THE RIVER NEVA AND THE IMPERIAL FAÇADE: CULTURE AND ENVIRONMENT IN NINETEENTH CENTURY ST. PETERSBURG RUSSIA

BY

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DISSERTATION

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Abstract

My dissertation seeks to understand how the Neva River, the most important artery connecting St. Petersburg to the rest of the Russian Empire and Europe to the west, affected the political and social life of the imperial capital at the beginning of the nineteenth century. I imagine the river Neva as the lifeblood of an imperial capital, a river city in which I will examine the relation of water to historical actors that experienced it socially, culturally, and environmentally. I argue that the river had a paramount role in shaping life and events in the city even as generations of engineers attempted to convert it into a stately built environment, a watery counterpart to the capital’s granite palaces, prospects, squares, and markets while at the same time enabling a capitalist transformation to occur along the banks. There is no question that the river defined Russia’s capital—physically and symbolically. Ever since the founding of Peter the Great’s “paradise” on the banks of the Neva in 1703, the foundations of the city, both physical and intellectual, have been anything but solid, as a volatile mix of social groups interacted with the inhospitable natural environment.

I propose that the river is a prism through which to examine the intersection of agendas of the Emperors and the new urbanites. The river is a site of struggle between state efforts at technological, social, and cultural control, and a burgeoning city population determined to claim the river as their own through work and leisure as they formed a new urban identity. This interdisciplinary history of the environmental and social spaces on and around the Neva will illuminate the nature of power and the power of nature at work in the city.

The environment has wreaked havoc on the city that grew around the islands that form the city’s center. Officials bent on conquering nature and empire with rational and systematic planning combated the river with flood controls, granite embankments, canals and bridges. These
contests with nature provided the city with essential features of its image and made it a livable and productive, though dangerous site of commerce and transportation. Upon this precarious physical foundation, the river, frozen in the winter and free-flowing in warm months, gave rise to what I call a “river culture.” Sources show that the different social groups in the city invested experiences within the city with radically different meanings that reveal the fault lines of local identity and imperial power. Thus, various groups of citizens and the state sought to define the city through competing narratives, actions, and technologies that included grandeur, modernity, and doom.

My contribution to the historiography of Russian history is to use water as the lens to chart the transformation of St. Petersburg from the model city of the eighteenth century to the to a more cosmopolitan, capitalist city of the nineteenth. As the government sought to maintain its hold on the shape and order of the city, new groups of urban actors, including residents, entrepreneurs and engineers, inserted their specialized experience and knowledge into the public arena to shape the city that had been set out to imperial specifications. These battles were fought again and again in disputes about the meaning, use, and delivery of water in the city.

Chapter 1 explores the patterns of river use in the water network of the city, demonstrating the reasons why the river and waterways of the city reveal social, political, and cultural relationships of groups in the capital. Chapter 2, “The Mountain Came to Us: St. Petersburg and the Flood of 1824” serves as a case study of the November 7, 1824 flood that became seared in the memory of Petersburghers. The chapter considers not only the tumultuous events of that day, but the aftermath in which the government sought to redefine its notions of what Petersburg was and the contested memories that resulted. Chapter 3 examines the interaction between the state and key non-state groups at one particular site, the settlement at
Galernaia Harbor near south end of Vasilevskii Island as the government sought to relocate the village after the 1824 flood. Chapter 4 follows a new professional class of engineers that maintained a lived city by engaging the saturation of water, and how they helped the state to define the river. These engineers were agents of the state, yet saw themselves as apart from the state at the same time, as they built the infrastructure that made the city functional and supported imperial claims of grandeur. Chapter 5 is the story of the haphazard, convulsive history of sanitation, piping, and water delivery in the city as professional and private initiative came into conflict with state interests in defining the needs for water and sanitation networks in the city. Public disputes show engineers engaged in a fragile civil society and actively participating in defining what was modern, moral, and clean.
For Kathryn L. Dills (1944-2007)
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Introduction

“For the springs both of good and evil flow from the prince, over a whole nation, as from a lasting fountain.”

На балкон,
Печален, смутен, вышел он
И молвил: "С божией стихией
Царям не совладать".
—Aleksander Pushkin, “The Bronze Horseman”

“Петербург—город трагического империализма."
—N. P. Antsiferov

This dissertation traces the transformation of St. Petersburg from the model imperial city of the eighteenth century, when imperial authorities exercised a tremendous amount of control over city affairs, into the urban, and capitalist, city of the end of the nineteenth century. The proponents of each idea were in tension across the nineteenth century especially as they concerned the river Neva. I argue that water, particularly the meaning and use of the watered environs of the city, is the best lens to trace these disputes as the battle over the capital was fought again and again.

In 1814, the poet K.N. Batiushkov articulated what architects, officials and city planners hoped to achieve in the imperial capital of St. Petersburg. “Whoever hasn’t been in Petersburg in the last twenty years,” the poet wrote, “will not, of course, recognize it, that to see this new city…such unity! How each part responds to the whole! Such beautiful buildings, such taste, and on the whole such variety that comes from the blending of water with the buildings!” This dissertation illuminates the urban spaces and the richness of life that took place in the spaces

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1 “He appeared on the balcony, Saddened, troubled, and said, “No tsar can control God’s elements.”
2 “Petersburg is a city of tragic imperialism.” N.P. Antsiferov, *Dusha Peterbuga* (Moscow: Kniga, 1991), 27.
where this merger (smeshenie) occurred throughout the reigns of Paul I (r. 1796-1801) to Alexander II (r. 1855-1881). My dissertation is about the types of people that inhabited and worked in these spaces including the water-carrier, the engineer, the state official, and the entrepreneur as they appeared on the banks of the river and the canvas they created within the succeeding mythologies of the imperial capital. I demonstrate the importance of water to the life and image of the capital by illuminating these traces and remembrances in distinct periods: the era immediately following the creation of the city’s urban spaces that begun by Peter I and completed by Catherine II, when the essential features of the river were in place. I see this period as a unified era when river life was central to the city, visible, and critical to imperial mythologies. This is not to say that engagement with the river ended in the waning decades of the nineteenth century, only that by that time science and technology had reached a stage that resolved certain key questions about water in the city, with great implications for river life in a way that cleared the ground for a new set of questions faced by officials and inhabitants alike. Within that framework, which concludes with the close of the Great Reform era, the seminal moment for the city of St. Petersburg was the tragic flood of 1824. The flood coincides with the rise of the engineer, and in its aftermath, the contours of a modern St. Petersburg begin to take shape. This is manifested by the adoption of one of urban Europe’s most modern features, the water and sewage system, built beneath the imperial façade.

The primary problem I address is how the river shaped, and was shaped by, the political and social life of 19th century St. Petersburg. Sources led me to particular sites such as piers, canals, and islands, where water underscored life or dominated the consciousness of inhabitants and officials. How are those dimensions challenged and reformed by flood? How did the rise of the engineer affect the imperial mythology created by workers and writers? How did engineers
manage the façade created by the merger of water and buildings, and what was the outcome of this development? In the case of the village at Galernaia Harbor, on Vasilevskii Island, I explore a particular area, the reasons and with what consequences of a conflict of interests between state and society. I seek to define the contours, boundaries and stakes of these conflicts. Finally, how entrepreneurs and engineers with the common interests of water delivery and sewage disposal came together to use new technologies to implement these systems, and the challenges they faced in demonstrating to society the need for pipes, and the physical difficulties of installing them. Each of these components reflect the way that water insinuated its way into the consciousness of the city and how it was expressed on political and social levels.

This is a story about the commoditization of a river, the history of which is shrouded in cultural meaning, and the contests about its proper use. Was the river to be a symbol of the imperial regime? A utilitarian working river? The periodic destruction caused by the river provided opportunity for prolonged discussion about the defense of the city, its infrastructure, and ideas of cultural meaning. Who was to determine the use of this shared space, this shared resource? Ultimately, these questions were resolved in the interests of capital, albeit with the begrudging support of imperial officials.

I answer these questions through the lens of empire, technology, environment and culture. Throughout the first 175 years of St. Petersburg’s existence, the technologies of empire were employed to manage nature and space that the river flows through. By staking claim to the

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territory on the Neva’s delta, Peter the Great and inhabitants explicitly entered into a relationship, antagonistic and dialectic, that became the source of culture and power on its banks. Mediation came in the form of engineers, arriving on the scene en masse in the 1820s, who in keeping with the state’s shift toward a “regularized” and “formalized” government, managed the river and revised the rivers symbolic definition to include the infrastructure that made the Neva, which means ‘swamp’ in Finnish, a “working” river. All the while, non-state actors used the river to their own ends. For them, the Neva was not so much a symbol of power, but a bearer of life and utilitarian in purpose.

Imperial authorities sought to create a functional river, a site of commerce and production that connected St. Petersburg with the imperial and global economies. From these competing uses of the river, a myth emerged that was depicted in story, poem, song, and painting, one that was at odds with and obscured the cultures of work and production that the Russian state was never eager to promote. Over time, railroad and steamboat conspired to empty out the river, eroding and eclipsing the river culture that was so vibrant in these years. Jobs and economic functions were lost, new methods of sewage and water delivery were devised, and engineers succeeded in separating the river from the city so that it all but disappeared from view.

Social groups and networks emerged around the river that developed strategies of existence that met their needs, and were consistent with the river’s environmental patterns. Fishing boats, taxis, barges, and fish markets dotted quays and embankments in the warmer months, giving rise to a rich diversity of culture and social life along the waterways of the city. In the months of spring and summer, the banks of the river served as a site of leisurely strolls while gondolas and sailboats eased by on its currents. In the winter, its frozen surface served as a

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locale of ice skating, sleigh rides, races by day and a haven for the criminal element and death by night. As the nineteenth century wore on, the culture that developed here was forced out by the cosmopolitan developments of a capitalist economy, as engineers created the infrastructure to free up the central parts of the city from the very elements that created the rich life of these public spaces: rituals of work, festival, and leisure.

The odd twins of science (*constructive*) and catastrophe (*destructive*), worked deep into the conscience and function of the city. They permeated discourse in their own ways, providing the language and terms for creating society along its banks. As the Great Reform era dawned in St. Petersburg, control of water became a key issue for those interested in installing modern water delivery and sewage systems in the city. They sought to transcend the pattern of life imprinted on the city of freeze and thaw, to break the city’s dependency on these cyclic factors. The water of St. Petersburg affected the course of thought and action in the city as both a constraint and as a tool, offering insights on both the nature of power and the power of nature.

I argue that the pacification of the river is a modern project that required technological know-how to realize the imperial vision, and articulate it along the banks of the river. The nineteenth century was the first Russian century in which officials and engineers could attack the river in this way, throwing up bridges, embankments and modest flood controls. It was a century of river conquest and the dawn of modernity as inhabitants sought to engage and correct nature and create an urban city in the imperial capital.

Why water? What does my focus on water allow us to see historically that other approaches do not? Through water, I am able to unite the often separated poles of the St. Petersburg story that continues to drive scholarship on the city: the literary, the socio-economic, and the architectural poles. My project reveals a city not of monuments, nor a middle, neither
gloom or doom, but a lived city full of watered spaces and a cast of thousands: poets and
intellectuals, yes, but also the water-carrier and the engineer, who traversed the same spaces.
Because water flows through the entire experience of the city, the interdisciplinary opportunity
provided by the river allows us access into all areas of city life.

Although environmental themes are referenced frequently, this is not solely an
environmental approach, but my attempt to tell an integrated story of how state and society
interacted with the river at a time when it was a most pressing concern. During this era,
concurrent with the Golden age of Russian literature, and the imperial conquests of successive
tsars, the Neva was an essential part of city life and in turn a primary marker in the myth of the
city.

Conquering nature was an important aspect of the city’s construction. In the early stages
of development, the river played a key role physically and visually. City planners in the early
eighteenth century plotted the center of the city along the Neva in the shadow of the Peter and
Paul Fortress, before transferring the political and commercial center to the opposite bank, along
the Nevskii Prospect.6 They built the city around the five main waterways of the Neva within the
limits of the city, the Bol’shaia Neva, the Malaia Neva, the Bol’shaia Nevka, the Malaia Nevka,
and the Fontanka River. By 1753, the three main districts at the center of the city had taken shape
around these waterways. These were the Admiralty District, the Petersburg District, and
Vasilevskii Island, with the Neva, by design, at the center.7

At the same time, as architects began to shape the image of the city through their designs,
the meaning of the river transformed from one of utilitarian purpose—transportation and

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more on architecture in St. Petersburg, see William Craft Brumfield, A History of Russian Architecture (Seattle,
2004), and James Cracraft, The Petrine Revolution in Russian Architecture (Chicago, 1988).
commerce—to one of aesthetics. The Neva’s primary functions remained—defense, commerce and the only source of potable water—but architects shifted focus in an effort to integrate the river into the overall visual look of the city. Architects constructed buildings from the central part of the city outward, which meant they needed to craft designs pleasing to the aesthetic desires of emperors, but also accommodated the natural reality of a river they could not control. Thus, the encasement of its banks in granite during the reign of Catherine II (r. 1762-96), allowed for the preservation of the banks, and therefore buildings, against ice and floods, and contributed to the sense of picturesque beauty from various points on the river.

The urban drama that is St. Petersburg can be understood through recourse to the methods of urban and environmental history, both literatures that my dissertation addresses. I find that historian Lewis Mumford’s classic formulation ―that physical design of cities and their economic factors were secondary to the natural environment‖ a useful analytical starting point, although the actors that crossed the imperial stage of St. Petersburg, expressed in both cultural and technological terms provide a much fuller historical picture. In other words, the actors discussed here have a greater degree of agency in shaping urban life than Mumford might credit them.

While I agree with the urban historian’s favored metaphor of the city as a theater, I argue that engineers managed that stage, and they did not choose the location in which it was set. By the time that Russian engineers made serious inroads into the infrastructure of the city, St. Petersburg was, as Peter Fritzsche demonstrated for Berlin, “not a new creation” but “more of an incalculable, ongoing process.” In this dissertation, I examine the ways that people within this process—residents, travelers, and officials—constructed meanings to explain and find meaning

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8 Mumford’s views summarized by Richard T. LeGates and Frederic Stout, eds. The City Reader (New York, 2003), 92.
in the transition of Petersburg to a modern city.\textsuperscript{10} Within this framework, the city and its water are agents in the creation of meanings, working with and against human actors. As Alan Gordon argued, public spaces—gardens, embankments, rivers and canals—are not just for relaxation, but for conflict over a construction of the urban environment.\textsuperscript{11} In this way, my project answers social theorist Charles Tilley’s call to explore the ways in which ordinary people coped with daily life and how that impinged on power at the national level.\textsuperscript{12} I broaden this to address the level of empire. As I will explain below, the concept of empire is pertinent for the dissertation because, as Louise McReynolds noted, the city was “a site built consciously for playing out the debate about national direction,” and as such, “St. Petersburg from its inception saw its own history substituted for that of the nation.”\textsuperscript{13} My history of St. Petersburg, though locally focused, is not just a history of that city, but part of the imperial story of pre-Revolutionary Russia.

The dissertation speaks to three main audiences, Russianists, urban historians, and environmental historians. For Russianists, I enter into a rich scholarship on the city, one that tends to define the city against Moscow or “the west,” and identifies the story in terms of the political and the personal. I have provided a picture of a St. Petersburg era that is not defined by “The Bronze Horseman,” nor the stifling society city of salons and uniforms. I use social and cultural methods to present a lively urban space, full of drama as actors transform the model city of the eighteenth century into the lived city of the nineteenth. Urban historians will find a story of modernization, the roots of which are found in the role of engineers and the plans for water and sewage systems. My project suggestively challenges environmental historians to expand

\textsuperscript{10} For more on multiple urban groups and the construction of urban meanings, see Alan Gordon, “The New Cultural History and Urban History: Intersections,” \textit{Urban History Review} (Fall 2004, vol 33), 3.
\textsuperscript{11} Alan Gordon, “The New Cultural History and Urban History,” 6. This is primarily true for liberal, capitalist societies, Gordon writes, which are traditional foci of urban history, yet these same sites and struggles are apparent in modernizing St. Petersburg.
\textsuperscript{12} Charles Tilley, “What Good is Urban History?” \textit{Journal of Urban History} 22 (1996), 703.
their focus on Soviet era conservation projects and intellectual biography, to look to the imperial past to reconsider the actual meaning of that nature in the city and how it shaped society.

Theories of space and place provide a useful canvas in which to engage urban historians and speak to historians of the environment. These theories help me interpret historical threads along the banks of the river, especially in chapters one and four. The theoretical implications of work by Denis Cosgrove, W.J.T. Mitchell and Henri Lefebvre allow me to understand, for example, how and why government operations on the southwestern end of Vasilevskii Island sought to remake a settlement that did not fit within the capital’s projected imperial identity.

Social theorist Denis Cosgrove does not veer far from his original classic thesis, which serves as the touchstone for landscape studies, when he ties notions of the “productive” and “cultivated” land to ideas about social formation, economy and cultural practice. For my study, it is ideas about the meaning of water over time that provide the framework for discussion of cultural and social themes. Cosgrove’s argument spurred debate along Marxist and cultural lines, creating narratives that focused on progressive values that placed the male, subjective individual at the center of the modern story. Cosgrove, while arguing that this approach obscures “material and social relations,” accepts his critics who challenge that “the sense of landscape as a material geographical object, encompassing both human agency and the material environment, [while] acknowledging its symbolic attributes without reducing it to a mere social construction.” The social and symbolic approach allows me to treat my history of St. Petersburg from the differing perspectives of the symbolic, economic, pragmatic, and natural.

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15 Ibid., xvii.
16 Ibid., xxvi.
Landscape and spatial theories allow me to integrate methodological strategies of the social, environmental and cultural through analysis of life along the river Neva. W.J.T. Mitchell, drawing on Lefebvre, urges scholars to think “of space, place, and landscape as a dialectical triad, a conceptual structure that may be activated from several different angles. If a place is a specific location, a space is a ‘practiced place,’ a site activated by movements, actions, narratives and signs, and a landscape is that site encountered as image or ‘sight.’”\(^\text{17}\) I find this to be a compelling strategy for following the streams of water through St. Petersburg. In Lefebvre and Mitchell’s conception, the Neva is a particular and specific place within the environs of what is denoted as the “imperial capital.” The river and its network are spaces where activities and practices take place (leisure boating, commerce, transport, ice-cutting, fishing, laundry, etc.). Finally, the Neva becomes a landscape—engaged by imperial officials, engineers, and artists—that were consumed by walkers, travelers, writers, mapmakers, and others.

Work by Anthony Cross and Denis Shaw have found inspiration in these approaches and sought to explore the early history of Petersburg in terms of modernity and geographic space. Their contribution is to demonstrate how spatial change helps to understand social change, especially in terms of James Cracraft’s notion of “the Ideal city,” where practical city construction gives way to the belief that urban planning could reshape the Russia people. However, this stimulating work would be greatly enhanced by more than a gesture to nature and the environment. Beyond reference to Pushkin’s often quoted remark that the city was founded “beneath the sea,” the river so central, and visible, in Petersburg life, recedes from view in the historiography of Russian history.\(^\text{18}\)


Throughout the dissertation, I blend the concepts of environmental history with the methods of urban history.\textsuperscript{19} By telling the story of urban life, flood, and technology, I situate myself in a literature that that sews together methodologies in order to see how city dwellers contended with the forces of nature that threatened their lives, their built environments, and the urban ecosystems they had created. Nature not only caused many of the annoyances of daily urban life from which people sought to protect themselves…but it also gave rise to the natural disasters and catastrophes that punctuate the history of cities: floods, famines, hurricanes, tornadoes, fires, landslides, drought and epidemics.\textsuperscript{20}

Environmental analysis has always been a thorny historiographical issue, especially on the insistent notion of environmental scholars that nature exerts agency in historical events. What is nature’s agency?\textsuperscript{21} Environmental historians might read the story of the Neva as a story of humans appropriating property from nature. Thus, historians ask how nature resists or rebels against these actions and assert that nature is an active agent that must be addressed in drawing conclusions on historical events.


The study of the flood of 1824 is one way to accomplish this aim. While explicitly the topic of chapter two, the flood as an event looms over the engineers discussed in chapter three and the settlers at Galernaia Harbor that are the subject of chapter four. To interpret the tragedy of 1824 and the general threat of flood in the city, I draw on scholarship that explores social and power relations through the lens of disaster.\textsuperscript{22} Constant flooding means that the imperial center is, as historian Stefania Barca has shown for the Italian Liri River, in “a permanent state of near disaster,” which affects every decision authorities and individuals must make in planning for the future.\textsuperscript{23} Historian Stephane Castonguay has shown that “floods are the norm under certain circumstances,” and “[r]ather than appearing as historical events, then can be a recurring phenomenon and act as a structural element of the landscape.”\textsuperscript{24} Thus, “[i]f we are to consider natural catastrophes over the long term, we must then ask how they become portrayed as ‘catastrophic’ events and how their normal and normative dimensions become obliterated.”\textsuperscript{25}

\textsuperscript{22} Until the middle 1970s, scholars primarily left human agency out of the story of natural disasters and sought to see how humans interpreted the events and coped with the aftermath. Scholarship since then has sought to tell an integrated story that contemplates the human role in disaster. For example, Geographer John Whittow has shown that the greater frequency of floods leads societies to develop a greater awareness of the danger, but also a sense of fatalism. See John Whittow, \textit{Disasters: The Anatomy of Environmental Hazards} (Athens: University of Georgia Press, 1979), 273-74. Meanwhile, Ted Steinberg Ted Steinberg convincingly argues that the business class, in conjunction with state authorities, down-play human involvement in disaster and re-introduce order quickly in an effort to re-discipline the work-force and, most importantly, to protect economic development. See Ted Steinberg, \textit{Acts of God: The Unnatural History of Natural Disaster in America} (New York: Oxford University Press, 2000). For more, see Stephane Castonguay, “The Production of Flood as Natural Catastrophe: Extreme Events and the Construction of Vulnerability in the Drainage Basin of the St. Francis River (Quebec), Mid-Nineteenth to Mid-Twentieth Century,” \textit{Environmental History} 12 (October 2007); Genevieve Massard-Guilbaud, “Introduction, the Urban Catastrophe—Challenge to the Social, Economic, and Cultural Order of the City,” in \textit{Cities and Catastrophes: Coping with Emergency in European History}, ed, Genvieve Massard-Guilbaud, Harold Platt, and Dieter Schott (Frankfurt: Peter Lang, 2002); Alessa Johns, ed. \textit{Dreadful Visitations: Confronting Natural Catastrophe in the Age of Enlightenment} (New York: Routledge, 1999); Donald Worster, \textit{Dust Bowl: The Southern Plains in the 1930s} (New York: Oxford University Press, 1979).

\textsuperscript{23} Stephania Barca, “Capitalism in an Italian Valley: The Appropriation of the Liri River, and its Narratives (1806-1860)” (paper presented at the annual meeting for the American Society for Environmental History (ASEH) Boise, Idaho, March 12-15, 2008). Barca also pointed out that a river has its own reproduction system, or hydro-cycle. In the industrial era, humans continually interfere with this ecological system for economic purposes, which also redefine social practices. Thus, the river becomes something else entirely, a flow of mechanical power for industrial production.

\textsuperscript{24} Stephane Castonguay, “The Production of Flood,” 821.

\textsuperscript{25} Ibid.
Castonguay suggests that floods become “natural” through a discourse of authority, so that affected populations accept floods as a natural consequence of living in a specific area, rather than as a result of specific human activities.

Disasters never occur in an isolated context, no matter the assertions of a nature unleashed or act of god and other rhetorical claims made during and after events. According to historian Genvieve Massard-Guilbaud, disaster in the nineteenth century was often portrayed by contemporaries as “spectacle.”

An alternative way to interpret the floods of Petersburg then, is to interpret them as events and to consider them, as Massard-Guilbaud urges, as “the moment of an outcome, a turn in an evolution, a split which divides a ‘before’ and an ‘after.’” It is within the context of the Petersburg Myth that floods have remained a necessary part of the fabric of the “doom and gloom” that pervades the interpretative story of the city whether they have been catastrophic, as in 1824, or not.

Although both Pushkin and scholars have raised the issue, it still remains critical to see how floods highlight the interactions between humans and nature. As such, “questions of power” and “issues of meaning and interpretation” become critical points of understanding, when experience gives way to dominant narratives.

As a result of my exploration into urban and environmental themes in nineteenth century St. Petersburg, I disagree with Louis Wirth’s assertion that the modern city is divorced from “organic nature.” As William Cronon has shown in his path-breaking work on Chicago, nature and the urban spaces of cities are inextricably linked, each shaping and creating the other through

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26 Massard-Guilbaud, Platt, and Schott, eds. Cities and Catastrophes, 11.
27 Ibid., 12.
28 The phrase is often ascribed to Dostoevskii’s work on St. Petersburg and as a stand-in for the city itself. For an engaging history of floods in St. Petersburg, see K.S. Pomeranets, Tri veka Peterburgskikh navodnenii (St. Petersburg: Iskusstov, 2005).
30 Ibid.
31 Louis Wirth, quoted in LeGates and Stout, The City Reader, 98. Wirth is considered a founder of the study of urban history.
environmental, economic, and social practices.\textsuperscript{32} These in turn create hierarchies of need and production throughout zones of hinterlands. A similar set of factors were at work in St. Petersburg in both practice and imagination. St. Petersburg functioned as a symbolic monument of power and future glory, which had as much impact on how culture and environment were shaped as the actual processes that underlay the workings of empire. These ideas meant that the imperial capital was at the center of a continuum between East and West, rulers and ruled, urban and rural, and capital and empire. The river Neva was at the center of these dynamics, a vessel that supported and threatened the ideals and realities of each, depending on the condition of the river. At the same time, it is much more complicated than these simple dichotomies, as a mixture of social groups, technical knowledge, ideas, and culture flowed through the enclaves at the heart of the city, and extended out from the quays on the river. The cultural and social processes at work rested on the precarious relationship between humans and nature.

Therefore, the Neva and the watered spaces of St. Petersburg should not be seen as isolated from the urban experience of the capital. In the early 19\textsuperscript{th} century, water could never be completely removed from everyday experience, even after the flood of 1824, when the government began the slow disengagement from the river by raising the city. Flood events can be seen as moments when the delicate balance shifts from the perceived human control of nature. Studying Petersburg through the lens of water provides a way to move beyond the case studies so prevalent in Petersburg studies to see the city as part of a wider, larger network. The Neva was a connective tissue when the river ran its normal course, but despite perceived localness, was something much larger than the inhabitants could imagine. Even so, most stories of St.

Petersburg in this larger context stop at the edge, on the docks, quays, and harbors, instead of seeing the integral relationship of those spaces with the water that flowed nearby. In other cases, the capital becomes a transient point, criss-crossed by people, ideas, and goods. Not only that, the water became an instrument, something more than an aesthetic idea, as people mapped different functions on to the water.

The focus on the watered spaces of Petersburg reveals an interesting and in all likelihood, an unwanted companion to the modernizing ideas of imperial bureaucrats. This was the fact that, because of the city’s poor location, the imperial capital, intended as a majestic manifestation and projection of unending imperial power, was decaying from the very start. Indeed, the city is still depicted as representing a culture of “beauty, pleasure, and—enormous power.” Yet, the capital decayed not just in the sense of “self-destructing decline and collapse” in actual political power, but actual physical decay as well. I suggest that with the decay of physical structures which required engineers and massive labor to preserve the cultural ideals projected by the imperial façade eroded as well. Thus, engineers were not just seeking to maintain and protect the physical structures of the city, but the cultural ideals of the metropole itself. Out of this confluence of nature, and the engineers acting on and operation within it, the physical components of the lived imperial city emerged. In a sense, I view this as an extreme example of what French scholar Andre Guillerme considered the norm for watered spaces in which “water flowed over the urban embodiment, marking it with its power.”

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33 For a developing research program on these questions, see the interdisciplinary on-line workshops and website organized by Maria Ignatieva, Rachel May, Nikolai Rolley and associated scholars at http://enspire.syr.edu/nevaproject/ (accessed July 22, 2010).
34 For example names of Fontanka and Moika.
35 Mikhail Piotrovsky, ed. Imperial St. Petersburg from Peter the Great to Catherine II (Milano: Grimaldi Forum, 2004), 11. Piotrovsky is director of the State Hermitage Museum in St. Petersburg.
Throughout the dissertation, I refer to the concept of façade. What do I mean by the term façade? I use it in a very specific sense that signifies two important characteristics of uses and meaning for those who encountered them. First, façade is used in its traditional architectural sense, as the physical out-facing structure that gives a building its “look” and either sets it apart or integrates it with its surroundings. Particular characteristics of façades of different styles and periods are easily identifiable to experts and sharp-eyed observers. Mostly, I employ façade in a different sense: as a constructed signifier that relays agreed upon sets of meanings to observers. In a sense, a façade is more than the material face of the building, it is also a mask, asking the viewer to think about the message and meaning behind it. I treat the river Neva as part of the façade, reflecting the architectural projection of imperial majesty to the witnesses along its banks. The relationship of façade and the river pose tantalizing questions about the nature of power and the power of nature at work in the city.

The dissertation is divided into five chapters that examine how the work of Peter I and Catherine II of creating classical imperial motifs played out in the city through the lens of water: how a social and cultural life formed around the water, the disruption of this life during flood, the engineered maintenance of the imperial vision of the river, state and social conflicts, and the implementation of modern water and sewage projects that caused the river to recede from the imagination of the residents, robbing it of much of its power. In chapter one, I establish how the transformation of the Neva into a cosmopolitan and capitalist space meant regulation and manipulation of nature, changing the nature of work along the river. Throughout, I examine the knowledge, traditions, and habits that people had of interacting with the river. The resulting strain of conflict between a cultural river and a river of labor undercuts the Petersburg Myth as much as the destructive floods that beset the city. This myth is challenged outright by the flood
of 1824, which is the subject of chapter two. The chapter dwells on the destruction and (re)definition of that life during and after the flood of 1824, which represents a potentially profound change for the imperial capital. Authorities sought to clamp down on society, but they did so in an era infused with skepticism, religion and mysticism. I argue that Catherine II, with her strong assertions of enlightenment reason, would not have viewed the events of 1824 in the same way that Alexander I or Alexander Pushkin did, who saw Russia and its future in the “hands of God and the Tsar.”

The post-flood and pre-reform era were years of profound skepticism in Russian society steeped in the language of religion and powerlessness.

The third chapter brings together elements from the first two in a microcosm through an account of the village at Galley Harbor on Vasilevskii Island, and how various forces were marshaled to modernize the locality, or in other words, to bring the village into the nineteenth century. As William Blackwell has shown, the technological era ushered in by Peter the Great did not bear fruit until the nineteenth century. To trace the technological flowering discussed by Blackwell is critical to follow engineers as they were educated and practice their craft. In chapter four, I examine technical aspects of river life through an examination of engineers educated at IKIPS (Engineering and Transport Corpus) in the first fifty years of that institution as a technical group of experts formed. The penultimate chapter deals with the resolution of the river’s identity through a telling of the sewage and water projects in the capital, especially through the minimization of the place of river and the elimination of the riverscape (i.e. the disappearance of the river from the view of inhabitants). In short, the river was no longer the symbol of power, but the technology used (if not those who wielded it) became the symbol, as

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educated Petersburgers in and out of the state bureaucracy acted in their own interests within the framework set out by Peter I and Catherine II over a century earlier.
Chapter 1: “Seasons of the Capital: Patterns of River Use on the Neva, 1800-1863”

The Neva is liberated
From the winter darkness as from a grave
Again with a splash of life, though terrible
it kisses the island.¹

“The North”
-A. Glebov

“Une nymphe tendre et celeste qui sait donner a la magnificence de Petersbourg un charme decevant, c’est sa Newa.”

--D. Chretien Muller²

Introduction

The goal of this chapter is to investigate how the imperial government, social groups, and entrepreneurs responded to the difficulties posed by the seasonal changes of the capital. I suggest that authorities responded with a regime of regulation, increasing in complexity across the 19th century that changed the nature of work on the river, making it a site more amenable to a capitalist transformation that led to a reimagining of the river’s cultural significance. The end result of the process of regulation and manipulation was to make the river safe for commerce regardless of the weather. In the meantime, various actors patterned use based on the seasonal changes in the city, as they used the physical space of the river for festival, leisure, labor and technological innovation. In each instance, society adapted use to the season as the tensions between desires and interests of groups played out across the era. Ultimately, these competing interests were resolved in favor of commerce and state, eroding the sense of the Neva as a shared resource that we find in 1800. Instead of the lively river that existed into the 1840s, changing

¹ A. Glebov, “Severe,” Literaturniia pribavleniia k russkomy invalidy, no. 62 (5 August 1831), 487.
² “A tender and heavenly nymph, who can give magnificence and a disappointing charm to Petersburg, is its Neva.” Christian Mueller, Tableau de Petersbourg. Ou Lettres sur la Russie, ecrites en 1810, 1811, et 1812 par D. Chretien Muller et Traduites de L’Allemand par C. Legler (Paris; Treuttel et Wurtz, 1814), 12.
patterns of river use meant that the river was a shared cultural symbol defined by the government, and a vehicle for economics rather than a resource.

