³ Yet, contemporaries believed that the actual proportion of diseased among the 100-million population of the Empire was even higher. Gertsenshtein set it at 1.9 percent arguing with another researcher, Mikhail Stukovenkov, who suggested that the number of syphilitics in Russia had reached five million.⁴

In the last decades of the nineteenth century intellectuals in Russia like elsewhere were haunted by the fear of dissolution, chaos and degeneration, and syphilis as a symbol of moral and physical contamination joined the list of the threats that modernity brought about together with pollution, criminality and social conflicts.⁵ Drawing a direct connection between the spread of syphilis and the new social experience, contemporaries echoed each other in their concerns that in Russia the disease had acquired a scale unknown in the “cultured countries” and would soon lead to the degeneration and extermination of the Russian people.

Given the tight connection between venereal disease and sex, particularly, promiscuous or outside of wedlock, the moral overtones in the vision of syphilis persisted at least until the twentieth century, in contrast with the other infectious

² M. Stukovenkov, *O rasprostranении sifilisa i merakh bor'by s nim* (Kiev: Universitetskaya tipografiya, 1883), p. 7; Gertsenshtein, *Sifilis v Rossii*, vol. 1, part 1, p. 29.

³ Gertsenshtein, *Sifilis v Rossii*, vol. 1, part 1, p. 30.

⁴ Stukovenkov, *O rasprostranении sifilisa*, p. 6; Gertsenshtein, *Sifilis v Rossii*, vol. 1, part. 1, p. 48.

⁵ Cultural historians of late-imperial and revolutionary Russia have explored different aspects of this fin-de-siecle anxiety: Daniel Beer, *Renovating Russia: The Human Sciences and the Fate of Liberal Modernity, 1880-1930* (Ithaca and London: Cornell University Press, 2008); Rosamund Bartlett and Linda Edmondson, "Collapse and Creation: Issues of Identity and the Russian *Fin de Siecle*" in Catriona Kelly and David Shepherd (eds.), *Constructing Russian Culture in the Age of Revolution: 1880-1940* (Oxford: Oxford University Press, 1998); Susan Morrissey, *Suicide and the Body Politics in Imperial Russia* (Cambridge: Cambridge University Press, 2006).

diseases with less “immoral” means of transmission that ceased to be seen as the “punishment for human sins”. In the modern understanding, contracting syphilis was regarded as a logical aftermath of sexual irresponsibility and a willing violation of the moral norms. Western moralists and public health officials debated whether the society should try to prevent this disease at all and whether successful prophylaxis would encourage vice and immoral behavior.⁶

The arsenal of public health weapons against syphilis remained, in fact, quite limited. The long course of disease with sometimes painless symptoms that can easily be concealed, the psychological stigma associated with it and the protracted, unpleasant and often inefficient treatment that contemporary medicine could offer made it difficult to make the ill apply for professional care. The traditional measures, like quarantine, were impossible and vaccination unavailable, so the prevention of syphilis focused on interrupting its transmission, and, in Russia as elsewhere, prostitution was a target too obvious to be ignored.

In the 1880s the prevention of syphilis and inspection of prostitutes emerged as a public debate which would continue throughout the entire imperial period.⁷ This debate was centered on the controversy of those who supported state-regulated prostitution and those who called to abolish it. One of the outcomes of this debate was the Moscow

⁶ Alan Brandt, *No Magic Bullet: A Social History of Venereal Disease in the United States since 1880* (New York and Oxford: Oxford University Press, 1985), pp. 3-51; Peter Baldwin, *Contagion and the State in Europe, 1830-1930* (Cambridge: Cambridge University Press, 1999), pp. 355-357; W.F. Bynum, Anne Hardy, Stephen Jacyna, Christopher Lawrence and E.M. Tansey, *The Western Medical Tradition 1800 to 2000* (Cambridge: Cambridge University Press, 2006), pp. 179-183.

⁷ The particular interest of Russian medical community towards venereal disease was also noticed by their colleagues abroad, see *The British Medical Journal*, 2, 1242 (October, 1884), pp. 784-785; 2, 1279 (July, 1885), p. 28.

municipal reform of syphilis prevention exempting the health of prostitutes from the authority of the police and expanding the medical facilities for syphilitics.

Both social and cultural historians have studied modern Russian attitudes towards prostitution and the medical discussions of sexuality and venereal disease.⁸ The existing research of pre-revolutionary Russia tends to favor the macro-level, especially in the last twenty years of the Empire, or the experience of St. Petersburg, while less attention has been paid to the earlier discussions and their implications for the other local projects.⁹ In addition, the questions of venereal disease and prostitution have not been studied together with the other aspects of urban public health, although, as my research on Moscow demonstrates, they were embedded in the context of the local health policies and sanitary reforms.

While the toleration and regulation of prostitution was a general position of the Russian state, it was interpreted and implemented in various social practices and legal policies depending on locality. Inasmuch as the vision of sexual behavior was not unitary and differed across social, professional, educational and geographical boundaries, the practice of regulation in each case was shaped by the multiple actors

⁸ Barbara Alpern Engel, "Prostitutes in Late Nineteenth Century St. Petersburg: A personal and social profile," *Russian Review*, 48 (1989), pp. 41-44, Richard Stites, "Prostitute and Society in Pre-Revolutionary Russia," *Jahrbuecher fuer Geschichte Osteuropas*, 31 (1983), pp. 348-365; Laura Engelstein, "Gender and the Juridical Subject: Prostitution and rape in nineteenth-century criminal codes," *Journal of Modern History*, 60 (1988), 458-495; eadem, *The Keys to Happiness: Sex and the Search for Modernity in Fin-de-siecle Russia* (Ithaca and London: Cornell University Press, 1992); Laurie Bernstein, *Sonia's Daughters: Prostitutes and Their Regulation in Imperial Russia* (Berkeley: University of California Press, 1995); Jane Tussey Costlow, Stephanie Sandler, and Judith Vowles (eds.), *Sexuality and the Body in Russian Culture* (Stanford: Stanford University Press, 1998).

⁹ Laurie Bernstein briefly discusses some of the local cases, for example, of Minsk and Odessa in her *Sonia's Daughters*; for the discussion of prostitution in the Polish lands of the Russian Empire see Keeley Stauter-Halsted, "The Physician and the Fallen Woman: Medicalizing Prostitution in the Polish Lands," *Journal of the History of Sexuality*, Vol. 20, No. 2 (May 2011), pp. 270-290; for the information on prostitution in Siberian cities see A.G. Bykova, "Prostitutsiya v istorii bol'shikh gorodov Zapadnoy Sibiri, 1880-3 – 1914 g.: Po materialam Omska i Tomska", PhD dissertation, Omsk State University, 1999.

involved. Nowhere was the state regulation of prostitution attributed to the state alone, and it is exactly through the study of this micro-diversity that a clearer picture of the broad cultural processes could emerge.¹⁰

This chapter explores how the Moscow municipality and medical community responded to the questions of syphilis prevention in the context of the general debates on health and venereal disease. These responses were shaped by – and thus could help a historian to reconstruct – the cultural assumptions on morality, sexuality, gender, class, the body as well as individual freedom.

Approaching syphilis and prostitution

Syphilis is caused by the spirochete bacterium *Treponema pallidum* and usually passes through three stages: the primary chancre with highly contagious secretion that can appear on any part of the body but most likely on the genitals; the second stage manifests itself with rash (papules) on the trunk and is also infectious, although in the nineteenth century this was still a subject of debate; finally, the tertiary syphilis that may occur several years after the initial infection is characterized by the chronic gummas, often considerable in size, and involves the destruction of the vital organs, including the brain, bones, cardiovascular system, etc. According to today's medical knowledge, this disease is considered to be primarily transmitted through sexual contact.

Nineteenth-century Russian physicians, however, believed that syphilis was not only a venereal disease and could also be passed in non-sexual ways through close

¹⁰ Paul W. Werth, "Through the Prism of Prostitution: State, Society and Power," *Social History*, 19, 1 (January 1994), pp. 1-15.

physical contact, especially in the village, because of peasants' "ignorance" and the impossibility to observe the minimal hygienic requirements due to utter poverty.¹¹

Laura Engelstein has argued that, although exaggerated, these fears reflected a real biological possibility of nonsexual transmission in traditional societies and that nonvenereal syphilis was indeed a threat, particularly in the Russian rural world.¹²

The belief in the casual syphilis meant that in their understanding of disease Russian physicians looked for broader environmental and social explanations, connecting the spread of syphilis to oppression, poverty, lack of education and the whole order of society and structure of governance that failed to provide the basic medical care. Although the moral dimension was not entirely absent from the Russian debates on syphilis, the emphasis was shifted from the individual (ir)responsibility and behavior towards blaming the entire system of social relations. "Given the current social and material position [*obshchestvenno-bytovye usloviya*] of our people," wrote Gertsenshtein, "syphilis presents an elemental force that cankers everything on its way, often not sparing those who take individual measures of self-protection."¹³ Calling syphilis "the customary disease of the Russian people" [*bytovaya bolezni' russkogo*

¹¹ Gertsenshtein, *Sifilis v Rossii*, vol. 1, part. 1, pp. 421-494; M.A. Chistyakov, *O vnepolovom zarazhenii sifilisom* (St. Petersburg: Tipografiya Trei, 1889), pp. 6-15; A. I. Pospelov, *O vnepolovom zarazhenii sifilisom* (St. Petersburg: Yablonsky i Perott, 1889) contains extensive list of Russian and foreign publications on non-venereal syphilis (pp. 46-70); the validity of their argumentation is discussed in Laura Engelstein, *The Keys to Happiness: Sex and the Search for Modernity in Fin-de-siecle Russia* (Ithaca and London: Cornell University Press, 1992), pp. 174-195.

¹² Laura Engelstein, "Syphilis, Historical and Actual: Cultural Geography of a Disease" in *Reviews of Infectious Diseases*, 8, 6 (November - December 1986), pp. 1036-1048; eadem, *The Keys to Happiness: Sex and the Search for Modernity in Fin-de-siecle Russia*, pp. 165-211; see also: Susan Gross Solomon, "The Soviet-German Syphilis Expedition to Buryat Mongolia, 1928: Scientific research on national minorities", in *Slavic Review*, 52, 2 (Summer, 1993), pp. 221-223.

¹³ Gertsenshtein, *Sifilis v Rossii*, vol. 1, part. 1, pp. 1-2.

naroda],¹⁴ Russian physicians incorporated it in the broad liberal discourse that portrayed the autocratic regime as unable of ensuring the well-being of the population.

There were different approaches to the problem of commercial sex and venereal disease. The French model accepted the prostitution as a given fact and restricted it to legalized and monitored brothels, mobilizing venerologists to inspect and treat the prostitutes in the hope that it would help maintain the public order and curb the spread of venereal disease. First devised in 1836 in Paris by a sanitarian Alexandre-Jean-Baptiste Parent-Duchâtelet and then accepted and adapted in many cities across the European continent, from the Mediterranean to Scandinavia, this scheme obliged women working as prostitutes to register with the authorities and subjected them to medical control.¹⁵ The reform-oriented groups, more influential in the Anglo-American world, such as the Ladies' National Association in Britain or the American Purity Alliance, proposed a different solution - they strove to eradicate commercial sex as such through saving and reeducating the "fallen" women and thus supported the abolition of state-regulated prostitution.¹⁶

Russia adopted the French model of "reglementation" in 1843. The special medical-police committees were created for these purposes first in St. Petersburg and a year later in Moscow, Warsaw and Odessa, obliging prostitutes to be registered in police and undergo medical examination. Although with some slight changes and regional

¹⁴ TSGAMOS, 179:58:30:66.

¹⁵ Jill Harsin, *Policing Prostitution in Nineteenth Century Paris* (Princeton: Princeton University Press, 1985); Mary Gibson, *Prostitution and the State in Italy, 1860–1915* (New Brunswick, Rutgers University Press, 1986); Alain Corbin, *Women for Hire: Prostitution and Sexuality in France after 1850* (Cambridge, Mass.: Harvard University Press, 1990); Yvonne Svanström, *Policing Public Women: The Regulation of Prostitution in Stockholm, 1812–1880* (Stockholm: Atlas Akkademi, 2000).

¹⁶ Judit Walkowitz, *Prostitution and Victorian Society: Women, Class, and the State* (Cambridge: Cambridge University Press, 1982); Linda Mahood, *The Magdalenes: Prostitution in the nineteenth century* (New York and London: Routledge, 1990); David J. Pivar, *Purity and Hygiene: Women, Prostitution, and the "American Plan," 1900–1930* (Westport, Conn.: Greenwood Press, 2002).

variation, this system of tolerating and regulating prostitution survived until 1917 and was removed only together with the tsarist regime.

The regulation produced a new social category of “public women” whose trade was recognized and controlled. They were issued a so-called “yellow ticket”, a medical card that served as a license for practicing prostitution, a health guarantee for the client and, eventually, as the only identification document for women registered as “public” because their internal passports were confiscated by the police.¹⁷

The decision on whether a woman should be subjected to control or not was made by the police and inevitably involved the arbitrariness and coercion that the critics of the system did not fail to point out. The superficial character of examination meant that disease was often overlooked or even passed from a sick prostitute to a healthy one with gynecological instruments.¹⁸ In addition, the difficulty of the early diagnostics made it almost impossible to guarantee that the prostitute did not carry the infection.

Although this system of regulation coincided with its French prototype in basic points, the understanding of prostitution in Russia was often quite different from that in the West. Russian cities were notorious for their relative lack of families and women since migrant workers tended to leave their dependents back in the village. In the 1880s, females composed about 45 percent of the city population in St. Petersburg and only about 42 percent in Moscow, with the biggest gap in number of men and women in the age group between 20 and 30.¹⁹ This combination of socio-economic circumstances

¹⁷ Bernstein, *Sonia's Daughters*, p. 25.

¹⁸ *Trudy vtorogo s'yezda russkikh vrachey v Moskve* (Moscow: Pechatnya Yakovleva, 1887), vol.2, pp. 116-117; V.M. Tarnovsky, *Prostitutsiya i abolitsionizm* (St. Petersburg: Karl Ricker, 1888), pp. 228-231.

¹⁹ Anna Mazanik, “The City of Men: Gender, Space and Working-Class Domesticity in Late-Imperial Moscow” in Elaine Chalus and Marjo Kaartinen (eds.) *Conceived, Constructed & Contested Spaces: Gender in the European Town, c.1500–1914* (London: Routledge, 2015), forthcoming.

and the gender norms of the Russian society favored extra-marital relations and a constant demand for prostitution among the migrant working classes. Unlike their Western colleagues, many Russian physicians regarded prostitution not so much as the interaction between poor women and middle-class men but rather as the plague of the poor where both the suppliers and the consumers of commercial sex could be seen as the victims of the existing social order that impeded their normal family life.

The broad medical explanation of venereal disease contributed to the imagination of efficient measures against syphilis. Russian physicians were reluctant to give up their ideal of peasants' virtue and monogamy and, when talking about the rural world, preferred the casual transmission as an explanation to the spread of syphilis. The modern city, on the contrary, was seen as a nest of promiscuity and the illicit sexual contacts, but even in the urban environment, as some researchers maintained, the primitive, rural hygienic practices and mechanisms of disease transmission often persisted and could not be disregarded.²⁰

The perception of syphilis as the disease of the poor and the emphasis on the non-sexual transmission meant that not only prostitutes, but the entire working-class population were to become the object of medical control. The idea that preventive measures against venereal disease should target both men and women had its place in the European regulationist discussion. By the mid-nineteenth century it was generally refuted in favor of the gendered approach when only female “individual liberty” was sacrificed for hygienic goals.²¹

²⁰ Gertsenshtein, *Sifilis v Rossii*, vol. 1, part. 1, p. 317.

²¹ Harsin, *Policing prostitution in nineteenth-century Paris*, p. 125; Svanström, *Policing Public Women: The Regulation of Prostitution in Stockholm*, pp.167-175.

In Russia, the initial plans for male inspection, voiced in the 1840s, were not dismissed after the introduction of the French reglamentaion.²² Although women indeed bore the main burden of blame and responsibility for the spread of syphilis, some working-class men were also subjected to control. The instructions of the Moscow Medical-police committee stated that, apart from the primary goal – control over prostitution - its responsibilities also included “medical surveillance of the health in respect to syphilis of all the workers who live or temporarily reside in the city” and “special surveillance of the working-class people who intend to leave the city to prevent the departure of those infected with syphilis until their recovery.”²³

The mechanism of controlling venereal disease was integrated in the general policy of controlling the poor. The medical inspection was tightly intertwined with the existing passport system for the laboring population. That system regulated the mobility of the population and was meant to maintain and protect traditional social structures, in particular, the peasant commune, to which the majority of migrant workers and a substantial part of the prostitutes were legally connected.²⁴ The passport became an important tool in subjecting these “dangerous” men and women to the venereal inspection. Once a woman was designated as a prostitute, her passport was taken by the police and replaced by the “yellow ticket”, which could be used as a valid legal document only with the appropriate medical stamp. Without her passport, a woman had to comply with local police and medical inspection to prove the legality of her status. For some working-class men in Moscow and St. Petersburg, the subjection to venereal

²² Bernstein, *Sonia's Daughters*, pp. 19-21.

²³ TsGAMOS, 179:58:30:69

²⁴ According to the statistics of the Medical-police committee for 1870-1880, peasants composed the largest group among registered prostitutes (41.8%). This proportion was growing towards the end of the century: in 1901, they composed 75% of prostitutes registered in Moscow Central Sanitary Bureau (TSGAMOS, 179:58:30:71; 179:58:387:282).

examination became a pre-condition to receive a passport. In Russia, migrant workers, when coming to the city from rural areas or towns, had to exchange their travelling passports [*plakatnyi pasport*] for a city residence permit [*adresnyi билет*]. In order to travel home, they needed to get their passport back. That was only possible if the medical check-up showed that they were not infected with syphilis.²⁵ The syphilitics had to receive treatment before their departure to prevent the spread of disease in rural areas.

Clearly, in its Russian version the regulationist system targeted the groups that were transgressing the rigid boundaries of the tsarist society. “Loose” women and displaced peasants who came for work in the cities evading the control of their traditional communal structures were seen as threatening, but this threat was defined not only in social, but also in medical and hygienic terms. Labelling these groups as sources of infection allowed for subjecting them to even stricter state control, where the police struggle against disorder and medical efforts against pollution reinforced each other. To disunite these two branches would become one of the tasks of the Moscow health reformers.

Human body, individual freedom and abolitionism

“One can hardly take seriously the voices against the control of prostitution and the movements against its regulation are unlikely to have success in European or American states”, claimed syphilologist Nikolay Mansurov in 1887 when the Moscow City Council initiated the discussion of measures against syphilis. “It is noted that the examinations of prostitutes contradict the law of individual freedom - *habeas corpus* -

²⁵ Stukovenkov, *O rasprostranении sifilisa*, p. 14-15.

but this law is just empty words in front of the syphilitic infection. And every Englishman will possibly give up *habeas corpus* if this *corpus* is *cum lue venerea*.”²⁶

Mansurov could not be sincere when saying it. He must have known that in 1886 the British Parliament repealed the Contagious Disease Acts providing for the medical inspection of prostitutes and that this happened after an impressive public campaign when a coalition of English women and men denounced these acts as immoral and unconstitutional and defended the autonomy of the human body, whether it suffers from venereal disease or not.

The Contagious Disease Acts of 1864, 1866 and 1869, introduced to stop the spread of venereal disease in British garrison towns and ports, together with the efforts of the authorities to extend the Acts to the other regions resulted in a fierce public controversy. British repealers, or abolitionists, claimed that the Acts deprived the poor women of their constitutional rights, at the same time encouraging male vice, and denounced the mandatory gynecological examination as “instrumental rape”. By the early 1880s the abolitionist groups emerged as a political power that influenced both the opinion of the general public and political elite and eventually succeeded in repealing the Acts.²⁷

In 1874 one of the leaders of the British repeal campaign Josephine Butler made a tour around continental Europe to promote the abolitionist cause. This resulted in the creation of the international repeal league *Fédération britannique, continentale et générale pour l'abolition de la prostitution* with sections in Britain, France, Italy, Switzerland and the United States. The ruling council of the Federation, presided by the British politician and former minister James Stansfeld, counted as its members

²⁶ TsGAMOS, 179:58:30:66.

²⁷ Walkowitz, *Prostitution and Victorian Society*, pp. 1-5, 90-112.

Josephine Butler, Giuseppe Garibaldi, William Lloyd Harrison and Wendell Phillips.²⁸

The Federation held regular international congresses and published a monthly Bulletin that attracted a wide audience of supporters. Although Christian moralists played an important role in the abolitionist movement, it had a broad appeal, uniting liberals and socialists, clergy and physicians, those who saw as their cause the struggle against immorality of extra-marital sex and those who fought against the state intervention in private matters of the body or for the civil rights of the prostitutes and women in general.²⁹

In the Russian Empire, the spread of the abolitionist sermon started from the Western borderland; several years passed until it reached the capital. The first section of the Federation was founded in Helsinki in 1879. In 1885 it invited Swedish repeal activist Natalia Andersson-Meijerhelm, who gave several successful lectures and formed abolitionist groups in several Finnish towns. After Helsinki, Andersson-Meijerhelm went to St. Petersburg where she was received by the Empress Maria (Dagmar of Denmark), who granted her permission to give lectures and organize a society of public moral for the Swedish and Finnish population of the Russian capital.³⁰

More surprisingly, the abolitionist ideas also provoked significant interest in the South-Western provinces of the Empire. In 1883, in a small town of Novozybkov in Bryansk province, the local public health committee unanimously voted against the medical and police control of prostitution sending an appropriate report to the international congress of abolitionists in the Hague. In June 1885, professor of hygiene

²⁸ *Le Bulletin Continental: Organ central de la Fédération britannique, continentale et générale*, 1 (1875), p. 4.

²⁹ Baldwin, *Contagion and the State in Europe*, p. 381.

³⁰ D.D. Ashkharumov, *Sovremenny vzglyad na sanitarnoye znachenie domov terpimosti i osmotra prostitutok* (Poltava: Tipografiya N. Pigurenko, 1886), p. 42

Arkady Yakobiyy gave a lecture on the prophylaxis of syphilis in the Kharkov Medical Society where he presented the ideology and history of the abolitionist movement and called against the introduction of police-medical committees in Kharkov.³¹ Three months afterwards Dmitry Akhsharumov stated in front of the Poltava Medical Society that the forced medical examination of women “would always remain an act of violence despite the good aims that the law attaches to it” and that the regulation of prostitution only encourages fornication, contributes to the spread of syphilis and thus should immediately be banned.³²

In January 1887, an abolitionist Vladimir Okorokov on behalf of the *Fédération britannique, continentale et générale pour l'abolition de la prostitution*, proposed to the Second congress of the Pirogov society of Russian physicians in Moscow to discuss the prospects of abolitionism in the Russian Empire:

The most efficient measure against syphilis is to reasonably and adequately combat the causes of prostitution; we need to raise the level of moral, intellectual and economic development of women and the entire society, while regulation contradicts this task. We can only hope that this Congress of physicians in commemoration of the enlightened fighter for women rights Nikolay Ivanovich Pirogov will start the struggle with one of the institutions that fundamentally denies the human personality in woman.³³

The session of community medicine where Okorokov was presenting could not unanimously agree with his radical abolitionism and, after a passionate discussion, it

³¹ V.P. Okorokov, “K istorii obshchestvennogo dvizheniya v Zapadnoy Yevrope i Amerike protiv reglamentatsii prostitutsii” in *Trudy vtorogo s'yezda russkikh vrachey v Moskve* (Moscow: Pechatnya Yakovleva, 1887), vol.2, pp. 94-95; V.M. Tarnovsky, *Prostitutsiya i abolitsionism*, pp. 31-33; V.V. Avchinnikova-Arkhangelskaya, *Prostitutsiya i prof. V.M. Tarnovsky*, (St. Petersburg: Tipografiya Soikina, 1904), p. 31.

³² Akhsharumov, *Sovremenny vzglyad na sanitarnoye znachenie domov terpimosti*, pp. 77, 90; see also Bernstein, *Sonia's Daughters*, pp. 270-271.

³³ Okorokov, “K istorii obshchestvennogo dvizheniya v Zapadnoy Yevrope i Amerike,” p. 105.

was decided that “the question raised by the international federation of abolitionists should remain open.”³⁴

By the mid-1880s, when the British Federation finally made the Parliament repeal the Contagious Disease Acts, Russian public was well aware of the European abolitionist debate. It was discussed in the local zemstvo meetings, in professional associations in Moscow, St. Petersburg, Kiev and Riga, as well as on the pages of newspapers.³⁵ The journal of the international association for the freedom of prostitution enthusiastically wrote that “[l]e mouvement abolitionniste fait en Russie des progrès rapides que nous avons déjà signalés, et c'est tout spécialement parmi les savants et les médecins que nos idées rencontrent le meilleur accueil.”³⁶

The abolitionist movement also had its fierce opponents in Russian medical circles. Professor of dermatology and venereal disease in St. Petersburg Medical Academy Veniamin Tarnovsky, speaking in front of the Russian Syphilogical and Dermatological Society late in 1887, called propagation of abolitionist ideas “a criminal weakness” that is “threatening with innumerable calamities all the members of society regardless of gender and age for the sake of freedom of several wicked [*porochnykh*] women”.³⁷ Tarnovsky regarded prostitution as an inherent and necessary part of social life and, following the ideas of Italian forensic psychiatrist Cesare Lombroso, insisted that prostitutes are not the passive victims of male desire and unfavorable environment, but instead represent a specific type of female criminality – degenerates with an inborn inclination for fornication. In his view, prostitutes were to blame for the alarming spread

³⁴ *Trudy vtorogo s'yezda russkikh vrachey v Moskve*, vol.2, p. 117.

³⁵ D.D. Ashkharumov, *Prostitutsiya i eya reglamentasiya* (Riga: Tipografiya Blankenshteyna, 1889), pp. 5-8; *Trudy vtorogo s'yezda russkikh vrachey v Moskve*, vol.2, p. 117, Tarnovsky, *Prostitutsiya i abolitsionizm*, p. 33.

³⁶ *Le Bulletin Continental*, 4 (1887), p. 26.

³⁷ Tarnovsky, *Prostitutsiya i abolitsionizm*, pp. 245, 250.

of venereal disease, as they consciously passed syphilis to their passive and inexperienced male clients, whose lives were “sacrificed so that a girl who cannot think of anything apart from her own entertainment would not be deprived of the pleasure to seduce men.”³⁸

Viewing prostitutes as criminals, Tarnovsky denied them the right to personal freedom - the concept that the entire abolitionist ideology was based on:

In the cause of public good, the interests of individuals should be sacrificed to the interests of society. Prostitutes, because of their habitual wickedness [*porochnosti*] cannot fully use the right of individual freedom, as this freedom harms society in two ways: first, with seduction and provocation for fornication; second, with the spread of syphilis within the entire population.³⁹

Tarnovsky's authority as a practicing syphilologist and the author of several university textbooks on venereal disease⁴⁰ ensured a considerable resonance to his ideas. Thus, the Syphilological and Dermatological Society under the influence of Tarnovsky passed a resolution on the necessity of administrative regulation, medical examination and forced hospital treatment of prostitutes.⁴¹

In 1897 the Medical Department of the Ministry of Interior organized the all-Russian Syphilological Congress that was the first governmental attempt to address the problem of venereal disease in the country. When Tarnovsky repeated his regulationist arguments in front of the congress,⁴² it provoked fierce arguments about the individual freedom and the possible limits of control that paralyzed the discussion. According to

³⁸ Tarnovsky, *Prostitutsiya i abolitsionism*, pp. 176-180, 247-248; for a more detailed analysis of Tarnovsky's view see Engelstein, *The Keys to Happiness*, pp. 134-137.

³⁹ Tarnovsky, *Prostitutsiya i abolitsionism*, pp. 242-243.

⁴⁰ V. M. Tarnovsky, *Raspoznavaniye venericheskikh boleznei u zhenshchin i detey* (St. Petersburg: K.A. Pisarevsky, 1863); idem, *Kurs venericheskikh boleznei: pereloy* (St. Petersburg: Glavnoe voen.-med. Upr., 1870).

⁴¹ Tarnovsky, *Prostitutsiya i abolitsionism*, p. 246.

⁴² V.M. Tarnovksy, *Bor'ba s sifilisom* (St. Petersburg, Tipografiya Ministerstva vnutrennikh del, 1897).

one of the participants, the opinions grouped geographically: “St. Petersburg and the police had one point of view, while zemstvo and province opposed it.”⁴³ While the greater part of the Congress members was still on the side of regulationism, a substantial minority (140 out 300) refused to ballot the sanitary measures in *maisons de tolérance* saying that these institutions should not be permitted in general.⁴⁴ In 1899, as reported by the head of the medical-sanitary branch of Moscow municipality A. Petrovsky, a group of Russian participants at the *Conférence internationale pour la prophylaxie de la syphilis et des maladies vénériennes* in Brussels made a statement that “the life of prostitutes in brothels presents a form of slavery” and “it is necessary to admit that the existence of brothels is against the humanitarian tasks of the state.”⁴⁵

Although those who radically opposed organized prostitution were in the minority among Russian physicians for decades, already by the 1880s there was generally little doubt that the existing form of control hardly reached its proclaimed aim. As the chief physician of the St. Petersburg Kalinkin hospital for venereal disease Eduard Shperk admitted in 1885, “a sanitary doctor has no right to take responsibility for the safety of an intercourse with a woman even if the most detailed examination at the moment did not reveal any external signs of disease”; other Russian venerologists shared his concerns.⁴⁶ When the abolitionist Vladimir Okorokov delivered a lecture in the Moscow juridical society, Aleksey Pospelov, the head of Moscow Myastnitskaya hospital for venereal disease and also a member of the Moscow Medical-police

⁴³ M. P. Monasein, *Nekotorye dannye o sifilidologicheskom s'yezde*. (St. Petersburg: Tipografiya Akinfiyeva i Leont'yeva, 1902), p. 9.

⁴⁴ A.A. Tsenovsky, *Abolitsionizm i bor'ba s sifilisom* (Odessa: Slavyanskaya, 1903), p. 52.

⁴⁵ A.G. Petrovsky, “Mezhdunarodnaya konferentsiya v Brussele po vorposu o merakh protiv rasprostraneniya sifilisa i venerichskikh bolezney” in *IMGD*, 1900, vol. 1, section II, p. 24.

⁴⁶ E.F. Shperk, “Teoriya statistiki zabolevayemosti i smernosti i primeneniye eya k issledovaniyu prostitutsii i sifilisa” in *Vestnik sudebnoy meditsiny*, 1885, vol. 1, p. 35; see also *Trudy vtorogo s'yezda russkikh vrachey v Moskve*, vol.2, pp. 116-117.

committee, sent a declaration stating that officially patented *maisons de tolérance* present a greater threat than clandestine prostitution, because the chances of contracting syphilis are the same in both cases, but the former gives a false impression of protection against infection.⁴⁷

Even Tarnovsky himself admitted that he is not ready to defend every form of regulation. In his view, it was necessary to separate the administrative and sanitary functions in the surveillance of prostitution; the former should be the responsibility of court and police, meaning that women could be registered as prostitutes only on the basis of a court decision. The sanitary activity, in its turn, “should be given exclusively to physicians with special education.”⁴⁸

In fact, this claim for the greater authority of the medical professionals in the questions of venereal disease was popular in the both camps. Regulationists, like Tarnovsky, saw in it the way for more efficient control over syphilis and prostitution. Abolitionists, in their turn, wanted to oust the state, which for them was incarnated in the police and the administration, from the private matters of sex and the body. From the mid-1870s the ideas to remove medical preventive measures from the control of police were voiced by physicians in different parts of the Empire. Special committees in Moscow, Kazan' and Nizhny Novgorod presented their projects for reorganizing the system, proposing to create specific sanitary bodies for the inspection of prostitutes without any administrative and punitive functions or “direct violence against

⁴⁷ *Le Bulletin Continental*, 4 (1887), p. 28.

⁴⁸ Tarnovsky, *Prostitutsiya i abolitsionism*, p. 235; *Trudy vtorogo s'yezda russkikh vrachey v Moskve*, vol.2, pp. 117.

women.”⁴⁹ These plans, however, did not result in any reform on the city level and had to wait until the Moscow municipality revived them in 1887.

Moscow chooses between abolitionism and regulationism

What Tarnovsky really feared was that the abolitionist ideas would affect the decision-making and turn into real policy, and not in the provincial Novozybkov, but in one of the imperial metropolises. “The practical results of the sermon for the freedom of prostitution can be seen in the fact that the Moscow City Council, following the example of Paris, in the last year has already twice refused to subsidize the Medical-police committee,” wrote Tarnovsky, agreeing with an abolitionist journal that called it “*éclatant succès des principes de la Fédération en Russie*.”⁵⁰

In Moscow, the debate on the prevention of syphilis in the second half of the 1880s developed along the lines of the conflict between the municipality and the local administration. As I discussed in the previous chapter, in 1887 the municipality took over the diverse sides of the urban public health, after Moscow's hospitals and the epidemiological measures were brought under municipal control.

The measures against syphilis, however, remained under the control of the Governor-General, although the expenses of the Medical-police committee were mostly covered by the municipal budget. The Medical-police committee consisted of the Moscow *Ober-Polizmeister*, three *Polizmeister*, the head of Moscow hospital for

⁴⁹ A. I. Pospelov, *Novaya sistema nadzora za prostitutsiyey v Moskve* (St. Petersburg: Tipografiya Schmidta, 1888), pp. 1-3; A. Ge, *Po povodu nadzora za prostitutsiei g. Kazani* (Kazan': Tipografiya Imperatorskogo Universiteta, 1892), pp. 3-4. This reorganized system of sanitary control over prostitution was introduced in Nizhny Novgorod during the period of the Fair, see *IMGD*, 1887, no. 10, p. 894.

⁵⁰ V.M. Tarnovsky, *Prostitutsiya i abolitsionizm* (St. Petersburg: Karl Ricker, 1888), pp. 33-34; *Le Bulletin Continental*, 4 (1887), p. 28.

venereal disease (Aleksey Pospelov), a clerk from the Governor-General and eight police physicians who performed the medical examination. In 1886 the register of the Committee counted 2993 prostitutes, 805 of which lived in brothels, with the rest belonging to the so-called “loners” [*odinochki, kvartirnye prostitutki*].⁵¹ Apart from inspecting the prostitutes, the Committee also performed medical check-ups of workers intending to leave the city to stop the spread of disease among the rural population.⁵² Those found sick could receive specialized treatment. In 1887, Moscow had 641 places for syphilitics (377 for men and 264 for women) in six hospitals, out of which 150 beds were reserved for prostitutes and 300 for laborers [*chernorabochiye*] of both sexes who paid the so-called hospital tax [*bol'nichny sbor*].⁵³ According to the evaluation of syphilologist Pavel Shiryayev, the number of syphilitics in Moscow exceeded twenty thousand, meaning that almost three per cent of the city population was infected.⁵⁴

The existence of the Medical-police committee as a separate administrative body was bound to come into conflict with the municipalization trend in the urban public health that the Moscow municipality pursued under Alekseyev. The municipality regarded the prevention and prophylaxis of venereal disease as a part of general health policy and, therefore, as belonging to the competence of the city. On February 24, 1887, the Moscow City Council passed a resolution that it should no longer subsidize the Medical-police committee, but instead should take all measures to counter syphilis under its own control.⁵⁵ In the long negotiations with the administration that followed this resolution, the municipality and Alekseyev himself presented it as the logical

⁵¹ TsGAMOS, 179:58:30:69-70.

⁵² TsGAMOS, 179:58:30:69.

⁵³ TsGAMOS, 179:58:30:111.

⁵⁴ TsGAMOS, 179:58:30:86.

⁵⁵ TsGAMOS, 179:58:30:13.

continuation of the line that transferred Moscow medical institutions and epidemiological measures under the city authority.⁵⁶

As Alekseyev later explained, “in the question of the subsidy to the Medical-police committee the problem was, of course, not about the money. The city just needed to be through [*razdelat'sa*] with the existing situation of the Medical-police committee.”⁵⁷ When the municipality so ambitiously claimed the right to control venereal disease in the city, it had, in fact, no concrete plan of how to implement it; the expert consideration took place only three weeks later. On March 16, 1887, Alekseyev convened a conference to discuss the possible outcomes of this initiative and to decide how prostitution should be supervised if the proposal went through.

The large conference was fully dominated by medical professionals. Not only did they make up the majority of the participants (at least 40 of 71) but also took over the discussion. The experts represented a wide spectrum of medical specialization – from dermatology to surgery and forensic medicine. The municipality wanted to have the widest medical representation. Apart from famous syphilologists, it invited university professors in various disciplines (gynecology, hygiene, ophthalmology, and pediatrics), heads of Moscow's hospitals, private and community physicians, sanitary doctors and medical publicists. In fact, many delegates had no expertise in venereal disease at all.⁵⁸

Realizing these limitations, the assembly elected a committee of seven members believed to be experts in the field. As mentioned above, the highest number of votes was received not by a syphilologist but by the hygienist Friedrich Erismann. This fact, apart from confirming his great personal influence at that time, shows that the

⁵⁶ TsGAMOS, 179:58:30:14, 63.

⁵⁷ TsGAMOS, 179:58:30:84.

⁵⁸ For the protocol of the meeting, see TSGAMOS, 179:58:30:63-75.

conference members saw measures against syphilis as a matter of a broad sanitary agenda, rather than of the targeted prevention of venereal disease. The other elected members of this newly-created Committee for the prevention of syphilis included famous syphilologists, gynecologists, sanitary doctors and zemstvo physicians.⁵⁹

The minutes of the conference and the meetings of the Committee for the prevention of syphilis reveal the spectrum of attitudes to venereal disease, sex and prostitution among Moscow sanitary reformers. Symptomatically, the first question raised at the conference was whether the municipality should petition the government to ban the overt prostitution in Moscow. The conference participants were aware of and sensitive to the abolitionist critique of regulationism. Yet, unlike religious moralists and social reformers from the abolitionist camp, Moscow physicians had no illusion that prostitution as such could possibly be eradicated. For them, the existence of some form of prostitution was a given thing, and they saw their task only in neutralizing its impact on the health of the urban population. They believed that any ban would only transform overt prostitution into clandestine that was more likely to evade any medical influence. Speaking in front of the conference, Alekseyev suggested that any petition for the banning of overt prostitution would be inappropriate before the city took measures to supervise clandestine prostitution and expand public health facilities for syphilitics. Even the convinced abolitionist Vladimir Okorokov, who in other circumstances was advocating the immediate abolition, had to admit that “although it is necessary to ban the registration of prostitution, the petition about it would hardly have any success.”⁶⁰

⁵⁹ TsGAMOS, 179:58:30:64

⁶⁰ TsGAMOS, 179:58:30:63.

The set of questions that the municipal conference included in the agenda of the Committee for the prevention of syphilis reveals that the issues of class prevailed over those of gender in framing the problem of venereal disease. Only two out of eight questions concerned prostitution. Others dealt with the inspection of the brothel clients, factory workers, domestic servants, the extension of health facilities for the treatment of venereal disease and the spread of syphilis by the orphans of the municipal Foster House when sent for nursing in the rural area.⁶¹

Moscow reformers were far from seeing prostitutes as the only or even the primary source of infection. They realized that copulation involved two parties and that men were also a link in the chain of disease transmission. The necessity of male inspection was a topic discussed among Moscow physicians for years⁶² and was bound to appear in the conference and be included in the agenda of the Committee.

“If the inspection of public women is considered necessary and its performance is strictly prescribed by the medical-police regulations [...], it is clear that the inspection of men who frequent brothels and from whom public women get infected will be most reasonable,” argued Nikolay Mansurov, and most of the Committee members agreed with him. The rationale for the inspection of men was very similar to that of women. In the eyes of Moscow physicians, the clients of the brothels had similar vices and weaknesses to their workers – usually of the same working-class background, they were seen to be immoderate, irresponsible, aggressive, often undeveloped and drunk and therefore needed to be controlled and educated for the sake of public good. The *habeas corpus* argumentation, that Mansurov rejected for prostitutes, was similarly not applicable for those who used their services, as, in his view, they were unlikely to have

⁶¹ TsGAMOS, 179:58:30:75.

⁶² TsGAMOS, 170:58:30:63,197

any feeling of human dignity, shame and morality. In the words of Mansurov, “the visitors of the brothels should not be attended to [*tseremonit'sa*], they should be disciplined [*distsiplinirovat'*].”⁶³ Most of the Committee members shared Mansurov's view on male inspection, seeing men equally responsible for the spread of venereal disease and considering their medical examination a desirable measure.⁶⁴

Yet, however desirable, the plan to institute the inspection of brothel clients had several irresolvable shortcomings. First of all, it was beyond the authority of the municipality and required a petition to the imperial government. The lack of trained medical personnel to perform the examinations, the difficulty of its organization, easy abuse or avoidance of this rule, in the eyes of the health reformers, impeded the implementation of this measure in the nearest future. Furthermore, as in the case of abolition, the health reformers suspected that any restriction would only make male clients seek the services of the clandestine prostitutes, increasing their number and thus reducing medical control over the commercial sex supply in the city.⁶⁵

In this light, the Committee unanimously decided to postpone the introduction of the male inspection and instead to direct maximum efforts to broader sanitary measures, such as “providing available and cheap outpatient treatment, a sufficient number of free hospital beds [*pri vozmoshnosti svobodno lechit'sa na krovatyakh*], the examination of factory workers, domestic servants and, eventually, the dissemination of information about syphilis - all connected to the proper and large-scale organization of sanitary control.”⁶⁶

⁶³ TsGAMOS, 179:58:30:82, 89.

⁶⁴ TsGAMOS, 179:58:30:82.

⁶⁵ TsGAMOS, 179:58:30:83.

⁶⁶ TsGAMOS, 179:58:30:83-84.

The broad explanation of infectious disease and the belief in the casual syphilis transmission resulted in the fact that the municipal campaign against venereal disease was arguably less concentrated on commercial sex than in European and American metropolises. Even the mayor Nikolay Alekseyev believed that measures against syphilis “should target not only prostitution but also the other elements of the urban population; thus, workshop and factory workers, undoubtedly, play a big role in the spread of syphilis, bringing it from the village.”⁶⁷ According to the records of Myasnitskaya hospital for venereal disease, the known prostitutes did not compose a majority of its clientele. Almost one third of all the patients were reported to be domestic servants, with the rest being prostitutes and laborers in small workshops, commerce and industry.⁶⁸

The imagined link between the laboring populations, especially migrant, and the venereal disease was not, of course, exclusively Russian. In many urban communities in Europe and North America migrants or the poor were seen as responsible for the spread of venereal disease that was often attributed to their alleged immorality, intemperance, promiscuity or queer sexual practices.⁶⁹ In Russia, however, the roots of it were seen in deplorable poverty, lack of social security and the impossibility, rather than unwillingness, to keep up with the most basic hygienic norms.⁷⁰ The whole narrative of reducing the incidence of syphilis among the poor was seen as the “civilizing” and “disciplining” mission of the elites; but, at the same time, it was full of explicit, if paternalistic, compassion and empathy. The ways to prevent disease were

⁶⁷ TsGAMOS, 179:58:30:63.

⁶⁸ TsGAMOS, 179:58:30:112.

⁶⁹ Nayan Shah, *Contagious Divide: Epidemics and race in San-Francisco's Chinatown* (Berkeley: University of California Press, 2001), pp. 77-104.