**Patterns of River Use: Labor and Leisure, 1800-1825**

At the dawn of the 19th century, Petersburgers still lived at the whim of the environment and the seasons. In the first three decades of the century the technologies of capitalism that divorced the activities of commerce and daily life by the 1880s were in infancy. The seasonal shifts of nature upset the flow of people, goods and information across the city, as the river convulsed and froze, until it stabilized enough to allow the winter use of the river to begin. The change in seasons meant that there was a constant tension between river and people as Petersburgers struggled to adapt.

Solutions to the seasonal disturbances could be both technological and cultural. The transition from fall to winter was particularly difficult in the northern capital, for when the winter darkness descended on the city, the river quivered dangerously as the seasonal ice floes from Lake Ladoga entered the city. Since the imperial administration was situated on both sides of the river, government operations that depended on constant contact with either side were delayed. These delays were significant enough, and the river crossings so treacherous, that government officials sought to suspend traffic until the river froze and foot traffic could begin. This left officials on Vasilevskii Island cut off for a time from the government organs in the Admiralty District, and in 1800 gave impetus to the idea of frustrated officials to install a box and pulley system across the river for the “two times a year when communication is interrupted” to transmit government correspondence.³

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While government officials awaited the winter freeze in order to reestablish communications, the lower classes left the banks of the river to claim the newly frozen spaces. The river freeze opened up a public space for leisure not generally available for these groups in the planned city. Traveler George Green described the construction and use of giant ice hills on the frozen river in 1807. “These are formed by high scaffolds,” Green wrote, “from whence are placed boards, in a descending position, for near a verst.” When they are finished, “the common people…with the velocity of arrows, slide down by the hundreds.”4 Petersburgers transformed the desolate wintry place into a festive space.

Unlike the spring and summer, when a fare or a boat was required to traverse the river, one needed only to step over the bank in the winter time. The painter Michel-François Damam de Marte captures the scene in a turn of the century painting (Figure 1).5 Crowds throng around the makeshift hills, as do sleighs and carriages. People climb the stairs for a quick trip to the bottom. Curiously, they have added natural features to the hills, in the form of trees that grace the top of each one. George Green witnessed the Easter celebrations on the frozen Neva in 1807, where, only a few days before the river thawed, there was “a fair, and sledge races” across the ice.6 “At Easter,” Green wrote, there “are booths mountebanks, puppet-shows, roundabouts, refreshments, and stands with cakes and pastry and eggs dried, which are purchased to be given on Easter day.”7 Although the river was locked in ice, the winter created a space in which it was

4 George Green, An Original Journal from London to St. Petersburg by way of Sweden, and, proceeding from thence, to Moscow, Riga, Mittau, and Berlin: with a description of the post towns, and every thing interesting in the Russian and Prussian capitals, &c. To which are added, the names, distances, and price, of each post; and a vocabulary of the most useful terms, in English and Russian (London: T. Boosey and J. Hatchard, 1813), 86. Also see E. Anthony Swift, Popular Theater and Society in Tsarist Russia (Berkeley: University of California Press, 2002).
6 George Green, An Original Journal from London to St. Petersburg, 86.
7 Ibid.
possible for Petersburghers to step out and claim the river, preventing it from becoming a desolate winter space.

By the 1820s, when K. Berggov recorded those activities in the lithograph, “Mountains in the Tsaritsyn meadow (Gory na tsaritsynom lugu),” they had moved off the river when authorities made parade grounds available for these celebrations. According to G.N. Komelova, the traditional parade ground would be transformed into the “festive gathering in the streets” to celebrate public holidays. The field would be marked by theaters and booths and the sledding hills. Salespeople hawking goods, soldiers and merchants under the watchful eye of the gendarmes could watch “dancers, magicians and acrobats,” perform and purchase goods from various booths.8

As winter turned to spring, the river allowed much more dynamic uses that defined status economically. The river, no longer a site of easy leisure activity, became primarily a site of labor for lower class groups. The river provided daily life-giving sustenance, but also the economic mechanism that provided a variety of river related labor. Employed as boatmen, laborers (burlaki), shipbuilders, fishermen, laundresses, and more, they cohabited in the spaces made so famous in lithographs and travel accounts for strolling and boating. They did not have access to the kind of capital wealth that elites displayed as they floated by on the Neva. While the frozen river was a river for all, the river in thaw was a river of authority and upper class leisure. Elites could afford to mark the winter thaw and separate themselves from lower classes by launching boats onto the river on spring and summer evenings. These evenings were not simple affairs, but events demanding style and music.

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George Green, who lived in Petersburg from 1805 to 1807, observed the nobility on the river during the summer evenings. For Green, nobles become almost exotic as they were “attended by their watermen and steersmen, in numbers generally eleven, mostly their slaves, dressed in the Dutch taste; and they all play upon military instruments, or French horns, etc., and most of them sing well, their voices being judiciously mixed with the music.”9 Not only that, they also pass down the river keeping time, “by the dashing of ten oars.”10 The sound of music adding to the cacophony of natural and human made noises around the banks was long a feature of river life. The poet and scholar Mikhail Lomonosov wrote of the horn music on the Neva as early as 1753: “On the Neva’s banks/I enjoyed the horns every night/ and the bold rowing of the oarsmen.”11 The musical tradition of the river that unified the cultural riverscape in the eighteenth and early nineteenth century gradually disappeared from the source materials as Petersburg grew as a port city and new, noisier, technologies appeared on the river.

The steamboat was the most dramatic and transforming in terms of the riverscape, if not work, in evading the limits of the natural environment. In the early morning of November 3, 1815, a correspondent for the Russian journal Syn Otechestva arrived dockside at the Baird Factory. There, with great curiosity, the correspondent, who identified himself only as a “Naval Officer,” boarded the first steam powered vessel to ply the waters of the river Neva. “Mr. Baird has constructed the first steamboat, or parokhod, in Russia …and decided to test his ship by sailing to Kronstadt.” With a certain matter-of-factness, the correspondent informed his readers, “I was a participant on this most interesting of voyages.”12 What follows is a revealing

9 Ibid., 87.
10 Ibid.
12 “Pervaia poezdka na parokhode iz Peterburga v Kronshtat i obratno, v 1815 gody,” Syn Otechestva (ch. 26, nom 46, 1815): 37-40. It took three hours and fifteen minutes to arrive at Kronstadt. For more on steamships, see V.S. Virginskii, Nachalo parovogo sukhodstva v Rossii (Moscow, 1948).
descriptive vision of the Neva during this time, and how the riverscape had changed in the intense period of Russian involvement on its banks. The story is useful not so much in the particular sights the officer saw, but the language he used to narrate the story of this historic event. There is no description of the architecture or scenery that so captured the imagination of foreign travelers to the city, only the precise scientific and military laden language of time, distance, and speed. When they encountered boats powered by oarsmen (grebniki), the officer recorded that “they noticeably remained behind, but when they rowed with all possible strength…they could come along the side of the steamer.” Yet, because of the rough nature of the waters between Petersburg and Kronstadt, oarsmen were often restricted to safer waters. “But the steamship,” the officer wrote, “went forward, cutting through waves, without any sort of deceleration of its speed.” It was not the end of an era for these oarsmen, as the technology still required perfection for its efficient operation. Nevertheless, the role of oarsmen on the river had irrevocably changed and would now be in conflict with the technology that transformed the types of work available on the river. Early steamships employed around ten people requiring different skills than those of the oared boats. In addition to the captain, skills were needed to monitor the engines, steam pressure and to fire the engines. The mechanical chug of the boat’s engine began to replace the blend of music and the patter of oars, as the steamboat began the technological transition that ultimately overwhelmed the river culture.

The technological transformations that first began along the river eventually rippled throughout the chain of labor from the banks throughout the city. These technological changes aimed to make work efficient and more reliable and came into direct conflict with the types of human labor the river-scape produced. The water-carrier was among the most notorious of these
workers, and the group most threatened by changes in technology. The behavior of water-carriers and their work habits became enshrined in the cultural landscape.

The water carrier defended his reputation in a monologue published in the 1817 edition of The Magic Lantern (Volshebnyi fonar’). With an aching back he hauls his barrel of water to ungrateful patrons who care only about the cleanliness of the water and its source.13 “Uff,” he proclaims, “I’m tired like a dog!” His busy day arrives with dawn, and he is bustling all over the city. “Damn this purity, this laundring, and most of all the samovars…!”14 The harried water-carrier, “pours it here and there, in the teapots, in the pots, in the tubs and in the cauldrons and in buckets and in bottles and what is more, the residents curse: Little Andrew, is there no water? Give my happiness to the teapot, No! That’s enough to spoil granny! Yes, I am tired. Yes, one of our fat-bellied masters, it seems, can drink a whole bottle a day.”15 Our little Andrew, the water-carrier, laments that there is too much concern about where the water came from, and that the receivers forget later, only caring whether or not there is water there in the morning. It was better in the old days, he observes, before the “boyar’s” got “used to tea and coffee from infancy,” before they got used to sweets that “soil the mouth.”16 As he finishes his report to the correspondent, the “ridiculous” water-carrier remarks that only “if my sorrows were worth some thanks, well then!”17 The water-carrier was one of primary connectors of people and gossip in the city, moving out from the river banks into the city and back again. The water-carrier was a small cog in the patterns of work on the river responsible for transport of people, goods, and information that also included burlaki and oarsmen.

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13 Volshebnyi fonar’ (St. Petersburg, 1817), 99-100.
14 Ibid., 99.
15 Ibid.
16 Ibid. The water-carrier blames this on foreigners.
17 Ibid., 100.
The need to traverse watered spaces in the city gave rise to healthy boat traffic of ferrymen on the river. Peter the Great’s desire to convert the river into a “royal route” and discourage bridges had the immediate consequence of creating a new group of workers in the ferrymen. Here, we see the nexus of business owners, workers, and government as the work and its regulation was organized. The government rented the land at “a few dozen crossings to business owners,” who then could hire labor to operate the boats. According to G.L. Attengofer, who described the city in 1820, these boatmen, like the water-carriers, suffered from a poor reputation and often struck terror in their passengers. They were known for their risk taking and drunkenness, often operating boats of shoddy quality. “[I]n the summertime small boats and sloops for crossing the river were everywhere and always at the ready.” These boatmen often attempted to ferry passengers in storms that resulted in boats being tossed like a “toy for the wave.” Still, river traffic continued despite the fact that people could “become prey to certain death” when the combination of a strong wave and a heavy load would “sink a boat to the bottom.” The danger was compounded by the notorious intoxication of the ferrymen. “The drunkenness of ferrymen and decaying boats (lodok and botov) often make even the very shortest trips dangerous. How easy it would be to eliminate this evil!” Attengofer lamented. Nor did the risk-taking diminish when the ice floes first began to move down river from Lake Ladoga. In the winter, in acts of what Attengofer calls both “unprecedented bravery” and “inexcusable daring,” “valiant Russians” dodged ice flows to ferry passengers across the river, a practice in which they

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19 Genrikh Ludwig von Attengofer, Mediko-topograficheskoe opisanie Sanktpeterburga (St. Petersburg, 1820), 40.
20 Ibid.
21 Ibid.
22 Ibid.
sometimes failed. As we will see in chapter four, these kinds of situations were a primary impetus for the construction of permanent bridges across the river.

The crush of boats—ferries, barges, pleasure crafts, oared boats, and sea-going vessels—crowding the river demonstrates how the city was becoming a cosmopolitan center in the early nineteenth century. There was heavy traffic at access points making it difficult to load and unload goods and passengers. The jams of boats reflected a lack of adequate infrastructure in the capital prior to the 1830s. Indeed, throughout the early nineteenth century there was heavy commercial river traffic and the rising demand for the types of goods from abroad created heavy pressure in the center of the city. The congestion slowed down the whole process of the transfer of goods from the river, and of people and information across it.

The traffic problems on the river forced ships to wait in the navigation channels before docking. Loading and unloading of boats was slow, and the solution of sending boats and barges into the river to meet the boats did not increase efficiency. Goods were then transferred by boat or by back to warehouses (skladi) and markets all over the city. In order for merchandise to be seen by the strollers on Nevsky Prospect, these goods needed labor, tools, barges, skiffs, backs and more of the burlaki, oarsmen, and carriers to unload and transport these items.

River-oriented labor contributed to the cosmopolitan cultural trends and created the possibility for the browsing strolls down Nevsky. In 1824, one correspondent described in detail for his readership the types of Russian and foreign goods available in shops that one may encounter in the imperial capital. “For example,” the correspondent asked, “where can I find the

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23 Ibid., 42.
24 Guzevich, D., Guzevich, I., and G. Lokhanov, “Gradostroit’naia,” Vechernyi Peterburg, 1 August 1991, sec. 1, p. 3. Eventually, authorities turned to the new group of engineers to solve the traffic problems on the river. The French engineer Bazaine, one of engineers to head IKIPS, wrote the preliminary proposals for this plan. See chapter four.
best fabric and silk goods?” The goods arrived in the shop of Feldman, “in the building of Lub’e,” where there “is located the warehouse (depot) of silk goods of a French mill, and furthermore,” the correspondent noted, “the foppish attire (shchegol’skoe ubranstvo) of his store deserves attention.” Indeed, the intensive labor that allowed these luxury goods to be displayed in the stalls of Gostyny Dvor and on Nevsky meant that the goods could rest in these shops, to be seen by those with time “to stroll” and linger, or at least imagine the possibilities available in the imperial capital, not available elsewhere.

Cosmopolitanism drew areas throughout the empire into the economic production that led to the capital. Russian luxury items also found a home on Nevsky. The fruits of imperial contacts during and after Peter the Great’s sojourn to the west, the china shop in the arcades near the Anichkov Palace was a source of pride for Petersburgers. The porcelain was manufactured in “a government porcelain factory located on the left bank of the Neva, eight versts from Petersburg along the Shlisselburg road.” The material came by water from all throughout the empire, from the Ural Mountains, the Ukraine, and “quartz from Olonets.” In addition, a glass and window factory that supplied goods for Nevsky shops was located “in Ozerki, on the left bank of the Neva, close to the Nevsky Monastery.” The goods in shop windows represent a long chain of labor, inextricably linked to the river oriented work along the watered spaces of the city.

**Patterns of River Use: Tradition, Technology and Panorama, 1825-1840**

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26 “Progulka po trotuaru Nevskago prospekta,” *Literaturnye listki zhurnal nравov i slovesnosti* (March 1824, no. VI), 207.
27 Ibid.
28 “…Gostinyi dvor, similar to Paleroialu, was created as a place to stroll…..” Quoted in “Progulka,” in *Literaturnyi Listki*, 206.
29 Ibid., 212.
30 Ibid., fn. 211-212.
31 Ibid., fn. 212.
32 Ibid.
In his study of lithographs from this period, Grigory Kaganov points out that the arrival of the steamship signified the dominance of technology over nature. After about 1830, the Neva became a regular site of steamship tours, and these ships with their “trail of black smoke” became a common presence on the river. This added another layer to the Neva’s and Petersburg’s visual appearance and representation as these smoke trails could be seen “victoriously stretching from the steamship’s funnels across the lithographic or watercolor skies.” Kaganov concludes that the presence of steamships “declar[ed] the victory of technical progress and comfort over the abstract emptiness and transparency of the Neva’s expanses.” Visually, this may be a proper claim. However expansive, the Neva was anything but empty, and filled with a noisy, clamorous mixture of groups and people. Serfs labored throughout these same spaces. In the 1830s, almost half the city “consisted of serfs,” A.G. Iatsevich reported, and “they were everywhere: on construction projects of city buildings, the streets and embankments, and on the barges in the Neva…. The growing prominence of the steamship also signaled another shift in the river-scape experience, demanding more coal for power, adding plumes of steam to the visible panorama, and worst of all, to some, the grinding noise of a chugging engine.

While the technologies of river dominance were transitioning from oared power to steam power, the rituals that authorities deployed to demonstrate dominance over nature remained rooted in tradition in the 1830s. In January of each year, the Neva was subject to a ritual begun first in Byzantium, and emulated in Moscow by the seventeenth century before being transferred to the river in Petersburg. The ceremonial adaptation of an imperial practice of the Eastern

34 Ibid. Though one could argue that early steamships were not comfortable at all, not to mention loud and filthy.
35 Ibid.
Roman empire was known as the “Blessing of the Waters.” It was designed to show the humility of the tsar before the church. A puzzled Thomas Raikes, however, who witnessed the ceremony in January 1830, informed his readers that the ceremony was done so that “the river Neva may, by the prayers of the nation, be rendered propitious to the navigation, and to all other purposes to which rivers may be applicable in the neighborhood of a great and dirty capital.” In that sense, the imperial government provided a blessing for the new types of economic activity occurring on the river.

The ceremony required massive effort. On the river outside the Winter Palace, workers drove pilings into the ice in order to construct four wooden pathways to an octagonal pavilion on the river. In the center of the pavilion, a hole in the ice was carved and “over this aperture is suspended, form the dome above, the figure of a dove.” The morning of the ceremony, “the whole population of St. Petersburg and the environs is collected on the quays to witness this solemn invocation.” A religious ceremony in the chapel of the palace was followed by a procession to the pavilion for a second ceremony, where a silver cross was plunged in the river to bless the waters.

Richard Wortman has argued that the ceremony became over time merely a parade to display military dominance, displacing any religious significance. This may be true considering


Interestingly, Bushkovitch notes that the ceremony bore no resemblance to the Byzantine practice. For one thing, the Byzantine ceremony was performed inside, and not on the river as in the Russian case. The only event Thomas Raikes could draw comparison was “the now obsolete custom at Venice of the Doge espousing the sea.”


40 Ibid.

41 Ibid.

42 Richard Wortman, *Scenarios of Power: Myth and Ceremony in Russian Monarchy from Peter the Great to the Abdication of Nicholas II* (Princeton: Princeton University Press, 2006), 60-61, 309. By 1903, the ceremony had lost
the role of the emperor and the display of the royal family in the windows of the Winter Palace, and with the full presence of the military. Yet, perhaps another meaning is possible given the scene witnessed by Raikes after the signal rocket and cannons were fired marking the end of the ceremony. “As soon as the actors in this curious scene have retired,” he observed,

there is a general rush of the common people towards the temple: mothers are seen plunging their infants into the sacred opening which has been made in the river; while various individuals fill their pitchers with the holy water and carry it home to their families, undaunted by the severe cold which freezes it during their walk.43

Clearly, for some, the ceremony was much more than an opportunity to see the Petersburg garrison turned out and a get a glimpse of the emperor. Raikes’ observation suggests a central importance for the river itself and indicates the spiritual lens through which people viewed their world, and the river at its center.

In addition to the spiritual dimensions of river life exhibited by ceremony, the dynamics of the 1830s river also shows the change in the visual and aesthetic function of the river. The river and its traffic was part of the visual panorama of the city. To be sure, the river was a place of action. The traveler Leitch Ritchie strolled along the granite promenade on the river’s left bank in 1836. The traveler observed that “the water in the middle is stirring with boats, leaping and sweeping through the stream, with lofty old-fashioned sterns, painted and gilded within and without.”44 Ritchie could appreciate the city only from the river itself. Taking a boat into the river, he remarked how “this glorious river is perhaps the only object in St. Petersburg whose beauty and grandeur are wholly unmixed with meanness and bad taste.” For Ritchie, “the granite quays…seem to be proof that the architects of the city received a peculiar influence from the

much of its meaning altogether, according to Wortman, as members of the royal family went off “to have a smoke” rather than attend the ceremony. See Wortman, Scenarios of Power, vol. 2, 379n.

43 Thomas Raikes, A Visit to St. Petersburg, 157.
genius of the Neva, and were afraid to approach the stream with anything fantastic or ignoble."\(^{45}\)

Ritchie’s view reveals the layers of economy and architecture necessary for existence in a natural area with an unpredictable river. It is precisely engineering achievements such as the granite embankments that allow for the bustling activity the traveler participated in. The same environment that opened Ritchie’s mind to such imagination tempered architectural fantasy, forcing pragmatism.

In 1839, an unidentified traveler described the view of St. Petersburg one might see from Strelka Point and emphasized the bustling activity that took place near the river. In addition to churches and citadels, one can see “the whole extent of the Neva from east to west, with its constant succession of gaily painted ferry boats passing from bank to bank.”\(^{46}\) These ferries served a communications purpose linking the islands with the city center. They were a constant presence on the river, clustered along the steps of quays awaiting customers, when they were not “constantly moving on the Neva.”\(^{47}\) In another direction, the traveler gazed all the way along the river to the Admiralty. There the scene was filled with ship-builders and boats in the dockyard, and “beyond this again, Peter on his charger…and the English Quay stretching far along the Neva.”\(^{48}\) This was the river-scape of a city working out its tensions between imperial grandeur and the everyday requirements of life and labor.

**Patterns of River Use: Points of Contact, 1840-1860**

Tracking the Neva boatmen and the types of things they carried provides a picture of the active life on the river. The Russian ethnographer Ivan Pushkarev noted that although more and more bridges were being constructed, river transportation was still a vital and necessary part of

\(^{45}\) Ibid., 106.
\(^{46}\) *Handbook For Travellers in Denmark, Norway, Sweden, and Russia* (London: John Murray, 1839), 196.
\(^{47}\) Ibid.
\(^{48}\) Ibid.
navigating the city. The city expanded opportunities for businessmen to rent space along the river to increase competition among the river boaters. That development, Pushkarev wrote, was to “the great relief of the residents of Petersburg.”49 In all, there were 18 sites in operation on three main branches of the Neva. Along the Bolshaia Neva there were twelve, and three each along the Bolshaia Nevka and the Malaia Neva, including the Lakhtinskaia located “across from the Stock Exchange (birzh), to the tip of Krestovskii Island.”50 Pushkarev leaves a host of other sites along the Fontanka and other waterways uncounted, saying they are mostly of little note. By the 1840s, Petersburgers had grown weary of the relentless struggle of river transportation but were still beholden to the boatmen.

Nikolai Nekrasov points us to the social composition of those riding the boats and how housing patterns developed so that elites were less likely to travel by water throughout the day. For example, Peter I intended the Petersburg Side to develop as a noble space, but that development was never really established, as career civil servants began to acquire housing in that section. Elites tended to drift to the districts across the river (usually off Nevsky or along the Fontanka); to places that did not require water passage and led to a more convenient living experience in the center. The elites that once lived along the streets of the Petersburg Side believed the region to be too remote. The “Petersburg Side, cut off from the center of the city by water, lying to the north toward the barren Finnish mountains and swamps, began to fall and to become a refuge of the poor.”51 While accounts abound of people strolling along the banks in the central districts of the city, this was not the case on the Petersburg Side. According to Nekrasov, the Petersburg Side was once among the “best parts of the city,” home to Peter the Great’s palace, “preserved on the banks of the Neva as if some precious rarity,” but by the 1840s there

50 Ibid., 84.
51 N. Nekrasov, Fiziologiiia Peterburga (St. Petersburg: Knigoprodavtsa A. Ivanova 1845), 201.
was a notion of wildness on the other side of the river, a non-imperial quality.\textsuperscript{52} Here, the life of leisure depicted by so many travelers was abandoned. On the Petersburg Side, “you will not see them on the street; they don’t walk, they’ve handed over their ideas, their goals,” according to one report, “the best means to catch these people is in the morning at nine o’clock at the Mytnyi-Crossing. There they are gathering in order to cross to the Senate, burdened under sheaves and bundles of paper.”\textsuperscript{53}

The river crossings forced people into confined spaces where they had to confront each other in ways they could not through other forms of transport. During calm water passages, the boats were sites of storytelling among a captive audience, recounting myths and tales from the “old days” of the city. For example, a correspondent in \textit{Fiziologiiia Peterburga} reports that there once was “a worn out, sickly old man” who carried a birch log as a mother carried a child on the passing. “Take care, take care of it, Ivan Ivanovich,’ the young officials laughingly said to the old man, ‘take care that your log doesn’t catch cold, get a cough and won’t be able to go to sleep.’”\textsuperscript{54} The old man serves as the link to the past in the city, telling the young officials who had given up their ideas, bundled under paper each morning on the way to the Senate, an intimate tale linked up with the construction of the city and the places they experienced each day. The story lasts long enough for the boat to reach the other side, where the passengers go their separate ways.

According to Pushkarev, the city Duma sought to regulate river travel. The Duma declared that landlords were permitted “to collect monetary payment from those crossing on all wharves.”\textsuperscript{55} On the main branches of the Neva, rates started at 4 kopeks a trip for longer

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\textsuperscript{52} Ibid., 200. \\
\textsuperscript{53} Ibid., 209. \\
\textsuperscript{54} Ibid. \\
\textsuperscript{55} Pushkarev, \textit{Nikolaevskii Peterburg}, 84.
\end{flushright}
distances, such as travel from the wharves at Galenaia, Zimnedvortsovskii and Voskresenskii, with rates beginning at two kopeks for shorter distances. It was a mere one kopek to cross any canal. However, when the city bridges were raised or out of place, all rates began at 6 kopeks. A traveler of means could avoid traveling with the crowds and hire a personal boat. “If someone,” Pushkarev recalled, “wishes to cross (on a launch), but not together with others, then they are obligated to pay for the boat, 10 kopeks for a single oarsman, or 20 kopeks for two oarsmen.”56 In this way, operators could be assured of covering expenses and earning a profit.

Boatmen did not limit their transport to people, but also earned income by transporting goods along and across the waterways. A variety of goods were hauled, priced by weight and type. Rates ranged from one kopek to upwards of two rubles. Large items such as carts (30 kopeks), droshky (1 ruble), carriages (2 rubles) could be ferried across the river. Pushkarev details the rates for furniture, beginning at 15 kopeks for large items and 2 kopeks for small. Boatmen also transported large quantities of flour and other products across the water as well as horses and cattle.57 In addition, city officials allowed homeowners along shorelines to dock boats for personal use and to access to wharves along their property. While the government continued with its plan to make the Neva a “working river” they did acknowledge the variety of uses of the river, and tried to manage expectations for that use accordingly.

The cosmopolitan connection to the wider world was an important facet of the imperial idea, and as such the international commerce associated with being a port city was a key economic and cultural energizer. Expectation always accompanied the approach of spring, when the ice began to thaw and break up. The German traveler J.G. Kohl observed that the ladies wish the Neva and the Gulf of Finland clear, that the steamer from Lubeck may arrive with the latest nouvelles from Paris; the merchants are often in the most painful

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56 Ibid., 84-85.
57 Ibid., 85.
suspense, lest a protracted winter, by delaying the arrival of their vessels, should mar the finest speculations; booksellers and students are longing for a supply of the new books that have been ushered into life in England, France, and Germany, during the preceding six months. The sick native, and the home-sick stranger, are alike anxious for the day that may re-establish the communication with more genial climes, and almost the only subject of speculation at this season, is the day when the river will be free again. 58

The thawing of the Neva and the return of navigable waters brought revitalization to the social networks around the quays and harbors of the city. “The first spring ship that arrives in the Neva is the occasion of great rejoicing,” Kohl observed, “and seldom fails to bring its cargo to an excellent market.”59 Petersburgers gathered at wharfs and riverside markets to await the arrival of goods. The first ship that arrived after the long winter “is mostly laden with oranges, millinery, and such articles of taste and vanity as are likely to be most attractive to the frivolous and wealthy,” Kohl recalled.60 Soon, the cityscape transformed rapidly around the river as that first ship

is soon followed by multitudes, and the most active life succeeds to a stillness like that of death. All the flags of Europe come floating in from the sea, and fragile rafts and rudely-built barges descend the river with the products of the interior. The contents of the warehouses find their way on ship-board…The smoking steamers are seen snorting and splashing up and down the river, where a few weeks before a seal could not have found room to air himself.61

As Kohl described, watercraft did not only enter Petersburg from the sea. In addition to the local traffic described above, significant Russian flotillas entered the city from the inland water-ways when they were free flowing in the early summer. As Robert Jones has shown, by the early nineteenth century, especially after the completion of interior canals easing the passage to the city, Petersburg had become Russia’s busiest port, both receiving goods from the west and

59 Ibid., 15-16.
60 Ibid., 16.
61 Ibid., 16.
distributing materials into the global trade network. Almost as important, the city became a destination for goods necessary for the city to function, such as food, paper, and munitions. At appointed times vessels bearing salt or iron arrived from the interior in flotillas numbering in the thousands. Goods came from all over the empire. For example, Pushkarev details the livestock arrived from Archangelsk, and bread, salt and foodstuffs from other locales. While Pushkarev acknowledged that fowl and gamebirds could be hunted around the capital, “they were of poor quality” and had to be shipped in from Olonets and Vologodskii. These goods arrived primarily on boats, and then were transported to markets and stores throughout the city. According to Kohl, about 800 of these vessels were loaded with goods to make the return trip inland. The rest were broken down and recycled as fuel, or left to freeze into the winter landscape.

By the early 1840s when J.G. Kohl witnessed summer nights on the river, the leisure practice described by Green thirty years earlier had greatly expanded. Signifying the opening of the river to different social groups, Kohl wrote that the Neva was now a “favourite amusement with all classes!” Gondolas and sail boats glided across the water, prompting Kohl to ask his reader to imagine:

A noble river, meandering in a multitude of arms, through an archipelago of islands, crowned with magnificent palaces, or decorated with delicious gardens. The wide sea itself, close to the city, presents itself at each of the six mouths of the river. Imagine the scene animated by thousands of ships and boats. Here the sailing-boat of the English skipper, who proudly displays his superior skill over all else that floats on the water element…there the German burgher with his family….On another side may be seen a congregation of Russian peasants pouring the sweet melodies of their nation over the bosom of the water, or the splendid barge of a Russian noble, attended by a magnificent band of wind instruments…The seamen of every maritime nation may be seen rowing about, enjoying a scene to the animation of which they contribute their share.

63 Kohl, Russia, 204.
64 Ibid., 25.
These leisurely cruises were not the only activity on the river, for the river also continued to serve as a vital economic cog in the city. People constantly came to the river to draw their daily water. The streets filled with men in water carts who took the water from the river and then deposited it in reservoirs in buildings throughout the city. Others brought their buckets directly to the river. Meanwhile, the rivers and canals were the site of the capital’s laundry service. “On all the canals and along the banks of the river,” Kohl wrote, “are seen floating washhouses, where the linen is undergoing the operation of being immersed in water, and then soundly beaten with a kind of flat wooden mallet.”65 These vessels competed for space on the river with the large numbers of *Sadoks* (fish-wells), a sort of house-boat for a crew of fishermen. These buildings, floating on rafts in the river, were tethered to the bank and connected with small bridges. A large room where the fishermen worked and stored their supplies was attached to two smaller rooms where the crew slept. One final room served as a locale for people off the street to stop in “for the purpose of eating fresh caviar in perfection.”66 Behind the rafts were the fenced in reservoirs that kept live fish, not only those caught locally by the fishermen but also delivered alive directly from the river Volga.

These people who inhabited these scenes served as contact points in the city, from the piers where they interspersed with sailors catcalling from the rigging of ships, mingled among the elite out for leisurely strolls along the banks, and with customers of all ranks. The notorious water-carrier traveled daily through these spaces, passing gossip and drawing scorn for his work ethic. The *dvornik* on his morning rounds chats “with the cooks, who are asking about the water-

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65 Ibid., 24. Kohl notes that if one could afford it, one could opt to send their linen out on a steamer to London every two weeks to “have a shirt properly washed.”
66 Ibid., 25.
carrier, who has the habit of not showing up on time, or to be late…. Water carriers served as points of contact in a chain of labor throughout the city.

Often the sources reflect gender relations along the water, especially in encounters between men and unwed women. A sketch from Stseny Peterburga presents one scene, as a fisherman bringing his tub of fish to market stops to sell his goods to the wet-nurse under the tree in the courtyard. Observing the fisherman and the wet-nurse,

the Nanny didn’t breath for this minute. “Seryozhenka!” She asked her foster child. “What is Sazonovna doing?” “Laughing, Nanny!” “Who is she laughing with?” “With a man Nanny!” “Aha!...Stop my dear! We know of these fishermen, we know why he’s got in the habit of stopping here!”

Other instances included a sailor calling to the woman at the bank fetching a pail of water, or even following her to the waters edge. “A young gentleman cried: young lady, wait…lets go for water together.” All of these encounters could be playful, as individuals took advantage of the loosening of relationships along the river, outside the normal boundaries of supervision.

At the same time, the language used to describe the river itself was highly gendered. Water and river often appear in a feminine context, on the one hand wild and uncontrollable, and on the other, like a kind and caring mother, a recognition of the physical relationship of humans and river. In a 1790 song, the Neva served as a setting for encounters between men and women love story that encapsulated the types of experiences available around the river:

As to a mother, to the river Neva
On the glorious Vasilevskii Island
As on the shipping wharves

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68 Ibid., 11.
69 Ibid., 11-12.
70 V.S. Bakhtin, Skazki, pesni, chatushki, prislov’ia, Leningradskom oblasti: Sbornik (Leningrad: Lenizdat, 1982), 207.
A young sailor rigged a ship….”

The sailor espies a beautiful girl, “the father’s daughter,” ladling water into a bucket at the Neva’s edge. She engages him in conversation, and he responds with a long speech about their imagined life together, the gifts he would give her, the excitement at a life “with your true love (polubovnikom).” In a dance tune (prislov’ia), a young woman recalls going to the “mother” Neva to draw water, seeing the grey geese swim and fly, “drawing water for the young burlak Ivan, for the unmarried Ivan (dlia Ivana kholostogo).” The Neva served as a site of work and utility, but also as a place where men and women could engage each other outside the traditional forms of supervision.

Patterns of River Use: Making Ice Pay

The Neva’s ice was an issue that tied together the strands of class, labor, government, and business owners. In 1863 the Duma re-opened a question that had come before the body four times in the last thirty years: The regulation of the ice-cutting trade. The ensuing debate not only demonstrates the various actors who grew out of this system and engaged the city government, but also provides a glimpse of how the city viewed its watered resources, and how they could manipulate them to organize and define the city.

The Duma discussion centered on a proposal submitted by Mr. Smirnitskii and Mr. Afendik, to end government monopoly on the trade, allowing the pair to take control of the ice-cutting process. The ensuing debate demonstrates actual practice that occurred along the river route, and inherent problems in that practice that accrued over many years of practical experience. The primary goals of the Duma in deciding this case were to standardize the blocks

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71 B.M. Beliaev, ed., “Kak na matushke na Neve reke,” Sobranie narodnykh russkikh pesen s ikh golosami na muzyku polozhil Ivan Prach (Moscow: Gosudarstvenoe muzikal’noe izdatel’stvo 1955), 89.
72 Ibid., 89-90.
73 Bakhtin, Skazki, 212.
of ice, to regulate the price, to insure the safety of the cut areas, and prohibit illegal cutting, and ultimately to increase the benefit to the city treasury. This flirtation with capitalism says much about how the river came to be a controllable commodity, yet one that by its instability could provide considerable consternation for those seeking to benefit from it.

Four times in thirty years people petitioned the government for the right to cut ice from the frozen Neva and sell it to consumers at a profit. In exchange for this right, the petitioners would pay a flat yearly rate to the city. Each time, the city preserved its ice-cutting monopoly and rejected the petitioners, arguing that selling the concession could be disastrous, because “here ice is one of the necessities,” and a tax “would be used to raise the price of the ice and through it, to hinder the residents themselves.” Nonetheless, the Duma revisited the question because there were no shortages of petitioners for the right to cut ice of out of the Neva. Smirntskii and Afendik were two of the best positioned for this, and the Ways and Means committee of the Duma favored their application and put it forward for a vote, along with a second, competing proposal by a Mr. Hauer.

In choosing to accept the proposals at that time, the administrative council of the Duma stipulated that “procuring ice from rivers and canals of the capital, in its existing procedure is considered a branch of trade and industry…and does not at the present time have proper regulation.” The council clearly favored the proposal of Smirnitskii and Afendik, stating that it would meet the necessary conditions of setting the price of ice, preventing arbitrary price hikes and ensure that residents would pay a “proper price” based on the “general need.”

74 1836, 1841, 1849, and 1860.
75 Izvestia S.-Peterburgskoi gorodskoi obsheoi dumy (1863, #1): 27.
76 Ibid., 19.
77 Ibid.
78 Ibid., 20.
The council recommended several safety features be added to the proposals that hint at dangerous situations that arose in the process, even under direct supervision. Foremost, the council noted, was that each locale where ice was carved, sold, and stored needed to be under the supervision of specially appointed people. In a city in which residents continually traversed the frozen ice, the council especially sought special procedures for the dark hours of the day, when it was possible for people to fall through the holes. “At night,” they wrote, there was a “need to light the dangerous places with lanterns. These completely necessary and useful measures are for the elimination of unfortunate events, often repeated due to the negligent inspection of the cuts on rivers and canals, and only by such strong observation is it possible to reach a proper regulation in the production of cut ice.”

Given all that, the final solution was to build a fence around the area that had been cut.

The proposal of Smirnitskii and Afendik came under intense scrutiny by several Duma members and “concerned” citizens. These concerns included disputes on how to collect a city tax and about the distance the ice was to travel from cutting site to delivery site. Should the tax be levied by the block, or by the distance? Titular counselor Vasil’ev advocated the maintenance of State control of the monopoly. However, he demanded that oversight be removed from the police and “entrusted” to the officials of the City Administration, who would oversee a fence building project around each area.

The Duma was concerned with two main points: raising revenues through an ice tax and to ensure that enough ice was saved to last the year. Clearly, officials recognized that residents were wont to upset the balance by subverting state plans and cutting ice themselves. Acting State Counselor Volkov devised a plan to address these concerns and end the practice. Each year the

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79 Ibid.
80 Ibid.
Duma would advertise that it would sell licenses for the right to cut ice. A city architect would then physically mark off the area and survey the spaces. These measurements would give officials a precise account of a uniformly cut set of blocks. The administrative Duma would then take 1/10 of the amount taken from each site, to hold in reserve and distribute as needed. They would then charge three kopeks each for the remaining blocks, which represented the fee potential cutters would need to pay to the city for the right to cut the ice.81 “In this way,” Volkov argued, “people receive the right to procure the ice, and are given, beforehand, in the presence of the Duma” a written agreement that states they are not to cut ice outside the state determined area, and that “they will enclose this place, before beginning work, with a high and solid fence.”82 In addition, the site was to be under constant supervision, and the cutter agreed to deliver the blocks anywhere, regardless of the location of the site in which they were cut, at a cost of “no more than 20 kopecks a block” of the proper size, “in their natural thickness and purified of superficial snow.”83 Volkov assumed that there should have been 15,000 cellars in St. Petersburg, capable of holding up to thirty blocks. Taking 1/10 of the total, Volkov figured the city treasury could take in about 13,500 rubles of new income. Organizing the ice cutting in this way, the city “will know exactly the number of blocks of ice that the city requires each year, and will not have to commit to any kind of privileges as they would be “needless.”84

At the same time, we know from the testimony of the merchant Fedor Rebrov, that wealthier peasants “from the outskirts of the capital” primarily handled the ice cutting trade.85 Rebrov reasoned that these peasants would disfavor the granting of the concessions “to two people,” Smirnitskii and Afendik, as “a restriction in business, to their characteristic way of

81 Ibid., 22.
82 Ibid., 23.
83 Ibid., 23.
84 Ibid.
85 Ibid.
life.”\textsuperscript{86} Rebrov opposed the plan, arguing that an authority higher than the Duma needed to supervise the it, fearing Smirnitskii and Afendik’s ability to set their own prices. Rebrov mused about the possibility of a “warm, snowless winter,” in which the pair could take advantage of the decrease in ice production and set prices at an “extreme and prohibitive rate.” The state, Rebrov argued, having no profit interests and the people in mind would do no such thing.\textsuperscript{87} Finally, Rebrov feared that peasants, hearing that the concession was granted to two people, would simply walk away from the job and find other work, leaving the capital with a shortage of labor and ice.

**Conclusion**

Water was often seen as Petersburg’s most vital attribute.\textsuperscript{88} As such, the river Neva was a shared site of use by a variety of groups in the capital, from government officials and entrepreneurs to the boatmen, water carriers and laundresses who congregated at river crossings, fish-markets and festival sites. These people used the river for leisure, work and capital. How to use that water was a question decided over the course of the nineteenth century by social action and policy decisions. The river was more than something to be tolerated or traversed. Government and society both sought to assert control of the watered spaces of the capital, leaving a mixed use site favorable to both a cultural façade of power and the transformative power of capital.

The transformation of the patterns of river use across the century meant that traditions central to river life held in high esteem eroded. A cosmopolitan mix of uses crowded the banks. As late as the 1850s the remnants of the vibrant river culture could still be found, before disappearing under the onslaught of modern engineering and capitalist projects introduced here

\textsuperscript{86} Ibid.  
\textsuperscript{87} Ibid.  
\textsuperscript{88} Pushkarev, *Nikolaevskii Peterburg*, 624.
and discussed in detail in subsequent chapters. Glebov wrote of the Neva’s liberation from the wintry ice, but for those who had the most control of the patterns of use on the river, liberations from the seasons and environment altogether was paramount. However, flood served as a constant reminder of the inherent uncontrollability of nature and a spur to further action. Let us now turn to the upset caused by the flood of 1824 and how the government, its officials, and Petersburg residents reacted to the flood, sought relief in its aftermath and attempted to make sense of its larger meaning.

**Figure 1**

Chapter 2: “The Mountain Came to Us”: St. Petersburg and the Flood of 1824 as Event

“In their darkened rooms the inhabitants had given way to the same feeling of panic which is aroused by natural cataclysms, those devastating upheavals of the earth against which wisdom and strength alike are of no avail. For the same feeling is experienced whenever the established order of things is upset, when security ceases to exist, and when all that was previously protected by the laws of man or Nature is suddenly placed at the mercy of brutal, unreasoning force. The earthquake burying a whole people beneath the ruins of their houses; the river in spate sweeping away the bodies of drowned peasants together with the carcasses of cattle and rafters torn from roofs…all these terrifying scourges which undermine all our belief in eternal justice and all the trust we have been taught to place in divine protection and human reason.”

--Guy de Maupassant, 1880

“Floods have [always] inundated the capital, but the flood of 1824 remains in our memory a terrible disaster, to which our northern capital has been subjected.”

Introduction

The goal of this chapter is to de-mythologize the flood in order to gain a fuller understanding of the power relationships of government, society, and nature. I argue that this can best be seen through restoring the flood as an event. Most days, the edges of the boundaries between water and city served as sites where social and cultural narratives were formed, between subjects and river, state and river and state and subject as outlined in other chapters. Throughout it all, there was the somewhat illusory belief that despite small scale yearly inundations, that the water existed in a state of controlled naturalness, though sources suggest that inklings of the next catastrophic flood was never far away, even though it had been almost fifty years since the last catastrophic event. Let us first set the scene with a description of the events of November 6 and 7, 1824.

As the water rose on the night of November 6, cannons fired and lanterns were raised to warn residents of the flood danger. Petersburgers were used to such warnings. The threat of flood was a constant presence in their lives, and as the traveler J.G. Kohl pointed out, “the poor

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2 Russkie Vedomosti (Thursday, November 7), 1863, 8.
inhabitants are thus in constant danger, and can seldom be certain that within the next twenty-four hours, [whether] the whole 500,000 of them will not be swept at once into a watery grave.”

Residents went about their evening activities, wary of the weather and its potential danger. At some point in the evening, passers-by along the Neva paused by the banks of the river and watched the water rise. Most Petersburgers retired to bed that night, their pipes and windows rattling in the storm. At ten am, the river Neva and the surrounding canals that comprised the water network of the city, spilled over the banks in a devastating rush that reached as high as thirteen feet in some places. Before the water receded, it destroyed villages, buildings, bridges and streets in its path, killing nearly 700 people.

On the morning of the flood, young K.K. Boianus sat for morning tea with his adoptive family in a two story wooden house on the corner of Srednii Prospekt and the 14th Line on Vasilevskii Island. Boianus lived with the family of Ivan Egoriovich Rummel, an English teacher. Rummel was married to Ul’iana Karlovna, while their daughter was married to a fellow named Boden. None was aware of the events to come that altered the course of their lives and the city in which they lived. Boianus depicts a family already returned to their normal routine after yet another Petersburg storm of the previous evening. Though the weather cast a pall of gloom over the morning table, no one understood the hydrological events underway in the Baltic Sea that would push the River Neva back on itself that morning.

The house, as Boianus remembered it so fondly, was made of wood with a stone foundation with a basement, balcony, and a garden. From his window young Boianus could see all the way to Smolensk Field “and with a spyglass [all the way] to Galernaia Harbor,” where the floodwaters made first landfall. The family always rose early, because Rummel’ walked to work

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4 K.K. Boianus, “Vospominanie o navodnenii v Peterburge 7 noiabria 1824 g.,” *Russkii Arkhiv*, (1870), 1559.
at the Korpus, where work began at nine am. Boianus recalled that he could hear the “terrible weather” in the pipes of the building. He over-heard the Rummel’s conversation about the high water in the Neva and how “the wind is blowing in from the sea.”⁵ Among Petersburgers, this was shorthand for danger, as flooding was a constant threat whenever such strong winds blew in from the Gulf of Finland.

After the family completed their morning routine, they watched Ivan set out for work from the corner window. Boianus remembered that he walked “very slowly against the wind” until he disappeared out of sight.⁶ Soon after, Boden arrived with news that Smolensk Field was covered in water. They watched from their balcony and saw that the “field really had become a strong and agitated sea.” Still the family felt safe because of their distance from Smolensk Field, even though they lived in the direct path of the flood. Nonetheless, there was nowhere for them to go. Boianus recalled how rumors reached the family that water had entered the street at the Kadet Line. Ul’iana became rattled and the boy knew not how to comfort her. The water reached their house at three o’clock. They spent the next few hours moving belongings upstairs. They watched from windows as animals and wood floated down the street and the mother wondered aloud what had become of the box guard [Bydochnik] at Smolensk Field.

Confusion caused panic in the streets. “In the middle of the storm’s terrible gusts,” Samuil Aller recorded in 1826, “the shouts of desperate people, neighs of horses, the bellowing of cows, and howling dogs were audible everywhere.”⁷ Others, such as grooms and servants, rushed into the rising waters in an effort to save animals. Despite warnings, many people were caught unaware by the flood, and made their way to places they thought would be safe. These

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⁵ Boianus, “Vospominanie,” 1559.
⁶ Information for this paragraph from Boianus, “Vospominanie,” 1560-64.
⁷ Samuil Aller, Opisanie navodneniia, byvshago v Sanktpeterburgie 7 chisla noiabria 1824 goda, (St. Petersburg: Departament narodnago provieshcheniia, 1826), 3.
people, “especially newcomers, waggoners, trade serfs, and other titled people,”
tried to save
themselves by going where they thought the water would be lowest, but instead “became victims
of violent waves.”

The Neva, “infuriated” according to one account, filled with the strange sight
of barges, logs, structures and other debris being carried \textit{upriver} from Vasilevskii Island to the
village of Okhta in the Vyborg district. People reportedly clung to the structures rushing
through the city, including those people “perishing, with outstretched arms, praying for
rescue.”

Hearing shouts in the streets an African-American woman living in the city, Nancy
Prince, opened her door, “and to my astonishment,” she recalled, “when I looked out to see what
was the matter, the waters covered the earth.” People sought shelter wherever they could, and
Prince brought many into her home.

For officer A. Romanovskii, the flood disrupted plans for a lavish celebration of his
promotion he planned for the 7th. Although many people lay awake in terror during the night of
the storm, as the howling winds and thunder were interspersed with cannon fire, Romanovskii
slept pleasantly. “I was,” he recalled, “sure that the water which had already began to rise in the
Neva, could not reach me on the third floor.” He was correct in that regard, but people living
on the upper floors had other weather related issues to worry about, for example, the roofs that
flew off in the storm. When he awoke in the morning, he looked out the window to see that roofs
had blown off of buildings, “throwing them into the air in different directions,” as well as
hearing the noise of the streets as “people ran about, alarmed and worried.”

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8 Samuil Aller, \textit{Opisanie navodneniiia}, 4. \\
9 Samuil Aller, \textit{Opisanie navodneniiia}, 5. \\
10 Samuil Aller, \textit{Opisanie navodneniiia}, 5. \\
11 Nancy Prince, \textit{A Black Woman’s Odyssey through Russia and Jamaica: the Narrative of Nancy Prince.}
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During the events of the seventh, Romanovskii took an adventurous cab-ride and he approached the first Kadet Corpus, the same destination as the English teacher Rummel. At the Tiuchkova Bridge, he saw that water was already there. At several places, he saw escape and relief efforts, even witnessing a bridge crack and fall from the water pressure, stranding people and carriages on the other side. “Isaakievskaya Square literally looked like the sea, on which quickly appeared boats launched from the Admiralty....” It appears from Romanovskii’s description that the boats held steady because they were tethered to “light posts and water pipes at the embankment of the Neva.”

In artist’s depictions of the these events, the boats are not tethered, suggesting that humans still had enough control over the water to navigate them, but Romanovskii’s account suggests otherwise.

In the immediate aftermath, Boianus joined many Petersburgers in the streets in a bit of voyeuristic stock-taking of the destruction. He saw that in the water’s wake, rubbish and broken windows remained. Everywhere in the streets he saw “boards, roofs, barrels, chairs, firewood, hay straw, sodden bread, fatigued livestock.” Though he could not have known it at the time, Boianus emphasizes that even as the water had receded, people were still in danger. The weather was freezing in the night, and many who could not find adequate shelter did not survive. “[I]n every direction,” Samuil Aller remembered, “the views were of shouting people, with contrition, carefully listening for news about all of the ill-fated.”

Alexander I and Elizabeth were among them. Alexander understood destruction from warfare but found it difficult to fathom the damage caused by nature, and its impact on his subjects. The flood waters caused them to be “deprived in one moment of everything that was dearest to them in life, which resembles nothing I have

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14 Romanovskii, “Vospominanie o Navodnenii,” 19. Alexander Pushkin’s nemesis, Count Benkendorff, was apparently in one of these rescue boats.
15 Information for this paragraph from Boianus, “Vospominanie,” 1564-65.
16 Samuil Aller, Opisanie navodneniia, 9.
The area between the Sisterbeskii Road and the Vyborg district along the banks of the Bolshoi Nevki, was a scene of total destruction. “Every factory, plant, and various family houses located [there],” Aller explained, “experienced a sorrowful fate on that ill-fated day.”

**Memory**

What makes the 1824 flood a “site of memory” are the agreed upon set of events and narrative exemplified by texts such as the Berkh Report, Samuil Aller’s description, and other eyewitness accounts. All emphasize certain key events of the flood. Each text has a definable beginning, middle, and end; even though archived documents show that the state struggled with the aftermath of the flood well into the 1840s. Still, the narrative was a dominant reference point throughout the nineteenth century. Svetlana Boym, writing about the post-modern museum city of St. Petersburg, claims that “the [Greek] art of memory was invented after a catastrophe and began with the collapse of a house.” In her conception, the act of memory was “semiotic rather than symbolic,” and “this kind of mnemonic tradition recognizes the accidental and contiguous architecture of our memory and the connection between recollection and loss. Places are contexts for remembrances and debates about the future, not symbols of memory or nostalgia.”

From various descriptions of the event it is easy to see the flood was a signpost of nineteenth century Russia. Pushkin offered the framework for subsequent remembrances of the flood throughout the nineteenth century, as people continuously sought to reconcile themselves to the event. These authors placed the inundation in a series of tumultuous events marking the early years of the century and the transition from the messianic focus of Alexander I to the

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18 Samuil Aller, *Opisanie navodnenia*, 16.
19 So much so that even a similar event in 1924 did not have the same effect on the psyche.
perceived stifling of capital life under Nicholas I. In a twenty year span, Russia had been at war with Napoleonic France, and as it assumed a dominant position in post-war Europe, Russia endured such cultural disasters as Arakcheev’s barracks campaign, Alexander’s Bible initiative, political disasters such as the Decembrist revolts and the 1830 cholera outbreak. These themes in turn seeped through Pushkin’s founding poem of the “Petersburg Myth” and into subsequent retellings of the 1824 flood. Still, alternative meanings were possible, and autobiographical retellings of the flood all seem to follow a similar arc that on the surface meshes with Pushkin’s retelling. First there is a depiction of some sense of normalcy as people went about their business, despite a storm of which only afterward attached a terrible portent. Authors use the same language and describe the same type of events, all in catastrophic terms.\(^{22}\) For some, perhaps, it was a coming-of-age event, for others, the end of everything they knew, but unsettling for all. One thing is clear, a variety of meanings were attached to the event: friendship, trauma, and loss among them.

These narratives include the government’s official narrative and the narrative reclaimed by participants and memoirists that followed the publication of “The Bronze Horseman.” I suggest that a wider array of meanings serve as alternatives to the Pushkin dominated myth. The awe of nature, yet the quotidianness of daily life in the city, trauma and food emerge from sources, providing memories tinged with individual notions of lingering and disruption with the collective experience of the flood. The success of Pushkin’s poem in edging out alternative memories of the flood by standing in for the memories of both the official government narrative and the narrative of individuals elides the real struggle between meanings attached to the flood

\(^{22}\) One needs to pay attention to the dual definition of “catastrophic.” On one hand it is a descriptive adjective denoting unfortunate events, while on the other, in the context of Petersburg floods, has a specific meaning. Floods have been divided and ones over a certain water level are considered “catastrophic” while other levels have different designations.
that we can recover from the sources. The effect of the flood on the lives of ordinary Russians should not be subsumed by the absent Pushkin’s stand-in Evgenii. Writing years removed from the event, Romanovskii adopted a romantic tone to frame his recollection and convey the gravity of his experience. Being “impressed by the sad mood of (our) thoughts, all our worldly intentions were forgotten, and we thought only of saving our sinful souls,” he recalled. These recollections reflect an emphasis not on property or state relations so much as an emphasis on family, trauma, and food that lingered in the memory of the event.

The flood was catastrophic in ways beyond the physical damage that accrued in the city. Collective memories also accumulated in the aftermath. While the water damage lingered long after the flood itself, so too did the emotional damage to the psyche of families linger in long-term memories of the event. Boianus remembered that Rummel’ and Boden returned late that night to check on the welfare of the family, “making their way from Kadet Line in water up to their necks.” Boianus recalled, “The dear, poor, agitated Rummel.” This walk likely killed Rummel. According to Boianus, his health quickly deteriorated, and having fallen ill from his trek through the water, he was dead within a year. Grief stricken, his daughter followed him in March 1826. While the authorities ultimately emphasized that the effects of the flood were sudden and tragic, that order could be restored in the aftermath, these kinds of stories belie that view.

An acquaintance of historical-geographer I.I. Pushkarev related another tragic story in which the suddenness of the flood left a lingering memory of trauma. On November 6, the friend received his sister and father from the provinces. He had not seen his family in a long time.23 The

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23 This incident recalled in I.I. Pushkarev, *Nikolaevskii Peterburg*, (St. Petersburg, 2000), 32n. Pushkarev’s work grew out of early trends and interests in knowledge gathering about the empire in the 1830s and 1840s. These activities included the opening of the Rumiantsevskii Museum in 1826 and projects sponsored by the Metropolitan Evgenii on the histories relating to Kiev, Pskov, and Novgorod. Count N.P. Rumiantsev was a wealthy patron of
next morning, he set out for a friend’s apartment for a standing dinner invitation on Peski in the Rozhdestvenskaia district. While there, his hosts convinced him to wait out the foul weather that battered the city. The friend recalled the “unintelligible, distressing misgivings,” he felt, but stayed nonetheless. Despite the cheerful conversation, he could not allay his apprehension. After dinner, he rushed off, making it as far as the Church of Panteleimon where he “was defeated by a terrible sight.” Standing near the church, he was shocked at the sight of the water rushing through the streets. “Before me,” he recalled,

Along the Fontanka, debris, furniture, wooden barges, rushed off. People screaming loudly flashed between the waves. In despair, I did not know what to do, and did not completely understand how I found myself on Peski, in the apartment with my former hosts, who had not heard about this unfortunate event at all. My terrible misgivings had been realized. This very night I bitterly mourned my irretrievable loss, over the cold, dead bodies of my father and sister.²⁴

By the time Pusharev recorded this story in his ethnography of Petersburg, the Pushkin narrative had already begun to dominate. While it eerily recalls Pushkin’s Evgenii, Pushkarev’s informant recalls the emotions of a bitter evening with lingering consequences that readers present during the flood could identify with. The memory recalled here has little to do with the political statement drawn by Pushkin. It is immediate and more to the point in reflecting the powerlessness experienced during the flood. Fortunate to survive due to time and place, the informant, guided by intuition and familial connection, is left with the emotional scars that fortune provided: a family rent apart by the floodwaters.

Their stories clearly juxtaposed the banal with the calamitous. Despite the rising waters, Rummel’ walked to work as usual. Romanovskii had his tea and coffee in the morning, as usual,

²⁴ I.I. Pushkarev, Nikolaevskii Peterburg, 32n.
yet also experienced the events in terms that he and others describe as terrifying, fearful and awful (strashnoi trevoge is a common construction). Residents awoke to “terrible sights” in which the river flowed backwards over its natural and granite boundaries and engulfed the city. The disorderliness of the flood led a disoriented population into a sudden and shocking struggle for self-preservation.

For residents, the city temporarily ceased to be the ordered capital punctuated by architectural facades of an imperial state, the wide array of uniforms signifying status, and carefully planned streets and canals so common in contemporary descriptions of the city. As an officer, Romanovskii yearned for a “useful” Petersburg life. Prior to the flood, Romanovskii did his best to live the life of a “gallant-homme” moving through such St. Petersburg staples as “balls, masquerades, [and] theater in the company of the fairer sex.” This typical St. Petersburg life of a man of rank, indistinguishable from the mass of uniforms in the capital suffered a violent transformation during those long days of early November. Romanovskii contextualized his experience by revealing the close affection he felt for his friends and other officials. On the eve of the flood, he planned a feast for six friends at the German restaurant Gize that was nothing short of ostentatious. “Everything, it seemed, could not have been arranged better: dinner was ordered, the guests invited; but man proposes, and God disposes.”

Instead of a lavish feast, the newly promoted officer found himself cut off from foodstuffs. While Romanovskii and others survived the initial danger of the flood, they were,

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25 There is a voluminous store of travel accounts to Russia in the early 1800s, some of which are considered here. Current environmental scholarship on travel accounts notes that these travelers brought with them a developed ecological conscious that grew out of industrial capitalism’s appropriation of nature for economic progress. Thus, they were keen to look for similar infrastructure of progress elsewhere and that reinforced this ecological consciousness for the extensive readership in Western Europe.


however, “unfortunately… still here with a knife to the throat.” The knife to the throat in this case was hunger, as Romanovskii returns to the theme of food as it provided a lasting memory of the event for him. As the devastation unfolded before his eyes as he watched from the Senate building, he longed for his lost meal at Gize. His sole goal became survival and requisition of food. When he realized that he could not get across the river to his home on Vasilevskii Island, he thought “with vexation, for the problem of my fantasy, to eat the entire meal for six by myself.” Romanovskii and a friend made a desperate attempt to find food. They left the sanctuary of the Senate building, but the flooding was so severe the pair was forced to turn back. At that point, Romanovskii cornered a courier in the hall way and pleaded with him to “do us a favor and save us, run into some kind of tavern or go to an eating house, and get us something to eat. We are dying of hunger!” The startled courier responded, “forgive me, [but] after such an awful deluge, as you see yourself… the taverns are not locked up, but one can’t make one’s way along the streets because they are filled up with firewood and logs, and along the lower places a lake now stands.” Unfazed, Romanovskii begged for not the lavish meal that separated him from regular St. Petersburg, but “last years’ soup or kasha.” Eventually, the courier found some bread and a small samovar for tea. Here, Romanovskii chooses to end his recollection with the thought that “never in my whole life did I eat with such an appetite.”

There were also alternative literary meanings of the event that emphasized social leveling. The flood of 1824 challenged state and society to come to terms with the lives they had constructed, both real and symbolic, and to clear the way for the revision of meanings in the capital, particularly the concepts of individual and rank. The Petersburg of this era has been portrayed as a contest between the loving soul of the individual and the stifling society of rank, where advancement was sought without thought of anything else. The river, in time of flood,
delineates the conflict, starkly portrayed in Vladimir Odoevsky’s “The Mockery of a Corpse,” from *Russian Nights*. The flood in Odoevsky’s tale levels the rank and status of everyone, constantly invading the inner thoughts of a traditional princess, flirting with modernity as she recalls a dalliance with a passionate young idealist. The impotence of love and status is revealed as the destructive flood overtakes the city, turning the patrons of a lavish ball out into “a boundless sea”:

> The shout, ‘Water! Water!’ is heard on all sides. All rush to the door, but it is already too late. The water has flooded the entire first floor. At the other end of the ballroom music is still playing, and people are still dancing there; there they are still discussing the future, thinking of the meanness performed yesterday, of the one to be performed tomorrow; there are still people there who are not thinking about anything. But soon the horrible news is known to all; the music stops and confusion follows.”

Although the setting is fictional, it is not too difficult to imagine that select engineers and bureaucrats within the façade of Russian society divined a purpose from the flood and were not overwhelmed by either the events of that November, nor felt hopeless in its aftermath. They did not, as several memoirists did, cast their experiences in terms set out by Alexander Pushkin and the Petersburg Text. Instead, their actions in the aftermath of the flood challenged the mocking claim of Odoevsky’s narrator, “where are the all-powerful means of science that laughs at the efforts of nature?”

**Damage, Control, and Mercy**

The natural order of the city had been upset, and the imperial power charged with keeping that order waned under the water pressure. As soon as the water returned to its banks from the built environment that once again had failed to hold its own against the river, Tsar Alexander I mobilized relief efforts, placed the city under tri-partite martial control and formed

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ad hoc committees to direct relief efforts. In a symbolic move, Alexander toured the city, as he believed that his appearance before the public alleviated the suffering of the populace. At the same time, I argue, this allowed him to reclaim the city on the principles of autocracy by initiating a program of counting, chronicling, and controlling aid disbursement.

What we discern from the short term aftermath of the natural disaster in St. Petersburg, are the traces of a modern governmental forms of counting, categorizing and ordering. The government’s documentary record of the event begins with the issuing of the Tsar’s decree on November 10th that formed a relief committee and placed the city under martial control. State-generated documents chronicle the government response in the days following the flood. These documents inform our understanding not only of the scope of the disaster, but who was affected by the path of the water.

After the water receded, the arduous task of counting and observation began. Street by street, members of various committees fanned out to record the damage. Samuil Aller cites 258 distinct locations alone. Individuals recorded the water level on every street, specific damage to specific buildings (e.g. the gate broke, the book shelves are gone, and the stoves are ruined). They recorded the types of illnesses encountered, the number of dead and injured, and the amount of supplies needed for recovery. Bureaucrats in employ of the imperial regime categorized and defined the city and created an ordered vision of the imperial center. I argue that it was a quintessential modern moment.

Once the water had marked the built environment with its power, the tsar’s bureaucrats were there to record it, categorize it, and re-organize it, as precisely as possible in order to recover the imperial vision painstakingly created since the reign of Peter the Great, who had built the city a century earlier. I suggest that it was through the army of state officials in the streets in
the aftermath that counted, chronicled and determined aid disbursement, rather than symbolic tour of the tsar, that the government re-asserted its control in the city. It would be this vision of the city, filed away into archives and compiled in to two substantial reports that would serve as testaments to what happened, along with a scattering of plaques and painted lines on buildings. In this version of events, the city recovered from a catastrophic event in an orderly fashion.

At the same time, the flood offers a window on to St. Petersburg’s spatial dimensions as defined by the state. Taking Samuil Aller’s totals as our guide, 449,307 people resided in the capital on the first of November. Approximately 28 percent of that total were women, 49 percent of the whole could be classified as peasants and serfs, while 14 percent were people of mixed rank. While modern accounts indicate that 700 people died during the flood, Aller noted that authorities recorded 3,625 (1,155 women) deaths for the month of November. This suggests that disease, later blamed on a spring-time influx of workers from the provinces, was already at work in the city. In addition to the human toll, Aller claimed that 462 buildings were completely destroyed, most likely the wooden domiciles of the peasants, while there was external damage to over 2000 structures, the bulk of which were the stone housing of the more fortunate, church property, and state buildings. Still, St. Petersburg, despite the imperial image it projected, could

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30 James Bater has already mapped the living patterns of early 19th century Russia, and found that different groups of people were living in the same spaces in St. Petersburg, often on different floors. This affected how people experienced the flood and what kind of damage resulted. For more on urban patterns in imperial Russia, see James Bater, *St. Petersburg: Industrialization and Change*, Studies in Urban History (Montreal: McGill-Queen’s University Press, 1976).