⁷⁰ TsGAMOS, 179:58:30:112.

seen not in restrictions but in encouraging and facilitating access to medical treatment on the conditions believed to be most favorable for the laborers that would attract rather than repulse them. In this light, other stimuli (i.e. free lodging and food in hospitals) apart from curing the illness played their role.⁷¹

Although the Committee generally favored the idea of outpatient clinics for syphilitics, which would be cheaper to organize and allow the sick to keep their jobs, it did not mean that physicians had any particular trust in the poor's ability to take proper care of their own health. The head of Moscow Myasnitskaya hospital Aleksey Pospelov warned that outpatient treatment of venereal disease could work only with the “more or less developed wealthy class” while the laboring population needed the organized inpatient hospital treatment: “Syphilologists know very well that the proper day regiment and care of the patients with venereal disease as well as abstaining from alcohol in the hospitals makes already a half of the success in the treatment of syphilis especially for those who are undeveloped, uneducated and who readily indulge in debauchery when outside of the hospital, as the majority of the working-class people are.”⁷² Still, Pospelov believed that laborers in fact wanted to receive medical treatment, but were discouraged and hindered by their entire environment, primarily poverty, the fear of losing their jobs or housing and the lack of stationary beds.

Moscow health reformers repeatedly noted the dangers of labelling the patients with venereal disease that could “scare” and divert them from hospitals. Thus it was proposed to mask departments for syphilitics under the umbrella of general hospitals and outpatient clinics, instead of organizing specialized institutions for venereal disease as “not every person would dare to write to his relatives that he is in a syphilological

⁷¹ TsGAMOS, 179:58:30:113.

⁷² TsGAMOS 179:58:30:112-113.

hospital.” However, in the view of the Committee, the private interests of the sick poor could be sacrificed if the health of community was endangered: should infectious cases be revealed among the domestic servants or workers, their employers needed to be notified. For these purposes the Committee proposed universal free inspection of wage workers and domestic servants that would allow to detect incidences of venereal disease and break the chain of transmittance.⁷³

The approach to the medical inspection of prostitutes was based on the same principles as the measures targeting other social elements believed to be sources of infection; it was framed in the same rhetoric of “serving the poor”. The Committee did not see prostitutes as a particularly wicked, immoral or outcast group, but rather perceived them in a line with the rest of the working class. Similarly, it was believed that encouragement rather than compulsion or direct force would yield the most fruitful results in the prophylaxis of syphilis among prostitutes.

In the eyes of Moscow reformers, the existing system of police inspection discredited itself, not because it violated the autonomy of the female body, but simply because its forcible, arbitrary and degrading character made it inefficient and averted prostitutes from any public health institutions. It was considered necessary to facilitate the prostitutes' access to medical care and motivate them to seek gynecological examination by making it less humiliating and more anonymous.

The work of the Committee for the prevention of syphilis resulted in a project of reforming the medical supervision of prostitutes that in many ways was consonant to the earlier unrealized proposals of the 1870s. The final 1887 version of the project proposed to locate clinics for venereal inspection close to the quarters where the

⁷³ TsGAMOS. 179:58:30:81-82, 90-93.

prostitutes tended to live to save them time and expenses on commuting. These clinics were to operate in convenient hours and staffed with female medical personnel to, in the words of the Committee members, “spare women's pudency”. Considering that a prostitute “would rather reveal her face to the public than her name and origin,” it was proposed to introduce medical records with a photograph, that would permit the identification of a woman without disclosing her name.⁷⁴ The new system of medical inspection and treatment of venereal disease was also meant to be free of charge. As the mayor Nikolay Alekseyev said in 1887 in front of the City Council,

To take payments from these women is inhumane, to say the least. You need to see them close, to visit the Myasnitskaya hospital to be filled with great compassion and pity to those outcast creatures. To impose payments on them when we treat almost everyone else for free is simply godless [*bezbozhno*].⁷⁵

Yet, the focal point of the 1887 project was to make the venereal inspection voluntary. The project of Moscow reformers reflected an intention to transit from direct coercion to more subtle disciplining of the poor: instead of the old model of forced police inspection with its arbitrariness and abuse, they offered a new one based on the semi-voluntary compliance with “rational” medical rules. The project separated the spheres of municipal (sanitary) and police (administrative) control. The municipal institutions were responsible for checking the health of the working-class population, including the prostitutes, and providing free treatment of venereal disease for everyone in need. The role of the police was seen only in prohibiting women without valid “entry tickets” (medical certificates) from brothels, assignation houses, baths and other places where prostitutes sought their clients.

⁷⁴ TsGAMOS, 179:58:30:14-15.

⁷⁵ *IMGD*, 1887, no. 10, p. 894.

The proposed reorganization of the supervision of prostitution was fully approved by Alekseyev and the City Council, but, quite predictably, was opposed by the Moscow Governor-General, who believed that the control over venereal disease should remain in the hands of the administration with minimal involvement of the self-government institutions. However, the central government did not side with Dolgorukov and seemed quite eager to yield to the requests of the Moscow City Council and to move the responsibility for preventing venereal disease onto the shoulders of the local institutions. The municipal project found support in the Medical Department of the Ministry of Interior and was approved for implementation from March 1889.⁷⁶

Without abolishing the prostitutes' enlisting, the reform made health inspection independent from it. Although the registration of the prostitution remained in the authority of the police, the new system in fact did not rely on the police lists and forced check-ups and was meant to make “all women engaging in fornication in public places” undergo inspection by themselves.⁷⁷

Moscow reformers explicitly refused to perform any administrative measures, saying that “the aim of the municipal government is not to reveal prostitutes, but to prevent the spread of syphilis” and that “it makes no difference for the city if a syphilitic woman comes to an inspection post or to the outpatient clinic.”⁷⁸ The proposed plan still required prostitutes to be regularly inspected, but now gave them certain agency in this process: ideally, nobody could directly force medical examination on women, but they had to obtain a proof of their health to perform certain professional activities.

⁷⁶ TsGAMOS, 179:58:30:84, 163.

⁷⁷ TsGAMOS, 179:58:30:172.

⁷⁸ TsGAMOS, 179:58:30:13-14.

The Committee viewed prostitutes as a part, although marginalized, of the urban poor. In their rhetoric, measures against those engaged in commercial sex emerged into just one of many components of sanitary routine among the poor:

[T]he main aim of the doctoral inspection is to provide urgent medical care to all those ill with syphilis and venereal disease and to issue certificates about the satisfactory health to those who need it for some legal purposes, such as wet-nurses, nannies, female or male domestic servants. Prostitutes would also apply for medical certificates in this quality, and those found sick would get immediate assistance and would be informed in which hospital they could receive free treatment. In that case, they would of course be received under their real name and not as prostitutes, but as those who are in need of special treatment, and the secret of their occupation would not be disclosed. Similarly, their secret would not be discovered when they would get a note about their satisfactory health on their photographic record.⁷⁹

The entire project of reorganization, as it was formulated in the experts' report of the Medical Department of the Ministry of the Interior, was perceived as a kind of compromise between the abolition and regulation: "The proposed reform reconciles the two camps and through the reorganization of the outdated and inefficient institution of the Medical-police committee devises a more thorough and more humane sanitary supervision of women who at the moment evade any medical care."⁸⁰

The intrusive character of the obligatory medical inspection was masked by its normalization and the dispersion of both those who enforced and who were subjected to it. Instead of repealing the "instrumental rape" of a mandatory examination, the reformed system protracted its principles into the following decades and expanded its potential target group to embrace the majority of the working class.

⁷⁹ TsGAMOS, 179:58:30: 170.

⁸⁰ TsGAMOS, 179:58:30:172.

Outpatient clinics, Myasnitskaya hospital, and the treatment of venereal disease

Early in 1889 the full control over the venereal disease in Moscow was ultimately given to the municipality on the conditions outlined in the project of the Committee for the prevention of syphilis. The Medical Department of the Ministry of the Interior ordered the Moscow police to abolish the notorious “yellow tickets”, to give the passports back to all the prostitutes and to inform them where they could undergo medical examination.⁸¹

From that time on, the Moscow municipality took the baton in the medical inspection of prostitutes. In March, 1889 it created the Central Sanitary Bureau under the Myasnitskaya hospital. The Bureau was responsible for opening the outpatient clinics for venereal disease, keeping the records of prostitutes, organization of their hospital treatment, compiling the statistics of syphilis as well as administrative and financial reporting.⁸² Professor Aleksey Pospelov was appointed head of the Bureau.

To perform the inspection of prostitutes, the municipality opened a free Women's outpatient clinic [*zhenskaya ambulatoriya*]. The clinic employed seven male and two female physicians, all of whom had previously worked or studied at the Myasnitskaya hospital, and six nurses [*fel'dsheritsa*], who had completed the course at Dolgorukovskaya nursing school under Myasnitskaya hospital. The auxiliary personnel consisted of six aid-women and a doorman. The Committee for the prevention of syphilis and the municipality insisted on the employment of the female personnel for the *ambulatoriya*⁸³. In the words of Pospelov, “however cynical a prostitute might be,

⁸¹ *IMGD*, 8 (1888), Appendix, pp. 5-6.

⁸² TsGAMOS, 179:58:30:15.

⁸³ TsGAMOS, 179:58:30:14, 176.

however low she had fallen, she is still a woman and she keeps a feeling of embarrassment when she is examined by a male doctor”.⁸⁴ Yet, the plan encountered the opposition of the Gubernatorial Medical administration⁸⁵ and, eventually, only two female physicians, Maria Ekunina (Ekunina-Fiveiskaya) and Ekaterina Vyshinskaya, were employed for the examination of “loners” to “spare their sense of shame.” The inspection of the brothel prostitutes was left under the responsibility of men.

The female physicians received the same salary as their male colleagues (700 rubles per annum), although their qualification was in fact better. Both Ekunina and Vyshinskaya had the higher medical degree [*Doktor Meditsiny*], while six out of their seven male colleagues were just licensed physicians [*lekar*].⁸⁶ In 1893, speaking at the Pirogov Congress, Aleksey Pospelov praised the achievements of these female physicians, saying that “despite all the difficulties connected to employing women,” he was very pleased to mention “that his female colleagues, appointed to their positions, were the first foretellers of the new era – the long-awaited equalization of rights for the independent practice together with their male comrades.”⁸⁷

Physicians admitted that the inspection of prostitutes was an extremely monotonous job and “did not present anything interesting from the medical and scientific point of view.” Despite this, the medical personnel of the clinic was relatively stable: out of those employed in 1889, four physicians, four nurses, as well as the director and the accountant of the Central Sanitary Bureau kept their positions for more than ten years.⁸⁸

⁸⁴ *Trudy chetvertogo s'yezda russkikh vrachei v pamyat' N.I. Pirogova v Moskve* (Moscow: Pechatnya Yakovleva, 1892), p. 184.

⁸⁵ TsGAMOS, 179:58:30:176.

⁸⁶ TsGAMOS, 179:58:309 :13-16; for the difference between those medical degrees see “Ustav vrachebny” ” in *Svod zakonov Rossiyskoy Imperii* (St. Petersburg: 1892), pp. 255-256.

⁸⁷ *Trudy chetvertogo s'yezda russkikh vrachei*, p. 184.

⁸⁸ TsGAMOS, 179:58:43:260; 179:58:309:13-16; 179:58:505:172.

Although the medical inspection was still obligatory and intrusive in essence, the Moscow municipality took visible efforts to ease the atmosphere of it and render it more convenient. The Women's *ambulatoriya* was located on Drachevka Street in the Sretensky district, the area that had most of the city brothels and housed many prostitutes.⁸⁹ This central location between the Boulevard and the Garden Rings made the clinic easily reachable for most of its potential clients and also ensured the convenient access by foot to and from the Myasnitskaya hospital for venereal disease. The internal organization of the *ambulatoriya* was meant to ensure the quick, safe and efficient examination. Maria Ekunina-Fiveyskaya provided the following description of the *ambulatoriya* at the Pirogov Congress:

The premises of the municipal sanitary clinic are located on the first floor and have a separate access from the street. The premises consist of an anteroom, a waiting hall, three rooms for patients' examination, a room for a doorman and two toilets. To prevent prostitutes from hiding the signs of suppuration no devices for washing are provided. The anteroom with two windows, 51 square arshin, has enough hangers for the outerwear. The waiting hall with seven windows, 130 square arshin, is furnished with wooden couches. Each of the examination rooms, 65 sq arshins, is well illuminated with three windows. Each room has two examination chairs, two desks, a cabinet for instruments and linen, a washstand with a pedal and wooden couches for undressing.⁹⁰

To avoid overcrowding, each brothel had an assigned time of inspection; two hours in the afternoon were reserved for loners to prevent them from mingling with the brothel prostitutes. In addition, all prostitutes were advised to buy and bring their own gynecological instruments to exclude the possibility of infection.

The Central Sanitary Bureau registered the prostitutes, giving each of them a medical card with a photograph but without a name. Every examination resulted in a mark on

⁸⁹ At first, the loners were separated from the brothel prostitutes and had their own Kharitov clinic on Petrovka str., which was moved to Drachevka only in September, 1889.

⁹⁰ M. Ekunina-Fiveyskaya, "O meditsinskom osmotre prostitutok, proizvodimim v gorodskoy besplatnoy ambulatorii g. Moskvy" in *Trudy chetvertogo s'yezda russkikh vrachei v pamyat' N.I. Pirogova v Moskve* (Moscow: Pechatnya Yakovleva, 1892), pp. 180-181.

the card. If found healthy, a woman received a visum valid for four days (for brothel prostitutes) or a week (for loners). If found sick, she got a ticket for free service in the Myasnitskaya hospital, her card being retained until the end of the treatment. The system of sanitary albums made the inspection more convenient - if not for prostitutes, then at least for physicians. In the words of Ekunina-Fiveyskaya,

[t]he introduction of the sanitary cards greatly eases the activity of the clinical doctor. When looking at this card, the doctor immediately sees if the prostitute had syphilis before, in which form, how often she had relapses, when and how often she had blennorrhea. [...] It is known that prostitutes often move from one brothel, examined by one doctor, to another one, examined by another doctor; in this situation the sanitary card that follows the prostitute from one doctor to another immediately gives them all the health details of their new patient.⁹¹

The Women's clinic existed for almost three decades, but the first year of operation proved to be the busiest. In 1889, its physicians performed almost 7000 check-ups a month, but just one in about 40 check-ups revealed signs of venereal disease. The brothel prostitutes made up the absolute majority of examinations (c. 6300 a month), while “loners” only about 500. The remaining women were brought for inspection by the police on suspicion in clandestine prostitution. Each physician examined between 40 and 50 women daily, spending only about three minutes for every check-up.⁹²

The problem of subjecting the loners to medical inspection proved to be remarkably difficult to tackle. A sanitary doctor Piotr Gratsianov from Minsk, then a small provincial town with a population of 70000, visited Moscow Central Sanitary Bureau in 1892 and had to admit that the new institution in its inefficiency to control single prostitutes was similar to the Medical-police Committee:

⁹¹ M. Ekunina-Fiveyskaya, “O meditsinskom osmotre prostitutok, proizvodimim v gorodskoi besplatnoi ambulatorii g. Moskvyy” in *Trudy chetvertogo s'yezda russkikh vrachei v pamyat' N.I. Pirogova v Moskve* (Moscow: Pechatnya Yakovleva, 1892), pp. 178-184, quotation from p. 182.

⁹² TsGAMOS, 179:58:43:191,202, 227,255, 310.

[A]ccording to the report of Professor Pospelov about the activity of the Central Sanitary Bureau, by January 1, 1892 there were only 366 of them [loners]. This number is impossible, and it is admitted to be so even by the respectable author of the report: “the masses of wondering and single prostitutes,” he says, “freely spread syphilis among the population of Moscow, avoiding the medical examination.” The same report reveals that during the entire year of 1891 the loners, including those brought by the police, were inspected only 4302 times, which is less than in Minsk. Therefore, the humanity towards loners (because the brothel prostitutes are nowhere treated with this humanity) that allows them to be inspected whenever they wish, although at least once a week, provides similarly little guarantee against syphilis as the Medical-police committees that are responsible for the supervision of prostitutes in the rest of Russia.⁹³

In the following fifteen years, the situation hardly changed as only one in every five women coming for inspection was not working in a brothel (see Table 3.1). According to the report of Sergey Molodenkov, who took over the position of Pospelov after his retirement in 1901, at the end of that year the lists of the Central Sanitary Bureau counted 68 brothels with 592 prostitutes and 532 loners, more than twice less than the registers of the Medical-Police Committee fifteen years earlier.

Table 3.1. Number of examinations at the Women’s clinic by category.

Source: TsGAMOS, 179:58:309; 179:58:392; 179:58:621.

Year	Total average number of women inspected monthly	Brothel prostitutes	Loners	Women brought by police
1895	5270	4720	240	310
1899	5260	4530	110	620
1902	5030	4240	530	260
1905	5000	4590	300	110

Clearly, similar to its predecessor, the Central Sanitary Bureau enlisted only a minor part of those engaged in prostitution: throughout a year, the police brought 2071 different women suspected in the clandestine prostitution; 1334 of them had never been

⁹³ P. A. Gratsianov, *Organizatsiya nadzora za prostitutsiyey v gorode Minske* (St. Petersburg: Tipografiya MVD, 1893), p. 11.

previously registered in the Bureau. 847 out of these 2071 were brought in at least twice and 417 at least thrice. Most of these women were caught by the police in the slum area around the Khitrov market or in Sretensky district.⁹⁴

In 1901 the physicians of ambulatoriya performed 61436 examinations revealing 1264 cases of disease in 959 women who were subsequently sent for hospital treatment. Only half of them were diagnosed with syphilis, while gonorrhea, chancroid or non-venereal diseases were responsible for the rest of the cases. Most of those found sick were brothel prostitutes (see Table 3.2). Women from this category were probably indeed at a higher risk of contracting any venereal disease, yet their over-representation among those sent for treatment was rather connected to their remarkable compliance with the rules of medical inspection. At the turn of 1902, a brothel prostitute monthly underwent an average of 7.6 examinations in the ambulatoriya, while a registered loner only 1.3; clandestine prostitutes were probably checked only once a year when brought in by the police.

Despite all the efforts to encourage voluntary examination, just a minority of loners agreed to be registered at the Central Sanitary Bureau and even those were reluctant to come to the clinic. The municipal system of venereal disease prevention worked with some efficiency only with regard to the organized prostitution, when the brothel owners, who themselves were subjected to numerous administrative requirements and interested in the health of their wards for the sake of business, regularly sent them to the clinic. In 1901, the absolute majority of the brothel prostitutes (469 of about 600) received hospital care - and a third of them not once - compared to only 450 from a much larger group of registered and unregistered loners.⁹⁵ In fact, physicians noted that inspection

⁹⁴ TsGAMOS, 179:58:387:277-281.

⁹⁵ TsGAMOS, 179:58:387:277, 281.

of the loners was more difficult and took longer because of their “slovenliness and grubbiness” [*neryashlivost' i nechistoplotnost'*] compared to the women from the brothels.⁹⁶

Table 3.2. Incidence of disease among inspected women in 1901.

Source: TsIAM, 179:58:387.

Incidence of disease in the category	Syphilis	Gonorrhea	Chancroid	Non-venereal genital diseases	Proportion of diseased
Brothel prostitutes	26.56%	14.96%	9.91%	13.56%	65.10%
Loners	13.64%	1.35%	2.25%	7.46%	24.59%
Women brought by the police	19.24%	1.45%	8.13%	0.65%	25.20%

These numbers, however, had only an approximate correlation with the actual incidences of venereal disease among women in this profession. The diagnostics relied on the external signs of disease, which could have been absent or overlooked in a three-minute examination. The sole venereal pathogen to be diagnosed with the microscope was the gonococcus, the agent of gonorrhea, known since 1879. In October 1901, the Central Sanitary Bureau employed a bacteriologist who until the end of the year tested 291 women for gonorrhea with 149 positive results. Interestingly, the bacteriologist also checked the sputum and the blood of prostitutes for some other known pathogens, such as the agents of tuberculosis, malaria, staphylococci and streptococci, although it was clearly beyond the responsibility of the clinic.⁹⁷ Though in some cases these non-venereal checks helped diagnose a disease – thus, 25 of 32 tests for tuberculosis (while none of the 11 tests for malaria) showed positive results – in a certain sense, they turned a prostitute into an object of the idle curiosity of the bacteriologist who was trying to

⁹⁶ TsGAMOS, 179:58:505:173.

⁹⁷ TsGAMOS, 179:58:387:281-282.

compensate the limited applicability of his expert knowledge and laboratory methods to the treatment of venereal disease.

Until the discovery of the syphilis spirochete by Eric Hoffmann and Fritz Schaudinn in 1905 and the introduction of the serological Wassermann test for the antibodies to the bacteria, the otherwise popular laboratory methods were generally of little help for the diagnostics of syphilis. In the words of the syphilologist of the Women's *ambulatoriya* and Myasnitskaya hospital M.A.Chlenov,

[w]e can more or less identify and treat syphilis, but everything that we do, we do without any scientific verification; and can our scientific knowledge be possibly considered sufficient? In many cases we still cannot precisely establish the nature of the syphilitic suffering, we often cannot identify the disappearance of the syphilitic process, we cannot say whether the treatment of each particular case was sufficient or whether it should be continued, etc. To put it shortly, in the field of syphilology, we stand on firm but, unfortunately, purely empiric ground, and we do not possess any criterion similar to gonococcus for gonorrhea.⁹⁸

The prostitutes found sick were sent to the Myasnitskaya hospital, where they had a preferential admittance because a special department of the hospital was reserved for them. Myasnitskaya hospital was established in 1861 to provide accessible treatment from venereal disease to the working-class population [*chernorabochiye*] of the city. Moscow physicians and municipal leaders repeatedly noted that the institution bore a social stigma associated with disease and that “not everyone would agree to go to Myasnitskaya hospital.”⁹⁹

Yet, in spite of this stigma and the contingent of the patients, by the turn of the twentieth century it emerged as an important center of syphilology. The hospital possessed a library of Russian and foreign medical journals and manuals and its

⁹⁸ TsGAMOS, 179:58:589:39.

⁹⁹ TsGAMOS, 179:58:535:38-39.

personnel was well integrated in the medical circles both in Russia and abroad.¹⁰⁰ For example, the head of Myasnitskaya hospital Aleksey Pospelov in 1889 attended the Congress of Dermatologists and Venerologists in Paris and traveled to study the treatment of prostitutes in France and Belgium.¹⁰¹ The female physician Ekaterina Vyshinskaya, who also worked in the Women's *ambulatoriya*, made several long academic trips abroad, to Germany, Italy and Switzerland.¹⁰²

Figure 3.1. Myasnitskaya hospital

Source: Al'bom zdaniy, prinallezhashchikh Moskovskomu Gorodskomu Upravleniyu (Moscow: S.n., 191?).



¹⁰⁰ TsGAMOS, 179:58:484:43.

¹⁰¹ A.I. Pospelov, *Sanitarny nadzor za prostitutsiyey v Parizhe I Brussele*, (St. Petersburg: 1890).

¹⁰² TsGAMOS, 179:45:3639:1, 7.

The hospital was perceived rather as a scientific institution than as a clinic for treating the most outcast groups of the urban population. Thus, inspired by the discovery of the syphilis spirochete in 1905 and willing “not to be behind the scientific centers of Europe and Russia,” the physicians of Myasnitskaya hospital together with microbiologist Georgy Gabrichevsky from the Moscow Bacteriological Institute decided to start a laboratory for the experimental study of syphilis on apes.¹⁰³

When in 1910 the Nobel Prize winner Paul Ehrlich and Sahachiro Hata presented the first efficient chemical drug against syphilis, Salvarsan-606, two physicians of Myasnitskaya hospital, Mikhail Chlenov and Artur Iordan, were immediately sent to Germany to study the application of this “magic bullet”. In Myasnitskaya hospital, the new “medicine-606” was first used already on August 3, 1910. It promised a quicker, safer and more effective treatment of the disease, although the high cost and the limited availability of the imported drug, especially in the coming war years, meant that traditional methods of treating syphilis did not disappear.¹⁰⁴

The patient experience in the Myasnitskaya hospital is quite difficult to reconstruct. The hospital treatment of syphilis was a very long and unpleasant process. In 1890-1894 the average stay of a patient in the Myasnitskaya hospital was 34 days, or about 10 days longer than in all other city medical institutions, except for psychiatric clinics and the Bakhrushin's hospital for chronic disease.¹⁰⁵ The few surviving patients' medical records of Myasnitskaya hospital confirm the protracted duration of the treatment. For example, in 1902, a 20-year old wet nurse Avdotya Ilyina was

¹⁰³ Surprisingly, despite the Russian-Japanese War and the revolution, the project managed to find some financial support. The apes were bought in Hamburg but, apparently, could not be delivered to Moscow because of the revolutionary troubles. TsGAMOS, 179:58:589:39-41.

¹⁰⁴ TsGAMOS, 179:58:871: 15-20.

¹⁰⁵ *Vrachebnye uchrezhdeniya Moskovskogo gorodskogo obshchestvennogo upravleniya* (Moscow: Gorodskaya tipografiya, 1896), p. 18.

hospitalized for 33 days. In 1909, an 18-year old syphilitic nursemaid Anna Ipatova had to spend as long as 68 days in the hospital. Even after the introduction of Salvarsan, the hospital stays lasted three weeks.¹⁰⁶

The regular conferences of the hospital physicians mentioned the complaints of the patients who objected to the length of their stay or the method of treatment (in particular, asked to replace injections with infraction). Yet, the hospital head Sergey Molodenkov noted in 1903,

[t]aking into account the contingent of the patients, their attitude towards the physicians and the administration of the hospital is satisfactory; with the lower medical personnel they behave disrespectfully and often rudely [...] The relatively decent behavior of the prostitutes in the hospital in the last ten years can be explained by the fact that after the sanitary inspection was moved under the municipal authority, they constantly, almost daily encounter the hospital administration and physicians and therefore recognize them as their command that makes them have some fear and respect.¹⁰⁷

The protracted and often painful treatment and the whole hospital experience, certainly, contributed to the prostitutes' avoidance of the medical care offered to them.

The central government made several attempts to reverse the course of the municipal reform and to bring the inspection of prostitutes back under the control of the reformed Medical-police committee – the attempts that encountered strong opposition of the municipality that held to the opinions voiced in the 1880s. When in the revolutionary year of 1905 the City Council discussed the project of the Ministry of Interior about the revival of the police inspection of the prostitutes, it passed the resolution saying that “the public education and available medical care are the best measures against the spread of venereal disease” and that “the control and registration of prostitutes by police, as a measure against syphilis, was condemned by practice and by science.”¹⁰⁸

¹⁰⁶ TsGAMOS, 179:46:19:2-4, 6.

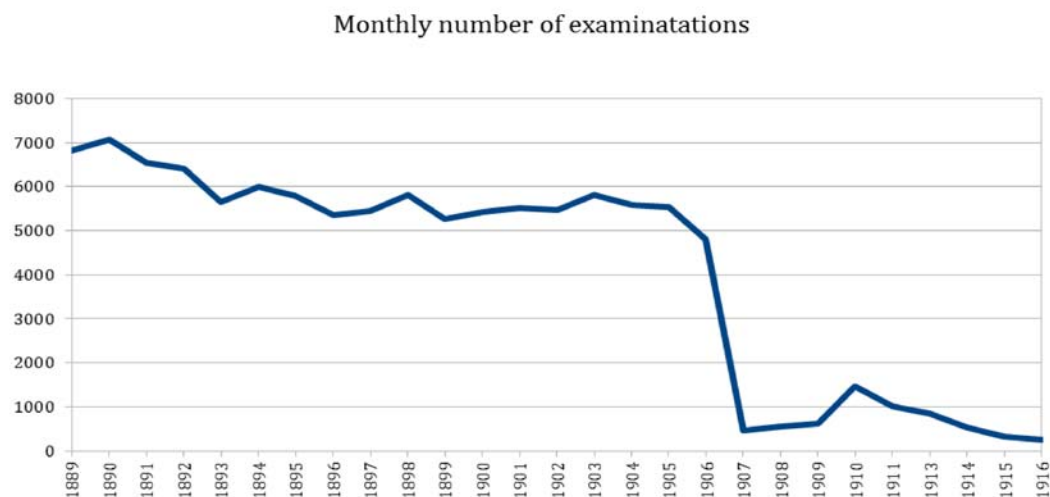
¹⁰⁷ TsGAMOS, 179:58:484:5.

¹⁰⁸ *IMGD*, 1905, no. 6, p. 36.

The municipality claimed that its policy in the sanitary inspection and treatment of prostitutes fully lived up to the expectations, and all the shortcomings of the system was blamed on the police unable to ensure the proper administrative control of the prostitutes who, with the exception of those working in the brothel, avoided medical care.¹⁰⁹

Figure 3.2. Examinations of prostitutes at Women's ambulatoriya, 1889-1916.

Source: TsGAMOS, 179:58:58:43; 179:58:130; 179:58:185; 179:58:309; 179:58:387; 179:58:392; 179:58:505; 179:58:621; 179:58:800; *IMGD; Vrachebno-sanitarnaya knronika Mosky*.¹¹⁰



Although Moscow brothels, in fact, provided the safest supply of commercial sex, in the early twentieth century they experienced a decline in business due to growing pressure and restrictions. Already in 1902 Molodenkov decided to reduce the number of physicians inspecting the brothel prostitutes from six to four because of the decreased workload.¹¹¹ In August 1906, Moscow City Governor [*gradonachalnik*] completely

¹⁰⁹ Ibid., p. 34.

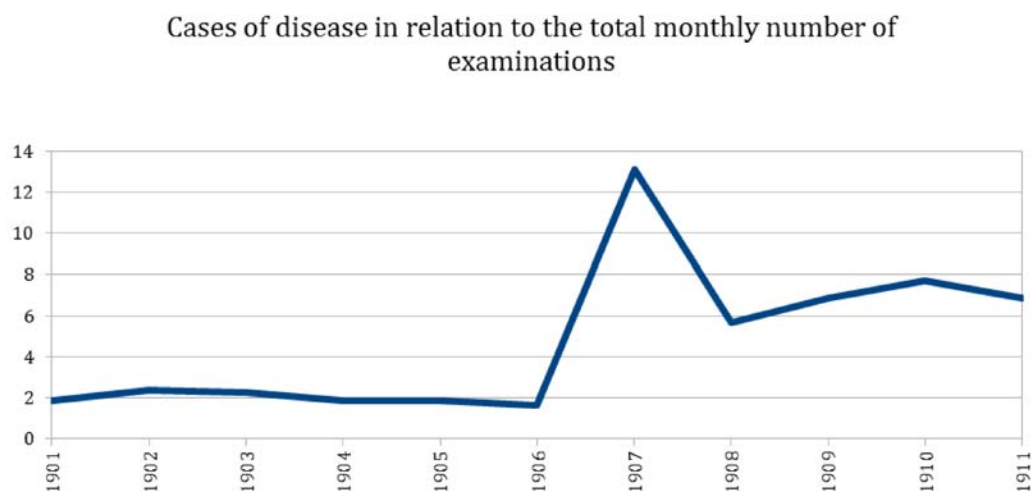
¹¹⁰ This data refers to the month of March of each year. The data for 1912 was unavailable.

¹¹¹ TsGAMOS, 179:58:505:173.

banned the brothels and thus removed any pressure from the prostitutes to be regularly inspected.¹¹² If from January to July 1906, the *ambulatoriya* performed about 4000 examinations a month, in the second half of the year this number fell below 400 (see Figure 3.2). Late in 1906 less than 200 women were coming to the clinic voluntarily, so its staff was cut down to two physicians. Logically, the incidence of venereal disease among the visitors of the clinic increased dramatically: if in June only one of every 60 examinations resulted in sending women to the hospital, in October it was one in every six.¹¹³ (See Figure 3.3).

Figure 3.3. Cases of disease among inspected prostitutes in relation to the total number of examinations, 1901-1911.

Source: TsGAMOS, 179:58:387; 179:58:392; 179:58:505; 179:58:621; 179:58:800; *IMGD*; *Vrachebno-sanitarnaya knronika Moskv*.¹¹⁴



The inspection of women never regained the scale it had before 1906, though in the next years some brothels reopened. Plausibly, women sought medical examination only when they discovered the signs of disease or when they felt a threat to their health.

¹¹² *IMGD*, *Vrachebno-sanitarny otdel*. September 1906, p. 18.

¹¹³ *IMGD*, *Vrachebno-sanitarny otdel*, January-December, 1906.

¹¹⁴ This data refers to the month of March of each year.

Thus, the epidemic years of 1908-1909 also coincided with an increased number of prostitutes coming for inspection. Otherwise, despite all the educating efforts of the Moscow physicians and without significant pressure from above, only a minority of prostitutes was ready to endure a visit to a doctor. In the last years of the empire, the clinic performed just about two to three hundred checks-ups a month.

Clearly, the municipality failed to achieve public health goals, promised by the new system of inspecting the prostitution. Yet, the reform of the prostitutes' control was still the most consistently implemented part of the broad program for the prevention of syphilis. The implementation of other measures, such as knowledge dissemination and better access to medical care, proved to be an even more difficult task. If the Women's clinic opened already in 1889, the plan for general outpatient care for syphilitics, that played such an important role in the plan of the Committee, remained on paper for years.

The municipal outpatient clinic for venereal disease eventually opened only in February 1897, already after its main supporters – Alekseyev and Erismann – had left the stage of health politics. The new clinic was located in a rented seven-room apartment on Yauzsky Boulevard, not far from the poorest neighborhood of Khitrov market. The comparison between the general and the Women's clinics reveals how much medical attention the prostitutes were in fact receiving. Although meant to serve the large working-class population of the city, which was believed to be the carrier of syphilis, the general clinic for venereal disease was poorly staffed compared to Women's *ambulatoriya*: it employed only two physicians and two paramedics [*fel'dsher*]. The working hours were also shorter than in the *ambulatoriya*.¹¹⁵ Despite

¹¹⁵ TsGAMOS, 179:58:209:76; 179:58:251:77.

this, the clinic managed to treat on average 64, and sometimes more than 70 patients a day. That meant that each physician received 10-12 people every hour. Until the 1910s, adult men composed three quarters of the clinic's patients. Only on the eve of World War I did their proportion fall to about two thirds and then even under 60 per cent during the war years. According to the statistics of the clinic, in most cases treatment resulted in putting a bandage, most likely with some mercury-based medicine, over the sores; surgeries were very rare.¹¹⁶

The access to hospital treatment for syphilitics was also problematic. Although the facilities of Myasnitskaya hospital had been expanded, in the 1890s, it had to refuse admittance more than 2000 times a year because of the lack of beds.¹¹⁷ While hospital treatment was imposed on the prostitutes, other social groups often could not receive it even when willing and in need of it.

The Moscow municipal reform of venereal disease control reveals an increasing role of medical expertise in the matters of urban policy and the optimistic belief that the reorganization of society according to the scientific principles proposed by the medical community would help to control both of the “social evils” - prostitution and syphilis - without state coercion.

Yet, the actual implementation of the reform fell short of the initial claims and expectations. It had to be adjusted to the political practices of the Russian state that favored neither the strong civil institutions, nor the rhetoric of individual freedom. More importantly, the conviction of the medical professionals in their own expertise and capacity to remake the society according to their “progressive” and “rational” ideals,

¹¹⁶ TsGAMOS, 179:58:209:115; *IMGD*, *Vrachebno-sanitarny otdel*, 1907, 1908; *Vrachebno-sanitarnaya khronika*, 1913, 1914, 1915, 1916.

¹¹⁷ TsGAMOS, 179:58:175:7.

when embedded in social policy, interfered with the autonomy of those who became the objects of their reformist projects.

Seeing the police inspection of the body as the coercion of the authoritarian regime, Moscow municipal reformers strove to replace it with disciplinary mechanisms based on their professional expertise. Yet, unlike the liberal regimes in the West, that, in the Foucauldian model, controlled their citizens through the notion of “individual freedom”, Moscow reformers did not need this even as a rhetorical figure. Despite their commitment to the goals of public good and community medicine, they lost the individual behind the image of “the people” they were trying to serve and save. They opted for more rather than less social control over an individual, provided that the agency was transferred from the “incompetent” governmental officials to the “knowledgeable” liberal professionals working for the public good.

Although Moscow reformers called for mass venereal inspection of the poor, their administrative and financial capacities could not ensure the implementation of this plan, nor provide the adequate infrastructure for it in the form of sufficient outpatient clinics and hospital beds. Therefore, the prevention of syphilis had to concentrate on prostitutes as the less numerous and more identifiable transmitters. If the debates of the 1880s clearly treated prostitution and syphilis as separate phenomena, in the municipal practice the two were often taken together; the medical control of prostitution substituted the control of venereal disease in general. The shape that the reform took upon realization shows that the gender dimension outweighed the social, although the latter still remained important in the approach to venereal disease.

Yet, even with the sanitary inspection of prostitutes the proposed measures hardly reached the intended aim. The reorganization of examination and free treatment probably resulted in more efficient diagnostics and therapy and softened the experience

of inspection for women but this was insufficient to make the majority of prostitutes regularly undergo it voluntarily. Even the brothel prostitutes, who seemed to have taken part in the disciplinary project of the municipality, immediately gave it up as soon as the restrictions of organized brothel prostitution were removed. Having rejected the coercive methods of the police and the administrative rule, the municipality lost the executive power to establish its disciplinary project.

That said, the exclusion of police and direct coercion from the matters of medical inspection did eventually give prostitutes more freedom and more agency in the control of their own body. Although the Moscow medical reformers denied them the right to bodily autonomy, the women claimed it themselves through avoiding the medical inspection. The system that developed in Moscow *de facto* allowed the prostitutes to elude the sanitary control but still gave them a possibility to receive free examination or hospital treatment when necessary.

CHAPTER FOUR

Animal bodies for the human good?

Moscow public abattoir and the reform of meat production

Before the coachman could even start the horses, the courier stood up and, silently, without any word whatsoever, raised his huge right fist and dealt a painful blow straight down on the back of the coachman's neck. The coachman jolted forward, raised his whip, and lashed the shaft horse with all his might. [...] This little scene was like an emblem, so to say; something that very graphically demonstrated the link between the cause and its effect. Every blow that rained down on the animal was the direct result of every blow that fell on a man.

Fyodor Dostoevsky, *A Writer's Diary*

The striker quickly took aim at the spot where the hair divides like a star, and, notwithstanding the blood, found it, struck, and the fine animal, full of life, collapsed, its head and legs writhing while it was bled and the head skinned. [...] We cannot pretend that we do not know this. We are not ostriches, and cannot believe that if we refuse to look at what we do not wish to see, it will not exist. This is especially the case when what we do not wish to see is what we wish to eat.

Leo Tolstoy, *The First Step*

“Meat should play a vital role in the nutrition of the human body as the food from which the muscles and other tissues and organs are formed. Meat is particularly important for a worker who constantly exhausts the strength of his muscles with hard labor; recuperation and formation of strong muscles for the working class population is thus a matter of great significance.”¹ This quotation, taken from the 1859 study of nutrients by a chemist Alexander Naumov, voices one of the key dietary postulates of the nineteenth century - meat makes muscles. Identified as a rich source of protein, meat was seen as the main source of physical strength and work productivity. The millennial practice of meat consumption was made intelligible, explained and systematized and in this new rationalized form became a part of political economy and a tool of managing

¹ A.M. Naumov, *O pitatel'nykh veshchestvakh i o vazhneyshikh sposobakh ratsional'nogo ikh prigotovleniya, sberezheniya i otkrytiya v nikh primesey* (St. Petersburg: Izdaniye Torg. Doma S. Strugovshchikova, G. Pokhitonova, N. Vodova i K^o, 1859), p. 145.

the population.² Following their Western colleagues, Russian scientists connected meat with strength, health and resistance to epidemics and argued that more and better meat should be consumed.³

At the same time, many European cities saw a remarkable transformation in how meat was produced and supplied. The concentration of the population in the urban centers pressed the traditional art of butchering to increase in scale and speed, while the developing sanitary and medical sciences demanded stricter control over the slaughter.

More meat inevitably meant more slaughtering. The nineteenth-century preoccupation with civility, morality and order and the rhetoric of social hygiene demanded the dissociation between the healthy and nutritious meat and the act of killing that it implied. To mask this relation, the process of slaughter and the site where it took place had to be transformed.

Centralized abattoirs were a product of Napoleonic era. In 1810, the French government ordered that slaughtering be moved from private facilities to special municipal establishments located outside the urban centers.⁴ The first public slaughterhouses opened in Paris in 1818, and in the following decades other French and Belgian cities followed its example. In the second half of the century, German cities took the lead in the slaughterhouse reform and appeared as a new role-model in questions of technological equipment and veterinary science. Public abattoirs thus

² Dorothee Brantz, "Animal Bodies, Human Health and the Reform of Slaughterhouses in Nineteenth-Century Berlin", *Food and History*, 3, 2 (2005), p. 193.

³ A.P. Dobroslavin, *O sravnitel'noy stoimosti uluchshennoy pishchi arestantov s zatratami na ikh lecheniye* (St. Petersburg: Tipografiya Ya. Trey, 1884), pp. 8-11; F.F. Erismann, "Pishchevoye dovol'stvo rabochikh" in *Sbornik statisticheskikh svedeniy po Moskovskoy gubernii. Otdel sanitarnoy statistiki. Obshchaya svodka po sanitarnym issledovaniyam fabrichnykh zavedeniy Moskovskoy gubernii za 1879-1885 gg.*, vol. 4, part 2 (Moscow: I.N. Kushnerev, 1893), pp. 464-516.

⁴ Sydney Watts, "Liberty, Equality and the Public Good: Parisian Butchers and Their Right to the Marketplace during the French Revolution," *Food and History*, 3, 2 (2005), p. 117.

became a typical feature of European cities; the immediate incentives for their creation included hygienic concerns and, later, the fear of transferable disease (i.e. trichinosis) as well as the need for meat inspection.⁵

Russia was a latecomer in the questions of slaughtering reform. Although the necessity of this reform in the big cities was discussed since at least the 1840s, the first public abattoir appeared only in 1882 in St. Petersburg. After the pioneering example of the capital, other municipalities were quick to take up the initiative, and in the following decade the new slaughterhouses were constructed in Moscow, Odessa, Kiev, Voronezh, Astrakhan', Tula, Saratov and Kazan'.⁶

The transformation of the slaughterhouse reflected a profound shift in European sensibilities. Previously, animal death had been a daily experience of urban life. The herds of livestock intended for slaughter were regularly passing through the city streets and some were slayed right behind the butchers' shops. The modern sensibilities and the new hygiene regimes implored that death, blood and physical violence as well as disease, foul odors and pollution were removed from the increasingly ordered and "civil" city. The public abattoirs, together with other products of modernity such as the prison, the clinic and the sewerage systems, were the mechanisms of this transition.⁷

As the anthropologist Noëlie Vialles put it in her study of French abattoirs, "slaughtering was required to be industrial, that is to say large scale and anonymous; it must be non-violent (ideally: painless); and it must be invisible (ideally: non-existent).

⁵ Paula Young Lee, "The Slaughterhouse and the City," *Food and History*, 3, 2, (2005), p. 13; Dorothee Brantz "Animal bodies, human health," p. 194; Stefan Tholl, *Preussens blutige Mauern: Der Schlachthof als öffentliche Bauaufgabe im 19. Jahrhundert*, (Walsheim: Europäische Food Edition, 1995).

⁶ S.A. Poderni, *Tekhnicheskoye opisaniye Moskovskikh tsentral'nykh gorodskikh boyen* (Moscow: Pechatnya Snigiryovoy, 1896), p. iv.

⁷ Patrick Joyce, *The Rule of Freedom: Liberalism and the Modern City* (London: Verso, 2003), pp. 76-83; Chris Otter, "Civilizing slaughter: The development of British public abattoir, 1850-1910," *Food and History*, 3, 2, (2005), p. 30.