31 Information for this paragraph from Aller, 19-20. Total numbers listed by Aller include: 444,324 people lived in the capital between January 1824 and January 1825, of which 125,091 were women. Approximately 122,000 (17,281 women) were peasants, 100,000 (30,190 women) house serfs, and 61,000 (26,412 women) people of mixed rank. There were about 57,000 people in military related positions (including 10,000 women), 41,000 members of the nobility (18,000 women), as well as 38,000 people considered by the government to be petty bourgeoisie and merchants, both foreign and local, with another 1800 (669 women) people serving as members of the clergy. In addition, almost 1400 foreigners were in the city at the time of the flood. However, Aller found that the official population of St. Petersburg on November 1, 1824 was 449,307, while on December 1, the population had declined to 445,682.
hardly be classified as a completely urban environment and there is likely much that escaped the calculating eye of the bureaucrat.

The state responded to the catastrophe with pragmatism to categorize individuals, prioritize aid, acquire knowledge of conditions, and to implement a plan for future response. Several documents allow us to measure the autocratic response. The documents compiled by Pogozhev, Berkh, and Aller chronicle the government response in the days following the flood. These documents can inform our understanding not only of the scope of the disaster, but who was affected by the path of the water. These documents are shot through with the interplay of actual rule and the symbolic representation of state power that show that while the state was capable of mobilizing short term aid, it was difficult for the state to effectively implement any long term solutions to flooding except for symbolic representations of power.

I argue that the flood allowed Tsar Alexander to symbolically demonstrate his autocratic authority in a direct way and on a mass scale. It is well known that during the flood the tsar was visible in the streets of Petersburg, where he “displayed care and condolence to the fatherland over the fate of the victims and became their Comforting Angel….“32 After the flood, the Tsar tirelessly toured the affected streets of the capital amid the mud and debris. The people, upon seeing Alexander on these tours, and witnessing these displays, in the words of Samuil Aller, who described the events in 1826, “appealed to their monarch and, it seems, they forgot their sorrow and irretrievable losses from this disaster.”33 Alexander visited particularly devastated areas “[with] new examples appearing everywhere of his…sympathy, and compassion toward his subjects.”34 On the 11th, Alexander visited the Smolensk cemetery on Vasilevskii Island. Told

32 Aller, Opisanie navodneniiia 32.
33 Aller, Opisanie navodneniiia 32.
34 Aller, Opisanie navodneniiia 32-33.
that the water reached over ten feet there, he responded simply, “I am your protector.”

Anecdotes such as this, offered after the Tsar’s death in 1825, sought to preserve the Tsar’s image as one of strength and compassion in the face of adversity. Perhaps Alexander would be remembered just as Catherine II, who was depicted in engravings as Minerva protecting the city and emerging victorious over the flood of 1777. Thus, the Tsar saw, and was seen. Aller, in his hagiographic account, suggests this was enough to bring calm to the people. Alexander was deeply moved, and this is not to suggest otherwise. However, beneath his watchful eye and his imperially and symbolically staged appearance, stark realities confronted authorities. People lacked essentials such as food, clothing and shelter, and disease was already beginning to spread.

Alexander’s thoughts immediately turned to the restoration of order and reconstruction in terms both social (human) and the built (property). The Tsar placed Governor-General M.A. Miloradovich in charge of the immediate recovery process, and under his command Adjutant General A.K. Benkendorff on Vasilevski Island, Adjutant General Komarovskii for the Petersburg Side and on the Vyborg Side Adjutant General Depreradovich. Perhaps, such quick action by the tsar demonstrates a reassertion of autocratic principles in an effort to overcome the natural devastation that momentarily rendered the autocratic government powerless. Clearly, he thought it the best available solution to meet the needs of people and recovery. In addition,

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36 It was during this meeting that the tsar famously broke down in tears in front of his inner circle. See E.F. Komarovskii, *Zapiski Komarovskago*, Biblioteka memuaroV. (St. Petersburg: Ogni, 1914), 225-226. M.A. Miloradovich (1771-1825), was a battle-tested war hero who arrived in St. Petersburg as Governor-General in 1818. In 1820, he arrested Pushkin, succumbed to the poet’s charm, and released him on the spot. The general played a key role in palace intrigue during the succession crisis of 1825. He died, tragically, after delivering an impassioned plea to his revolting regiments on the palace square, shot by a Decembrist (MERSH, vol. 22, 133-34); A.K. Benkendorff (1783-1844), a personal friend to Alexander, loathed by society and well known for his run-ins with Pushkin as head of the infamous secret police Third Section. Benkendorff, who first informed the tsar of the existence of secret societies as early as 1821, rose to prominence in the years surrounding the flood. It was not until the 1825 Decembrist Revolt that he solidified his position as an elite statesman, founding the Third Section in 1826, at the same time that he continued to oversee projects related to the flood aftermath (MERSH, vol. 4, 9-11).
Alexander directed the Minister of Finance to provide 100,000 rubles for use by this triumvirate.  

On 11 November, Alexander exercised his autocratic penchant for extra-legal committees and created the Kurakin Committee for aid and recovery. The tsar marshaled together the expected figures from military, police, and religious institutions to fill the committee. The rescript to A.B. Kurakin suggests the limits of the existing state system in the face of disorder. Four days after the water retreated within the banks of the Neva, the extra-legal committee was asked to fill a necessary function, as there was no existing state institution that could adequately engage the populace. Indeed, decisions needed to be made about the proper disbursement of aid. Because “the authorities cannot recompense every expense of that disastrous day,” Alexander charged Kurakin’s committee with determining how to best distribute that aid, while at the same time emphasizing the care of the tsar. The tsar indicated that only the most ruined and indigent were to receive aid first. Thus, the committee was tasked with providing food, clothing and shelter to those most in need, and as noted in Russkie Vedomosti, “one may judge the size of the disaster” by the fact that in the first days afterwards, the committee aided nearly 16,000 people. Philanthropic aid was offered and accepted from the gentry of Moscow and the Senate in Finland. In addition, large amounts of personal aid were solicited and provided by the gentry to provide food and clothing for those affected. The primary task of the relief effort was to provide food, warm clothes and shelter for the victims. The emperor himself led the subscription drive to raise money for the victims.

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37 E.N. Pogozhev, “K istorii navodnenienia v S-Peturburge v 1824 gody,” Russkaia Starina (January 1904, vol. 117, no. 1231), 231. These documents are simply sources collected by Pogozhev and published by Russkaia Starina.
38 E.N. Pogozhev, 232.
39 Russkie Vedomosti, Thursday, November 7, 1863, 8.
40 Russkie Vedomosti, Thursday, November 7, 1863, 8.
By examining how aid was disbursed in one specific location, Vasilevskii Island, we can trace the outlines of this highly stratified city of ranks and the flood’s social effect. Altogether the state identified 10,176 persons requiring aid (totaling 3,399 families) on the island.\(^{41}\) By far, the largest group affected was the “people of mixed rank,” with nearly 1400 families requiring assistance.\(^{42}\) These families received direct monetary aid. Aid was based on immediate need, and not, as Count A. K. Benkendorff, the official in charge of relief on the island, noted, on the total amount of losses requiring compensation. The committee considered categories of financial aid, clothing, food, medicine, shelter, cows, and miscellaneous expenses in that order. All expenses were to be approved by the committee before disbursement.\(^{43}\) The property tally reveals a stunning amount of damage on the island, which included notations for fences, gates, and larders, in addition to roofs, sewers and bridges.

The fact that a significant sum was devoted to families who lost cattle in the flood demonstrates the delicate balance in the city between natural and urban areas. According to Aller, 3,600 horses, bulls, and cows drowned in the flood.\(^{44}\) Benkendorff reported that more than 1,000 people on the island drew a significant amount of their sustenance from cows.\(^{45}\) With that, the city lost a significant source of milk and food after the flood. The pervading hunger recalled

\(^{41}\) E.N. Pogozhev, 236.
\(^{42}\) This discussion is based on Pogozhev, pp. 233-237. The people of mixed rank received between 10 and 50 rubles, eventually reaching a combined total of 71,833. Other categories included Chief-Officers (517 families), masters (242), merchants and traders (210), free peasants and serfs (223), meshchane, or petty-bourgeoisie (377), and widows and spouses of generals (30). In sum, the Kurakin Committee disbursed 224,943 rubles for recovery on Vasilevskii Island.
\(^{43}\) This brings to mind the image of people appearing before officials pleading their case, although Benkendorff does not record the details of the interaction. One should also not forget that Kronstadt was also ravaged by the flood. See K. Golovizin, “Navodnenie 7 Noiabria 1824 g. v Kronshdate.” Morskoi Sbornik, (1881, v. 185, no. 7), page 89: Details of death and damage: 46 men, 30 women and children, 29 homes, and 5 factories completely destroyed. 196 homes flooded, 4 horses, 223 cows, 28 sheep, 7 goats, and 20 pigs were lost. The committee in charge of recovery on Kronstadt received 25,000 rubles from a variety of benefactors, and distributed 65,000 more.
\(^{44}\) Samuil Aller, Opisanie navodnenia 19-20.
\(^{45}\) 386 families.
by Romanovskii was endemic after the flood.46 People looked to the state as the entity most able to provide these services after the flood, even if imperial officials felt helpless amid the staggering amount of damage.

Count E. F. Komarovskii took charge of the Petersburg Side. Entering the Petersburg district and the islands of Kamennii and Aptekarskii, Komarovskii remembered “that in no way could I imagine such destruction, such that I found everywhere. All the fences were swept away, all the bridges, even the footbridges across the canal were…wrecked.”47 Komarovskii was concerned as he viewed the damage, because the district was inhabited by many non-elite people, who dwelled in single story wooden buildings. Thus, unlike more fortunate residents across the river in the Admiralty district who lived on upper floors of stone structures, they were at greater risk. According to Kohl, years later rumors still circulated that “some of the wooden houses were lifted from the ground and continued to swim about with all their inhabitants in them, and without going to pieces.”48 Komarovskii, charged with the dual purpose of maintaining order and organizing relief efforts, simply stood helpless. “I did not know where to start, where to begin,” he later wrote.49 The damage was especially intense in the village of Koltovskaia. “There,” the official observed, “many ramshackle houses were destroyed entirely.” From his estimation, the flood had killed 180 people at that site alone.50 Under these conditions, the officials charged with rebuilding the city set about their task. Yet, Komarovskii and other officials were hampered by the fact the flood occurred in the late fall. The skilled workers with the specialized knowledge

46 Ted Steinberg has shown that control of the food supply is one method authorities use after disasters to restore and maintain order.
48 J.G. Kohl, Russia, 22.
49 E.F. Komarovskii, Zapiski, 227.
50 E.F. Komarovskii, Zapiski, 227.
necessary to rebuild the city, primarily serfs from the provinces, had already returned to their villages.

Doctors, at several temporary clinics, were already treating a variety of maladies. While Aller optimistically reported that disease had been contained by the end of winter, he noted that there was an outbreak of Typhus in the spring when workers from the provinces returned to begin the rebuilding of the city. This outbreak, Aller concluded, could not be blamed on the flood, but on the influx of workers arriving in Petersburg to rebuild, who because of damaged buildings, were forced to cohabitate in tight quarters. Although these buildings contained residual dampness from the flood, Aller argued that these peasants were already sick, likely from exhaustion, before they ever even got to St. Petersburg.\footnote{Aller, \textit{Opisanie navodneniia} 32-33.}

**Response: State and Society**

Six weeks after the flood, a German scientist in employ of the government, F.F. Schubert wrote that St. Petersburgers found themselves in the opposite position of that in the proverb of the prophet Mohammed. “We did not go to the mountain,” Schubert observed, “the mountain came to us.” The flood spurred a flurry of discussion within the regime. In the aftermath, various departments, such as the Admiralty, began to collect and chronicle all of the instances of flood in the area’s history from 1691. The compendium compiled under the direction of V.N. Berkh appeared in 1826 and provided the most exhaustive history of St. Petersburg floods to that date.\footnote{V.N. Berkh, \textit{Podrobnoe istoricheskoe izvestie o vsekh navodneniakh, byvshikh v Sanktpeterburge}, (St. Petersburg: Morskaia Tipografiia, 1826).}

The government sought to make sense of the 1824 disaster in scientific terms. Schubert investigated the causes of the flood so that the state might better understand its characteristics and devise a solution. Schubert was equivocal in his report, but still managed to emphasize the rarity of such an event. While he admitted that science had progressed to the point where the
motion of an object could be measured precisely, the inexactness of the natural world required much more study. “The precise observation of nature cannot be assumed,” he wrote, for “it conceals from us the details of its mastery…” and because of that, “we may not clearly see what is happening right over our heads or beneath our feet.” Thus, Schubert concluded, “we don’t know where the weather is coming from, or where it is going….Although no kind of human effort can change the direction and strength of a storm,” Schubert reported, “there exist local circumstances that would be useful in removing the danger of this increasing evil ( зло).” As such, it would be difficult to mount any kind of defense given the state of technology and expenses available to the state.

The first recorded flood in what would become St. Petersburg occurred in 1691, when the Russian historical-geographer I.I. Pushkarev claimed the water level rose twenty-five feet, covering the area from the mouth of the river to Okhta. Though most Petersburg residents must have been accustomed to the danger of flood, few if any, of the city’s inhabitants had experienced anything like what they experienced in 1824.

The largest flood prior to 1824 had occurred in September 1777. It was destructive, to be sure, but the waters receded after about seven hours, and only just briefly reached higher than ten feet. To some, that flood seemed worse than the 1824 flood, because there was little warning of the impending disaster when people went to sleep that night, and thus caught people unaware. One description published on the seventy-fifth anniversary offers a similar tone as descriptions

53 Karatygin, Letopis’, 35.
54 Karatygin, Letopis’, 35.
55 I.I. Pushkarev, Nikolaevskii Peterburg (St. Petersburg, 2000), 32.
56 “Navodnenie v Peterburge 1777 g.” Maiak’. 1842. v. 4, 38
of the 1824 flood. An observer noted that everywhere one looked, one found “fathers looking for
children and children for their mothers and fathers, husbands for wives, and they for them….”  

In response, Catherine II issued a decree stating that

In the event of high water, to such a degree that it can spill over and enter the city, then all inhabitants will be given a signal from the Admiralty fortress, five shots from the cannons, and a signal will be raised at the Admiralty spire [visible] from all four directions, by flag in the daytime and by lamp at night.58

Acknowledging that in St. Petersburg, “daily life can be liable to the most unforeseen disaster,” the Admiralty placed signs and signals around the city in an effort to “avert or decrease this evil.”  

This was the system that went into effect on the night of November 6, 1824.

Petersburgers were fairly certain that they could deal with inundations once they determined the characteristics of the storms that preceded a flood. Pushkarev recounts a common legend of a group of “Finnish fishermen,” who could foretell the approaching floods by the atmospheric changes and the fact that floods recommenced every five years. During these times, Pushkarev wrote, the fisherman “made out in a hurry, with their lives and belongings and hid in the Dudorovskii Hills.”  

These instances, they believed, required the convergence of several rare factors. Like Pushkin, who wrote of the fierce winds pushing the Neva’s water back upon itself, British traveler Thomas Raikes was told that

the circumstances most liable to promote the overflowing of the Neva, are, when at the autumnal equinox, three or four days after the full or new moon, a violent north-west wind drives the waters of the Northern Ocean during the influx of the tide into the Baltic, and is accompanied or instantly succeeded by a south-west wind in that sea and the Gulph of Finland.61

58 V.N. Berkh, Podrobnoe istoricheskoe izvestie, 58.
59 V.N. Berkh, Podrobnoe istoricheskoe izvestie, 56-57.
60 I.I. Pushkarev, Nikolaevskii Peterburg, 32.
61 Thomas Raikes, A Visit to St. Petersburg, 107. Kohl relates a similar account of the cause of flooding. See Kohl, Russia, 21.
However, as residents became accustomed to the consistently non-catastrophic floods each year, they became secure in their belief that they could ride out a storm.

For years, citizens had witnessed the construction of the granite embankments that served as important defense mechanisms against floods. The embankments not only reinforced the river banks, but also the idea of safety. Anekdoty collected after the flood emphasized notions of safety and that someone could even be mocked for seeking protection. In one such anekdot, a druggist relocated his merchandise to the second floor as a collection of his friends stood needling him. “I will be laughing,” the druggist accused, “when all of you are crying!” 62

Pushkarev cautioned readers not to take the placid water of the Neva for granted. “Floods happen quickly and disastrously,” he wrote, and the river can “rapidly burst from its banks.” 63 Pushkarev noted that scarcely a year or two passed without a flood and pointed out that Petersburghers had learned the general pattern of the water’s path. “Not every space in the city suffers this disaster,” he wrote. “The fourth Admiralty,” he elaborated,

Peterburgskaia, Vasil’evskaia and Narv skaia sections, especially the coastal places of the latter two, more often suffer losses from [the floods], but on the other hand, the Liteinaia, Rozhdestvenskaia, Karetnaia, Okhtinskaia and the greater part of the Vyborgskaia and Moscovskaia remain outside the area of high danger, even in the time of considerably high waters. 64

Still, the constant floods meant that the residents would have to accept that water would periodically take control of the landscape.

From the start, contemporaries certainly understood that most depictions of the flood and its memorialization were contested. The authorities and residents, and Petersburghers and

62 Quoted in P.P. Karatygin, Letopis’ Navodnenii, 1703-1879 (St. Petersburg, 1889), 34.
63 I.I. Pushkarev, Nikolaevskii Peterburg, 27.
outsiders, all sought control of the narrative for their own purposes. The editor of the journal Blagonamennyi, a certain Izmailov, already cautioned readers not to trust eyewitness accounts coming out of St. Petersburg in the December 1824 issue. For one, Izmailov himself had already read his obituary twice. A frustrated Izmailov expressed amazement about the stories emerging from the city. “In some kind of French journal (which I myself have not read, but rather heard about from a reliable man) it was printed that on Vasilevskii Island, the water wrecked every house but one!!” The article expresses a great deal of hostility to foreigners and their depictions of Russia. Izmailov chafed at the mere mention of flood accounts in the foreign press, categorizing their materials as “vulgar rubbish.” Izmailov details the stories he deemed absurd. For example: “Did you read the… anekdot about the accidental wedding?”

Several anecdotes supposedly forecasted disaster in the capital that fall. While walking on one of the small islands in the city that summer, a woman noticed the height at which ants built their winter storehouses. “What does that mean?”, she asked the elderly naval officer who strolled with her. “This is very bad, madam,” the officer answered. “The ants always make their nests in high places in the years when there will be a flood. This year there will be high water: I advise you to take up residence as high as you can.” These anekdoty became common after the flood and suggest that residents sought to confront fear and make sense out of the fact that they were never quite sure when a disastrous flood was near and exercise some control over their fates. Authorities hoped for a more reliable form of defense through understanding the causes of the flood and the path of water through the city so that they could establish defenses.

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65 The government sought to control the flow of information about the flood, perhaps to avoid the appearance of unmanageability. At the same time, as the collection edited by Alessa Johns, Dreadful Visitations, reflects, Europeans hungered for descriptions of natural disasters throughout the world.
66 Izmailov, Blagonamennyi, (1825, ch. 29, no. 2), 75.
67 Izmailov, Blagonamennyi, (1825, ch. 29, no. 2), 75.
68 Karatygin, Letopis’, 34.
St. Petersburg was not the only site of serious flooding in the fall of 1824. There had been flooding throughout Europe on the Rhine, Mosel, and Rhone. Schubert considered these events as he weighed evidence on the cause of the Petersburg inundation. For Schubert, floods on those rivers could be explained because of river origins in the Swiss Alps and for greater volumes of water that flowed downstream. But what of the Neva, which flows “calmly out of Lake Ladoga”? Finding that the Neva could be the exception that proved the rule of the floods in Western Europe, Schubert theorized that all the flood events were connected by a complex system of storms that began far off in the North Sea and North Atlantic. “As,” Schubert informed Benkendorff in his report, “there must have been a few days of ferocious storms with westerly winds that drove the water [east].” Yet, even that was insufficient in itself for causing the flood in St. Petersburg, Schubert concluded, for a confluence of storms was required to cause a flood of this magnitude. A second storm, this time in the Gulf of Finland, would be necessary to raise the water to such a level. Schubert was certain that his hypothesis was correct, for “the shipwrecks on the shores of Great Britain, Germany and Scandinavia” testify to the power of a storm that could cause such damage as the inundation of Petersburg. “In all probability, many years will pass, perhaps fifty, before Providence allows the coincidence of all of the above mentioned circumstances to occur, and a misfortune like this one to happen.”

In addressing the causes of the flood for St. Petersburg, Schubert emphasizes that a uniquely Petersburg solution was required and that universal European solutions, either within the city or upstream, were irrelevant. “If,” he writes, “the Neva did not flow into the sea,” then there would be no point of force created by the pressure of two bodies of water traveling in different directions meeting. Thus, storms moving east would simply move east, with nothing to break their path. “Therefore,” Schubert continued, “any kind of obstacle would impede this flow,

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69 This section draws from Karatygin, *Letopis*, 36-39.
[and] alter matters: shorelines and reefs would form breaks for the waves.” As things stood at the time, the two forces of water met, creating a high point somewhere out at sea. In this case that point was located between Petersburg and Kronstadt. Schubert speculates that this crest was perhaps twenty feet high on November 7. The greater force pushes a wall of water in back towards Petersburg and the city is submerged. Thus, if we follow Schubert, the government’s course was to place such an impediment in the water’s path.

However, it seems unlikely that in the 1820s authorities that a secure preventive solution was possible. Of all the studies submitted to the government promising such a result, which included the “grandiose,” the plausible, and the outlandish, few ever made it beyond the proposal stage, and even fewer were funded.70 Surely, Schubert told Benkendorff, steps could be taken in the future “to limit the damage from future floods.” However, before any kind of solution could be implemented, the government chose to implement a number of solutions offered by the Berkh committee.

After cataloguing the history of floods in the city and detailing the events of early November 1824, Berkh’s committee offered a number of recommendations. These recommendations primarily concentrated on buildings, streets and the somewhat radical proposal of elevating the city. “Many parts of the city have been paved,” the committee noted, “but many stone street surfaces are already eighty years old.”71 Thus, the committee recommended that these be repaved every two years. Not only would buildings need to be raised, but so would streets and sidewalks. One solution was to recycle soil from other building projects such as canalization and pipe-laying. In order to provide sufficient material for this undertaking, the committee suggested that during construction of canals “almost all of the soil [be] removed and

70 M.A. Rykachev, O navodnenii v S. Peterburge i o vozmozhnosti ikh predskazyvat’ na osnovanii meteorologicheskikh nabludeniy (St. Petersburg, 1898), 13.
71 V.N. Berkh, Podrobnoe istoricheskoie izvestie, 80-81.
used to raise the streets and sidewalks.” 72 A secondary problem identified by the committee was the large amount of trash that that flowed with and was deposited by the water throughout the city. “It is true that trash from many buildings were removed, but this trash was not removed from the city, and could be converted to raise lower parts (of the city),” instead of causing such a hazard after the flood. 73 In a separate report included in the Berkh documents, one G. Tychinkin concluded that every place in St. Petersburg near water was at risk from flood. Therefore, he suggested that the “fundamental” solution was to build more canals in order to redistribute the amount of pressure and water on the city at any given time. 74 All of these solutions were implemented in combination over the course of the next decade.

In 1846, Lady Bloomfield traveled to St. Petersburg with her husband, the long time ambassador to Russia. Asleep in the Winter Palace late one night, she was awoken by the sounds of cannon fire. Afraid, she woke her sleeping husband. “Ack,” he exclaimed, “It’s nothing, just a flood.” 75 However, Lady Bloomfield was not so easily assuaged. She remembered the stories of the 1824 deluge and panicked. Her husband was able to put her at ease after informing her that this particular signal signified only that the water was higher than normal. 76 And with that, he went back to sleep. Twenty years after the events of November 1824, in the absence of another catastrophic flood, they had once again become routinized parts of daily life in the city.

**Conclusion**

The flood demonstrated that nature limited and disrupted the immense possibilities the river offered the city and challenged the imperial vision of a capital dominating the river. After 1824, a healthy respect for the power of nature was in order. Foreign travelers were quick to

74 V.N. Berkh, *Podrobnoe istoricheskoe izvestie*, 86.
75 The emphasis is mine. Lady Bloomfield, *Sankt-Peterburga Panorama* (#3, 1992), 38.
76 Lady Bloomfield, 38.
incorporate themes of flood danger in their narratives. As the British traveler Thomas Raikes observed, that as “wonderful as the construction of this city has been,--in defiance even of the laws of Nature,--its foundation, established upon massive piles, and by artificial drainage, may still be considered precarious.”\textsuperscript{77} On the eve of the 1834 consecration of the Alexander Column in honor of the late tsar, whose life was marked by the two worst floods to strike Petersburg, the river was the cause of great concern. “Much anxiety and uncertainty had prevailed in St. Petersburg,” a traveler remembered, for

> it seemed as if heaven itself was about to interpose. The beautiful, but terrible Neva, forced back by the waters of the Gulf of Finland, had risen upon her granite quays, and threatened once again to devour the city which so often before had been the victim of her wrath. The alarm-cannon were fired…[but] The Neva…was more placable than on former occasions; her swoln waters retired majestically…..”\textsuperscript{78}

While observing the city in August 1839, Custine took note of the empty streets, for many of its inhabitants left the city in that month. Already viewing the city with disfavor, he decided

> “Petersburg is to be drowned, then. Mankind has fled and the waters are returning to take possession of the marsh. This time nature has overcome the efforts of human ingenuity.”\textsuperscript{79}

In 1840 Ivan Pushkarev optimistically predicted a future in which Petersburgers would conquer the river. “Take notice,” he wrote, “the subsequent floods in Petersburg (beginning, perhaps, in a few centuries) will be without danger, for with every year, the elevation of the city rises from rubbish, stone, and sand…and with reconstructed buildings, the paving of streets, and ballast from abroad.”\textsuperscript{80} Pushkarev’s certainty obscures the fact that the drama of building a lived city centered on water beneath the imperial façade, remained a continuous project. In the long term, large scale flood control projects were deemed as excessive financial burdens and were not

\textsuperscript{77} Thomas Raikes, \textit{A Visit to St. Petersburg in the Winter of 1829-30} (London, 1838), 105.
\textsuperscript{78} Leitch Ritchie, \textit{A Journey to St. Petersburg}, 136.
\textsuperscript{80} I.I. Pushkarev, \textit{Nikolaevskii Peterburg}, 34-35.
financed. Floods, then, were understood as a necessary condition for living and governing from St. Petersburg. The government decided to abandon large-scale flood projects, and with this decision, albeit in fits and starts, they suggested that a certain amount of death was acceptable in the face of nature when the costs of prevention were too high.

The images of Pushkin’s epic became the prevailing memory from 1824, and the state could hardly contest the vision set forth in the poem.\(^{81}\) By 1866, Pushkin’s depiction of Alexander had been embedded in the historical narrative, as the historian E.P. Kovalevksii portrayed Alexander through the lens of Pushkin’s poem as a tsar on his balcony, watching the river over-take the city.\(^{82}\) Once again, the narrative depicts a helpless Tsar in the face of nature, rather than one who boldly restored autocratic order after the flood.

The flood became a permanent marker and reminder of the power of nature in the city’s history. Before the flood was immortalized by Pushkin, the city leadership ordered lines of red paint to record the height of water on every street, and a brass plate was installed at the Peter and Paul Fortress marking the spot.\(^{83}\) Years later Kohl observed the water marks, as they had been painted onto the buildings as a reminder. “In every street the highest point attained by the water is marked by a line on the side of the houses,” the traveler wrote. “God grant that the house-painters may never again be employed in so melancholy an office.”\(^{84}\) The state’s attempt to control the aftermath by turning to the modern met with stiff resistance in the village at Galernaia Harbor. As we will see, the struggle to handle floods through modern, yet autocratic, means was confronted squarely by a populace determined to resist forced relocation from the flood plain.

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\(^{81}\) The Soviets, as part of the great human effort to overcome nature, believed they could accomplish the task. They proposed building a dam across the mouth of the river. Begun in 1979, the dam now sits incomplete and in disrepair, west of the city, though recently its completion became a pet project of the Putin regime. The resulting lagoon promises to be an environmental disaster for the ecosystem contained within the dam.

\(^{82}\) Karatygin, *Letopis*, 49.

\(^{83}\) Samuil Aller, *Opisanie navodneniia*, 27.

\(^{84}\) J.G. Kohl, *Russia*, 23.
Chapter 3: “The Province in the City: The State and the Settlement at Galernaia Harbor, 1824-1862”

“Жди горя с моря, беды от воды.”
“Матушка Нева испромыла нам бока.”
—Proverbs

Introduction

Nowhere was this epigraph more true or immediate than the settlement at Galernaia Harbor.2 This chapter addresses the story of the 1824 flood and its aftermath in once concrete place: the settlement at Galernaia Harbor. Located on the western end of Vasilevskii Island, the settlement suffered immense damage during the flood of 1824 as the first point of contact for onrushing floodwaters. After 1824, authorities sought to relocate the settlement to avoid subsequent flood disasters. Government officials believed they could do this because, beyond harbor infrastructure, the settlement remained undeveloped into the nineteenth century, and represented the inherent wilderness of the capital. The settlement’s very existence went against the grain of what the capital stood for, and was a symbol for what authorities sought to conquer. When residents resisted policies demanding their relocation, authorities reversed course and sought to modernize the settlement by requiring stone foundations, roads and drainage.

This chapter investigates the interaction of state and society at Galernoe settlement that brought about that reversal. By following the dispute over the vision of the settlement after the flood of 1824 we glimpse the outlines of state authority. What began as measures against flood control became, as time went on, more about asserting imperial control over the inhabitants than preventing floods. The story of the settlement unsettles our notion of urban St. Petersburg, as the ways in which the government tried to reshape the area failed.

1 “Expect grief from the sea and misfortune from the water,” and “The Mother Neva washed over us, but we remain.” Quoted in Naum Sindalovskii Peterburg v folklore (St. Petersburg: Zhurnal Neva, Letnii Sad, 1999), 183.
2 In Russian, the term for settlement is in the neuter gender while the term for harbor is in the feminine gender. Each gender requires a different ending. As such when referring specifically to the settlement, the ending “oe” is used. When referring to the harbor or the area around the harbor, the ending of “aia” is used.
The chapter will reflect the struggle between a state and populace for control of a territory and access to resources through analysis of a set of archival documents covering the period from 1824 to 1862, two important dates in imperial history. Thus the story of Galernoe settlement yields a glimpse at how the Russian state sought to organize people and materials in the imperial capital. At the same time, the struggle for the meaning of this particular space demonstrates something about the nature of early modern Petersburg, because of the difficulty of realizing the sometimes grand plans of officials on the ground. Before this story was concluded and the fate of the recalcitrant inhabitants decided, inhabitants would encounter a host of new officials in the imperial power structure. These officials came to the settlement from the city Duma, the police, the land surveyors’ office, as well as engineers from the Department of Transportation (i.e. the engineers from chapter 3). However, before we tell this story, we must first situate the settlement within the capital’s history.

Imperial Vision Averted

Although imperial authorities may have had grand ambitions for Vasilevskii Island, the western end suffered irregular development due to constant flooding and other disasters. The settlement grew out of a sailors’ village founded in 1721 when Vasilevskii Island was to be the administrative center of the capital. Eventually, the population became dominated by workers constructing the wharf at Galernaia after 1740. The harbor itself was a basin surrounded by dikes, near a small river known as the “Rotten Gulch.” The port was originally built to house the Russian fleet while construction continued at Kronstadt. Expected to be home to other Navy vessels, modernization projects that would have come with such a development dissipated as the

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3 1824 refers to the Great Petersburg flood, and 1862 was in the middle of discussions on how to best implement the emancipation of the serfs put forward in 1861, both of which had bearing on the residents at Galernaia.
port saw two fires destroy ships in the 1770s and 1790s. After these fires, the government harbor was used to store floating “mast timber” and for ship construction, which helped maintain the wild and rural characteristics of the area.⁵

In 1808, the harbor area and village were brought into the city limits.⁶ While the harbor still served as a home to naval galleys into the nineteenth century, the settlement was no longer a destination for inhabitants of the capital, official, or otherwise. According to geographer Aleksei Grech, the locale was well known around St. Petersburg because of “its low-lying position,” which meant the harbor “suffers floods during the slightest rise of the water.”⁷ To combat floods, imperial authorities constructed an earthen wall across the face of the island.⁸ Despite the flood wall, imperial authorities were reluctant to invest in the area and imperial development concentrated elsewhere. In any case, the wall was no match for the flood of 1824.

Nonetheless, the settlement grew up as a result of imperial policies. When both shipbuilding and better docks were situated elsewhere in the city, the imperial sightlines shifted away from the area. Residents remaining in the area supported the imperial project, yet lived in its shadow. That changed after a November morning in 1824.

The Flood of 1824 at Galernoe

Galernoe settlement likely would have come into conflict with authorities at some point, as a space so close to the center of the city would eventually have to be re-imagined as an imperial space, but it was the flood of 1824 that put brought the settlement to the attention of a host of unimaginable city officials for nearly forty years. Located on the sixth quarter of

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⁵ Aleksei Grech, *Ves Peterburg v karmane: spravochnaia kniga dlia stolichnykh zhitelei i priezhikh, s planami Sanktpeterburga i chetyrekh teatrov*, (St. Petersburg: Grech, 1851), 151.
⁸ Selivesterov, “Galernaia Gavan’”.

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Vasilevskii Island, the settlement was in direct line of on-rushing water during floods. None was as devastating to the area as the flood of 1824.

When young K.K. Boianus witnessed the water coming toward his home on the morning of November 7, 1824, it was the water that had just washed across the harbor and settlement at Galernoe, the first point of impact for flood waters that morning. The flood submerged Galernaia Harbor as the water reached a level of 16 feet. Samuil Aller reported that after the flood the settlement “appeared as a terrifying ruin: there ships and galoti lay in many of the streets and yards; in some places, where there were a number of houses, became squares; [there] stood and lay homes and roofs carried across the street; the largest parts of the street were so buried with various splinters and household utensils, that it was almost impossible to pass.” Aller reports several fantastic stories of the dangers residents faced. Carpenters working at Galernoe reportedly rode beams or logs across the river to safety.

“The official K. lived at Galernaia Harbor,” Aller wrote, “although in a small but sufficiently good and solidly constructed home,” and during the flood he was obliged with his family, including a pregnant woman, three under-age children and aged mothers, to move to the attic where they had time to drag their dresser and a few necessary things. But the water rose continuously, so that it touched the ceiling. The unfortunates thought about going to the roof to save themselves, when they suddenly saw a ship bearing toward them, Terror seized everyone and they expected to be killed. But at that very minute the ship ran into the house with such a force, that the roof with the entire ceiling intact came off the wall of the house, and sailed by the wind. There, still more certain of the inevitability of their disaster, but by inscrutable fate, the roof landed on a high place, where it remained on dry land. In this way, the entire family, remaining there until morning, was saved and taken care of by the government charity.

The devastation wrought by the flood created the opportunity for officials to step in and re-imagine the area as an imperial, controlled, space. No doubt that the recovery costs burdening the

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9 Aller, Opisanie Navodnenie, 9.
10 Ibid., 12.
11 Ibid., 76-77.
12 Ibid., 68-69.
state at a point of a floods direct hit were enormous and enough to justify extreme measures to control the situation.

Almost forty years after the flood, the newspaper *Russkie Vedomosti* recalled that Galermaia Harbor was the worst hit area in the city, where “victims knew not where to go to save themselves.”\(^{13}\) As a result of the floodwaters, city officials decided to resolve the issue once and for all, likely not expecting the resistance they were to meet from residents.

**Post-1824: Re-Establishing Control?**

One might expect the autocratic regime long reflected in the historical literature to brush away or ignore resistance to the plans authorities crafted and implemented, especially in the capital. The fact that residents at Galernoe resisted government plans and forced authorities to seek accommodation unsettles our notions of state power. Resistance to authorities was not the prime motivator of inhabitants’ actions. Initial government plans called for residents to be resettled elsewhere in the capital. However, the location of the settlement provided residents with their most important necessity, water, as well as access to goods arriving through the nearby customs house.

To encourage residents to move, authorities devised a number of measures in 1827. The most important proposal stated that the government intended “to prohibit residents of Galernoe settlement the construction of new, or the mending of old, houses, offering those who wished to make repairs to their homes to transfer them to Smolenskoe Field.”\(^{14}\) However, residents objected to the plan, since the location at Smolenskoe Field, while just a few miles inland near the center of the island, prevented them from access to traditional sources of water. Thus, authorities promised to “construct a narrow canal at city expense, from the Gulf of Finland in

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14 “Doklad,” TsGIA SPb. f. 792, op. 1 delo, 532, l. ob. 12.
one direction to the Little Black Brook (v chernii rechku) from the other...”\textsuperscript{15} By preventing residents from routine maintenance of their homes, the government sought to make its alternative plan more appealing. The plan to build the canal demonstrates the serious nature of the government’s proposal and the initial expense authorities were willing to undertake to remove the settlement. Perhaps the daunting task of relocation gave residents pause, but it appears that the governments offer failed to mollify them.

Although the area is geographically close to the intended center of the capital, originally the area was called “Glukhoi Protok.”\textsuperscript{16} This is significant as “glukhoi” has a number of meanings including deaf, remote, overgrown, and wild. All of this implies an unregulated area, spontaneous, even “natural.” That the name was still relevant to an author in 1831 emphasizes the dual position of the village and hints at what the state encountered in its relationship with residents. For imperial authorities, the notions implied by “glukhoi” were antithetical to the primary materials of an imperial capital: stone foundations and roads.

By 1831 the government still held out hope that the settlement could be moved. However, after canvassing the 449 residents of the settlement, officials discovered that only 27 desired to relocate to Smolenskoe Field.\textsuperscript{17} Residents made no secret the reasons for their objections. As in 1827, residents still cited as the primary reasons they refused to resettle the lack of access to “the necessary conveniences for living, such as: water, markets, bathhouses (bani) and so on.”\textsuperscript{18} The residents were aware of the conditions of the land in which they were asked to move, and were not happy about the lack of developed areas, for which they expected to authorities pay.

\textsuperscript{15} “Doklad,” TsGIA SPb. f. 792, op. 1 delo, 532, l. ob. 13. A similar canal of this type, connecting the Gulf of Finland and the Malaia Neva had already been constructed. It was re-constructed again, its walls reinforced with stone. See U.P. Selivesterov, “Galernaia Gavan’.”

\textsuperscript{16} “O Galernaia gavani, s kotorago vremenii onaia syschestvuet, kakaia sluchalis’ v nei sobytia i kogda nazvana glavnym’ portom grebnago flota,” Russkii Invalid (Tuesday, May 26, 1831, #127), 507-508.

\textsuperscript{17} “Doklad,” TsGIA SPb. f. 792, op. 1 delo, 532, l. ob. 13.

\textsuperscript{18} “Doklad,” TsGIA SPb. f. 792, op. 1 delo, 532, l. ob 13.
These qualms reflect the keen sense of understanding for the role of the state and that resident’s understood the different nature of landscapes in different parts of the city. Arguing that it would be a “hardship” to travel for these conveniences, they found fault with the area around the proposed site, as they would have “to travel along low streets with out ditches (kanavy) or pavement (mostovoi) in most lowlands of Smolensk Field, which are often watery and cannot be elevated by means of embankments, so that residents run the danger of floods perhaps as often as they did at Galernaia Harbor.”¹⁹ In a nutshell, residents wanted access to water, proper runoff for water and sewage, paved roads instead of muddy tracks, and better protection against floods, at their present location, and they expressed these desires to city officials clearly. Inhabitants were ready to be subsumed more fully into the imperial framework. They wanted the fruits of modernization, but at government expense and at a site of their own choosing.

However, the Governor-General insisted that plans for resettlement be carried forward. Despite being rebuffed by villagers and unfazed by the fact that only six percent of residents supported the proposal, the Governor General sought to move ahead with the resettlement. The plan called for offering aid in the form of a “loan of 100,000 rubles over ten years, without interest for home repair, and to begin construction of the Smolensk Field canal necessary to supply residents with water and for elevating some areas of the field, and finally, to authorize the inhabitants of Galernoe Settlement certain necessary repairs in their homes.”²⁰ The plan offered residents what they desired most: access to water and flood protection. However, I argue that inhabitants resisted official efforts to pass the bill on to them, but more importantly, that the plan still called for relocation.

¹⁹ “Doklad,” TsGIA SPb. f. 792, op. 1 delo, 532, l.14, ob. 14.
²⁰ “Doklad,” TsGIA SPb. f. 792, op. 1 delo, 532, l. ob. 15.
In 1833 authorities relented in their insistence on the settlement’s relocation.\textsuperscript{21} In an 1833 report, an official reported that the stalemate between inhabitants and authorities had continued since 1825. After eight years of negotiations, the official concluded that the transfer of the settlement was not likely to begin in the near future. As such, he recommended that the order to relocate be cancelled. The official cited the high cost of the plan and the “inconvenience of Smolenskoe Field for inhabitants” as the two main reasons given for the possible cancellation of the relocation order. “The transfer would be for the residents of Galernoe Settlement a great inconvenience,” the official wrote, and “the almost common evasion of residents from the resettlement, to the place intended for them, destroys somehow the very necessity of resettlement.”\textsuperscript{22} This suggests that inhabitants acted contrary to government orders by making unauthorized repairs to homes and simply refusing to go. Were some residents moving to other locations in the city without permission from authorities? It is possible.

We do know that the official acknowledged that the state had made no progress on the resettlement issue over the course of eight years, and that actions of the inhabitants were at least as responsible as internal state difficulties. The official made three recommendations that yield insight into the activity of residents. Since authorities failed to compel relocation, the official proposed that the order be repealed. In a sense, the official admitted defeat and was recommending that the state turn away from the conflict. Going against the original intentions of the state, the official declared that the state should “allow residents, as they wish, to move to different parts of the city according to their choice (\textit{po izbranny ikh}), by their own maintenance, with little aid from the authorities and with some benefits (\textit{s l’gotami}).”\textsuperscript{23} Allowing residents to

\textsuperscript{21} “Kopiia s predpisaniiia S.Peterburgskogo Voennogo General Gubernatora gorodskoi Rasporialitel’noi Dum ot Noib’ria 1862,” TsGIA SPb. f. 792, op. 1 delo 532, l. 4.
\textsuperscript{22} “Doklad,” TsGIA SPb. f. 792, op. 1 delo, 532, l. 18.
\textsuperscript{23} “Doklad,” TsGIA SPb. f. 792, op. 1 delo, 532, l. ob. 18.
move recognized what some inhabitants were already doing, and would achieve the ultimate goal of the state: the dissolution of the village. Yet the official seems to contradict himself in the very next point by arguing that the state should “not to compel anyone to resettle, and therefore it does not prevent any kind of repair in existing homes….”\(^{24}\) Clearly, the official was willing to cede some ground when it came to aligning the vision of the state with the real conditions on the ground.

After refusing to concede since 1825, The Governor General was amenable to the official’s recommendations. To execute these orders, the Governor General formed a special committee consisting of the police master, a city architect, gentry deputies and merchants. Before any kind of action was to be taken, the governor general ordered inspections of all the buildings in the settlement. Out of a total of 319 homes in the settlement, 306 passed inspection.\(^{25}\) The 306 homes were in various states of disrepair, 78 could last nine years or less, 140 could last between ten and twenty years, 86 could last more than twenty years.\(^{26}\) “From the remaining 13 homes,” the official reported, “7 are decrepit, 6 are completely dilapidated, and in addition to that, there are 120 vacant places and vegetable gardens.”\(^{27}\) The high number of vacant buildings, when compared with the population listed in the 1831 report of 449, suggests that some residents had left.

The state sought to reassert control over the movement of individual residents in order to stem the tide of unauthorized movement indicated in the 1833 report. Acknowledging that the state could not compel the movement of the village in toto, including both people and buildings, the state desired to choose the location in which individual residents moved. In selecting new

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\(^{24}\) “Doklad,” TsGIA SPb. f. 792, op. 1 delo, 532, l. ob. 18.

\(^{25}\) “Doklad,” TsGIA SPb. f. 792, op. 1 delo, 532, l. 20. “Out of a total of 319 residential homes existing in Galernaia Village, they can stand/last: chart.”

\(^{26}\) “Doklad,” TsGIA SPb. f. 792, op. 1 delo, 532, l. 20. The numbers in the chart add to 304, and not 306.

\(^{27}\) “Doklad,” TsGIA SPb. f. 792, op. 1 delo, 532, l. 20.
locations for inhabitants, authorities sought out places with access to common land. Locations the Governor-General proposed for relocation included the areas along the Obvodnyi canal near the stockyards, and in the Vasilevskii District “where the reglemental camp of the Findlanskii Life-Guards is located.” However, for reasons unclear, financing for the loans necessary for the move were not available at that time. The government decided to reintroduce loans to the residents to fund the move. Once again, relocation plans stalled.

In 1836, a new proposal was put forward, that did not require funds to come from the state treasury. The proposal modified state intentions once again. Contrary to the 1833 report, residents would not be allowed to make repairs to homes. Instead, the report stated that the residents of the settlement could stay until “their current residences are in complete decrepitude.” At that time the Governor General could select a new location for the residents, or residents themselves could choose, provided no one else lived in the new location and it was within city boundaries. In addition, residents would be allowed to cultivate “kitchen gardens.” The Council of Ministers agreed to this proposal on February 25, 1836. Despite these promising proposals, the plan stalled. Almost twelve years had passed since initial government efforts to transform the settlement.

Seven years later, the state turned its attention to the settlement once again. By 1843, the settlement still existed and the state was still unwilling to let the issue drop. That year the committee in charge of the resolving the settlement, requested aid in the amount of 15,000 rubles to assist residents. The decision to transfer the settlement was affirmed again on August 13,
1843 by a special committee that included the Marshal of the Nobility of the Guberniia and four elected members from the nobility. Instead of relying on loans to finance the move, the committee determined that money for the transfer should come from funds already on hand, voluntary contributions, special collections and “finally from the number of collections from the Lotto game (лото).” The committee expressly stipulated that the money was not to be used for any other purpose than new construction. In other words, residents were not to be allowed to make repairs on existing homes. Following this decree, there is a nineteen year silence in the archival record.

The history of the settlement in the intervening years can be filled in by turning to sources such as paintings and guidebooks. These sources allow the reader to see the kinds of cultural and environmental outlines of what the state engaged in their efforts to relocate the settlement. The language of wilderness and empire is embedded in the texts revealing the ways in which the area did not measure up to the imperial vision.

Alexander Vitberg’s painting, “Petersburg: Galernaia Gavan,” [Figure 2] dated from the first half of the nineteenth century, captures the spirit of common depictions of Galernaia. The artist positions our view from the sea, looking across a harbor to the shore. The viewer does not see the developed façade of stone embankments and architectural grandeur that one could see in the center of the city. The waterscape is covered with dark and violet colors, as two men pilot a skiff with ease among the small ships of the harbor. To the right of the image, one sees what appears to be the entry way to the River Smolenka, the canal cut across the island, alongside Smolenskoe Cemetery, leading to the city center, an indication of the promise of imperial development from the 18th century. The remnants of imperial infrastructure are just visible in the

34 “Doklad,” TsGIA SPb. f. 792, op. 1 delo, 532l. 24.
35 “Doklad,” TsGIA SPb. f. 792, op. 1 delo, 532l. 24. This could also mean loans to home-owners.
darkness and at the mouth of the channel that breaks up the shoreline. The skyline of Vasilevskii Island is visible in the distance. As much as the imperial façade a few miles away, these remnants are also a legacy of Peter the Great’s “rise in the soul of the great idea to found the capital of the future empire here.” Since its founding, Petersburg and the Neva have existed together in the uneasy balance of nature. Petersburgers sought to conquer the city by controlling the Neva, draining the river’s delta and encasing its banks first in wood and later granite. Prior to the flood of 1824, the settlement at Galernoe had avoided such a fate. Yet, from 1824 into the 1850s this drama provided a portion of the stakes in the conflict over Galernoe.

Galernoe was well-known in the city mythology as a place outside the modern confines of the city, and perhaps this was a motivation for the state’s continued interest in the area. An 1851 guidebook noted that the harbor and settlement was “separated from the populated areas of the island by Smolenskoe Field, and connected to it by Bolshoi Prospect.” The Smolensk Field, which plays a prominent role in the government’s plans for the settlement at Galernoe, was located next to the famed Smolensk Cemetery and in the 1850s was a “low-lying swampy” area that was “covered with wild channels (protokami).” By relocating the settlement to this area, the government could bring their version of modernity that location, while at the same time creating a buffer of a few miles that might protect the village from all but the most serious floods. This was a small but necessary distinction when it came to the reconstruction costs saved by the move. By the early to mid 1850s, a new class of residents was moving into the settlement. No longer would residents predominantly be connected with the naval authorities. Instead,

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36 Nekrasov, *Fiziologiia Peterburga*, 36. Nekrasov rejects the idea that Revel and Riga might have been good alternatives to building a new city, because by the time that those cities came under Russian control, Petersburg had already been inhabited for ten years. This meant that city caretakers had to solve the problem of supplying the city, and to the further development of the Russian water system, as described in Chapter two.


38 Ibid., 496.
traders and businessman began to take residence in the settlement, further confusing imperial priorities.\(^{39}\)

**Towards Resolution: The Dissonance of Galernoe**

While the area was well known in city mythology and relatively close to the center of the city, it is doubtful that many residents had ever actually visited the area. Residents were introduced to the foreboding and mysterious landscape in the work of Ivan Gensler (1820-1872). Gensler takes his Petersburg readers, most who live a mile or two away just across the river into the world of Galernoe. In *Gavanskie Chinovniki*, Gensler provides a “physiological” sketch of the harbor and settlement in 1860.\(^{40}\)

The author did not discuss the area as if it were a part of St. Petersburg. Instead, Gensler emphasized the uniqueness of the area, its difference and wildness, providing readers with a sense of foreignness:

> There is a remote corner of Petersburg, called Galernaia Gavan’, or simply Gavan’. There is, in the last quarter of Vasilevskii Island, cut off from it by Smolensk Field, a village on the right bank of the shore, with a dozen streets, with intersections, side-streets, and back-streets, with three hundred houses, little houses and shacks of wood, one-storied and very old. It is bordered by a long fence, from which can be seen gardens and vegetable plots (*sady i ogorody*). You can see it when leaving the city on a steamer to Kronstadt, or riding a skiff along the Bolshoi Neva, along the shore, [where one] can fish out thick salmon.\(^{41}\)

Gensler’s depiction confirms many of the details gleaned from archival sources and hints at many of the possible motivations for the reasons government officials refused to let the matter drop. In Gensler’s treatment, the settlement was not quite rural, not yet urban, and Gensler

\(^{39}\) “Gavan,” 7.

\(^{40}\) Ivan Semenovich Gensler was a veterinarian whose prose was known for talking animals. His stories on the Galernaia area were a “great success” in the early 1860s, although it received mixed reviews from critics. For more on Gensler, see F.A. Brokhaus and I.A. Ephron, eds., *Enciklopedicheskii slovar’,* tom. 8 (St. Petersburg, 1892), 363, and P.A. Nikolaev, ed. *Russkie pisateli 1800-1917, biograficheskii slovar’,* tom 1, A-G (Moscow, 1989), 538.

sensed that the settlement existed in a grey zone, forgotten by the city planners who did not return to the area when the core of the center moved across the river. In contrast to the milieu of the reader, color and life in Galernoe are muted. “The grey color of the shacks and fences,” Gensler reported, “opens to a green and blue seaside, and imparts to Gavan a rural look.”

Still, the mixture of the natural and the built—water, landscape and housing—created a different sense than what you would find in the center and also emphasized what residents were keen to fight the state: water. “The picture (kartina) is not bad, I assure you,” Gensler continued,

> Water especially plays an important role here…In Gavan, everything whispers to you that you are not in the city, and moreover, not in the capital, but also not in the countryside. This is a prototype (pervoobraz) of a city, its first idea, kept in a primitive condition, untouched by improvements and successes of the development of enlightenment (prosveshcheniia).

Gensler illustrated the remoteness of the area when he wrote that the goods on Nevsky Prospect “that dazzle are not seen here.” Nor were the organ grinders so prominent in other quarters of the city, described in Nekrasov’s famous text, *Physiology of Petersburg*.

At the same time, Gensler’s account reflects how the authorities failed to completely master the territory under state control. The story of Galernoe challenges the narrative of St. Petersburg as a fully modern capital, displaying in the archival record discussed here and in Gensler’s work elements of “The Big Village” of Moscow. Peter the Great abandoned the more traditional Russian setting of the former capital, in favor of the opportunity to create a modern European empire. As Nekrasov pointed out, the primary purpose of St. Petersburg was to replace the “Muscovite kingdom” with a “Russian Empire.”

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42 Ibid., 9.
43 Ibid., 9.
44 Ibid., 9.
45 See chapter 1.
It was not just the absence of empire that Gensler identified in provincial St. Petersburg. The absence of cosmopolitanism was just as likely to resonate with readers and denote wildness, rather than official conceptions of modernity and empire. At Galernaia Harbor, Gensler wrote, there were none of the shops like the ones along Nevsky Prospect, since “in Gavan there isn’t any kind of shops.” Still Gensler assured his readers, residents were not to be discouraged at such a remote existence, because a person could “find everything at the local petty shopkeeper.”47 In other words, the settlement was organized around function, and was not a site for strolling, or gazing at luxury items in shop windows.

Nonetheless, the settlement lay on the edge of two worlds, as did most of the empire that stretched eastward from the banks of the Neva. Tantalizingly close to the center of the empire, yet remote, and viewed that way by residents and institutions located on that very same island. Gensler goes to great lengths to assure his readers about the wilderness within the boundaries of the city and the tension it provided:

“I said earlier, that when you, a fresh man, go to Gavan, that to you smell the patriarchal air, of life of a district seat; to you it will bring a peaceful life, to idle time, sincerity, and you will become easy, and free, after the luster, noise, and crackling of the capital…. In the center of the city you can live ten years side-by-side with your neighbors and not know what type of person he is or how he is called (chto on za persona). This is not so in Gavan’; here you can ask, for example, where does Feklist Paramonovich live? Over there, you will be answered, where the broken down front garden is (palasadnik).”48

It seems clear that by 1860 the government failed to transform the settlement at Galernoe. Gensler presented a provincial idyll to readers. However, to officials intent on modernizing the area, ramshackle abodes and depictions of wilderness were antithetical to the government mission.

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47 Ibid., 11.
48 Ibid., 27.
In 1862, an official submitted a report to the “Commission on Matters of City Income, Expenditures and...Indigent.” The official provided an overview of state thinking on the settlement matter. “The position of the Galernoe Settlement,” he wrote, “is low-lying and subject to floods, and already in 1824 city authorities turned their attention to it and the intention arose to move the settlement to Smolenskoe Field.” Smolensk Field was square in the middle of the island, the boundary to the imperial structures stretching out from the Strelka Point.

However, it seems clear that the transfer of inhabitants was either not conducted, or unsuccessful, following the 1843, decision, because the Governor General declared in August 1862 that “the transfer of the inhabitants of Galernaia Harbor is not considered mandatory.” As such, authorities had to select solutions they had been unable, or unwilling, to consider before. These included allowing stone buildings to be built, the construction of wooden homes with stone foundations, provided they were maintained according to the building code for Vasilevskii Island, and that homes were certified by the local police, and that foundations must be “one arshin higher than the level of the earth.” Instead of forcing the relocation of the village, authorities decided to exercise more indirect control by enforcing building codes, modest improvements at the original site and police supervision.

In August 1862, authorities officially rescinded the order for mandatory resettlement. This was due in large part to the massive poverty of residents and the difficulty of convincing them to relocate. Deciding to allow residents to stay in the settlement and make improvements to their homes, authorities declared that “inhabitants, who have a certification of indigence from the local police are permitted to build wooden one-story houses in a wooden style, in place of a stone

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49 “Doklad komissin po delam o gorodskikh prishodakh i prashodakh i oposi’akh i nuzhdakh,” TsGIA SPb. f. 792, op. 1 delo, 532, l. 12.
50 “Doklad,” TsGIA SPb. f. 792, op. 1 delo, 532, l. 12.
51 “Doklad,” TsGIA SPb. f. 792, op. 1 delo, 532l. ob. 24.
52 “Doklad,” TsGIA SPb. f. 792, op. 1 delo, 532l. 25. One arshin is 28 inches.
foundation, in order that the floor was one *arshin* higher than the surface of the ground."\(^53\)

Originally, authorities demanded stone foundations to decrease disease and as a small measure of flood defense.

To accomplish the task of elevating the settlement they planned to import rubbish and detritus from construction sites, and sand from ships arriving in port. Drains in the settlement were also to be monitored by the police, and installed in areas of the settlement “where they are not already located.”\(^54\) In November 1862, the Governor General reported to the City Duma that 15,000 rubles had been collected “for the construction of embankments at locales of Galernoe settlement, and for the improvement of the homes of poor resident in this part of the city.”\(^55\) The staging area for the debris was across the river in a vacant area near the stockyards, and the commissioners in charge of the yards were to manage the collection of the debris, and to maintain it in such a way that it “did not mar the appearance” of the surrounding area.\(^56\) In a sense, officials were creating a city dump for building and earth refuse, to be recycled to the settlement on Vasilevskii Island.

In December 1862, the Governor-General charged three officials, a G.G. Stolbovskii, Chebykin, and Kozlov with assessing the situation of the settlement. The trio found that in its present location, the settlement, at the “bottom of a sloping descent, is cut off [from the middle of the island] by the Black Brook,” and was “quite often flooded from the direction of the coastal waters up to Officer’s Street and Little Prospect, and from the overflowing river inward to the

\(^{53}\) “Doklad,” TsGIA SPb. f. 792, op. 1, delo 532, l. 2.

\(^{54}\) “Doklad,” TsGIA SPb. f. 792, op. 1, delo 532, l. ob. 26.

\(^{55}\) “Doklad,” TsGIA SPb. f. 792, op. 1, delo 532, l. ob. 26-l. 27.

\(^{56}\) “Doklad,” TsGIA SPb. f. 792, op. 1, delo 532, l. ob 27.
southern part of the settlement.” Thus, the settlement was at risk from two directions, and the slope presented a natural barrier for the water, trapping inhabitants.

In preparation for implementing the plan, the Governor General requested a property assessment and census of the settlement, the purpose which was to determine the “rights to aid,” and the “rights of inhabitants to property, in which to review the value.” Authorities also decided to remove stones, “unused for many years” from the wharf at Galernaia Harbor and lay them down “form Officers’ Street to the bridge at the Black Brook, along [the brook’s] banks and along Small Prospect.” Money was also to be allotted for the “necessary paving of the streets and the installation of underground pipes.” In this way, officials hope to curb some of the worst effects of the 1824 flood that found easy and destructive passage through the unpaved areas of the city. These expenses were to be charged to the city treasury. A survey found that granite and stone belonging to the city lay unused at Gagarinskii Pier. The stone, “similar to those along the Fontanka,” totaled 264 pieces. Prior to the implementation of this plan, the city undertook a property assessment to determine the value. Then they had an auction to sell of vacant lots to help pay for the raising of the city. Four of the vacant lots were valued at 30 Kopeks a square sazhen.

At the end of the discussion about the settlement, the Duma held up or down voice votes on proposals concerning the area that reveal official intentions. The Duma’s scope was three-fold: property values, elevation of the settlement, and financing for the project. The Duma sought to detail the value of property at the harbor and in the village, attempting to raise funds by selling several lots in the area. The officials also sought to dispose of the escheated, or ownerless,
property in the settlement. While the Duma approved the measure on elevation by gathering stone, debris and ballast for transport to the area, they tabled all discussions on finance because of “a shortage of funds in the treasury.”

For the time being, the status of government involvement in settlement remained stalled.

Although the issue was tabled, the lengthy discussion and concern about the settlement indicates that authorities grappled with post-flood issues for years after 1824. The settlement required a number of infrastructure upgrades in order to meet city standards, yet the state, trying to manage an unwieldy empire, was not able to marshal the necessary resources to transform the space into the imperial ideal. However, by rescinding the mandatory resettlement order, inhabitants, now in their second generation after the flood of 1824, meant that they no longer lived illegally, in limbo. They retained their right to live in the settlement. No doubt authorities intended to revisit the issue in the future. At the same time, the visions of a modernized area beyond the borders of Smolensk Field remained frustrated.

**Conclusion**

State officials contended with the residents at the settlement at Galernoe, and the surrounding environment, and that struggle revealed the limitations of imperial desire for control. Time and again city officials failed to actualize their plans for the site. My analysis reveals that the struggle with the community at Galernaia is part of the larger story of the emergence of a modern, bureaucratic model of governance that attempted to organize, categorize and manage society in St. Petersburg. It shows that not every sector of the city was integrated into the imperial system, as well as the encroachment of the bureaucracy within the heart of the city. The archival documents analyzed here capture the transition of a city and government as authorities sought to control and change the landscape of the city and its society after the flood of 1824.

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62 "Doklad," TsGIA SPb. f. 792, op. 1, delo 532, l. 39-41.
After the flood of 1824, the encroachment of a modern organizing state acknowledged that territory within the capital needed to be managed in the name of flood prevention and protection of property. Flood prevention was especially important since the majority of the population lived in close proximity to the river. As a result of the intense construction of the central core, it was inevitable that officials would seek to re-imagine places that did not conform to the imperial ideal as imperial spaces.

This chapter situated the settlement of Galernoe within the imperial framework of the city. The residents did want some of the features of the government program, including paved walks and stone foundations. However, they did not accept the requirement that they needed to be relocated, especially if it meant they would have to give up access to water. The residents preserved their claims to the settlement, but only delayed the inevitable, especially since the most ambitious aspects of the plan were also the most costly. As the debates about the settlement show, it was an important question, but officials were not willing to set the required money for the expenditures aside. Nonetheless, through their encounter with the government over the position of the settlements, residents encountered a variety of officials who were tasked with solving the problems at the site, especially members of the city Duma and engineers.

The settlement at Galernoe encapsulated the conflict between state and society that emerged with the expansion of imperial power into the rural settings of the capital. The city was much more than façade in this era. It was a city of modern European architecture and traditional Russian settlements blending cosmopolitanism with elements of traditional Russia. There were gardens, pastures, forests and dirt roads, often within the city center. It is clear that residents at Galernoe were able to negotiate their place within the expanding urban and imperial framework. Even so, the settlement remained outside the new structures of a modern, imperial capital for
much of the first half of the nineteenth century. At the same time, other residents of the city became increasingly concerned by the lack of pavement, pipes, and sewers within and without the city center. Their efforts to grapple with the state to introduce these aspects of a modern city are the subject of chapter five.

From his charger on the banks of the Neva, Peter the Great surveys the imperial city that he founded. To his left and to his right, the imperial facade extends as far the eye can see. Across the river, on Vasilevskii Island, his dreamed of center of an imperial capital, sits the Menshikov Palace, the Russian Academy of Sciences, and the Kunstkamer. These buildings attest to the promise of the city and the imperial vision, and grace the University embankment on the island. Peter and his charger are at the center of the imperial environment, where the river “Neva truly appears to be a regal river” as it flows through the artificially manipulated built environment that claims to conquer nature and wilderness.63 As we have seen, this area served as the economic and cultural center of the capital. “Defining the city center—the area between the Neva, the Kriukov canal, the Fontanka, and Liteinii Prospect—one contemporary wrote in 1834, that it was one of the finest areas of all the world capitals and that “having this for the privileged castes and the improvement of the city: the construction of stone bridges, of wonderful embankments, the paving of streets, the installation of street lights.”64 Yet much of the imperial capital, including the settlement at Galernoe, lay outside this view, physically, architecturally, and in the ideal.

By the nineteenth century, the major outlines on the canvas of this imperial capital had been set down. While major undertakings certainly remained, the imperial façade of power the regime wanted to convey was in place. Imperial strength was depicted in the river triangle of the Winter Palace/General Staff Headquarters, Admiralty, and Peter and Paul Fortress, and across

the river from these state functions were carried out in the Senate building, commerce played out at the Stock Exchange, and the actors of education and science discussed world and empire in the rooms of the Russian Academy of Science. From this center, Nevsky Prospect began its long march eastward, away from the settlement at Galernoe, to the back of Peter on his charger, from the seat of power through the palaces of culture to the emptiness of a planned city not yet realized. Water saturated and curled amongst these structures of politics and culture.

In the following chapter, I will trace the development of engineers as a professional group as they spread out through the city to maintain the imperial façade and bring settlements such as Galernoe into the imperial fold. Their actions, in concert with architects, created new ambiguities—imperial and non-imperial, urban and rural, modern and traditional—in the magisterial capital as they contributed their talents to the imperial ideal. At the same time, their very existence and mission emphasized that these villages, so common in Moscow, were out of place in the capital. Engineers continually engaged with nature in the rural environs of the city that did not neatly fit into the idea of the imperial façade, sometimes close to the central avenues of power. The settlement near Galernaia Harbor on Vasilevskii Island was one such locale, where state and society were in conflict in a protracted disagreement about the contours and shape of a rural setting within the central sector of the imperial capital.