It must be as if it were not.”⁸ The slaughter was exiled to the outskirts, enclosed and confined within the walls of the new institution; it had to be culturally marginalized, hidden, excluded from the everyday life and turned into a “no place”. Even the euphemism of its name - “abattoir” instead of French “tuerie” and English “slaughterhouse” - was meant to disguise the violence of its purpose.⁹ In the last fifteen years cultural historians took Vialles's formula of “a place that was no place” to explore the meaning of the slaughtering reform in other cities across the Western world and emphasized the intention for anonymity, invisibility and dissimulation embedded in the projects of the modern abattoirs.¹⁰

The following chapter studies the emergence of a modern abattoir in Moscow in the context of changing perceptions of cleanliness, physical violence and the body. Constructed in 1886-1888, the centralized municipal slaughterhouse in Moscow came to replace the small private slaughtering facilities located in the suburbs or behind the butchers' shops and became on the city's most successful large infrastructural projects. Despite the growing interest to the history of animals in the Western scholarship and perceivable “animal turn” in humanities and social sciences, historians of Russia have not explored the field of human-animals relations, the place of animals in the urban life or in the sanitary reforms.¹¹ The next pages will explore the motivations behind the slaughtering reform in Moscow and its role in the public health campaign as well as the

⁸ Noëlie Vialles, *Animal to Edible* (Cambridge: Cambridge University Press, 1994), p. 22

⁹ For the discussion on the term “abattoir” see Vialles, *Animal to Edible*, pp. 15-26; Joyce, *The Rule of Freedom*, p. 77.

¹⁰ Joyce, *The Rule of Freedom*, pp. 76-77; Paula Young Lee (ed.), *Meat, Modernity and the Rise of the Slaughterhouse* (Durham: University of New Hampshire Press, 2008), especially: Otter, “Civilizing Slaughter: The Development of British Public Abattoir, 1850-1910”, pp. 89-106.

¹¹ The rare book on animals in Russian context is Jane Costlow and Amy Nelson (eds.), *Other Animals: Beyond the Human in Russian Culture and History*, (Pittsburgh: University of Pittsburgh Press, 2010).

impact of this transition to mass-scale and highly-technological killing on the human-animal and interhuman relations in the city.

“Public good” versus profit: motivations behind the slaughtering reform

Moscow's path to the public slaughterhouse was a very long one. Back in 1863, Moscow military Governor-General Pavel Tuchkov proposed to the city government to reorganize the existing private slaughterhouses in view of their dirt, stench and “unsatisfactory condition”. The Moscow City Council discussed this proposal and decided that the only way to improve the situation was to open municipal abattoirs. For this purpose, in 1866 the city bought a plot of land south of Moscow, in the area of the Serpukhov gate that was then the main hub for livestock and the destination of the drove-routes.¹² Moscow city mayor Prince Alexander Shcherbatov optimistically wrote that “it can be confidently assumed that the work will start in 1869 and within two years the construction of the slaughterhouse will be completed” but the undertaking of the city did not produce any practical result on the ground, and after 1875 the question was abandoned.¹³

A decade later, the City Council returned to the project. Yet, as the members of the newly-created Commission for the organization of the municipal stockyard and slaughterhouse acknowledged, “the ten-year break inevitably transformed the initial statement of question while the materials, collected by the previous committees, lost all their significance.”¹⁴

¹² “Zapiska o rabotakh Komissii po ustroystvu boyen do 1885 g.,” *IMGD*, 3 (1885), pp. 1-2.

¹³ D.G. Gorbunov, *Moskovskiye gorodskiye boyni*, (Moscow: Gorodskaya tipografiya, 1913), pp. 20-21.

¹⁴ “Doklad N 41 ob ustroystve gorodskogo skotoprigoonnogo dvora i boyni”, *IMGD*, 3 (1885), p. 1.

Indeed, the city itself underwent certain remarkable changes. Compared to the late 1860s, Moscow's population had almost doubled and exceeded 700 thousand. The new Municipal Statute gave the city government the motivation as well the financial and administrative resources for large infrastructural projects.

In these years the entire public health agenda was also experiencing a paradigmatic shift. The growing awareness of the transferability of diseases and their etiology, as well as the rise of the germ theory revealed the interdependence of human and animal health and pressed for the stricter control over the animal body.¹⁵ The questions of animal health became a matter of interest for state and local government that, in its turn, stimulated the professionalization of veterinary medicine.

As the prominent Russian veterinarian and founder of Moscow provincial veterinary organization Valentin Nagorsky later described this shift,

the difference with the previous times is that we know what infection is, what are its qualities, where and in which form it can be located outside the body, how it is affected by the natural forces and the artificial conditions in which we have power to put it, how, where and by which means it can be destroyed until it turns harmless, we also know how to influence the agents of certain diseases to produce the material for vaccination <...> No doubt, there is more work to be done, because for some diseases the microbes have not been identified, for others the immunization attempts have not been successful, but still, what we have now already gives us the possibilities to quickly deal with such calamities as the plague or cattle plague used to be just yesterday.¹⁶

Rinderpest (cattle plague) indeed played a remarkable role in the emergence of control over animals. Although not dangerous to humans, this viral disease caused extremely high death rates among cattle, disrupting the entire economy and undermining the well-being of the population in the affected regions. In Russia at the

¹⁵ Brantz, "Animal Bodies, Human Health," pp. 193-194.

¹⁶ V. F. Nagorsky, *Osnovnye printsipy i usloviya bor'by s epizootiyami* (St. Petersburg: Tipografiya MVD, 1904), p. 6.

turn of the 1880s, the outbreaks of rinderpest claimed a million head of cattle a year.¹⁷ In 1879, as a measure against the epizootic, the Ministry of Interior obliged zemstvos to exterminate the plagued animals - a policy that prompted the veterinary institutionalization in most of the zemstvo provinces.¹⁸

The next step was the restriction of animal movement across the country. The nineteenth-century expansion of the Russian Empire south and east and the colonization of the frontier regions north of the Black Sea and the Caspian allowed for increased animal husbandry and resulted in the growing spatial separation of the cattle-raising and the meat consumption.¹⁹ Similar to the American cowboys moving herds of animals from the prairies of the Midwest to the meat-packing plants in Chicago,²⁰ their less iconic colleagues named “prasol” were driving cattle for even longer distances across the Romanov Empire - from the steppes of Central Asia, Ciscaucasia and the Azov to the slaughterhouses of Central Russia. In the 1870s, the majority of animals killed in Moscow had to walk more than a thousand kilometers from the Don Cossack Host, Kuban, Stavropol and Ekaterinoslav provinces, and some more than three thousand kilometers from the areas of Semipalatinsk and Semirechye (present-day Eastern Kazakhstan and Northern Kyrgyzstan). Despite the appearance of the railways, this practice remained very popular – in 1881, half of all cattle brought to Moscow came there on foot.²¹ These constant long-distance migrations of cattle were a perfect vehicle for epizootics. In 1882, the Ministry of Interior requested that all cattle should be

¹⁷ Ya. P. [Yakov Polferov], “Chuma rogatogo skota” in *Entsiklopedicheskiy slovar'* (St. Petersburg: Brokgauz i Efron, 1903), vol. 39, pp. 52-54.

¹⁸ B. Veselovsky, *Istoriya zemstva za 40 let* (St. Petersburg: Izdatelstvo Popovoi, 1909), vol 2, pp. 361-372.

¹⁹ Naumov, *O pitatel'nykh veshchestvakh*, pp. 146-147.

²⁰ For the detailed research on American cattle-drives and Chicago meat industry see William Cronon, *Nature's Metropolis: Chicago and the Great West* (New York and London: W.W. Norton, 1991), pp. 213-230.

²¹ K. A. Verner, “Moskovsky skotny i myasnoy rynok”, *IMGD*, 5 (1885), pp. 31-36.

transported by railways to curb the spread of infection.²² Despite its seeming rationality and convenience, this measure provoked little enthusiasm among the drovers. Although slower, the traditional cattle-drives were cheaper than railway transportation, given the existing tariffs, and allowed animals to graze on the way, while the lack of proper fodder in the train allegedly made them lose weight.²³

The new technology of delivering cattle brought an important change to the spatial morphology of Moscow slaughtering arrangements. The old drove-roads lost their significance, and so did the plot of land to the south of Moscow that the city had bought for its intended slaughterhouse. Instead, the herds of animals were now coming to the terminals of the Kursk and Ryazan railways, located on the east of the city. This pressed for the relocation of the slaughterhouse eastward, close to the stations, that would not only prevent the spread of epizootics from the imported animals to the local horses and milk cattle but also spare the city streets from the inconveniences of cattle-drives. In February 1885, Moscow Imperial Society for Agriculture discussed the measures against rinderpest and informed the city mayor of

the utter necessity to organize in Moscow a centralized slaughterhouse together with tallow-melting and leather-dressing factories (to decontaminate the skins of suspicious animals, brought for compulsory slaughter) near the stockyard and the train station, so that the cattle was transported by railway directly to the stockyard instead of being driven through the streets of Moscow, as it happens now, what allows the epizootics to spread even further and the fight against them to claim more energy and money for no use.²⁴

²² *IMGD*, 11 (1884), pp. 1-2

²³ “Doklad N 41,” p. 4. American cowboys, on the contrary, preferred railway transportation, because it allowed them to save the expenses and reduced the muscular efforts and weight loss of the animals. See William Cronon, *Nature's Metropolis*, p. 223.

²⁴ “Kopiya s predlozheniya Imperatorskogo Moskovskogo Obshchestva Sel'skogo Khozyaystva ot 22 fevralya 1885 g. za N 61 g-nu ispravlyayushchemu dolzhnost' Moskovskogo Gorodskogo Golovy,” *IMGD*, 3 (1885), p. 13; similar ideas about the centralization of slaughtering in Moscow as a mechanism to hinder the spread of epizootics, see Verner, “Moskovsky skotny i myasnoy rynok”, p. 37.

The centralization of arrival opened the way for the centralization of veterinary inspection and slaughtering and promised to turn the trip from the steppe pasture to the Moscow meat market into a more controlled but less visible process than ever before.

If rinderpest stimulated the institutionalization of veterinary medicine and animal inspection, it was trichinosis that connected meat production to the scientific laboratory. Caused by parasite roundworm *trichina spiralis*, this disease had existed for centuries but became a matter of scholarly awareness only after the parasite was discovered by a medical student James Paget in 1835. In the second half of the century, medical practitioners, most notably German researchers Rudolph Virchow and Friedrich Albert von Zenker, described the life cycle of *trichinella* and revealed that humans were at risk of contracting the disease through eating pork.²⁵

In Russia, the first detailed description of disease was given in 1862 by the Kazan professor Alexander Danilevsky on the basis of reports from abroad. However, when in 1865 the pathologist Mikhail Rudnev, a student of Rudolph Virchow, discovered a case of trichinosis in a dissected female corpse in St. Petersburg, it became clear that the disease was present in Russia as well.²⁶ In the following years, his colleagues reported incidents of trichinosis from Moscow, Saratov, Kharkov, Riga and other cities and alerted the academic community and the wider public that consumption of pork, especially undercooked, could be dangerous. Microscopic examination of meat was seen as the only way to ensure its safety, otherwise, the experts advised, eating pork

²⁵ Brantz. "Animal Bodies", p. 199; see also Rudolf Virchow, *Izlozheniye ucheniya o trikhinakh: S ukazaniyem na predupreditel'nye mery etoy bolezni* (St. Petersburg: Tipografiya O.I. Baksta, 1864).

²⁶ M.M. Rudnev, *O trikhinakh v Rossii: Nereshennye vorposy v istorii trikhinnoy bolezni* (St. Petersburg: Tipografiya Ya. Treya, 1866), pp. 1-2, 24.

should rather be completely avoided.²⁷ In Moscow, the municipal journal soon joined the discussion, warning the city dwellers about the hazards of trichinosis.²⁸

In 1876, the Medical Council of the Ministry of Interior discussed the questions of trichinosis and concluded that the meat of trichined animals was to be prohibited from sale, forage or any other use and subject to immediate destruction. To put this ban into practice, the Ministry also recommended introducing microscopic examination as an important step in pork production.²⁹

The centralized abattoir equipped with laboratories and an adequate system of veterinary inspection came to be seen as a mechanism of ensuring the safety of meat and livestock. This “veterinary turn” in meat production, as the members of the Moscow slaughterhouse Commission acknowledged, should be reckoned with when devising a project of the enterprise:

Previously, the only demand for the improved slaughterhouse was that it is kept clean and does not produce any foul odors [*zlovoniye*]. Now this is not enough. From the veterinary side it is required that the slaughterhouse helps to combat rinderpest, raging in Russia. From the sanitary side it is considered necessary that the slaughterhouse serves as a controlling point for the quality of meat to prevent the sale of meat from sick animals.³⁰

²⁷ Yu. T. Chudnovsky, *Vorpos o trikhinakh i trikhnnoy bolezni v primenenii k Rossii*. (St. Petersburg: Obshchestvennaya pol'za, 1866); V. Andreyevsky, *Glisty i trichiny: Ikh proiskhozhdeniye, stroyeniye, otlichitel'noye raspoznavaniye i mikroskopicheskoye issledovaniye*, (St. Petersburg: Tipografiya Golovachova, 1867); M.A. Belin, “Demonstirovaniye trikhin, naydennykh v vetchine Ryullinga” in *Moskovskaya meditsinskaya gazeta*, 50 (1874), pp. 1694-1695; V. A. Tikhomirov, *O legchayshem sposobe otkrytiya trikhin v podozritel'nom myase* (Moscow: Universitetskaya tipografiya, 1875); V.P. Krylov, *K istorii trichinoza v Rossii* (Moscow: Universitetskaya tipografiya, 1876); P.T. Zeyfman, *Trikhiny i trikhinnaya bolezni* (St. Petersburg: Tipografiya Ya. Treya, 1877); M.F. Krivoschapkin, *Preduprezhdeniye zhiteley otnositel'no trikhin, finn i solitera* (Kazan: Tipografiya Gubernskogo Pravleniya, 1884).

²⁸ See for instance the following articles in the municipal journal *IMGD*: “Osmotr trikhinnogo myasa v Berline,” 11 (1883); “K voprosu o trikhinakh,” 12 (1883); “Trikhinoznaya epidemiya v Germanii,” 1 (1884); “Po povody zarazheniya trikhinamy,” 3 (1885).

²⁹ *Doneseniye Meditsinskomu sovetu Osoboy komissii po voprosu o trikhinakh v svinom myase* (St. Petersburg: Tipografiya MVD, 1876); N. P. Petropavlovsky, *K voprosu o rasprostrnenii trikhin sredi zhivotnykh goroda Khar'kova*, (St. Petersburg: Tipografiya MVD, 1899), pp. 12-14.

³⁰ “Doklad N 41”, pp. 1-2.

Finally, the example of St. Petersburg played its role in the story. In 1882, St. Petersburg successfully completed the centralized municipal slaughterhouse that not only proved that such an institution could successfully function in Russia and provided an illustration of how it could be achieved, but also included city pride in the agenda of the slaughtering reform, taking into account the traditional rivalry between the “two capitals” of the Empire.

In May 1885, the Committee prepared a preliminary plan of the new abattoir. It was proposed to move it to another location behind the Spasskaya Gate, southeast of the city, and connect it with a special branch railway to the main routes of cattle transportation. In addition to the infrastructural advantages, this location, considering Moscow's compass rose with prevailing western winds, spared the city from the odours of the slaughter. The complex was also supposed to include a stockyard, storage facilities and factories to process blood and tallow.³¹

Although the preliminary project was generally designed according to the model of St. Petersburg, there was a crucial difference. The abundance of water in St. Petersburg - as the Neva, despite its modest length, is among the largest and most affluent rivers in Europe – and the proximity of the Baltic coast offered the city an easy solution to the question of slaughterhouse sewage, that was simply carried away into the sea. In Moscow, on the contrary, the shallow and slow Moskva River, going through a densely populated area downstream of the city, could not offer a sufficient reservoir for the offal of meat production. At the same time, the members of the Commission, including Friedrich Erismann, concluded that “the slaughterhouse brings no harm only if it is kept clean” and that “cleanliness requires abundance of water”, but that “in light of

³¹ “Doklad N 41”, pp. 37-38, 80.

contemporary knowledge, it cannot be allowed to discharge the waste waters from the slaughterhouse straight into the river, without filtration or decontamination [*obezvrezhivaniye*].”³²

It was thus proposed to connect every building of the complex to the sewerage system that would bring the refuse to the filtration fields to be organized in the area of the large Bitch's Swamp (*Sukino boloto*), southeast of Moscow. This was indeed an impressive plan in view of the overall level of urban infrastructure. In the 1880s, neither Moscow, nor, in fact, any other city in the Russian Empire had a sewerage system that involved the treatment of wastes. The Bitch's Swamp was indicated as a possible site of filtration fields in the project of Moscow's sewerage, designed by the author of Berlin's sewerage system and the most influential German expert in urban infrastructure James Hobrecht, who was invited by the Moscow City Council in 1880.³³ The filtration fields of the slaughterhouse, in the opinion of the Committee members, were thus meant to serve as a kind of testing platform for what would be an entirely new system of urban waste treatment in Russia.³⁴

Yet, the construction of the central slaughterhouse according to the new scientific imperatives was a very complicated and expensive undertaking (the costs of the complex were estimated at 1.9 million rubles).³⁵ In the situation when Moscow's budget was scarce and when so many spheres of urban life required municipal intervention, it was questionable whether the efforts and resources should concentrate on the meat

³² “Doklad N 41”, pp. 9-10, 29.

³³ *Istoriya Moskvy*, vol. IV (Moscow: AN SSSR, 1954), p. 537. On James Hobrecht's role in German infrastructural projects see i.e. Dieter Schott, *Die Vernetzung der Stadt: Kommunale Energiepolitik, oeffentliche Nehverkehr und die “Produktion” der modernen Stadt Darmstadt-Mannheim-Mainz, 1880-1918* (Darmstadt: Wissenschaftliche Buchgesellschaft, 1999), pp. 139-143, 170-172, 184.

³⁴ “Doklad N 41,” pp. 12-14.

³⁵ “Doklad N 41,” p. 32.

production. As the municipal deputy Fyodor Popov claimed when the project was discussed in the City Council,

[i]n light of the anti-sanitary conditions, in which the urban population lives, the universal pollution of soil and ground waters, the existing [private] slaughterhouses did not exacerbate the awful anti-sanitary state of Moscow. Considering the absence of public services [*blagoustroystvo*] in the city, the organization of the new slaughterhouse can be compared to the following: if we were given a man, infected from eternal dirt, crippled, in rags, unkempt and hungry and were told “put him to rights” - but instead of cleaning, dressing and treating him, we will only wash his feet, only toes, and put varnish shoes. In my opinion, the slaughterhouse is no more than varnish shoes in the matters of urban accomplishment. The slaughterhouse is just a detail and cannot be as important and urgent, as the enterprises necessary for general infrastructure and health of the city, such as water supply and sewage system.³⁶

Although not supportive of the project, this quotation reveals how important the public good rhetoric was for the slaughterhouse construction. Similar to other European cities – and different from American experience, where large meat-packing plants (most notably in Chicago, but also in Cincinnati, St. Louis, Kansas City and Omaha) were running for profit and serving markets across the country and beyond³⁷ – the centralization of slaughtering in Moscow was driven primarily by the improving health and well-being of a given urban community.

As the members of the Commission warned in their project,

[i]f we admit that the aim is not in material profit but in the desire to protect the city from the harm, arising from the uncontrolled meat supply and the upkeep of the slaughterhouses in the conditions incompatible with the elementary notions of cleanliness, as well as to shield the city and its suburbs from the epizootics, we have to agree that this aim can only be achieved at the expense of the material profits of production. Certainly, better veterinary and sanitary control, cleaner upkeep of the slaughterhouse, faster removal of wastes mean higher costs and, consequently, lesser crude income of the enterprise.³⁸

³⁶ Minutes of the City Council discussion were published in *IMGD*, 7 (1885), quote from p. 775.

³⁷ William Cronon, *Nature's Metropolis*, pp. 207-259.

³⁸ “Doklad N 41”, p. 19.

This argument targeted not only the private butchering facilities, but also the management of the municipal slaughterhouse by a private concessionaire, because, in the words of one of the authors of the project, Leonid Sumbul, “an entrepreneur is always inclined to gain maximum profit and to avoid the sanitary rules” and that “the dirtier the slaughterhouse is, the less expenses it requires.”³⁹ The members of the Commission thus concluded, and the majority of the City Council agreed with them, that the municipally-run slaughterhouse was the only way to reach the public health goal.

Furthermore, the mere assumption that the abattoir can potentially become a profitable enterprise, bringing income to the city, was, in fact, used as an argument against and not for its construction. As the deputy Popov warned,

the Commission believes the construction of the slaughterhouse to be profitable for the city, because it will be the source of municipal revenue; meanwhile we should not forget that this profit will come from the production of meat, the essential good; I believe that it would be unfair for the City government to turn it into a source of profit.⁴⁰

Another Council deputy, Nikolay Lanin, the owner of a large wine and water producing factory and the publisher of the newspaper “Russky Kurrier,” went even further with his critique of the slaughterhouse as a business institution:

If we see the slaughterhouse as a profitable enterprise, the revenues of which will come to the municipality from the poor consumers, we need to admit that this principle is perverted [*protivoyestestvenny*], that it does not suit to the status of the city deputies, whose mission is to protect the interests of the majority that they are meant to represent. Therefore, if the main motive for the construction of the slaughterhouses is that it would be a profitable commercial enterprise, I am against this construction. <...> I do not want the ground principle of the slaughterhouse construction to be wrong. If what we want is the slaughterhouse to be profitable for the city, it is clear, that its construction will only place an additional burden on the city dwellers because the animals will be killed in a beautiful slaughterhouse.⁴¹

³⁹ *IMGD*, 7 (1885), p. 787.

⁴⁰ *IMGD*, 7 (1885), p. 776.

⁴¹ *IMGD*, 10 (1885), p. 1113.

The new public abattoir was imagined not as a correction, but as an antipodes to the existing businesses in the sphere of meat production. If the private facilities were small and dispersed, the new one should be large and centralized. If the private enterprise was running for money, the main rational for the municipal one was public good. While the existing slaughterhouses were dirty, fetid, full of rotting wastes - the abattoir was a clean and hygienically kept place, where pure and abundant water carried all the refuse away to the filtration fields. Private slaughterhouse endangered city dwellers by letting out the contaminated meat - the new abattoir mobilized the achievements of veterinary medicine and sanitary engineering to protect the health of the urban population. The private slaughterhouse was all about disorder, the new abattoir was “rational” and “scientific”.

To reach the private slaughterhouses, the cattle was driven through the streets of the city, exposing the population of adjacent neighborhoods to the sight, smells and sounds of animals, reminding of their inevitable death. In the new public abattoir, as the veterinarian Valentin Nagorsky formulated it in his note to the project, “the turnover of animals should be confined to the most limited space, while all the time spans between the unloading and the arrival to the stockyard, between the exit from the stockyard and the slaughter <...> should be cut to a minimum.”⁴² The new abattoir thus would enclose not only the circulation of animals, but also the awareness of their transition from life to death, making it invisible, inaudible and concealed.

Besides, the public abattoir was seen to be so irresistibly European. Although the circulation of knowledge and practices and borrowing from foreign models was a

⁴² “Doklad N 41,” Appendix 5, p. 15.

common feature of the time, the entire discussion of the project in the City Council was embedded in the narrative of Moscow's perceived “backwardness” compared to the Western cities. The speakers invoked Moscow's “universal pollution”, “anti-sanitary conditions”, infection, disease and poverty to call upon the Council to “make a step towards the accomplishment of the city so that it resembled a European one.” In their imagination, Moscow not only was not a European city, but also clearly did not look like it.⁴³

Quite illustratively, the council deputy Prokhovshchikov mentioned the English law of 1486 against the organization of slaughterhouses in the cities to claim that Moscow was 400 years behind in the resolution of the question⁴⁴ – although, for the sake of historical accuracy, it should be said that the City of London banned private slaughterhouses only in 1927, and throughout the nineteenth century British butchers successfully opposed the introduction of public abattoirs.⁴⁵

For most of the City Council, the European achievement in urban accomplishment presented a challenge and motivation for slaughterhouse reform. The references to the experience of European cities, such as London, Paris, Berlin, Geneva and, ultimately, St. Petersburg, were thus used to emphasize the necessity and urgency of the abattoir construction and its priority over the other infrastructural concerns.

To ensure the rationality and the proper scientific basis of the slaughterhouse it was decided to commission three independent projects. The winning design was prepared by an architect Alexander Ober and an engineer R. Sablin. This project profited from various spheres of expertise, both in Russia and abroad. Thus, while completing the

⁴³ *IMGD*, 7 (1885), p. 787-788; 1885, 10 (1885), p.1109.

⁴⁴ *IMGD*, 7 (1885), p. 781.

⁴⁵ Ian MacLachlan, “A bloody offal nuisance: The persistence of private slaughter-houses in nineteenth-century London”, *Urban History*, 34, 2 (2007), pp. 227-254.

assignment, Ober and Sablin consulted hygienist Friedrich Erismann, veterinarian Valentin Nagorsky and the municipal sanitary doctor Pyotr Dyakonov, as well as some prominent meat-producers. In addition, they made a study trip to visit the public abattoirs in Berlin, Hanover, Brussels, Paris and London.⁴⁶

Although not the cheapest among the presented projects, the plan of Sablin and Ober was chosen by the municipality for its detailed attention to the infrastructural solutions, such as internal roads, waste removal and filtration fields. On May, 27, 1886, the Moscow City Council approved the project and the construction works began.⁴⁷

The operation of the abattoir: science, technology and the public image

The construction process of the new public abattoir was in itself remarkable. The large complex of 50 buildings and complicated infrastructure, most of which was new in Russia, was built in less than two years. The final cost of the abattoir was 2.3 million rubles, which exceeded the initial project budget of Ober and Sablin by about 6 percent.⁴⁸ The efficiency and celerity of construction as well as the relatively low financial overrun could speak for the strong commitment of the municipality and the project implementers to the cause of the public good rather than personal material profit.

Although the abattoir was completed by early spring 1888, the actual operation could not start because of the bureaucratic hindrance and competition with the private facilities. The control over the butcher trade and the private producers was a challenge

⁴⁶ Poderni, *Tekhnicheskoye opisaniye*, pp. v, 4.

⁴⁷ Gorbunov, *Moskovskiye goroskiye boyni*, p. 28.

⁴⁸ This overrun [excluding the loss of 193 thousand rubles in exchange rate) made the Municipal auditing committee conclude that the construction of the abattoir was conducted “uneconomically”; the financial reports of construction were approved only in 1896 after several additional explanations, see Gorbunov, *Moskovskiye gorodskiye boyni*, pp. 32-37.

for the public abattoirs in many European cities,⁴⁹ but in Moscow the situation was complicated by the legislative weakness of the Russian municipalities. Legally, the opening of industrial enterprises, even those built on the city money and for the city needs, was beyond the competence of the municipal government and required the permission of the administration.

Figure 4.1. The complex of the Moscow abattoir.

Source: S.A. Poderni. *Tekhnicheskoye opisanie Moskovskikh tsentral'nykh gorodskikh boyen*. Moscow: Pechatnya Snigiryovoy, 1896).



On April 14, 1888, the municipality petitioned the Governor-General Vladimir Dolgorukov to grant permission for the opening of the abattoir and stockyard from May, 1. Those permissions came only in the middle of June and the official opening was held on June, 22. The new complex, however, remained almost empty and idle, because the municipality had no legal power to close the former stockyard or to ban private slaughtering. For three months the repeated petitions of the City Board to the Ober-Polizmeister on the centralization of livestock trade and slaughter produced no effect. It was not until August 10 when the cattle was finally redirected to the municipal stockyard which gave the public abattoir a competitive advantage over the private

⁴⁹ Dorothee Brantz, "Animal Bodies, Human Health," pp. 208-210.

slaughterhouses (which were never officially forbidden). In the first three days of its proper operation, the new Moscow abattoir processed 5312 head of livestock. “This was how,” wrote Dmitry Gorbunov in his volume to the 25th anniversary of the Moscow abattoir, “the factory [*fabrichnoye*] production in the sphere of animal slaughter began.”⁵⁰

“Factory” was indeed an appropriate word. Everything was done to turn slaughter into an industrial process. It became highly technological and heavily dependent on complicated mechanisms and engineering structures. A separate railway line was built to bring animals to the abattoir. Special transporters, rails, wagons, winches and lifts moved their bodies and then their carcasses inside it. The water from a ground pumping system washed away the blood and the paunch manure to the sewers where a combination of flush tanks and ejectors carried it to the filtration fields. Fans and filters ensured proper ventilation of the slaughterhouse, and steam engines were used in central heating system and refrigerators. Microscopes helped detect dangerous organs and carcasses which were then sent to shredders and sterilization machines.⁵¹

The public abattoir was in many ways a Western product on Russian soil. The idea of it was borrowed from Western Europe and inspired by its examples. Study-trips to Germany, France, Belgium and Britain and the consultation with foreign experts facilitated knowledge circulation and direct transfers. Thus, the Moscow abattoir absorbed the expertise and experience of several European cities. It was constructed according to the French system, where each function was performed in a separate building.⁵² Its refrigerators were built on the model of Hamburg slaughterhouses. The

⁵⁰ Gorbunov, *Moskovskiye gorodskiye boyni*, pp. 33-36, quote from p. 36.

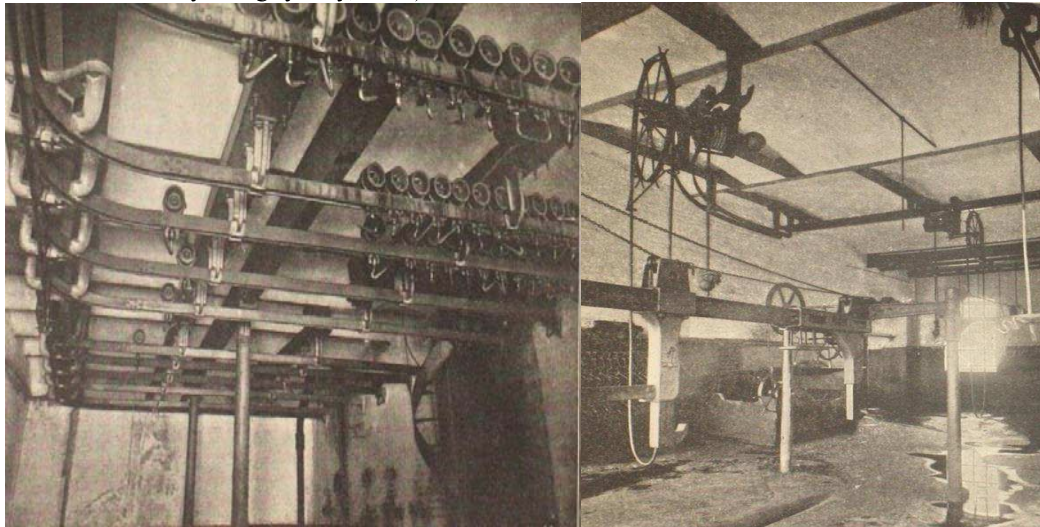
⁵¹ Poderni, *Tekhnicheskoye opisaniye*, pp. 19-83.

⁵² P.O. Smolensky, *Boyni i skotoprignonnye dvory* (St. Peterburg: Tipografiya zhurnala “Stroitel”, 1902), pp. 11-12.

Delacroix sterilization machines used in Moscow were invented by a veterinarian at the Antwerp abattoir and developed by G. Henenberg, a Berlin engineer. The hydro-pneumatic sewerage system, implemented in Moscow slaughterhouse, was devised by Isaac Shone and successfully used in several British cities.⁵³

Figure 4.2. Slaughterhouse for cattle.

Source: S.A. Poderni. *Tekhnicheskoye opisanie Moskovskikh tsentral'nykh gorodskikh boyen*. Moscow: Pechatnya Snigiryovoy, 1896).



It was, however, mostly the ideas and plans that traveled from abroad, while the realization remained in the Russian hands. The final project of the slaughterhouse and stockyard was prepared by local engineers. The filtration fields of the sewerage system were organized by the Professor of Moscow Agricultural Academy, A. Fadeyev. Most of the equipment was produced by the Moscow industrial company Dobrov&Nabholz, that also designed the system of lifts and transporters used within the slaughterhouse, that allegedly made the killing process there faster and easier than in its Western prototypes.⁵⁴ At the same time, the new municipal abattoir had to adjust to some

⁵³ Poderni, *Tekhnicheskoye opisaniye*, pp. 25, 55, 126-137; *The Shone Hydro-Pneumatic System of Sewerage* (Liverpool: Rockliff borthers, 1885) pp. 39-47.

⁵⁴ Poderni, *Tekhnicheskoye opisaniye*, pp. 34-41.

specifically Russian realities. In particular, unlike similar institutions abroad, it had to organize housing for its personnel.

Yet, it was not the industrial production of meat but sanitation and health goals that the municipality invoked to create a public abattoir. Therefore, the animal and meat inspection had to become an important part of its operation. As Valentin Nagorsky reported in September 1888,

the abattoir started its service to the city primarily as an institution which gave a possibility to quickly and reasonably manage the masses of suspicious livestock, both in terms of convenience of comprehensive inspection and in terms of elimination of everything that, from the sanitary point of view, could harm the population or the stock raising.⁵⁵

However, the later accounts testify that the organization of the proper meat quality control was a difficult task. Thus, the abattoir veterinarians, in their report for the municipal exhibition in 1896, questioned the efficiency of the cattle inspection in 1889-1891:

In the first years, the organs of the killed animals were piled on the floor of the slaughter chamber which immensely complicated their inspection, at the same time allowing the butchers to cut off or hide damaged parts, and often made it impossible to identify the carcass of the infected organ. In autumn 1891, the introduction of new devices for hanging and numbering the organs and carcasses according to the order of slaughtering permitted a thorougher inspection and registration of the slaughter products from every animal. When the paperwork was laid upon the specifically invited registrars, the veterinarians could pay more attention to the inspection and started individual registration of all the pathologies, regardless of whether they caused the rejection of meat or not.⁵⁶

(The dynamics of this change can be traced in Table 4.2; the devices for hanging the organs can be seen on Figure 4.2).

The inspection of hogs and pork was set up more effectively. The key reason for that was the fear of trichinosis which also was among the crucial arguments for the

⁵⁵ V.F. Nagorsky, "Veterinarny nadzor na gorodskikh boynyakh g. Moskvy s ikh otkrytiya po 1 sentyabrya", in *IMGD*, 9 (1888), no 9, p. 2.

⁵⁶ *Veterinarny nadzor Moskovskikh Gorodskikh Boyen* (Moscow: Gorodskaya Tipografiya, 1896), p. 6.

centralization of meat production and the ban on private slaughtering. At the Moscow abattoir, from the very beginning, meat samples from every hog were sent to the microscopic laboratory. Although actual cases of trichinosis were rare, this policy favored better detection of other pork parasites.⁵⁷ The more meticulous inspection of pork was facilitated by its small amounts. In Moscow, unlike many cities of continental Europe, the meat market was fully dominated by beef while the consumption of pork remained quite limited, despite its lower price and better preservation potential (in the form of ham, bacon, sausages, etc.). Although the hog-raising regions – Tambov, Voronezh, Saratov and Penza - were closer to Moscow than those of cattle-raising, only one out of 8 animals slayed at the Moscow abattoir was a pig; pork comprised just about 9 per cent of all the meat it produced⁵⁸ (see Table 4.1).

Table 4.1. Number of animals at the Moscow abattoir and Berlin livestock market, 1890

Source: *Verwaltungsberichte des Magistrats zu Berlin; Statistisches Jahrbuch der Stadt Berlin*;⁵⁹ Gorbunov, *Moskovskie gorodskie boyni* (Moscow: Gorodskaya tipografiya, 1913).

	Moscow			Berlin		
	1890	1900	1910	1890	1900	1910
Cattle	153591	221800	256976	174714	256982	243179
Calves	47177	41925	44780	135333	192136	194915
Sheep	1782	41009	20619	711929	591905	633015
Pigs and piglets	23503	43215	61249	660568	996439	1334192

⁵⁷ Nagorsky, “Veterinarny nadzor na gorodskikh boynyakh”, pp. 4-5; V. F[idler], *Moskva, Kratkiye ocherki gorodskogo blagoustroystva*, (Moscow: Tipografiya Blagushinoy, 1897). p. 88.

⁵⁸ Gorbunov, *Moskovskie gorodskie boyni*, p. 45; *Moskva kak potrbitel'skiy tsentr myasnykh produktov. Doklad Komissii boyenskikh veterinarnykh vrashey Pervomu Mezhdunarodnomu Kongressu po kholodil'nomu delu v Parizhe v 1908 g.* (Moscow: Gorodskaya Tipografiya, 1908), p. 3.

⁵⁹ The data on Berlin was kindly given to me by Dorothee Brantz. It belongs to her unpublished book *Slaughterhouse City: Paris, Berlin and Chicago, 1780-1914*.

The volatility in the numbers of rejected products (see Tables 4.2 and 4.3) reflects the complicated process of formulating the veterinary policy at the Moscow abattoir. The withdrawal from sale of dangerous or unhealthy animal products was seen as a key task of the abattoir's veterinary organization. Yet, the category of “unhealthy” remained vague - not only because the knowledge of many diseases was limited but also because it was unclear with which health – animal or human – this category operated.

Table 4.2. The morbidity of cattle and the rejection of slaughter products at the Moscow abattoir

Source: *Veterinarny nadzor Moskovskikh Gorodskikh Boyen* (Moscow: Gorodskaya Tipografiya, 1896)

	1889	1890	1891	1892	1893	1894	1895
Killed	147769	153591	171142	158499	161700	171829	177815
Diseased animals (number)	2647	5005	7376	87190	114470	119753	130174
Diseased animals (proportion)	1.80%	3.30%	4.30%	55.00%	70.70%	69.70%	73.20%
Morbidity (cases):							
bovine tuberculosis	776	1726	2978	6759	9038	12487	15
actinomycosis	448	596	560	2419	9668	8798	9640
rinderpest	6	—	1	—	2	—	—
anthrax	—	—	—	3	—	3	1
lung plague	116	101	80	124	275	319	186
foot-and-mouth disease	14	79	65	114	351	203	17
Rejected carcasses	421	330	948	1359	1279	612	526
Rejected parts	4	-	-	8	100	418	785
Rejected organs	2152	4675	6428	17798	26172	29165	30321

The imperial medical legislation was of little help to Moscow veterinarians as it did not, with some rare exceptions, stipulate any disease-specific measures, stating simply

that meat of sick animals should not be used for food.⁶⁰ The rigorous compliance with the law would have meant the rejection of two-thirds of all the abattoir's output. Indeed, in the veterinary statistics of the 1890s about 70 percent of all slaughtered animals were labeled “diseased”. On the one hand, those numbers could work as a powerful justification of the necessity of the public abattoir with the veterinary inspection. On the other, they could also reveal the veterinarians' own devotion to their science and their willingness to contribute to advancing the fundamental knowledge of animal diseases rather than merely preventing low-quality meat products from entering the market. For veterinarians, the category of “sick animals” was about the health of animals as such, while the imperial and municipal legislation on the sale of meat used a narrower category, where animal health mattered only to the extent it could affect the health of humans. This discrepancy of interpretations created a certain ambiguity in how the “healthiness” of the product was established and how the “unhealthy” products were confiscated.

The confiscation of meat products was generally a new phenomenon in Moscow's slaughtering business, and in most cases it provoked resistance among the livestock-owners. As the abattoir veterinarian K.Z.Kleptsov wrote to the municipal Public health committee in 1891,

Among the external circumstances that until now substantially hinder the correct organization of the sanitary-veterinarian business at the abattoir is the complete lack of discipline [*nedistsiplinorovannost'*] among the cattle-owners and their managers. [*prikazchik*] Forced to come to the abattoir from the private slaughterhouses, which did not have any sign of control of the product quality, the owners naturally tried to bring their old methods here. With their clashes with the veterinary control they proceeded from unaccustomness to the sanitary requirements and, on the other hand, from their economic interest.⁶¹

⁶⁰ “Ustav vrachebny” in *Svod zakonov Rossiyskoy Imperii* (St. Petersburg: 1892), vol. 13, Appendix to article 1265, p. 271.

⁶¹ “Otnosheniye veterinarnogo vracha K.Z. Kleptsova v Komissiyu Obshchestvennogo Zdraviya,” *IMGD*, 5 (1892), p. 15.

Table 4.3. The morbidity of pigs and the rejection of slaughter products at the Moscow abattoir
Source: *Veterinarny nadzor Moskovskikh Gorodskikh Boyen* (Moscow: Gorodskaya Tipografiya, 1896).

	1889	1890	1891	1892	1893	1894	1895
Killed	20517	19811	18676	12529	13736	22125	30301
Diseased animals (number)	14020	14960	10044	8242	9018	13627	17779
Diseased animals (proportion)	68.30%	75.50%	53.80%	65.40%	65.60%	61.50%	58.70%
Morbidity (cases):							
Tuberculosis	248	276	354	198	122	608	1327
Pig plague (swine fever)	676	1102	475	502	364	577	575
Trichinosis	15	14	18	26	17	14	12
Cysticercosis	826	1116	1061	1098	1155	1209	980
Echinococci	5884	6764	4366	4151	4489	5657	6304
Rejected carcasses	604	632	567	418	404	353	426
Rejected parts	3	-	-	-	-	-	21
Rejected organs	1682	5420	3972	3325	3529	5048	7902

As in the early years of its operation the abattoir did not have the monopoly on slaughtering, it had to adjust its sanitary goals to the economic interests of its clients. This pressure forced the municipality to introduce a generous compensation policy, according to which the owners of the confiscated meat received 70 percent of its market price. In fact, the municipal committee on the exploitation of the abattoir, seeing the confiscation of unhealthy meat as a part of the sanitation campaign, proposed full reimbursement, but the City Council rejected it out of fear that this compensation policy would encourage the trade in sick animals and attract too many of them to the city.⁶²

⁶² Gorbunov, *Moskovskiye gorodskiye boyni*, pp. 60-61.

At the same time, the necessity to compensate for confiscated products made the municipality and its veterinarians look for ways of reducing the amounts of rejected meat, at least in the cases when the animal diseases posed no known risk to human health. In the first years of the abattoir's operation, the detection of disease often meant the destruction of the entire carcass while later on, apart from exceptional cases, only certain organs were withdrawn from sale (see Tables 4.2 and 4.3). The turning point can be identified in the early 1890s and is connected to certain changes in the operation of the abattoir.

Although the municipality never received the right to legally impose the centralization of slaughter, in 1892 the new Moscow Governor-General Sergey Romanov ordered to close the private slaughterhouses in the view of their anti-sanitary condition.⁶³ This measure was a part of the emergency sanitation campaign by Moscow administration in fear of the raging cholera epidemic in Russia. Despite its temporary character, it allowed the Moscow abattoir to *de facto* monopolize the animal slaughter and receive an advantage in its interactions with the livestock producers. Meanwhile, the abattoir's compensation policy started raising serious concerns - in the first five years the reimbursements consumed about one-ninth of the enterprise's gross revenues. Using the statement of the Medical society of Moscow University that the localized pathological processes should not involve the rejection of the entire carcass, but only specific organs, and predicting the reduction in the amount of confiscated meat and the financial losses of the livestock-owners, the City Council eventually canceled all compensations from May, 1894.

⁶³ TsGAMOS, 179:54:947:20.

This change in policy also marked the difference in attitude towards the bodies of animals meant for consumption and those meant for production. Thus, in the same year of 1894 the City Council passed a regulation on the epizootics and the compulsory killing of the animals with glanders, lung plague or rabies. Their bodies were seen as valuable to their owners who were entitled to compensations of up to two-thirds of the animal market price. The confiscated bodies of the animals that were already meant for slaughter by their owners, on the contrary, were regarded as a mere commodity and treated in line with the other food products. Talking about the bodies of the diseased animals at the Moscow abattoir, the opponents of compensations argued that “there is no reason to make exceptions for one type of comestibles and give a compensation that looks like a reward for bringing unsound commodities to Moscow”.⁶⁴

The abattoir with its veterinary organization was positioned as a kind of shield, protecting the health of the urban population from the “uncultured” and “undisciplined” livestock-owners. The latter were seen not as partners in the task of the city food supply but rather as adversaries, whose interest could be neglected, who had to be controlled and converted to the new faith of public health, although its doctrine was not yet established and underwent modification every year. Indeed, the turn-of-the-century decades saw the professionalization of veterinary science in Russia as elsewhere which meant that the knowledge of animal diseases, their classification and treatment as well as the perceptions of risks they could pose to human health was subject to constant change. For example, in the 1890s the international scholarly reevaluation of bovine tuberculosis resulted in a completely different approach towards the treatment of meat from animals with that disease. If in the early years of the abattoir's operation any

⁶⁴ P. T. Yavorskiy, *Gorodskoy veterinarny nadzor v Moskve* (Moscow: Gorodskaya Tipografiya, 1896), p. 11; Gorbunov, *Moskovskiye gorodskiye boyni*, pp. 62-63.

detection of tubercles led to the rejection of the entire carcass, the new rules of 1895 prescribed that only the organs in which the pathological process was localized were to be destroyed, while the rest of the carcass was sanctioned for sale.⁶⁵ The elaboration of more precise norms of meat quality and rules of control allowed for a significant reduction of rejected carcasses – if in the first five years of the abattoir's operation on average 826 carcasses were rejected each year, by the turn of the century this number dropped to 113, despite the substantial increase in the absolute numbers of slaughtered animals.⁶⁶

The control and expertise of the abattoir's veterinary organization, in fact, reached far beyond the city it was meant to serve. The inspection of animal bodies at the abattoir helped reveal the signs of epizootics in the vast southern and southeastern provinces of the Russian Empire that were sending its livestock to Moscow. In 1893, Moscow veterinarians informed the local authorities of Kharkov about the cases of rinderpest in the herds coming from that province, thus facilitating the early detection and prevention of this dangerous epizootic on the spot. Similarly, the frequent apprehension of the tubercular animals at the Moscow abattoir undermined the widespread opinion that, unlike in Western European countries, the cattle in Russia, particularly in the steppe regions, was free from tuberculosis and helped to localize its spread. In the words of its veterinarian, the Moscow abattoir emerged as a “station for the control of the veterinary-sanitary condition of the stock-raising in the vast region of Russia that sends its cattle to Moscow.”⁶⁷

⁶⁵ Robert Koch, “An Address on the Transference of Bovine Tuberculosis to Man,” *The British Medical Journal*, 2, 2190 (December, 1902), pp. 1885-1889; Thos. Whiteside Hide, “Shall We Eat Tuberculous Meat?” *The British Medical Journal*, 1, 1528 (April 1890); Gorbunov, *Moskovskie gorodskiye boyni*, p. 62.

⁶⁶ Gorbunov, *Moskovskie gorodskiye boyni*, p. 63.

⁶⁷ *Veterinarny nadzor Moskovskikh Gorodskikh Boyen*, pp.7-8.

The presumed scientific role of the abattoir, in fact, determined and shaped its construction. Commenting in 1885 on its project, veterinarian Valentin Nagorsky wrote that

[i]t is highly important that the pathologies which, considering the scale of cattle-driving and the frequency of epizootics, should be revealed quite often would not be lost either for the practice of stock-raising or for science in general. Livestock – particularly steppe livestock – and its diseases have so rarely become a subject of scientific studies, although these studies could give so valuable knowledge to science and practice, that it would be very much desirable to organize at the abattoir a laboratory and a museum: the first one to conduct scientific research in the field of animal pathologies, the second to collect all those rare pathologies that at the moment cannot be used neither by practitioners, nor by scientists.⁶⁸

The implementation of these recommendations was probably helped by the fact that Nagorsky was personally involved in the project discussions and organization of the abattoir's veterinary control. The abattoir received a laboratory for research and a museum whose holdings included “the only in Russia” collections of waxworks for the study of meat, preserved examples of animal pathologies and parasites, exhibits from slaughter-related industries as well as statistical materials, maps, diagrams on morbidity, rejection, etc. Both the laboratory and the museum contributed to the scientific reputation of the institution and were used as models by the veterinary organizations in the other parts of Russia.⁶⁹ Furthermore, as veterinarian Nikolai Zelenin wrote in his study of the Moscow abattoir,

the wide application of the laboratory research of the slaughter products gave the veterinary organization of the Moscow abattoir the possibility to set the inspection and rejection of meat on strictly scientific ground, which not only provided better guarantees to consumers regarding the quality of meat on the market, but also saved the livestock-owners from the unnecessary losses as it eliminated rejection on suspicion; in addition, the systematic laboratory research of certain pathologies allowed the Moscow

⁶⁸ “Doklad N41,” Appendix 5, p. 22.

⁶⁹ TsGAMOS, 179:54:992:92-97; N.V. Zelenin “Moskovskiye gorodskiye boyni” in I.A. Verner, *Sovremennoye khozyaistvo goroda Moskvy*, pp. 498-499.

abattoir to become the first in Russia in detecting cases of anthrax and other dangerous diseases, that previously had eluded control.⁷⁰

Indeed, the large quantities of empirical data empowered the veterinary organization of the Moscow abattoir to become a center of research in animal diseases. It was also stimulated by the newness of the field and the lack of scientific studies, established rules and elaborate legislation. In some cases, looking for the authoritative opinion in the field, the municipal veterinarians asked the Medical Department of the Ministry of Interior for instructions on how to deal with cases of disease for which no specific legal regulations existed. Although the responses of the Medical Department – which sometimes arrived months after the initial request – referred to the cases of epizootics in concrete animals or herds, the abattoir veterinarians used them as legal precedents to formulate general regulations.⁷¹ Arguably, the sluggishness of the bureaucratic system and the impossibility to consult with the imperial medical bodies on the resolution of every pressing question gave the veterinarians of the Moscow abattoir more agency and power to construct their own norms and to turn their expertal knowledge into policy, which was later adopted by the public abattoirs in the other cities of the empire.⁷²

As in the case of the Myasnitskaya hospital, which I discussed in the previous chapter, the municipality encouraged the cooperation between the abattoir's personnel and other experts in the field, both in Russia and abroad. Thus, the abattoir participated in the Hygiene exhibition in St. Petersburg in 1893 and the All-Russian industrial and art exhibition in Nizhny Novgorod in 1896, it was visited by foreign experts, while its employees were sent to congresses and study trips in Germany and France.⁷³

⁷⁰ Zelenin “Moskovskiye gorodskiye boyni”, p. 479.

⁷¹ Gorbunov, *Moskovskiye gorodskiye boyni*, pp. 58-60.

⁷² TsGAMOS, 179:54:992:109.

⁷³ TsGAMOS, 179:54:961; 179:54:993, 170:54:1012; 179:54:1029, 179:54:1125; 179:54:1165.

The scientific importance of the abattoir, the complicated technology it was based on and its role as a sanitary enterprise shaped and defined its image in the eyes of the public. On the one hand, similar to its West-European prototypes, the Moscow abattoir was meant to remove blood and death from the city and to confine them within its walls, turning killing into a scientific and strictly controlled process. Avoiding the eyes of the city dwellers, the trains brought the cattle from the remote provinces straight to the slaughterhouse that let it out already in the form of meat, lard, leather or bone meal. The by-products and wastes of that transition were sterilized, recycled or removed through the complex sewerage system to filtration fields so that the urban public was spared not only from the sight but also the smell of slaughtering.

As it was discussed in the introduction to this chapter, historians have pointed out that in the Western cities, particularly in Britain and France, the shift towards new public abattoirs not only made killing invisible and anonymous, but also led to the cultural marginalization of the slaughterhouse itself, its exclusion from the everyday life and transformation into a “no place”. In this respect, the Moscow abattoir followed a different path.

Already from the very beginning of its construction, it was meant to symbolize the municipal commitment to the goals of public health and to be a step on Moscow's way towards becoming a “European city”. The abattoir, as Valentin Nagorsky argued in his note to its project, should “join the rows of the institutions that constitute the city pride such as museums, art galleries, universities and the like”.⁷⁴ Indeed, regarding the slaughterhouse as a technological and scientific masterpiece, the municipality turned it into a center for promoting science and education – apart from the laboratory and the

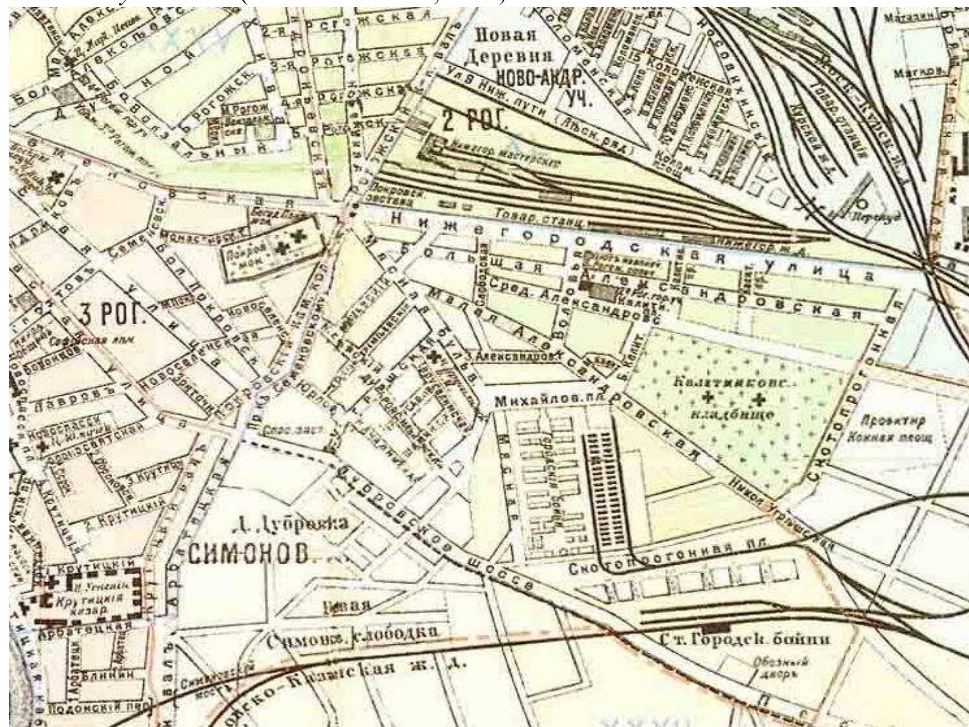
⁷⁴ Doklad N41, Appendix 5, p. 22.

museum, it got a three-hundred-seat auditorium for scholarly lectures and hosted national exhibitions of cattle-raising and butchering.⁷⁵

Exactly the scientific success and the technological innovativeness of the project, especially in a city that was striving to catch up with Western metropolises, prevented the marginalization of the slaughterhouse. The Moscow abattoir was simply too good to become a “no place”. In the eyes of the public it was an archetype of modernity: conceived by the liberal self-government body, it consolidated technology and science for the sake of public good and social progress. And thus, as a successful, profitable and “modern” municipal institution, it deserved to be named and its presence within the urban space had to be acknowledged.

Figure 4.3. Abattoir on the map of Moscow, 1912.

Source: *Vsya Moskva* (Moscow: Suvorin, 1912).



⁷⁵ TsGAMOS, 179:54: 1057, 179:54:1105; 179: 54: 980; Zelenin, “Moskovskiye gorodskiye boyni”, p. 500.

If in France and Britain, the brutality of slaughter was mitigated by using the euphemism of “abattoir” - and despite the fact that I was using this term throughout the text - the original Russian word “boynya” kept the most direct reference to slaughter (only in the Soviet times the name of the institution was changed to a more neutral “meat complex”). Furthermore, the function of the abattoir was highlighted in several new toponyms that emerged around it: the railway station in its vicinity was named Gorodskiye Boyni (City Slaughterhouse) and Cattle-Driving Square (Skotoprogonnaya ploshad') between the railway platform and the abattoir unambiguously continued with a Meat Boulevard (Myasnaya-Bul'varnaya ulitsa) that led to the downtown.

Civilization, in the formulation of Norbert Elias, advances by distancing itself from the reminders of killing and physical violence.⁷⁶ Yet, Russian reformers, sanitarians and veterinarians, for whom the new abattoir was a step towards turning Moscow into a more “civilized” and “European” place, did not display any embarrassment or moral concerns about the presence of slaughter in the city; the latter was not masked but emphasized. Every city map clearly named the abattoir and many depicted it in details. The municipal journal each month devoted dozens of pages to its work while the city guidebooks described it as “one of the most remarkable city institutions” and “grandiose construction”, “built according to the newest scientific requirements”.⁷⁷ Instead of turning the Moscow abattoir into a “no place”, science and technology constructed a site that became one of the city landmarks and where the rationalized, mechanized and sanitized transition from the living animal to the edible meat was rather a source of pride than of discomfort.

⁷⁶ Norbert Elias, *The Civilizing Process* (Oxford: Blackwell, 1994), pp. 168-170.

⁷⁷ *Sputnik moskvicha: Moskva i eye okrestnosti* (Moscow: Tipolotografiya Kushnerev i K°, 1894) p. 79; *Ilyustrirovannyi putevoditel' po Moskve* (Moscow: Dobrovolskiy, 1911) p. 104; *Moskva. Putevoditel'* (Moscow: Kushnerev i K°, 1915), p. 260.

Civilized slaughter: violence or torture?

The “civilizing mission” of the international abattoir reform was not defined only by sanitation, rationalization, maintenance of public order and the promotion of scientific and technological knowledge. It also included a humanitarian aspect. In the modern societies empathy towards animals became an important cultural value and a sign of civilized behavior and morale. In 1789 Jeremy Bentham asked the famous question that in many ways defined the human attitudes towards animals throughout the next century: “The question is not, Can they reason? nor, Can they talk? but, Can they suffer?”⁷⁸ The recognition of the animal susceptibility to suffering, even if they were denied the ability to reason and talk, drew them closer to people, and prompted concerns about human responsibility to prevent it.⁷⁹ In fact, the animal inability of speech became an integral argument of the nineteenth-century animal protection movement as a source of the human moral duty towards those “who cannot speak for themselves”.⁸⁰

The first Society for the Prevention of Cruelty to Animals was created in Britain in 1824; in the following decades similar organizations appeared across Europe and the United States. Animal protection was a fashionable occupation among social elites and growing middle-classes and went along the lines of other humanitarian or charitable activities such as poor relief or children welfare.⁸¹

⁷⁸ Jeremy Bentham, *An Introduction to the Principles of Morals and Legislation* (1789; Oxford: Clarendon Press, 1996), p. 283.

⁷⁹ David Gary Shaw, “A way with animals,” *History and Theory, Theme issue 52* (December 2013), pp. 2-3.

⁸⁰ Susan Pearson, “Speaking Bodies, Speaking Minds: Animals, Language, History,” *History and Theory, Theme issue 52* (December 2013), pp. 91-92.

⁸¹ For the discussions on the humane treatment of animals in Victorian Britain see James Turner, *Reckoning with the Beast: Animals, Pain, and Humanity in the Victorian Mind* (Baltimore: Johns Hopkins University Press, 1980).

Russian elites were no exception in this process. Not surprisingly, animals became a matter of concern in the Russian society in the times the Great Reforms, which stimulated civic activism and put the questions of humanity and legality in the focus of public attention. The first in Russia Society for the Protection of Animals (RSPA, *Rossiyskoye Obshchestvo Pokrovitel'stva Zhivotnym*) was founded in St. Petersburg in 1865 and then quickly expanded to other cities. As it was stated in the charter of the RSPA, the goal of the society was to prevent the cruelty and maltreatment of animals through petitioning the government about the introduction of appropriate administrative and legislative measures, reporting cases of torture, improvement of slaughterhouses, promotion of veterinary medicine and “encouragement of compassion to animals, particularly among the common people [*vozbuzhdeniyem, preimushchestvenno v prostom narode, sochuvstviya k zivotnym*].”⁸²

The main achievement of the RSPA was the criminalization of the cruelty to animals in 1871, codified in the Article 43 of the *Ustav o nakazaniyakh, nalagayemykh mirovymi sud'yami* as “causing wanton torment to domestic animals” [*za prichineniye domashnim zivotnym naprasnykh mucheniy*], for which the guilty were subjected to a fine of up to ten rubles. As historian Amy Nelson reveals, the success of the Society's efforts derived from its close affiliation with the Ministry of Internal Affairs (which the RSPA requested itself in the very first months of its existence) and the assistance it received from the central government.⁸³

⁸² *Ustav Rossiyskogo Obshchestva pokrovitel'stva zivotnym* (St. Petersburg: Tipografiya Retgera i Shneidera, 1865), pp. 1-2. In the later version of the Charter the clause about common people was removed, Ssee *Ustav Rossiyskogo Obshchestva pokrovitel'stva zivotnym* (St. Petersburg: Tipografiya Suvorina, 1888).

⁸³ Amy Nelson, “The Body of the Beast: Animal Protection and Anticruelty Legislation in Imperial Russia”, in Jane Costlow and Amy Nelson (eds.), *Other Animals: Beyond the Human in Russian Culture and History* (Pittsburgh: University of Pittsburgh Press, 2010), pp. 98-106; see also *Polnoye Sobraniye Zakonov Rossiyskoy Imperii*, ser. 2, vol. 46 (1871), part 2, no. 50208.

The RSPA, in fact, enjoyed a remarkable support from the traditional social elites. It existed under the royal patronage of the Grand Duke Nicholas Nikolaevich the Elder (the brother of the emperor Alexander II and the uncle of the emperor Alexander III). After his death in 1891, the Society's royal patron became the Grand Duke Dmitry Konstantinovich (the cousin of Alexander III), who in 1902 had to cede this position to the Dowager Empress Maria Fyodorovna.⁸⁴ The membership of the RSPA was also noteworthy; it allowed the Society to have its representatives in the most influential spheres of imperial government. In 1891, the RSPA counted among its 751 affiliates two members of the royal family, four members of the State Council, five senators, six governors and governor-generals, seven bishops and archbishops as well as numerous high army and civil officials and representatives of aristocracy. Veterinarians and zoologists were in minority in the RSPA (about 5 per cent) but this minority included the President of the Veterinary Committee of the Ministry of Interior.⁸⁵

As the president of the RSPA S. Nikiforov wrote in 1892 in his editorial to the Society's annual report,

[t]he moral side in the task of animal protection is well described in the words of the famous natural scientist and economist Alexander von Humboldt that 'cruelty towards animals is one of the few vices that serve as a correct sign of the coarseness and ignorance of a given people; cruelty to animals in general is impossible among a developed and civilized people'.⁸⁶

The aspirations of civilization demanded banning cruelty to animals, yet it was not completely clear what the latter could encompass. The charter of the RSPA explained cruelty and maltreatment of animals as overworking, failure to provide food and shelter,

⁸⁴ *Otchet o deyatel'nosti Rossiyskogo Obshchestva Pokrovitel'stva Zhivotnym za 1891 god*, (St. Petersburg: Tipografiya Soykina, 1892) p. 5; *Otchet o deyatel'nosti Rossiyskogo Obshchestva Pokrovitel'stva Zhivotnym za 1901 god*, (St. Petersburg: Amerikanskaya skoropechatnya, 1902) pp. 3-4.

⁸⁵ *Otchet o deyatel'nosti Rossiyskogo Obshchestva Pokrovitel'stva Zhivotnym za 1891 god*, pp. 44-55.

⁸⁶ *Otchet o deyatel'nosti Rossiyskogo Obshchestva Pokrovitel'stva Zhivotnym za 1891 god*, p.3.

torturing them on a whim and “cruel treatment of animals during slaughter” [*zhestokoye obrashcheniye s uboynym skotom vo vremya uboya*].⁸⁷

The last part is particularly interesting for me in this chapter. After all, the entire purpose of the slaughterhouse is inherently brutal – it is killing. Investigating the nuances of what was seen as permissible in the nineteenth-century slaughterhouse can thus render valuable insights into the understanding of cruelty, empathy and the moral obligations of a “civilized man”.

In 1896 the RSPA became interested in the activities of the Moscow abattoir and petitioned the city mayor Konstantin Rukavishnikov to stop animal torture at the slaughter. The protocols and petition of the RSPA and, even more so, the responses of the abattoir officials to the criticism present a fascinating source for historical analysis that can reconstruct the perception of the slaughter by insiders and outsiders and reveal the human attitudes towards animals and, eventually, towards humans themselves.

In spring 1896 the members of the Moscow department of the RSPA conducted an investigation at the abattoir that revealed numerous cases of animal torture [*“istyazaniya zhivotnykh”*]. The livestock, as the protocols of the RSPA described, was often left without food, water and shelter for days, the stockyard was paved with sharp stones which caused wanton pain to animals, the piglets and calves were transported jam-packed, tied too firmly and generally treated like bags [*“kak tyuki”*], and the cattle was constantly beaten at the slaughter.⁸⁸

Interestingly, the RSPA did not disapprove of act of slaying *per se* - although the voices against animal consumption were gaining strength in the Russian society, as

⁸⁷ *Ustav Rossiyskogo Obshchestva pokrovitel'stva zhivotnym* (St. Petersburg: Tipografiya Retgera i Shneidera, 1865), pp. 1-2.

⁸⁸ TsGAMOS, 179:54:992:128-130.

Tolstoy's epigraph to this chapter demonstrates. The right of humans to deprive animals of their life was taken for granted by the RSPA; in fact, in certain cases (with injured or old animals) killing was seen as a humanitarian deed, a kind of *coup de grâce*.⁸⁹ Only the emotionality of the description reveals that the RSPA investigators must have found the sight of slaughter quite shocking:

The bull jibs, refuses to go in the doors of the dark slaughterhouse with the vapors from the streams of fresh blood coming from there; the striker squeezes and breaks the tail of the bull and severely hits its sacrum, sides and legs with a heavy cudgel <...> The human heart fills with compassion when one remembers the poor animal which is simultaneously strong and helpless, seized with horror and tortured with merciless hits.⁹⁰

Despite the stunning examples of animal abuse, documented (and even photographed) by the members of the RSPA, its proposals, formulated in the petition to the Moscow mayor, were rather moderate. They called for the better organization of the food and water supply, some logistical improvements in the transportation of livestock to and inside the abattoir, re-paving of the stockyard and provisions for the prompt killing of injured animals. An important part of their proposal also aimed at sparing the livestock from knowing their destiny: the RSPA suggested that animals should be kept in pens with very high walls and moved by special workers whose clothes and hands had no signs of blood.⁹¹ This interpretation of the animal awareness of the coming death as a type of torture deserves closer attention, and I will return to it later in this chapter.

⁸⁹ TsGAMOS. 179:54:992:130. The general activities of the RSPA also included the creation of the horse abattoirs and intentional purchase of old horses for slaughter. See *Ustav Rossiyskogo Obshchestva pokrovitel'stva zhivotnym* (St. Petersburg: Tipografiya Suvorina, 1888), pp. 2-3.

⁹⁰ TsGAMOS. 179:54:992:130.

⁹¹ TsGAMOS. 179:54:992:134-135.

Considering the overall influence of the RSPA, its petition could not remain without a response; therefore, the Moscow City Board demanded an explanation from the abattoir authorities. The Central State Archive of Moscow preserved two responses – one from D. Verderevsky who worked as the abattoir's managing director since its creation, and another from the senior veterinarian Gavriil Gurin on behalf of the abattoir's veterinary organization.

As the RSPA framed its petition around the claims of animal torture, Verderevsky started his response (quite striking in its length and eloquence) with questioning the entire concept of torture:

A man subdues an animal, not gifted with reason, only through violence [*nasiliye*]. The animal does not voluntarily give its body to the man, so he can only achieve his wish of using the body of the animal through violence, and the most brutal violence – through taking its life, through killing. Should this violence be counted as torture [*istyazaniye*]? Obviously not, because this violence is needed to satisfy the man's wish to use the necessary animal meat. But to kill an animal, which does not voluntarily allow it, one needs to put it in a condition convenient for the slaughter, to deprive the animal of the ability to resist, and for this one needs to commit violence, more or less cruel, depending on the resistance. Will this violence be torture? Clearly not, because this violence does not proceed from the human evil will, but from necessity. This violence is necessary, because if the man abstains from this violence, he will have to subordinate his rational will to the animal will. Obviously, there are many types of human violence towards animals, often very cruel, which, despite its cruelty, cannot be considered torture because of their utility to men and the absence of human evil will.⁹²

For Verderevsky, the ability to reason was the border line between humans and animals and also the source of the unquestionable human privilege and power. Even more so, exercising violence over animals was presented as a means of defending the superiority of the rational mankind, when the abstention from violence was interpreted not as a victory of human empathy, but as a defeat of human reason and the acknowledgement of weakness. Claiming the right for violence over the trembling

⁹² TsGAMOS. 179:54:992:137.

creatures, to paraphrase Dostoevsky's famous dilemma, became a sign of men's dominance in the natural world. In this rationalist explanation, the utilitarian character of violence at slaughter served both to justify and to encourage it – as one of the ways of bringing nature to the service of mankind.

Its usefulness distinguished the good violence from the bad one, the rational from the irrational, or, rather, violence from torture. From that point of view, what mattered was not whether something was cruel or not, but whether this was necessary to men or not. According to Verderevsky, even the most basic needs of animals, such as food, were to be satisfied only to the extent useful to the rational men. Responding to the respective criticism of the RSPA investigating committee, Verderevsky wrote: “The committee would have been right if men reared livestock only to please it with feeding [*“dostavlyat' yemu udovolstviye kormleniyem”*], but since livestock is raised for other purposes, it is fed only to the extent it is necessary for the goals of its owners. Non-working livestock is fed only to the extent it is necessary to keep it alive and partially healthy, and not to the extent of its appetite.”⁹³

The (in)ability to reason turned particularly important in the question about the animal awareness of the coming slaughter. The RSPA interpretation of the animal anticipation of killing as torture, that projected on animals the human fear of death and the capacity for imagination, was, of course, very anthropomorphic. As Dostoevsky, relying on his own experience, suggested in his powerful description of the execution, the knowledge of the approaching and inevitable death is the worst and most painful suffering and “there is no torture in the world more terrible” (*The Idiot*, Chapter 2). Through likening the human and animal fear of the coming death, the RSPA proposal

⁹³ TsGAMOS. 179:54:992:141.

becomes implicitly, but strikingly emphatic. Verderevsky's replied to it with the following statement:

The arguments, presented by the committee, would be undoubted if the bull was gifted with reason. If we show to the bull the cut bull's leg, will it understand what it is? Can it form an idea of the whole from a part of the whole? Clearly, not – for this one needs to have reason, which the bull does not have, therefore, when it sees the organs of the killed livestock, blood, skins and so on, it, unable to reason, can't connect in its mind [*predstavlenii*] the impressions from these objects to the image of the living bull and, therefore, to understand that its comrade was killed and lacerated [*rasterzan*] here.⁹⁴

Even today there is no definite answer to the question whether animals can feel the coming death; it is still impossible to fully retrieve their sensory experiences at the slaughter. Some recent studies suggest that the cattle resists not because they sense the approaching death – which indeed requires certain engagement with the abstract - but because they are upset and scared by the specific disruptions of their visual, olfactory and auditory worlds that are almost unavoidable within the slaughtering facilities. Taking the animal perception seriously – rather than projecting human understanding on them – can make their experience of slaughter less frightening and thus the entire process more humane - at least as much as its purposes allow.⁹⁵

Verderevsky, however, used the animal inability to generalize as a pretext to completely dismiss animal experiences and thus remove any grounds for compassion. He connects animal agency and resistance to their irrational, lazy and stubborn beastly

⁹⁴ TsGAMOS. 179:54:992:144.

⁹⁵ This interpretation relies on the arguments of Temple Grandin, an American animal scientist who claims that her own autism allows her to better understand animals and thus redesign slaughterhouses and other livestock handling facilities to improve the experience of the animals, which she did with huge success. See: Erica Fudge, "Milking other men's beasts", *History and Theory, Theme issue 52* (December 2013), pp. 18-19; Temple Grandin, "Making Slaughterhouses More Humane for Cattle, Pigs, and Sheep," *Annual Review of Animal Biosciences*, vol. 1, (January 2013), pp. 491-512.

nature, particularly in the case of animals that were never used for work in human households:

This animal does not know what rein is, it equally resists wherever man takes it, and with these animals one is forced to exercise violence when bringing them inside the slaughterhouse – it once again proves that not the circumstances of the slaughter provoke the resistance but only their obstinate, untamed will <...> Only the untaught, lazy, balky, untamed animals resist. Tamed animals go to the slaughter without any fear and resistance.⁹⁶

In his interpretation, force, beating and squeezing tails, used to bring animals to the slaughter, become necessary and useful as they facilitate the animal move within the abattoir. In the case when a bull stops and bulks, he writes, a worker “needs to force the bull ahead and thus prevent injuries among the livestock behind it whose movement it hampers; what can happen in this situation even among people who are able to reason is shown by the catastrophe of Khodynka.”⁹⁷

From that point of view, cruelty that is considered necessary, that is rationally motivated and produces a useful result, is not torture. For Verderevsky, torture was unnecessary violence, without any utilitarian purpose (here he implicitly refers to the above mentioned Article 43 with its “wanton torture”); torture is an unreasonable action and thus it unworthy of a rational and civilized man. He acknowledges that animal torture could be seen at the abattoir in the former years, but connects it to the initial lack of education and civilization among the abattoir's workers:

At first, it was very difficult to harness [*obuzdat*] the workers all of whom came to the municipal abattoir from the private slaughterhouses. At the private slaughterhouses, from the young years they are used to dirt, slovenliness and the cruel violence towards the slaughtered livestock and, despite their sincere willingness, could not understand

⁹⁶ TsGAMOS. 179:54:992:145.

⁹⁷ TsGAMOS. 179:54:992:142. The catastrophe of Khodynka refers to the human stampede that occurred on Khodynka Field in Moscow during the festivities connected to the coronation of Nicholas II in 1896 and that caused numerous deaths.

the imposed requirements about sanitation, cleanliness and stopping the unnecessary violence over animals. Trying to avoid the discontent of the workers and prevent the strike [*stachku rabochikh i zabastovku boytsov*] that was several times prepared among them, instigated by the banned old slaughterhouses, we were forced to shut our eyes to many actions of the workers that did not conform to the civilized abattoir. Much time and effort was spent to reach the current situation with the slaughter; it was necessary to re-educate the workers, to train them to orderliness, sanitation, cleanliness, to stop the unnecessary violence against animals and to do many other things.⁹⁸

Torture and excessive violence are thus presented as a product of undisciplined behavior – human or animal – that would be absent in a model where animals are tamed and men civilized. In his argumentation one can certainly hear the rhetoric of the advantages of the public abattoir compared to the private slaughterhouses which I discussed earlier in this chapter. Verderevsky also emphasizes that his institution is well-organized and well-supervised; whatever disorder exists there does not reveal his unawareness or the limits of his control but is, in fact, his conscious concession to the workers. He portrays the abattoir as modern, scientific and rational, but, what is more, also as an establishment that turns its employees into more civilized and humane people and enhances the position of human culture versus nature.

The abattoir veterinarian Gavriil Gurin, the author of another response to the RSPA criticism, had, however, a very different opinion of the entire situation. Although he generally agreed with Verderevsky that the municipal abattoir “because of its public character” [*blagodarya publichnosti*] encourages better treatment of animals compared to that at the private slaughterhouses, he challenges Verderevsky's point about the efficiency of its organization and control as well as its potential to civilize people through the establishment of rational rules:

[I]t would be too much to claim that, in such a short period of time since the slaughterhouse reform in Moscow, the workers and butchers managed to cardinaly re-educate themselves, soften their morale and abandon their long habits of the cruel

⁹⁸ TsGAMOS. 179:54:992:138.

treatment of animals. Hardly being concerned about that, the workers, especially when workload is pressing, or when the slaughter continues in the evening, when they are sure that nobody can see them, still allow the undesirable treatment of animals.⁹⁹

Gurin admitted that the torture, reported by the RSPA, indeed occurred at the Moscow abattoir and provided some more blatant examples of animals abuse (pulling animal by the eyelid, putting sticks in the animal's anus or squeezing and breaking its tail to make it move faster, cutting hind leg tendons) as well as excessive beating, which, he claimed, was used habitually, even to the obedient and non-resisting bulls.¹⁰⁰ However, unlike Verderevsky, Gurin did not think that all these notorious cruelties proceeded only from the ignorance and lack of civilization and discipline among the workers who were not able to absorb the rational and humane rules of the modern abattoir. According to him, the entire organization of the abattoir sometimes stimulated this behavior:

It is necessary to mention here two circumstances under which workers more often treat animals cruelly: 1) very hasty slaughter (9-10 bulls in one chamber per hour); 2) evening slaughter, especially in winter. In the darkness workers more often treat animals cruelly because they believe that nobody would notice it. Frost forces lightly dressed workers to hurry up with bringing the bull inside the chamber and thus to use some cruel measure <...> In the opinion of the Veterinary Organization, all those cruelties in most cases are not the result of the evil will of the workers but are caused and supported by their conditions of work. When these conditions are changed to the better, the cruel treatment of animals at the Moscow abattoir will stop and remain only in the memories.¹⁰¹

Here Gurin touches upon a very important point of controversy in the discussion on the animal protection, which I tried to indicate with the two epigraphs to this chapter. Clearly, Fyodor Dostoevsky and Leo Tolstoy were not the only voices in that discussion, but they reveal two important approaches to the animal welfare.

⁹⁹ TsGAMOS. 179:54:992:150.

¹⁰⁰ TsGAMOS. 179:54:992:151-152.

¹⁰¹ TsGAMOS. 179:54:992:152-153.

Dostoevsky, in the essay to the anniversary of the Russian Society for the Protection of Animals, expressed his solidarity with the cause of the organization, but was concerned that efforts to thwart cruelty to animals should not shadow the more urgent imperative to promote humane behavior towards people.¹⁰² Leo Tolstoy, the most famous Russian supporter of vegetarianism, believed that “Christianity and morality are incompatible with beefsteak”; in his view, the rejection of meat consumption was the first step towards any moral and spiritual development of mankind.¹⁰³ For Dostoevsky, the treatment of animals largely depended on the treatment of humans; for Tolstoy, the abstention from meat and from the violence towards animal was the precondition of the human improvement, regardless of the social context.

Although Gurin and the abattoir's Veterinary Organization generally agreed with the anti-torture measures put forward by the RSPA and supported their concern of animal welfare, for them it was human welfare that came first. In their own proposal to the municipality the first point to promote the better treatment of animals was the better treatment of humans. They insisted that the abattoir should be not only a place of humane slaughter, but also of humane employment, which, as the further pages will demonstrate, was a questionable issue.

The limits of “public good”: Abattoir as an employer

In the three decades of its operation, the Moscow municipal abattoir employed simultaneously between three and six hundred people. In 1910 its permanent staff

¹⁰² Fyodor Dostoevsky, *Dnevnik pisatelya*, (1876, Chapter 3, part 1). The text is also analyzed in Amy Nelson, “The Body of the Beast”, pp. 95-96.

¹⁰³ Lev Tolstoy, *Pervaya stupen'* (1893). For the study of Tolstoy's vegetarianism see Ronald LeBanc, “Tolstoy's Way of No Flesh: Abstinence, Vegetarianism and Christian Physiology” in Musya Glants and Joyce Toomre (eds.), *Food in Russian History and Culture* (Bloomington: Indiana University Press, 1997) pp. 81-102.

counted about 450 people and 80 more were additionally recruited for the high season.¹⁰⁴ The management of the abattoir was divided into three branches - (1) economic, (2) technical and (3) veterinarian. These branches were headed respectively by the managing director, the senior engineer and the senior veterinarian, who were of equal standing (although the salary of the senior veterinarian was lower), reported directly to the municipal board, their tasks were independent from and sometimes even competing with each other (and, as the documents of Gurin and Verderevsky demonstrate, they could have a very different opinion of the abattoir's organization). The engineers provided the maintenance of the abattoir's infrastructure, the managing director controlled the slaughtering process and meat production, while the veterinary organization was responsible for the safety of that meat and the compliance with sanitary rules.¹⁰⁵

Table 4.4. Income of the abattoir's personnel in 1890

Source: D.G. Gorbunov, *Moskovskiye gorodskiye boyni* (Moscow: Gorodskaya tipografiya, 1913).

Position	Monthly income (rubles)	Bonus
Managing director	200	Free apartment
Senior engineer	200	Free apartment
Senior veterinarian	125	Free apartment
Deputy managing director	100	Free apartment
Deputy engineer	100	Free apartment
Veterinarians	100	Free apartment or extra 25 rubles of compensation
Office clerks	50	Free apartment
Workers (depending on profession)	25-40	Free bed in the abattoir's dormitory
Microscopists (women)	30	No housing or compensation provided

¹⁰⁴ Zelenin "Moskovskiye gorodskiye boyni", pp. 498-499. These numbers do not include the employment at the industrial plants located at the abattoir, but not belonging to the municipal control.

¹⁰⁵ TsGAMOS, 179:54:982:1.

The workload at the abattoir was heavy due to the volatility of output throughout the year and to the fact that it was understaffed. Even the professionals had to work under pressure and in the “atmosphere of constant rush”.¹⁰⁶ In the 1890s the veterinary inspection of the Moscow abattoir involved a maximum staff of 20 all together, while at the Berlin abattoir the same tasks were performed by more than 300 people (while the difference in output was only 7-8 times). As a result, a veterinarian at the Moscow abattoir had to inspect the products of at least 160 slaughtered animals per shift – the inspection depended not on the capacities of the veterinarians but on the intensity of slaughter.¹⁰⁷

The pressure was particularly high for workers, and even the administration admitted that they were overloaded, especially in the days of mass cattle arrivals when the slaughter lasted until late evening. Normally, the blue-collar employees of the abattoir had a six-day working week and a 10-12-hour working day, depending on profession and season. The jobs that required the round-the-clock maintenance of machines had 12-hour day and night shifts with four days off per month. The slaughterers started their day at 7:30 a.m. and worked until 9 p.m. with two breaks for lunch (90 min) and tea (30 min). They were paid for eleven months per year; in winter, when the cattle arrivals reduced, the workers were forced to take one month of unpaid leave.¹⁰⁸

Overtime work was frequent at the Moscow abattoir and, considering the general laborforce deficit, its managers were more eager to compensate it with money than with additional days off. “The consequence of such labor intensity”, wrote Gorbunov, “was

¹⁰⁶ Zelenin, “Moskovskiye gorodskiye boyni”, p. 478.

¹⁰⁷ Brantz, “Animal Bodies, Human Health,” p. 212; Gorbunov, *Moskovskiye gorodskiye boyni*; p. 71; Zelenin, “Moskovskiye gorodskiye boyni”, pp. 478-479.

¹⁰⁸ TsGAMOS, 179:54:995:6; 179:54:1054:3-5; *IMGD*, June-July 1905, pp. 25-26.

the utmost exhaustion of workers that badly affected the quality of work and even sometimes caused refusals to work overtime”. In some technical jobs, workers had no right to refuse the overtime work.¹⁰⁹

Yet, despite the hard physically and psychologically demanding labor and long working hours, the laborforce of the abattoir was remarkably stable and loyal to its employer. Thus, among the 138 workers employed at the cattle slaughter in 1906, only 10 worked there for less than 5 years. Furthermore, one half of the slaughterers worked at the Moscow abattoir for more than 15 years, and 51 for more than 18 years - which means from the very first months of its operation.¹¹⁰ One plausible explanation of this loyalty can be the fact that the Moscow abattoir held a monopoly on its business and basically was the only employment opportunity in the city for those whose profession was connected to animal slaughter. In favor of this assumption speaks higher personnel volatility in professions that were not directly related to slaughter and had a more diversified demand.¹¹¹

The other reason was that the Moscow abattoir with its long and exhausting working day was not very different from the other employers on the city job market. Finally, the free housing was an important factor that tied the workers to the abattoir. Unlike its Western models, but very much in line with Russian factory traditions, the Moscow abattoir provided accommodation for its personnel. Employer-provided accommodation was a typical feature of Russian factories, both in the countryside and in the big cities. Furthermore, housing at the industrial site was common not only among the workers, but also among the white-collar employees and even the factory

¹⁰⁹ TsGAMOS, 179:54:1068:3-7; Gorbunov, *Moskovskiye gorodskiye boyni*, p. 79.

¹¹⁰ TsGAMOS, 179:54:1112:34-37.

¹¹¹ TsGAMOS, 179:54:1112:36-37, 87-89.

owners themselves, who often chose to stay next to their enterprises instead of relocating to quieter and greener areas.¹¹² The important difference was that the abattoir was not a private, but a public institution, organized by the government that claimed to be acting on behalf and for the benefit of the city residents - the position that could have affected the housing policy as well.

Constructing accommodation for the personnel was planned from the very beginning. It was devised and implemented as an integral part of the abattoir's project, from the institutional, architectural and infrastructural points of view. Taking into account the abattoir's location in the city outskirts, poor development of public transport and the general housing shortage in Moscow, the free accommodation near the workplace was an offer difficult to decline. The entitlement to housing was not equal or need-based; it depended strictly on the position one occupied in the abattoir's employment pyramid. Although the income difference between the upper and lower personnel of the abattoir was rather moderate, the spatial arrangements reinforced the social inequalities and clearly delineated the middle-classes from the workers.

The site of the abattoir was a rectangle stretched from north to south, from the city to the railway platforms. The buildings for the abattoir's administration and white-collar employees were located on the northern edge of the complex, most remote from the slaughtering facilities. They provided spacious apartments, with central heating and running water, oak parquetry and private kitchens and bathrooms. Behind them stood the buildings for the middle-rank personnel, such as foremen and guards, with small and simple apartments and shared kitchens and toilets. The so-called family barrack,

¹¹² J. Bater, *St Petersburg: Industrialization and Change* (Montreal: McGill University Press, 1976), 287–95; E.M. Dement'yev, *Fabrika: chto ona dayet naseleniyu i chto ona u nego beret* (Moscow, Izd. T-va Sytina, 1897), pp. 36–43.

located in between the margarine and the albumin factories, provided twenty rooms for highly qualified workers (mechanicians). These twenty families of the working-class elite had to share two kitchens and two toilets. All the other workers lived in the barracks [*kazarmy*] in the center of the abattoir's complex, right next to the slaughterhouses for pigs and calves. Compared to the average dwellings of the Moscow working-classes, those barracks looked quite good – solid brick buildings, freshly painted, warm, dry and well-lit, connected to the sewerage system and water-pipe, with big windows, heated toilets and even a marble staircase. What a worker could receive in those modern dormitories of the abattoir was, however, only a place in a room for twenty (!) people where one got a bed, a mattress, a blanket and a closet for belongings.¹¹³

The nineteenth century abattoir was undoubtedly a heterotopic space. In Foucault's interpretation, heterotopias are the counter-sites that mirror, expose and invert the given culture; they are isolated but penetrable, linked to a break in the traditional human time and capable of juxtaposing in a single place several seemingly incompatible spaces.¹¹⁴ The abattoir, borrowing the formulation of Foucault, was the “heterotopia of deviation”, where individuals with behavior deviant from the required norm were placed. The more bourgeois societies distanced themselves from killing and blood, the more unacceptable became the display of animal death and the explicit violence to animals in public spaces. In this respect, animal slaughter and butchering indeed turned into a deviant behavior that had to be restricted to the “other space”. It was a place where time was revealed in its most transitory aspect as its purpose was to confront life and death. The abattoir was

¹¹³ TsGAMOS, 179:54:1054:7-8; Poderni, pp. 83-99.