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65 Major architectural landmarks appearing in the sources I set aside here are the cathedrals, chapels, and churches of the capital city-scape.
Aleksandr Lavrent’evich Vitberg (1787-1855), “Galernaia Gavan”
Available on line at: http://www.sgu.ru/rus_hist/?wid=939
Chapter 4: “Beneath the Imperial Façade: Engineers, Professionalism and a Path to Modernity 1809-1878”

The sea on the one hand, and the inland waters on the other, required the exercise of unceasing vigilance.
—Samuel Smiles

But on the whole the sentiment about nature returning someday to reclaim its usurped property, yielded once under human assault, has its logic here. It derives from the long history of floods that have ravaged this city, from the city’s palpable, physical proximity to the sea. Even though the trouble never goes beyond the Neva’s jumping out of her granite straitjacket, the very sight of those massive leaden wads of clouds rushing in on the city from the Baltic makes the inhabitants weary with anxieties that are always there anyway. Sometimes, especially in the late fall, this kind of weather with its gushing winds, pouring rain, and the Neva tipping over the embankments lasts for weeks. Even though nothing changes, the mere time factor makes you think that it’s getting worse. On such days, you recall that there are no dikes around the city and that you are literally surrounded by this fifth column of canals and tributaries; that you are practically living on an island, one of the 101 of them; that you saw in that movie—or was it in your dream?—that gigantic wave which et cetera, etcetera….?

—Joseph Brodsky

Introduction

Russia’s path to modernity came through attempts to manage the water that flowed, and seeped, through its northern capital. For St. Petersburgers, the Neva and the canals that stretched throughout the city became enmeshed in everyday experience in the nineteenth century. German traveler J.G. Kohl discovered in 1842 that “the water of the Neva is as daily a topic with those that dwell on its banks as the water of the Nile is to the Egyptians.” It is he concluded, “the source not only of delight and enjoyment to the people of St. Petersburg, but also one of constant anxiety, and sometimes of terror.” It is in to these notions of the Russian waterscape that the first generations of Russian engineers entered to manage water, both as a resource, and as a terror. In a sense, water created the first generation of engineers as they emerged from the Institute of the Corps of Transport Engineers, or IKIPS to engage Russia’s waterscape.

3 J.G. Kohl, Russia, 14. Kohl traveled and wrote extensively in Europe and North America. His next trip was to the Great Lakes region of the United States. Kohl is considered a pillar of the field of geography. For a description of his contribution to the field, see Professional Geographer, vol. 20 (July, 1968).
The primary claim of this chapter is that engineers developed an engineering ethos by their engagement with the river Neva. Professionalism and authority are the main themes of this ethos, and they found expression as engineers developed and maintained both the imperial sinews and the façade of St. Petersburg. The development of the ethos had two consequences. First, engineers as a group developed their own idea of themselves vis-a-vis the state. Engineers acted as agents of the state, walking a fine line between imperial authority and their own conceptions of themselves as independent practitioners of a modern craft. Like scientists, engineers were part of a larger international scene, part of a network engaged in massive projects stretching from the European continent to England, to the United States. While connected to the engineers abroad, at home their work was to serve the glory of the current state. In this sense, engineers emerged as technocratic actors practicing a craft that was essential, and as we shall see, viewed with suspicion by Nicholas I.

Second, the ethos governed engineering ideas about maintaining the cultural façade of imperial St. Petersburg as engineers sought to instill a sense of permanence to the city. Engineers inserted themselves squarely into the middle of the pressing problems of Petersburg: flood, construction, and disease. They exhibited the ethos in their efforts to manage water in Petersburg and protect it from flood. They maintained the imperial idea through their manipulation of space in the city, building canals, diverting water and constructing bridges that provided a sense of stability in a city governed by the uneven rhythms of the seasons. Finally, they cultivated their sense of empire through their circuitous travels around the Russian Empire, placing the imperial stamp on projects before winding their way back to St. Petersburg.

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4 This idea is clearly emerging in Alexander Martin’s ongoing work on the modernization of nineteenth century Moscow.
This chapter is based on the biographical sketches of S.M. Zhitkov, clearly inspired by Samuel Smiles’ classic British text, *The Lives of the Engineers*. Smiles’ 1862 work is not simply a biographical account of that profession, but a statement of contributions and of an ethos that their actions contributed to the success of modernity. In a similar vein, Zhitkov compiled approximately 100 sketches about Russian engineers who graduated from IKIPS, that detailed their contributions to the state throughout the Russian empire. I focus on two exemplary accounts in this chapter to track the significance of engineers in maintaining the imperial façade in St. Petersburg. These are the biographies of A.D. Gotman and S.V. Kerbedz.

In addition to these engineers, we have the recollections of IKIPS training recorded by arguably one of Russia’s most famous engineers, Baron Andrei Ivanovich Delvig. Delvig’s memoir provides key insights into the inner workings of IKIPS in its early years not available elsewhere. From these sources, we see that Russian engineers saw themselves as part of a larger European network of professionals and that Nicholas I had a deep distrust of the engineers who matriculated at IKIPS. In the final half of the chapter, I explore the impact engineers had on the empire, and in turn, on St. Petersburg itself. The result is that engineers rescued and supported portions of Peter the Great’s imperial project, and re-imagined it as a lived—and modern—city.

**The River Neva and the Role of the Engineer**

Once city administrators made the decision to abandon Peter’s grand vision of an integrated city of water, similar to Venice, in which the chief avenues of movement were to be rivers and canals, the city developed a much more antagonistic relationship to the sea. Instead of the integrated relationship imagined in the ideal, subjects negotiated a waterscape increasingly described and defined in contemporary scientific and artistic terms. Water was to be contended with and mastered, and engineers were on the front lines. As Samuel Smiles argued in his history
of engineers, in coastal locales, such as Britain, “water was, from the first, the chief element which English skill and industry had to fight against, and in effectively resisting it, or in subjugating it; [the] engineer’s talent was first displayed. We have seen that to reclaim and hold the land against the violence of the ocean, embankments and seawalls were built.”

And so it was in Petersburg, as evidenced by the embankment projects of Catherine II.

Since most of the stone and embankment projects of Petersburg were completed by 1795, manipulation of the watered spaces in the capital required much more technological expertise than ever before, and an army of engineers fanned out along the river banks. As in other water-based cities, engineers saw themselves in conflict with water, seeking ways to manage “surplus fluids” as the river flowed across the territory of an imperial capital under constant construction.

The development of the engineering ethos coincided with the massive water projects throughout Europe such as the straightening of the Rhine, and on the Seine in Paris, and the canalization of England. With the appearance of new technology it seemed that effective solutions to the water problems facing St. Petersburg were at hand.

We are very familiar with the vision of imperial St. Petersburg created by architects, city planners, authors, and painters. The creation of the imperial vision left Peter’s heirs with significant challenges in order to maintain it as St. Petersburg became a lived city. Because Peter chose to build and site his city on the Gulf of Finland, an “intentional city” as Dostoevsky called it, as a gateway to Europe; the river forced the regime to engage water in order to preserve

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6 Bater, St. Petersburg, 33.
8 For the Rhine, see David Blackbourn and Marc Cioc; for the Seine see Isabelle Backouche, for England see Samuel Smiles.
its authority. The state’s belief that they could master the river and prevent flood, and make the
city safe for commerce rested on engineers, who were the mechanism that accomplished this
task.

The challenge of maintaining a capital amidst the swampy areas of the capital’s environs
provided the opportunity for engineers to enter the fray with authority. At first their efforts met
with resistance due to cost and ambition. The process of maintaining the waterway in St.
Petersburg meant that regular maintenance, new jobs and work spaces had to be opened, in order
to provide the constant oversight needed. The cost of this vigilance for city officials and the
autocratic regime was the creation of IKIPS in order to train those engineers knowledgeable
enough to fulfill the modern functions of “watching”—inspection, survey, drafting—and capable
enough to bring them to fruition.

**The Origins of IKIPS**

Engineers were undeniably trained for the imperial project, as evidenced by the special
roles they played in the major communication projects in the expanding empire. Here, I refer to
the work of Robert Jones, E.G. Istomina and others, as well as the kinds of activities I have
discovered in my reading of Zhitkov’s biographical sketches. 10 The process of improving inland
navigation achieved imperial status under Paul in 1798, when the Department of Water
Communication was given an imperial portfolio under the direction of Jacob Sievers. According
to Robert Jones, initiative for the efficient development of the inland waterways came from
Sievers, an imperial official under Catherine II and Paul. As a provincial administrator, Sievers
fought for the improvement and expansion of waterways, especially the Vyshnyvolochek system,

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and persuaded Paul to establish the Department of Water Communications at the imperial level. The nine major projects in the period before the 1809 restructuring included the Vyshnevolochech and Marinskii systems and the ports at Narva and Odessa. The importance of developing the empire’s waterways had long been understood, and Russia’s rulers had begun to create a network for the purpose, in Robert Jones formulation, of getting the goods to St. Petersburg. Bureaucrats in Alexander I’s reign saw the importance of creating a Russian institution that could meet those needs.

Amidst the general restructuring of government during Alexander I’s reign (1801-1825), the Department of Water Communications formerly led by Jacob Sievers was transformed into the Main Department of Communication (главное управление путей сообщения). According to Baron A.I. Delvig’s memoir, the restructuring centralized water and transport related activities under one administration, instead of the previous situation where those issues fell under the jurisdiction of different departments and sometimes led to conflict between officials. However, the department was hampered from the very beginning by a lack of experienced engineers and administrators and there was no specialized Russian institution training engineers specifically for the types of challenges facing Russia. Still, Alexander realized the importance of the department and sought to strengthen the service. During negotiations for the treaties of Tilsit in 1807, the tsar asked Napoleon to send four of the best young French engineers in Paris. Two years later, a

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11 See Robert Jones, Provincial Development in Russia: Catherine II and Jacob Sievers (New Brunswick: Rutgers University Press, 1984), 121-126.
12 S.M. Zhitkov, Istoricheskii obzor ustroistva i soderzhaniia vodnykh putei i portov v Rossii za stoletnii period 1798-1898 gg. (St. Petersburg: Tipografiia Ministerstva putei soobshchenii, 1900). 59. A major project undertaken in St. Petersburg with enormous implications for my argument in this chapter is the Obvodnyi Canal.
14 Baron A.I. Delvig, Moi vospominaniia, tom 1 (Moscow: Izdatelstvo Moskovskago publichnago i Rumianskovskago muzeeev, 1912-1913), 58. See Robert Jones for a good description of these conflicts, especially when Governor-Generals of neighboring provinces were involved.
quartet of French engineers, Bazaine, Fabre, Pot’e, and Destrem arrived in Russia, and founded the Institute.

Alexander was receptive to the development of Russian engineering and sensitive to the challenges it faced. Early in his reign, Alexander was keen on monumental projects, such as global exploration, and water projects were no different. Nonetheless, the tension between the contradictory ideals and the realities of the Russian state opened the door for the new group of engineers who impinged on the terrain of the vaunted continental architects. While imperial rhetoric aimed for the grandiose, maintenance and the small scale were the watchwords in practice. For example, the architect Mauduit proposed a mammoth construction project for Vasilevskii Island and the Petersburg Side in 1810. Upon reviewing the proposal, which noted the development of the city as a trading port that required flood protection, Tsar Alexander I remarked that “your project was the project of Peter the Great. He wanted to create a second Venice out of Vasilevskii Island, but unfortunately it put a stop to the work on the capital, because those who were entrusted with the execution of his ideas did not understand him: instead of canals they built ditches, which to this day still exist.” Ultimately, the task of managing and protecting the city fell to engineers trained at the IKIPS, in its second year of operation in 1810. These engineers eagerly took on these tasks.

In the first years after the establishment of the institute, it suffered from a perceived lack of professionalism. Two factors accounting for this were the itinerancy of the institution’s leadership and the poor quality of instruction. Before the institute matured and was able to stand on its own professional feet, IKIPS was hampered by the physical separation of its facilities from

15 It seems that the failure of this proposal allowed for construction to continue to the east along Nevsky Prospekt, rather than adding core supporting infrastructure across the river on the Petersburg Side.
16 V. Kipriianov, “Kriticheskii obzor proektov dlia predokhraneniia Peterburga ot navodnenii,” Zhurnal glavnogo upravleniia putei soobshchenii i publicnykh zdaniii (1858 t. 28, no. 4): 10.
its chief director. While the Institute resided in St. Petersburg, its chief director, a Prince Georg von Oldenburg (1784-1812), and his council were located in the city of Tver, where the Prince simultaneously served as the governor-general of Tver, Iaroslavl and Novgorod. Thus, Zhitkov noted, they “were far from government activities, which was extremely inconvenient.” Eventually, in 1816 the headquarters were moved to the capital. In 1819, they moved into a new building constructed on Obukhovskii Prospekt under the supervision of the former star pupil A.D. Gotman.

The primary cause of this perception of unprofessionalism was poorly credentialed instructors. The ranks of knowledgeable instructors at the institute were thin in its early years. At first, the French quartet appointed French acquaintances who had lived in Russia since the French Revolution. This did not always mean that individuals were qualified for the posts they held. French engineers in Russia knew that they could advance quickly to the top of the ladder of ranks due to a lack of Russian engineers to fill these positions. As such, they often brought in unqualified French people to take advantage of the system. In one case, a gentleman named Senovera appeared at the institute. “Senovera, who had lived in Russia, as I heard it,” recalled Baron Delvig, “was nothing more than a tobacco trader, accepted openly a (position of) General-Major, and in addition to that, was appointed the Director of the Institute of Engineers of Communication.” After these early postings, the institute was reorganized in the 1820s, in order to provide engineers with a source of legitimacy and sound knowledge. Despite the support of imperial authority, the institute struggled, as did the students, as the institute did not easily fit

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17 S.M. Zhitkov, Biografiia inzhenerov putei soobshcheniiia (St. Petersburg: Iu. N. Erlikh, 1902), 20
18 The management of the Institute was reunited with the Institute itself, when they both moved into a building on the Fontanka, which had been the former home of a Prince Usupov. The Institute remained there until 1862, when it moved to a new location near the Alarchin Bridge.
19 Delvig, Moi vospominaniiia, 60.
into the established Petersburg society of ranks and uniforms. Engineers had yet to stake their claims of authority on professionalism rather than rank or prestige.

From the beginning, no one was quite sure what to make of the new institution or how it fit into the established structures of official Petersburg society. The students, outfitted with new uniforms and ranks that did not compare to their peers in other institutions, did not fit neatly into the pre-existing system of ranks.\(^\text{20}\) Originally, the students were divided into four classes, or brigades, each with a specific rank and uniform. Hoping to take advantage of what they thought would be superior foreign instruction, some of Russia’s wealthiest and most aristocratic families sent their sons to the institute.\(^\text{21}\) These included well-known families such as the Stroganovs, the Meiendorfs and the Shabelskiis. However, when they realized that they could not make the careers they desired, they transferred to different institutions. According to Delvig, this was partially due to the prestige of military ranks after the Great Patriotic War. As mentioned before, upon completion of the program, students did not receive an equivalent rank in the army or navy.\(^\text{22}\) Thus, the institute had difficulty attracting candidates willing to sacrifice such prestige.

Celebrating the jubilee of the institute in 1859, and according to Delvig, unaware of the status given to the military at that time, former General Director Chevkin inadvertently “insulted” the aristocratic families of Russia when he commented,

that on the occasion of this day, the first pupil of the first graduation class of the institute, Andrei Danilovich Gotman, was promoted to General-Engineer.” To this Chevkin added that this promotion should show all young engineers and students at the institute how it is possible achieve, having studied well, by serving zealously and of high integrity, which Gotman was recognized. For all of his intellect, Chevkin did not understand, that he insulted these engineers of Communication, since sitting near him were the pupils of that same Institute, only lapsed from the Department of Communication [and were] both full generals for a long time and full state councilors, for which they did not need either


\(^{21}\) Delvig, *Moi vospominanii*, 61.

\(^{22}\) Ibid., 59.
especially good instruction or to serve with the kind of zeal which Gotman served, and some perhaps, were not notable for impeccable integrity.

As the traditional nobility rejected the path offered to their sons by the Institute, the Institute was reorganized again to make it more attractive. The reorganization allowed for the creation of a “Military School of Communication” within the institute that offered cadets, as they came to be known, the chance to achieve military rank upon graduation. First-year students were to be “no younger than 14 and no older than 18,” and came from sons of the nobility, elite officers, “merchants of the second guild and foreigners.”23 These students were to fulfill the original mission of IKIPS, as defined by Betancourt in 1809. Teachers instructed youth about “navigation and contemporary water systems,” so that one day students would be “entrusted” with “managing and developing the waterways of the state (gosudarstvo).”24 Still, the Institute depended on a large proportion of non-ethnic Russians to fill the ranks of future engineers.

From among these students would come some of the most famous engineers in Russian history, including Stanislav Kerbedz, one of the many Poles to graduate from the institute.25 Baron Delvig recalled that ethnicity caused friction between students and faculty at the Institute. In discussing relations with faculty members in various branches of the Institute, Delvig recalled that a certain Krauzeneker “had no special liking for me, probably for the fact that I, from a German family, was completely Russian, and not German.”26 Delvig stated without elaboration that “the pupils, as in the institute, and in the school, divided in to two hostile parties: The Russians and the Germans,” although “the latter party was never predominant.”27 Delvig does

23 Pushkarev, Nikolaevskii Peterburg, 382.
24 Pushkarev, Nikolaevskii Peterburg, 380.
26 Delvig, Moi vospominaniiia, 65.
27 Ibid.
not offer further comment on the issue, yet it raises a curious point about empire, since those responsible for maintaining the imperial façade in the capital and elsewhere were not themselves Russian. This distinction is not just the same as importing the “best” architects from abroad to design the city’s imperial buildings. These engineers were subjects of the tsar, and this suggests that non-Russian nationalities were given stakes in the imperial system by maintaining its façade.

Originally, the institute divided students into four groups: ensigns, second lieutenants, and cadets of the first and second classes. This composition reflects the shift in mission from 1821-1829, in which authorities merged the institute with a military construction school. Pierre-Dominique Bazaine directed both schools, in an effort to create a mutually beneficial mode of instruction. Engineers were to become fluent in military affairs, and military students were taught engineering techniques. As a result, Bazaine hoped, students attached to the military would be more readily prepared for engineering activities, while engineering students could serve as a ready reserve in times of war. By 1838, demonstrating the further differentiation of status and rank within the engineering profession and the empire itself, the Institute expanded to include two more classes of students with new categories of engineer-second lieutenant, ensign-engineer, “ensign of the sword,” and three cadet classes. By combining these practical and theoretical foci of instruction, the 19th century Russian scholar Ivan Pushkarev argued, officials carved out “a wider circle for [the institutes] useful activities,” in traditional means, such as the military, and their own professional sphere, each of which fulfilled two distinct missions: the creation of an empire and the maintenance of the imperial capital.

While engineers were becoming visible on the waterfronts of Petersburg, they were also advocating their “useful activities” to wider audiences in the capital and abroad. Russia’s

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28 Pushkarev, Nikolaevskii Peterburg, 381.
29 The militarization of engineering is well covered in engineering historiography.
30 Pushkarev, Nikolaevskii Peterburg, 381.
waterways were notoriously dangerous, especially Lake Ladoga, through which boats had to pass on the way to the capital (before the Ladozhki canal was constructed), not to mention frozen in some areas for long stretches. By engaging the empire’s waterways, engineers could insert themselves with professional authority in the empire’s economy. Since commerce increased when the water flowed freely, it made sense that a major concern for the state was to create peaceful waters through artificial or man-made canals. Efficient, safe transport routes meant stable prices, one engineer noted, and this was to be achieved by “connecting by means of water, of a completely artificial way, of those points in which these rivers offer calm navigation.”

Good navigation was essential, the engineer concluded, because “according to the latest data, quite new in Europe, advanced particularly recently, and to which the most experienced engineers were convinced of its importance, to study again and again, based internal circulation of most blossoming states. In this way, each part of the state takes part in the production and trade of different things, and with that so easy, as every State consists of one point, in which it concentrates all the gifts of nature and the work of craftsmanship.” Engineers well versed in the territories of the empire were a requirement to fulfill this vision, and indeed, they saw themselves as agents in a special state project.

As a demonstration of burgeoning professionalism, engineers staked their claim to authority on commercial matters. “Russia, by it hydrographical formation, so to say, offers by its possession the most expansive and complete river communication,” an engineer wrote in the inaugural issue of the journal of the Main Department of Communication. It was not an imaginative leap for engineers to divine this purpose. “In this way, the state is wrapped up in a quasi water network, which almost all threads can serve to transport goods,” the engineer argued.

31 Zhurnal glavnogo, “Vvedenie,” (Kn. 1, 1826), xii-xiii.
32 Ibid.
33 Ibid.
From this stated aim, in which the state institutionalized the pre-existing act of transport along waterways, it became necessary for the state to manipulate, control, and “know” the water within its borders.

As the intended hub of commercial activity in the empire, engineers were aware that the watered spaces of the city required modern infrastructure. The traveler J.G. Kohl echoed the sentiment on a visit to St. Petersburg: “From the interior of the empire the Neva brings to her capital the native abundance of the land.” Kohl noted that “at her mouth she receives the luxuries of foreign regions, and conveys them…into the most central provinces of the vast Russian empire.”34 The river Neva, the traveler noted, provided the capital with the “first necessary of life,” water, and served as the primary means of transportation, commerce, and sustenance of the city platted on that unpredictable waterway.

At the same time, engineers were able to wrap their commercial interests in the patriotic themes of empire. Engineers in Russia would be able to “nourish the heart of Russians (Rossiian),” with their “ardent love for the fatherland, consisting of a distinctive feature of their national character, and a new pledge of that indissoluble union, which will be joined to them more and more around the government, was established a rich method and power of the State, and at the present always in its care believing in the fact that it ensures the well-being of the people.”35 Indeed, all roads lead to St. Petersburg.

Engineers were very much aware of the relationship between technology and empire and their role in bringing the imperial vision to fruition. “Throughout history,” the editor wrote, “direct inquiry as the influence of roads and canals, and in general, all well-known means of

34 Kohl, Russia, 14.
“communication” leads to “the wealth and well-being of peoples (*narodov*)”\(^{36}\) Perhaps this reflects an importation of imperial attitudes from Europe by regime officials. Nonetheless, the state, in the guise of the engineers, was to play a fundamental role in directing these national efforts.

In order to accomplish the imperial mission, the state supported IKIPs institutionally and financially. Pushkarev notes that the treasury provided the Institute with 131,640 rubles of operating expenses, and 96,000 for boarding costs totaling 227,640. In 1842, 240 students took classes at the Institute. The government covered the costs for 160 of these students, while the parents of 80 others paid the 1200 rubles of room, board and tuition.\(^{37}\) The focus on the military, as well as engineering, had the dual outcome of attracting a wider range of students and leading to a professionalization within the ranks of engineers.

Despite these assertions of imperial support, Alexander’s successor, Nicholas I, looked upon engineers warily in terms of teaching, finances and the lack of “high society” in their ranks. According to Delvig, Nicholas “believed that the teaching at the Institute cultivated future revolutionaries.”\(^{38}\) Financial malfeasance was also a point of dispute between engineers and Nicholas. Almost as important, Nicholas distrusted engineers on financial matters, and here is where the lack of higher nobility among the engineers coalesced with doctrine and finances. Because of the lack of higher society in engineering circles, Delvig reported, they lacked the necessary financial understanding for the costs to build and maintain communication networks, such as roads. That is, engineers spent beyond their means. Nicholas looked upon financial

\(^{36}\) Ibid., v.
\(^{37}\) Pushkarev, *Nikolaevskii Peterburg*, 381. Pushkarev notes that the state paid 192,000 rubles altogether, which equals 1200 rubles for 160 students.
\(^{38}\) Delvig, *Moi vospominaniiia*, 40. For a good starting point on student revolutionaries and why Nicholas and his successor, Alexander II were wary, see Daniel Brower, *Training the Nihilists: Education and Radicalism in Tsarist Russia* (Ithaca, N.Y.: Cornell University Press, 1975).
malfeasance as both “carelessness, but also to abuses by the engineers of the Transport Ministry.”39 These are the same sorts of attitudes that prevented monumental flood controls and hampered efforts to resettle the population at Galernoe Settlement (Galley). Nicholas’s feelings were part and parcel of an engineering ethos that saw them as professional agents, but not necessarily agents of the state.

Just what kinds of teachings did Nicholas find so threatening? To prepare future engineers to carry out the mission, instruction was provided for four years on subjects both practical and theoretical. These included such subjects as drafting, mathematics (“pure” and “applied”), algebra and river hydrography. In addition to classrooms, there were plans for four additional halls: the library, machine shop, instrument hall, and the “hall for models.” Each was geared to introduce students to the various tools of the trade and allow them to use them.40 During the summer months, students were “dispatched to work for a time in practice in the surrounding area (okrige)” as a requirement of their coursework. Thus, in theory they were to take part in transport related activities and construction, applying knowledge they learned at the institute and gaining knowledge gleaned at the local level that students could then take to locales throughout the empire. This knowledge had to be applied to the whole empire, as students could not graduate without passing an exam on “all the realm’s rivers and canals, existing and expected…and the benefits from them.”41

Expectations were fairly rigorous. Candidates were expected to speak Russian and French, with the understanding that they would achieve the rank of third class upon completion. This suggests that the work was deemed important by the state and that high expectations were to

39 Delvig, Moi vospominaniia, 40. “These abuses were of course very large, but unfortunately, they were in other agencies still larger,” Delvig noted.
41 Ibid., 4. Here I translate Государстве as “realm.”
meet engineers when they arrived at appointed work sites. Sixty-two young Russian men responded to notices in the newspapers of the capital, thirty of which passed the initial entrance exams, yet few had sufficient knowledge to begin the course as intended although Zhitkov remarks that candidates ranged from “university students to those already in state service with rank to titular councilors.”42 In a sense, the training of the engineers was an imperial project, on the one hand, and a mission of cultural maintenance of the capital on the other. To successfully complete the program, future engineers had to demonstrate special knowledge of the empire, along with practical experience in the capital. Upon completing their degrees, many engineers were dispatched to projects outside the capital, while others, such as Kerbedz and Gotman made significant names for themselves in St. Petersburg.

**Engineers in Action: Engineering the Empire**

“Si la force des armes est le premier soutien de la puissance d’un empire, l’agriculture, le commerce et la navigation sont les bases de sa prosperite.” -F. Andreossy43

Once engineers completed training at the Institute, they entered into the growing profession. Increasingly, engineers provided a vital function at the root of the imperial transportation project. Primarily, these engineers were tasked with shaping the routes of communication and commercial transport in the empire. In a sense engineers were part of a project that imposed second nature on to first nature44 to ease and improve transportation over waterways and snow-laden winter roads.45 A quick glance over the theoretical and practical research published in the *Main Journal of the Department of Communications* over a forty year period reflects not only this emphasis, but the shift toward all manner of rail projects, at least

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42 Ibid., 8.
43 “If the force of arms is the first pillar of the power of an empire, then agriculture, commerce, and navigation are the basis of its prosperity.” Quoted in the inaugural edition of the *Zhurnal glavnogo* in 1826.
44 William Cronon develops this idea in his works of environmental history. It implies human intervention in nature. Humans use technology to impose upon natural nature a *new* nature.
45 *Zhurnal glavnogo*, “Vvdenie,” v.
initial planning and thinking about them. The intervening years reveal a thriving discussion among engineers that depicts a vision of an engineered empire. The origins of this professionalization can be traced to 1835, when administrators turned to the talented P.P. Mel’nikov to craft a trilogy of textbooks exclusively for the institute. His first publication, “On Railroads,” gave a clear indication on what administrators sought to focus future energies. However, the question was largely theoretical, as Russia had no railroads at the times. This generation of engineers was expected to implement the network of rails in Russia. What Russia did have an abundance of was water, and that required real, immediate, and practical knowledge and experiences, with a somewhat piecemeal infrastructure throughout European Russia, not to mention the desire to expand technology to new areas of conquest. For these engineers, it is possible to discern a sense of promise about the idea of engaging the “untamed” locales to the south and east in order to demonstrate their prowess in technological application for the greater benefit of the principles of autocratic empire.

Between 1813 and 1859, the institute graduated approximately 1026 engineers, and over the first ninety years of the Institutes history, Zhitkov compiled biographical material on approximately 120. My survey of the biographical material collected by Zhitkov shows that these engineers rarely served in one place for very long. These particular engineers were sent to spots identified as critical to the imperial regime, usually the edge of the Russian empire’s newly acquired territory to survey, plan (or imagine) and to construct. They were tasked with visualizing an imperial map, and devising ways to navigate river and landscapes in ways that had not been done before. By surveying and building, this provided imagined and tangible possession of spaces, far from the capital.46 The examination of several of these biographies clearly

46 Of course, these constructions were much more substantial than the markers of empire’s reach, such as the stone monument to the steamship in the interior of Africa depicted in V.S. Naipaul’s fictional A Bend in the River. Two
demonstrates how Petersburg can stand for empire. Most engineers began their careers in the city and then were dispatched for years to various spots in the empire, before making the return trip to the capital. The careers described below are typical of the kinds of circuitous biographies we see in the Zhitkov collection.

Following the career path of Peter Lvovich Al’brand illustrates the concept nicely. Al’brand’s career provides us with a glimpse at the professional travels in which engineers were expected to take part, and how they derived authority. Al’brand graduated from the Institute ranked nineteenth in 1831 at the age of 23. He was assigned to region IV (Odessa) of the Department of Water Communication. The following list of activities for this engineer is by no means exhaustive. In the Odessa region, he worked on a canal project on the river Bug before moving on to the stone-embankment projects in Kherson. He was transferred to the Crimea in 1833, worked on the water supply system in Feodosia, built a bridge in Yalta, and worked on road projects in the Crimea. In 1844, he worked on highway projects in region IX (Ekaterinskogo), sought to improve navigation on the Dnepr and built wharves in Kremenchuga. In 1854 and 1855, he built pontoon bridges for troops fighting in the Crimean War. Al’brand worked for the Department of Communication nearly until the time of his death in 1864.\(^\text{47}\)

Al’brand’s career is not atypical among the biographies constructed by Zhitkov, suggesting that engineers were intimately linked with the state in areas where empire was produced.

The career of Andrei Danilovich Gotman is instructive of the new type of social actor the institute produced, that is, an educated Russian not of Nicholas’s “high society,” yet an individual who distinguished himself nonetheless. Gotman, born to an English family, entered

\(^{47}\) Zhitkov, Biografiia, 3-8.
the institute in its first class of 1810. During the 1812 French invasion of Russia, Gotman and his fellow classmates sought a special dispensation to enter the army, a move strongly opposed by the institute’s director, Betancourt. As one of the most promising engineering candidates, Gotman’s request was denied and he was ordered to remain behind in St. Petersburg.\(^{48}\)

While in Petersburg during the war, Gotman gained practical experience and notoriety outside the classroom by working on the construction of the Kamenny-Ostrov Bridge. According to his biographer, the pontoon bridge was “well known as the first test construction of a permanent bridge over the Neva,” and unique in that it was “the first time in Russia that a wooden arch was used.”\(^{49}\) It took two years for crews to construct the bridge, and it opened for traffic in the summer of 1813. In a move that indicates the crown thought seriously about these kinds of projects, Gotman was awarded the Order of St. Vladimir, fourth degree, for his efforts.

While being denied a chance to participate directly in the war effort, Gotman’s experience on the Kamenny-Ostrov Bridge in the capital led to a meteoric rise in his career. His climb up the ladder is significant in that it reveals both the traces of empire, and official thinking about the empire in practical terms. In addition, Gotman’s career parallels the kind of thinking in government and court circles about the challenges of maintaining a built city in an environment such as St. Petersburg. For people on the path of advancement who carried the tools and knowledge of empire making, the routes the Russian empire followed were often indirect, circuitous, and messy. For example, Gotman proved himself in Petersburg, was sent out to the key transportation sites of the empire where he proved himself again, before was called back to the center.