¹¹⁴ Michel Foucault, “Of Other Spaces: Utopias and Heterotopias”, <http://web.mit.edu/allanmc/www/foucault1.pdf>, accessed on March 23, 2015.

also the “heterotopia of compensation”, as it was invented to replace the horror and messiness of the everyday street slaying by a perfectly-organized, clean and scientific system.¹¹⁵

However, the abattoir in its Russian version was, in some respect, more heterotopic than its West-European prototypes (if comparatives can be used with this concept). It was not only a space of animal slaughtering, but also a space of home and leisure to hundreds of its employees and as such represented the microcosm of the Russian society, exposing its inequalities and power relations.

The geometry of the abattoir's housing arrangements was a spatial enactment of the hierarchies within the abattoir's population. It remained a male world and women, at least those who were not family members of the higher ranks, were practically excluded from it. Although two professions – laundresses and microscopists (“*mikroskopistki*”) - were reserved for women only, they received the lowest salary in their employment groups and were the only personnel for whom no housing (and no compensation) was provided.¹¹⁶ The cleanest, best-looking and the most representative edge of the abattoir, with trees and flowerbeds, accommodated the elites responsible for the modern science, technology and efficient economic production. They could enjoy comfort and privacy, at least to the extent the abattoir's circumstances allowed. The workers, associated with crudeness and violence, lack of reason and civilization, were placed closer to animals, and their life was subjected to constant regulation and control.

The abattoir was a disciplining project in many respects. As I discussed above, it was conceived to restrict and impose scientific rules on the “undisciplined” livestock-

¹¹⁵ The application of the Foucauldian terms of “heterotopia of compensation” to the slaughterhouse is discussed in Paula Young Lee, “Introduction: Housing the slaughter” in Paula Young Lee (ed.), *Meat, Modernity and the Rise of the Slaughterhouse*, p.6.

¹¹⁶ TsGAMOS, 179:54:1112:27, 90A; 179:54:1069:12.

raisers to prevent them from supplying improper meat. It was also meant to discipline the meat consumers, to make them learn what kind of meat is good for them and abandon the unhealthy practices. Similarly, it was also a disciplining project for its workers. The latter spent their entire days within the abattoir's walls and, unlike the other groups, were supposed to be under constant supervision, either at work, or in a dormitory room for 20, or in a canteen for 150. The workers were discouraged from leaving the walls of the abattoir, as not only housing, but even some forms of leisure was provided inside.¹¹⁷

The spatial arrangements of the abattoir exposed not only the social differences in the right for comfort, but also the difference in the right for privacy, domesticity and family life as such. The possibility to live together with a spouse and children was given only to the middle-classes (and to a very limited group of working-class elite) and denied to the workers, whose living arrangement rather resembled those of soldiers or prisoners. Although workers were not expected to abstain from sexual life, it was channelled into a spatially and temporarily restricted form - the workers dormitories (housing 300 men) included four rooms for “the brief visits of workers' wives”, whose stays could not last longer than 10 days.¹¹⁸ Remarkably, it was not an opportunistic or accidental decision on the use of empty premises, nor a temporary solution to the housing problem, but a preconceived, well thought-out project, approved by the municipality. The latter suggests that this type of working, housing and family organization was seen as appropriate for workers and did not seem to contradict the municipality's vision of public good.

¹¹⁷ TsGAMOS, 179:54:1106:1; 179:54:1068:4; 179:54:1054:7; Zelenin, “Moskovskiye gorodskiye boyni,” p. 500.

¹¹⁸ TsGAMOS, 179:54:631:63; Poderni, *Tekhnicheskoye opisaniye*, p. 95.

It was not until the revolutionary year of 1905 that the working conditions at the abattoir improved. On January 13, 1905, just several days after the beginning of the mass protest, 60 Moscow municipal deputies proposed to the rest of the City Council to discuss the measures that could prevent the escalation of the conflict in Moscow:

The strikes of workers that started now at many Moscow factories force the City Government to take all possible measures without losing a single minute to prevent the spread of those strikes to the municipal enterprises such as water pipe, sewerage system, etc. because the strike of those workers could bring enormous damage to the city residents. In addition, the City Government should take all measures against the possibility of workers from the other enterprises to negatively influence the municipal enterprises.¹¹⁹

The Moscow municipality generally shared the revolutionary demand for large-scale reforms, especially in the political sphere - on January 14, 1905 the City Council stated that the workers should have all legal ways to protect their interests and spoke in favor of the freedom of strikes, unions and meetings; in June 1905 the City Council adopted proposals on the improvement of the state order in Russia, which called for creating a parliament on the basis of the universal, equal, secret vote.¹²⁰

Yet, in the sphere that directly concerned the city budget, the municipality was more reluctant to make actual concessions to the growing workers' movement. The abattoir's workers were in fact the first among the large group of municipal employees to protest and fight for their rights. In early April 1905, they petitioned the municipality for 12-month employment with two weeks of paid vacation, for the reorganization of kitchens, for more rooms for family visits and for a general increase in wages – which had remained the same for 17 years, from the very opening of the abattoir. The municipality agreed with most of the demands and ordered to buy new stoves and to create 20 rooms

¹¹⁹ TsGAMOS, 179:54:631:1.

¹²⁰ TsGAMOS, 179:54:631:2; *IMGD*, June-July 1905, pp. 13-23.

for family visits; yet the request for wage increase was found unreasonable. Instead, it was proposed to provide the workers with clothes and boots on the city expense because, in the words of the abattoir's managing director, their clothes were “extremely dirty and rancid” and otherwise “it is difficult to maintain the necessary hygienic conditions in the workers' barracks.” However, in 1905 the strategic initiative was not on the side of the municipality and boots and pants were not able to satisfy the revolutionary demands. In May, the abattoir workers insisted on a 20% increase in wages, and, after the negotiations, the sides agreed on a 15% increase. In summer, the municipality approved the increase of staff, the two-week paid vacation for all workers and introduced three eight-hour shifts instead of two twelve-hour shifts for those employed in the abattoir's technical maintenance.¹²¹

Meanwhile, all Moscow workers employed in the various municipal enterprises, including those from the abattoir, formed a joint Workers organization. This organization, threatening the city with a general strike of municipal employees, demanded minimal monthly wages of 25 rubles, awards for long service, limits for overtime work, eight-hour working day and one month of paid vacation for all, pensions and insurance against death and disability, improvement of housing conditions and their right to use their after-work hours at their discretion.¹²²

The municipality, facing the general strike and bound by its support to the revolution and the workers' movement, voiced in January, had to yield. In October, the Moscow City Council introduced long-service awards of up to 40% for all municipal employees (which meant a substantial increase for many of the abattoir's workers). The city stated that the needs of the family workers should be considered and offered a compensation

¹²¹ TsGAMOS, 179:54:631: 63-74; *IMGD*, June-July 1905, pp. 25-27.

¹²² *IMGD*, October 1905, pp. 47-48.

(“apartment money”) for those of the abattoir's workers who would choose to live in private apartments and not in the dormitories. Additional personnel was hired to decrease the workload at the abattoir; the compensation for the overtime work increased from 100% to 150% of the wage; the workers were granted the right to personally decide when they want to take vacations, and the maximum duration of wife visits to the abattoir increased from 10 to 14 days per year.¹²³

The concession to the workers also meant that the City Council admitted that the conditions at the municipal enterprises had not been good enough and that, despite all its “public good” rhetoric, the city failed to be a fair employer. As the municipal periodical diplomatically put it in November 1905,

it has been frequently said in the Duma that the municipal government should put its workers in the best conditions because, unlike the private entrepreneurs, its goal is not profit but the improvement of life of the city populations, to which the workers belong, and because the Municipality should give an example of a particular care of its workers. Although this thought was implemented to some extent, it is necessary to admit that it was not done systematically, partially because the municipal enterprises <...> were at first unprofitable to the city, partially because of the narrow circumstances with city finances.¹²⁴

Despite being a public project, the Moscow abattoir, in its role as an employer, acted very similarly to the private industrial plants. The municipality wanted to distinguish itself from the private entrepreneurs, condemning their focus on profit, and claimed to prioritize “public good” over economic success, yet in practice financial concerns prevailed. Willing to cut the operating costs, the abattoir failed to be a socially-responsible employer. Although the municipal deputies shared the discourse of service to the people and – probably quite sincerely – wanted to act for the benefit of the common city residents, their vision of it remained quite limited. Even in the institution

¹²³ TsGAMOS, 179:54:631:133; 179:54:632:16-17; *IMGD*, November 1905, pp. 38-48; Gorbunov, *Moskovskiye gorodskiye boyni*, p. 47.

¹²⁴ *IMGD*, November 1905, p. 39

that belonged to the city and thus could serve as a model of urban welfare that the municipality strove to promote, the “public good” rhetoric got narrowed down to rationalization and social disciplining and was changed only as a response to the revolution.

CHAPTER FIVE

Between cesspools and police stations: campaign against water pollution and the Moscow sewerage system

A Russian mind is a European mind lost between
cesspools and police stations...

Victor Pelevin, *Batman Apollo* (2013)

Water plays an essential role in our perception of cleanliness and pollution, of a healthy and unhealthy environment. Water is the main cleansing agent - both in a physical and in a symbolic sense – and as such it is strongly associated with purity, which is one of the fundamental concepts in human cultures.¹ Yet, precisely this belief in the purifying and self-cleansing capacities of water provided justification for its streams to be used as an “ultimate sink”, a perfect depository for the wastes produced by the growing population and industry - in the nineteenth century more than ever before.² Furthermore, modern science added a different dimension to the understanding of water, defining its reservoirs as a source of contagion - first through the language of miasmatic theory and later that of bacteriology.³

In the last decades, the relations between humans and water in the context of modernity, in Russia as elsewhere, emerged as a topic for scholarly attention, both from the standpoint

¹ Mary Douglas, *Purity and Danger: An Analysis of the Concepts of Pollution and Taboo* (London and New York: Routledge, 1996), pp. 2-3, 36-37.

² Joel Tarr, *The Search for the Ultimate Sink: Urban Pollution in Historical Perspective* (Akron, OH: University of Akron Press, 1996).

³ Jean-Pierre Goubert, *The Conquest of Water: The Advent of Health in the Industrial Age* (Princeton University Press, 1989); Martin Melosi, *The Sanitary City: Urban Infrastructure in America from Colonial Times to the Present* (Baltimore and London: The Johns Hopkins University Press, 2000).

of cultural and environmental history.⁴ The industrial age substantially reshaped the ways in which societies, particularly, urban, interacted with water and waterways. Urbanization, demographic and industrial growth exerted an unprecedented pressure on water resources, as it required more freshwater, more energy, more reliable transportation routes and more goods to be moved to and from cities. Cities were paved and asphalted, preventing the rainwater from permeating into the soil, and the networks of gutters were constructed to convey the precipitation to the surface waters. The velocity and locations of water flows were changed, the rivers were regulated to prevent flooding and facilitate navigation. As the surface waters became increasingly polluted by the human and industrial refuse, more and more ground water was piped to satisfy the needs of population and economy.

The introduction of sewerage systems in cities marked yet another shift in socio-natural relations. As historian Verena Winiwarter has noted, the agricultural and urban perceptions of human excrement were very different. Instead of seeing it as a fertilizer, the urban society perceived and dealt with it only as waste that needed to be hidden and removed. During the nineteenth century, the sewerage system came to be regarded as the best answer to this task. Through carrying the excrement away from human settlements, the sewerage interrupted the nutrient cycle; it altered the natural water circulation because the water flows were used to move and sometimes to deposit the refuse. Sewers also transformed the

⁴ Donald Worster, *Rivers of Empire: Water, Aridity, and the Growth of the American West* (New York: Oxford University Press, 1992); Mark Bassin, *Imperial Visions: Nationalist Imagination and Geographical Expansion in the Russian Far East, 1840-1865* (New York: Cambridge University Press, 1999); Marc Cioc, *The Rhine: An Eco-Biography, 1815-2000* (Seattle and London: University of Washington Press, 2002); Christof Mauch, Thomas Zeller (eds.), *Rivers in History: Perspectives on Waterways in Europe and North America* (Pittsburgh: University of Pittsburgh Press, 2008); Guido Hausmann, *Mütterchen Wolga: ein Fluss als Erinnerungsort vom 16. bis ins frühe 20. Jahrhundert* (Frankfurt am Main: Campus, 2009); Constantin Iordachi and Kristof Van Assche (eds.), *The Bio-Politics of the Danube Delta* (Lanham, MD: Lexington Books, 2014).

infrastructure and architecture of cities and houses, and reconfigured the notions and practices of hygiene, both private and public.⁵

Sanitary concerns were indeed crucial for the construction of sewerage systems. Throughout most of the nineteenth century it was the miasmatic theory that provided the background and rationale for developing the technologies of sanitation. The miasmatic theory was based on the assumption that disease originates from the decomposing organic wastes and is spread through their emanation. The depositories of “filth”, including cesspools, dumps or waterways, were seen as sources of contamination. The prompt removal of the decaying organic materials, preventing the spread of their rotting smells and environmental sanitation were thus seen as essential for fighting epidemics. In the 1850s – 1870s, belief in the connection between disease and filth and in the health value of flushing away the household wastes stimulated many cities across Europe and America to build or expand their sewers – Chicago in 1859, London in 1865, Hamburg in 1862-69, Frankfurt-on-Main in 1876, Berlin in 1875-1878.⁶ In the last decades of the nineteenth century the “bacteriological revolution” replaced filth, miasma and foul odors with the germs as the causes of disease, but the commitment to develop wastewater infrastructure persisted.

The Russian Empire was, however, remarkably late in introducing these types of sanitary infrastructure. St. Petersburg, the imperial capital, never received a sewerage system - it was constructed only in the Soviet times. The Moscow sewerage system was

⁵ Verena Winiwarter, “Where Did All the Waters Go? The Introduction of Sewage in Urban settlements,” in Christoph Bernhardt (ed.), *Environmental Problems in European Cities in the 19th and 20th Centuries* (Muenster: Waxmann, 2004), p. 108; see also Jamie Benidickson, *The Culture of Flushing: A Social and Legal History of Sewage* (Vancouver: University of British Columbia Press, 2007),

⁶ “Doklad N 55 po vorposu o kanalizatsii Moskvyy,” *IMGD*, 10 (1879), pp. 4-12; Melosi, *The Sanitary City*, p. 93.

completed in 1898, but its launching was preceded by 25 years of preparatory work and discussions in the city press, scholarly papers and various municipal committees in which river pollution and the sanitary deterioration of the city environment were key arguments. The construction of the sewerage system, in its turn, stimulated a range of new discussions and policies concerning industrial discharge and waste treatment. The following pages explore how and why the Moscow sewerage system came into being, how the city authorities and experts approached the problems of pollution and waste treatment and which meanings were attached to this process by various social actors.

Rivers, wastes and the images of pollution

As with many cities, rivers played a crucial role in the history of Moscow. The city emerged on the banks of and also derived its name from the Moskva River, which rises in the Smolensk-Moscow Upland and flows 500 km to the Oka River, a tributary of the Volga. Up to the construction of railways, the Moskva River remained the most important means of transportation to and from the city. The reliable commercial navigation was, however, hindered by the river's general shallowness and the instability of its current - in the 1870s, to cover the 180 km distance between Moscow and Kolomna (the town in the river mouth) the ships needed two weeks in high water and up to two months when the water was low.⁷

Despite the projects in the river regulation – for example, a four-kilometer long Vodootvodny Canal (“Water bypass channel”) was constructed in 1783-1786 on the old riverbed of the Moskva – spring floods remained the norm throughout the nineteenth

⁷ *Poyasnitel'naya zapiska po shlyuzovaniyu Moskvyy-reki* (Moscow: S.n. 1882), p. 1; N.V. Gerasimov, *Istoriya uluchsheniya Moskvyy-reki* (St. Petersburg: Tipografiya I. Goldberg, 1902), p. 4.

century, with a particularly disastrous one occurring in 1879. In 1882, the engineer Vsevolod Kastalsky described the Moskva River as

a weak current with a minimal vertical drop, with a speed below 0.15 m/s and a streamflow of 30 m³/s when entering the city and 50 m³/s when leaving it. This is how the Moskva looks eleven months a year; but then the spring comes, ice breaks, and the river becomes unrecognizable: it rises its waters rapidly, sometimes 8 m above its normal level, its speed increases to 2 or even 3 m/s, the volume reaches 1600 m³/s and sometimes 2600 m³/s; the river spills and floods 1/7 of the city territory, causing numerous calamities.⁸

In the nineteenth century, the Moskva River and its inflows, with the 48-km Yauza being the biggest one, remained the important sources of water for Muscovites. Although since 1804 the city had a water-pipe that brought the water from the artesian wells in the village of Mytishchi, north-east of Moscow, its supply was not sufficient to cover the needs of the urban dwellers. In 1879, the pipes provided 635, 000 buckets of water daily which was far below the needs of the city with the 700-thousand population. The reports of municipal sanitary doctors confirm that the river and well water, despite its appalling quality, was almost universally used not only for laundry and bath houses, but also for drinking, cooking and bread baking. Although additional smaller water-pipes were organized, by the 1870s the deficit of drinking water became a pressing issue in the rapidly growing city.⁹

The network of the Moskva River and its tributaries also served as an excretory system for the city. The vital metabolic function of Moscow's five rivers and 22 streams was to deliver the city from the rain, snow and waste waters - and solid wastes to some extent as

⁸ V.D. Kastalsky, *Moskva v sovremennom sostoyanii i chto ey predstoit sdelat' v otnoshenii blagoustroystva* (Moscow: Tipografiya Klein, 1883), p. 9.

⁹ A. Petunnikov, "Sostav i svoystva Moskovskikh vod" in *IMGD*, 3 (1879), p. 15; "Otchet sanitarnogo vracha Prechistsenskoy chasti," *IMGD*, 4 (1878), no. 14, pp. 44-55; "Sanitarny otchet po Yauzskoy chasti," *IMGD*, 16 (1878), pp. 34-44; "Otchet sanitarnogo vracha Arbatskoy chasti," *IMGD*, 1878, no. 16, pp. 13-21; "Otchet sanitarnogo vracha Meshchanckoy chasti," *IMGD*, 17 (1878), pp. 10-31; N. Zimin, "K voprosu o vodosnabzhenii Moskvyy," *IMGD*, 7 (1879), pp. 26-33.

well. This was the task of many urban rivers, but Moscow's situation was complicated by the very moderate speed, depth and stream flow of the Moskva River. According to the hydraulic estimations of V.I. Astrakov in 1878, with its maximum stream flow of 55 m³/s, it was about twice less affluent than the Seine in Paris, four times less than the Tiber in Rome or the Rhone in Lyon and seventy times less than the Neva in St. Petersburg.¹⁰ Although Moscow's waterways for centuries were used as deposit for the urban wastes, in the 1870s their pollution emerged as a public debate and soon it was acknowledged that the problem required a solution in the form of a sewerage system.¹¹

The objective reality behind this change in the perception of urban metabolism was the city's demographic and industrial growth. In the decade after the abolition of serfdom, the city's population increased by half and reached 600 thousand in 1871 and 750 thousand in 1882. By the end of the 1870s, Moscow had almost 500 factories, which employed 120 thousand workers.¹²

The disposal of wastes left by the increasing population of Moscow indeed posed a challenge. According to the contemporary estimations, each person produced 700 puds (11.5 tons) of waste annually, and even after evaporation, this left 480 puds (almost 7.9 tons) to be disposed.¹³ Moscow relied on the cesspool system to reach this goal. Legally, each household was supposed to accumulate its wastes in a cesspool, the contents of which

¹⁰ V.I. Astrakov, "O kolichestve vody, protekayushchey v reke Moskve," *IMGD*, 8 (1878), pp. 39-41.

¹¹ "Doklad N 55 po vorposu o kanalizatsii Moskvy," *IMGD*, 10 (1879), p. 22, 37.

¹² Ostroglazov, *Smertnost' v Moskve* (Moscow: S.n., 1887), p. 1; *Trudy Moskovskogo gorodskogo statisticheskogo otдела. Vol. 2 Promyshlennye i torgovye zavedeniya Moskvy za 1879 god* (Moscow: Moskovskaya gorodskaya tipografiya, 1882), pp. 68-69.

¹³ M.A. Popov, "Kanalizatsiya goroda Moskvy: po proyektu inzhener-gidrotehnika M.A. Popova", in *IMGD*, 8 (1880), p. 6.

had to be regularly removed to the city dumps by special cesspool cleaning carts to prevent noxious odors and the pollution of water and soil.¹⁴

The practice was, as often happens, quite different. Moscow landlords delayed or avoided calling the cesspool cleaning carts and invented alternative (and cheaper) means to get rid of wastes. Although the municipal and governmental decrees prescribed that natural streams should be kept clean and strictly forbade dumping human excrement in the city rain drains, numerous accounts testify that the opposite was frequently the case. As most of the small rivers and brooks went through private estates, their owners used the natural streams to drain the refuse, either directly or through underground pipes. The simplest solution, however, was to throw the garbage in the street ditches on rainy days (and, especially, nights) when the streams of stormwater carried it away to the river.¹⁵

In fact, even the regular calling of the cesspool cleaning carts did not ensure that refuse would not end up in the rivers. Thus, in 1874 the residents of Moscow's suburb Shiryayevo Pole petitioned the city mayor to take measures against the pollution of the Yauza River that “produces such a stench [*zlovoniye*] that it has become dangerous for our health to live in our houses.”¹⁶ The river water, according to them, was deteriorating because the cesspool cleaning cart workers simply dumped its contents on the way to the assigned garbage lots while the waste disposal sites did not prevent the refuse from draining into the river – which

¹⁴ *Sbornik obyazatel'nyh dlya zhiteley g. Moskvy i chastiyu drugikh gorodov postanovlenii* (Moscow: Pechatnya Yakovleva, 1879), pp. 30-31.

¹⁵ TsGAMOS, 16:130:240 : 1, 7-8; *Sbornik obyazatel'nyh dlya zhiteley g. Moskvy*, pp. 31, 53; “Otchet sanitarnogo vracha Prechistsenskoy chasti pp. 44-55; “Sanitarny otchet po Yauzskoy chasti,” pp. 34-44; “Otchet sanitarnogo vracha Arbatskoy chasti,” pp. 13-21; “Otchet sanitarnogo vracha Meshchanckoy chasti,” pp. 10-31; Kastalsky, *Moskva v sovremennov sostoyanii*, pp. 8, 14, 18-19; E.N. Kamenetskaya, *Kanalizatsiya goroda Moskvy* (Moscow: Gorodskaya tipografiya, 1896), p.1; A.A. Nikitin, “Kanalizatsiya goroda Moskvy” in I.A. Verner, *Sovremennoye khozyaystvo goroda Moskvy* (Moscow: Gorodskaya tipografiya, 1913), p. 287.

¹⁶ TsGAMOS, 179: 33:4:4.

then was confirmed by a municipal investigation.¹⁷ In its letter to the Chief of the city police, the Moscow municipal board wrote:

The different wastes that are constantly discharged into the Yauza from the houses and factories, located along its stream, have long ago turned the water in this river into a dirty fetid liquid unsuitable for any use. Despite this, no serious measures have been taken against such contamination of the river. <...> This threatens to soon turn this river into the source of infection not only for the residents of the nearby areas, but for the entire city of Moscow, where the Yauza brings its wastes.¹⁸

This opinion was echoed in many contemporary accounts, which can be summarized in the words of the municipal sanitary doctor of the Yauza district I. Neiding:

I do not think it is necessary to describe the quality of the water in the Yauza: every Muscovite knows that in summer the Yauza has the fetid and feculent liquid of brown color that can sometimes change depending on whatever is discharged in it <...> It is clear that the water in the Yauza is not suitable even for doing the laundry <...> As for the Moskva River, one can note that although its water, because of its larger volume, is less polluted, it can be used for drinking only because nothing better is available. There is no doubt that various wastes are being drained into the Moskva River.¹⁹

The absence of a proper system of waste disposal was blamed for the anti-sanitary condition of the city, high mortality rates, the spread of diseases (such as typhus and even tuberculosis) and the deficiency in the freshwater in the city - because the water in wells and rivers became too polluted and unfit for drinking. The discussions on the sewerage system and on water supply thus developed along the same lines. On the one hand, constructing the sewers was seen as a way to improve the quality of the natural water sources in the city. On the other hand, should the new water supply be developed, the water usage would grow, and the sewerage system would be necessary to carry away the

¹⁷ TsGAMOS, 179:33:4:4.

¹⁸ TsGAMOS, 179:33:4:11; similar account was given by Kastalsky, *Moskva v sovremennom sostoyanii*, p. 19.

¹⁹ "Sanitarny otchet po Yauzskoy chasti," p. 35.

increased volume of waste waters which in turn would facilitate the moving of the sewer cargo in the pipe.²⁰

What changed by the last decades of the nineteenth century, however, was not only the waterways themselves but the way Moscow society perceived their pollution. One aspect of this was scientific – it was connected to the development and institutionalization of medicine, chemistry and hygiene in Russia and the spread of scientific ideas about sanitation and disease among the public. The rivers of Moscow became an object of scholarly research, and scientific demonstrations were used to confirm the lay conclusions that they were serving as “the bottomless cesspool” and “cloaca” for the city dwellers. Physicians, chemists, hygienists and engineers raised awareness of the pollution of the Moscow waterways and alerted Russian public about the dangers of the unwholesome environment.²¹

In the 1870s, although the Russian medical circles were clearly aware of the germ-theory and the research of Pasteur,²² it was the miasmatic theory that framed the understanding of pollution and the discussion about waste treatments in Moscow. As the author of the first project of Moscow sewers Mikhail Popov wrote in 1875,

[w]astes produced by humans create an extremely harmful environment; the research organized to study their composition revealed that the gases and vapors emitted by the waste can affect the living organism in the most pernicious way; under their influence it can experience most difficult changes, ranging from the low spirits to the early death.

²⁰ “Otchet sanitarnogo vracha Prechistenskoy chasti,” p. 46; M.A. Popov, “Kanalizatsiya goroda Moskvy: po projektu inzhener-gidrotekhnika M.A. Popova,” in *IMGD*, 8 (1880), pp. 26-32; “Doklad N55 po voprosu o kanalizatsii g. Moskvy,” p. 3, 59.

²¹ A. Petunnikov, “Sostav i svoystva Moskovskikh vod” in *IMGD*, 3 (1879), pp. 15-31; idem, “Materialy dlya izucheniya Moskvy v sovremennom eya sostoyanii” in *IMGD*, 1 (1882), pp. 46-54; idem, “Gidrograficheskiy ocherk Moskvy,” *IMGD*, 7 (1882), pp. 70-74; quotes from M.B. Kotsyn, *Opyt sistematicheskikh nablydenii nad kolebaniyem khimicheskogo i bakteriologicheskogo sostava vody Moskvy-reki za 1887-1888 g.* (Moscow: Tipografiya Bonch-Bruyevicha, 1889), pp. 157-163, particularly pp. 161-162.

²² “Parazitizm i anti-parazitizm” in *Moskovskaya meditsinskaya gazeta*, 52 (1874), pp. 1725-1734.

Typhus, cholera, smallpox, measles, scarlet fever and many other illnesses of various kinds are caused exclusively by the noxious vapors.²³

By the 1880s the germ theory challenged the miasmatic explanation. As Friedrich Erismann explained in his lectures on hygiene in the early 1880s,

the question of the sanitary or, rather, the pathogenic meaning of water, of the role that, in the opinion of many, water plays as an etiological moment in the development and spread of disease, is a very difficult and complicated question <...> It is generally accepted that the water which contains substantial quantities of organic material liable to rotting should be considered suspicious, either because the products of decomposition can directly cause pathogenic processes or because their presence in water suggests that the latter may contain human feces and, in them, the embryos of infectious disease.²⁴

The acceptance of the bacteriological discoveries did not, however, mean the disappearance of the miasmatic approach. Among the Moscow medical professionals, the sanitary understanding of water pollution persisted after the introduction of bacteriology and its laboratory methods. Research on the Yauza by one of the Erismann's students, Andrei Sokolov, reveals that the miasmatic and bacteriological theories were not seen as contradictory and, in fact, could coexist within the same explanatory model. On the basis of his quantitative bacteriological and chemical analysis, Sokolov concluded that the Yauza was utterly polluted. He connected these results to the relatively high mortality from typhus, typhoid and relapsing fever [*tify*] in Moscow districts along the Yauza, but failed to look for the exact link between the two factors, assuming some natural connection between pollution and disease. Not only his reasoning, but also his specific language, with its emphasis on smell, is telling:

The Yauza-river, receiving all possible wastes, infects the banks and the bottom with the rotting elements and the air with the fetid volatile products of putrefaction and

²³ M.A. Popov, *Domovye i dvorovye stoki* (St. Petersburg: Tipografiya Goppe, 1885), p. 1.

²⁴ F.F. Erisman, *Kurs gigiyny*, vol. 1, 1887, pp. 192, 199.

consequently, in combination with the other conditions, has an unhealthy effect on the surrounding area. <...> After entering the city, it rapidly changes in its appearance and becomes dirty and gets unpleasant smell felt from afar; downstream, next to its mouth, it reaches the maximum of its contamination and becomes unbearably stinking, more resembling the refuse than the river water.²⁵

The fact that Moscow University awarded Sokolov the gold medal of the Department of Medicine indicates that the faculty committee considered such analysis and argumentation convincing or at least very plausible. As I will demonstrate below, the coexistence of the two theories of disease - the miasmatic and the bacteriological – throughout the 1880s and 1890s played its role in the discussions on the sewerage system construction.

The other aspect in the growing sensitivity to pollution in Moscow could be political, connected to the growing feeling of Moscow's backwardness and demands for modernization and reforms. The “cesspools” of Moscow, meaning both the backyard pits and, metaphorically, the polluted and fetid city waterways, were seen as causes of disease, dirt and disorder and symbolized Moscow's underdevelopment. Similar to the other big infrastructural project – the public abattoir - the sewerage system was seen as an important symbolic step towards modernization and as a way of asserting Russia's and Moscow's Europeanness.²⁶

Yet, although the idea of the sewerage system was borrowed from the West and this was where the city reformers were looking to, it would be incorrect to see it only as the

²⁵ A.D. Sokolov, *1. Rezultaty analizov vody reki Yauzy. 2. Sutochnye kolebaniya kisloroda v vode: Izvlecheniya iz raboty, udost. Med. fak. Mosk. un-ta zolotoi medali* (St. Petersburg: Tipografiya Doma prizreniya maloletnikh bednykh, 1892), pp. 8-11, quote from pp. 10-11.

²⁶ “Zayavlenie glasnogo A.D. Lopasheva,” *IMGD*, 4 (1879), pp. 1-2; “Doklad N 55 po vorposu o kanalizatsii Moskvy,” *IMGD*, 10 (1879), pp. 1, 22; Kotsyn, *Opyt sistematicheskikh nablydenii*, pp. 161-162; V.F[idler], *Moskva. Kratkiye ocherki gorodskogo blagoustroystva* (Moscow: Tipografiya Blagushinoy, 1897), pp. 89-90.

westernizers' project in Russia. In the post-reform era the opponents of “westernization” agreed that “the sanitation in our country is in an extremely deplorable condition” and the rhetoric of “healthification” of Russian cities was shared by both sides alike, just the nuances were different.²⁷ For example, the literary critic and medical journalist Nikolay Solovyov who was close to *pochvennichestvo*, also called for the sewerage construction, despite his generally anti-modernist and Slavophile positions. Solovyov clearly disliked the “modern city” epitomized by Haussmann's Paris. He believed that wide and straight streets, terraced multistory houses are harmful for human health and praised Moscow for what the westernizers regarded as a sign of provincialism - for the loose settlement, for its curvy narrow streets, small houses and vast private gardens and yards. And still, for the question how to make Moscow a healthier city, Solovyov had a definite answer: “Of course, only with the sewerage system.”²⁸

Choosing the sewerage system and the scientific explanation

The construction of sewers was not only the largest and the most expensive project of the Moscow municipality but also the one that took the longest to complete. In the words of the city reformers, the sewerage system was for years a “mirage” - it was discussed for so long that it seemed almost impossible to achieve, but at the same time the presence of

²⁷ Quote from the the slavophile newspaper *Rus'*, 26 (1881), no. 26; the sewerage system was positively discussed by the slavophile press, see *Rus'*, 4 (1880), 26 (1881), 57 (1881).

²⁸ N.I. Solovyov, *Moskva i Peterburg v sanitarnom otnoshenii* (Moscow: Tipografiya Myshkina, 1874), pp. 4-39, quote from p. 39.

such a large-scale and costly project on the agenda of the city slowed down the implementation of other endeavors.²⁹

The initial idea of this project came from outside the governmental circles. In 1874 an engineer Mikhail Popov submitted to the Moscow City Council a project of sewers that he devised on his own initiative and at his own expense. The project proposed a sewerage system that would cover the entire city territory, excluding the scarcely populated areas, and remove the waste and storm waters together to the filtration fields located on the right bank of the Moskva River, near the village of Kolomenskoye. The maximum capacity of the system was calculated for a population of 1.4 million (twice more than the actual Moscow population at that moment) with a daily volume of 86 liter of refuse per person. The price of the project execution was estimated at 16 million silver rubles. The main advantages of the sewerage system, as advertised by Popov, were the decline of mortality, general urban sanitation and the increase of water supply – he believed that the construction of the sewerage system would improve the quality of water in rivers and wells which could then be used to compensate the deficit of drinking water in Moscow.³⁰

Moscow authorities as well as the technical committee of the Ministry of Interior, that considered it later, received the idea positively and agreed on the necessity of an extensive topographical study to prepare a detailed project. The knowledge of the city terrain, soil, riverscape, climate, metabolism and population was, in fact, so limited and the program of necessary research so vast that it took eight years to complete it. The city commissioned the leveling plan, measured streets and quarters, estimated the density of population and

²⁹ A. Petunnikov, “Moskva i eye budushchnost” in *IMGD*, 1 (1881), p. 9.

³⁰ M.A. Popov, “Kanalizatsiya goroda Moskvyy: po proyektu inzhener-gidrotekhnika M.A. Popova”, in *IMGD*, 8 (1880), no. 8, pp. 5-32.

the industrial water consumption, collected meteorological data, inspected the riverbeds and studied the depth of soil freezing in winter. Petrovskaya Agricultural Academy created a test irrigation field to try out how sewage farming works in Moscow climate.³¹

Though several city and state expert committees (Commission for public health, Construction and engineering committee of the Ministry of the Interior, Municipal Commission for water supply, Moscow Governor-General's Committee created on the permission of the emperor Alexander II himself³²) found Popov's plan acceptable, the municipality decided to also hear an opinion of a foreign expert and in 1880 invited James Hobrecht, the author of Berlin's sewerage system, to comment on the project. Giving credit to Popov's hard work, Hobrecht, however, castigated the project, concluding that “the fundamental assumptions for calculations do not endure any criticism and can lead to the wrong results”.³³ The municipality turned out to be very receptive to the position of Hobrecht and in 1881 commissioned him to develop an alternative project.³⁴

For many of the municipal deputies, Hobrecht, who was called “the authority with European fame” symbolized the European “progress” that was supposed to come to Moscow with the sewerage system. As the deputy N.N. Mamontov expressed it,

although we have our local, homely authorities, we came to the conclusion that they need to be checked by inviting the European authority who can say whether what we have done is good or bad and who can grade us. Mr. Hobrecht, a recognized authority, said that our technicians, including Mr. Popov, had worked a lot on this issue but they did not have enough experience for us to rely on their solutions. So we should not refuse the chance to reach the level that Hobrecht shows to us as this will be the first step towards the sewerage construction. What have we done on this issue? We know that mortality in the city is very high and this results from its pollution and dirtiness [*nechistoty i neopryatnosti*]. We need

³¹ Nikitin, “Kanalizatsiya goroda Moskvyy”, pp. 288-289.

³² *IMGD*, 4 (1880), pp. 15-20.

³³ Nikitin, “Kanalizatsiya”, p. 290.

³⁴ “Obzor podgotovitelnykh rabot k sostavlennomu inzhenerom Gobrechtom projektu kanalizatsii Moskvyy,” *IMGD*, 8 (1882), pp. xii-xiii.

to start doing something for urban sanitation. The plan of Hobrecht will be the departure point towards that good for Moscow from which our children will probably benefit.³⁵

The symbolism of the Moscow sewerage system as a mark of “Europeannes”, in the eyes of many of the Council deputies, could be enhanced through inviting a European celebrity to implement it. The belief in the power of the foreign expertise, knowledge and experience seemed to outweigh the questions of national pride. Answering to one of the few deputies who suggested that Russian engineers should be commissioned when possible, the then-former mayor Prince Shcherbatov said:

I admit that I do not understand such patriotism. In the given case I understand only one type of patriotism – to provide the city of Moscow, to which we ought to serve, with the conditions for healthy life, that is to say with one of them – the sewerage system. It is secondary to me whether the engineer will be Russian or non-Russian. In Paris, when they wanted to introduce new illumination, they asked Yablochkov without asking whether he was French or Russian. I believe that in such questions the references to nationality have nothing to do with the matter. What we need to do is to possibly create such conditions for that business that would guarantee its success and reasonable implementation.³⁶

Although Hobrecht was indeed a big name in the sewer engineering and design, it is still remarkable that the municipality was so eager and so quick to prioritize the opinion of one foreign expert over the conclusions of many local specialists reached over several years.

From the very beginning Hobrecht worked in much better conditions than Popov. He could use the city leveling plan and the results of all the topographical studies that were unavailable to Popov in the early 1870s. His information on the population growth and density in the rapidly developing city was more accurate. More importantly, unlike Popov,

³⁵ *IMGD*, 9 (1881), p. 993.

³⁶ *IMGD*, 9 (1881), p. 1005.

Hobrecht knew he would be paid – according to his contract, he received 30,000 marks. In his project, Hobrecht, similar to Popov, offered the combined removal of the waste and storm water to the filtration fields that he located on the left bank of the Moskva River, southeast of the city. The capacity of the system was calculated for a population of 3 million with a daily volume of 100 liters of refuse per person. The cost of the project was estimated at 23 million rubles. It is noteworthy that both Popov's and Hobrecht's projects implied some type of waste treatment – which was still not a universally acknowledged necessity nor a norm for the cities that had sewers. The most controversial aspect of the Hobrecht's project was that he proposed locating the system in the city areas that were inundated during the spring flooding. In his design, the pipelines went partially above the then-existing street level which meant that significant ground elevation works had to be done to implement the project.³⁷

In December 1882 both projects were sent for evaluation to the Russian Technical Society which included famous engineers and hygienists. The two-year discussions in the Society mostly focused on the technical aspects but the sanitary questions that were addressed (the danger of ground waters, ventilation, dilution of the refuse) demonstrated the belief in the miasmatic theory as the scientific basis for the sewer construction. The Society found serious faults in both projects but proposed to take Popov's plan as the basis for the new project of the sewerage system.³⁸ Popov, however, decided to go further and

³⁷ “Zhurnaly zasedaniya Komissii po rassmotreniyu proyektov kanalizatsii Moskvy, sostavlennykh gg. Gobrechtom i Popovym” in *Trudy III (Stroitel'nogo) otdela Imperatorskogo Russkogo tekhnicheskogo obshchestva, 1880-1884* (St.Petersburg: Tipografiya Panteleyevykh, 1884), pp. 51-68.

³⁸ “Zhurnaly zasedaniya Komissii po rassmotreniyu proyektov kanalizatsii Moskvy, sostavlennykh gg. Gorechtom i Popovym,” pp. 131-153, 193-231, 273-280; E.S. Fyodorov, *Po povodu trudov Komissii pri Russkom Tekhnicheskome obshchestve po rassmotreniyu voprosov ob ochistke gorodov* (Kazan: tipografiya Okr. Shtaba, 1885), pp. 4-15.

in 1885 asked the City Council to not only commission him with designing the final project but also with implementing it on the principle of concession agreement – a scheme which would mean a break with the initial plan of municipalization of public services in Moscow and had to undergo another round of discussions in municipal bodies. This was the state of affairs when Nikolay Alekseyev was elected the mayor of Moscow.

Meanwhile a new development occurred in the approaches to the sewer design. In 1886, at the meeting of the Moscow Society for the Diffusion of Scientific Knowledge (SDSK), the city engineer Vsevolod Kastalsky proposed a new type of sewers. Both Popov and Hobrecht had devised the combined single-pipe systems – then functioning in many European cities - that carried the rainwater and the human wastes together to the filtration fields. Kastalsky criticized it for the difficulties of maintenance, overflowing in wet weather, and, particularly, the high costs of construction and instead proposed a separate system that dealt with anthropogenic wastes only and let the precipitation run directly to the surface waters. “In the cities with limited budget”, concluded Kastalsky, “the combined system without any noticeable disadvantage from the sanitary side and with a big advantage from the economic side can be replaced with a separate system. The care for the street storm water, as less dangerous, can be left to the future.”³⁹

Today the separate treatment of wastes and storm water is a norm, but in the nineteenth century it was an innovative and daring idea, although not Kastalsky's own (in the early 1880s such system of waste treatment was constructed in Memphis, USA⁴⁰). Kastalsky's plan contradicted the existing practice and experience of the sewage disposal in major

³⁹ V.D. Kastalsky, *O razdel'noy sisteme splavnoy kanalizatsii gorodov* (Moscow: Gorodskaya Tipografiya, 1889), pp. 3-15, 30-32, quote from page 32.

⁴⁰ Erismann, *Kurs gigeny*, vol. 2, p. 397.

European cities – the models which Moscow was looking up to. The talk of Kastalsky had such resonance with the members of the SDKS, that it, on the suggestion of Friedrich Erismann who attended the meeting, created a special commission of engineers, physicians and experts in sanitation to consider the permissibility of the separate sewerage system.⁴¹ The debates on the separate and combined sewerage system in this commission and, later, in the City Council provide valuable insights into how the Moscow engineers, sanitarians and municipal leaders imagined the tasks of the sewerage system, the health hazards and risks of pollution and the lines of interaction between humans and environment.

Today the separate system is believed to have a general sanitary advantage over the combined one, due to the frequency of combined sewer overflows in the times of strong rains or snowmelt, when the system becomes overloaded and releases untreated waste streams directly into surface waters, posing environmental and health risks.⁴² However, in the 1880s, the Moscow experts had the opposite opinion. Kastalsky himself praised the system not for the sanitary, but for the economic benefits. In his view, the separate system would mean “lowering the sanitary requirements” because the precipitation would not be sent to filtration fields, but it was better to have some sort of sewerage system and some form of waste treatment than none at all.⁴³

For the members of the SDKS commission, the most important and controversial question was whether stormwater pollutes the river. Kastalsky thought that it could be the case but is mostly connected to the wastes that rains carry down to the river:

⁴¹ The protocols of the meeting are published as an appendix to V.D. Kastalsky, *O razdel'noy sisteme splavnoy kanalizatsii gorodov* (Moscow: Gorodskaya Tipografiya, 1889), pp. 33-106.

⁴² David Butler and John Davies, *Urban Drainage* (New York: Spon Press, 2011), pp. 20-26.

⁴³ Kastalsky, *O razdel'noy sisteme splavnoy kanalizatsii gorodov*, p. 15.

When the city rainwater was going to the river alone, nobody dared to claim that it is inappropriate or to think that rainwater should be collected and pumped to filtration fields with the machines of several thousand horse-powers. Complaints, controversies, concerns and surveys started only when the slops and then the excrement got added to that water.⁴⁴

In the words of the city desinfector Makovsky,

with the creation of the sewers, even of the separate system, both the sanitary condition of the river and the quality of the rainwater draining into it will undoubtedly improve; until the creation of the sewerage system, it can be said that all the wastes are discharged in the river.⁴⁵

This view was shared by most of the commission members and had only one, but an influential opponent – Friedrich Erismann. Erismann stood for the combined system, despite the possible overflows: “They [overflows] happen rarely, while with the separate system all quite dirty rainwater will be drained into rivers; I would rather consent to the former, than to the latter”. Although the members of the commission repeatedly asked him to explain how exactly the rainwater can harm the river, Erismann remained unspecific and ambiguous:

I am not a principal enemy of the separate system or the defender of the absolute purity of the river water. The question whether we should strive for the ideal cleanliness of river water or, on the contrary, should we consider rivers to be, to some degree, natural ways of waste removal, was discussed at the congresses of hygienists not once. My personal opinion is that one should not be too rigorous and pedantic in practical questions and has to put up with the circumstances; but I still don't think that it is possible to say clearly and definitely that the rain water polluted with the street rubbish is not at all dangerous and that it should not be taken care of.⁴⁶

⁴⁴ Ibid., p. 15.

⁴⁵ Protocol of the meeting of May 12, 1886 in Kastalsky, *O razdel'noy sisteme splavnoy kanalizatsii gorodov*, p. 44.

⁴⁶ Protocol of the meeting on February 11, 1887, published in Kastalsky, *O razdel'noy sisteme splavnoy kanalizatsii gorodov*, pp. 68-69; the concerns about the pollution of the rainwater, although in the different form, will reappear in the last decades of the twentieth century and lead to the reconsideration of the advantages and disadvantages of the combined sewerage system, see Butler and Davies, *Urban Drainage*, p. 22.

The fact that Erismann could not provide any specific explanation is quite remarkable. His university lectures on hygiene, prepared in 1886 and published in 1887, exactly in the time of the SDSK discussion, demonstrate that Erismann was committed to looking for specific causes of disease and clearly familiar with the works of bacteriologists - although he was not always convinced by them. He acknowledged the existence of pathogenic microbes, but was very skeptical about the possibility of their spread through water and, with the case of cholera, leaned towards the explanations of his teacher Max von Pettenkofer, emphasizing the importance of soil pollution in the spread of disease. It is plausible that in the SDSK discussion Erismann, unwilling to advertise the theory of waterborne diseases that he did not support, chose to give the broadest possible - and inevitably unspecific – answer.⁴⁷

The engineers in the committee, including the chairman, were in favor of the separate system, but Erismann, although in minority, was an authority to be reckoned with, so he managed to tailor the final resolution according to his own views. The resolution stated that the separate system had no sanitary advantage over the combined one, that it would allow for the “severe pollution of the river water” and could only be permitted “as a compromise for the cities with limited budget and impossibility to find the irrigation fields necessary for combined system” and in Moscow “only in that extreme case if the prompt organization of the combined system is for some reason impossible.”⁴⁸

⁴⁷ F.F. Erisman, *Kurs gigiyny*, vol. 1, 1887, pp. 192-213, vol. 2, 1892, pp. 371-400; Pettenkofer’s ideas of disease, particularly, cholera are discussed in Richard Evans, *Death in Hamburg: Society and Politics in the Cholera Years* (Oxford: Clarendon Press, 1987), pp. 238-242.

⁴⁸ The final resolution is published in Kastalsky, *O razdel'noy sisteme splavnoy kanalizatsii gorodov*, pp. 75-82.

The other members of the Committee were dissatisfied with such formulations and submitted additional notes with “separate opinions”, criticizing the combined system for leaving a sediment of solid wastes in the pipes in dry weather and thus contaminating the city air, for the incomplete removal of storm water and the risks of inundation, high costs of construction and maintenance, and for the poor possibilities of sewage farming.⁴⁹ Another “separate opinion” was submitted by the author of the first sewer project Mikhail Popov. Quite unexpectedly, he supported the separate system for its lower costs and feasibility, admitting that its sanitary inferiority to the combined system is rather doubtful due to the overflows of the latter.⁵⁰

Notably, though all the participants of the debate agreed that filth and pollution are dangerous, nobody revealed in what way. The meetings of the SDSK commission were attended by several medical experts, but none of them, including Erismann, tried to go beyond the lay understanding of the links between filth and disease and to give an explanation of how precisely dumping wastes in the waterways affects human health. The idea of some specific agent of disease or exact mechanism of its transmission was completely absent from those discussion which proceeded without any reference to the bacteriological discoveries and their possible impact on the choice of the sewer design. Nobody attempted to criticize the combined system overflows from the positions of disease transmission, while the belief in the magic power of dilution of wastes seemed to be consensual.

⁴⁹ Kastalsky, *O razdel'noy sisteme splavnoy kanalizatsii gorodov*, pp. 83-89.

⁵⁰ Ibid, p. 106.

The bacteriological aspect appeared only when the Moscow City Council came back to the discussion of the sewerage system in October 1887. It was brought up by the municipal deputy Vladimir Sherwood, who was not a physician or a sanitary engineer, but an architect, the author of the building for the Russian Historical Museum on Red Square. Sherwood spoke about it in the light of bacteriological discoveries, questioned the power of dilution and called the combined system “the perfect laboratory for bacteria” because it can contaminate waterways and spread infectious disease through letting out the untreated excrement of the sick:

There is one serious hygienic question that should be considered – that the excrement of people sick with typhus, cholera and so on do not get in the river. It will inevitably be a disaster. <...> I compared those systems several times but I have to repeat that the main question is in the dilution of wastes. Does the dilution really eliminate the bacteria? - this is the question. Pasteur, for example, proves that it does not. At the recent Hygiene Congress in Austria doctor Brouardel argued that the infection is transmitted not so much through the air, not so much from the laundry of the sick, but through the water polluted with excrement of those sick with typhus and other contagious disease.⁵¹

Sherwood's argument could have been lost if it had not fitted so well in the political agenda of the Moscow mayor Nikolay Alekseyev. Although the municipality in the times of Alekseyev tried to present itself as a follower of scientists, the existence of conflicting scientific theories and projects in this matter gave a trump to the Moscow authorities and allowed them to turn the scientific discussion to their own advantage. Since the experts could not unanimously agree which sewerage system was better from the scientific point of view, the city authorities could choose the sewerage project that best suited not only their environmental, but also political goals. Alekseyev always stood for municipalization of services in the city, he wanted to expand the sphere of municipal authority and bring

⁵¹ Protocol of the City Council meeting is published in *IMGD*, 10 (1887), p. 864, pp. 867-868.

more enterprises and tasks under its control. The concession proposal of Popov clearly did not fit this plan. As Alekseyev said at the discussion,

the City Council many times spoke about the harm of concession; in all the previous cases one could contest it and have a different opinion but it is hardly possible to think that a sewerage system can be a subject of concession. Is there at least one example of the sewerage system being the subject of concession, of it bringing income and still satisfying the demands of the city? Sewerage system is such an enterprise with which it is unthinkable to expect profit; it brings losses to the city budget but at the same time brings advantage to the house-owners in the financial aspect and to the city residents in the sanitary aspect. <...> This enterprise should be created on the city money and absorb the profit brought by the other municipal enterprises, for example, by the water-pipe.⁵²

The recognition of the hygienic advantage of the separate system allowed to finally and irreversibly reject the concession plan of Popov that had been until then the most likely sewerage choice. Using the arguments of Sherwood about the obsolescence and dangers of the combined system, Alekseyev pressed the City Council to reject the proposal of Popov and immediately urged to commission the municipal engineers with a draft project of the separate sewerage system – which was unanimously approved by the Council at the very same meeting. Furthermore, Alekseyev explicitly insisted that, when the Council accepts the draft project, its implementation should also be given to the municipal engineers. Plausibly, with commissioning only municipal engineers, Alekseyev wanted to retain full control over the construction and avoid the appearance of another “Popov” who would want to push for concession agreement. It was also Alekseyev's idea to have the project designed only for the central part of the city (within the Garden Ring only, although both Popov and Hobrecht planned sewers for the entire city). Saying that “it is hardly possible to start the implementation of such a grandiose enterprise for the entire city at once,”

⁵² Ibid., p. 860.

Alekseyev wanted to make the project cheaper and more feasible with that decision. Although meant as a temporary solution, this decision resulted in the fact that the first line of the system was constructed only for the central part of the city, leaving the outskirts without amenities for decades (the sewerage system was expanded to cover the entire city only in the 1920s).⁵³

The employment of the bacteriological argumentation thus became an important advantage of the opponents of Popov's project in the course of municipal discussions, in addition to the lower costs and the higher feasibility of the separate system. It was a convincing, handy and timely argument that allowed Alekseyev to reach his goals - to reject the concession project of Popov and to press for the quicker and cheaper construction of the sewerage system, the necessity of which had been long ago acknowledged. It did not mean, however, any particular support of the Moscow municipality for bacteriology or a victory of bacteriologists over environmentalists, even though with his choice of the sewerage system Alekseyev went against the conclusion of Erismann with whom the municipality was otherwise closely cooperating.

The later work on the sewerage systems reveals that the scientific basis for its construction was not bacteriology alone, but a sanitary-bacteriological synthesis when both bacteria and the unpleasant odors of human excrement were perceived as health hazards. The discussion on the prevention of stench was particularly important during the later work on the sewerage system, and it was Max von Pettenkofer and Friedrich Erismann who were asked to advise on this matter - both of whom were not rigorous bacteriologist

⁵³ Ibid., pp. 868-874, quote from p. 870.

and openly opposed the theory of the waterborne disease that served as an argument in favor of the separate system.⁵⁴

Constructing the sewerage system and the relations between the city and the country

Although the crucial decision in favor of the separate sewerage system was made in 1887, another decade had to pass before the system could be launched. The design of the system was commissioned to a group of municipal engineers, including Vsevolod Kastalsky, the first advocate of the separate system, and N[ikolay] Levachev, who prepared the preliminary project of the city abattoir.

The project of the new separate sewerage system was ready by 1890. It was proposed to maximally use the relief of Moscow and construct the system in a way that most of the refuse would be moved in the pipes by gravity to the filtration fields in the southeastern suburb, and only the wastes from the low southern parts of the city would have to be pumped. This meant the rejection of the Shone pneumatic sewerage system, which was by then constructed at the Moscow public abattoir. Although the project was drafted so that it could be potentially implemented for the entire city, the first line of the sewerage system was designed only for the central area of about 17 sq. km or for 6785 housing estates and a population of 400,000 (with a potential increase to 730,000 in 50 years). The price of the entire sewerage system was estimated at 17,450,000, out of which 5,250,000 rubles should be spent on the construction of the pipes of the first line (later these costs rose). This project

⁵⁴ *Zhurnaly Komissii po nadzoru za ustroystvom novogo vodoprovoda i kanalizatsii v Moskve* [1892-1893] (S.l: S.n. 1894), pp. 50, 139-144.

was sanctioned by the Ministry of Transportation. In 1892, the emperor Alexander III approved the 7-million obligation loan for its construction and the Moscow municipality created a special Sewerage Department which marked the end of the discussion stage and the beginning of implementation.⁵⁵

Although the sanitary amenities was a local Moscow initiative, their construction required a sanction from St. Petersburg. The central authorities were involved in its development through the Committee supervising the creation of the water-pipe and sewerage system in Moscow (*Kommissiya po nadzoru za ustroystvom vodoprovoda i kanalizatsii*). This Committee was formed in 1889 to supervise the water-pipe works, but in 1891, on the request of the municipality and the approval of the emperor Alexander III and the Ministry of Transportation, it was also made responsible for sewerage construction in Moscow, as the realization of the two projects went together and was closely linked. The committee included experts in engineering and public health from the Ministry of Transportation, Moscow Provincial Medical Board, Moscow University, and Agricultural Academy but was financed from the Moscow city budget.⁵⁶ The involvement of the central authorities was actually of big help to the large-scale project – and was seen as such by the municipality - because it allowed to use the administrative resource to resolve the problematic questions especially if they were beyond the competence of the city government.

⁵⁵ *Poyasnitel'naya zapiska k proyektu kanalizatsii Moskvy* (Moscow: S.n., 1890); Nikitin, “Kanalizatsiya”, pp. 294-296, 299; “Doklad N38 Moskovskoy Gorodskoy Upravy o zaimе na sooruzheniye v Moskve kanalizatsii,” *IMGD*, 3 (1892), p. 10.

⁵⁶ “Otchet vysochayche uchrezhdennoy Komissii po nadzory za ustroystvom v g. Moskve novogo vodoprovoda i rfnflizatsii za 1891 god”, *IMGD*, 2 (1892), p. 77; “Doklad N38 Moskovskoy Gorodskoy Upravy o zaimе na sooruzheniye v Moskve kanalizatsii,” pp. 5-6.

Initially, it was planned that the works could be completed in three years, but several problems arose and destroyed the hopes that the construction would go as smoothly and quickly as it did with the abattoir. Firstly, it turned out that the regional market was unprepared to supply the necessary construction materials for the sewers. This was the case with brick - some elements of the sewers had to be built of concrete instead - and especially with ceramic pipes. The impossibility to buy them from Russian producers made the Moscow municipality order them from a Muensterberg plant in Silesia; the import of those pipes from abroad on the emperor's decision was even exempted from the custom fees (which saved almost 80,000 rubles from the municipal budget). Secondly, the municipality was unlucky with the weather which was among the essential factors, considering the amount of excavations and the short construction season in Russia; because of the rainy summer of 1894 no substantial progress was made before 1895. Finally, the knowledge of the ground proved to be insufficient, despite all the conducted research. The frequent unexpected encounters with quicksands, solid rocks or aquifers slowed down the construction process and demanded some adjustments in how and where the pipes were laid.⁵⁷

By summer 1898 most elements of the system were completed: the network of pipes within the central district, the pumping station near the Novospassky Bridge across the Moskva River, which pumped the wastes from the low-land areas, and the big suburban channel, which collected all the sewerage and carried it away. The exploitation of the Moscow sewerage system started on August 1, 1898.⁵⁸

⁵⁷ Nikitin, "Kanalizatsiya", pp. 301-304.

⁵⁸ Ibid., p. 309.

Figure 5.1 The pumping station of the Moscow sewerage system.

Source: I.A. Verner, *Sovremennoye khozyaystvo goroda Moskvy* (Moscow: Gorodskaya Tipografiya, 1913).



The final destination of the sewer liquid was the area near the village of Lyublino, southeast of Moscow, with a system of filtration fields and sewage farms. These fields were supposed to be the last link in the chain of the decontamination of the urban human wastes. The problem, however, was that the construction of such a sewage farm required the conversion of a large area of agricultural lands or meadows that did not belong to the city but to the peasant communities of the Moscow province. According to the Moscow zemstvo evaluations in 1896, the construction of the filtration fields in the place chosen by the municipal experts would mean the expropriation of 8,5 sq. km, which equaled the size of 666 peasant allotments, or more than 11% of land belonging to the 24 affected villages.⁵⁹ The filtration fields were also to stretch along the bank of the Moskva River cutting the

⁵⁹ “Doklad Moskovskoy Gubernskoy Zemskoy upravy po khodotaystvu Moskovskogo Uyezdnogo Zemstva po povody posledstviy dlya uyezdnogo naseleniya, vyzyvayemykh gorodskoy kanalizatsiyey,” in *Zhurnaly zasedaniy Komissii po nadzory za ustroystvom novogo vodoprovoda i kanalizatsii v Moskve, 1896-1897* (Moscow: S.n., 1899), pp. 34-36.

rural communities off the major water artery in the area. Given the already severe scarcity of land - especially pastures - in the peasant communities, the loss of such a considerable area, the zemstvo argued, would threaten their existence because the remaining land would not be sufficient to subsist the village population:

The meaning of this matter is that the land given to peasants “for their subsistence and the performance of their responsibilities in front of the Government” is the main condition of their existence. That is why depriving them of land or a part of it, without which it is no longer able to “subsist them,” cannot be reimbursed by any monetary compensation <...> The damage induced by the destruction of the basis of your subsistence, by the impossibility to continue living from agriculture, that forces you to involuntarily change the way of life or place of residence cannot be reimbursed because there is not and cannot be a scale to evaluate the material loss and because moral interests are also affected here.⁶⁰

The zemstvo proposed to either move the sewage farm to a less populated area or to preserve the land under the filtration fields in the peasant property and let it be used for pastures. This plan tried to reconcile the interests of both sides and to retain the traditional agricultural practices of the peasants, but had several obvious legal and logistical shortcomings that the municipal experts did not fail to point out. The famous soil scientist, professor of the Moscow Agricultural Institute and the future director of the sewage farm Vassily Williams, commissioned to respond to the concerns of the zemstvo, claimed that the filtration fields and the sewage farm were too complicated enterprises to involve the peasants in any way. In his view, the practices of grazing and haymaking that existed in the peasant communities were so outdated that they would only ruin the entire system of waste treatment. Moreover, Williams advised the peasants to “make an easy step towards intensification and ideal suburban economy” and completely abandon grazing of the cattle as such and rather keep it stabled all the time. In stable, Williams claimed, “without

⁶⁰ Ibid., pp. 43-44.

moving, it would receive the luxurious grass” instead of “wasting power and energy on walking through the meadows in search of food”.⁶¹

For Williams as well as for the other municipal and state experts, the public good of the urbanites was far more important than the interests of the peasant communities (not to mention the animals). The rural environments and the centuries-old agricultural practices could be easily destroyed in order to meet the environmental demands of the growing modern city. Even more, this process was presented as beneficial for the peasants as it would bring modernity, progress, and reason in the “backward” peasant world. As it was stated in the resolution of the Committee supervising the creation of the water-pipe and sewerage system on this issue, “the sewage farming, correctly organized on the filtration fields by the Moscow municipality, will not only improve the economic condition of the peasants but will also be a vehicle of the proper culture among the peasants of the Moscow province.”⁶² If the public abattoir was to promote the scientific and sanitary norms among the “undisciplined” cattle owners, the sewage farm was supposed to do the same among the peasants who were presented as inert and otherwise unable to organize a functioning agriculture.

In April 1897, the Emperor Alexander III signed a decree on the alienation of lands for the needs of the Moscow sewerage system, and the next year the first line of the sewage

⁶¹ “Zaklyucheniye professora Moskovskogo sel'skho-khzyaystvennogo instituta V.R. Vilyamsa po dokladu Uyezdnoy Zemskoy Upravy otnositel'no neblagopriyatnykh usloviy, sozdavayemykh polyami orosheniya dlya okrestnogo naseleniya,” in *Zhurnaly zasedaniy Komissii po nadzory za ustroystvom novogo vodoprovoda i kanalizatsii v Moskve, 1896-1897* (Moscow: 1899), pp. 53-56.

⁶² *Zhurnaly zasedaniy Komissii po nadzory za ustroystvom novogo vodoprovoda i kanalizatsii v Moskve, 1896-1897*, p. 25.

farm was opened. The conversion of land to the filtration fields happened gradually, according to the increase in the volume of the sewer liquid.⁶³

At first, the municipal experts hoped that the agricultural output of the sewage farm would not only cover the expenses of the decontamination of the human wastes but even bring some profits.⁶⁴ When the sewage farm was opened, it became clear that those expectations were quite naïve. As Williams explained, the lack of profits was determined by the need for numerous complicated works, not related to the agriculture *per se*. The high volume of human wastes coming to the filtration fields meant that only a small part of its territory could be used for agriculture (about 75 hectares in 1900 and 200 in 1910). In addition, since most of the land under the filtration fields had previously been used as pasture, the sewage farm management had a severe problem with weeds that thrived on the soil fertilized by human wastes. Another factor was that the agricultural production depended not on the market demands but rather on how the plants could tolerate the sewer liquid. The experience showed that the production of salad, tomatoes, beans, and celery turned out to be unprofitable. The Moscow farm, therefore, concentrated on forage crops and vegetables, such as cabbage, beetroot, cucumbers, potatoes, and onions, that were mostly consumed in the municipal hospitals.⁶⁵ A substantial part of the filtration fields was also left under the meadows, and, as Williams stated in his report of 1900, the best hay was cut by the municipal workers and used to feed the cattle of the sewage farm, while about

⁶³ Nikitin, “Kanalizatsiya”, p. 305.

⁶⁴ *Poyasnitel'naya zapiska k proyektu kanalizatsii goroda Moskvy*, p. 142.

⁶⁵ V.R. Vilyams, “Obshchiye osnovaniya obezvrezhivaniya nechistot,” in *Kanalizatsiya goroda Moskvy* (Moscow: 1901), pp. 18-27; idem. “Deyatel'nost' poley orosheniya Moskovskoy gorodskoy upravly v 1900 g.,” in V.R. Vilyams, *Sobraniye sochineniy*, vol. 2 (Moscow: Selkhozgiz, 1948), pp. 167-173; Nikitin, “Kanalizatsiya”, p. 318.

140 hectares “with bad hay” was mowed by the local peasants for a half or a third of the harvest.⁶⁶

Like the abattoir, the filtration fields with the sewage farm was a project based on a complicated technological and scientific infrastructure that included wells, pipes and drains as well as two scientific laboratories – the chemical and the biological-bacteriological. The life on the sewage farm was also organized in line with that of industrial enterprises. Managed by a small number of experts and administrative staff, it employed more than 200 people, each of them having a narrowly specialized task in the agricultural or technical department. The agricultural work there was performed by hired people who had no relation to the land they were working on. Similar to the municipal abattoir and, generally, the factories in Russia, all the personnel lived on site, which in that case meant right on the filtration fields. At the north-western edge of the sewage farm, near the end of the main suburban channel that brought all the urban wastes, there was a so-called estate [*usad'ba*] with offices, workshops, barnyards, and the living facilities for its personnel: a separate house for the director, apartment building for the white-collar employees and barracks for the workers - that (again, like it was at the abattoir) embodied and reinforced the social hierarchies of the Russian society in spatial forms.⁶⁷

Using the sewerage system and the problem of industrial discharge

The realization of the environmental goals of the Moscow municipality depended not only on the construction of the sewerage system – which proved to be a hard task – but

⁶⁶ V.R. Vilyams, “Deyatel'nost' po ley orosheniya Moskovskoy gorodskoy upravy v 1900 g.”, p.171.

⁶⁷ Nikitin, “Kanalizatsiya”, pp. 306-307.

also on whether and how this system was used. By the end of 1898, the year when the first line of the sewerage system was launched, only 219 housing estates got connected to it. Generally, the project was meant to serve 6785 housing estates of the central districts, but in the 10 years of its exploitation less than two thirds of them were using the municipal sewers, and after the peak years of 1899-1900 the speed of connection declined (see Table 5.1).

Table 5.1. Number of housing estates connected to the Moscow sewerage system.

Source: A.A. Nikitin, “Kanalizatsiya goroda Moskvyy” in I.A.Verner, *Sovremennoye khozyaystvo goroda Moskvyy* (Moscow: Gorodskaya tipografiya, 1913).

	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908
1st sewerage line district (center)	218	840	891	485	434	407	288	286	154	174	170
2nd sewerage line district	1	9	10	8	14	24	40	7	36	29	30
Sokolniki	-	-	1	8	3	-	1	3	1	-	2
Total	219	849	902	501	451	431	329	296	191	203	202

There were several explanations for these dynamics. First of all, the connection to the sewers was not mandatory. The municipality had no legal authority to force the property owners to join the sewerage system; its appeal for this right to the central government was declined. It was not until 1912 that the municipalities in Russia were empowered to make the connection to the city sewers compulsory.⁶⁸

⁶⁸ *Sobraniye uzakoneniyy ii rasporyazheniy pravitel'stva*, 1912, part 1, no. 97, June 5, 842, pp. 1709-1711; Nikitin, p. 328; for the municipal discussions about the mandatory connection to the sewerage system see also *IMGD*, 4 (1906), pp.7-10.

Unable to do it directly, the municipality employed indirect ways to force the city residents to join the sewerage system. In 1898 the City Council decided to forbid (from January, 1901) the usage of city drains and water channels in the area where the sewerage system was constructed. The real estate owners, who were using those channels to drain their household-, bath- or ground waters according to municipal permissions, were then advised to connect to the sewerage system. Moreover, the fee for using the city water channels from July 1900 was raised to the level of that for using the sewerage system. As a result, by the end of 1900 more than 450 of such properties joined the sewerage system, 50 received a one-year extension, while 35 estates, whose owners refused to pay the increased fee, had their drains closed according to the municipal decree.⁶⁹

The connection to the sewers was a rather expensive undertaking – the house owners had to pay 3% of the net profit of their property for the connection to the municipal sewer and 4% annually for its exploitation. The upper limit of this fee was fixed by the Ministry of the Interior. However, the fees were not sufficient to cover the expenses of maintenance and exploitation of the sewerage system, and until 1906 the enterprise ended each year with a significant deficit in the budget. Although back in the 1885 Alekseyev clearly admitted that the sewerage system could not be a profitable business and its goals were health and sanitation – and not financial gains, in the early twentieth century the municipality was not ready to put up with such state of affairs.⁷⁰ In 1906 the municipality petitioned the government to increase the maximum fee for the usage of the sewers to 5%, which eventually allowed to bring the budget of the enterprise to profitability (see Table 5.2).

⁶⁹ TsGAMOS, 16:132:40:38-39.

⁷⁰ *IMGD*, 4 (1906), no. 4, pp.1-10.

Table 5.2. Financial year results of the Moscow sewerage system (in rubles)

Source: A.A. Nikitin, “Kanalizatsiya goroda Moskvyy” in I.A.Verner, *Sovremennoye khozyaystvo goroda Mosvky* (Moscow: Gorodskaya tipografiya, 1913)

1899	-371000	1905	-162000
1900	-329000	1906	-267000
1901	-71000	1907	158000
1902	-112000	1908	187000
1903	-125000	1909	293000
1904	-211000	1910	377000

There were also obvious territorial disparities. The first line of the sewerage system was devised for the central districts, and its usage in this area was strongly encouraged. By the beginning of 1905, only half of estates located in the first line districts were connected to the sewerage system, but this half produced 4/5 of the profits of all the housing estates in the area.⁷¹ There clearly was a correlation between the connection to the sewerage system and the profitability of the housing estate – the owners of the bigger, renovated and more profitable estates were more likely to join the sewers while access to the sanitary infrastructure could increase the profits from the estates.

At the same time, for the house owners from the outskirts, even if their estates were located right next to the sewer pipes, it was not so easy to get access to this modern amenity. Since the connection to the sewers was proceeding rather slowly, the housing estates from the area beyond the Garden Ring were at first allowed to join the system. By 1903 it became evident that the capacity of the filtration fields was reaching its limits, despite the fact that half of the planned estates had not yet joined the system; in this situation the non-central

⁷¹ *IMGD*, 4 (1906), p. 3.

estates were denied the possibility to use the municipal sewer. The potential volume of refuse was clearly underestimated in the sewerage project, but it was also the prioritization of the industrial waste that left the private houses without sanitary amenities until the waste treatment system would be expanded.⁷²

The question of treating industrial wastes in Moscow underwent a certain evolution in the last decades of the nineteenth century. Although numerous contemporary accounts noted the industrial pollution, in the 1880s it was not seen as the primary threat to urban sanitation or a matter of immediate concern for the authorities in the city.

According to the estimate of 1881, the 240 factories of Moscow (of which every fifth was located within the Garden Ring) discharged daily 5 million buckets of waste waters into the city rivers.⁷³ Yet, when the SDKS commission discussed the potential design of the sewerage system and came across the question of industrial wastes, its members doubted whether the factory discharge was, in fact, so very dangerous and concluded that the task of its decontamination should not be a matter of municipal concern.⁷⁴ It was not the industrial discharge but the rotting and malodorous human wastes that were at the top of the sanitary agenda at that moment.

In the 1890s this attitude changed towards a more negative assessment of the industry's environmental and sanitary impact and the demand for greater control over its wastes. Several factors amalgamated to help this transition: the growth of industry and the volume of wastes it produced; the general shift in governmental policy towards greater regulation

⁷² *IMGD*, 5 (1905), pp. 52-56.

⁷³ A. Petunnikov "Materialy dlya izucheniya Moskovy v sovremennom eya sostoyanii," *IMGD*, 1 (1882), pp. 50-52.

⁷⁴ Protocol of the meeting of May 12, 1886 in Kastalsky, *O razdel'noy sisteme splavnoy kanalizatsii gorodov*, p. 42.

of industry;⁷⁵ the change in the local politics of Moscow after the appointment of Prince Sergey Romanov the Governor-General and the murder of Alekseyev; and the cholera epidemic of 1892, that turned health and sanitation into extremely hot topics in Russia.

Interestingly, the whole discourse of decontaminating the industrial discharge, even in the cholera year, was framed by the broad environmentalist approach rather than specific and direct epidemiological risks to human health. Thus, in his lecture on the treatment of factories' waste waters, delivered at the Society for the Development of Industry in September 1892, Oswald Miller gave the following description of its risks:

These waters, not without a reason, have a reputation of being not only dirty but also dangerous in the sanitary respect. Some of them are dangerous directly, because of their composition, containing poisonous metals or metalloids or other toxic compounds, while the danger of others is seen in their ability to rot and ferment under certain conditions <...> No ptomaines or pathogenic bacilli have been discovered in the factory waters so far.⁷⁶

Still, it was the cholera epidemic that put the industrial pollution in the focus of interest of the Moscow authorities. Trying to mobilize the local governments against the approaching cholera, the state Medical Department issued a circular letter urging them to protect water resources from contamination. In response to that circular, in June 1892 the Moscow municipality decided to inspect all the factories located along the banks of the Moskva River and the Yauza and to take measures against draining industrial refuse into the city waterways, especially from the factories dealing with organic matters. The police inspectors, it was prescribed, were to forbid and prevent any discharge of untreated waste.⁷⁷

⁷⁵ L.V. Kupriyanova, "*Rabochiy vopros*" v Rossii vo vtoroy polovine XIX — nachale XX veka, <http://www.hist.msu.ru/Labour/Article/Kupriyanova.htm>, accessed on March 21, 2015.

⁷⁶ TsGAMOS, 16:132:40:81.

⁷⁷ *IMGD*, 7-8 (1892), p. 170.

This inspection discovered that every single factory was discharging its waste waters into the city rivers and that in no case were the existing filters fulfilling their task of waste decontamination. From the legal point of view, it meant that all the Moscow factories were breaking the law that forbade water and air pollution.⁷⁸ However, the universality of the violations meant that nobody could be punished, and the factory owners were only advised to consult the municipal engineers on the question of the proper filters.⁷⁹

Some factories indeed inquired with the municipal board how the proper filters should be constructed, but the experts of the latter could not give any definite answer. Neither could the Council of Trade and Manufacturing, that in response to the inquiry of the Moscow police pointed out that this question had been discussed all over the world for decades, and no satisfactory solution had been found. In this situation there was not much the municipality could do against the industrial discharge. According to the order of the municipal board, the drains of the Bakhrushin leather factories were closed, but then several months later this decision was removed because all other factories had very similar problems with industrial pollution. The city government, that counted numerous industrialists among its members, was not particularly eager to enforce the law, aware that its formulation was very vague and that no reasonable technological solution to the problem was known.⁸⁰

⁷⁸ *Ustav stroitel'ny* (St. Petersburg: Gosudarstvennaya tipografiya, 1900), p. 37; *Ustav vrachebny* (St. Petersburg: Gosudarstvennaya tipografiya, 1905), p. 124; *Ustav o nakazaniyakh, nalagayemykh mirovymi sud'yami* (St. Petersburg: Gosudarstvennaya tipografiya, 1914), pp. 44-45.

⁷⁹ TsGAMOS, 16:133:250:11-13.

⁸⁰ Ibid.; for the background of the City Council deputies in the 1890s, see L.F. Pissar'kova, *Gorodskiye reformy i Moskovskaya gorodskaya дума* (Moscow: Novy Khronograph, 2000), pp. 549-587.

The matter might have ended there, if it had not been for the Moscow police and its chief Dmitry Trepov who took a remarkably keen interest in protecting the Moscow rivers from industrial discharge. When Trepov was appointed the acting Ober-Polizmeister in 1896, the question of how to deal with the factories that pollute the rivers was still undecided. This state of affairs, apparently, did not suit Trepov, with his love for discipline and military order. In his, admittedly, very biased account of Trepov, the Russian Minister of Finance Sergey Witte wrote:

All his education and upbringing happened in the barracks of the horse-guards and the officers' meetings<...> He encountered the political life for the first time when he was appointed the Moscow Ober-Polizmeister and he approached it as an Ober-Polizmeister. As any ignoramus, he thought at first that everything is very simple: if they rebel, beat them; if they think and talk too freely – discipline them. Workers turn to revolution – so you need to become the police revolutionary, and the workers will go after you. There is nothing complicated, all this was invented by intelligentsia, Jews and freemasons. If you follow your reason you will end up... in the cesspool.⁸¹

Trepov was not as primitive as Witte described him, but he was clearly very interested in cesspools. Soon after assuming his position, Trepov brought up the question of pollution in his reports to the Moscow Governor-General Prince Sergey Romanov. The pretext in that matter was the pending decision on the Albert Guebner textile factory and the Khamovniki brewery - both of which, according to the expertise of the Provincial Medical Board, polluted the Moskva River. As the Governor-General's chancellery presented Trepov's case in 1898,

There can of course be no other decision on these reports than to act according to the law, that is to say, to send the police and medical protocols to the District Court whose only legal decision can be to close the discharge that in most cases practically equals the closure of the factory. It is known, however, that the absolute majority of factories are in the same conditions as the Guebner factory and the Khamovniki brewery and this is why their legal persecution on exclusively legal basis can have extremely serious consequences: on the

⁸¹ S. Yu. Vitte, *Vospominaniya* (Moscow: Izdatel'stvo sotsial'no-ekonomicheskoy literatury, 1960), p. 351

one hand, the bankruptcy of the factory-owners, on the other, leaving completely innocent workers without their wages.⁸²

On the background of the growing workers' movement, the latter was clearly against the interests of the imperial administration and police. The very last years of the nineteenth century marked a special period in the relations between the Moscow authorities, the industry and the workers; it was the time when the Moscow administration advocated unprecedented intervention in the industrial life in order to curb the revolutionary threat coming from the factories with their high concentration of proletarian labor force. It was in 1898 that the director of the Moscow Security Bureau [*okhranka*] Sergey Zubatov laid before Dmitry Trepov a plan of creating legal pro-governmental workers' organizations that Trepov soon presented to the Moscow Governor-General. In Zubatov's proposal, in order to resist the revolutionary propaganda and political protest, the state needed to side with the workers and support them in their economic struggle against the capital and the industrialists.⁸³

Although the questions of revolution and pollution might seem quite distant, at the turn of the twentieth century they came together in the policy of the Moscow administration. From different angles they reflected the patronizing attitudes towards the working people and the interventionist and restrictive stand towards the industrialists - the course that principally differed from, for example, the position of the Ministry of Finance under Witte.⁸⁴ In the sphere of control of the Moscow Governor-General, the relations between

⁸² TsGAMOS, 16:132:40:1.

⁸³ B.P. Koz'min, *Zubatov i yego korrespondenty: Sredi okhrannikov, zhandarmov i provokatorov* (Moscow and Leningrad: Gosudarstvennoye izdatel'stvo, 1928), p. 61

⁸⁴ Kupriyanova, *Rabochiy vopros*.

industrialism, society and the environment were subjected to control and change for the sake of stability and sustainability.

It was, therefore, proposed to create a special committee from the concerned governmental institutions that should elaborate measures against pollution of Moscow rivers by the industrial refuse because the existing laws on the matter became obsolete. As Prince Sergey formulated it, repeating the argumentation of his chancellery,

on the one hand, we cannot leave the Moskva River and the other waterways in their current state and, what is even worse, continue to pollute them, permitting new factories; on the other, we cannot act solely according to the law [*edinstvenno sushchestvuyushchim zakonnyim sposobom*], because in this case the law, without any doubts, does not fully correspond to the changed life conditions. Factories exist on the basis of legal permissions, while production involves more and more chemical processes with poisonous by-products; there is no filter that can decontaminate these products, while sumps do not in practice reach their goals; therefore, it is necessary to elaborate the new grounds for the decontamination of water and soil and adjust them to many important practical considerations.⁸⁵

This committee against the industrial pollution of the Moskva River and the Yauza, created in 1898, was chaired by the Moscow governor Alexander Bulygin and included the Ober-Polizemeister Trepov, the Moscow mayor Vladimir Golitsyn, the head of the Medical Board, the senior factory inspector, the court prosecutor, engineers and representatives of industrialists. In the following years this committee not only tried to elaborate general measures to prevent river pollution in Moscow but also dealt with specific cases and appeals of the factories discharging their wastes in the rivers and thus breaking the law.

The main structural solution that the members of the committee could offer was the mandatory and urgent connection of the factories to the sewerage system. In 1899 the committee concluded that in respect to the factories, located in the district of the first line

⁸⁵ TsGAMOS, 16:132:40:3.

of the sewerage system, “there can be no excuse for refusing to join the municipal sewerage” and this “should be implemented immediately.”⁸⁶ By January 1901, out of 30 factories located in this district, 17 were already connected to it and five were in the process.⁸⁷

However, the more tricky question concerned the factories outside the Garden Ring area (the majority of Moscow industrial enterprises) and even those located upstream of the city. As the committee formulated it in its resolution,

the only means to resolve it in a desirable way is the expansion of the municipal sewerage system <...>, and until then the suspension of issuing new permits for the outlets into the rivers and city channels. As for the factories that already have these outlets, Committee acknowledges that their closure equals the closure of the industrial enterprises themselves and has to recognize their right to existence under condition of prohibiting any expansion of production that can induce the increase of waste waters until their connection to the sewerage system.⁸⁸

Trepov's own position was even stricter. In his report to the Moscow Governor-General, he proposed to promptly create a specific industrial sewerage that could later be incorporated in the second line of the municipal system “with unconditional prohibition to the Municipal Board to issue any permits for the discharge in rivers and natural streams as well as the city drains”. As for the factories, located upstream of the city, Trepov proposed to completely forbid giving any new permits for industrial discharge in the Moskva River and the Yauza as well as the other natural waterways upstream of the city and to close all the existing outlets if their effluents would be considered polluting by chemists. “Such measures, although serious,” Trepov argued, “would not put the industrialists in the

⁸⁶ TsGAMOS, 16:133:250:32.

⁸⁷ TsGAMOS, 16:133:250:40-41.

⁸⁸ TsGAMOS, 16:133:250:32.

deadlock because they would always have a possibility to organize at their factories, located beyond the city border, their own filtration fields and thus decontaminate and remove all the refuse and other wastes from their factories.”⁸⁹

But even those milder statements in the resolution of the committee could pose a severe limitation to the development of industry in Moscow, at least in the productions that relied on the water resources, as it forbade opening new factories and the expansion of the existing ones. This position caused expected concerns in the Ministry of Finance, which generally opposed measures that could hinder the development of industry in Russia. In 1899, in light of Moscow's discussions, the Minister of Finance Sergey Witte had to intercede for the prosecuted factory-owners. Witte asked Prince Sergey to not take action against polluting factories until the new law on the management of industrial enterprises (which also touched upon the industrial discharge) was considered in the State Council.⁹⁰ The Moscow Governor-General, however, refused, stating that “until the elaboration of the new rules that eliminate the damage caused by industrial discharge, I feel I have no right to stop the actions taken up to now.”⁹¹

Since the committee concentrated in its hands the decision-making on the destiny of the polluting factories, it tried to put its resolution into practice, forbidding the expansion of Moscow industrial enterprises, such as, for example, the Shustrov dyeworks and the Kuznetsov bleaching and dyeing factory.⁹²

⁸⁹ TsGAMOS, 16:133:250:16.

⁹⁰ TsGAMOS, 16:133:250:1-2.

⁹¹ TsGAMOS, 16:133:250:4.

⁹² TsGAMOS, 16:133:250:33-34, 119-120.

Another example - the Giraud silk factory - presents an interesting case of how the big enterprises dealt with the situation. Together with the other factories, it was denied the expansion of production and the reconstruction of its facilities, because the chemical analysis of the Provincial Medical Board revealed that the waters were too dirty to be discharged into the Moskva River. The factory owner Claude Giraud in 1898 asked the City Board for the permission to join the sewerage system. His factory, however, was located outside the district of the first line of the system, and the municipality refused. Giraud did not give up and applied to the Committee against the industrial pollution of Moscow rivers, which advised him to appeal against the decision of the City Board.⁹³ In 1899, he again asked the municipality for a permit to join the city sewerage system, ready to bear all the necessary costs. However, the majority of the municipal engineers, including Vsevolod Kastalsky, agreed that this was impossible because of very high volume of waste waters (the Giraud factory discharged about 60,000 buckets of waste waters daily) and that nothing could be done to resolve his conflict with police:

As for the police prohibition to discharge the dirty waters from the Giraud factory, other dyeing factories located in the district of the 2nd line [of the sewerage system] are in the same situation, for example those of Kuznetsov, Guebner, Prokhorov, Zindel and many others, with much higher quantity of workers and huge amount of waste waters, for which the first line of the sewerage system is not designed.⁹⁴

Clearly, Giraud was trapped between the decision of the different authorities – the police, willing to prosecute the violators of the law and prevent further pollution, and the municipality, willing to maintain the functionality of the sewerage enterprise. Only one

⁹³ TsGAMOS, 16:133:250:32-33, 60-61.

⁹⁴ *Zhurnaly Komissii po nadzoru za ustroystvom novogo vodoprovoda i kanalizatsii v Moskve* (S.l.: S.n., 1902), p. 228.

municipal engineer, A. Semenov, believed that the connection was technically possible, and it was his explanation that finally persuaded the Committee supervising the creation of the water pipe and sewerage system in Moscow, in which the case ended up, to decide in favor of Giraud's appeal and in 1900 allowed him to join the Moscow sewerage system.⁹⁵

As a result of all these decisions, it was the factories - and not the residential estates - that were given priority among the potential connections to the municipal sewers outside the district of the first line of the system.⁹⁶ Nevertheless, the sewerage system obviously could not serve all the city factories. In the project of the first line of the sewerage system and filtration fields the volume of industrial waters to be processed was set only at 400,000 buckets daily.⁹⁷ This was far below the actual volume of effluents that the Moscow factories were producing. Thus, the above mentioned Guebner factory alone discharged daily 800,000 buckets, while Zindel and Prokhorov textile factory each poured out more than a million buckets of waste waters.⁹⁸

The construction of the second line of the sewerage system was proceeding rather slowly. Its detailed project was prepared in 1904, but the works did not start until 1911 – and the Moscow municipality did not get the chance to complete the task in the years of its existence. Despite the incapacity of the sewerage system to process the industrial wastes, the pressure of the Moscow administration against the polluting factories persisted - and it did not disappear with Trepov's promotion to the post of St. Petersburg Governor-General

⁹⁵ Ibid., pp. 216-218.

⁹⁶ Nikitin, “Kanalizatsiya”, p. 333.

⁹⁷ *Poyasnitel'naya zapiska k proyektu kanalizatsii goroda Moskvy*, p. 86.

⁹⁸ TsGAMOS, 16:133:250:106-108.

in 1905 and the murder of Prince Sergey by a bomb of the socialist-revolutionary the same year.