\(^{48}\) Ibid., 19-20.
\(^{49}\) Ibid., 19.
In 1813, Gotman was named a professor of Drawing and Architecture, a position he held for four years. Thus, as a recent graduate of the Institute with practical experience in the struggle against the Neva, Gotman imparted that knowledge and experience to new classes of students. It seems that Gotman was never intended for the battlefield or a long term commitment in the classroom at the Institute. For his next post, young Gotman joined the “Committee for the Organization of Hydraulic Work,” which was tasked with a thorough examination of all buildings and construction projects to ensure that the city’s buildings were properly fitted. This suggests that authorities had a growing concern about the maintenance of the city that required intervention, and that it was logical for them to turn to engineers with wide interests trained in the capital to carry out these tasks. Unfortunately, his biographer provides little detail about the execution of these tasks, only that Gotman was very busy during this era. Indeed, he seemed to be involved in every major construction project over a thirty year period. In Petersburg alone during this early period, Gotman worked on the construction of the important Obvodnyi Canal, projects at the Admiralty which included “transportation on Admiralty Boulevard, the construction of a subterranean canal of stone underneath Issakievskii Square, and the construction of two granite wharfs.” Gotman played a major role in the drastic transformation of the physical environment of the imperial capital.

Following this appointment, Gotman was placed in charge of projects on the islands of Kamennyi and Elaginyi. On Kamennyi he supervised construction of a drainage canal while on Egalinyi he built a “protective rampart for defense against floods.” Having proved himself in the capital over the course of thirteen years, Gotman, likely in his early thirties by 1826, was dispatched, along with all of his technological know-how, into the empire. He spent two years

50 Ibid.
51 Ibid., 19-20.
52 Ibid., 21. All of the remaining biographical material comes from Zhitkov, 19-23.
based in Novgorod on projects concerning the Vyshnevolochek System, before being sent south to Odessa for projects on the Don basin, the Port of Azov, and the Black Sea.\textsuperscript{53} After eight years in the construction hot spots of the empire, Gotman was recalled to St. Petersburg in May 1836 to supervise the completion of the critically important Obvodnyi Canal.\textsuperscript{54} In October of that year, Gotman’s career completed a full circle when he was named the director of IKIPS.\textsuperscript{55}

Zhitkov makes a key point that exemplifies Gotman’s career, his engineering ethos, and the mission of the institute. Under Gotman, Zhitkov wrote, “the institute continued to blossom,” and “preserved the primacy between the balance of a higher (education) institution and that was made use of by the public, who always called on them during its ordeals (ispytaniiia).”\textsuperscript{56} Like engineers and the empire’s roads, our story necessarily returns us to the imperial capital where engineers faced a different sort of empire making.

\textbf{The Imperial Façade: “A Façade of Commensurate Character”}

In St. Petersburg, the façade refers to the inclusive surrounding of the river, such as depicted in lithographs and paintings throughout the period.\textsuperscript{57} St. Petersburg served as the administrative capital of the Russian empire, a commercial seaport on global trade routes, and as a cultural interface with Europe in the realm of ideas. “Defining the city center—the area between the Neva, the Kriukov canal, the Fontanka, and Liteynii Prospect—one contemporary wrote in 1834, that it was one of the finest areas of all the world capitals and that “having this for

\textsuperscript{53} It was here, Zhitkov noted, that Gotman achieved the rank of Major-General.
\textsuperscript{54} This canal project, begun in the early 1800s opened shipping to the interior of the growing capital, and direct access to the main channel of the Neva south of the Aleksandr Nevsky Monastery, and thus, to the river route to Moscow. The canal eased the burden of traffic on the Fontanka, especially that going to the Haymarket, and allowed for the passage of larger ships farther into the city. This is still an important canal for St. Petersburg today.
\textsuperscript{55} Gotman held this position until 1843 and continued his role in important construction projects throughout his tenure. After 1841 he served on a commission that headed construction of a key railroad. He was amply rewarded for his work, earning medals and receiving land. He died in Dresden in 1865, where he had gone for health reasons.
\textsuperscript{56} Zhitkov, \textit{Biografiia}, 21.
\textsuperscript{57} Especially in the core of the city built before the major reconstructions of the imperial edifice after 1860 that are described by William Brumfield. See William Brumfield, \textit{The Origins of Modernism in Russian Architecture} (Berkeley: University of California Press, 1991).
the privileged castes and the improvement of the city: the construction of stone bridges, of wonderful embankments, the paving of streets, the installation of street lights." The Imperial façade is more than architectural representations and the exercise of culture and politics in salons and the rooms of officialdom. Nature is always present, and this constant engagement with it also can be read as incorporating the river into the façade itself. Indeed, the river was intended to be a part of the façade, reflecting the majesty of the built environment to those observers that moved through the environment. This imperial depiction was at odds with the varieties of use employed by inhabitants and profoundly affected foreign travelers, whose views were directed to the façade. The imperial vision of the facade required a particular set of understandings: power, majesty, military might, culture, and above all, order and autocratic control. It is exactly the effort to maintain that image that is obscured by the façade.

In the opening chapter of D.A. Zasosov and V.I. Pyzin’s memoir on fin-de-siècle Petersburg, the authors address one of the fundamental contradictions of the “window on the west” story, in terms of the actual physical and cultural development of the city. “Petersburg was built as a fortress and a port,” they wrote, “But it was built not on the sea, but on the river.” The authors forcefully reiterate the point that “the city was not directed towards the sea: All of its life during at least two centuries was oriented toward the river and canals.” One of the enduring contradictions of the engineering story is that while shoring up these areas, they created the spaces that removed such activities from the center of the city.

The engineers who intervened between nature and state, working to shore up these foundations and solidify the imperial façade developed their own craft and ethos. The nineteenth

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60 Ibid., 5.
century biographical sketches of engineers from the Institute of Engineers of Transport published by S. M. Zhitkov throughout the 1870s and 1880s, present us with an archive of this Petersburg period, and open the door to a collective biography, similar, perhaps, to Bruce Lincoln’s work on enlightened bureaucrats. In a sense, water created this generation, an army of engineers to control the river and watered spaces of the capital. Thus it is possible to read this story not as a march of progress, but as a strategic appropriation of technology in order to maintain a position of authority. The stakes were high, then, with each regime’s affirmation that St. Petersburg was not just a city, but an imperial city.

Flooding was the most common ordeal facing the city, and engineers sought to carve out a role for themselves through flood control projects. Within three months of the disastrous 1824 flood, Alexander I had received five detailed proposals from engineers, including proposals from those who had an affiliation with IKIPS, and one each from Destrem and Bazaine.\(^61\) It is worth noting two of the proposals that were put forward. One project called for builders “to wall off all the space threatened by floods with one general earthen embankment, with dams across the river channels,” and the allowance for “the withdrawal of the Neva’s water though a special canal along the Vyborg Side.”\(^62\) The engineer Bazaine, one of the French engineers who founded IKIPS had a similar, but more radical, idea, one that will sound familiar to followers of Petersburg news today. This was to construct a large dam at Kronstadt, the island at the mouth of the Neva that was home to a customs house and the Baltic Fleet. The dam would connect each side of the Gulf of Finland’s shoreline. Bazaine called for the construction of stone locks across the island to allow for the passage of ships, both to the sheltered side of the island and up the


\(^{62}\) Ibid., 17.
Neva into the city. At the time, Alexander refused to act on the projects due to cost, but engineers clearly expected that they could apply technological innovations to protect the city.

Technological developments led engineers to focus on more practical, cost-effective projects in the city such as bridge construction. S.V. Kerbedz, a thirty-two year old IKIPS graduate, sought to connect “two populous parts of Petersburg” in 1842. Kerbedz, who graduated second in his class at the institute in 1831, entered into competition for the first permanent, year round bridge in St. Petersburg against the celebrated French engineer de Fontaine, “known for the improvement of navigation on the Rhine.” The bridge was to be constructed on the current site of the Lieutenant Schmidt Bridge that connects the Admiralty District to Vasilevskii Island. Kerbedz’s plan was chosen, and the young captain was promoted to general upon the completion of the project.

Kerbedz came from a well-known family of Polish engineers, and was one of the first graduates of IKIPS to be admitted to the Russian Academy of Science, along with Mel’nikov on December 5, 1858. It is significant that after expanding much energy on the railroad question early in his career, for a twenty year period after 1860, Kerbedz gave his primary attention to water-related projects. According to the M.I. Voronin and M.M. Voronina, these included “the development of projects of facilities of the Petersburg and Kronstadt ports, the sea canal between them, reconstruction of the Mariinskii water system, the Priladozhskie canals, Libavskii port, a number of railroads and solutions of different transport problems of the country.” He was a tireless worker, and did not take a leave of absence until 1891, shortly before his death.

According to the proposal’s introduction, Kerbedz drew on “completely new and

63 Ibid., 33.
64 S.V. Kerbedz, Proekt visiachego mosta chrez nevy, v Sankt-Peterburge (St. Petersburg, 1846), 2.
65 Ibid., 2.
66 Voronin and Voronina, Kerbedz, 10.
67 Ibid., 10.
extraordinary, remarkable methods,” in fulfilling the key components called for in the first permanent bridge across the Neva. 68 Four points had to be accounted for, which reveal a general pattern of thinking regarding water and façade in the northern capital. Kerbedz accounted for the ice floes that clog the river twice a year, allowed enough space for the masts of ships to pass, preserved the view of nearby buildings, and finally, Kerbedz planned “to give the bridge a façade of commensurate character to the great buildings of its surroundings.” 69 The proposal addressed four main concerns and features of river life in the city that demonstrate what engineers were trying to accomplish with their emphasis on solidly built, permanent structures. Engineers were trying to replace the chaotic qualities of a city governed by seasons and the particular social rhythms along the river with a vision of the modern. This meant regularity and permanence.

First, any permanent structure planted in the Neva must contend with the ice floes that moved with immense force down river twice a year. When the first blocks of ice floated out from Lake Ladoga, a telegram was sent to the police in St. Petersburg. From experience, they knew that the ice took about twenty-four hours to reach the city. The city came to a halt. “Vehicles of every description remain crowded on either bank,” reported Colonel Jackson to the Royal Geographic Society in London in 1835, “while large boats, loaded with passengers are seen forcing their way through shoals of drifting ice, by which they are often carried some considerable distance.” 70 Workers set to work swinging the bridges to the shore line. Some remained there for the winter, while others, such as the Isaac Bridge (Isaakievskii most), located near Petrovskii square and connecting the Admiralty district with Vasilevskii Island, was built on pontoons. When the ice appeared, the bridge would be swung, and a channel cut into the river.

68 Kerbedz, Proekt, 2.
69 Ibid., 2-3. Voronin and Voronina also cite this passage but we use it in different ways.
The pontoon bridge would then be reset into the clear channel in about two hours. Jackson reports that the process used to take several days because of the resourcefulness of the “boatmen of the river.” The boatmen banded together and bribed the officials in charge of swinging the bridges, ensuring some delay in their reconfiguration, thus providing them with a monopoly on transportation across the river for as long as the ice allowed. All of this could be avoided with Kerbedz’s design, and transportation and government communication would experience less interruption. Prior to this time, engineers in Russia had not been able to solve the problems associated with a permanent bridge. According to Kerbedz’s biographers, it was not for lack of effort, as engineers had been trying to design an adequate structure in Russia since 1776.

Second, the bridge was sited at one of the busiest sections of the river, just beyond the admiralty shipyards (moved down river in 1844) and near the educational and commercial center at the tip of Vasilevskii Island. Certainly, the masts referred to are the smaller sail boats and not the larger sailing ships depicted coming up the river in the sketches of Sabata and Shifliar from the 1820s. It is possible that ships of this type were rerouted around the other side of Vasilevskii Island on their way to the center, or directed into the Obvodnyi canal.

The poet Joseph Brodsky’s ruminations on Leningrad come to mind as he recalled that, “in acquiring its imperial look, this city was scrupulous to the very last detail: the granite revetment of the rivers and canals, the elaborate character of every curl on their cast-iron grilles, speak for themselves.” Upon completion of the bridge in 1850, it became a gathering spot and popular place for strolling due to its location and careful architectural façade. As eco-critic

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71 Ibid., 4. In 1836, a year after Jackson delivered his paper, the Isaac Bridge was displaced for a total of eight days. After rumors persisted of bribes and the commandant of the bridge was threatened with prosecution, the bridge was returned to its proper position. See J.G. Kohl, *Russia*, 19.
72 Voronin and Voronina, *Kerbedz*, 53.
73 Komelova, *Vidy S.-Peterburga*, 36, 46-47.
74 Brodsky, “A Guide to a Re-named City,” 76.
Rachel May has argued, regarding the engineered spaces of the city, “the canals and embankments that were initially a mere necessity became the aesthetic signature and primary public spaces of the city. When granite replaced the original wooden structures, the effect was strikingly beautiful; the new embankments and the lovely canal bridges inspired artists and poets and helped make the city a tourist attraction throughout Europe.”

This is a prime example of where engineering reveals the nexus of the cultural and physical world of “real and imagined space.” Here, the architectural façade that created the sense of imperial power and majesty, or a cultural image, which historian David Blackbourn refers to as “the cultural construct framed by the observer,” and the physical act of building a bridge in and across the river reflects the “physical reality of rock, soil, vegetation and water.” The engineer is positioned perfectly to conceptualize and create a physical point where these two facets are realized.

**Consequences: Engineers and the Erosion of River Culture**

What did all this mean in terms of the effect of engineers on the everyday experience of Petersburg? The work of the everyday on the watered spaces in times of thaw occurred in the shadow of the imperial façade. Maksim N. Vorobev’s 1835 painting illustrates the immensity of the façade as it dwarfs the local (Figure 3). At the water’s edge on the stone shore, the painter depicts at least three laundresses at one of the river’s prachki washing white sheets. They carry out these tasks beneath the mammoth sphinxes, overlooking a riverscape dominated by four or five sea-going vessels, stretched out along the river. In the middle of the river, two young men sit on a log barge, gazing and pointing at one of the ships anchored along the quay. The scene is exemplary of the conversion of the river to a tool of imperial functionalism.

78 Ibid.
The exploration of the culture that developed on the river brings to focus two different but related questions. The first relates to the maintenance of the imperial façade in St. Petersburg, which created an imperial vision that excised the culture of the river from view. As we have seen, engineers played a crucial role in this process. These included the tasks of dealing with surplus water, building bridges, canals and embankments, in short, all the things that made the Neva a reflection, a film reeling towards the sea. “In the final analysis,” poet Joseph Brodsky wrote,

The rapid growth of the city and of its splendor should be attributed first of all to the ubiquitous presence of water. The twelve mile long Neva branching right in the center of the town, with its twenty-five large and small coiling canals, provides this city with such a quantity of mirrors that narcissism becomes inevitable. Reflected every second by thousands of square feet of running silver amalgam, it’s as if the city were constantly being filmed by its river, which discharges its footage into the Gulf of Finland, which, on a sunny day, looks like a depository of these blinding images.⁷⁹

The development of rail networks was instrumental to the commercial abandonment of the city core to the imperial façade. It is important to recover this era of Petersburg’s history before the development of the railroad in order to see just how strong a role nature played in the development of the city. As historian William Cronon discovered in his work on Chicago, which discusses a simultaneous moment in time, railroads imply a radical break with geography and climate.⁸⁰ Because the city relied so heavily on transport over water routes, transport to and from the capital was continually plagued by the cycles of the seasons. Overland routes were often no better, and thus, the natural landscape determined the best, most efficient routes to the city. Thus it was no accident that water played such an important role in the development of Russia. However, while never completely escaping the perils of weather, railroads operated much more freely, but required a different set of costs and energy supply.

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⁸⁰ Cronon, Nature’s Metropolis, 74.
Numerous industrial and transport factors coalesced in St. Petersburg before 1850 to make this period a compelling one for the study of water related issues. As Russia adapted to a market economy, the pace of industrial development quickened and a water transport network was formalized and implemented. This allowed for the transport of goods directly over water from the Russian interior westbound through the Baltic. In the Russian Empire, it was water transport, rather than rail, that served as the dominant economic vehicle for commerce.

There was a strong relationship between the political and commercial functions of the city. Perhaps Riga was a better and more logical port, but because St. Petersburg was a port and capital city most goods passed through it on their way west. This was a conscious choice, as the development of railroads should have meant easier passage to the European networks than the different journey to the capital via water or overland routes. Indeed, as the empire began to install more length on its rail lines the water transport system was called into question, since there were more viable routes. Historian Alexander Shevyrev has shown that in 1800, 57.5% of trade centered on St. Petersburg, while 67.1% of trade came into port by sea. However, by 1850 the latter was reduced to 39.2% because of the opening of the Black Sea. At its commercial and industrial essence, St. Petersburg was a heavy industry center for shipbuilding and the military, hence Shevyrev’s emphasis on the “City military complex” consisting of guns, iron, and dockyards. Shevyrev argues that this complied with the will of the court and the metropolitan elite, and that in political and economic terms meant to control the port was to control the supply.

82 See I.F. Bokovskii’s 1868 work on waterways in Russia. I.F. Bokovskii, Puti i sposoby perevozki gruzov s nizovykh pristanei r. Volgi k S. Peterburgu (St. Petersburg, 1868, tom 1).
A quick glance at a map shows what rail advocates already knew: that St. Petersburg was in a marginal geographic position and the river Neva was but a small part of the vast river network. Thus, it was by imperial initiative that the river system served in the vital capacity it did for as long as the regime could stem the tide of change. In a sense, as contemporaries were very much aware, the imperial center of the empire would become marginalized, a situation that imperial authority and other vested interests could not allow. Instead, St. Petersburg would cease to be a conduit and become merely an endpoint, a spur of the rail system, itself a product of the imperial state. Thus, there are competing visions of the empire that are played out in decisions about something as mundane as transport. As such, the visual spectacle and ritual of “getting the goods to Petersburg” with massive flotillas manned by skilled male workers from the interior would decrease, and deemphasize the mystique of this effort, a mystique best exemplified by the songs of the Volga boatmen. In a sense, less activity leads to a vacant river, and a bustling river gives visual weight to the perceived well-being of the empire. Therefore, the river itself becomes a façade in the imperial framework.

A river without the bustle of shipping and commerce was not something the protectors of the empire were prepared to accept. “The fact of the matter was,” historical geographer James Bater points out, “that the capital served as a vortex of an ever widening network of canals and highways.” As technological innovation involving transport did not begin in earnest until the 1860s, transportation on, and maintenance of canals and embankments was a critical feature of city function prior to that date. It is within this context that the city became a laboratory for the

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84 For more on this issue, see Bokovskii, *Puti*, especially on the rail route to Riga, which was more direct and had a better port.
85 No doubt, the Volga remained crucial to the Empire, even if St. Petersburg was supplied by rail. Here, I simply imply here the visual relationship suggested by the “emptying” of the Neva.
86 Although Bater points out that they did aim to restrict this activity to hours between 11pm and 9am.
87 Bater, *St. Petersburg*, 60. According to Bater, 38% of all foreign trade passed through St. Petersburg by 1852.
empire’s ambition, in which circumstances forced them to adopt a more European view on approaches to water to maintain imperial authority, rather than solutions uniquely suited to St. Petersburg’s natural environment.

The Neva has long been a trade route, and prior to 1703, a site for fishing. After the city was developed in Peter’s era, we follow engagement through large projects of the embankments, port construction, and shipbuilding, to name a few. Water was a source of factory power, and the steamship appeared. As the city was populated, the river was a source of drinking water, fish pens, laundry sites, and leisure. With each appearance of a new or potential use for the river, challenges arose that required the expertise of engineers.

The Sea Canal was one of the final pieces of the imperial project to make the river safe for commerce and perhaps the greatest engineering triumph in Petersburg at that time. Begun in 1878, designers intended funnel ships from Kronstadt through the canal to a safe harbor at the mouth of the Neva “Gutuevskii Island,” located in the southwest part of the city. Costing upwards of ten million rubles and requiring tons of earth to be moved, the nineteenth century historian A.A. Bakhtiarov called the canal the most “grandiose hydrotechnical project in Europe.” Upon its completion in 1885, ships no longer docked at Kronstadt to have their goods transferred to smaller river worthy ships to make the passage across the Gulf to the capital. Only then, Bakhtiarov argued, was Peter the Great’s dream realized and St. Petersburg became a true seaport. Along with its companion canal, the Obvodnyi, St. Petersburg became linked with Europe by sea, with the resulting effect leading to diminished commercial activity along the

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88 F.V. Karmazinov, ed., *Vodosnabzhenie Sankt Peterburga* (St. Petersburg: Novyi zhurnal, 2003), 5-6. Karmazinov is the current director of Vodokanal, the water utility of St. Petersburg.
90 Ibid., 127.
91 Ibid., 128.
water’s edge in the administrative center of the city. In this way, as administrators abandoned the
dream of Peter, engineers, in demonstrating their professional acumen, brought it to fruition.

Conclusion

In conclusion, I argue that engineers developed a specific ethos as a result of their engagement with the watered spaces of St. Petersburg, one that allowed them to create authority of their own, and maintain the cultural vision of an imperial capital. This is understandable considering that water comprises ten percent of the surface area of the city within the boundaries of the former capital.92 “The mists and swamps, from which the city came into existence,” noted N.P. Antsiferov in 1922, “testifies to the hard work, which was necessary to be performed in order to create here on unstable ground, woven through with mist, this ‘Paradise.’ Everything here recounts the great struggle with nature. Everything here ‘flies in the face of nature.’”93 If the city was to function, let alone operate as an imperial center, then water, and those places where in the course of its flow to the sea it encountered land, people, and the built environment, water had to be managed. Engineers became the primary managers of that space.

The manipulation of that environment, from the stories told about it from the very beginning to the facades of city buildings, constantly asked citizens to see something different, or at least guide them to an understanding of what appeared before them. The Neva was not just a river, but a source of contention that meant constant, severe intervention and manipulation by engineers. The environment is obscured in most retellings of the Petersburg story, or explained away simply as a contest of nature without challenging that story critically, and so too is the role of engineers. Closer scrutiny of sources reveals a saturation of technology and experience that cannot be ignored, and enhances any discussion of the traditional narratives of culture and

92 Karmazinov, Vodosnabzhenie, 3.
93 Antsiferov, Dusha Peterburga, 26.
politics as they made claims to the river. A professionalized group of engineers helped make the river Neva an imperial river, a reflection of the power of autocracy to those who strode its banks.

Figure 3

Chapter 5: “Engineers in Society: Morals, Pipes and Public Discussion of Cleanliness and Water in St. Petersburg, 1858-1886"

**Introduction**

Let us now shift our focus to the efforts to ensure that water and sewage pipes stretched from the river Neva to disparate parts of the city and back again through the installation of a water delivery network in the city. Through this project, the Neva became less and less a shared resource managed by the state. Instead, the water of the Neva was to become a commodity, something to be bought and sold, paying dividends to shareholders. As Petersburgers became accustomed to receiving water from pipes, there was less a reason to go directly to the river or the canals, and the waters of the Neva receded from view. Just seven years before the push for a sand-filtration system, Grech’ could write about the Neva’s “cleanliness” and “pleasant taste…although newcomers in the capital are generally advised to drink water moderately during the first days here, or else with a small dose of red wine.”\(^1\) The installation project in St. Petersburg aimed to make that glass of red wine moot. The project was anything but smooth and unfolded in the public arena. Much of this was due to the growth and legitimacy of scientific and technical knowledge which led to disputes among experts airing their differences in public and in print.

In the 1860s, public debate about the meaning of water became possible in St. Petersburg. Sewer and water purification efforts provide a window in to the public discussions about how to transform the imperial capital. The debates about the meaning of water took on a public character at the intersection of three main threads: concerns over filth in the streets and water purity, the emergence of a commercial class capable of earning a profit on the sale of water, and that group’s appeal to the expertise of engineers to aid in realizing those dreams. The engagement of

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\(^1\) Grech, *Ves’ Peterburge*, 60.
engineers with water, the magnitude of their efforts that supported the grandeur of the city’s architecture, and helped make the city livable as well as a seat of power, came to the fore through a new struggle centered on the distribution of water and the removal of sewage. The enactment of these technologies developed primarily through a partnership with the entrepreneurs of the Joint-Stock Society.

In the first decade after the Crimean War, as a new reform era dawned, Russians became increasingly aware of the stench and filth in the city. In Petersburg, this was exemplified by Feodor Dostoevsky, who constantly reminded readers of the cracks in the Catherinian granite and the dirt, grime, and smell of the imperial capital. It was not just human refuse that provided the malodorous setting of the city, but also horses, livestock, tanneries, slaughterhouses, polluted canals and more. These same concerns about smell and sewage, French historian Alain Corbin tells us, plagued Paris in the same years, signifying in the phrase of historian Alexander Martin, “a portent of the urban social order’s own degeneration.” In Corbin’s conception, filth signified the past, the stubbornness of tradition that was, I assert, hardly fitting for a city with imperial pretenses. On the other hand, as I hope to show in this chapter through an analysis of the treatise by A.P. Vasil’ev, cleanliness meant a turn to the future, and the embrace of the modern. It should come as no surprise then, that the technological tasks of moving water and sewage through the city, as well as the paving of roads should become tied up in the modern project. Thus, a new role for the engineer emerged, building on what we have seen in previous chapters, in which they continued to carve out areas of professional expertise and respect as they left their marks on the city. However, this process was not always a directed, cohesive endeavor, but one that featured

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3 Martin, “Sewage and the City,” 243.
contentiousness, wastefulness, and haphazardness in the construction, installation, and management of the projects.

Often, these discussions on water and sewerage were couched in terms of civic mindedness, which is to be expected in the early years of the Great Reform period. Top-down military, educational, and judicial reforms and the emancipation of the serfs opened the door for middling members of society (*obshchestvennost’*), many of whom are central to this chapter, to enter the sphere of public discussion on problems facing urban St. Petersburg. Many members of the educated public were concerned with social and moral conditions in Russia, especially urban life, and often linked these together, whether the radical solutions offered by the novelist Nikolai Chernyshevsky in *What is to be done?*, or the anti–prostitution reforms discussed by the contemporary historian Laurie Bernstein. The sources discussed here indicate that authors saw themselves in community with wider European efforts to address such urban social issues as smell, water, sewage, sound and more. These facts of the urban experience were linked, and educated elites believed that solutions could be achieved through science, modernization, and education.

Through the community of the scientific journals and publication of pamphlets, educated individuals participated in sometimes contentious discussions and offered solutions to the anxiety’s and fears of Dostoevskian Petersburg. At the same time, they could never quite escape government oversight and interference in effecting these solutions. I will show how the discussions about the meaning of water played out in the story of the installation of the water network, sewer systems, and the paving of streets in St. Petersburg, which resulted in a more

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advanced infrastructure of disposal and delivery, commoditized water, and held consequence for the ways in which residents were supposed to act socially and morally. In a way, these projects pre-figured the modern idea that the city was a living organism.

Two primary cases serve to buttress and elucidate this argument. The controversy that erupted in 1862 about the inner-workings of the Joint-Stock Society and the construction project pitted a shareholder, Alexander Andreevich Nikkels against one of the projects primary engineers, N. Sokolov. After an unfavorable outcome in a legal dispute, Nikkels published a forty-eight page broadside attacking the company, to which Sokolov responded. Finally, in the same year, social reformer A.P. Vasil’ev composed a meticulous 200 page report detailing the capital’s problems concerning sewers and roads. Writing from a socialist perspective, Vasil’ev claimed that conditions in the city hindered labor productivity. Vasil’ev positioned his report against the advocates from the Joint-Stock Society, arguing that cleanliness and water purity were not just technological and economic issues, but moral issues as well. Vasil’ev situated the city in the European context, and like the western authors he read, linked his research to the moral degeneracy of St. Petersburg society. In October 1862, Vasil’ev presented a twenty page proposal to the St. Petersburg City Duma outlining a plan of action for paving roads and installing a sewer system in St. Petersburg. These new actors demonstrate the transformation of St. Petersburg from the model city we saw at the beginning of the nineteenth century, to a lived city in which the imperial order strains as officials attempt to manage its burgeoning population and infrastructure.

**The Need for Water and Sewage Systems in St. Petersburg**

The history of the St. Petersburg water supply installation is full of fits, starts, and stops. Previously, residents took water directly out of the river to provide for their needs, and the
primitive means of waste disposal were adequate enough. But that began to change by the mid
1850s. Since the 18th century, authorities had been trying to prevent industrial activity within the
center of the capital. Nonetheless, as the population increased, the natural and unnatural water
cycles were disrupted by basic human patterns, and the infrastructure that undergirded these
human patterns—sewers, pipes, and paved roads, were woefully inadequate or non-existent.
Engineers played an important role in the amelioration of these deficiencies and recognized their
own efforts in what they saw as a modernizing effort in the city.

As several scholars have pointed out, the water supply network and sewerage projects
were not connected, as they were in other European cities. The result was haphazard
development. At times, authorities at the state level initiated plans for a water supply network. “They admitted,” historian M.V. Mandrik noted, “that the canals from year to year were unclean,
and the water in them could not be used for drinking or household needs.” Although committees
were formed and plans drafted, no substantive actions were taken. The cholera outbreaks of
1831, 1848, and the mid-1850s, which pushed the death rate from 47 to 70 people per 1,000,
forced the government’s hand, though they were at first reluctant to take the lead in creating the
system. Therefore it fell to a group of entrepreneurs and engineers, who discovered that both
groups could achieve their growing need for legitimacy, by working in cooperation.

Private control of the water supply, rather than municipal authority, was the norm in
Europe. Thus, Petersburg was in line with Europe, when entrepreneurs in St. Petersburg first

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signed two decrees outlawing the dumping of human refuse directly into the Neva, and Catherine II ordered
primitive sewerage pipes to be installed in order to carry refuse out from houses.
8 See M.V. Mandrik, “K istorii razvitiiia vodoprovodnoi i kanalizatsionnoi system Sankt-Peterburga,” in Isledovaniia
molodykh uchenykh po otechestvennoi istorii. (Tambovskii gosudarstvennyi universitet im. G.P. Derzhavina.
Tambov, 1998), 76-81.
9 Mandrik, “K istorii razvitiia,” 76.
10 N.M. Blake, Water For the Cities: A History of the Urban Water Supply Problem in the United States
attempted to finance the supply network through a joint-stock company. The goal was civic, but at the same time directed for commercial gain. The company provided water for those who needed it, and then received a dividend.\textsuperscript{11} Thus, a new value was added to the river, to be fully realized by engineers and scientists, who measured it, surveyed it, built the infrastructure surrounding it, and developed the technology to extract and deliver it to the consumer.\textsuperscript{12}

At the same time, boosters could point to the Romans and their aqueducts to prove that water systems were markers of civilization. As historian Jean-Pierre Goubert noted, the water network systems were increasingly monumental, drawing on Romans for inspiration, but the goal was to surpass them.\textsuperscript{13} The reasons for good water supply after 1850 were clear, Goubert argues. These were “to keep its citizens healthy for economic (production), military (respect for conquest), and financial reasons, and for social (keeping the peace) and cultural order (providing emotional security).”\textsuperscript{14} These goals were surely drawn to the attention of the Russian engineers (such as Baron Delvig), who sojourned to Europe throughout the 1840s and 1850s to survey the latest technology. As a result, the push to dominate the water of the Neva, so critical to the imperial façade as it passed through on the way to the sea, the water could then be discerned and controlled down to its smallest particle.

The management of water and its particulates was becoming increasingly important for scientists and engineers. The findings of the British social reformer Edwin Chadwick spurred new delivery techniques of supply and disposal after his study of the London system appeared in

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\textsuperscript{11} Ibid.

\textsuperscript{12} Ibid., 17.


\textsuperscript{14} Goubert, “The Development of Water,” 109.
1842. Chadwick argued that engineers were the best instruments to ensure cleanliness of the water and its separation from sewage. Chadwick viewed water as a purveyor of disease and filth amongst the poor. According to historian W.F. Bynum, Chadwick devised a water supply system in which clean water was piped in and sewage, “suspended in water” was pumped out through pipes. The sewage would then be pumped outside the city, the water would evaporate, and farmers would purchase the leftover manure to finance the system. The project addressed and aimed to alleviate social and technological concerns.

Although water systems had been the dream of empires since the Romans, it was only the French innovations in piping of the 1830s that allowed for construction of large scale networks and the affordability of the materials necessary to handle the large volume. Ironically, it was the British who best took advantage of the technology. The advantages of pipes, Guillerme notes, was the removal of the notorious water carrier from the delivery process, and pipes offered the drinker comfort in the process. The drinker, previously unsure of the path of the water to the mouth, could be confident in the scientifically designed route of pipes, and above all, the water-filter.