Throughout the last pre-revolutionary decade the factories of Moscow and its province were stuck in the juridical limbo – the authorities knew they were polluting the rivers and breaking the law, but nobody could offer any alternative to it. Legally, all these factories, declared dangerous for the pollution of water, air and soil, had to be closed and their owners subjected to fines or even imprisonment.⁹⁹

In 1908, the Medical Council made another attempt to specify the requirements to the discharged waters. According to the regulation, the temperature of discharge should not be higher than 30° C, it should not have any expressed color or smell, alkaline or acidic reaction, oil films, poisons or pathogenic microbes and should not “change the quality of the water in the water reservoir to the worse”¹⁰⁰ - the formulation that meant that practically any water-intensive factory could still be charged with not fulfilling this rule. Although the responsible local authorities were eager to implement these regulations in practice, the formulation remained unclear even to them as Provincial Medical Board, zemstvo and municipal sanitary organization, factory inspectors and police often came to mutually contradictory conclusions on what filters and waste treatment devices could be considered acceptable.¹⁰¹

As the industrialists of the Moscow province wrote in 1910 in their appeal to the Moscow Exchange Committee, that lobbied the interests of the regional business elites,

⁹⁹ *Ustav vrachebny* (St. Petersburg: Gosudarstvennaya tipografiya, 1905), p. 124; *Ustav o nakazaniyakh, nalagayemykh mirovymi sud'yami* (St. Petersburg: Gosudarstvennaya tipografiya, 1914), pp. 44–45.

¹⁰⁰ TsGAMOS, 143:1:385:12.

¹⁰¹ TsGAMOS, 143:1:385:3.

the application of the law that forbids the discharge of industrial waters to the existing factories, which means the closure of the factories, is unthinkable, therefore provincial authorities demand the decontamination of these waters <...> Yet, nobody knows what degree of decontamination should be reached so that it is considered satisfactory.¹⁰²

The Moscow Exchange Committee, well aware that it could not petition about the non-implementation of the law, came up with a positive program that would potentially give the industrialists the legal and scientific ground to stand on and argue against the arbitrariness of the administration and police. It was proposed to initiate a large-scale research project on the industrial wastes, the risks they pose to the environment and human health, and the most adequate and efficient ways of their treatment; the results of this research would then form the base for the future regulations against pollution.¹⁰³

This idea found support in the Ministry of Trade and Industry that hoped to use its findings as the basis of the new country-wide law on this matter. In 1911, the creation of the Temporary committee for the research on the measures for the protection of the waterways of Moscow industrial region from the factory wastes and refuse was approved by the Emperor Nicholas II.¹⁰⁴

The project involved several interested parties. It was supervised by the high state officials from the Ministry of Trade and Industry, of Interior, of Finance, of Communications, from the factory inspection and local authorities. It was implemented by scientists, experts in chemistry, biology, bacteriology, engineering and public health.¹⁰⁵

¹⁰² TsGAMOS, 143:1:385:2.

¹⁰³ TsGAMOS, 143:1:385:17-18.

¹⁰⁴ Otchet vremennogo komiteta po izyskaniyu mer k okhrane vodoyomov Moskovskogo promyshlennogo rayona ot zagryazneniye stochnymi vodami i otbrosami fabrik i zavodov za 1913 god (Moscow: S.n., 1914), p. 7.

¹⁰⁵ Ibid., pp. 7-10/

Yet, it was a private initiative that was organized and financed exclusively by private capital. The annual budget of the project - almost 95,000 rubles - was formed by the donations of 160 factories of the Moscow industrial region. All the practical issues – outlays, contracts, instructions, office facilities and scientific equipment were arranged by the Moscow Exchange Committee.¹⁰⁶

In 1912-1917, this Temporary committee conducted extensive research on the industrial discharge, its character and relation to production, the health hazards it posed and impact it had on the natural environments of Central Russia. The experts studied the existing filters and waste treatment systems in Russia and abroad and created test waste treatment plants to recommend the most efficient solution.¹⁰⁷

The industrialists, however, did not get the chance to benefit from the results of the research they were so generously funding, as the Bolshevik revolution brought an end to private capital in the Russian industry. However, the work of the Temporary committee outlived its sponsors as its goals and findings fitted well in the agenda of the Soviet government. In 1919, on the basis of the Temporary committee, which was invented, organized and financed by the imperial bourgeoisie, the Supreme Council of Popular Economy created the Central Committee for Water Protection that would manage the water resources of the new proletarian state.¹⁰⁸

The revolutionary events of the first decades of the twentieth century, among many other effects they had, also marked the failure of the type of paternalistic intervention in the

¹⁰⁶ TsGAMOS, 143:1:385:58-65.

¹⁰⁷ *Otchet vremennogo komiteta po izyskaniyu mer k okhrane vodoyomov Moskovskogo promyshlennogo rayona ot zagryazneniya stochnymi vodami i otbrosami fabrik i zavodov*, vol. 1-3 (Moscow, 1914-1917).

¹⁰⁸ A. Ivanitskiy, “Voprosy okhrany vodoyomov obshchestvennogo pol'zovaniya”/ *Pyat' let sovetskoy medistsiny*, 1918-1923 (Moscow: S.n., 1923), pp. 47-48.

industrial matters that the Moscow administration was advocating. The results of the anti-pollution campaign that it launched at the turn of the century had also very moderate success.

Indeed, several dozens of Moscow factories got connected to the sewerage system and stopped draining their untreated refuse in the city waterways. Yet, Trepov's rather simplistic outlook on this problem left too many issues out of the picture. The factories that got connected to the sewers produced only a small part of the city's industrial wastes, while the true giants were excluded from the system of waste treatment, although the restrictive policy of the Moscow authorities indeed made their life somewhat more difficult.

On the other hand, the Moscow sewerage system was designed to process organic human wastes, and this was the task for which all the preliminary research and tests of filtration fields were conducted. Nobody, however, had studied the impact that the poisonous industrial wastes could have on the sewerage farming and the surrounding environments as well as the efficiency of the filtration fields in neutralizing them. In that sense, by pressing industrialists to connect to the municipal sewerage systems or creating large filtration fields for the toxic effluents, the Moscow authorities were promoting a solution with potentially dangerous environmental outcomes.

Yet, importantly, this campaign brought industrial pollution into the light of public discourse. The presented cases revealed a sublime shift in the attitudes towards pollution. In the 1870s and 1880s, the discussions about sanitation were overtly antropocentric. All the attempts to radically transform human relations with environment were meant to promote human health, and, in some way, even protect it from the natural environment, with its decomposing organic wastes, rotting streams and dirty rainwater. By the early

twentieth century, the image of the human as the only and immediate beneficiary of the fight for cleaner rivers became less clear. Thus, the materials of anti-pollution campaign of the Moscow administration and police in the late 1890s and 1900s had no reference to human health or direct economic interest, but rather showed an attempt to protect the river environments for their own sake, with human well-being as only one of the potential outcomes. At the same time, the poor condition of the environment was increasingly connected to human action – in this case, that of factory-owners, who were openly declared not only guilty of it but also responsible for its prevention, although that, in the pre-revolutionary Russia, certainly had not only environmental, but also social and political reasons behind it. Nevertheless, the pressure of the Moscow police and administration rose awareness among industrialists of the potential risks of their enterprises and eventually made them volens-nolens take action against it, though the fruits of it would eventually be harvested by a different political regime.

The story of Moscow's campaign against pollution shows how the meanings attached to the disposal and treatment of wastes changed over time. In the 1870s and 1880s the campaign against Moscow's "cesspools" and the construction of a new sewerage system, advocated by the elected self-government institution, had a promise of social progress and European modernity. By the turn of the twentieth century this powerful symbol was appropriated by the local administration and police who turned it into a tool of state paternalism. Yet, in the eyes of many among the urban elites it came to symbolize not the responsible attitude towards nature and local communities nor the governmental care of them, but the danger of discretionary rule of the "police stations", invoked in the title of this chapter.

The discussed cases also reveal the mechanisms and the limitations of the application of the scientific and legal knowledge in Russian governmental practices. On the one hand, as the debates on the choice of the sewerage system and the industrial pollution demonstrate, the lack of the fixed scientific and technological norms in the field of waste treatment left space for the interpretation of science at the discretion of political actors. On the other hand, the latter case once again illustrates the existed controversies within the Russian officialdom in relations to the regularization of power. In the early twentieth century only a minority of the tsarist officials, mostly from the Ministry of Finance and the Ministry of Trade and Industry, saw the risks of the arbitrary bureaucratic policies and advocated the rule of law. For them, the vagueness and unspecificity of the existing legislation meant the need to create the clear framework and the common legal language for the industrialists and the controlling sanitary bodies to operate within. The Moscow administration and police, too, invoked the law as a point of reference, but they interpreted the legislative ambiguity not as the pressure for the proper codification and regularization but as the necessity to uphold and expand the more familiar patterns of administrative rule. However, the threats of such rule pushed the industrialists to take action, and it was in the law and science that they saw their shield from the arbitrariness of the state structures.

CONCLUSION

In 1910, the Head of the Medical Council, Grigory Rein presented to the Emperor Nicholas II his plan for a major medical-sanitary reform and the creation of the Ministry of Public Health – an idea that received royal support. In 1914 the special interdepartmental commission on the national health reform proposed to establish the Main Administration for State Health Protection, a centralized institution meant to fully control civil public health in the country. Approved by the State Council in September 1916, this plan could have marked a new era in health policy and medical care of the Russian Empire, giving the initiative from local to central agents, – but the empire was living its last months.¹

Being the Head of the Medical Council, the top medical official in Russia, Rein was well aware of the country's public health problems – its high mortality and morbidity rates, the frequency of devastating epidemics, the confusion and inefficiency of its medical administration. Yet, not everything was so gloomy, he noted in his memoirs, and the imperial public health also had its achievements:

It is necessary to mention with a good word our zemstvo and municipal self-governments that invested enormous efforts and resources in the improvement of public health. Every year they spent [on that] about 30% of their budgets, and even the remote godforsaken corners of Russia gradually received hospitals with the required medical personnel, physicians and midwives, zemstvo pharmacies and other institutions <...> A lot has been done in the cities where the elected governments strove to make the medical care maximally accessible and to improve sanitary conditions through creating the sewerage system, providing healthy drinking water, controlling the quality of food products and inspecting the hygiene of dwellings and public buildings.²

¹ G.E. Rein, *Iz perezhitogo, 1907-1918* (Berlin: Parabola, 1936), pp. ii-v; see also Hutchinson, *Politics and Public Health*, 90-103.

² Rein, *Iz perezhitogo*, pp. 21-27, quote from pp. 26-27.

Moscow was clearly one of the cities that Rein had in mind. Indeed, the accomplishments of the Moscow municipality in the field of public health seem quite impressive. By the eve of World War I, Moscow had 21 municipal hospitals with about 8000 beds. In 1912, 19 outpatient clinics (including specialized paediatric, ophthalmologic, venereal and gynaecological) served more than half a million individual patients – or almost a third of the urban population of 1.6 million; every fourth childbirth in the city took place in one of the 10 municipal maternity homes. All the medical care in the municipal institutions was provided for free. In addition to this, Moscow had a modern water-pipe and sewerage system, public abattoir, food control, sanitary inspection and a disinfection brigade. The medical personnel of Moscow's medical-sanitary organization exceeded 4000, including 285 physicians, 60 sanitary doctors and 24 veterinarians.³

Still, as the long-term municipal activist Mitrofan Shchepkin asked, “this number of the guards of Moscow's sanitation will provoke envy of any Western European city; but to which extent did the life of Muscovites improve because of this organization – who would answer this question?”⁴ This is a difficult question indeed, as the direct impact of the sanitary reforms is not so easy to evaluate.

The statistics can reveal a certain decline in death and disease rates. The average annual mortality rate in Moscow was 33.8 in the period of 1872-1881, 26.4 in 1902-1906 and 25.4 in 1910-1913.⁵ In the mid-1880s, a quarter of Moscow's children did not survive to the age

³ Zhbankov, *Sbornik po gorodskomu vrachebno-sanitarnomu delu*, pp. 19-44.

⁴ M.P. Shchepkin, *Obshchestvennoye samoupravleniye v Moskve. Proekt gorodovogo polozheniya* (Moscow: S.n., 1906), p. 46.

⁵ *Statistichesky ezhegodnik goroda Moskvy, 1906-1907* (Moscow: Gorodskaya tipografiya, 1908), p. 57; *Statistichesky ezhegodnik goroda Moskvy, 1911-1913* (Moscow: Gorodskaya tipografiya, 1916), p. 57.

of five; by 1910-1913 this proportion dropped to 16%.⁶ Comparing the statistics of death rates from infectious diseases in the two census years of 1882 and 1912 reveals a substantial change (see Table 6.1). These numbers refer to the specific years and there were of course significant annual variations – for example, in 1908-1910 Moscow experienced simultaneous epidemics of cholera, typhus, smallpox, diphtheria and scarlatina⁷ - but the general trend was a decline of death rates from infectious diseases. However, the mortality rates in Moscow on the eve of World War I remained significantly higher than those in major European metropolises; and more importantly, they were also declining much slower.⁸

Table 6.1. Death rates from infectious diseases in Moscow per 100,000 population in 1882 and 1912.
Source: *Smertnost' naseleniya g. Moskvy, 1872-1899* (Moscow: Gorodskaya tipografiya, 1891) and *Statistichesky ezhegodnik goroda Moskvy, 1911-1913* (Moscow: Gorodskaya tipografiya, 1916).

Disease	1882	1912
Tuberculosis	432	248
Typhus	63	3
Typhoid	65	10.5
Dysentery	82	50
Measles	53	43
Smallpox	49	1.5
Scarlet fever	77	41.5
Diphtheria	72	35
Syphilis	13	7

⁶ V.M. Ostroglazov, *Smertnost' v Moskve za 1883 g.*, (B.m., B.i. 1884), p. 1, idem. *Smertnost' v Moskve za 1887 g.* (B.m., b.i., 1888), p. 1; *Statistichesky ezhegodnik goroda Moskvy, 1911-1913* (Moscow: Gorodskaya tipografiya, 1916), p. 57.

⁷ *Statistichesky ezhegodnik goroda Moskvy, 1911-1913* (Moscow: Gorodskaya tipografiya, 1916), pp. 77-81

⁸ Robert Thurston, *Liberal City, Conservative State: Moscow and Russia's Urban Crisis, 1906-1914* (New York: Oxford University Press, 1987), p. 196.

Yet, even this - relatively moderate - decline in Moscow's mortality rates was not necessarily an immediate result of the sanitary reform. Ever since the 1970s, when Thomas McKeown argued that the nineteenth-century mortality decline in England and Wales was connected not so much to sanitary interventions, but rather to improvements in nutrition,⁹ scholars have debated about and problematized the relations between the public health measures and the death rates. Although McKeown's argument has lost popularity, it helped to raise awareness of the complexity of factors behind the mortality decline – direct social interventions, improvements in living standards and change of cultural stereotypes and behaviour, environmental and occupational factors, development of sanitary infrastructure, preventive and curative medicine or the autonomous decrease in the virulence of strains of particular diseases.¹⁰ Indeed, historians have emphasized the importance of the local health organizations and preventive policies in fighting the epidemics,¹¹ but an entire study in historical demography would be necessary to say to what extent and in which way the sanitary reform in Moscow contributed to the mortality decline and which of the policies were most effective.

Although the decline in death and disease rates was exactly the goal that the Moscow health reformers proclaimed, the mortality and morbidity statistics capture only one aspect of the results of the sanitary reform. The breadth of the understanding of “sanitation” and

⁹ Thomas McKeown, *The Modern Rise of Population* (New York: Academic press, 1976).

¹⁰ Simon Szreter, “The Importance of Social Intervention in Britain’s Mortality Decline c. 1850-1914: A Reinterpretation of the Role of Public Health,” *Social History of Medicine*, 1988, 1, pp. 1-38; J. N. Hays, *The Burdens of Disease: Epidemics and Human Response in Western History* (New Brunswick: Rutgers University Press, 1998); Anne Hardy, *The Epidemic Streets: Infectious diseases and the rise of preventive medicine, 1856-1900* (Oxford: Clarendon Press, 1993).

¹¹ Hardy, *The Epidemic Streets*, pp. 290-294.

the diversity of the measures united under its umbrella defined the potential scope of the intervention in the life of the city and its residents.

This intervention was ambiguous in its mechanisms and results. It was driven by the desire to combat disease and create a safer urban environment, but the side-effect of these efforts was an increase in surveillance, regulation and control. The sanitary inspection, medical examination at schools, the network of free municipal hospitals and outpatient clinics promised the early diagnostics and the better treatment of disease – but the implementation of these policies was often intrusive and not fully voluntary.

The reform of syphilis prevention, launched by the Moscow municipality, resulted in the creation of the free outpatient and inpatient medical care for those suffering from venereal disease. In comparison with the previous policies, it advocated, though with significant limitations, the right to privacy, anonymity and body autonomy even among the patients from the most outcast social groups. It attempted to de-stigmatize the disease and its carriers and to promote – through the exclusion of police, employment of female personnel and the introduction of sanitary albums - more humane preventive and therapeutic practice. This new policy developed into a kind of proto-screening medicine, aimed at early diagnostics, treatment and, eventually, prevention of venereal disease among the high-risk social groups through regular semi-anonymous check-ups, but the efficiency of this approach was quite doubtful, especially before the identification of the syphilis agent and the invention of salvarsan. The reform replaced the forced and oppressive practices of the Medical-police committee with the somewhat softer and less intrusive policy of medical inspection, which in essence still remained coercive. In the shape the reform took upon its implementation, it helped to preserve the belief in the necessity and

usefulness of the mandatory venereal examinations until the twentieth century and upheld the gender bias when women were the primary target of any measures against venereal disease.

The creation of the public abattoir in Moscow was a major step forward in establishing sanitary control over food products. It helped prevent alimentary diseases and poisonings among the meat consumers and allowed the detection of infection in the slaughtered animals, thus curbing the spread of epizootics in the vast regions of the Russian Empire that were sending its livestock to the Moscow abattoir. Acting as a scientific center, the abattoir advanced knowledge of animal diseases, their incidence and dynamics in Russia; in cooperation with the imperial and local governments, it elaborated and tested policies to minimize the risks for the urban population and damages for livestock owners.

Yet, as any industrial slaughterhouse, it profoundly transformed the experience of slaughter and human-animal relations. It contributed to the commodification of the animal body. While livestock disappeared from the city, the link between meat and killing was broken, and for most of the urban population the animal slaughter turned into an abstract and thus morally acceptable process.¹² Some authors have even suggested that the industrialization of slaughter prepared the grounds for the tragedies of the twentieth century when the ideas and technologies of rationalized and industrialized killing were mobilized against humans.¹³

¹² Chris Otter, "Civilizing Slaughter: The Development of British Public Abattoir, 1850-1910," *Food and History*, 3, 2, (2005), p. 30; Paula Young Lee, "The Slaughterhouse and the City," *Food and History*, 3, 2, (2005), pp. 13-19.

¹³ Charles Patterson, *The Eternal Treblinka: Our Treatment of Animals and the Holocaust* (New York: Lantern Books, 2002).

In the specific Moscow context, the public abattoir exposed the functioning of the social hierarchies in Russia. Despite the importance of the “public good” rhetoric in the abattoir's creation, its policy as an employer revealed how narrow the social implications of the “public good” in fact were. The operation of the abattoir showed that the public government could not offer any viable alternative to the existing labor and employment relations of Russian capitalism and, in a sense, confirmed that in the given social and political circumstances the revolution seemed to be the only mechanism that could prompt changes in the labor policies and improve the living standard of the workers.

Another celebrated achievement of the Moscow sanitary reform, the sewerage system, was indeed a fundamental breakthrough in the collection, removal and treatment of urban wastes. It greatly reshaped the urban experience, both on the macro-level – in the way the city interacted with its natural resources, and on the micro-level – in terms of organization, design and hygiene of the private home. The construction of the sewerage system inspired the range of discussions, research and policies that together raised awareness of the risks posed by the urban and industrial pollution and promoted more responsible attitudes towards the environment.

Yet, because of the constraints in the operation of the sewerage system, selectiveness of its usage, lack of research on industrial refuse and the impossibility to treat it, the overall effectiveness of the Moscow sewerage system in neutralizing urban wastes was rather doubtful throughout the imperial period. The process of the sewerage system construction also revealed the establishment of a new model of urban-rural interaction. The needs of the growing industrial cities and their demand for resources were almost unquestionably prioritized over the needs and concerns of rural communities, while the potential conflict

between the two sides was resolved in favor of the cities by the intervention of the central state – a pattern that would be taken to the extreme in the Soviet period.

As I have shown in my dissertation, the sanitary undertakings of the municipal project of “*ozdorovleniye*” in some way implied both “serving the people” and disciplining them. The service to the urban community and to the ideals of “public good” was expressed in applying scientific knowledge, technology and the municipal resources to fight disease and provide medical assistance to those in need. The disciplinary mechanisms were introduced through constructing, disseminating and imposing new norms of “healthy”, “hygienic” or “civilized” behavior and training the “uncultured” people to live their life according to the model that the elites had in mind. However, both of these entangled processes encountered many obstacles in the social and political realities of the Russian Empire.

The Moscow health reformers were not working with a stable group of urban residents. In fact, they were dealing with a remarkably volatile population, and it was only occasionally that substantial parts of it came under the influence of the reforms. The migrant character of the population in Moscow was more expressed than in the European cities of comparable size; it was impressive even by Russian standards, and stronger than in St Petersburg.¹⁴ The true home of many migrant workers remained the village, where they left their families and where their children were born and raised.¹⁵ The transient character of migration and its lack of generational continuity, the strong ties of migrants to

¹⁴ James Bater, “Transience, Residential persistence, and mobility in Moscow and St Petersburg, 1900–1914,” *Slavic Review*, 39 (1980), 239–54.

¹⁵ For the analysis of the family patterns in peasant migration see also Robert Johnson, “Peasant and proletariat: migration, family patterns and regional loyalties,” in Ben Eklof and Stephen Frank (eds.), *The World of the Russian Peasant: Post-Emancipation Culture and Society* (Boston, MA: Unwin Hyman, 1990), pp. 82–3.

the village meant that the efforts of the Moscow reformers to educate the urban population and train them in the new models of behaviour could only have a very limited impact. To thoroughly “civilize” the Russian city one had to start with the Russian village – a task that would be so dramatically tackled by the Soviet state several decades later.

In my dissertation I focused on what the elites – municipal activists, experts, governmental officials - thought and did about the sanitary reforms and the reception of the policies remained beyond the scope of my research, but it is clear that the population of Moscow naturally had its agency in shaping the realization of those reforms and showed diverse practices of resistance, subversion and negotiation. The prostitutes avoided the medical inspection. The livestock-producers at the abattoir hid and removed infected animals or organs, or, on the contrary, brought sick cattle to the slaughter to get municipal compensation, or negotiated softer policies on meat rejection. The city property-owners were remarkably inventive in finding alternative, illegal ways of waste removal; some of them refused to connect to the sewerage system when they were encouraged to, others insisted on joining it where they were not supposed to, while the industrialists lobbied for different norms regulating the treatment of factory discharge.

At the same time, the resources of the municipality were insufficient to effectively implement either its public good or disciplinary goals. The municipal revenues from taxation in Moscow were per capita between three and four times less than in other big European cities.¹⁶ Despite the profitability of several city enterprises, the Moscow municipality was in fact in constant and increasing deficit, which in the last pre-war decade

¹⁶ Thurston, *Liberal City, Conservative State*, p. 44; L. F. Pisar'kova, *Gorodskiye reformy v Rossii i Moskovskaya Duma* (Moscow: Novy khronograph, 2010), p. 311

amounted on average to almost a million roubles a year and in 1916 reached five million.¹⁷ The lack of municipal finances hindered or delayed the realization of plans that were advocated by the health reformers. Although in the 1880s the sanitation projects were based on the formula where “public good” did not depend on profit and was more important than it, the implementation of those projects proved that there was a correlation between the two. Those external constraints narrowed down the already quite limited social implications of “public good” that the Moscow health reformers were promoting.

The financial problems of the municipality complicated the recruitment of new medical personnel to the Moscow medical-sanitary organization. It was indeed growing but this growth could not compensate for the increase of the urban population; as a result the organization was very much overloaded. Thus, on the eve of World War I each of Moscow's district sanitary doctors was serving an area of several police districts with an average population of 70,000. In the municipal outpatient clinics, the daily norm was set at 60 patients per each physician. In such situation the activity of those physicians and sanitary doctors, that under other circumstances could have served as a mechanism of surveillance and disseminating the “healthy” norms, was limited to the most immediate public health measures – diagnosing, quarantining, disinfecting, curing or sending to hospital, which left practically no time for “disciplining”, “educating” and “civilizing”.¹⁸

¹⁷ Joseph Bradley, *Muzhik and Muscovite: Urbanization in Late Imperial Russia* (Berkeley: University of California Press, 1985), p. 37; Pissar'kova, *Gorodskiye reformy*, p. 305.

¹⁸ V. P. Uspensky, “Vrachebno-sanitarnaya organizatsiya,” in I. A. Verner, *Sovremennoye khozyaystvo goroda Moskvy*, (Moscow: Gorodskaya tipografiya, 1913), pp. 132, 145-147; M.I. Pokrovskaya, *Sanitarny nadzor nad zhilishchami i sanitarnaya organizatsiya v razlichnykh gosudarstvakh* (St. Petersburg: Tipografiya Soykina, 1897), p. 128; E.F. Pechorkin, “Ambulatoriya v eye nastoyashchem i blizhayshe budushchem,” in *Obshchestvenny vrach*, 6 (1912), pp. 753-765.

The legal competence of the municipality and its administrative, juridical or symbolic power over the city population was also too small to ensure the realization of all the set tasks. Indeed, in some cases, as with the new system of venereal disease control, the municipal reformers refused to use the potential of direct coercion offered by the state. In others, however, they probably wanted to - but could not. Thus, the municipality could not introduce male venereal inspection, could not forbid private slaughterhouses – which other European cities successfully enforced, nor could it make joining the sewerage system compulsory. The city government could not even close the flophouses, notorious for their overcrowding, poor sanitary conditions and high incidence of infectious disease. When the Moscow City Council sent a petition to the Ministry of Interior asking for the right to close the flophouses, it received a response saying that the “widening of the rights of a city administration could take place only after the whole City Statute had been changed.”¹⁹

Returning to the question about the character of Russian “*ozdorovleniye*”, raised in the introduction to this dissertation, the potential answer could be that, indeed, at the discursive level the project of sanitation combined the rhetoric of serving the urban community with strong disciplinary overtones; yet, in practice both of these aspects received very moderate realization. The big unfreedom - meaning the autocracy - indeed did not exclude the small unfreedom - meaning the desire of the Moscow elites to monitor and regulate the daily life of the urban population - but it did limit its scope and the spheres it penetrated. The relations between the two sides were also not necessarily oppositional, but can rather be described as ambiguous and often pragmatic. Sometimes the Moscow health reformers openly

¹⁹ Quoted in Thurston, *Liberal City, Conservative State*, p. 41.

opposed the direct coercion of the state and lamented the absence of the rule of law, but when there was no clash of interests and when the autocracy offered its support, they took advantage of the available administrative resources. In some cases, the sanitary reforms introduced the surveillance and regulation of aspects of human life that had previously eluded social control; in others, they strove to clearly delineate what is forbidden from what is allowed, thus carving out a certain zone of freedom in the domain of arbitrary administrative rule. Surveillance and disciplining functioned effectively only in respect to the selected social groups, for example, the workers of the public abattoir, while the majority of Moscow residents by and large escaped it but, when necessary, still could resort to the public health structures organized in the city.

Looking back at the Moscow sanitary reforms from 2015, it can be said that their “civilizing mission” to create disciplined, responsible and moral liberal citizens was, for better or for worse, a failure, while their public benefit turned out to be far less impressive than advertised. Yet, the system of sanitary infrastructure, of the free public hospitals and territorial outpatient clinics and the ideas of universal access to medical care, developed in the course of those reforms, outlived not only the imperial rule, but also the Soviet state that came to replace it, and in the long run contributed to turning Moscow into a healthier place.

BIBLIOGRAPHY

SOURCES

ARCHIVAL SOURCES

Central State Archive of Moscow (TsGAMOS, former TsIAM)
Center for documents prior to 1917

Fund 16: Moscow Governor-General

16:130:240 Obyazatel'nye postanovleniya Moskovskogo general-gubernatora po sanitarnoy chasti.

16:132:40 Ob obrazovanii Osoboy Komisii dlya rassmotreniya voprosa o spuske v r. Moskvu otrabotannykh fabrichnykh vod.

16:133:250 Ob obrazovanii pri Ministerstve finansov Komissii dlya sostavleniya proyekta polozheniya ob ustroystve i soderzhanii promyshlennykh zavedeniy i skladov i o proizvodstve na nikh rabot i o merakh k prekrashcheniyu zagryazneniya rek Moskvy i Yauzy spuskayemymi v nikh otrabotannymi vodami s fabrik.

Fund 143: Moscow Exchange Committee

143:1:385 Protokoly zasedaniy komissii po voprosu ob ochistke stochnykh vod.

Fund 179: The Moscow Municipality

179: 33: 4 O provedenii meropriyatiy po ochistke ot svalok i nechistot reki Yauzy.

179:45:3639 Lichnoye delo Vyshinskoy Ekateriny Romanovny.

179:46:19 Karty meditsinskogo osvidetel'stvovaniya zheshchin, zanimayushchikhsya prostitutsiyey.

179:54:631 O vyrabotke proyekta sokrashcheniya rabocheho dnya, uvelicheniya oplaty truda, ustanovleniya otpuskov, uluchsheniya byta rabochikh i nizshikh sluzhashchikh na predpiyatiyakh gorodskogo upravleniya dlya preduprezhdeniya zabastovok i stachek.

179:54:632 O vyrabotke obshchikh usloviy nayma i sluzhby nizshikh sluzhashchikh i rabochikh v Moskovskom gorodskom obshchestvennom upravlenii.

179:54:947 O zakrytii chastnykh boyen okolo g. Moskva za nesoblyudeniye sanitarnykh trebovaniy.

179:54:961 Ob uchastii gorodskogo obshchestvennogo upravleniya v pervoy Vserossiyskoy gigienicheskoy vystavke v Peterburge v 1893 g.

179:54:980 O razreshenii imperatorskomu moskovskomu obshchestvu sel'skogo khozyaystva ustroit' na gorodskom skotoprignonnom dvore vystavku udoynogo myasnogo skota v 1895 g.

- 179:54:982 O provedenii sledstviya prichin gibeli dvukh rabochikh v kanalizatsionnom kolodtse gorodskikh boyen.
- 179:54:992 Perepiska s upravlyayushchim i veterinarnym nadzorom gorodskikh boyen s Moskovskim otdeleniyem rossiyskogo obshchestva pokrovetel'stva zhivotnym.
- 179:54:993 Ob izdanii al'boma chertezhey zdaniy i mekhanicheskikh prispособleniy gorodskikh boyen s tekhnicheskim opisaniyem k Vserossiyskoy nizhegorodskoy yarmarke.
- 179:54:995 Ob uvelichenii shtata boytsov na gorodskikh boynyakh.
- 170:54:1012 O razreshenii osmotret' gorodskiy boyni chlenam XII mezhdunarodnogo s'yezda vrachey.
- 179:54:1029 O komandirovanii za granitsu veterinarnogo vracha Vakherskogo A.V. dlya izucheniya skotoboynogo dela.
- 179:54:1054 Ob izmenenii i utverzhdenii pravil pol'zovniya gorodskim skotoprignonny dvorom i boynyami i vnutrennego rasporyadka dlya boytsov na boynyakh.
- 179:54:1057 O razreshenii trgovomu otdelu Moskovskogo obshchestva sel'skogo khozyaystva ustroit na gorodskom skotoprignonnom dvore 2-yu Vserossiyskuyu vystavku myasnogo otkormlennogo skota v 1901 g.
- 179:54:1068 Pravila vnutrennego rasporyadka rabot i dezhurstv mezhdru masterovymi i rabochimi po tekhnicheskomu nadzoru na gorodskikh boynyakh.
- 179:54:1069 Ob uvelichenii shtata boytsov skota i prachek gorodskikh boyen.
- 179:54:1105 O razreshenii Komitetu Moskovskoy skotopromyshlennoy i Myasnoy birzhi ustroit' v 1907 g. na gorodskom skotoprignonnom dvore Vserossiyskuyu vystavku myasnogo otkormlennogo skota.
- 179:54:1112 Materialy k smete raskhodov i dokhodov na 1906 i 1907 gg. Gorodskikh skotoprignonogo dvora i boyen.
- 179:54:1125 O komandirovanii starshego veterinara gorodskoikh boyen v Parizh na 1-y mezhdunarodny kongress po iskusstvennomu okhlazhdeniyu produktov pitaniya.
- 179:54:1165. O komandirovanii presedatelya komissii veterinarnykh vrachey gorodskoy upravy Krashennnikova A.P. za granitsu dlya oznakomleniya s postanovkoy veterinarno-sanitarnogo nadzora v gorodakh Zapadnoy Yevropy.
- 179:58:30 O prinyatii mer po prekrashcheniyu sifilisa sredi naseleniya goroda Moskvyy.
- 179:58:43 Ob otkrytii 4-kh zhenskikh ambulatoriy i ob otpuske sredstv na soderzhaniye ambulatorii i tsentral'nogo sanitarnogo byuro po nadzoru za prostitutsiyey.
- 179:58:44 Ob uchrezhdenii gorodskoy sanitarnoy stantsii pri gigiyenicheskoy laboratorii Moskovskogo universiteta dlya issledoniya pishchevykh produktov.
- 179:58:130 Mesyachnye vedomosti tsentral'nogo sanitarnogo byuro pri Myasnitskoy bol'nitse i gorodskoy zhenskoy ambulatorii o kolichestve osmotrov publichnykh zhenshchin (1894-1896).
- 179:58:175 Ob otkrytii i deyatel'nosti gorodskoy ambulatorii po kozhnym i venericheskim boleznyam.

- 179:58:185 O deyatel'nosti tsentral'nogo sanitarnogo byuro pri Myasnitskoy gorodskoy bol'nitse i gorodskoy zhenskoy ambulatorii (1896-1897).
- 179:58:209 O deyatel'nosti gorodskoy ambulatorii po kozhnym i venericheskim boleznyam.
- 179:58:251 O deyatel'nosti gorodskoy ambulatorii po venericheskim i kozhnym boleznyam.
- 179:58:309 O deyatel'nosti tsentral'nogo sanitarnogo byuro pri Myasnitskoy gorodskoy bol'nitse i gorodskoy zhenskoy ambulatorii (1899-1900).
- 179:58:387 O deyatel'nosti tsentral'nogo sanitarnogo byuro pri Myasnitskoy gorodskoy bol'nitse i gorodskoy zhenskoy ambulatorii (1901-1902).
- 179:58:392 Mesyachnye vedomosti o kolichestve osmotrov prostitutok tsentral'nyim sanitarnym byuro pri Myasnitskoy bol'nitse, vedomosti na vydachu zhalovniya i nagradnykh sluzhashchim byuro i zhenskoy ambulatorii (1901-1903).
- 179:58:484 Protokoly zasedaniy konferentsiy vrachey Myasnitskoy bol'nitsy za 1903 g.
- 179:58:505 Mesyachnye vedomosti tsentral'nogo sanitarnogo byuro pri Myasnitskoy gorodskoy bol'nitse o kolichestve osmotrov publichnykh zhenshchin za 1903 god.
- 179:58:505 Mesyachnye vedomosti tsentral'nogo sanitarnogo byuro pri Myasnitskoy gorodskoy bol'nitse o kolichestve osmotra publichnykh zhenshchin za 1903 g.
- 179:58:535 Protokoly zasedaniy konferentsiy vrachey Myasnitskoy gorodskoy bol'nitsy za 1904 god.
- 179:58:589 Protokoly zasedaniy konferentsiy vrachey Myasnitskoy bol'nitsy za 1905 g.
- 179:58:621 Mesyachnye vedomosti tsentral'nogo sanitarnogo byuro pri Myasnitskoy gorodskoy bol'nitsy o kolichestve osmotra publichnykh zhenshchin (1905-1906).
- 179:58:800 Mesyachnye vedomosti o kolichestve osmotrov publichnykh zhenshchin iz domov terpimosti tsentral'nyim sanitarnym byuro pri Myasnitskoy gorodskoy bol'nitse za 1908 g.
- 179:58:871 Protokoly zasedaniy konferentsiy vrachey Myasnitskoy gorodskoy bol'nitsy za 1910 g.

PUBLISHED SOURCES

- Amfiteatrov, A.V. *Nedavniye lyudi*. St. Petersburg: Tipografiya T-va Khudozh. Pechati, 1901.
- Andreyevsky, V. *Glisty i trichiny: Ikh proiskhozhdeniye, stroyeniye, otlichitel'noye raspoznavaniye i mikroskopicheskoye issledovaniye*. St. Petersburg: Tipografiya Golovachova, 1867.
- Ashkharumov, D.D. *Prostitutsiya i eya reglamentatsiya*. Riga: Tipografiya Blankenshteyna, 1889.
- Ashkharumov, D.D. *Sovremenny vzglyad na sanitarnoye znacheniy domov terpimosti i osmotra prostitutok*. Poltava: Tipografiya N. Pigurenko, 1886.
- Astrakov, V. I. "O kolichestve vody, protekayushchey v reke Moskve." *IMGD*, 8 (1878).

- Avchinnikova-Arkhangelskaya, V.V. *Prostitutitsaya i prof. V.M. Tarnovsky*. St. Petersburg: Tipografiya Soykina, 1904.
- Belin, M.A. “Demonstirovaniye trikhin, naydennykh v vetchine Ryullinga,” *Moskovskaya meditsinskaya gazeta*, 50 (1874).
- Boubnoff, S. *Institut d'hygiène de l'Université impériale de Moscou*. Moscow: Tipolitografiya T-va I.I. Kushnerev i K^o, 1897.
- Buryshkin, P. *Moskva kupecheskaya*. New York: Izdatel'stvo imeni Chekhova, 1954.
- Chertov, A. A. *Gorodskaya meditsina v yevropeiskoy Rossii*. Moscow: Pechatnya Yakovleva, 1903.
- Chicherin, B.N. *Vospominaniya. Zemstvo i Moskovskaya дума*. Tambov: Yulis, 2007.
- Chistyakov, M.A. *O vnepolovom zarazhenii sifilisom*. St. Petersburg: Tipografiya Trei, 1889.
- Chudnovsky, Yu. T. *Vorpos o trikhinakh i trikhinnoy bolezni v primenenii v Rossii*. St. Petersburg: Obshchestvennaya pol'za, 1866.
- Dement'yev, E.M. *Fabrika: chto ona dayet naseleniyu i chto ona u nego берет*. Moscow, Izd. T-va Sytina, 1897.
- Dobroslavin, A.P. *O sravnitel'noy stoimosti uluchshennoy pishchi arestantov s zatratami na ikh lecheniye*. St. Petersburg: Tipografiya Ya. Trey, 1884.
- Doneseniye Meditsinskomu sovetu Osoboy komissii po voprosu o trikhinakh v svinom myase*. St. Petersburg: Tipografiya MVD, 1876.
- Dzhunkovsky, V.F. “Vospominaniya.” In *Velikiy knyaz Sergey Aleksandrovich Romanov: Biograficheskiye materialy*. Moscow: Novospassky monastyr', 2011.
- Ekunina-Fiveyskaya, M. “O meditsinskom osmotre prostitutok, proizvodimim v gorodskoy besplatnoy ambulatorii g. Moskvy.” In *Trudy chetvertogo s'yezda russkikh vrachey v pamyat' N.I. Pirogova v Moskve*. Moscow: Pechatnya Yakovleva, 1892.
- Erisman, F.F. “Organizatsiya obshchestvennoy gigiyeny v Rossii.” *Otechestvennye zapiski*, 6 (1876).
- Erisman, F.F. “Podval'nye zhilishcha v Peterburge.” *Arkhib sudebnoy meditsiny i obshchestvennoy gigiyeny*, 9 (1871), 12 (1871).
- Erisman, F.F. “Znachenije bakterologii dlya sovremennoy gigiyeny.” In *Trudy vtorogo s'yezda russkikh vrachey v Moskve*. Moscow: Pechatnya Yakovleva, 1887.
- Erisman, F.F. *Kurs gigiyeny*. Vol. 1-2. Moscow: Tipografiya A.A. Kartseva, 1887-1892.
- Erisman, F.F. *Rukovodstvo k gigiyene*. St. Petersburg: Tipografiya Stasyulevicha, 1873.
- Erisman, F.F. *Sanitarnoye issledovaniye fabrichnykh zavedeniy Moskovskogo uyezda*. Vols. 1-5. Moscow: Mosk. Gub. Zemstvo, 1882-1885.
- Erisman, F.F. *Sanitarnoye issledovaniye fabrichnykh zavedeniy Klinskogo uyezda*. Moscow: Mosk. Gub. Zemstvo, 1891.
- Erisman, F.F., ed. *Sbornik rabot gigenicheskoy laboratorii Moskovskogo Universiteta*. Vols. 1-5. Moscow: Tipografiya Kartseva, 1886-1894.

- Erisman, F.F. *Vliyaniye shkol na proiskhozhdeniye blizorukosti: po nablyudeniym nad uchashchimisya v uchebnykh zavedeniyakh v Sankt-Peterburge*. St. Petersburg: Tipografiya Kotomina, 1870.
- Erismann, F.F. "Pishchevoye dovol'stvo rabochikh." In *Sbornik statisticheskikh svedeniy po Moskovskoy gubernii. Otdel sanitarnoy statistiki. Obshchaya svodka po sanitarnym issledovaniyam fabrichnykh zavedeniy Moskovskoy gubernii za 1879-1885 gg.* Vol. 4, part 2. Moscow: I.N. Kushnerev, 1893.
- Fidler, V. *Moskva. Kratkiye ocherki gorodskogo blagoustroystva*. Moscow: Tipografiya Blagushinoy, 1897.
- Freiberg, N.G. "Vrachebno-sanitarnoye zakonodatel'stvo." In *Spravochnik po obshchestvenno-sanitarnym i vrachebno-bytovym voprosam*. Moscow: Tipografiya Richter, 1910.
- Fyodorov, E. S. *Po povodu trudov Komissii pri Russkom Tekhnicheskom obshchestve po rassmotreniyu voprosov ob ochistke gorodov*. Kazan: Tipografiya Okr. Shtaba, 1885.
- Ge, A. *Po povodu nadzora za prostitutsiei g. Kazani*. Kazan': Tipografiya Imperatorskogo Universiteta, 1892.
- Gerasimov, N.V. *Istoriya uluchsheniya Moskvyy-reki*. St. Petersburg: Tipografiya I. Goldberg, 1902.
- Gertsenshtein, G.M. *Sifilis v Rossii*. St. Petersburg: Tipografiya Rumsha, 1885.
- Glavneishiye predvaritelnyye dannyye perepisi goroda Moskvyy 6 marta 1912 g.* Moscow, Gorodskaya tipografiya, 1913.
- Gorbunov, D.G. *Moskovskiy gorodskiy boyni*. Moscow: Gorodskaya tipografiya, 1913.
- Gratsianov, P.A. *Organizatsiya nadzora za prostitutsiyey v gorode Minske*. St. Petersburg: Tipografiya MVD, 1893.
- Illyustrirovanny putevoditel' po Moskve*. Moscow: Dobrovolskiy, 1911.
- Ivanov, N. "Ob usloviyakh uspehnogo provedeniya v zhizn' sanitarnykh meropriyatiy." In *Vos'moy Pirogovskiy S'yezd*. Moscow: Pechatnya Yakovleva, 1902. Vol. 4.
- K.P. Pobedonostsev i ego korrespondenty*. Moscow and Leningrad: Gosudarstvennoye izdatelstvo, 1923.
- Kamenetskaya, E. N. *Kanalizatsiya goroda Moskvyy*. Moscow: Gorodskaya tipografiya, 1896.
- Kanalizatsiya goroda Moskvyy*. Moscow: Gorodskaya tipografiya, 1901.
- Kastalsky, V. D. *O razdel'noy sisteme splavnoy kanalizatsii gorodov*. Moscow: Gorodskaya Tipografiya, 1889.
- Kastalsky, V.D. *Moskva v sovremennom sostoyanii i chto ey predstoit sdelat' v otnoshenii blagoustroystva*. Moscow: Tipografiya Klein, 1883.
- Koch, Robert. "An Address on the Transference of Bovine Tuberculosis to Man." *The British Medical Journal*, 2, 2190 (December, 1902).

- Kotsyn, M. B. *Opyt sistematicheskikh nablydenii nad kolebaniyem khimicheskogo i bakteriologicheskogo sostava vody Moskvyy-reki za 1887-1888 g.* Moscow: Tipografiya Bonch-Bruyevicha, 1889.
- Koz'min, B.P. *Zubatov i yego korrespondenty: Sredi okhrannikov, zhandarmov i provokatorov.* Moscow and Leningrad: Gosudarstvennoye izdatel'stvo, 1928.
- Krivoshapkin, M. F. *Preduprezhdeniye zhiteley otnositel'no trikhin, finn i solitera.* Kazan: Tipografiya Gubernskogo Pravleniya, 1884.
- Krylov, V.P. *K istorii trichinoza v Rossii.* Moscow: Universitetskaya tipografiya, 1876.
- Mikhailov, N. *Pamyati professora F.F. Erismana.* Moscow: Tipo-litografiya T-va I.I. Kushnerev i Ko, 1915.
- Mitskevich, S.I. *Zapiski vracha-obshchestvennika.* Moscow: Meditsina, 1969.
- Monasein, M.P. *Nekotorye dannye o sifilidologicheskoy s'yезде.* St. Petersburg: Tipografiya Akinfiyeva i Leont'yeva, 1902.
- Moskva kak potrbitel'skiy tsentr myasnykh produktov. Doklad Komissii boyenskikh veterinarnykh vrachev Pervomu Mezhdunarodnomu Kongressu po kholodil'nomu delu v Parizhe v 1908 g.* Moscow: Gorodskaya Tipografiya, 1908.
- Moskva. Putevoditel'.* Moscow: Kushnerev i K°, 1915.
- Nagorsky, V. F. "Veterinarny nadzor na gorodskikh boynnyakh g. Moskvyy s ikh otkrytiya po 1 sentyabrya." *IMGD*, 9 (1888).
- Nagorsky, V.F. *Osnovnye printsipy i usloviya bor'by s epizootiyami.* St. Petersburg: Tipografiya MVD, 1904.
- Naumov, A.M. *O pitatel'nykh veshchestvakh i o vazhneyshikh sposobakh ratsional'nogo ikh prigotovleniya, sberezheniya i otkrytiya v nikh primesey.* St. Petersburg: Izdaniye Torg. Doma S. Strugovshchikova, G. Pokhitonova, N. Vodova I K°, 1859.
- Nikitin, A.A. "Kanalizatsiya goroda Moskvyy." In I.A. Verner. *Sovremennoye khozyaystvo goroda Moskvyy.* Moscow: Gorodskaya tipografiya, 1896.
- Novye kliniki i instituty (klinicheskiy gorodok) Imperatorskogo Moskovskogo Universiteta na Devichiyem pole.* Moscow: Tipolitografiya T-va I.N. Kushnerev i Ko, 1891.
- Ostroglov, V. M. *Smertnost' v Moskve za 1887 g.* Moscow: S.n., 1888.
- Ostroglov, V.M. *Smertnost' v Moskve za 1883 g.* S.l.: S.n., 1884.
- Otchet o deyatel'nosti Rossiyskogo Obshchestva Pokrovitel'stva Zhivotnym za 1891 god.* St. Petersburg: Tipografiya Soykina, 1892.
- Otchet o deyatel'nosti Rossiyskogo Obshchestva Pokrovitel'stva Zhivotnym za 1901 god.* St. Petersburg: Amerikanskaya skoropechatnya, 1902.
- Otchet vremennogo komiteta po izyskaniyu mer k okhrane vodoyomov Moskovskogo promyshlennogo rayona ot zagryazneniya stochnymi vodami i otbrosami fabrik i zavodov.* Vols. 1-4. Moscow: S.n., 1914-1917.
- "Parazitizm i anti-parazitizm." *Moskovskaya meditsinskaya gazeta*, 52 (1874).
- Pechorkin, E.F. "Ambulatoriya v eye nastoyashchem i blizhayshe budushchem." *Obshchestvenny vrach*, 6 (1912).

- Petropavlovsky, N. P. *K voprosu o rasprostrnenii trikhin sredi zhivotnykh goroda Khar'kova*. St. Petersburg: Tipografiya MVD, 1899.
- Petrovsky, A.G. *Gorodskoy sanitarny nadzor v Moskve*. Moscow: Gorodskaya tipografiya, 1886.
- Petunnikov A. "Gidrograficheskiy ocherk Moskvyy." *IMGD*, 7 (1882).
- Petunnikov A. "Materialy dlya izucheniya Moskvyy v sovremennom eya sostoyanii." *IMGD*, 1 (1882).
- Petunnikov, A. "Moskva i eye budushchnost'." *IMGD*, 1 (1881).
- Petunnikov, A. "Sostav i svoystva Moskovskikh vod." *IMGD*, 3 (1879).
- Poderni, S.A. *Tekhnicheskoye opisaniye Moskovskikh tsentral'nykh gorodskikh boyen*. Moscow: Pechatnya Snigiryovoy, 1896.
- Pokrovskaya, M.I. *Sanitarny nadzor nad zhilishchami i sanitarnaya organizatsiya v razlichnykh gosudarstvakh*. St. Petersburg: Tipografiya Soykina, 1897.
- Polnoye sobraniye zakonov Rossiiskoy Imperii*. Collection III. Vols. 1-33. St. Petersburg: 1885-1916.
- Popov, M. A. "Kanalizatsiya goroda Moskvyy: po projektu inzhener-gidrotekhnika M.A. Popova." *IMGD*, 8 (1880).
- Popov, M. A. *Domovye i dvorovye stoki*. St. Petersburg: Tipografiya Goppe, 1885.
- Pospelov, A. I. *O vnepolovom zarazhenii sifilisom*. St. Petersburg: Yablonsky i Perott, 1889.
- Pospelov, A.I. *Novaya sistema nadzora za prostitutsiyey v Moskve*. St. Petersburg: Tipografiya Schmidta, 1888.
- Pospelov, A.I. *Sanitarny nadzor za prostitutsiyey v Parizhe i Bryussele*. St. Petersburg: Skoropechatnya Yablovnskogo, 1890.
- Poyasnitel'naya zapiska k projektu kanalizatsii Moskvyy*. Moscow: S.n., 1890.
- Poyasnitel'naya zapiska po shlyuzovaniyu Moskvyy-reki*. Moscow: S.n., 1882.
- Rein, G. E. *Iz perezhitogo, 1907-1918*. Berlin: Parabola, 1936.
- Rudnev, M. M. *O trikhinakh v Rossii: Nereshennyye vorposy v istorii trikhinnoy bolezni*. St. Petersburg: Tipografiya Ya. Treya, 1866.
- Satisticheskyy ezhegodnik goroda Moskvyy*. Vols. 1-4. Moscow: Izdatel'stvo moskovskoy gorodskoy dumy, 1908-1916.
- Sbornik obyazatel'nykh dlya zhiteley goroda Moskvyy postanovleniy Moskovskoy Gorodskoy Dumy*. Moscow: Gorodskaya tipografiya, 1896.
- Sbornik obyazatel'nykh dlya zhiteley g. Moskvyy i chastiyu drugikh gorodov postanovleniy*. Moscow: Pechatnya Yakovleva, 1897.
- Shchepkin, M.P. *Obshchestvennoye samoupravleniye v Moskve*. Moscow: S.n., 1906.
- Shidlovsky, K.I. "Nekotorye svedeniya ob Obshchestve russkikh vrachey v pamyat' N. I. Pirogova." In *Spravochnik po obshchestvenno-sanitarnym i vrachebno-bytovym voprosam*. Moscow: Tipographiya Richter, 1910.
- Shperk, E.F. "Teoriya statistiki zabolevayemosti i smertnosti i primeneniye eya k issledovaniyu prostitutsii i sifilisa." *Vestnik sudebnoy meditsiny*, 1 (1885).

- Smolensky, P. O. *Boyni i skotoprignonnye dvory*. St. Peterburg: Tipografiya zhurnala "Stroitel", 1902.
- Sokolov, A. D. 1. *Rezultaty analizov vody reki Yauzy*. 2. *Sutochnye kolebaniya kisloroda v vode: Izvlecheniya iz raboty, udost. Med. fak. Mosk. un-ta zolotoi medali*. St. Petersburg: Tipografiya Doma prizreniya maloletnih bednykh, 1892.
- Sokolov, D.A. and V. I. Grebenshchikov. *Smertnost' v Rossii i bor'ba s neyu*. St. Petersburg: Tipografiya Stasyulevicha, 1901.
- Solovyov, N. I. *Moskva i Peterburg v sanitarnom otnoshenii*. Moscow: Tipografiya Myshkina, 1874.
- Spravochnik po obshestvenno-sanitarnym i vrachebno-bytovym voprosam*. Moscow: Tipografiya Richter, 1910.
- Sputnik moskvicha: Moskva i eye okrestnosti*. Moscow: Tipolografia Kushnerev i Ko, 1894.
- Stukovenkov, M. *O rasprostraneni sifilisa i merakh bor'by s nim*. Kiev: Universitetskaya tipografiya, 1883.
- Svod zakonov Rossiyskoy Imperii*. Collection. II. Vols. 1-15. St. Petersburg: 1842.
- Svod zakonov Rossiyskoy Imperii*. St. Petersburg: 1892.
- Svod zakonov Rossiyskoy Imperii*. St. Petersburg: 1907.
- Tarnovsky V. M. *Kurs venericheskikh boleznei: pereloy*. St. Petersburg: Glavnoe voen.-med. Upr., 1870.
- Tarnovsky, V. M. *Prostitutsiya i abolitsionizm*. St. Petersburg: Karl Ricker, 1888.
- Tarnovsky, V. M. *Raspoznavaniye venericheskikh bolezney u zhenshchin i detey*. St. Petersburg: K.A. Pisarevsky, 1863.
- Tarnovsky, V.M. *Bor'ba s sifilisom*. St. Petersburg, Tipografiya Ministerstva vnutrennikh del, 1897.
- The Shone Hydro-Pneumatic System of Sewerage*. Liverpool: Rockliff borthers, 1885.
- Tikhomirov, V.A. *O legchayshem sposobe otkrytiya trikhin v podozritelnom myase*. Moskva: Universitetskaya tipografiya, 1875.
- Trudy chetvertogo s'yezda russkikh vrachey v pamyat' N.I. Pirogovav Moskve*. Moscow: Pечатnya Yakovleva, 1892.
- Trudy III (Stroitel'nogo) otdela Imperatorskogo Russkogo tekhnicheskogo obshchestva, 1880-1884*. St.Petersburg: Tipografiya Panteleyevykh, 1884.
- Trudy Moskovskogo gorodskogo statisticheskogo otdela*. Vol. 2 *Promyshlennye i torgovye zavedeniya Moskvy za 1879 god*. Moscow: Moskovskaya gorodskaya tipografiya, 1882.
- Trudy vtorogo s'yezda russkikh vrachey v Moskve*. Moscow: Pечатnya Yakovleva, 1887.
- Tsenovsky, A. A. *Abolitsionizm i bor'ba s sifilisom*. Odessa: Slavyanskaya, 1903.
- Uspensky, V. P. "Vrachebno-sanitarnaya organizatsiya." In I. A. Verner. *Sovremennoye khozyaystvo goroda Moskvy*. Moscow: Gorodskaya tipografiya, 1913.

- Ustav o nakazaniyakh, nalagayemykh mirovymi sud'yami.* St. Petersburg: Gosudarstvennaya tipografiya, 1914.
- Ustav Rossiyskogo Obshchestva pokrovitel'stva zhivotnym.* St. Petersburg: Tipografiya Retgera i Shneidera, 1865.
- Ustav Rossiyskogo Obshchestva pokrovitel'stva zhivotnym.* St. Petersburg: Tipografiya Suvorina, 1888.
- Ustav stroitel'ny.* St. Petersburg: Gosudarstvennaya tipografiya, 1900.
- Ustav vrachebny* St. Petersburg: Gosudarstvennaya tipografiya, 1905.
- Verner, I.A. *Sovremennoye khozyaistvo goroda Moskvy.* Moscow: Gorodskaya tipografiya, 1913.
- Verner, K.A. "Moskovsky skotny i myasnoy rynek." *IMGD*, 5 (1885).
- Veselovsky, B. *Istoriya zemstva za 40 let.* St. Petersburg: Izdatelstvo Popovoy, 1909.
- Veterinarny nadzor Moskovskikh Gorodskikh Boyen.* Moscow: Gorodskaya Tipografiya, 1896.
- Vilyams V. R. "Deyatel'nost' poley orosheniya Moskovskoy gorodskoy upravly v 1900 g." In V.R. Vilyams. *Sobraniye sochineniy.* Vol. 2. Moscow: Selkhozgiz, 1948.
- Vilyams, V. R. "Obshchiye osnovaniya obezvrezhivaniya nechistot." In *Kanalizatsiya goroda Moskvy.* Moscow: S.n. 1901.
- Virchow, Rudolf. *Izlozheniye ucheniya o trikhinakh: S ukazaniyem na predupreditel'nye mery etoy bolezni.* St. Petersburg: Tipografiya O.I. Baksta, 1864.
- Vishnevsky, A. N. *Knyaz' Vladimir Andreyevich Dolgorukov.* Moscow: S.n., 1910.
- Vodosnabzheniye i sposoby udaleniya nechistot v gorodskoy Rossii.* St. Petersburg: Tipografiya Ministerstva Vnutrennikh Del, 1912.
- Vrachebnye uchrezhdeniya Moskovskogo gorodskogo obshchestvennogo upravleniya* Moscow: Gorodskaya tipografiya, 1896.
- Whiteside Hide, Thos. "Shall We Eat Tuberculous Meat?" *The British Medical Journal*, 1, 1528 (April 1890).
- Witte, S. Yu. *Vospominaniya.* Moscow: Izdatel'stvo sotsial'no-ekonomicheskoy literatury, 1960.
- Yavorskiy, P.T. *Gorodskoy veterinarny nadzor v Moskve.* Moscow: Gorodskaya Tipografiya, 1896.
- Zelenin, N.V. "Moskovskie gorodskie boyni." In I.A. Verner, *Sovremennoye khozyaistvo goroda Moskvy.* Moscow: Gorodskaya tipografiya, 1913.
- Zeyfman, P. T. *Trikhiny i trikhinnaya bolezni'.* St. Petersburg: Tipografiya Ya. Treya, 1877.
- Zhbankov, D. I. *Sbornik po gorodskomu vrachebno-sanitarnomu delu.* Moscow: Tipografiya Richter, 1915.
- Zhbankov, D.I. "Kratkaya svodka svedeniy o vrachebno-sanitarnom dele v gorodakh." In *Trudy soveshchaniya po sanitarnym i sanitarno-statisticheskim voprosam Obshchestva vrachey v pamyat' N. I. Pirogova.* Moscow: Tipografiya Richter, 1912.

- Zhbankov, D.I. "Kratkiye svedeniya o vzniknovenii i deyatel'nosti obshchestvenno-sanitarnykh uchrezhdeniy v zemskoy Rossii." In *Spravochnik po obshchestvenno-sanitarnym i vrachebno-bytovym voprosam*. Moscow: Tipographiya Richter, 1910.
- Zhurnaly Komissii po nadzoru za ustroystvom novogo vodoprovoda i kanalizatsii v Moskve* [1892-1893]. S.l, S.n. 1894.
- Zhurnaly Komissii po nadzoru za ustroystvom novogo vodoprovoda i kanalizatsii v Moskve*. S.l.: s.n.:1902
- Zhurnaly zasedaniy Komissii po nadzoru za ustroystvom novogo vodoprovoda i kanalizatsii v Moskve, 1896-1897*. Moscow: S.n., 1899.
- Zimin, N. "K voprosu o vodosnabzhenii Moskvy." *IMGD*, 7 (1879).
- Zvyagintsev, E.A. et al., (eds). *Moskva*. Moscow: I.N. 1915.

Periodicals:

- Arkhiv sudebnoy meditsiny i obshchestvennoy gigiyeny*
- Budil'nik*
- Izvestiya Moskovskoy Gorodskoy Dumy (IMGD)*
- Le Bulletin Continental: Organ central de la Fédération britannique, continentale et générale*
- Moskovskaya meditsinskaya gazeta*
- Obshchestvenny vrach*
- Otechestvennye zapiski*
- Rus'*
- Sobraniye uzakoneniye i rasporyazheniy pravitel'stva*
- The British Medical Journal*
- Vrachebno-sanitarnaya khronika Moskvy*

SECONDARY BIBLIOGRAPHY

- Alexander, John. *Bubonic Plague in Early Modern Russia: Public Health and Urban Disaster*. Oxford: Oxford University Press, 2003.
- Anderson, Barbara. *Internal Migration during Modernization in Late Nineteenth-Century Russia*. Princeton: Princeton University Press, 1980.
- Baldwin, Peter. *Contagion and the State in Europe, 1830-1930*. Cambridge: Cambridge University Press, 1999.
- Balzer, Harley (ed.). *Russia's Missing Middle Class: The Professions in Russian History*. Armonk, N.Y. M.E. Sharpe, 1996.
- Barnes, David. *The Great Stink of Paris and the Nineteenth-Century Struggle against Filth and Germs*. Baltimore: Johns Hopkins University Press, 2006.

- Bartlett, Rosamund and Linda Edmondson. "Collapse and Creation: Issues of Identity and the Russian *Fin de Siecle*." In Catriona Kelly and David Shepherd (eds.). *Constructing Russian Culture in the Age of Revolution: 1880-1940*. Oxford: Oxford University Press, 1998.
- Bassin, Mark. *Imperial Visions: Nationalist Imagination and Geographical Expansion in the Russian Far East, 1840-1865*. New York: Cambridge University Press, 1999.
- Bater, James. "Transience, residential persistence, and mobility in Moscow and St Petersburg, 1900–1914." *Slavic Review*, 39 (1980).
- Bater, James. *St. Petersburg: Industrialization and Change*. Montreal: McGill-Queen's University Press, 1976.
- Becker, Elise. *Medicine, Law, and the State in Imperial Russia*. Budapest: Central European University Press, 2011.
- Behrends, Jan and Martin Kohlrausch (eds.). *Races to Modernity: Metropolitan Aspirations in Eastern Europe, 1890-1940*. Budapest and New York: Central European University Press, 2014.
- Behrends, Jan. "Modern Moscow: Russia's Metropolis and the State from Tsarism to Stalinism." In Jan Behrends and Martin Kohlrausch (eds.). *Races to Modernity: Metropolitan Aspirations in Eastern Europe, 1890-1940*. Budapest and New York: Central European University Press, 2014.
- Benidickson, Jamie. *The Culture of Flushing: A Social and Legal History of Sewage*. Vancouver: University of British Columbia Press, 2007.
- Bernhardt, Christoph (ed.). *Environmental Problems in European Cities in the 19th and 20th Centuries*. Muenster: Waxmann, 2004.
- Bernstein, Laurie. *Sonia's Daughters: Prostitutes and Their Regulation in Imperial Russia*. Berkeley: University of California Press, 1995.
- Bibikova, L.V. "Politicheskaya politiya, konservatory i sotsialisty: igra liberalizmami v publichnom i nepublichnom prostranstve Rossiyskoy imperii v kontse XIX – nachale XX veka." In A. Miller, D. Sdvizhkov and I. Shirle (eds.). *Ponyatiya o Rossii: K istoricheskoy semantike imperskogo perioda*. Moscow: Novoye literaturnoye obozreniye, 2012.
- Bradley, Joseph. *Muzhik and Muscovite: Urbanization in Late Imperial Russia*. Berkeley: University of California Press, 1985.
- Bradley, Joseph. *Voluntary Associations in Tsarist Russia: Science, Patriotism, and Civil Society*. Cambridge, Mass. Harvard University Press, 2009.
- Brandt, Alan. *No Magic Bullet: A Social History of Venereal Disease in the United States since 1880*. New York and Oxford: Oxford University Press, 1985.
- Brantz, Dorothee. "Animal Bodies, Human Health and the Reform of Slaughterhouses in Nineteenth-Century Berlin." *Food and History*, 3, 2 (2005).
- Brower, Daniel. *The Russian City between Tradition and Modernity, 1850-1900*. Berkeley: University of California Press, 1990.

- Brumfield, William, Boris Ananich, and Yuri Petrov (eds.). *Commerce in Russian Urban Culture, 1861-1914*. Washington, D.C.: Woodrow Wilson Center Press, 2001.
- Bynum, W.F., Anne Hardy, Stephen Jacyna, Christopher Lowrence and E.M. Tansey. *The Western Medical Tradition 1800 to 2000*. Cambridge: Cambridge University Press, 2006.
- Burds, Jeffrey. *Peasant Dreams and Market Policies: Labor Migration and the Russian Village, 1861-1905*. Pittsburgh: University of Pittsburgh Press, 1998.
- Butler, David and John Davies. *Urban Drainage*. New York: Spon Press, 2011.
- Bykova, A.G. "Prostitutsiya v istorii bol'shikh gorodov Zapadnoy Sibiri, 1880-s – 1914 g.: Po materialam Omska i Tomska." PhD dissertation, Omsk State University, 1999.
- Cioc, Marc. *The Rhine: An Eco-Biography, 1815-2000*. Seattle and London: University of Washington Press, 2002.
- Corbin, Alain. *Women for Hire: Prostitution and Sexuality in France after 1850*. Cambridge, Mass.: Harvard University Press, 1990.
- Costlow, Jane and Amy Nelson (eds.). *Other Animals: Beyond the Human in Russian Culture and History*. Pittsburgh: University of Pittsburgh Press.
- Costlow, Jane, Stephanie Sandler, and Judith Vowles (eds.). *Sexuality and the Body in Russian Culture*. Stanford: Stanford University Press, 1998.
- Cronon, William. *Nature's Metropolis: Chicago and the Great West*. New York and London: W.W. Norton, 1991.
- Daly, Jonathan. "On the Significance of Emergency Legislation in Late Imperial Russia." *Slavic Review*, 54, 3 (1995).
- Davydov, A.N. *Moskva, vek XX. Istoricheskaya ekologiya, 1901-1917*. Vol. 1. Moscow: Mosgorarhiv, 2000.
- Douglas, Mary. *Natural Symbols*. London and New York: Routledge, 1996.
- Douglas, Mary. *Purity and Danger: An Analysis of the Concepts of Pollution and Taboo*. London and New York: Routledge, 1996.
- Dzhanshiyev, Grigory. *Epokha velikikh reform*. Moscow: Territoriya budushchego, 2008.
- Eklof, Ben, John Bushnell and Larissa Zakharova (eds.). *Russia's Great Reforms, 1855-1881*. Bloomington and Indianapolis: Indiana University Press, 1994.
- Engel, Barbara Alpern. "Prostitutes in Late Nineteenth Century St. Petersburg: A personal and social profile." *Russian Review*, 48 (1989).
- Engelstein, Laura. "Syphilis, Historical and Actual: Cultural Geography of a Disease." In *Reviews of Infectious Diseases*, 8, 6 (November - December 1986).
- Engelstein, Laura. "Combined Underdevelopment: Discipline and the Law in Imperial and Soviet Russia." In Jan Goldstein (ed.). *Foucault and the Writing of History*. Oxford: Blackwell, 1994.
- Engelstein, Laura. "Gender and the Juridical Subject: Prostitution and Rape in Nineteenth-Century Criminal Codes." *Journal of Modern History*, 60 (1988).
- Engelstein, Laura. *The Keys to Happiness: Sex and the Search for Modernity in Fin-de-siecle Russia*. Ithaca and London: Cornell University Press, 1992.

- Evans, Richard. *Death in Hamburg: Society and Politics in the Cholera Years*. Oxford: Clarendon Press, 1987.
- Foucault, Michel. "Of Other Spaces: Utopias and Heterotopias." <http://web.mit.edu/allanmc/www/foucault1.pdf>, accessed on March 23, 2015.
- Frede, Victoria. *Doubt, Atheism and the Nineteenth-century Russian Intelligentsia*. Madison: University of Wisconsin Press, 2011.
- Frieden, Nancy. *Russian Physicians in an Era of Reform and Revolution, 1856-1905*. Princeton: Princeton University Press, 1981.
- Fudge, Erica. "Milking other men's beasts." *History and Theory, Theme issue 52* (December 2013).
- Gerő, András and János Poór (eds.). *Budapest: A History from its Beginnings to 1996* (Boulder: Columbia University Press, 1997).
- Gibson, Mary. *Prostitution and the State in Italy, 1860-1915*. New Brunswick: Rutgers University Press, 1986.
- Goubert, Jean-Pierre. *The Conquest of Water: The Advent of Health in the Industrial Age*. Princeton University Press, 1989.
- Grandin, Temple. "Making Slaughterhouses More Humane for Cattle, Pigs, and Sheep." *Annual Review of Animal Biosciences*, 1 (January 2013).
- Gusev, A.G. "Moskovsky gorodskoy golova N.A. Alekseyev v dnevnikh i vospominaniyakh sovremennikov." *Gosudarstvennoye upravleniye. Elektronny vestnik*, 45 (August 2014).
- Hamlin, Christopher. "Environmental Sensibility in Edinburgh, 1839-1840: The 'Fetid Irrigation' Controversy." *Journal of Urban History*, 20:311 (1994).
- Hamlin, Christopher. *Public Health and Social Justice in the Age of Chadwick: Britain, 1800-1854*. Cambridge: Cambridge University Press, 1998.
- Hanchett, Walter. "Moscow in the Late Nineteenth Century: A study in Municipal Self-Government." Ph.D. dissertation. University of Chicago, 1964.
- Hardy, Ann. *The Epidemic Streets: Infectious diseases and the rise of preventive medicine, 1856-1900*. Oxford: Clarendon Press, 1993.
- Harsin, Jill. *Policing Prostitution in Nineteenth Century Paris* (Princeton: Princeton University Press, 1985).
- Hausmann, Guido. *Mütterchen Wolga: ein Fluss als Erinnerungsort vom 16. bis ins frühe 20. Jahrhundert*. Frankfurt am Main: Campus, 2009.
- Hays, J. N. *The Burdens of Disease: Epidemics and Human Response in Western History*. New Brunswick: Rutgers University Press, 1998.
- Healey, Dan. *Homosexual Desire in Revolutionary Russia: The regulation of sexual and gender dissent*. Chicago: University of Chicago Press, 2001.
- Henze, Charlotte. *Disease, Health Care and Government in Late Imperial Russia: Life and Death on the Volga, 1823-1914*. New York: Routledge, 2014.
- Hutchinson, John. *Politics and Public Health in Revolutionary Russia, 1890-1918*. Baltimore: Johns Hopkins University Press, 1990.

- Ilyin, P. and B. Ruble (eds.). *Moskva rubezha XIX -XX stoletiy: vzglyad v proshloye izdaleka*. Moscow: Rossiyskaya politicheskaya entsiklopediya, 2004.
- Iordachi, Constantin and Kristof Van Assche (eds.). *The bio-politics of the Danube Delta*. Lanham, MD: Lexington Books, 2014.
- Istoriya Moskvyy*. Vol. 4. Moscow: AN SSSR, 1954.
- Ivanitskiy, A. "Voprosy okhrany vodoyomov obshchestvennogo pol'zovaniya." In *Pyat' let sovetskoy meditsiny, 1918-1923*. Moscow: S.n., 1923.
- Johnson, R.E. "Peasant and Proletariat: Migration, Family Patterns and Regional Loyalties." In Ben Eklof and Stephen Frank (eds.) *The World of the Russian Peasant: Post-Emancipation Culture and Society*. Boston, MA: Unwin Hyman 1990.
- Joyce, Patrick. *The Rule of Freedom: Liberalism and the Modern City*. London: Verso, 2003.
- K.A. Semenova, K.A. "Zdravookhraneniye goroda Tomsk v istoricheskom razvitii, 1860-e-1919." PhD Dissertation, Tomsk State University, 2009.
- Karavayeva, E.V. "Sanitarno-prosvetitel'skaya i meditsinskaya deyatel'nost' Russkoy pravoslavnoy tserkvi sredi sel'skogo naseleniya vo vtoroy polovine XIX-nachale XX v.: po materialam Tomskoy yeparkhii." PhD dissertation, Omsk State Pedagogical University, 2011.
- Kassow, Samuel, James West and Edith Clowes. "Introduction: The Problem of the Middle in Late Imperial Russian Society." In Edith Clowes. Samuel Kassow and James West (eds.). *Between Tsar and People: Educated Society and the Quest for Public Identity in Late Imperial Russia*. Princeton: Princeton University Press, 1991.
- Kichigina, Galina. *The Imperial Laboratory: Experimental Physiology and Clinical Medicine in Post-Crimean Russia*. Amsterdam and New York: Rodopi, 2009.
- Kimerling Wirtschafter, Elise. *Structures of Society: Imperial Russia's "People of Various Ranks"*. Dekalb: Northern Illinois University Press, 1994.
- Knight, Nathaniel. "Was the Intelligentsia Part of the Nation? Visions of Society in Post-Emancipation Russia." *Kritika: Explorations in Russian and Eurasian History*, 7, 4 (Fall 2006).
- Kolganova, E.V. "Zarozhdeniye sistemy okhrany materinstva i mladenchestva v Rossii v kontse XIX-nachale XX vv." PhD dissertation, Moscow State University, 2012.
- Kolonitsky, B.I. and M. Steinberg (eds.). *Kul'tury gorodov Rossiyskoy imperii na rubezhe XIX-XX vekov*. St. Petersburg: Evropeyskiy dom, 2009.
- Kotsonis, Yanni. *Making Peasants Backward: Agricultural Cooperatives and the Agrarian Question in Russia, 1861-1914*. Houndmills, Basingstoke, Hampshire: Macmillan Press, 1999.
- Kupriyanova, L.V. "Rabochiy vopros" v Rossii vo vtoroy polovine XIX – nachale XX veka. <http://www.hist.msu.ru/Labour/Article/Kupriyanova.htm>, accessed on March 21, 2015.
- La Berge, Ann. *Mission and Method: The Early Nineteenth-Century French Public Health Movement*. Cambridge: Cambridge University Press, 2002.
- Levit, M.M. *Stanovleniye obshchestvennoy meditsiny v Rossii*. Moscow: Meditsina, 1974.

- MacLachlan, Ian. "A bloody offal nuisance: The persistence of private slaughter-houses in nineteenth-century London." *Urban History*, 34, 2 (2007).
- Mahood, Linda. *The Magdalenes: Prostitution in the nineteenth century*. New York and London: Routledge, 1990.
- Malinova, O. Yu. "Obshchestvo, publika, obshchestvennost' v Rossii serediny XIX – nachala XX veka: Otrazheniye v ponyatiyakh praktik publichnoy kommunikatsii i obshchestvennoy samodeyatelnosti." In A. Miller, D. Sdvizhkov and I. Schierle (eds.). *Ponyatiya o Rossii*. (Moscow: Novoye Literaturnoye Obozreniye, 2012).
- Martin, Alexander. "Sewage and the City: Filth, Smell, and Representations of Urban Life in Moscow, 1770-1880." *The Russian Review*, 67 (April 2008).
- Martin, Alexander. *Enlightened Metropolis: Constructing Imperial Moscow, 1762-1855*. Oxford: Oxford University Press, 2013.
- Mauch, Christof and Thomas Zeller (eds.). *Rivers in History: Perspectives on Waterways in Europe and North America*. Pittsburgh: University of Pittsburgh Press, 2008.
- Mazanik, Anna. "The City as a Transient Home: Residential Patterns of Moscow Workers around the Turn of the Twentieth Century." *Urban History*, 40, 1 (2013).
- Mazanik, Anna. "The City of Men: Gender, Space and Working-Class Domesticity in Late-Imperial Moscow." In Elaine Chalus and Marjo Kaartinen (eds.). *Conceived, Constructed & Contested Spaces: Gender in the European Town, c.1500–1914*. London: Routledge, 2015, forthcoming.
- Mazanik, Anna. "Urban History in Russia since 2000." *Urban History*, 42, 4 (2015), forthcoming.
- Melosi, Martin. *The Sanitary City: Environmental Services in Urban America from Colonial Times to the Present*. Pittsburgh: University of Pittsburgh Press, 2008.
- Melosi, Martin. *The Sanitary City: Urban Infrastructure in America from Colonial Times to the Present*. Baltimore and London: The Johns Hopkins University Press, 2000.
- Mendelsohn, Andrew. "Cultures of Bacteriology: Foundation and Transformation of a Science in France and Germany, 1870–1914." Ph.D. thesis, Princeton University, 1996.
- Miller, Aleksey, Martin Aust and Ricarda Vulpius (eds.). *Imperium inter pares: Rol' transferov v istorii Rossiyskoy imperii (1700-1917)*. Moscow: Novoye Literaturnoye Obozreniye, 2010.
- Mironov, B.N. *Russkiy gorod v 1740-1860-e: demograficheskoye, sotsial'noye i ekonomicheskoye razvitiye*. Leningrad: Nauka, 1990.
- Mironov, Boris. *A Social History of Russia, 1700-1917*. Vol. 2. Boulder: Westview Press, 2000.
- Morozova, I.I. "Deyatel'nost' gosudarstvennykh i obshchestvennykh organizatsiy Rossiyskoy imperii po sozdaniyu sistemy sotsial'noy i meditsinskoy pomoshchi lyudyam, stradayushchim zabolevniyami organov zreniya i slukha: na primere Tomskoy gubernii vtoroy poloviny XIX – nachala XX vv.." PhD dissertation, Russian State Social University, 2011.

- Morris, Robert. "Governance: Two centuries of urban growth." In Robert Morris and Richard H. Trainor, (eds.). *Urban Governance: Britain and Beyond since 1750*. Aldershot: Ashgate, 2000.
- Morrissey, Susan. *Suicide and the Body Politics in Imperial Russia*. Cambridge: Cambridge University Press, 2006.
- Nardova, V.A. *Gorodskoye samoupravleniye v Rossii v 60-kh – nachale 90-kh godov XIX v*. Leningrad: Nauka, 1984.
- Nardova, V.A. *Samoderzhaviye i gorodskiye dumy v Rossii v kontse XIX – nachale XX veka*. St. Petersburg: Nauka, 1994.
- Nelson, Amy. "The Body of the Beast: Animal Protection and Anticruelty Legislation in Imperial Russia." In Jane Costlow and Amy Nelson (eds.). *Other Animals: Beyond the Human in Russian Culture and History*. Pittsburgh: University of Pittsburgh Press, 2010.
- Otter, Chris. "Civilizing Slaughter: The Development of British Public Abattoir, 1850-1910." *Food and History*, 3, 2, (2005).
- Otter, Chris. *The Victorian Eye: A Political History of Light and Vision in Britain, 1800-1910*. Chicago and London: University of Chicago Press, 2008.
- Owen, Thomas. *Capitalism and Politics in Russia: A Social History of the Moscow Merchants, 1855-1905*. Cambridge: Cambridge University Press, 1981.
- Patterson, Charles. *The Eternal Treblinka: Our Treatment of Animals and the Holocaust*. New York: Lantern Books, 2002.
- Pearson, Susan. "Speaking Bodies, Speaking Minds: Animals, Language, History." *History and Theory*, Theme issue 52 (December 2013).
- Petrov, Iu. A. "Moskovskii delovoi mir na rubezhe XIX-XX vekov" in Iurii Petrov and John West (eds.). *Kupecheskaya Moskva: Obrazy ushedshey rossiiskoy burzhuzii*. Moscow: ROSSPEN, 2004.
- Petrov, Yu. A. *Moskovskaya burzhuziia v nachale XX veka*. Moscow: Mosgorarkhiv, 2002.
- Pisarkova, L.F. *Gorodskiye reformy v Rossii i Moskovskaya Duma*. Moscow: Novy khronograph, 2010.
- Pivar, David. *Purity and Hygiene: Women, Prostitution, and the "American Plan," 1900-1930*. Westport, Conn.: Greenwood Press, 2002.
- Poleshchuk, K. "Nevozmozhnaya v Moskve dolzhnost' gorodskogo golovy": Nikolai Alekseyev i koronnaya administratsiya." *Rodina*, 12 (2012).
- Reid, Donald. *Paris Sewers and Sewermen: Realities and Representations*. Cambridge: Harvard University Press, 1991.
- Rieber, Alfred. "Interest-Group Politics in the Era of the Great Reforms," In Ben Eklof, John Bushnell and Larissa Zakharova (eds.). *Russia's Great Reforms, 1855-1881*. Bloomington and Indianapolis: Indiana University Press, 1994.
- Rieber, Alfred. *Merchants and Entrepreneurs in Imperial Russia*. Chapel Hill: University of North Carolina Press, 1982.

- Romanov, A.A. "Deyatel'nost' organov gorodskogo samoupravleniya po razvitiyu sotisal'no ekonomicheskoy infrastruktury Moskvyy." PhD dissertation, State University of Management, 2010.
- Ruane, Christine. *Gender, Class, and the Professionalization of Russian City Teachers, 1860–1914*. Pittsburgh: University of Pittsburgh Press, 1994.
- Ruble, Blair. *Second Metropolis: Pragmatic Pluralism in Gilded Age Chicago, Silver Age Moscow, and Meiji Osaka*. Cambridge: Cambridge University Press, 2001.
- Sahadeo, Jeff. "Epidemic and Empire: Ethnicity, Class, and 'Civilization' in the 1892 Tashkent Cholera Riot." *Slavic Review*, 64, 1 (Spring 2005).
- Schott, Dieter, Bill Luckin, and Geneviève Massard-Guilbaud (eds.). *Resources of the City: Contributions to an Environmental History of Modern Europe*. Burlington, VT: Ashgate, 2005.
- Schott, Dieter. *Die Vernetzung der Stadt: Kummunale Energiepolitik, oeffentliche Nehverkehr und die "Produktion" der modernen Stadt Darmstadt-Mannheim-Mainz, 1880-1918*. Darmstadt: Wissenschaftliche Buchgesellschaft, 1999.
- Semashko, N. A. "Friedrich Erismann: The Dawn of Russian Hygiene and Public Health." *Bulletin of the History of Medicine*, 20, 1 (June 1946).
- Shah, Nayan. *Contagious Divide: Epidemis and Race in San-Francisco's Chinatown*. Berkeley: University of California Press, 2001.
- Shaw, David Gary. "A way with animals." *History and Theory, Theme issue 52* (December 2013).
- Solomon, Susan Gross and John Hutchinson (eds.). *Health and Society in Revolutionary Russia*. Bloomington: Indiana University Press, 1990.
- Solomon, Susan Gross. "The Soviet-German Syphilis Expedition to Buryat Mongolia, 1928: Scientific research on national minorities." *Slavic Review*, 52, 2 (Summer, 1993).
- Stauter-Halsted, Keeley. "The Physician and the Fallen Woman: Medicalizing Prostitution in the Polish Lands." *Journal of the History of Sexuality*, 20, 2 (May 2011).
- Stites, Richard. "Prostitute and Society in Pre-Revolutionary Russia." *Jahrbuecher fuer Geschichte Osteuropas* 31 (1983).
- Strashun, I.D. *Russkaya obshchestvennaya meditsina v period mezhdy dvumya revolutsiyami 1907-1917*. Moscow: Meditsina, 1964.
- Svanström, Yvonne. *Policing Public Women: The Regulation of Prostitution in Stockholm, 1812–1880*. Stockholm: Atlas Akkademi, 2000.
- Szreter, Simon. "The Importance of Social Intervention in Britain's Mortality Decline c. 1850–1914: A Reinterpretation of the Role of Public Health." *Social History of Medicine* 1 (1988).
- Tarr, Joel. *The Search for the Ultimate Sink: Urban Pollution in Historical Perspective*. Akron, OH: University of Akron Press, 1996.
- Tholl, Stefan. *Preussens blutige Mauern: Der Schlachthof als oeffentliche Bauaufgabe im 19. Jahrhundert*. Walsheim: Europaeische Food Edition, 1995.

- Thurston, Robert. *Liberal City, Conservative State: Moscow and Russia's Urban Crisis, 1906-1914*. New York: Oxford University Press, 1987.
- Todes, Daniel. *Pavlov's Physiology Factory: Experiment, Interpretation, Laboratory Enterprise*. Baltimore: Johns Hopkins University Press, 2002.
- Turner, James. *Reckoning with the Beast: Animals, Pain, and Humanity in the Victorian Mind*. Baltimore: Johns Hopkins University Press, 1980.
- Velychenko, Stephen. "Chislennost' byurokratii i armii v Rossiyskoy imperii v sravnitel'noy perspektive." In *Rossiyskaya imperiya v sovremennoy zarubezhnoy istoriografii*. Moscow: Novoye Izdatel'stvo, 2005.
- Vialles, Noëlie. *Animal to Edible*. Cambridge: Cambridge University Press, 1994.
- Walker, Lisa Kay. "Public Health, Hygiene and the Rise of Preventive Medicine in Late Imperial Russia, 1874-1912." PhD Dissertation. University of California at Berkeley, 2003.
- Walkowitz, Judith. *Prostitution and Victorian Society: Women, Class, and the State*. Cambridge: Cambridge University Press, 1982.
- Warboys, Michael. "Before McKeown: Explaining the Decline of Tuberculosis in Britain, 1880-1930." In Flurin Condrau and Michael Worboys (eds.). *Tuberculosis Then and Now: Perspectives on the History of an Infectious Disease*. Montreal; Ithaca: McGill-Queen's University Press, 2010.
- Warboys, Michael. "Was there a Bacteriological Revolution in Late Nineteenth-Century Medicine?" *Studies in History and Philosophy of Biological and Biomedical Sciences*, 38 (2007).
- Watts, Sydney. "Liberty, Equality and the Public Good: Parisian Butchers and their right to the Marketplace during the French Revolution." *Food and History*, 3, 2 (2005).
- Werth, Paul. "Through the Prism of Prostitution: State, Society and Power." *Social History*, 19, 1 (January 1994).
- Winiwarter, Verena. "Where Did All the Waters Go? The Introduction of Sewage in Urban Settlements." In Christoph Bernhardt (ed.). *Environmental Problems in European Cities in the 19th and 20th Centuries*. Muenster: Waxmann, 2004.
- Worster, Donald. *Rivers of Empire: Water, Aridity, and the Growth of the American West*. New York: Oxford University Press, 1992.
- Yakovenko, T.G. "Okhrana materinstva i mladenchestva vo vtoroy polivine XVIII – nachale XX vv.: na materialakh Sankt-Peterburga." PhD dissertation, St. Petersburg State University, 2008.
- Young Lee, Paula. (ed.). *Meat, Modernity and the Rise of the Slaughterhouse*. Durham: University of New Hampshire Press, 2008.
- Young Lee, Paula. "The Slaughterhouse and the City," *Food and History*, 3, 2, (2005).
- Zhivov, Viktor. "Chto delat' s Fuko, zanimayas' russkoy istoriyey?" *NLO*, 49 (2001). <http://magazines.russ.ru/nlo/2001/49/zhivov.html>, accessed February 22, 2015.