On the technical side, a significant amount of space was needed for the infrastructure. Space for the reservoir, the tower, additional buildings and the pipes were required. Because of its height, the tower throughout Europe became, in the term of Andre Guillerme, an urban monument. The pipes were also imbued with meaning. Clay and wood pipes were seen as

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16 Ibid., 73.
17 Ibid.
19 Ibid., 96.
20 Ibid., 100.
“traditional,” while cast-iron “symbolized a modern material.”\textsuperscript{21} Finally, the installation of networks led to serious debates in France and England. The French loathed paying for water. They saw water as a gift of nature, something that Petersburg consumers could identify with.\textsuperscript{22}

Residents were concerned with water delivery and cleanliness in the 1840s and 1850s. Previously, residents took water directly out of the river to provide for their needs, and the primitive means of waste disposal were adequate enough. As the population began to rise and the water quality deteriorated, primitive water delivery devices were created. By 1851 there were 37 water delivery machines, or “vodolivnie” scooping water out of the river. “The oldest of these machines,” Alexsei Grech’ informed his readers, was built in 1827 and located near the Isaac’s Bridge at Bolshoi Boulevard with the inscription: for water transport.”\textsuperscript{23} Machines were located on Vasilevskii Island along Middle Street, at the Baird Factories, and “at Voskresenskii Bridge…there is a steam water tower (vodokachal’nia), built by Count Stenbok-Fermor, that delivers water to the bathhouse on Officer Street.”\textsuperscript{24} Residents could also purchase a “water cleansing” machine from Court-Master Dmitrii Aksenovskii, who sold them from his courtyard, but both of these solutions were small in scale, required individual initiative and could not be linked with a large, high volume system.

Although several projects for a water network in St. Petersburg had been previously presented, the first serious large scale piping projects were proposed in 1858. A ledger from this year reveals the kind of piecemeal and smaller efforts undertaken in the city at the dawn of this era. The ledger provided estimates of the work to be done in the city for that year linking pipes and water purifying wells. Vasilevskii Island was one of the key locales identified, as the ledger

\textsuperscript{21} Ibid., 100.
\textsuperscript{22} Ibid., 107.
\textsuperscript{23} Grech’, \textit{Ves’ Peterburge}, 65.
\textsuperscript{24} Ibid.
shows that officials hoped to install underground water pipes linked to the water purifying wells and to pave a significant amount of Bolshoi Prospect between the 18th and 19th lines.  

Officials planned to lay underground pipe between the 20th and 21st lines, which were to be connected to four “purifying” wells.  

Pipes were also to be laid along the embankment of the Ligovskii canal from the Kuznechnii Bridge in the Moscow District, as well as projects around Kuznechnii Lane, including a plan to connect to court yard pipes.  

However, as the population increased, the natural and unnatural water cycles were disrupted by basic human patterns, and the infrastructure that undergirded these human patterns—sewers, pipes, and paved roads, were woefully inadequate or non-existent. No longer would a simple glass of red wine be sufficient to ease the body’s adaptation to the Neva’s water.

Engineers marshaled scientific advances and notions of cleanliness in the service of capital, including scientific studies that measured iron and other particulates in the water. For example, a pair of scientists took samples from the Neva, the Fontanka at the Anchikov Bridge, and the Moika at the Police Bridge. In addition, the water at Lake Ladoga was tested and it was found that the water there was “much cleaner than the Neva.” The study provided a scientific basis for the local knowledge and custom of residents. Obviously, Petersburgers acknowledged that the water quality of the river deteriorated once it entered the city, and that “the most unclean water in Petersburg is the water in the Ekaterinskii Canal.” These published concerns gave weight to the claims that water cleanliness could be scientifically engineered. Technical experts played an important role in the amelioration of these deficiencies and recognized their own

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25 “Predlozheniia o gorodskykh v S.-Peterburge Rabotakh, neobkhodimyh k proizvodstvy v. 1858 g,” Manuscript Division of the Russian National Library, O. IV. 62, ob. l. 2. Piping was to total 281 pog/sazh. and paving was to cover an area of 1633 sq./sazh.”
26 “Predlozheniia o gorodskykh v S.-Peterburge,” l. ob. 2.
27 “Predlozheniia o gorodskykh v S.-Peterburge,” l. 3.
28 Grech’ Ves’ Peterburge, 62.
29 Ibid.
efforts in what they saw as a modernizing effort in the city. What is surprising is that they joined forces with entrepreneurs, who hoped to take advantage of the water supply and transform the system into a network that paid dividends.

**Water as Commodity: The Joint Stock Company**

With the aid of the government, a joint stock company was formed in 1858 to separate water and purify it. Immediately, as we shall see, the company was beset with financial troubles and shoddy construction. The project was financed through the selling of shares in the Joint-Stock company. Those who invested the most at the outset were to receive 317 gallons (100 vedras) of water for eight kopecks. Smaller scale investors were to receive it for ten or twelve kopecks depending on when they joined the company before or after construction began.

Between the founding of the system in 1858 and completion in 1863, money woes led to the sale of additional stock, and ultimately the venture was saved through government intervention and the purchase of 650 shares by the merchant A.I. Kron in 1863. As such, water was no longer a “free” gift of the Neva, but a commodity, and residents were supposed to look with distrust each time they dipped a bucket in the river or a well, which was the chief aim of those boosters pushing for the installation of the filter.

The joint stock company outlined the area to be served in their 1858 proposal to the tsar. “Without doubt,” they wrote, “know that the main districts of the city of St. Petersburg—the so-called center (nezarechnaia) part, stretching between the river Neva and the Obvodnyi Canal, supplies itself with water from the Central Station, located along the bank of the Neva across

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30 Ivan Pushkarev reported on an earlier attempt to form a society called the *Zavedenie iskusstvennykh mineral’nykh vod*, an 1830s precursor to the Joint-Stock Society of the 1850s. See Pushkarev, *Nikolaevskii Peterburg*, 526.
31 Mandrik, “K istorii razvitiia,” 77.
32 “Bashnia na Shpalneroi,” (St. Petersburg, Vodokanal, 2006), 1. Internal Vodokanal history provided to the author by officials in 2006.
33 Ibid., 3. Apparently this yielded a ten percent dividend for Kron.
from the Tavricheskii Palace, and that the whole network that feeds this station from January 1, 1891 will belong to the St. Petersburg City Municipal authorities.”34 By 1866, a water supply network of 71.58 miles (108 versts) was operating in the central areas of the city, but it was not until the early 1870s that the technology was able to reach across the river to a separate network on Vasilevskii, Vyborg, and Petersburg districts.35

The selling point for the plan which, after all, still took water directly from the Neva as residents and water-carriers had done for so long, was that the water could be delivered “at any time of year and become fresher by purifying the water by means of a special hydro-technical device.”36 The area to be served included the districts of the city bounded by the Neva, the Obvodnyi canal and the river Priazhka.37 Paying customers within this area would receive around 42 liters a day.38 This number seems high, since water historian Andre Guillerme noted that the European norm in 1850 was 20 liters a day, excluding water used for livestock and road cleaning.39

Initially, company planners sought to develop a water supply system “between the Bolshoi Neva and the Obvodnyi Canal, or, the so-called ninth central district of the city where the population at that time,” approached 400,000 people.40 To meet company expectations, approximately 4,500,000 gallons of water would be needed to be filtered through the system. To fund the project, the company collected 1,200,000 rubles, an insufficient amount once

34 T.M. Turchinovich, “Mekhanicheskie vodopodnyemnye sredstva nezarechnoi chaste S-Peterburgskikh gorodskikh vodoprovodov,” (St. Petersburg, 1893), 3.
35 Mandrik, “K istorii razvitii,” 77.
36 “Bashnia na Shpalneroi,” 1.
37 Ibid.
construction and technological problems beset the project. Additional funds were raised, and the system was to come on line in 1861.

As a functional monument to the modern ideal to which they strove, a water tower was erected on the site. The development of the water network in St. Petersburg brought together three main groups: architects, engineers, and merchants. The blend of these types indicates that, with Imperial approval, they were to incorporate the network into the existing imperial façade. Thus, the tower, designed by engineers to the latest technological specifications found in Europe, especially Scotland, was to be encased through a design commensurate with the Imperial façade, by architects.  

To create a unified and modern water network in St. Petersburg, the Joint-Stock Company turned to two engineers, Palibin and Okel. The pair chose to design a system based on European models of piping and delivery. Not everyone supported the decision and controversy erupted as they set about their task. A.A. Nikkels for one claimed that the duo lacked expertise in their assigned tasks and failed to call on more established engineers such as Kerbedz and Delvig. Delvig, for one, was well known in Russia for his successful work on Moscow’s water system.

The engineers selected an area near the Gromovskii Exchange to build the station. Not everyone was pleased with the location, including Nikkels, who claimed that the area was “the worst that could be found on the banks of the Neva... where the water is stagnant, fetid, and of the worst of chemical characteristics, so that the usual filters cannot possibly clean it.”

From the central location, the network extended out through the city, linking up with a series of mains. The mains appeared to be situated in the most advantageous positions for certain strata of society. To install the network, workers removed earth and laid the mains. The pipes

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41 “Bashnia na Shpalneroi,” 1.
42 A.A. Nikkels, Neskol’ko slov o S.Petersburgskikh vodoprovodakh (St. Petersburg: Glazunov, 1862), 13.
“ran along the Rozhdestvenskoi District and connecting with the main at the Liteyny District, run along Liteynaia Street, where an 18 inch pipe turned along Nevskii Prospect.”

The Nevskii water entered the facility through an instrument called a “Kovsh,” the name of an ancient drinking vessel, then it passed through a sand-filtration system, after which it was pumped through upper and lower tanks to a height that allowed the water to be pumped throughout the entire system. From the reservoir, which served as the head of the supply route, the water “passed through the main at Shpalernoi Street and Voskresenskii Prospect, between Tavricheskii Garden and Liteynaia.” The system was set up with redundancy, so that when pipes or mains needed to be repaired, water could be rerouted without much affect through the overall network. All of these pipes, along Sergeivskaia, Gagarnskaia, and Liteynaia Streets, and the Fontanka Canal, lead to Nevskii Prospect. Beyond that, “water was sent from the Znamenskaia main along the side until it reached Preobrazhnskoi street, and, while the joint there was repaired—from the Liteynaia Main at the side until it reached Nadezhdinskaia Street, and finally between Znamenskaia and Nadezhinkaia.” As a result, a significant portion of the central districts received access to water without having to rely on the water-carrier or to take it directly from the watered spaces of the capital. The bargain residents made with the joint-stock company was to receive “clean” water, which meant residents had to pay for it.

When infrastructure had been completed connecting the tower to the mains and to access points in the Liteyni district engineers tested the system. According to Sokolov, many experts were present, including those “of fame not only in Russia, but abroad, [such as] the mining engineer Kozhkov… [and] the famous English water-supply Engineer Easton.” In addition, the

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43 N. Sokolov, Po povody broshury A. Nikkel’sa o S.-Peterburgskikh vodoprovodakh (St. Petersburg, 1862), 6.
44 Ibid., 6.
engineer writes that he was with the machine during the test continuously, inspecting “the boiler, the machine, and the tank.”\textsuperscript{46} However, the system promptly failed during its first test, due to poor construction and freezing temperatures. Most significantly, the flow of water in the network was less than anticipated. This meant that the flaw in the system was due to an engineering error, rather than poor construction. According to Nikkels, Palibin and Okel based their numbers on European networks and miscalculated the length needed to create the expected volume for the system. Since the system commoditized water, the lack of proper flow meant that shareholders were losing money. What had been done to correct the error, Nikkels wondered? “Nothing,” he wrote, “even less.”\textsuperscript{47} The company was further embarrassed when the pipes burst, causing fountains to pop up along the streets.\textsuperscript{48} These factors bruised the reputation of the joint-stock company. As a result, the Board was forced to bring in city officials, to examine the technological aspects of the project. This, Nikkels argued, violated the terms of the company’s charter and opened a door for government interference in the profits, as the society was supposed to benefit shareholders, rather than city coffers.\textsuperscript{49}

By 1864, the company had corrected many of the issues and built a water tower that consisted of four machines capable of pumping water through the 63.63 mile (96 verst) network. The volume of water was still short of expectations, necessitating the construction of a second building in 1870 that brought the system nearly to capacity. The network served the whole district by 1886.\textsuperscript{50}

In 1876, an organization broached the possibility of installing new networks across the Neva, on Vasilevskii Island, and the Petersburg and Vyborg Sides. A mixed Russian-English

\textsuperscript{46} Ibid.
\textsuperscript{47} Nikkels, \textit{Neskol'ko slov}, 7.
\textsuperscript{49} Nikkels, \textit{Neskol'ko slov}, 8-9.
\textsuperscript{50} Altukhov, “Vodosnabzhenie goroda,” 210.
Association received a thirty-five year concession to install and operate the system. Under the plan, each region took water directly from the Neva, yet had “separate buildings,” “separate networks,” and “separate water-supply systems.” Therefore, instead of one unified city water network, there were four separate water supply systems in the city. In addition to the Central District, the Vasilevskii Island System began at the 23rd Line, the Petersburg Station was located “at Samsonievskii Bridge,” and the Vyborg Station was located on Arsenal Street. By 1880, the entire system was able to pump 15.85 million gallons (5,000,000 vedras). In this way, material items that Alain Corbin refers to as “aquatic architecture” transformed from the traditional fountains, buckets, and washhouses to the monumentally grand and modern structures of pipes, pumps, and towers. Despite these early failures, the Joint Stock Society succeeded in yoking technology and commerce and making water a commodity.

While achieving some measure of technological success, the Joint Stock Society was beset with internal strife. This strife can be separated along two general lines, technological expertise and status. The controversy that erupted among stockholders in 1862 provides ample insight into the workings of the company, what the stakes were, how shareholders and engineers conflicted, and the challenges to the installation of such a system in St. Petersburg. In February 1862, stockholder A.A. Nikkels, upset with the board of directors, published a detailed forty-eight page tract attacking many of the board’s decisions. Nikkels accused the board of the mismanagement of funds, the failure to protect stockholder capital, for the site chosen for the network and many other perceived errors. Nikkels also offered critiques on the tower, the filter, the pumps, the pipe and the sewer systems and directly attacked Sokolov, the engineer who directed the tests outlined above in the Liteynyi District. In short, Nikkels was critical of every

51 Ibid., 211.
52 Ibid.
decision taken by the company. Nikkels, writing after an unfavorable arbitration law court ruling, mixed technological expertise with personal vendetta, a position he adopted out of “fear for [the project’s] future.” Nikkels is especially critical of the engineers Palibin and Okel, for their “conceit” and claims to sole knowledge of water related projects.

Sokolov responded angrily to Nikkels’ charges. While he does not respond directly to some of the accusations raised in Nikkels’ brochure, a clearly wounded Sokolov sought to correct the record on questions of technical aspects and experience and accuses Nikkels of slander. Indeed, Sokolov recognizes that his brief eight page response was insufficient to answer the technical charges completely.

Technical expertise was a key point of contention between Nikkels and Sokolov. Both men tried to assert technical dominance over one another. Nikkels and his “confederates” tried to slander him, Sokolov wrote and “tried to humiliate him” saying that “1) I am nothing more than a teacher of mechanics and 2) that because of my relationship with Mr. Palibin, I would not contradict the opinion of the person on whom I depend.” Sokolov defends his experience by noting that he had studied one subject for seventeen years, teaching it for ten. At the same time, his accuser, “as surely it is known to many, won himself a reputation as an enterprising schemer (prozhekctor) in different staple industries.” Sokolov dismisses Nikkels, charging that he has never “been occupied with anything seriously, or for long.”

Additionally, tension existed between titled board members and their counterparts who had achieved their positions based on technological expertise. Instead of making decisions based

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53 Nikkels, Neskol’ko slov, 4.
54 Sokolov, Po povody broshury, 4. As such, Sokolov cautioned the reader that his tract was not written “in the serious tone” required.
55 Ibid.
56 Ibid. Sokolov also insinuates that Nikkels always seemed to come out ahead in his business dealings, while his partners did not, and although he does not wish to descend to the level of Nikkels, he still refers to him as a “cunning entrepreneur,” which I assume is an insult on both counts.
on the necessities of capital, board members were rooted in an old understanding of power relations. Board members skillfully shut shareholders, especially those with technological savvy, out of the decision making process, especially through board elections. According to Nikkels, the board elections were not based on knowledge and experience, but on “rank and status.”\(^{57}\) Once again we see the tension between the privileged old order and the rising class of professionalizing technocrats that we saw in the institution of IKIPS. Since project decisions were not made from a position of sound technological knowledge they failed to mesh technological efficiency with financial prudence. This hurt shareholders, Nikkels complained, because they had to foot the bill for these mistakes which opened the door for government intervention. In Nikkels view, this intervention would likely come at further expense to shareholders. In this conception, technical knowledge must be made primary in order to maximize the profit. However, as of 1862, board members, “considering themselves experienced,” did not ask the advice of these engineers and proceeded without their input.\(^{58}\) For the plan of Okel and Palibin to work, Nikkel’s asserted, everything had to proceed perfectly. It did not.

Operational and financial problems brought the company into conflict with the City Duma in 1863. On January 24, the Tuliakov brothers, appeared before the 274 member Duma to petition the city government for a 980,000 ruble loan. The Tuliakov’s constructed a water supply system, and wanted the money to finish the project, which called for an 86 mile (130 verst) network by November 1866.\(^{59}\) The Ways and Means Committee recommended the approval of the loan, writing that the Duma “accepts such particular measures for the quick supply of water

\(^{57}\) Nikkels, Neskol’ko slov, 10.
\(^{58}\) Ibid., 11.
for residents of those places where the water supply exists.” 60 However, passage was not assured as the Duma debated questions on taxes, interest, and security on the loan, and whether or not the Joint-Stock Society would even be able to keep its privileges.

Several Duma members spoke out against the loan. A certain Soloviev strongly condemned both the project and the loan, citing the recent “unsuccessful activities” of the society. He found it especially irritating that the society refused prior offers of “city assistance and ideas.” 61 Instead, Soloviev proposed an alternative system to the one proposed by the Tuliakovs, although it was not ultimately adopted. Those speaking against the loan successfully persuaded the Duma to reject the proposal by a wide margin (201-73). The Duma gave the brothers three months to devise a better proposal, before they would acknowledge support for the society and provide the loan, which they evidently did.

The success of creating this network took place in the public arena, both the arguments about technical aspects and the physical work in the streets. These disputes led to government intervention to ensure that the project, with so much money invested, did not fail. Scientists and engineers became accepted arbiters of water quality as the types of people involved in public conversations expanded. In addition to water delivery networks, the constellation of modern city infrastructures is filled out by sewers and paved roads. While the water delivery network was discussed primarily in economic terms, it became increasingly clear as the Great Reform Era unfolded that these types of discussions were being framed in moral terms.

The Morality of Sewers and Roads

As the nineteenth century passed its midway point, we find experts in modernizing cities across Europe and the United States increasingly tying technological ideas to social morals. Dirt,
smell and noise all became markers of a distinctly lower class that needed cleansing. Prior to the wide acceptance of germ theory, engineers saw themselves in the vanguard of a technological movement that could cleanse cities of dirty and grimy miasmas, and thereby improve society at the same time. Russian thinkers and officials also saw themselves as participants in these discussions. Water was fundamental to urban health in this conception. At first, these ideas existed only in print and in discussions among the urban educated and professional elites. Drainage, clean air, and sewage disposal would become important questions, even if it had not yet become a part of actual construction programs.

According to the unidentified author of the preface of A.P. Vasil’ev’s, 1862 work, “Materials for the Project of Roads and Sewers in Cities, Chiefly St. Petersburg,” one of the primary objects occupying society was “the improvement of life in the city, based on its proper drainage and cleaning.” Vasil’ev, a member of the St. Petersburg Committee of Social Health and Statistics, firmly links the morality of society with the conditions in which that society exists, an apt assessment in Dostoevskian Petersburg, as “the moral condition of man very much depends on the material condition of daily life.” Thus, contrary to the entrepreneurial spirit of those planning the city’s water network, Vasil’ev took an avowedly socialist perspective. He combined the passions of the era, morals and science, by drawing on the technical articles he read in the ZHPS and on theoretical works on London and Paris by such luminaries as Darcy and Remont.

Vasil’ev was very firm in his ideas about how a city ought to best be organized:

In each well-organized city, the first conditions, for the prosperity of its citizens require:

1. An abundant flow of clean and healthy water.

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62 A.P. Vasil’ev, Materiali dlia proekta mostovykh i stochnykh trub v gorodakh i preimushestvenno v S.Peterburge, chast 1 (St. Petersburg: N.P. Reikhel’t, 1862), i. It is clear that Vasil’ev read Edwin Chadwick.
63 Vasil’ev, Materiali (ch. 2), 4.
2. The drainage of soil and the maintenance of purity, and the quick removal of all sewage.
3. Strong surface streets of solid surfacing.

The first condition is satisfied by a water-supply system, the second by the construction of sewers, and the third by the construction of roads.\textsuperscript{64}

The latter was especially important, since good surfaces were required for good communication, and therefore increased business development and the movement of people.

For Vasil’ev, much of city life is interconnected and interdependent, and the conditions of the capital city reflected the strength of Russia as a country, and by extension, as an empire. The resolution of these issues was important for the “prosperity of a large part of the population,” and that “in Russia, the need for improvement of life in the cities has already become sensed by the inhabitants.”\textsuperscript{65} The beliefs inspired by the reform era created the possibility that these types of large scale projects could be realized. The on-going construction of a water network in St. Petersburg described above was a sign that these questions might be resolved, since it meant that Russians were serious about these projects. Abroad, Vasil’ev noted, there had been congresses and scientific committees formed, with significantly positive results.\textsuperscript{66}

Two primary issues prevented cities and their residents from achieving prosperity and health. The first was a shortage of products, and the high price of products that were available. The second was disease and various illnesses that “prevent a person from the means of satisfying his needs and those of his family.”\textsuperscript{67} Vasil’ev neatly outlines the social stakes of not having good roads, a water supply network, and a sewage system. “Who hasn’t seen how often the commoners…half-full (polusytyi), weak, lacking energy, in vain trying to restore his tired strength and even for a minute to forget his grief, resorting to spirits, and being thrown into

\textsuperscript{64} Vasil’ev, \textit{Materiali} (ch. 1), 3.
\textsuperscript{65} Vasil’ev, \textit{Materiali} (ch. 2), 3.
\textsuperscript{66} Ibid.
\textsuperscript{67} Ibid.
confusion to the fact that he, if it does not lead himself and his family to crime, then throws them into misery." Even with these conditions facing a society, Vasil’ev notes, an array of solutions were available.

Vasil’ev firmly situates St. Petersburg in the European context in order to illustrate that Russia is on the modern path. The main problem identified by Vasil’ev, was that the rising city population led to an increased amount of sewage, with no adequate means for its disposal. The discharge of sewage was always problematic, since in St. Petersburg it was always easiest to dispose of the refuse in rainwater ditches or directly into the river. In the 1830s, only 95 kilometers of pipes had been installed in the city. Cesspits were also built, with the refuse then recycled into gardens or deposited in landfills, although by the mid 1840s, authorities faced a rising problem of individuals illegally connecting cesspits to the municipal piping system. As the problem of sewage became increasingly visible to both the eye and the nose, the need for solutions intensified. Thus, he offered a comprehensive plan of drainage, pipes, and hard surface roads as a solution, and raised the possibility that the sewage could be converted to fertilizer.

English studies of the social condition informed Vasil’ev’s solutions for the social ills of St. Petersburg. The “English school of health answers this exactly and absolutely,” he wrote. In this conception, scientists begin to understand the water cycle in connection to the animal and plant “kingdoms,” and the ways that water moves through them. Not only does water cycle through these kingdoms, the miasmas of the city carry deleterious effects from person to person,

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68 Ibid.
70 Ibid.
leading to epidemics. Only by understanding the origins of the problem, and how it operated, could the troika of scientists, engineers, and officials effect “a rational cleansing of the city.”

It was not enough to remove sewage from sight and smell in the city. Because everything was organic and water based, the natural cycles had to be taken into account. In this way, Vasil’ev promoted the “cleansing” of the Petersburg Side, the outflow of wastes, and its conversion to fertilizer after it was removed from the city. Different areas were to receive different types of disposal systems and service. Since the Petersburg Side was “insufficiently inhabited, its cleansing could be accomplished by an extensive application of a drainage system.” There was no need for the more technical projects advocated in the center, where the population was higher. Instead, a system of “external gutters” at a depth of one and a half feet could be installed. In addition, ditches (kanavy) with clay or stone slabs could be placed under the sidewalks. However, Vasil’ev argued that none of his ideas for reform of city infrastructure could be achieved without economic restructuring of the mechanisms capable of developing and maintaining that infrastructure.

Cleanliness, social health and economics are clearly connected in Vasil’ev’s thinking. “Everyone now understands,” he wrote, “that the basis of success in social life lies in economic attitudes and that only correct organization of labor can bring solid social well-being.”

Approaching cleanliness from this viewpoint, it would be possible, Vasil’ev asserted, to save lives and improve labor conditions. Responsibilities for cleanliness, paved streets, and pipe maintenance were to be divided between the homeowners of each block and the First Transport

71 Vasil’ev, Materialy (ch. 2), 5.
72 Ibid., 8.
73 A.P. Vasilev, Materialy (ch. 1), 23.
74 Ibid., 24.
75 Ibid.
District (*Putei soobshcheniia*). In Reform era Petersburg, social thinkers and technical experts
used discussions of cleanliness, roads, pipes and water delivery to enter the public arena.

Vasil’ev included these ideas in a proposal he presented to the City Duma. However, the
author did himself no favors by complaining of the “stagnation in our city leadership,” especially
when it came to “improvements of the amenities of city life.”

Vasil’ev also took aim at the Joint-Stock Society, noting that their “sad experience” in the first years of their existence
“strongly dropped the public’s confidence in them.” Ultimately, opted for the ambitious project
of the Joint-Stock Society, in which the state had a direct financial stake. Instead of adopting
Vasil’ev’s proposal wholesale, authorities continued with the piecemeal reforms that marked the
city throughout the 19th century.

**Conclusion**

In March 1897, engineers gathered in St. Petersburg at the third Russian Water-Supply
Conference. At the opening of the Congress, engineer M.I. Altukhov reflected on the role of
engineers in the development of city infrastructure, and reminded imperial officials of the
valuable service they had provided to the capital over the previous forty years. The water quality
of the Neva had always been good, he said, “but as the population of the city increased, the
quality of water deteriorated more and more.” It became increasingly untenable to dump wastes
into the same river that served as the primary source of drinking water. Engineers such as
Altukhov claimed that the role they played was the key intervention in a long struggle
surrounding water quality and sewerage issues.

In this chapter I investigated the installation of the St. Petersburg water network,
followed the society’s internal disputes and examined the links between social health and

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77 Ibid., 5.
78 Ibid.
cleanliness presented in the sewage system plans of A.P. Vasil’ev. The sources support the conclusion that water related projects in the Great Reform Era provided modes of economic opportunity and public discussion for entrepreneurs, technical experts and social advocates. These groups engaged with the City Duma and inserted their specialized knowledge into the public arena to debate what the standards of modern city life were to be. The process was messy, contentious and wasteful. The Joint-Stock Society was riddled with internal strife. Reform advocates such as Vasil’ev argued that neither the state nor the Joint-Stock Society could meet the needs of the capital’s residents without radical change. Nonetheless, when engineers, as exemplified by Altukhov reflected on the era, they saw clearly the formative role they played in the modernization of the city. Engineers and entrepreneurs conspired to make the abundant supply of river water a commodity and set-up a water network for the city. While engineers and entrepreneurs sought economic recompense for their technical expertise, Vasil’ev found fault with their approach, arguing that no effective system could successfully modernize the city unless its developers considered the moral implications of modern life. In Vasil’ev’s view, city life was dirty and disease ridden, which ultimately took a toll on both the lifespan of the residents and the productivity of their labor. These ideas of city cleanliness, water purity and commoditization of water expressed by the actors in this chapter are consistent with similar processes of urbanization in Western Europe.
Conclusion

In this dissertation, I have sought to understand how the Neva River, the most important artery connecting St. Petersburg to the rest of the Russian Empire, affected the political and social life of the imperial capital in the first half of the nineteenth century. I examined the relation of water to historical actors who experienced it socially, culturally, and environmentally. I argue that the river had a paramount role in shaping life and events in the city, in the give and take between state and society, even as generations of engineers attempted to convert it into a stately built environment, a watery counterpart to the capitals granite palaces, prospects, squares, and markets. While they accomplished this task, they also worked in concert with entrepreneurs in order to create the spaces of capitalism along the river creating a tension between the imperial and capitalist ideals. Officials, engineers, and entrepreneurs worked to divorce the city from the seasons and transform it into a modern cosmopolitan city. Yet, ever since the founding of Peter the Great’s “paradise” on the banks of the Neva in 1703, the foundations of the city, both physical and intellectual, have proven anything but solid, as both the river and the society it sponsored proved volatile.

In the first six decades of the nineteenth century, the river Neva was a site of competing claims of culture and authority that played out in patterns of river use. During these years, the river served the daily needs of residents as a place to gather drinking water, launder clothes, and dump waste. “Where, except for Petersburg,” the Russian ethnographer Ivan Pushkarev wrote in the 1840s, “did nature lavish sufficient abundance of water with so many ways for mutual intercourse of the residents of the whole capital for the satisfaction of all their vital needs by means of waterways, and completely free for half the year!”¹ At the same time, imperial authorities created a functional commercial river which eventually eclipsed and eroded the river

¹ Pushkarev, Nikolaevskii Peterburg, 26-27.
culture that developed there. In short, the river emerges as a site of struggle between state efforts at technological, social, and cultural control, and a burgeoning city population determined to claim the river as their own through work and leisure as they formed a new urban identity.

The pacification of the river was a modern project in which new actors such as engineers joined state officials to remake the urban public spaces while creating both an urban and imperial city. The achievement of the imperial city was a perceived mastery over the river. Throughout the modern era, commerce, capital, and production have used technology to divorce humans from the natural cycle of the seasons. As an Imperial capital in the far global north, remote in its own empire, St. Petersburg suffered the seasons, making use of the water as each season allowed. The state incorporated these uses into imperial practice, as we saw in chapter one, in order to demonstrate control of a space the regime claimed to have tamed. In a sense, the river proved to be a paradox for authorities, one not solved, but adapted to despite the conditions and the seasons. Water allows us to see how the modern bureaucratic model of governance emerged through a struggle with the natural environs as officials, engineers and entrepreneurs conspired to manage, organize and categorize it and the people that lived and used it. Officials bent on conquering nature and empire with rational and systematic planning fought the river with flood controls, granite embankments, and canals and bridges. These contests with nature provided the city with essential features of its image and made it livable and productive.

Yet, non-state actors had an active role in shaping life in the capital. Petersburgers used the river Neva and made it their own, and through work and play they constructed and perpetuated a river culture. They sustained this culture through the performance of work, ritual, and leisure and created a cultural story. They engaged the state as the state sought to organize and limit behavior along the river while creating a functional space for economic and imperial

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activities. By de-mythologizing the flood of 1824, we were able to see how nature limited and disrupted the immense possibilities the river offered the city and challenged the imperial vision of a capital centered on the river. As these state-society conflicts progressed historically, discussions of water related issues became enmeshed in civic debates about the technology and morality of the modern city. Engineers were the instrument that transformed these spaces, which ultimately led to the waning of the river culture along the banks of the Neva.

By focusing on environmental and urban history, I am able to see how each method complements the other to show how the interplay of river and city shaped one another. The fact that the St. Petersburg water utility, Vodokanal, constructed their Museum of Water with an educational mission to showcase the success of the technological water management in an inhospitable environment, testifies to the ways that water permeated many aspects of Petersburg life as various groups of citizens and the state grappled with ways to define the city through competing narratives that included grandeur, modernity, and doom.

This research and its methodological application has relevance beyond the imperial capital. The notion of the “wilds” in the imperial cities of the Russian empire, in which I will analyze the ways that state and society came to terms with the imperial project, despite the inability to effectively manage the environs of expanding boundaries is a promising path of exploration. This focus on nature and boundaries will allow me to situate my scholarship into conversations beyond Russian history, including the history of Eastern Europe, Global history and environmental history. Engineers provide one avenue of exploration, as they represent the technocratic power of empire and had their own ethos and ideas about progress and modernity. Their story will take us throughout the expanding Russian empire from the unruly and skeptically viewed Institute of Engineers of Transport to the new territories such as Odessa, to
the fore of troops in the Crimean War, and always, as is the case with all routes within empires, to the imperial capital of St. Petersburg.

St. Petersburg was an imperial capital, but also a real city. One can argue, as Nekrasov did in 1845, whether Petersburg was the “head” or Moscow the “heart,” or whether Petersburg was Russia’s cultural center, the window on the west, or the crucible of revolution. It has been all of those things and more and this dissertation has used water as a way of understanding the power of nature and the nature of power, in order to tell the lived history of the city intertwined with the imperial power and its façade.
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